DANIEL B. STEPHENS & ASSOCIATES, INC.
ENVIRONMENTAL SCIENTISTS AND ENGINEERS

November 25, 1997 0737-7004-97

Ms. Melanie McKinley
Philips Semiconductors, Inc.
9201 Pan American Highway N.E.
Albuquerque, New Mexico 87113

Re: October 1997 Groundwater Monitoring Results

Dear Ms. McKinley:

On October 14, 15, and 17, 1997, personnel from Daniel B. Stephens & Associates, Inc. (DBS&A) collected groundwater samples for Philips Semiconductors, Inc. (Philips). The samples were collected from Philips wells installed to monitor groundwater conditions associated with the former Coronado Municipal Landfill located near the Philips facility in Albuquerque, New Mexico (Figures 1 and 2). Samples were also collected from City of Albuquerque (COA) wells, the locations of which are also depicted on Figure 2. This report documents the sampling event and presents the results of the laboratory analyses.

Ms. Melanie McKinley of Philips provided access and direction for the sampling event. Mr. Terry Deeds and Mr. Jim Jordan of DBS&A performed the groundwater sampling activities.

Methods

The depth to water and total depth were measured in each well to determine the required minimum purge volume. The depths to groundwater in Philips monitor wells (MW-1, 208.12 feet; MW-2, 196.96 feet; MW-3, 233.11 feet; MW-4, 225.17 feet below the top of casing [TOC]) ranged from 0.09 feet higher to 0.40 feet lower than those observed during the previous monitoring event in July 1997. Depths to water in the COA wells (NCLF-2, 199.32 feet; NCLF-3, 204.74 feet; and NCLF-4, 243.84 below TOC) were 0.24 to 0.64 feet lower than three months earlier.

Water quality parameters (pH, electrical conductivity, and temperature) were monitored during purging, and all field measurements and calculations were recorded in a field notebook. Four of the seven wells (MW-1 through MW-4) were purged and subsequently sampled using dedicated bladder pumps. Two of the COA wells (NCLF-2 and NCLF-3) were purged and sampled using a Grundfos Redi-flo II submersible pump. The other COA well (NCLF-4) was purged and sampled using a Bennett submersible piston pump because the Grundfos pump failed to lift groundwater from the greater depth encountered in that well. Three casing volumes were purged from each well before sampling, and water quality parameters stabilized before groundwater samples were collected for analysis.

One duplicate groundwater sample was collected from MW-1 and labeled MW-5. One equipment blank was collected from the Bennett submersible piston pump. Containers provided by ACZ Laboratories, Inc. (ACZ) of Steamboat Springs, Colorado, and Hall Environmental Analysis Laboratory (HEAL) of Albuquerque, New Mexico, were filled, stored on ice or in a refrigerator until

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delivery, and submitted by express delivery to ACZ and by hand delivery to HEAL under chain-of-custody documentation.

Laboratory Analysis

The groundwater samples submitted to ACZ were analyzed for volatile organic compounds (VOCs) by U.S. Environmental Protection Agency (EPA) method 524.2, semi-volatile organic compounds (SVOCs) by EPA method 8270, pesticides and polychlorinated biphenyls (PCBs) by EPA method 8080, most metals by EPA methods 6010/6020, mercury by EPA method 7470, and selenium by standard method 3500 Se C. The laboratory results from ACZ are presented in Attachment 1, and ACZ quality control reports are included as Attachment 2. The additional samples submitted to HEAL were analyzed for ethylene dibromide (EDB) and dibromochloropropane (DBCP) by EPA method 504 and for benzo(a)pyrene (BAP) using EPA method 8310. The laboratory results from HEAL are presented in Attachment 3.

Data Quality Assessment

DBS&A has reviewed the analytical reports for compliance with standard data quality objectives, including holding times, surrogate recoveries, matrix spike and matrix spike duplicate (MS/MSD) recoveries, and relative percent differences. All of the analyses were performed, as requested, within the established or accepted holding times for sample extraction and analysis. The majority of surrogate and MS/MSD recoveries and MS/MSD relative percent differences (RPDs) are within the limits established by the EPA for the particular methods. Minor excursions were noted for some surrogate and MS/MSD recoveries from the SVOC analysis and for a single laboratory control standard recovery from the pesticides and PCB analysis. These exceedances do not significantly affect the acceptability of the data from these analyses.

Laboratory Results

The analytes that were detected during the October 1997 round of groundwater monitoring are listed in Table 1. The laboratory data and chain-of-custody sheets from ACZ are included as Attachment 1. Tetrachloroethene (PCE) was the only VOC consistently detected at concentrations that were near to slightly above the EPA maximum contaminant level (MCL) of 5 micrograms per liter (µg/L). PCE concentrations were observed in samples from all monitor wells except MW-3, which again did not contain detectable PCE concentrations.

One additional VOC was detected in the sample from NCLF-4. Dichlorodifluoromethane (Freon-12) was detected at a concentration of 1.6 µg/L. This concentration is well below the EPA health advisory for drinking water, which is 1,000 µg/L.

No SVOCs, pesticides, or PCBs were observed in any of the groundwater samples. The only metal consistently observed in the groundwater samples was barium (Table 1). However, all of

the barium concentrations were well below the MCL and are remarkably consistent with the previously reported results. In addition, the sample from monitor well NCLF-4 contained a low concentration of selenium, again well below its MCL.

No EDB, DBCP, or BAP was detected in any of the groundwater samples analyzed by HEAL. The laboratory data and chain-of-custody sheets from HEAL are included as Attachment 3.

It has been a pleasure completing this work for you. If you have any questions or comments, please contact me or Greg Lewis at (505) 822-9400.

Sincerely,

DANIEL B. STEPHENS & ASSOCIATES, INC.

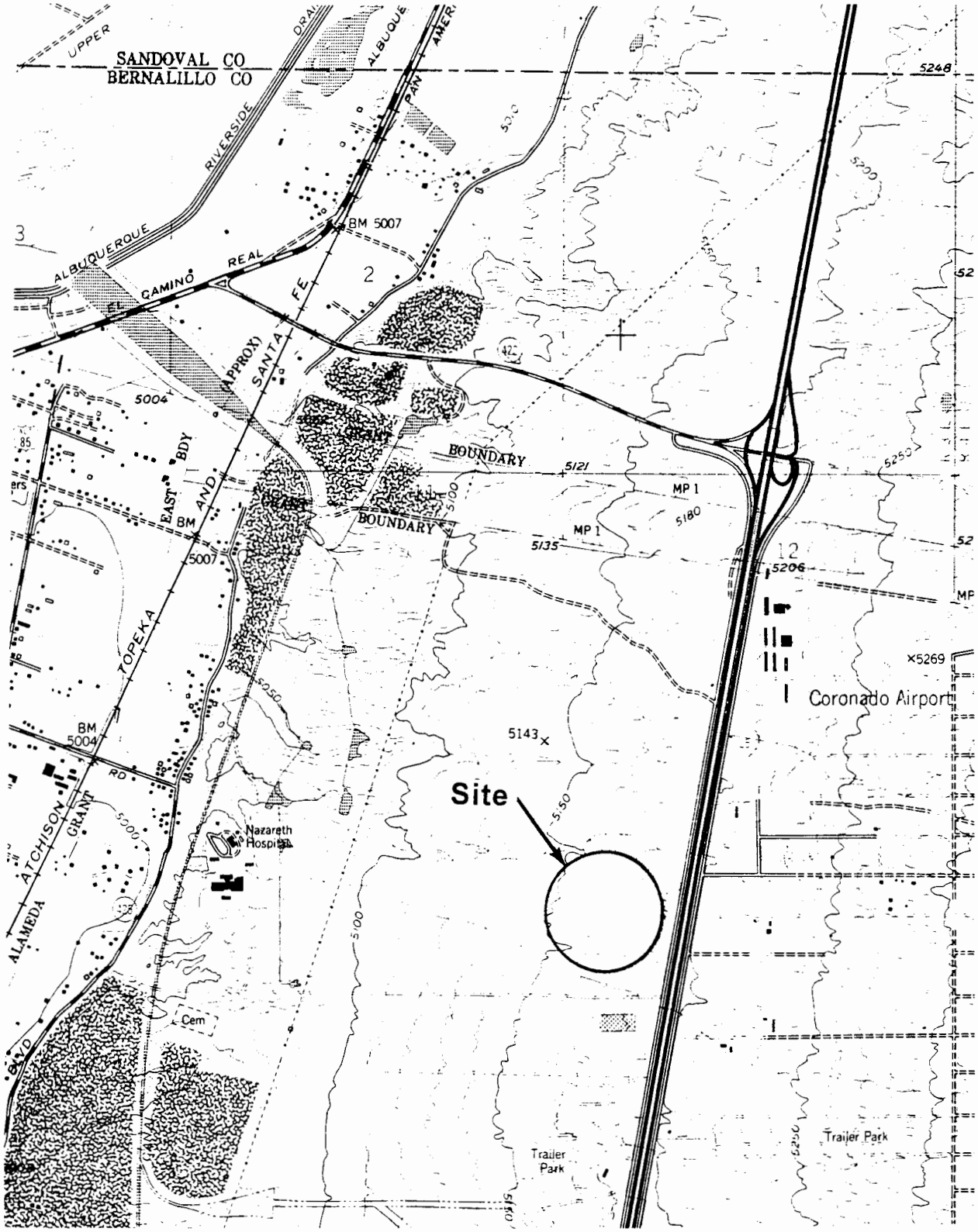
R Meixner

Richard Meixner
Project Manager

REM/sd
Attachments

Figures

OP\6023\602303Q.DWG



Source: Adapted from Alameda, NM, 7.5 minute USGS quadrangle map.

N

0 2000 ft

PHILIPS SEMICONDUCTORS, INC.

General Site Vicinity

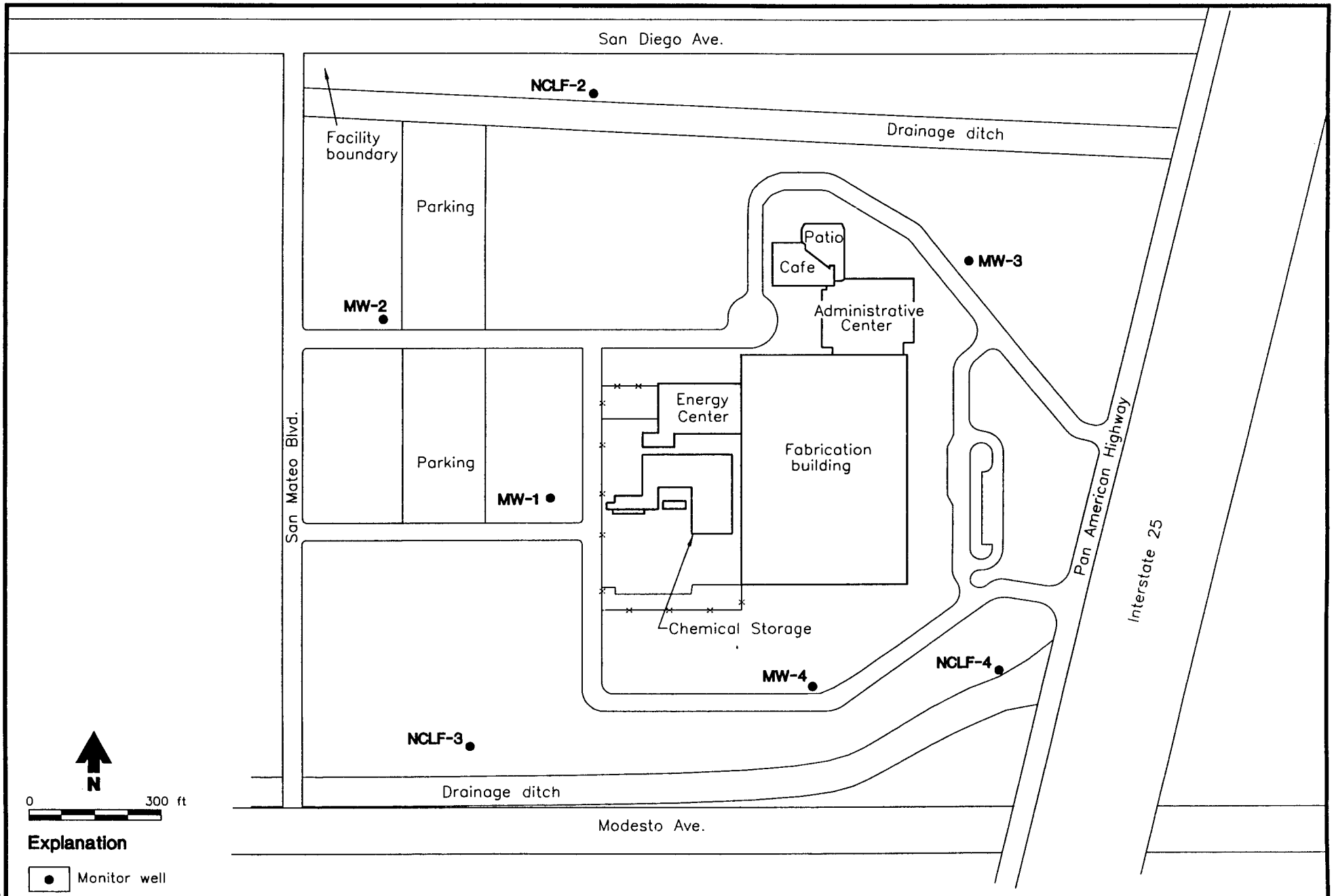
DANIEL B. STEPHENS & ASSOCIATES, INC.

5-9-96

JN 6023

Figure 1

OP\7004\700401F.DWG



PHILIPS SEMICONDUCTORS, INC.

Site Plan

DANIEL B. STEPHENS & ASSOCIATES, INC.

8-5-97

JN 7004

Figure 2

Tables

Table 1. Analytes Detected During Philips Semiconductor Groundwater Monitoring, October 1997

Monitor Well	VOCs[1]		Metals[2]	
	PCE	Freon-12	Barium	Selenium
Standard[3]	*5*	*1,000*	*1.0*	*0.05*
MW-1	**8.8**	ND	0.159	ND
MW-1 (Duplicate)	**9.0**	ND	0.161	ND
MW-2	**7.2**	ND	0.098	ND
MW-3	ND	ND	0.050	ND
MW-4	4.8	ND	0.136	ND
NCLF-2	**7.4**	ND	0.087	ND
NCLF-3	**7.8**	ND	0.118	ND
NCLF-4	4.8	1.6	0.039	0.016

VOC = Volatile organic compounds
PCE = Tetrachloroethene
Freon-12 = Dichlorodifluoromethane
ND = Not detected above practical quantitation limit

[1] Reported in micrograms per liter
[2] Reported in milligrams per liter
[3] Lowest applicable federal or state drinking water standard (includes federal health advisory for Freon-12). Entries in boldface exceed applicable standard.

Attachment 1

Analytical Results
ACZ Laboratories, Inc.

ACZ Laboratories, Inc

VOLATILE ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-06
Client Project No:	7004.4 Philips Semi	Lab File ID:	A5425
Sample ID:	MW-1	Date Received:	10/17/97
Matrix:	Water	Date Analyzed:	10/24/97
Sample Date:	10/15/97	Dilution Factor:	1
Report Date:	10/27/97		
Method ID:	EPA 524.2, Purge & Trap GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
71-43-2	Benzene		1	U
108-86-1	Bromobenzene		1	U
74-97-5	Bromochloromethane		1	U
75-27-4	Bromodichloromethane		1	U
75-25-2	Bromoform		1	U
74-83-9	Bromomethane		1	U
104-51-8	n-Butylbenzene		1	U
135-98-8	sec-Butylbenzene		1	U
98-06-6	tert-Butylbenzene		1	U
56-23-5	Carbon tetrachloride		1	U
108-90-7	Chlorobenzene		1	U
75-00-3	Chloroethane		1	U
67-66-3	Chloroform		1	U
74-87-3	Chloromethane		1	U
95-49-8	1,2-Chlorotoluene		1	U
106-49-8	1,4-Chlorotoluene		1	U
124-48-1	Dibromochloromethane		1	U
96-12-8	1,2-Dibromo-3-chloropropane		1	U
106-93-4	1,2-Dibromoethane (EDB)		1	U
74-95-3	Dibromomethane		1	U
95-50-1	1,2-Dichlorobenzene		1	U
541-73-1	1,3-Dichlorobenzene		1	U
106-46-7	1,4-Dichlorobenzene		1	U
75-71-8	Dichlorodifluoromethane		1	U
75-34-3	1,1-Dichloroethane		1	U
107-06-2	1,2-Dichloroethane		1	U
75-35-4	1,1-Dichloroethylene		1	U
156-59-4	cis-1,2-Dichloroethylene		1	U
156-60-5	trans-1,2-Dichloroethylene		1	U
78-87-5	1,2-Dichloropropane		1	U
142-28-9	1,3-Dichloropropane		1	U
590-20-7	2,2-Dichloropropane		1	U
563-58-6	1,1-Dichloropropene		1	U
10061-01-5	cis-1,3-Dichloropropene		1	U
10061-02-6	trans-1,3-Dichloropropene		1	U

ACZ Laboratories, Inc.
30400 Downhill Dr.
Steamboat Springs, CO 80487
(800) 334-5493
FAX: (303) 879-2216

ACZ Laboratories, Inc

VOLATILE ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-06
Client Project No:	7004.4 Philips Semi	Lab File ID:	A5425
Sample ID:	MW-1	Date Received:	10/17/97
Matrix:	Water	Date Analyzed:	10/24/97
Sample Date:	10/15/97	Dilution Factor:	1
Report Date:	10/27/97		

Method ID:	EPA 524.2, Purge & Trap GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
100-41-4	Ethylbenzene		1	U
87-68-3	Hexachlorobutadiene		1	U
98-82-8	Isopropylbenzene (cumene)		1	U
99-87-6	1,4-Isopropyltoluene (p-cymene)		1	U
75-09-2	Methylene Chloride		1	U
91-20-3	Naphthalene		1	U
103-65-1	n-Propylbenzene		1	U
100-42-5	Styrene		1	U
630-20-6	1,1,1,2-Tetrachloroethane		1	U
79-34-5	1,1,2,2-Tetrachloroethane		1	U
127-18-5	Tetrachloroethylene	8.8	1	
108-88-3	Toluene		1	U
87-61-6	1,2,3-Trichlorobenzene		1	U
120-82-1	1,2,4-Trichlorobenzene		1	U
71-55-6	1,1,1-Trichloroethane		1	U
79-00-5	1,1,2-Trichloroethane		1	U
79-01-6	Trichloroethylene		1	U
75-69-4	Trichlorofluoromethane		1	U
96-18-4	1,2,3-Trichloropropane		1	U
95-63-6	1,2,4-Trimethylbenzene		1	U
108-67-8	1,3,5-Trimethylbenzene		1	U
75-01-4	Vinyl chloride		1	U
95-47-6	o-Xylene		1	U
108-38-3	m-Xylene		1	U
106-42-3	p-Xylene		1	U

Q FORMAT:
"U" indicates compound was not detected
"J" indicates compound detected < MDL (Method Detection Limit)
"B" indicates compound was found in daily calibration blank

COMMENTS:

APPROVED: R. Martinez
Organic Laboratory Supervisor

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ACZ Laboratories, Inc

VOLATILE ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-05
Client Project No:	7004.4 Philips Semi	Lab File ID:	A5424
Sample ID:	MW-2	Date Received:	10/17/97
Matrix:	Water	Date Analyzed:	10/21/97
Sample Date:	10/14/97	Dilution Factor:	1
Report Date:	10/27/97		
Method ID:	EPA 524.2, Purge & Trap GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
71-43-2	Benzene		1	U
108-86-1	Bromobenzene		1	U
74-97-5	Bromochloromethane		1	U
75-27-4	Bromodichloromethane		1	U
75-25-2	Bromoform		1	U
74-83-9	Bromomethane		1	U
104-51-8	n-Butylbenzene		1	U
135-98-8	sec-Butylbenzene		1	U
98-06-6	tert-Butylbenzene		1	U
56-23-5	Carbon tetrachloride		1	U
108-90-7	Chlorobenzene		1	U
75-00-3	Chloroethane		1	U
67-66-3	Chloroform		1	U
74-87-3	Chloromethane		1	U
95-49-8	1,2-Chlorotoluene		1	U
106-49-8	1,4-Chlorotoluene		1	U
124-48-1	Dibromochloromethane		1	U
96-12-8	1,2-Dibromo-3-chloropropane		1	U
106-93-4	1,2-Dibromoethane (EDB)		1	U
74-95-3	Dibromomethane		1	U
95-50-1	1,2-Dichlorobenzene		1	U
541-73-1	1,3-Dichlorobenzene		1	U
106-46-7	1,4-Dichlorobenzene		1	U
75-71-8	Dichlorodifluoromethane		1	U
75-34-3	1,1-Dichloroethane		1	U
107-06-2	1,2-Dichloroethane		1	U
75-35-4	1,1-Dichloroethylene		1	U
156-59-4	cis-1,2-Dichloroethylene		1	U
156-60-5	trans-1,2-Dichloroethylene		1	U
78-87-5	1,2-Dichloropropane		1	U
142-28-9	1,3-Dichloropropane		1	U
590-20-7	2,2-Dichloropropane		1	U
563-58-6	1,1-Dichloropropene		1	U
10061-01-5	cis-1,3-Dichloropropene		1	U
10061-02-6	trans-1,3-Dichloropropene		1	U

ACZ Laboratories, Inc

VOLATILE ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-05
Client Project No:	7004.4 Philips Semi	Lab File ID:	A5424
Sample ID:	MW-2	Date Received:	10/17/97
Matrix:	Water	Date Analyzed:	10/21/97
Sample Date:	10/14/97	Dilution Factor:	1
Report Date:	10/27/97		
Method ID:	EPA 524.2, Purge & Trap GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
100-41-4	Ethylbenzene		1	U
87-68-3	Hexachlorobutadiene		1	U
98-82-8	Isopropylbenzene (cumene)		1	U
99-87-6	1,4-Isopropyltoluene (p-cymene)		1	U
75-09-2	Methylene Chloride		1	U
91-20-3	Naphthalene		1	U
103-65-1	n-Propylbenzene		1	U
100-42-5	Styrene		1	U
630-20-6	1,1,1,2-Tetrachloroethane		1	U
79-34-5	1,1,2,2-Tetrachloroethane		1	U
127-18-5	Tetrachloroethylene	7.2	1	
108-88-3	Toluene		1	U
87-61-6	1,2,3-Trichlorobenzene		1	U
120-82-1	1,2,4-Trichlorobenzene		1	U
71-55-6	1,1,1-Trichloroethane		1	U
79-00-5	1,1,2-Trichloroethane		1	U
79-01-6	Trichloroethylene		1	U
75-69-4	Trichlorofluoromethane		1	U
96-18-4	1,2,3-Trichloropropane		1	U
95-63-6	1,2,4-Trimethylbenzene		1	U
108-67-8	1,3,5-Trimethylbenzene		1	U
75-01-4	Vinyl chloride		1	U
95-47-6	o-Xylene		1	U
108-38-3	m-Xylene		1	U
106-42-3	p-Xylene		1	U

Q FORMAT:
"U" indicates compound was not detected
"J" indicates compound detected < MDL (Method Detection Limit)
"B" indicates compound was found in daily calibration blank

COMMENTS:

APPROVED: R. Martinez
Organic Laboratory Supervisor

ACZ Laboratories, Inc.
30400 Downhill Dr.
Steamboat Springs, CO 80487

(800) 334-5493
FAX: (303) 879-2216

ACZ Laboratories, Inc

VOLATILE ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-03
Client Project No:	7004.4 Philips Semi	Lab File ID:	A5422
Sample ID:	MW-3	Date Received:	10/17/97
Matrix:	Water	Date Analyzed:	10/21/97
Sample Date:	10/14/97	Dilution Factor:	1
Report Date:	10/27/97		
Method ID:	EPA 524.2, Purge & Trap GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
71-43-2	Benzene		1	U
108-86-1	Bromobenzene		1	U
74-97-5	Bromochloromethane		1	U
75-27-4	Bromodichloromethane		1	U
75-25-2	Bromoform		1	U
74-83-9	Bromomethane		1	U
104-51-8	n-Butylbenzene		1	U
135-98-8	sec-Butylbenzene		1	U
98-06-6	tert-Butylbenzene		1	U
56-23-5	Carbon tetrachloride		1	U
108-90-7	Chlorobenzene		1	U
75-00-3	Chloroethane		1	U
67-66-3	Chloroform		1	U
74-87-3	Chloromethane		1	U
95-49-8	1,2-Chlorotoluene		1	U
106-49-8	1,4-Chlorotoluene		1	U
124-48-1	Dibromochloromethane		1	U
96-12-8	1,2-Dibromo-3-chloropropane		1	U
106-93-4	1,2-Dibromoethane (EDB)		1	U
74-95-3	Dibromomethane		1	U
95-50-1	1,2-Dichlorobenzene		1	U
541-73-1	1,3-Dichlorobenzene		1	U
106-46-7	1,4-Dichlorobenzene		1	U
75-71-8	Dichlorodifluoromethane		1	U
75-34-3	1,1-Dichloroethane		1	U
107-06-2	1,2-Dichloroethane		1	U
75-35-4	1,1-Dichloroethylene		1	U
156-59-4	cis-1,2-Dichloroethylene		1	U
156-60-5	trans-1,2-Dichloroethylene		1	U
78-87-5	1,2-Dichloropropane		1	U
142-28-9	1,3-Dichloropropane		1	U
590-20-7	2,2-Dichloropropane		1	U
563-58-6	1,1-Dichloropropene		1	U
10061-01-5	cis-1,3-Dichloropropene		1	U
10061-02-6	trans-1,3-Dichloropropene		1	U

ACZ Laboratories, Inc

VOLATILE ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-03
Client Project No:	7004.4 Philips Semi	Lab File ID:	A5422
Sample ID:	MW-3	Date Received:	10/17/97
Matrix:	Water	Date Analyzed:	10/21/97
Sample Date:	10/14/97	Dilution Factor:	1
Report Date:	10/27/97		
Method ID:	EPA 524.2, Purge & Trap GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
100-41-4	Ethylbenzene		1	U
87-68-3	Hexachlorobutadiene		1	U
98-82-8	Isopropylbenzene (cumene)		1	U
99-87-6	1,4-Isopropyltoluene (p-cymene)		1	U
75-09-2	Methylene Chloride		1	U
91-20-3	Naphthalene		1	U
103-65-1	n-Propylbenzene		1	U
100-42-5	Styrene		1	U
630-20-6	1,1,1,2-Tetrachloroethane		1	U
79-34-5	1,1,2,2-Tetrachloroethane		1	U
127-18-5	Tetrachloroethylene		1	U
108-88-3	Toluene		1	U
87-61-6	1,2,3-Trichlorobenzene		1	U
120-82-1	1,2,4-Trichlorobenzene		1	U
71-55-6	1,1,1-Trichloroethane		1	U
79-00-5	1,1,2-Trichloroethane		1	U
79-01-6	Trichloroethylene		1	U
75-69-4	Trichlorofluoromethane		1	U
96-18-4	1,2,3-Trichloropropane		1	U
95-63-6	1,2,4-Trimethylbenzene		1	U
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95-47-6	o-Xylene		1	U
108-38-3	m-Xylene		1	U
106-42-3	p-Xylene		1	U

Q FORMAT:
"U" indicates compound was not detected
"J" indicates compound detected < MDL (Method Detection Limit)
"B" indicates compound was found in daily calibration blank

COMMENTS:

APPROVED: R. Martinez
Organic Laboratory Supervisor

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Steamboat Springs, CO 80487
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FAX: (303) 879-2216

ACZ Laboratories, Inc

VOLATILE ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-04
Client Project No:	7004.4 Philips Semi	Lab File ID:	A5423
Sample ID:	MW-4	Date Received:	10/17/97
Matrix:	Water	Date Analyzed:	10/21/97
Sample Date:	10/14/97	Dilution Factor:	1
Report Date:	10/27/97		
Method ID:	EPA 524.2, Purge & Trap GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
71-43-2	Benzene		1	U
108-86-1	Bromobenzene		1	U
74-97-5	Bromochloromethane		1	U
75-27-4	Bromodichloromethane		1	U
75-25-2	Bromoform		1	U
74-83-9	Bromomethane		1	U
104-51-8	n-Butylbenzene		1	U
135-98-8	sec-Butylbenzene		1	U
98-06-6	tert-Butylbenzene		1	U
56-23-5	Carbon tetrachloride		1	U
108-90-7	Chlorobenzene		1	U
75-00-3	Chloroethane		1	U
67-66-3	Chloroform		1	U
74-87-3	Chloromethane		1	U
95-49-8	1,2-Chlorotoluene		1	U
106-49-8	1,4-Chlorotoluene		1	U
124-48-1	Dibromochloromethane		1	U
96-12-8	1,2-Dibromo-3-chloropropane		1	U
106-93-4	1,2-Dibromoethane (EDB)		1	U
74-95-3	Dibromomethane		1	U
95-50-1	1,2-Dichlorobenzene		1	U
541-73-1	1,3-Dichlorobenzene		1	U
106-46-7	1,4-Dichlorobenzene		1	U
75-71-8	Dichlorodifluoromethane		1	U
75-34-3	1,1-Dichloroethane		1	U
107-06-2	1,2-Dichloroethane		1	U
75-35-4	1,1-Dichloroethylene		1	U
156-59-4	cis-1,2-Dichloroethylene		1	U
156-60-5	trans-1,2-Dichloroethylene		1	U
78-87-5	1,2-Dichloropropane		1	U
142-28-9	1,3-Dichloropropane		1	U
590-20-7	2,2-Dichloropropane		1	U
563-58-6	1,1-Dichloropropene		1	U
10061-01-5	cis-1,3-Dichloropropene		1	U
10061-02-6	trans-1,3-Dichloropropene		1	U

ACZ Laboratories, Inc

VOLATILE ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-04
Client Project No:	7004.4 Philips Semi	Lab File ID:	A5423
Sample ID:	MW-4	Date Received:	10/17/97
Matrix:	Water	Date Analyzed:	10/21/97
Sample Date:	10/14/97	Dilution Factor:	1
Report Date:	10/27/97		
Method ID:	EPA 524.2, Purge & Trap GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
100-41-4	Ethylbenzene		1	U
87-68-3	Hexachlorobutadiene		1	U
98-82-8	Isopropylbenzene (cumene)		1	U
99-87-6	1,4-Isopropyltoluene (p-cymene)		1	U
75-09-2	Methylene Chloride		1	U
91-20-3	Naphthalene		1	U
103-65-1	n-Propylbenzene		1	U
100-42-5	Styrene		1	U
630-20-6	1,1,1,2-Tetrachloroethane		1	U
79-34-5	1,1,2,2-Tetrachloroethane		1	U
127-18-5	Tetrachloroethylene	4.8	1	
108-88-3	Toluene		1	U
87-61-6	1,2,3-Trichlorobenzene		1	U
120-82-1	1,2,4-Trichlorobenzene		1	U
71-55-6	1,1,1-Trichloroethane		1	U
79-00-5	1,1,2-Trichloroethane		1	U
79-01-6	Trichloroethylene		1	U
75-69-4	Trichlorofluoromethane		1	U
96-18-4	1,2,3-Trichloropropane		1	U
95-63-6	1,2,4-Trimethylbenzene		1	U
108-67-8	1,3,5-Trimethylbenzene		1	U
75-01-4	Vinyl chloride		1	U
95-47-6	o-Xylene		1	U
108-38-3	m-Xylene		1	U
106-42-3	p-Xylene		1	U

Q FORMAT:
"U" indicates compound was not detected
"J" indicates compound detected < MDL (Method Detection Limit)
"B" indicates compound was found in daily calibration blank

COMMENTS:

APPROVED: R. Martinez

Organic Laboratory Supervisor

ACZ Laboratories, Inc.
30400 Downhill Dr.
Steamboat Springs, CO 80487

(800) 334-5493
FAX: (303) 879-2216

ACZ Laboratories, Inc

VOLATILE ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-07
Client Project No:	7004.4 Philips Semi	Lab File ID:	A5426
Sample ID:	MW-5	Date Received:	10/17/97
Matrix:	Water	Date Analyzed:	10/21/97
Sample Date:	10/14/97	Dilution Factor:	1
Report Date:	10/27/97		
Method ID:	EPA 524.2, Purge & Trap GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
71-43-2	Benzene		1	U
108-86-1	Bromobenzene		1	U
74-97-5	Bromochloromethane		1	U
75-27-4	Bromodichloromethane		1	U
75-25-2	Bromoform		1	U
74-83-9	Bromomethane		1	U
104-51-8	n-Butylbenzene		1	U
135-98-8	sec-Butylbenzene		1	U
98-06-6	tert-Butylbenzene		1	U
56-23-5	Carbon tetrachloride		1	U
108-90-7	Chlorobenzene		1	U
75-00-3	Chloroethane		1	U
67-66-3	Chloroform		1	U
74-87-3	Chloromethane		1	U
95-49-8	1,2-Chlorotoluene		1	U
106-49-8	1,4-Chlorotoluene		1	U
124-48-1	Dibromochloromethane		1	U
96-12-8	1,2-Dibromo-3-chloropropane		1	U
106-93-4	1,2-Dibromoethane (EDB)		1	U
74-95-3	Dibromomethane		1	U
95-50-1	1,2-Dichlorobenzene		1	U
541-73-1	1,3-Dichlorobenzene		1	U
106-46-7	1,4-Dichlorobenzene		1	U
75-71-8	Dichlorodifluoromethane		1	U
75-34-3	1,1-Dichloroethane		1	U
107-06-2	1,2-Dichloroethane		1	U
75-35-4	1,1-Dichloroethylene		1	U
156-59-4	cis-1,2-Dichloroethylene		1	U
156-60-5	trans-1,2-Dichloroethylene		1	U
78-87-5	1,2-Dichloropropane		1	U
142-28-9	1,3-Dichloropropane		1	U
590-20-7	2,2-Dichloropropane		1	U
563-58-6	1,1-Dichloropropene		1	U
10061-01-5	cis-1,3-Dichloropropene		1	U
10061-02-6	trans-1,3-Dichloropropene		1	U

ACZ Laboratories, Inc

VOLATILE ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-07
Client Project No:	7004.4 Philips Semi	Lab File ID:	A5426
Sample ID:	MW-5	Date Received:	10/17/97
Matrix:	Water	Date Analyzed:	10/21/97
Sample Date:	10/14/97	Dilution Factor:	1
Report Date:	10/27/97		
Method ID:	EPA 524.2, Purge & Trap GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
100-41-4	Ethylbenzene		1	U
87-68-3	Hexachlorobutadiene		1	U
98-82-8	Isopropylbenzene (cumene)		1	U
99-87-6	1,4-Isopropyltoluene (p-cymene)		1	U
75-09-2	Methylene Chloride		1	U
91-20-3	Naphthalene		1	U
103-65-1	n-Propylbenzene		1	U
100-42-5	Styrene		1	U
630-20-6	1,1,1,2-Tetrachloroethane		1	U
79-34-5	1,1,2,2-Tetrachloroethane		1	U
127-18-5	Tetrachloroethylene	9.0	1	
108-88-3	Toluene		1	U
87-61-6	1,2,3-Trichlorobenzene		1	U
120-82-1	1,2,4-Trichlorobenzene		1	U
71-55-6	1,1,1-Trichloroethane		1	U
79-00-5	1,1,2-Trichloroethane		1	U
79-01-6	Trichloroethylene		1	U
75-69-4	Trichlorofluoromethane		1	U
96-18-4	1,2,3-Trichloropropane		1	U
95-63-6	1,2,4-Trimethylbenzene		1	U
108-67-8	1,3,5-Trimethylbenzene		1	U
75-01-4	Vinyl chloride		1	U
95-47-6	o-Xylene		1	U
108-38-3	m-Xylene		1	U
106-42-3	p-Xylene		1	U

Q FORMAT:
"U" indicates compound was not detected
"J" indicates compound detected < MDL (Method Detection Limit)
"B" indicates compound was found in daily calibration blank

COMMENTS:

APPROVED: R. Jackson
Organic Laboratory Supervisor

ACZ Laboratories, Inc

VOLATILE ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-01
Client Project No:	7004.4 Philips Semi	Lab File ID:	A5420
Sample ID:	NCLF-2	Date Received:	10/17/97
Matrix:	Water	Date Analyzed:	10/21/97
Sample Date:	10/14/97	Dilution Factor:	1
Report Date:	10/27/97		
Method ID:	EPA 524.2, Purge & Trap GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
71-43-2	Benzene		1	U
108-86-1	Bromobenzene		1	U
74-97-5	Bromochloromethane		1	U
75-27-4	Bromodichloromethane		1	U
75-25-2	Bromoform		1	U
74-83-9	Bromomethane		1	U
104-51-8	n-Butylbenzene		1	U
135-98-8	sec-Butylbenzene		1	U
98-06-6	tert-Butylbenzene		1	U
56-23-5	Carbon tetrachloride		1	U
108-90-7	Chlorobenzene		1	U
75-00-3	Chloroethane		1	U
67-66-3	Chloroform		1	U
74-87-3	Chloromethane		1	U
95-49-8	1,2-Chlorotoluene		1	U
106-49-8	1,4-Chlorotoluene		1	U
124-48-1	Dibromochloromethane		1	U
96-12-8	1,2-Dibromo-3-chloropropane		1	U
106-93-4	1,2-Dibromoethane (EDB)		1	U
74-95-3	Dibromomethane		1	U
95-50-1	1,2-Dichlorobenzene		1	U
541-73-1	1,3-Dichlorobenzene		1	U
106-46-7	1,4-Dichlorobenzene		1	U
75-71-8	Dichlorodifluoromethane		1	U
75-34-3	1,1-Dichloroethane		1	U
107-06-2	1,2-Dichloroethane		1	U
75-35-4	1,1-Dichloroethylene		1	U
156-59-4	cis-1,2-Dichloroethylene		1	U
156-60-5	trans-1,2-Dichloroethylene		1	U
78-87-5	1,2-Dichloropropane		1	U
142-28-9	1,3-Dichloropropane		1	U
590-20-7	2,2-Dichloropropane		1	U
563-58-6	1,1-Dichloropropene		1	U
10061-01-5	cis-1,3-Dichloropropene		1	U
10061-02-6	trans-1,3-Dichloropropene		1	U

ACZ Laboratories, Inc

VOLATILE ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-01
Client Project No:	7004.4 Philips Semi	Lab File ID:	A5420
Sample ID:	NCLF-2	Date Received:	10/17/97
Matrix:	Water	Date Analyzed:	10/21/97
Sample Date:	10/14/97	Dilution Factor:	1
Report Date:	10/27/97		
Method ID:	EPA 524.2, Purge & Trap GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
100-41-4	Ethylbenzene		1	U
87-68-3	Hexachlorobutadiene		1	U
98-82-8	Isopropylbenzene (cumene)		1	U
99-87-6	1,4-Isopropyltoluene (p-cymene)		1	U
75-09-2	Methylene Chloride		1	U
91-20-3	Naphthalene		1	U
103-65-1	n-Propylbenzene		1	U
100-42-5	Styrene		1	U
630-20-6	1,1,1,2-Tetrachloroethane		1	U
79-34-5	1,1,2,2-Tetrachloroethane		1	U
127-18-5	Tetrachloroethylene	7.4	1	
108-88-3	Toluene		1	U
87-61-6	1,2,3-Trichlorobenzene		1	U
120-82-1	1,2,4-Trichlorobenzene		1	U
71-55-6	1,1,1-Trichloroethane		1	U
79-00-5	1,1,2-Trichloroethane		1	U
79-01-6	Trichloroethylene		1	U
75-69-4	Trichlorofluoromethane		1	U
96-18-4	1,2,3-Trichloropropane		1	U
95-63-6	1,2,4-Trimethylbenzene		1	U
108-67-8	1,3,5-Trimethylbenzene		1	U
75-01-4	Vinyl chloride		1	U
95-47-6	o-Xylene		1	U
108-38-3	m-Xylene		1	U
106-42-3	p-Xylene		1	U

Q FORMAT:
"U" indicates compound was not detected
"J" indicates compound detected < MDL (Method Detection Limit)
"B" indicates compound was found in daily calibration blank

COMMENTS:

APPROVED: R. Martinez
Organic Laboratory Supervisor

ACZ Laboratories, Inc

VOLATILE ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-02
Client Project No:	7004.4 Philips Semi	Lab File ID:	A5421
Sample ID:	NCLF-3	Date Received:	10/17/97
Matrix:	Water	Date Analyzed:	10/21/97
Sample Date:	10/14/97	Dilution Factor:	1
Report Date:	10/27/97		
Method ID:	EPA 524.2, Purge & Trap GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
71-43-2	Benzene		1	U
108-86-1	Bromobenzene		1	U
74-97-5	Bromochloromethane		1	U
75-27-4	Bromodichloromethane		1	U
75-25-2	Bromoform		1	U
74-83-9	Bromomethane		1	U
104-51-8	n-Butylbenzene		1	U
135-98-8	sec-Butylbenzene		1	U
98-06-6	tert-Butylbenzene		1	U
56-23-5	Carbon tetrachloride		1	U
108-90-7	Chlorobenzene		1	U
75-00-3	Chloroethane		1	U
67-66-3	Chloroform		1	U
74-87-3	Chloromethane		1	U
95-49-8	1,2-Chlorotoluene		1	U
106-49-8	1,4-Chlorotoluene		1	U
124-48-1	Dibromochloromethane		1	U
96-12-8	1,2-Dibromo-3-chloropropane		1	U
106-93-4	1,2-Dibromoethane (EDB)		1	U
74-95-3	Dibromomethane		1	U
95-50-1	1,2-Dichlorobenzene		1	U
541-73-1	1,3-Dichlorobenzene		1	U
106-46-7	1,4-Dichlorobenzene		1	U
75-71-8	Dichlorodifluoromethane		1	U
75-34-3	1,1-Dichloroethane		1	U
107-06-2	1,2-Dichloroethane		1	U
75-35-4	1,1-Dichloroethylene		1	U
156-59-4	cis-1,2-Dichloroethylene		1	U
156-60-5	trans-1,2-Dichloroethylene		1	U
78-87-5	1,2-Dichloropropane		1	U
142-28-9	1,3-Dichloropropane		1	U
590-20-7	2,2-Dichloropropane		1	U
563-58-6	1,1-Dichloropropene		1	U
10061-01-5	cis-1,3-Dichloropropene		1	U
10061-02-6	trans-1,3-Dichloropropene		1	U

ACZ Laboratories, Inc

VOLATILE ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-02
Client Project No:	7004.4 Philips Semi	Lab File ID:	A5421
Sample ID:	NCLF-3	Date Received:	10/17/97
Matrix:	Water	Date Analyzed:	10/21/97
Sample Date:	10/14/97	Dilution Factor:	1
Report Date:	10/27/97		
Method ID:	EPA 524.2, Purge & Trap GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
100-41-4	Ethylbenzene		1	U
87-68-3	Hexachlorobutadiene		1	U
98-82-8	Isopropylbenzene (cumene)		1	U
99-87-6	1,4-Isopropyltoluene (p-cymene)		1	U
75-09-2	Methylene Chloride		1	U
91-20-3	Naphthalene		1	U
103-65-1	n-Propylbenzene		1	U
100-42-5	Styrene		1	U
630-20-6	1,1,1,2-Tetrachloroethane		1	U
79-34-5	1,1,2,2-Tetrachloroethane		1	U
127-18-5	Tetrachloroethylene	7.8	1	
108-88-3	Toluene		1	U
87-61-6	1,2,3-Trichlorobenzene		1	U
120-82-1	1,2,4-Trichlorobenzene		1	U
71-55-6	1,1,1-Trichloroethane		1	U
79-00-5	1,1,2-Trichloroethane		1	U
79-01-6	Trichloroethylene		1	U
75-69-4	Trichlorofluoromethane		1	U
96-18-4	1,2,3-Trichloropropane		1	U
95-63-6	1,2,4-Trimethylbenzene		1	U
108-67-8	1,3,5-Trimethylbenzene		1	U
75-01-4	Vinyl chloride		1	U
95-47-6	o-Xylene		1	U
108-38-3	m-Xylene		1	U
106-42-3	p-Xylene		1	U

Q FORMAT:
"U" indicates compound was not detected
"J" indicates compound detected < MDL (Method Detection Limit)
"B" indicates compound was found in daily calibration blank

COMMENTS:

APPROVED: R. Martinez
Organic Laboratory Supervisor

ACZ Laboratories, Inc.
30400 Downhill Dr.
Steamboat Springs, CO 80487
(800) 334-5493
FAX: (303) 879-2216

ACZ Laboratories, Inc

VOLATILE ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16027-01
Client Project No:	7004.4 Philips Semi	Lab File ID:	A5427
Sample ID:	NCLF4	Date Received:	10/18/97
Matrix:	Water	Date Analyzed:	10/21/97
Sample Date:	10/17/97	Dilution Factor:	1
Report Date:	10/27/97		
Method ID:	EPA 524.2, Purge & Trap GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
71-43-2	Benzene		1	U
108-86-1	Bromobenzene		1	U
74-97-5	Bromochloromethane		1	U
75-27-4	Bromodichloromethane		1	U
75-25-2	Bromoform		1	U
74-83-9	Bromomethane		1	U
104-51-8	n-Butylbenzene		1	U
135-98-8	sec-Butylbenzene		1	U
98-06-6	tert-Butylbenzene		1	U
56-23-5	Carbon tetrachloride		1	U
108-90-7	Chlorobenzene		1	U
75-00-3	Chloroethane		1	U
67-66-3	Chloroform		1	U
74-87-3	Chloromethane		1	U
95-49-8	1,2-Chlorotoluene		1	U
106-49-8	1,4-Chlorotoluene		1	U
124-48-1	Dibromochloromethane		1	U
96-12-8	1,2-Dibromo-3-chloropropane		1	U
106-93-4	1,2-Dibromoethane (EDB)		1	U
74-95-3	Dibromomethane		1	U
95-50-1	1,2-Dichlorobenzene		1	U
541-73-1	1,3-Dichlorobenzene		1	U
106-46-7	1,4-Dichlorobenzene		1	U
75-71-8	Dichlorodifluoromethane	1.6	1	
75-34-3	1,1-Dichloroethane		1	U
107-06-2	1,2-Dichloroethane		1	U
75-35-4	1,1-Dichloroethylene		1	U
156-59-4	cis-1,2-Dichloroethylene		1	U
156-60-5	trans-1,2-Dichloroethylene		1	U
78-87-5	1,2-Dichloropropane		1	U
142-28-9	1,3-Dichloropropane		1	U
590-20-7	2,2-Dichloropropane		1	U
563-58-6	1,1-Dichloropropene		1	U
10061-01-5	cis-1,3-Dichloropropene		1	U
10061-02-6	trans-1,3-Dichloropropene		1	U

ACZ Laboratories, Inc

VOLATILE ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16027-01
Client Project No:	7004.4 Philips Semi	Lab File ID:	A5427
Sample ID:	NCLF4	Date Received:	10/18/97
Matrix:	Water	Date Analyzed:	10/21/97
Sample Date:	10/17/97	Dilution Factor:	1
Report Date:	10/27/97		
Method ID:	EPA 524.2, Purge & Trap GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
100-41-4	Ethylbenzene		1	U
87-68-3	Hexachlorobutadiene		1	U
98-82-8	Isopropylbenzene (cumene)		1	U
99-87-6	1,4-Isopropyltoluene (p-cymene)		1	U
75-09-2	Methylene Chloride		1	U
91-20-3	Naphthalene		1	U
103-65-1	n-Propylbenzene		1	U
100-42-5	Styrene		1	U
630-20-6	1,1,1,2-Tetrachloroethane		1	U
79-34-5	1,1,2,2-Tetrachloroethane		1	U
127-18-5	Tetrachloroethylene	4.8	1	
108-88-3	Toluene		1	U
87-61-6	1,2,3-Trichlorobenzene		1	U
120-82-1	1,2,4-Trichlorobenzene		1	U
71-55-6	1,1,1-Trichloroethane		1	U
79-00-5	1,1,2-Trichloroethane		1	U
79-01-6	Trichloroethylene		1	U
75-69-4	Trichlorofluoromethane		1	U
96-18-4	1,2,3-Trichloropropane		1	U
95-63-6	1,2,4-Trimethylbenzene		1	U
108-67-8	1,3,5-Trimethylbenzene		1	U
75-01-4	Vinyl chloride		1	U
95-47-6	o-Xylene		1	U
108-38-3	m-Xylene		1	U
106-42-3	p-Xylene		1	U

Q FORMAT:
"U" indicates compound was not detected
"J" indicates compound detected < MDL (Method Detection Limit)
"B" indicates compound was found in daily calibration blank

COMMENTS:

APPROVED: R. Martino
Organic Laboratory Supervisor

ACZ Laboratories, Inc.
30400 Downhill Dr.
Steamboat Springs, CO 80487

(800) 334-5493
FAX: (303) 879-2216

ACZ Laboratories, Inc

VOLATILE ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-08
Client Project No:	7004.4 Philips Semi	Lab File ID:	A5418
Sample ID:	Trip Blank	Date Received:	10/17/97
Matrix:	Water	Date Analyzed:	10/21/97
Sample Date:	10/14/97	Dilution Factor:	1
Report Date:	10/27/97		
Method ID:	EPA 524.2, Purge & Trap GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
71-43-2	Benzene		1	U
108-86-1	Bromobenzene		1	U
74-97-5	Bromochloromethane		1	U
75-27-4	Bromodichloromethane		1	U
75-25-2	Bromoform		1	U
74-83-9	Bromomethane		1	U
104-51-8	n-Butylbenzene		1	U
135-98-8	sec-Butylbenzene		1	U
98-06-6	tert-Butylbenzene		1	U
56-23-5	Carbon tetrachloride		1	U
108-90-7	Chlorobenzene		1	U
75-00-3	Chloroethane		1	U
67-66-3	Chloroform		1	U
74-87-3	Chloromethane		1	U
95-49-8	1,2-Chlorotoluene		1	U
106-49-8	1,4-Chlorotoluene		1	U
124-48-1	Dibromochloromethane		1	U
96-12-8	1,2-Dibromo-3-chloropropane		1	U
106-93-4	1,2-Dibromoethane (EDB)		1	U
74-95-3	Dibromomethane		1	U
95-50-1	1,2-Dichlorobenzene		1	U
541-73-1	1,3-Dichlorobenzene		1	U
106-46-7	1,4-Dichlorobenzene		1	U
75-71-8	Dichlorodifluoromethane		1	U
75-34-3	1,1-Dichloroethane		1	U
107-06-2	1,2-Dichloroethane		1	U
75-35-4	1,1-Dichloroethylene		1	U
156-59-4	cis-1,2-Dichloroethylene		1	U
156-60-5	trans-1,2-Dichloroethylene		1	U
78-87-5	1,2-Dichloropropane		1	U
142-28-9	1,3-Dichloropropane		1	U
590-20-7	2,2-Dichloropropane		1	U
563-58-6	1,1-Dichloropropene		1	U
10061-01-5	cis-1,3-Dichloropropene		1	U
10061-02-6	trans-1,3-Dichloropropene		1	U

ACZ Laboratories, Inc

VOLATILE ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-08
Client Project No:	7004.4 Philips Semi	Lab File ID:	A5418
Sample ID:	Trip Blank	Date Received:	10/17/97
Matrix:	Water	Date Analyzed:	10/21/97
Sample Date:	10/14/97	Dilution Factor:	1
Report Date:	10/27/97		

Method ID: EPA 524.2, Purge & Trap GC/MS Concentration Units: ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
100-41-4	Ethylbenzene		1	U
87-68-3	Hexachlorobutadiene		1	U
98-82-8	Isopropylbenzene (cumene)		1	U
99-87-6	1,4-Isopropyltoluene (p-cymene)		1	U
75-09-2	Methylene Chloride	1.4	1	B
91-20-3	Naphthalene		1	U
103-65-1	n-Propylbenzene		1	U
100-42-5	Styrene		1	U
630-20-6	1,1,1,2-Tetrachloroethane		1	U
79-34-5	1,1,2,2-Tetrachloroethane		1	U
127-18-5	Tetrachloroethylene		1	U
108-88-3	Toluene		1	U
87-61-6	1,2,3-Trichlorobenzene		1	U
120-82-1	1,2,4-Trichlorobenzene		1	U
71-55-6	1,1,1-Trichloroethane		1	U
79-00-5	1,1,2-Trichloroethane		1	U
79-01-6	Trichloroethylene		1	U
75-69-4	Trichlorofluoromethane		1	U
96-18-4	1,2,3-Trichloropropane		1	U
95-63-6	1,2,4-Trimethylbenzene		1	U
108-67-8	1,3,5-Trimethylbenzene		1	U
75-01-4	Vinyl chloride		1	U
95-47-6	o-Xylene		1	U
108-38-3	m-Xylene		1	U
106-42-3	p-Xylene		1	U

Q FORMAT:
"U" indicates compound was not detected
"J" indicates compound detected < MDL (Method Detection Limit)
"B" indicates compound was found in daily calibration blank

COMMENTS: Methylene Chloride was detected in the calibration blank at 1.6 ug/L.

APPROVED: R. Parker
Organic Laboratory Supervisor

ACZ Laboratories, Inc

VOLATILE ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16027-04
Client Project No:	7004.4 Philips Semi	Lab File ID:	A5419
Sample ID:	Equipment Blank	Date Received:	10/18/97
Matrix:	Water	Date Analyzed:	10/21/97
Sample Date:	10/17/97	Dilution Factor:	1
Report Date:	10/27/97		
Method ID:	EPA 524.2, Purge & Trap GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
71-43-2	Benzene		1	U
108-86-1	Bromobenzene		1	U
74-97-5	Bromochloromethane		1	U
75-27-4	Bromodichloromethane	1.1	1	
75-25-2	Bromoform		1	U
74-83-9	Bromomethane		1	U
104-51-8	n-Butylbenzene		1	U
135-98-8	sec-Butylbenzene		1	U
98-06-6	tert-Butylbenzene		1	U
56-23-5	Carbon tetrachloride		1	U
108-90-7	Chlorobenzene		1	U
75-00-3	Chloroethane		1	U
67-66-3	Chloroform	4.3	1	
74-87-3	Chloromethane		1	U
95-49-8	1,2-Chlorotoluene		1	U
106-49-8	1,4-Chlorotoluene		1	U
124-48-1	Dibromochloromethane		1	U
96-12-8	1,2-Dibromo-3-chloropropane		1	U
106-93-4	1,2-Dibromoethane (EDB)		1	U
74-95-3	Dibromomethane		1	U
95-50-1	1,2-Dichlorobenzene		1	U
541-73-1	1,3-Dichlorobenzene		1	U
106-46-7	1,4-Dichlorobenzene		1	U
75-71-8	Dichlorodifluoromethane		1	U
75-34-3	1,1-Dichloroethane		1	U
107-06-2	1,2-Dichloroethane		1	U
75-35-4	1,1-Dichloroethylene		1	U
156-59-4	cis-1,2-Dichloroethylene		1	U
156-60-5	trans-1,2-Dichloroethylene		1	U
78-87-5	1,2-Dichloropropane		1	U
142-28-9	1,3-Dichloropropane		1	U
590-20-7	2,2-Dichloropropane		1	U
563-58-6	1,1-Dichloropropene		1	U
10061-01-5	cis-1,3-Dichloropropene		1	U
10061-02-6	trans-1,3-Dichloropropene		1	U

ACZ Laboratories, Inc

VOLATILE ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16027-04
Client Project No:	7004.4 Philips Semi	Lab File ID:	A5419
Sample ID:	Equipment Blank	Date Received:	10/18/97
Matrix:	Water	Date Analyzed:	10/21/97
Sample Date:	10/17/97	Dilution Factor:	1
Report Date:	10/27/97		
Method ID:	EPA 524.2, Purge & Trap GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
100-41-4	Ethylbenzene		1	U
87-68-3	Hexachlorobutadiene		1	U
98-82-8	Isopropylbenzene (cumene)		1	U
99-87-6	1,4-Isopropyltoluene (p-cymene)		1	U
75-09-2	Methylene Chloride		1	U
91-20-3	Naphthalene		1	U
103-65-1	n-Propylbenzene		1	U
100-42-5	Styrene		1	U
630-20-6	1,1,1,2-Tetrachloroethane		1	U
79-34-5	1,1,2,2-Tetrachloroethane		1	U
127-18-5	Tetrachloroethylene		1	U
108-88-3	Toluene		1	U
87-61-6	1,2,3-Trichlorobenzene		1	U
120-82-1	1,2,4-Trichlorobenzene		1	U
71-55-6	1,1,1-Trichloroethane		1	U
79-00-5	1,1,2-Trichloroethane		1	U
79-01-6	Trichloroethylene		1	U
75-69-4	Trichlorofluoromethane		1	U
96-18-4	1,2,3-Trichloropropane		1	U
95-63-6	1,2,4-Trimethylbenzene		1	U
108-67-8	1,3,5-Trimethylbenzene		1	U
75-01-4	Vinyl chloride		1	U
95-47-6	o-Xylene		1	U
108-38-3	m-Xylene		1	U
106-42-3	p-Xylene		1	U

Q FORMAT: "U" indicates compound was not detected
"J" indicates compound detected < MDL (Method Detection Limit)
"B" indicates compound was found in daily calibration blank

COMMENTS:

APPROVED: R Martinez
Organic Laboratory Supervisor

ACZ Laboratories, Inc.
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Steamboat Springs, CO 80487

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FAX: (303) 879-2216

ACZ Laboratories, Inc

SEMI-VOLATILES ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-06
Client Project No:	7004.4 Philips Semi	Lab File ID:	B9580
Sample ID:	MW-1	Date Received:	10/17/97
Matrix:	Water	Date Extracted:	10/20/97
Sample Date:	10/15/97	Date Analyzed:	10/23/97
Report Date:	10/27/97	Cleanup:	
		Dilution Factor:	1
Method ID:	SEMI-VOLATILES BY EPA 8270, GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
108-95-2	Phenol		10	U
111-44-4	bis-(2-Chloroethyl)ether		10	U
95-57-8	2-Chlorophenol		10	U
541-73-1	1,3-Dichlorobenzene		10	U
106-46-7	1,4-Dichlorobenzene		10	U
100-51-6	Benzyl Alcohol		10	U
95-50-1	1,2-Dichlorobenzene		10	U
95-48-7	2-Methylphenol		10	U
108-60-1	bis(2-Chloroisopropyl) ether		10	U
106-44-5	4-Methylphenol		10	U
621-64-7	N-Nitroso-di-n-propylamine		10	U
67-72-1	Hexachloroethane		10	U
98-95-3	Nitrobenzene		10	U
78-59-1	Isophorone		10	U
88-75-5	2-Nitrophenol		10	U
105-67-9	2,4-Dimethylphenol		50	U
65-85-0	Benzoic Acid		10	U
111-91-1	bis(2-Chloroethoxy)methane		10	U
120-83-2	2,4-Dichlorophenol		10	U
120-82-1	1,2,4-Trichlorobenzene		10	U
91-20-3	Naphthalene		10	U
106-47-8	4-Chloroaniline		10	U
87-68-3	Hexachlorobutadiene		10	U
59-50-7	4-Chloro-3-methylphenol		10	U
91-57-6	2-Methylnaphthalene		10	U
77-47-4	Hexachlorocylopentadiene		10	U
88-06-2	2,4,6-Trichlorophenol		10	U
95-95-4	2,4,5-Trichlorophenol		50	U
91-58-7	2-Chloronaphthalene		10	U
88-74-4	2-Nitroaniline		50	U
131-11-3	Dimethyl phthalate		10	U
208-96-8	Acenaphthylene		10	U
606-20-8	2,6-Dinitrotoluene		50	U

ACZ Laboratories, Inc.

SEMI-VOLATILES ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-06
Client Project No:	7004.4 Philips Semi	Lab File ID:	B9580
Sample ID:	MW-1	Date Received:	10/17/97
Matrix:	Water	Date Extracted:	10/20/97
Sample Date:	10/15/97	Date Analyzed:	10/23/97
Report Date:	10/27/97	Cleanup:	
		Dilution Factor:	1
Method ID:	SEMI-VOLATILES BY EPA 8270, GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
99-09-2	3-Nitroaniline		50	U
62-75-9	N-nitrosodimethylamine		10	U
83-32-9	Acenaphthene		10	U
51-28-5	2,4-Dinitrophenol		50	U
100-02-07	4-Nitrophenol		50	U
132-64-9	Dibenzofuran		10	U
121-14-2	2,4-Dinitrotoluene		10	U
84-66-2	Diethylphthalate		10	U
7005-72-3	4-Chlorophenyl-phenylether		10	U
86-73-7	Fluorene		10	U
100-01-6	4-Nitroaniline		50	U
534-52-1	4,6-Dinitro-2-methylphenol		50	U
86-30-6	N-Nitrosodiphenylamine(1)		10	U
101-55-3	4-Bromophenyl-phenylether		10	U
118-74-1	Hexachlorobenzene		10	U
87-86-5	Pentachlorophenol		50	U
85-01-8	Phenanthrene		10	U
120-12-7	Anthracene		10	U
84-74-2	Di-n-butylphthalate		10	U
206-44-0	Fluoranthene		10	U
129-00-0	Pyrene		10	U
85-68-7	Butylbenzylphthalate		10	U
91-94-1	3,3'-Dichlorobenzidine		20	U
56-55-3	Benzo(a)anthracene		10	U
117-81-7	Bis(2-ethylhexyl)phthalate		10	U
218-01-9	Chrysene		10	U
117-84-0	Di-n-octyl phthalate		10	U
205-99-2	Benzo(b)fluoranthene		10	U
207-08-9	Benzo(k)fluoranthene		10	U
50-32-8	Benzo(a)pyrene		10	U
193-39-5	Indeno(1,2,3-cd)pyrene		10	U
53-70-3	Dibenz(a,h)anthracene		10	U
191-24-2	Benzo(g,h,i)perylene		10	U
103-33-3	Azobenzene		50	U

ACZ Laboratories, Inc.

SEMI-VOLATILES ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-06
Client Project No:	7004.4 Philips Semi	Lab File ID:	B9580
Sample ID:	MW-1	Date Received:	10/17/97
Matrix:	Water	Date Extracted:	10/20/97
Sample Date:	10/15/97	Date Analyzed:	10/23/97
Report Date:	10/27/97	Cleanup:	
		Dilution Factor:	1
Method ID:	SEMI-VOLATILES BY EPA 8270, GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q

Q FORMAT: "U" indicates compound was not detected
"J" indicates compound detected < MDL (Method Detection Limit)
"B" indicates compound was found in daily calibration blank

COMMENTS:

APPROVED: R. Martinez

Organic Laboratory Supervisor

ACZ Laboratories, Inc.
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Steamboat Springs, CO 80487

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FAX: (303) 879-2216

ACZ Laboratories, Inc

SEMI-VOLATILES ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-05
Client Project No:	7004.4 Philips Semi	Lab File ID:	B9589
Sample ID:	MW-2	Date Received:	10/17/97
Matrix:	Water	Date Extracted:	10/20/97
Sample Date:	10/15/97	Date Analyzed:	10/23/97
Report Date:	10/27/97	Cleanup:	
		Dilution Factor:	1
Method ID:	SEMI-VOLATILES BY EPA 8270, GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
108-95-2	Phenol		10	U
111-44-4	bis-(2-Chloroethyl)ether		10	U
95-57-8	2-Chlorophenol		10	U
541-73-1	1,3-Dichlorobenzene		10	U
106-46-7	1,4-Dichlorobenzene		10	U
100-51-6	Benzyl Alcohol		10	U
95-50-1	1,2-Dichlorobenzene		10	U
95-48-7	2-Methylphenol		10	U
108-60-1	bis(2-Chloroisopropyl) ether		10	U
106-44-5	4-Methylphenol		10	U
621-64-7	N-Nitroso-di-n-propylamine		10	U
67-72-1	Hexachloroethane		10	U
98-95-3	Nitrobenzene		10	U
78-59-1	Isophorone		10	U
88-75-5	2-Nitrophenol		10	U
105-67-9	2,4-Dimethylphenol		50	U
65-85-0	Benzoic Acid		10	U
111-91-1	bis(2-Chloroethoxy)methane		10	U
120-83-2	2,4-Dichlorophenol		10	U
120-82-1	1,2,4-Trichlorobenzene		10	U
91-20-3	Naphthalene		10	U
106-47-8	4-Chloroaniline		10	U
87-68-3	Hexachlorobutadiene		10	U
59-50-7	4-Chloro-3-methylphenol		10	U
91-57-6	2-Methylnaphthalene		10	U
77-47-4	Hexachlorocylopentadiene		10	U
88-06-2	2,4,6-Trichlorophenol		10	U
95-95-4	2,4,5-Trichlorophenol		50	U
91-58-7	2-Chloronaphthalene		10	U
88-74-4	2-Nitroaniline		50	U
131-11-3	Dimethyl phthalate		10	U
208-96-8	Acenaphthylene		10	U
606-20-8	2,6-Dinitrotoluene		50	U

ACZ Laboratories, Inc.

SEMI-VOLATILES ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-05
Client Project No:	7004.4 Philips Semi	Lab File ID:	B9589
Sample ID:	MW-2	Date Received:	10/17/97
Matrix:	Water	Date Extracted:	10/20/97
Sample Date:	10/15/97	Date Analyzed:	10/23/97
Report Date:	10/27/97	Cleanup:	
		Dilution Factor:	1
Method ID:	SEMI-VOLATILES BY EPA 8270, GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
99-09-2	3-Nitroaniline		50	U
62-75-9	N-nitrosodimethylamine		10	U
83-32-9	Acenaphthene		10	U
51-28-5	2,4-Dinitrophenol		50	U
100-02-07	4-Nitrophenol		50	U
132-64-9	Dibenzofuran		10	U
121-14-2	2,4-Dinitrotoluene		10	U
84-66-2	Diethylphthalate		10	U
7005-72-3	4-Chlorophenyl-phenylether		10	U
86-73-7	Fluorene		10	U
100-01-6	4-Nitroaniline		50	U
534-52-1	4,6-Dinitro-2-methylphenol		50	U
86-30-6	N-Nitrosodiphenylamine(1)		10	U
101-55-3	4-Bromophenyl-phenylether		10	U
118-74-1	Hexachlorobenzene		10	U
87-86-5	Pentachlorophenol		50	U
85-01-8	Phenanthrene		10	U
120-12-7	Anthracene		10	U
84-74-2	Di-n-butylphthalate		10	U
206-44-0	Fluoranthene		10	U
129-00-0	Pyrene		10	U
85-68-7	Butylbenzylphthalate		10	U
91-94-1	3,3'-Dichlorobenzidine		20	U
56-55-3	Benzo(a)anthracene		10	U
117-81-7	Bis(2-ethylhexyl)phthalate		10	U
218-01-9	Chrysene		10	U
117-84-0	Di-n-octyl phthalate		10	U
205-99-2	Benzo(b)fluoranthene		10	U
207-08-9	Benzo(k)fluoranthene		10	U
50-32-8	Benzo(a)pyrene		10	U
193-39-5	Indeno(1,2,3-cd)pyrene		10	U
53-70-3	Dibenz(a,h)anthracene		10	U
191-24-2	Benzo(g,h,i)perylene		10	U
103-33-3	Azobenzene		50	U

ACZ Laboratories, Inc.

SEMI-VOLATILES ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-05
Client Project No:	7004.4 Philips Semi	Lab File ID:	B9589
Sample ID:	MW-2	Date Received:	10/17/97
Matrix:	Water	Date Extracted:	10/20/97
Sample Date:	10/15/97	Date Analyzed:	10/23/97
Report Date:	10/27/97	Cleanup:	
		Dilution Factor:	1
Method ID:	SEMI-VOLATILES BY EPA 8270, GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q

Q FORMAT: "U" indicates compound was not detected
"J" indicates compound detected < MDL (Method Detection Limit)
"B" indicates compound was found in daily calibration blank

COMMENTS:

APPROVED: R. Martinez
Organic Laboratory Supervisor

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ACZ Laboratories, Inc

SEMI-VOLATILES ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-03
Client Project No:	7004.4 Philips Semi	Lab File ID:	B9588
Sample ID:	MW-3	Date Received:	10/17/97
Matrix:	Water	Date Extracted:	10/20/97
Sample Date:	10/14/97	Date Analyzed:	10/23/97
Report Date:	10/27/97	Cleanup:	
		Dilution Factor:	1
Method ID:	SEMI-VOLATILES BY EPA 8270, GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
108-95-2	Phenol		10	U
111-44-4	bis-(2-Chloroethyl)ether		10	U
95-57-8	2-Chlorophenol		10	U
541-73-1	1,3-Dichlorobenzene		10	U
106-46-7	1,4-Dichlorobenzene		10	U
100-51-6	Benzyl Alcohol		10	U
95-50-1	1,2-Dichlorobenzene		10	U
95-48-7	2-Methylphenol		10	U
108-60-1	bis(2-Chloroisopropyl) ether		10	U
106-44-5	4-Methylphenol		10	U
621-64-7	N-Nitroso-di-n-propylamine		10	U
67-72-1	Hexachloroethane		10	U
98-95-3	Nitrobenzene		10	U
78-59-1	Isophorone		10	U
88-75-5	2-Nitrophenol		10	U
105-67-9	2,4-Dimethylphenol		50	U
65-85-0	Benzoic Acid		10	U
111-91-1	bis(2-Chloroethoxy)methane		10	U
120-83-2	2,4-Dichlorophenol		10	U
120-82-1	1,2,4-Trichlorobenzene		10	U
91-20-3	Naphthalene		10	U
106-47-8	4-Chloroaniline		10	U
87-68-3	Hexachlorobutadiene		10	U
59-50-7	4-Chloro-3-methylphenol		10	U
91-57-6	2-Methylnaphthalene		10	U
77-47-4	Hexachlorocylopentadiene		10	U
88-06-2	2,4,6-Trichlorophenol		10	U
95-95-4	2,4,5-Trichlorophenol		50	U
91-58-7	2-Chloronaphthalene		10	U
88-74-4	2-Nitroaniline		50	U
131-11-3	Dimethyl phthalate		10	U
208-96-8	Acenaphthylene		10	U
606-20-8	2,6-Dinitrotoluene		50	U

ACZ Laboratories, Inc.

SEMI-VOLATILES ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-03
Client Project No:	7004.4 Philips Semi	Lab File ID:	B9588
Sample ID:	MW-3	Date Received:	10/17/97
Matrix:	Water	Date Extracted:	10/20/97
Sample Date:	10/14/97	Date Analyzed:	10/23/97
Report Date:	10/27/97	Cleanup:	
		Dilution Factor:	1
Method ID:	SEMI-VOLATILES BY EPA 8270, GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
99-09-2	3-Nitroaniline		50	U
62-75-9	N-nitrosodimethylamine		10	U
83-32-9	Acenaphthene		10	U
51-28-5	2,4-Dinitrophenol		50	U
100-02-07	4-Nitrophenol		50	U
132-64-9	Dibenzofuran		10	U
121-14-2	2,4-Dinitrotoluene		10	U
84-66-2	Diethylphthalate		10	U
7005-72-3	4-Chlorophenyl-phenylether		10	U
86-73-7	Fluorene		10	U
100-01-6	4-Nitroaniline		50	U
534-52-1	4,6-Dinitro-2-methylphenol		50	U
86-30-6	N-Nitrosodiphenylamine(1)		10	U
101-55-3	4-Bromophenyl-phenylether		10	U
118-74-1	Hexachlorobenzene		10	U
87-86-5	Pentachlorophenol		50	U
85-01-8	Phenanthrene		10	U
120-12-7	Anthracene		10	U
84-74-2	Di-n-butylphthalate		10	U
206-44-0	Fluoranthene		10	U
129-00-0	Pyrene		10	U
85-68-7	Butylbenzylphthalate		10	U
91-94-1	3,3'-Dichlorobenzidine		20	U
56-55-3	Benzo(a)anthracene		10	U
117-81-7	Bis(2-ethylhexyl)phthalate		10	U
218-01-9	Chrysene		10	U
117-84-0	Di-n-octyl phthalate		10	U
205-99-2	Benzo(b)fluoranthene		10	U
207-08-9	Benzo(k)fluoranthene		10	U
50-32-8	Benzo(a)pyrene		10	U
193-39-5	Indeno(1,2,3-cd)pyrene		10	U
53-70-3	Dibenz(a,h)anthracene		10	U
191-24-2	Benzo(g,h,i)perylene		10	U
103-33-3	Azobenzene		50	U

ACZ Laboratories, Inc.

SEMI-VOLATILES ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-03
Client Project No:	7004.4 Philips Semi	Lab File ID:	B9588
Sample ID:	MW-3	Date Received:	10/17/97
Matrix:	Water	Date Extracted:	10/20/97
Sample Date:	10/14/97	Date Analyzed:	10/23/97
Report Date:	10/27/97	Cleanup:	
		Dilution Factor:	1
Method ID:	SEMI-VOLATILES BY EPA 8270, GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q

Q FORMAT: "U" indicates compound was not detected
"J" indicates compound detected < MDL (Method Detection Limit)
"B" indicates compound was found in daily calibration blank

COMMENTS:

APPROVED: _____
Organic Laboratory Supervisor

ACZ Laboratories, Inc.
30400 Downhill Dr.
Steamboat Springs, CO 80487

(800) 334-5493
FAX: (303) 879-2216

ACZ Laboratories, Inc

SEMI-VOLATILES ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-04
Client Project No:	7004.4 Philips Semi	Lab File ID:	B9586
Sample ID:	MW-4	Date Received:	10/17/97
Matrix:	Water	Date Extracted:	10/20/97
Sample Date:	10/14/97	Date Analyzed:	10/23/97
Report Date:	10/27/97	Cleanup:	
		Dilution Factor:	1
Method ID:	SEMI-VOLATILES BY EPA 8270, GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
108-95-2	Phenol		10	U
111-44-4	bis-(2-Chloroethyl)ether		10	U
95-57-8	2-Chlorophenol		10	U
541-73-1	1,3-Dichlorobenzene		10	U
106-46-7	1,4-Dichlorobenzene		10	U
100-51-6	Benzyl Alcohol		10	U
95-50-1	1,2-Dichlorobenzene		10	U
95-48-7	2-Methylphenol		10	U
108-60-1	bis(2-Chloroisopropyl) ether		10	U
106-44-5	4-Methylphenol		10	U
621-64-7	N-Nitroso-di-n-propylamine		10	U
67-72-1	Hexachloroethane		10	U
98-95-3	Nitrobenzene		10	U
78-59-1	Isophorone		10	U
88-75-5	2-Nitrophenol		10	U
105-67-9	2,4-Dimethylphenol		50	U
65-85-0	Benzoic Acid		10	U
111-91-1	bis(2-Chloroethoxy)methane		10	U
120-83-2	2,4-Dichlorophenol		10	U
120-82-1	1,2,4-Trichlorobenzene		10	U
91-20-3	Naphthalene		10	U
106-47-8	4-Chloroaniline		10	U
87-68-3	Hexachlorobutadiene		10	U
59-50-7	4-Chloro-3-methylphenol		10	U
91-57-6	2-Methylnaphthalene		10	U
77-47-4	Hexachlorocylopentadiene		10	U
88-06-2	2,4,6-Trichlorophenol		10	U
95-95-4	2,4,5-Trichlorophenol		50	U
91-58-7	2-Chloronaphthalene		10	U
88-74-4	2-Nitroaniline		50	U
131-11-3	Dimethyl phthalate		10	U
208-96-8	Acenaphthylene		10	U
606-20-8	2,6-Dinitrotoluene		50	U

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ACZ Laboratories, Inc.

SEMI-VOLATILES ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-04
Client Project No:	7004.4 Philips Semi	Lab File ID:	B9586
Sample ID:	MW-4	Date Received:	10/17/97
Matrix:	Water	Date Extracted:	10/20/97
Sample Date:	10/14/97	Date Analyzed:	10/23/97
Report Date:	10/27/97	Cleanup:	
		Dilution Factor:	1
Method ID:	SEMI-VOLATILES BY EPA 8270, GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
99-09-2	3-Nitroaniline		50	U
62-75-9	N-nitrosodimethylamine		10	U
83-32-9	Acenaphthene		10	U
51-28-5	2,4-Dinitrophenol		50	U
100-02-07	4-Nitrophenol		50	U
132-64-9	Dibenzofuran		10	U
121-14-2	2,4-Dinitrotoluene		10	U
84-66-2	Diethylphthalate		10	U
7005-72-3	4-Chlorophenyl-phenylether		10	U
86-73-7	Fluorene		10	U
100-01-6	4-Nitroaniline		50	U
534-52-1	4,6-Dinitro-2-methylphenol		50	U
86-30-6	N-Nitrosodiphenylamine(1)		10	U
101-55-3	4-Bromophenyl-phenylether		10	U
118-74-1	Hexachlorobenzene		10	U
87-86-5	Pentachlorophenol		50	U
85-01-8	Phenanthrene		10	U
120-12-7	Anthracene		10	U
84-74-2	Di-n-butylphthalate		10	U
206-44-0	Fluoranthene		10	U
129-00-0	Pyrene		10	U
85-68-7	Butylbenzylphthalate		10	U
91-94-1	3,3'-Dichlorobenzidine		20	U
56-55-3	Benzo(a)anthracene		10	U
117-81-7	Bis(2-ethylhexyl)phthalate		10	U
218-01-9	Chrysene		10	U
117-84-0	Di-n-octyl phthalate		10	U
205-99-2	Benzo(b)fluoranthene		10	U
207-08-9	Benzo(k)fluoranthene		10	U
50-32-8	Benzo(a)pyrene		10	U
193-39-5	Indeno(1,2,3-cd)pyrene		10	U
53-70-3	Dibenz(a,h)anthracene		10	U
191-24-2	Benzo(g,h,i)perylene		10	U
103-33-3	Azobenzene		50	U

ACZ Laboratories, Inc.

SEMI-VOLATILES ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-04
Client Project No:	7004.4 Philips Semi	Lab File ID:	B9586
Sample ID:	MW-4	Date Received:	10/17/97
Matrix:	Water	Date Extracted:	10/20/97
Sample Date:	10/14/97	Date Analyzed:	10/23/97
Report Date:	10/27/97	Cleanup:	
		Dilution Factor:	1
Method ID:	SEMI-VOLATILES BY EPA 8270, GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q

Q FORMAT: "U" indicates compound was not detected
"J" indicates compound detected < MDL (Method Detection Limit)
"B" indicates compound was found in daily calibration blank

COMMENTS:

APPROVED: R. Martinez
Organic Laboratory Supervisor

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ACZ Laboratories, Inc

SEMI-VOLATILES ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-07
Client Project No:	7004.4 Philips Semi	Lab File ID:	B9605
Sample ID:	MW-5	Date Received:	10/17/97
Matrix:	Water	Date Extracted:	10/22/97
Sample Date:	10/15/97	Date Analyzed:	10/24/97
Report Date:	10/27/97	Cleanup:	
		Dilution Factor:	1
Method ID:	SEMI-VOLATILES BY EPA 8270, GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
108-95-2	Phenol		10	U
111-44-4	bis-(2-Chloroethyl)ether		10	U
95-57-8	2-Chlorophenol		10	U
541-73-1	1,3-Dichlorobenzene		10	U
106-46-7	1,4-Dichlorobenzene		10	U
100-51-6	Benzyl Alcohol		10	U
95-50-1	1,2-Dichlorobenzene		10	U
95-48-7	2-Methylphenol		10	U
108-60-1	bis(2-Chloroisopropyl) ether		10	U
106-44-5	4-Methylphenol		10	U
621-64-7	N-Nitroso-di-n-propylamine		10	U
67-72-1	Hexachloroethane		10	U
98-95-3	Nitrobenzene		10	U
78-59-1	Isophorone		10	U
88-75-5	2-Nitrophenol		10	U
105-67-9	2,4-Dimethylphenol		50	U
65-85-0	Benzoic Acid		10	U
111-91-1	bis(2-Chloroethoxy)methane		10	U
120-83-2	2,4-Dichlorophenol		10	U
120-82-1	1,2,4-Trichlorobenzene		10	U
91-20-3	Naphthalene		10	U
106-47-8	4-Chloroaniline		10	U
87-68-3	Hexachlorobutadiene		10	U
59-50-7	4-Chloro-3-methylphenol		10	U
91-57-6	2-Methylnaphthalene		10	U
77-47-4	Hexachlorocylopentadiene		10	U
88-06-2	2,4,6-Trichlorophenol		10	U
95-95-4	2,4,5-Trichlorophenol		50	U
91-58-7	2-Chloronaphthalene		10	U
88-74-4	2-Nitroaniline		50	U
131-11-3	Dimethyl phthalate		10	U
208-96-8	Acenaphthylene		10	U
606-20-8	2,6-Dinitrotoluene		50	U

ACZ Laboratories, Inc.

SEMI-VOLATILES ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-07
Client Project No:	7004.4 Philips Semi	Lab File ID:	B9605
Sample ID:	MW-5	Date Received:	10/17/97
Matrix:	Water	Date Extracted:	10/22/97
Sample Date:	10/15/97	Date Analyzed:	10/24/97
Report Date:	10/27/97	Cleanup:	
		Dilution Factor:	1
Method ID:	SEMI-VOLATILES BY EPA 8270, GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
99-09-2	3-Nitroaniline		50	U
62-75-9	N-nitrosodimethylamine		10	U
83-32-9	Acenaphthene		10	U
51-28-5	2,4-Dinitrophenol		50	U
100-02-07	4-Nitrophenol		50	U
132-64-9	Dibenzofuran		10	U
121-14-2	2,4-Dinitrotoluene		10	U
84-66-2	Diethylphthalate		10	U
7005-72-3	4-Chlorophenyl-phenylether		10	U
86-73-7	Fluorene		10	U
100-01-6	4-Nitroaniline		50	U
534-52-1	4,6-Dinitro-2-methylphenol		50	U
86-30-6	N-Nitrosodiphenylamine(1)		10	U
101-55-3	4-Bromophenyl-phenylether		10	U
118-74-1	Hexachlorobenzene		10	U
87-86-5	Pentachlorophenol		50	U
85-01-8	Phenanthrene		10	U
120-12-7	Anthracene		10	U
84-74-2	Di-n-butylphthalate		10	U
206-44-0	Fluoranthene		10	U
129-00-0	Pyrene		10	U
85-68-7	Butylbenzylphthalate		10	U
91-94-1	3,3'-Dichlorobenzidine		20	U
56-55-3	Benzo(a)anthracene		10	U
117-81-7	Bis(2-ethylhexyl)phthalate		10	U
218-01-9	Chrysene		10	U
117-84-0	Di-n-octyl phthalate		10	U
205-99-2	Benzo(b)fluoranthene		10	U
207-08-9	Benzo(k)fluoranthene		10	U
50-32-8	Benzo(a)pyrene		10	U
193-39-5	Indeno(1,2,3-cd)pyrene		10	U
53-70-3	Dibenz(a,h)anthracene		10	U
191-24-2	Benzo(g,h,i)perylene		10	U
103-33-3	Azobenzene		50	U

ACZ Laboratories, Inc.

SEMI-VOLATILES ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-07
Client Project No:	7004.4 Philips Semi	Lab File ID:	B9605
Sample ID:	MW-5	Date Received:	10/17/97
Matrix:	Water	Date Extracted:	10/22/97
Sample Date:	10/15/97	Date Analyzed:	10/24/97
Report Date:	10/27/97	Cleanup:	
		Dilution Factor:	1
Method ID:	SEMI-VOLATILES BY EPA 8270, GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q

Q FORMAT: "U" indicates compound was not detected
"J" indicates compound detected < MDL (Method Detection Limit)
"B" indicates compound was found in daily calibration blank

COMMENTS:

APPROVED: R. Martinez

Organic Laboratory Supervisor

ACZ Laboratories, Inc.
30400 Downhill Dr.
Steamboat Springs, CO 80487

(800) 334-5493
FAX: (303) 879-2216

ACZ Laboratories, Inc

SEMI-VOLATILES ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-01
Client Project No:	7004.4 Philips Semi	Lab File ID:	B9586
Sample ID:	NCLF-2	Date Received:	10/17/97
Matrix:	Water	Date Extracted:	10/20/97
Sample Date:	10/14/97	Date Analyzed:	10/23/97
Report Date:	10/27/97	Cleanup:	
		Dilution Factor:	1
Method ID:	SEMI-VOLATILES BY EPA 8270, GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL Q
108-95-2	Phenol		10 U
111-44-4	bis-(2-Chloroethyl)ether		10 U
95-57-8	2-Chlorophenol		10 U
541-73-1	1,3-Dichlorobenzene		10 U
106-46-7	1,4-Dichlorobenzene		10 U
100-51-6	Benzyl Alcohol		10 U
95-50-1	1,2-Dichlorobenzene		10 U
95-48-7	2-Methylphenol		10 U
108-60-1	bis(2-Chloroisopropyl) ether		10 U
106-44-5	4-Methylphenol		10 U
621-64-7	N-Nitroso-di-n-propylamine		10 U
67-72-1	Hexachloroethane		10 U
98-95-3	Nitrobenzene		10 U
78-59-1	Isophorone		10 U
88-75-5	2-Nitrophenol		10 U
105-67-9	2,4-Dimethylphenol		50 U
65-85-0	Benzoic Acid		10 U
111-91-1	bis(2-Chloroethoxy)methane		10 U
120-83-2	2,4-Dichlorophenol		10 U
120-82-1	1,2,4-Trichlorobenzene		10 U
91-20-3	Naphthalene		10 U
106-47-8	4-Chloroaniline		10 U
87-68-3	Hexachlorobutadiene		10 U
59-50-7	4-Chloro-3-methylphenol		10 U
91-57-6	2-Methylnaphthalene		10 U
77-47-4	Hexachlorocylopentadiene		10 U
88-06-2	2,4,6-Trichlorophenol		10 U
95-95-4	2,4,5-Trichlorophenol		50 U
91-58-7	2-Chloronaphthalene		10 U
88-74-4	2-Nitroaniline		50 U
131-11-3	Dimethyl phthalate		10 U
208-96-8	Acenaphthylene		10 U
606-20-8	2,6-Dinitrotoluene		50 U

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ACZ Laboratories, Inc.

SEMI-VOLATILES ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-01
Client Project No:	7004.4 Philips Semi	Lab File ID:	B9586
Sample ID:	NCLF-2	Date Received:	10/17/97
Matrix:	Water	Date Extracted:	10/20/97
Sample Date:	10/14/97	Date Analyzed:	10/23/97
Report Date:	10/27/97	Cleanup:	
		Dilution Factor:	1
Method ID:	SEMI-VOLATILES BY EPA 8270, GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
99-09-2	3-Nitroaniline		50	U
62-75-9	N-nitrosodimethylamine		10	U
83-32-9	Acenaphthene		10	U
51-28-5	2,4-Dinitrophenol		50	U
100-02-07	4-Nitrophenol		50	U
132-64-9	Dibenzofuran		10	U
121-14-2	2,4-Dinitrotoluene		10	U
84-66-2	Diethylphthalate		10	U
7005-72-3	4-Chlorophenyl-phenylether		10	U
86-73-7	Fluorene		10	U
100-01-6	4-Nitroaniline		50	U
534-52-1	4,6-Dinitro-2-methylphenol		50	U
86-30-6	N-Nitrosodiphenylamine(1)		10	U
101-55-3	4-Bromophenyl-phenylether		10	U
118-74-1	Hexachlorobenzene		10	U
87-86-5	Pentachlorophenol		50	U
85-01-8	Phenanthrene		10	U
120-12-7	Anthracene		10	U
84-74-2	Di-n-butylphthalate		10	U
206-44-0	Fluoranthene		10	U
129-00-0	Pyrene		10	U
85-68-7	Butylbenzylphthalate		10	U
91-94-1	3,3'-Dichlorobenzidine		20	U
56-55-3	Benzo(a)anthracene		10	U
117-81-7	Bis(2-ethylhexyl)phthalate		10	U
218-01-9	Chrysene		10	U
117-84-0	Di-n-octyl phthalate		10	U
205-99-2	Benzo(b)fluoranthene		10	U
207-08-9	Benzo(k)fluoranthene		10	U
50-32-8	Benzo(a)pyrene		10	U
193-39-5	Indeno(1,2,3-cd)pyrene		10	U
53-70-3	Dibenz(a,h)anthracene		10	U
191-24-2	Benzo(g,h,i)perylene		10	U
103-33-3	Azobenzene		50	U

ACZ Laboratories, Inc.

SEMI-VOLATILES ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-01
Client Project No:	7004.4 Philips Semi	Lab File ID:	B9586
Sample ID:	NCLF-2	Date Received:	10/17/97
Matrix:	Water	Date Extracted:	10/20/97
Sample Date:	10/14/97	Date Analyzed:	10/23/97
Report Date:	10/27/97	Cleanup:	
		Dilution Factor:	1
Method ID:	SEMI-VOLATILES BY EPA 8270, GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q

Q FORMAT: "U" indicates compound was not detected
"J" indicates compound detected < MDL (Method Detection Limit)
"B" indicates compound was found in daily calibration blank

COMMENTS:

APPROVED: R Martinez
Organic Laboratory Supervisor

ACZ Laboratories, Inc.
30400 Downhill Dr.
Steamboat Springs, CO 80487

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FAX: (303) 879-2216

ACZ Laboratories, Inc

SEMI-VOLATILES ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-02
Client Project No:	7004.4 Philips Semi	Lab File ID:	B9587
Sample ID:	NCLF-3	Date Received:	10/17/97
Matrix:	Water	Date Extracted:	10/20/97
Sample Date:	10/14/97	Date Analyzed:	10/23/97
Report Date:	10/27/97	Cleanup:	
		Dilution Factor:	1
Method ID:	SEMI-VOLATILES BY EPA 8270, GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL Q
108-95-2	Phenol		10 U
111-44-4	bis-(2-Chloroethyl)ether		10 U
95-57-8	2-Chlorophenol		10 U
541-73-1	1,3-Dichlorobenzene		10 U
106-46-7	1,4-Dichlorobenzene		10 U
100-51-6	Benzyl Alcohol		10 U
95-50-1	1,2-Dichlorobenzene		10 U
95-48-7	2-Methylphenol		10 U
108-60-1	bis(2-Chloroisopropyl) ether		10 U
106-44-5	4-Methylphenol		10 U
621-64-7	N-Nitroso-di-n-propylamine		10 U
67-72-1	Hexachloroethane		10 U
98-95-3	Nitrobenzene		10 U
78-59-1	Isophorone		10 U
88-75-5	2-Nitrophenol		10 U
105-67-9	2,4-Dimethylphenol		50 U
65-85-0	Benzoic Acid		10 U
111-91-1	bis(2-Chloroethoxy)methane		10 U
120-83-2	2,4-Dichlorophenol		10 U
120-82-1	1,2,4-Trichlorobenzene		10 U
91-20-3	Naphthalene		10 U
106-47-8	4-Chloroaniline		10 U
87-68-3	Hexachlorobutadiene		10 U
59-50-7	4-Chloro-3-methylphenol		10 U
91-57-6	2-Methylnaphthalene		10 U
77-47-4	Hexachlorocylopentadiene		10 U
88-06-2	2,4,6-Trichlorophenol		10 U
95-95-4	2,4,5-Trichlorophenol		50 U
91-58-7	2-Chloronaphthalene		10 U
88-74-4	2-Nitroaniline		50 U
131-11-3	Dimethyl phthalate		10 U
208-96-8	Acenaphthylene		10 U
606-20-8	2,6-Dinitrotoluene		50 U

ACZ Laboratories, Inc.
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ACZ Laboratories, Inc.

SEMI-VOLATILES ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-02
Client Project No:	7004.4 Philips Semi	Lab File ID:	B9587
Sample ID:	NCLF-3	Date Received:	10/17/97
Matrix:	Water	Date Extracted:	10/20/97
Sample Date:	10/14/97	Date Analyzed:	10/23/97
Report Date:	10/27/97	Cleanup:	
		Dilution Factor:	1
Method ID:	SEMI-VOLATILES BY EPA 8270, GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
99-09-2	3-Nitroaniline		50	U
62-75-9	N-nitrosodimethylamine		10	U
83-32-9	Acenaphthene		10	U
51-28-5	2,4-Dinitrophenol		50	U
100-02-07	4-Nitrophenol		50	U
132-64-9	Dibenzofuran		10	U
121-14-2	2,4-Dinitrotoluene		10	U
84-66-2	Diethylphthalate		10	U
7005-72-3	4-Chlorophenyl-phenylether		10	U
86-73-7	Fluorene		10	U
100-01-6	4-Nitroaniline		50	U
534-52-1	4,6-Dinitro-2-methylphenol		50	U
86-30-6	N-Nitrosodiphenylamine(1)		10	U
101-55-3	4-Bromophenyl-phenylether		10	U
118-74-1	Hexachlorobenzene		10	U
87-86-5	Pentachlorophenol		50	U
85-01-8	Phenanthrene		10	U
120-12-7	Anthracene		10	U
84-74-2	Di-n-butylphthalate		10	U
206-44-0	Fluoranthene		10	U
129-00-0	Pyrene		10	U
85-68-7	Butylbenzylphthalate		10	U
91-94-1	3,3'-Dichlorobenzidine		20	U
56-55-3	Benzo(a)anthracene		10	U
117-81-7	Bis(2-ethylhexyl)phthalate		10	U
218-01-9	Chrysene		10	U
117-84-0	Di-n-octyl phthalate		10	U
205-99-2	Benzo(b)fluoranthene		10	U
207-08-9	Benzo(k)fluoranthene		10	U
50-32-8	Benzo(a)pyrene		10	U
193-39-5	Indeno(1,2,3-cd)pyrene		10	U
53-70-3	Dibenz(a,h)anthracene		10	U
191-24-2	Benzo(g,h,i)perylene		10	U
103-33-3	Azobenzene		50	U

ACZ Laboratories, Inc.

SEMI-VOLATILES ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-02
Client Project No:	7004.4 Philips Semi	Lab File ID:	B9587
Sample ID:	NCLF-3	Date Received:	10/17/97
Matrix:	Water	Date Extracted:	10/20/97
Sample Date:	10/14/97	Date Analyzed:	10/23/97
Report Date:	10/27/97	Cleanup:	
		Dilution Factor:	1
Method ID:	SEMI-VOLATILES BY EPA 8270, GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q

Q FORMAT: "U" indicates compound was not detected
"J" indicates compound detected < MDL (Method Detection Limit)
"B" indicates compound was found in daily calibration blank

COMMENTS:

APPROVED: R. Martinez
Organic Laboratory Supervisor

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ACZ Laboratories, Inc

SEMI-VOLATILES ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16027-01
Client Project No:	7004.4 Philips Semi	Lab File ID:	B9605
Sample ID:	NCLF4	Date Received:	10/18/97
Matrix:	Water	Date Extracted:	10/22/97
Sample Date:	10/17/97	Date Analyzed:	10/24/97
Report Date:	10/27/97	Cleanup:	
		Dilution Factor:	1
Method ID:	SEMI-VOLATILES BY EPA 8270, GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
108-95-2	Phenol		10	U
111-44-4	bis-(2-Chloroethyl)ether		10	U
95-57-8	2-Chlorophenol		10	U
541-73-1	1,3-Dichlorobenzene		10	U
106-46-7	1,4-Dichlorobenzene		10	U
100-51-6	Benzyl Alcohol		10	U
95-50-1	1,2-Dichlorobenzene		10	U
95-48-7	2-Methylphenol		10	U
108-60-1	bis(2-Chloroisopropyl) ether		10	U
106-44-5	4-Methylphenol		10	U
621-64-7	N-Nitroso-di-n-propylamine		10	U
67-72-1	Hexachloroethane		10	U
98-95-3	Nitrobenzene		10	U
78-59-1	Isophorone		10	U
88-75-5	2-Nitrophenol		10	U
105-67-9	2,4-Dimethylphenol		50	U
65-85-0	Benzoic Acid		10	U
111-91-1	bis(2-Chloroethoxy)methane		10	U
120-83-2	2,4-Dichlorophenol		10	U
120-82-1	1,2,4-Trichlorobenzene		10	U
91-20-3	Naphthalene		10	U
106-47-8	4-Chloroaniline		10	U
87-68-3	Hexachlorobutadiene		10	U
59-50-7	4-Chloro-3-methylphenol		10	U
91-57-6	2-Methylnaphthalene		10	U
77-47-4	Hexachlorocylopentadiene		10	U
88-06-2	2,4,6-Trichlorophenol		10	U
95-95-4	2,4,5-Trichlorophenol		50	U
91-58-7	2-Chloronaphthalene		10	U
88-74-4	2-Nitroaniline		50	U
131-11-3	Dimethyl phthalate		10	U
208-96-8	Acenaphthylene		10	U
606-20-8	2,6-Dinitrotoluene		50	U

ACZ Laboratories, Inc.

SEMI-VOLATILES ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16027-01
Client Project No:	7004.4 Philips Semi	Lab File ID:	B9605
Sample ID:	NCLF4	Date Received:	10/18/97
Matrix:	Water	Date Extracted:	10/22/97
Sample Date:	10/17/97	Date Analyzed:	10/24/97
Report Date:	10/27/97	Cleanup:	
		Dilution Factor:	1
Method ID:	SEMI-VOLATILES BY EPA 8270, GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
99-09-2	3-Nitroaniline		50	U
62-75-9	N-nitrosodimethylamine		10	U
83-32-9	Acenaphthene		10	U
51-28-5	2,4-Dinitrophenol		50	U
100-02-07	4-Nitrophenol		50	U
132-64-9	Dibenzofuran		10	U
121-14-2	2,4-Dinitrotoluene		10	U
84-66-2	Diethylphthalate		10	U
7005-72-3	4-Chlorophenyl-phenylether		10	U
86-73-7	Fluorene		10	U
100-01-6	4-Nitroaniline		50	U
534-52-1	4,6-Dinitro-2-methylphenol		50	U
86-30-6	N-Nitrosodiphenylamine(1)		10	U
101-55-3	4-Bromophenyl-phenylether		10	U
118-74-1	Hexachlorobenzene		10	U
87-86-5	Pentachlorophenol		50	U
85-01-8	Phenanthrene		10	U
120-12-7	Anthracene		10	U
84-74-2	Di-n-butylphthalate		10	U
206-44-0	Fluoranthene		10	U
129-00-0	Pyrene		10	U
85-68-7	Butylbenzylphthalate		10	U
91-94-1	3,3'-Dichlorobenzidine		20	U
56-55-3	Benzo(a)anthracene		10	U
117-81-7	Bis(2-ethylhexyl)phthalate		10	U
218-01-9	Chrysene		10	U
117-84-0	Di-n-octyl phthalate		10	U
205-99-2	Benzo(b)fluoranthene		10	U
207-08-9	Benzo(k)fluoranthene		10	U
50-32-8	Benzo(a)pyrene		10	U
193-39-5	Indeno(1,2,3-cd)pyrene		10	U
53-70-3	Dibenz(a,h)anthracene		10	U
191-24-2	Benzo(g,h,i)perylene		10	U
103-33-3	Azobenzene		50	U

ACZ Laboratories, Inc.

SEMI-VOLATILES ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16027-01
Client Project No:	7004.4 Philips Semi	Lab File ID:	B9605
Sample ID:	NCLF4	Date Received:	10/18/97
Matrix:	Water	Date Extracted:	10/22/97
Sample Date:	10/17/97	Date Analyzed:	10/24/97
Report Date:	10/27/97	Cleanup:	
		Dilution Factor:	1
Method ID:	SEMI-VOLATILES BY EPA 8270, GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q

Q FORMAT: "U" indicates compound was not detected
"J" indicates compound detected < MDL (Method Detection Limit)
"B" indicates compound was found in daily calibration blank

COMMENTS:

APPROVED: R. Martinez
Organic Laboratory Supervisor

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FAX: (303) 879-2216

ACZ Laboratories, Inc

SEMI-VOLATILES ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16027-04
Client Project No:	7004.4 Philips Semi	Lab File ID:	B9605
Sample ID:	Equipment Blank	Date Received:	10/18/97
Matrix:	Water	Date Extracted:	10/22/97
Sample Date:	10/17/97	Date Analyzed:	10/24/97
Report Date:	10/27/97	Cleanup:	
		Dilution Factor:	1
Method ID:	SEMI-VOLATILES BY EPA 8270, GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
108-95-2	Phenol		10	U
111-44-4	bis-(2-Chloroethyl)ether		10	U
95-57-8	2-Chlorophenol		10	U
541-73-1	1,3-Dichlorobenzene		10	U
106-46-7	1,4-Dichlorobenzene		10	U
100-51-6	Benzyl Alcohol		10	U
95-50-1	1,2-Dichlorobenzene		10	U
95-48-7	2-Methylphenol		10	U
108-60-1	bis(2-Chloroisopropyl) ether		10	U
106-44-5	4-Methylphenol		10	U
621-64-7	N-Nitroso-di-n-propylamine		10	U
67-72-1	Hexachloroethane		10	U
98-95-3	Nitrobenzene		10	U
78-59-1	Isophorone		10	U
88-75-5	2-Nitrophenol		10	U
105-67-9	2,4-Dimethylphenol		50	U
65-85-0	Benzoic Acid		10	U
111-91-1	bis(2-Chloroethoxy)methane		10	U
120-83-2	2,4-Dichlorophenol		10	U
120-82-1	1,2,4-Trichlorobenzene		10	U
91-20-3	Naphthalene		10	U
106-47-8	4-Chloroaniline		10	U
87-68-3	Hexachlorobutadiene		10	U
59-50-7	4-Chloro-3-methylphenol		10	U
91-57-6	2-Methylnaphthalene		10	U
77-47-4	Hexachlorocylopentadiene		10	U
88-06-2	2,4,6-Trichlorophenol		10	U
95-95-4	2,4,5-Trichlorophenol		50	U
91-58-7	2-Chloronaphthalene		10	U
88-74-4	2-Nitroaniline		50	U
131-11-3	Dimethyl phthalate		10	U
208-96-8	Acenaphthylene		10	U
606-20-8	2,6-Dinitrotoluene		50	U

ACZ Laboratories, Inc.

SEMI-VOLATILES ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16027-04
Client Project No:	7004.4 Philips Semi	Lab File ID:	B9605
Sample ID:	Equipment Blank	Date Received:	10/18/97
Matrix:	Water	Date Extracted:	10/22/97
Sample Date:	10/17/97	Date Analyzed:	10/24/97
Report Date:	10/27/97	Cleanup:	
		Dilution Factor:	1
Method ID:	SEMI-VOLATILES BY EPA 8270, GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
99-09-2	3-Nitroaniline		50	U
62-75-9	N-nitrosodimethylamine		10	U
83-32-9	Acenaphthene		10	U
51-28-5	2,4-Dinitrophenol		50	U
100-02-07	4-Nitrophenol		50	U
132-64-9	Dibenzofuran		10	U
121-14-2	2,4-Dinitrotoluene		10	U
84-66-2	Diethylphthalate		10	U
7005-72-3	4-Chlorophenyl-phenylether		10	U
86-73-7	Fluorene		10	U
100-01-6	4-Nitroaniline		50	U
534-52-1	4,6-Dinitro-2-methylphenol		50	U
86-30-6	N-Nitrosodiphenylamine(1)		10	U
101-55-3	4-Bromophenyl-phenylether		10	U
118-74-1	Hexachlorobenzene		10	U
87-86-5	Pentachlorophenol		50	U
85-01-8	Phenanthrene		10	U
120-12-7	Anthracene		10	U
84-74-2	Di-n-butylphthalate		10	U
206-44-0	Fluoranthene		10	U
129-00-0	Pyrene		10	U
85-68-7	Butylbenzylphthalate		10	U
91-94-1	3,3'-Dichlorobenzidine		20	U
56-55-3	Benzo(a)anthracene		10	U
117-81-7	Bis(2-ethylhexyl)phthalate		10	U
218-01-9	Chrysene		10	U
117-84-0	Di-n-octyl phthalate		10	U
205-99-2	Benzo(b)fluoranthene		10	U
207-08-9	Benzo(k)fluoranthene		10	U
50-32-8	Benzo(a)pyrene		10	U
193-39-5	Indeno(1,2,3-cd)pyrene		10	U
53-70-3	Dibenz(a,h)anthracene		10	U
191-24-2	Benzo(g,h,i)perylene		10	U
103-33-3	Azobenzene		50	U

ACZ Laboratories, Inc.

SEMI-VOLATILES ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16027-04
Client Project No:	7004.4 Philips Semi	Lab File ID:	B9605
Sample ID:	Equipment Blank	Date Received:	10/18/97
Matrix:	Water	Date Extracted:	10/22/97
Sample Date:	10/17/97	Date Analyzed:	10/24/97
Report Date:	10/27/97	Cleanup:	
		Dilution Factor:	1
Method ID:	SEMI-VOLATILES BY EPA 8270, GC/MS	Concentration Units:	ug/L

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q

Q FORMAT: "U" indicates compound was not detected
"J" indicates compound detected < MDL (Method Detection Limit)
"B" indicates compound was found in daily calibration blank

COMMENTS:

APPROVED: R. Markus
Organic Laboratory Supervisor

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ACZ Laboratories, Inc

ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-06
Client Project No:	7004.4 Philips Semi	Lab File ID:	71024-35
Sample ID:	MW-1	Date Received:	10/17/97
Matrix:	Water	Date Extracted:	10/22/97
Sample Date:	10/15/97	Date Analyzed:	10/24/97
Report Date:	10/27/97	Dilution Factor:	1
Method ID:	Pest./PCBs by EPA 8080, GC/ECD	Concentration Units:	ug/Kg

CAS NO.	COMPOUND	CONCENTRATION	MDL Q
319-84-6	Alpha-BHC		0.05 U
319-85-7	Beta-BHC		0.05 U
319-86-8	Delta-BHC		0.05 U
58-89-9	Gamma-BHC(Lindane)		0.05 U
76-44-6	Heptachlor		0.05 U
309-00-2	Aldrin		0.05 U
1024-57-3	Heptachlor Epoxide		0.05 U
959-98-8	Endosulfan I		0.05 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
53494-70-5	Endrin Ketone		0.10 U
7421-93-4	Endrin Aldehyde		0.10 U
72-43-5	Methoxychlor		0.50 U
57-74-9	Chlordane		0.50 U
8001-35-2	Toxaphene		1.00 U
12674-11-2	Aroclor-1016		0.50 U
11104-28-2	Aroclor-1221		0.50 U
11141-16-5	Aroclor-1232		0.50 U
53469-21-9	Aroclor-1242		0.50 U
12672-29-6	Aroclor-1248		0.50 U
11097-69-1	Aroclor-1254		1.00 U
11096-82-5	Aroclor-1260		1.00 U

Q FORMAT:
"U" indicates compound was not detected
"J" indicates compound detected < MDL (Method Detection Limit)
"B" indicates compound was found in daily calibration blank

COMMENTS:

APPROVED:

Organic Laboratory Supervisor

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ACZ Laboratories, Inc

ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-05
Client Project No:	7004.4 Philips Semi	Lab File ID:	71024-34
Sample ID:	MW-2	Date Received:	10/17/97
Matrix:	Water	Date Extracted:	10/22/97
Sample Date:	10/15/97	Date Analyzed:	10/24/97
Report Date:	10/27/97	Dilution Factor:	1
Method ID:	Pest./PCBs by EPA 8080, GC/ECD	Concentration Units:	ug/Kg

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
319-84-6	Alpha-BHC		0.05	U
319-85-7	Beta-BHC		0.05	U
319-86-8	Delta-BHC		0.05	U
58-89-9	Gamma-BHC(Lindane)		0.05	U
76-44-6	Heptachlor		0.05	U
309-00-2	Aldrin		0.05	U
1024-57-3	Heptachlor Epoxide		0.05	U
959-98-8	Endosulfan I		0.05	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
53494-70-5	Endrin Ketone		0.10	U
7421-93-4	Endrin Aldehyde		0.10	U
72-43-5	Methoxychlor		0.50	U
57-74-9	Chlordane		0.50	U
8001-35-2	Toxaphene		1.00	U
12674-11-2	Aroclor-1016		0.50	U
11104-28-2	Aroclor-1221		0.50	U
11141-16-5	Aroclor-1232		0.50	U
53469-21-9	Aroclor-1242		0.50	U
12672-29-6	Aroclor-1248		0.50	U
11097-69-1	Aroclor-1254		1.00	U
11096-82-5	Aroclor-1260		1.00	U

Q FORMAT:
"U" indicates compound was not detected
"J" indicates compound detected < MDL (Method Detection Limit)
"B" indicates compound was found in daily calibration blank

COMMENTS:

APPROVED:

Organic Laboratory Supervisor

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ACZ Laboratories, Inc

ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-03
Client Project No:	7004.4 Philips Semi	Lab File ID:	71024-39
Sample ID:	MW-3	Date Received:	10/17/97
Matrix:	Water	Date Extracted:	10/21/97
Sample Date:	10/14/97	Date Analyzed:	10/24/97
Report Date:	10/27/97	Dilution Factor:	1
Method ID:	Pest./PCBs by EPA 8080, GC/ECD	Concentration Units:	ug/Kg

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
319-84-6	Alpha-BHC		0.05	U
319-85-7	Beta-BHC		0.05	U
319-86-8	Delta-BHC		0.05	U
58-89-9	Gamma-BHC(Lindane)		0.05	U
76-44-6	Heptachlor		0.05	U
309-00-2	Aldrin		0.05	U
1024-57-3	Heptachlor Epoxide		0.05	U
959-98-8	Endosulfan I		0.05	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
53494-70-5	Endrin Ketone		0.10	U
7421-93-4	Endrin Aldehyde		0.10	U
72-43-5	Methoxychlor		0.50	U
57-74-9	Chlordane		0.50	U
8001-35-2	Toxaphene		1.00	U
12674-11-2	Aroclor-1016		0.50	U
11104-28-2	Aroclor-1221		0.50	U
11141-16-5	Aroclor-1232		0.50	U
53469-21-9	Aroclor-1242		0.50	U
12672-29-6	Aroclor-1248		0.50	U
11097-69-1	Aroclor-1254		1.00	U
11096-82-5	Aroclor-1260		1.00	U

Q FORMAT:
"U" indicates compound was not detected
"J" indicates compound detected < MDL (Method Detection Limit)
"B" indicates compound was found in daily calibration blank

COMMENTS:

APPROVED:

Organic Laboratory Supervisor

ACZ Laboratories, Inc.
30400 Downhill Dr.
Steamboat Springs, CO 80487
(800) 334-5493
FAX: (303) 879-2216

ACZ Laboratories, Inc

ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-04
Client Project No:	7004.4 Philips Semi	Lab File ID:	71024-40
Sample ID:	MW-4	Date Received:	10/17/97
Matrix:	Water	Date Extracted:	10/21/97
Sample Date:	10/14/97	Date Analyzed:	10/24/97
Report Date:	10/27/97	Dilution Factor:	1
Method ID:	Pest./PCBs by EPA 8080, GC/ECD	Concentration Units:	ug/Kg

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
319-84-6	Alpha-BHC		0.05	U
319-85-7	Beta-BHC		0.05	U
319-86-8	Delta-BHC		0.05	U
58-89-9	Gamma-BHC(Lindane)		0.05	U
76-44-6	Heptachlor		0.05	U
309-00-2	Aldrin		0.05	U
1024-57-3	Heptachlor Epoxide		0.05	U
959-98-8	Endosulfan I		0.05	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
53494-70-5	Endrin Ketone		0.10	U
7421-93-4	Endrin Aldehyde		0.10	U
72-43-5	Methoxychlor		0.50	U
57-74-9	Chlordane		0.50	U
8001-35-2	Toxaphene		1.00	U
12674-11-2	Aroclor-1016		0.50	U
11104-28-2	Aroclor-1221		0.50	U
11141-16-5	Aroclor-1232		0.50	U
53469-21-9	Aroclor-1242		0.50	U
12672-29-6	Aroclor-1248		0.50	U
11097-69-1	Aroclor-1254		1.00	U
11096-82-5	Aroclor-1260		1.00	U

Q FORMAT: "U" indicates compound was not detected
"J" indicates compound detected < MDL (Method Detection Limit)
"B" indicates compound was found in daily calibration blank

COMMENTS:

APPROVED: Organic Laboratory Supervisor

ACZ Laboratories, Inc.
30400 Downhill Dr.
Steamboat Springs, CO 80487
(800) 334-5493
FAX: (303) 879-2216

ACZ Laboratories, Inc

ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-07
Client Project No:	7004.4 Philips Semi	Lab File ID:	71024-36
Sample ID:	MW-5	Date Received:	10/17/97
Matrix:	Water	Date Extracted:	10/22/97
Sample Date:	10/15/97	Date Analyzed:	10/24/97
Report Date:	10/27/97	Dilution Factor:	1
Method ID:	Pest./PCBs by EPA 8080, GC/ECD	Concentration Units:	ug/Kg

CAS NO.	COMPOUND	CONCENTRATION	MDL Q
319-84-6	Alpha-BHC		0.05 U
319-85-7	Beta-BHC		0.05 U
319-86-8	Delta-BHC		0.05 U
58-89-9	Gamma-BHC(Lindane)		0.05 U
76-44-6	Heptachlor		0.05 U
309-00-2	Aldrin		0.05 U
1024-57-3	Heptachlor Epoxide		0.05 U
959-98-8	Endosulfan I		0.05 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
53494-70-5	Endrin Ketone		0.10 U
7421-93-4	Endrin Aldehyde		0.10 U
72-43-5	Methoxychlor		0.50 U
57-74-9	Chlordane		0.50 U
8001-35-2	Toxaphene		1.00 U
12674-11-2	Aroclor-1016		0.50 U
11104-28-2	Aroclor-1221		0.50 U
11141-16-5	Aroclor-1232		0.50 U
53469-21-9	Aroclor-1242		0.50 U
12672-29-6	Aroclor-1248		0.50 U
11097-69-1	Aroclor-1254		1.00 U
11096-82-5	Aroclor-1260		1.00 U

Q FORMAT:
"U" indicates compound was not detected
"J" indicates compound detected < MDL (Method Detection Limit)
"B" indicates compound was found in daily calibration blank

COMMENTS:

APPROVED:

Organic Laboratory Supervisor

ACZ Laboratories, Inc.
30400 Downhill Dr.
Steamboat Springs, CO 80487

(800) 334-5493
FAX: (303) 879-2216

ACZ Laboratories, Inc

ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-01
Client Project No:	7004.4 Philips Semi	Lab File ID:	71024-37
Sample ID:	NCLF-2	Date Received:	10/17/97
Matrix:	Water	Date Extracted:	10/21/97
Sample Date:	10/14/97	Date Analyzed:	10/24/97
Report Date:	10/27/97	Dilution Factor:	1
Method ID:	Pest./PCBs by EPA 8080, GC/ECD	Concentration Units:	ug/Kg

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
319-84-6	Alpha-BHC		0.05	U
319-85-7	Beta-BHC		0.05	U
319-86-8	Delta-BHC		0.05	U
58-89-9	Gamma-BHC(Lindane)		0.05	U
76-44-6	Heptachlor		0.05	U
309-00-2	Aldrin		0.05	U
1024-57-3	Heptachlor Epoxide		0.05	U
959-98-8	Endosulfan I		0.05	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
53494-70-5	Endrin Ketone		0.10	U
7421-93-4	Endrin Aldehyde		0.10	U
72-43-5	Methoxychlor		0.50	U
57-74-9	Chlordane		0.50	U
8001-35-2	Toxaphene		1.00	U
12674-11-2	Aroclor-1016		0.50	U
11104-28-2	Aroclor-1221		0.50	U
11141-16-5	Aroclor-1232		0.50	U
53469-21-9	Aroclor-1242		0.50	U
12672-29-6	Aroclor-1248		0.50	U
11097-69-1	Aroclor-1254		1.00	U
11096-82-5	Aroclor-1260		1.00	U

Q FORMAT:
"U" indicates compound was not detected
"J" indicates compound detected < MDL (Method Detection Limit)
"B" indicates compound was found in daily calibration blank

COMMENTS:

APPROVED:

Organic Laboratory Supervisor

ACZ Laboratories, Inc.
30400 Downhill Dr.
Steamboat Springs, CO 80487
(800) 334-5493
FAX: (303) 879-2216

ACZ Laboratories, Inc

ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16013-02
Client Project No:	7004.4 Philips Semi	Lab File ID:	71024-38
Sample ID:	NCLF-3	Date Received:	10/17/97
Matrix:	Water	Date Extracted:	10/21/97
Sample Date:	10/14/97	Date Analyzed:	10/24/97
Report Date:	10/27/97	Dilution Factor:	1
Method ID:	Pest./PCBs by EPA 8080, GC/ECD	Concentration Units:	ug/Kg

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
319-84-6	Alpha-BHC		0.05	U
319-85-7	Beta-BHC		0.05	U
319-86-8	Delta-BHC		0.05	U
58-89-9	Gamma-BHC(Lindane)		0.05	U
76-44-6	Heptachlor		0.05	U
309-00-2	Aldrin		0.05	U
1024-57-3	Heptachlor Epoxide		0.05	U
959-98-8	Endosulfan I		0.05	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
53494-70-5	Endrin Ketone		0.10	U
7421-93-4	Endrin Aldehyde		0.10	U
72-43-5	Methoxychlor		0.50	U
57-74-9	Chlordane		0.50	U
8001-35-2	Toxaphene		1.00	U
12674-11-2	Aroclor-1016		0.50	U
11104-28-2	Aroclor-1221		0.50	U
11141-16-5	Aroclor-1232		0.50	U
53469-21-9	Aroclor-1242		0.50	U
12672-29-6	Aroclor-1248		0.50	U
11097-69-1	Aroclor-1254		1.00	U
11096-82-5	Aroclor-1260		1.00	U

Q FORMAT:
"U" indicates compound was not detected
"J" indicates compound detected < MDL (Method Detection Limit)
"B" indicates compound was found in daily calibration blank

COMMENTS:

APPROVED: R Watkins
Organic Laboratory Supervisor

ACZ Laboratories, Inc.
30400 Downhill Dr.
Steamboat Springs, CO 80487
(800) 334-5493
FAX: (303) 879-2216

ACZ Laboratories, Inc

ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16027-01
Client Project No:	7004.4 Philips Semi	Lab File ID:	71024-28
Sample ID:	NCLF4	Date Received:	10/18/97
Matrix:	Water	Date Extracted:	10/23/97
Sample Date:	10/17/97	Date Analyzed:	10/24/97
Report Date:	10/27/97	Dilution Factor:	1
Method ID:	Pest./PCBs by EPA 8080, GC/ECD	Concentration Units:	ug/Kg

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
319-84-6	Alpha-BHC		0.05	U
319-85-7	Beta-BHC		0.05	U
319-86-8	Delta-BHC		0.05	U
58-89-9	Gamma-BHC(Lindane)		0.05	U
76-44-6	Heptachlor		0.05	U
309-00-2	Aldrin		0.05	U
1024-57-3	Heptachlor Epoxide		0.05	U
959-98-8	Endosulfan I		0.05	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
53494-70-5	Endrin Ketone		0.10	U
7421-93-4	Endrin Aldehyde		0.10	U
72-43-5	Methoxychlor		0.50	U
57-74-9	Chlordane		0.50	U
8001-35-2	Toxaphene		1.00	U
12674-11-2	Aroclor-1016		0.50	U
11104-28-2	Aroclor-1221		0.50	U
11141-16-5	Aroclor-1232		0.50	U
53469-21-9	Aroclor-1242		0.50	U
12672-29-6	Aroclor-1248		0.50	U
11097-69-1	Aroclor-1254		1.00	U
11096-82-5	Aroclor-1260		1.00	U

Q FORMAT:
"U" indicates compound was not detected
"J" indicates compound detected < MDL (Method Detection Limit)
"B" indicates compound was found in daily calibration blank

COMMENTS:

APPROVED: R Martinez
Organic Laboratory Supervisor

ACZ Laboratories, Inc.
30400 Downhill Dr.
Steamboat Springs, CO 80487
(800) 334-5493
FAX: (303) 879-2216

ACZ Laboratories, Inc

ORGANICS ANALYSIS REPORT

Client:	Daniel B. Stephens & Associates	Lab Sample ID:	L16027-04
Client Project No:	7004.4 Philips Semi	Lab File ID:	71024-33
Sample ID:	Equipment Blank	Date Received:	10/18/97
Matrix:	Water	Date Extracted:	10/23/97
Sample Date:	10/17/97	Date Analyzed:	10/24/97
Report Date:	10/27/97	Dilution Factor:	1
Method ID:	Pest./PCBs by EPA 8080, GC/ECD	Concentration Units:	ug/Kg

CAS NO.	COMPOUND	CONCENTRATION	MDL	Q
319-84-6	Alpha-BHC		0.05	U
319-85-7	Beta-BHC		0.05	U
319-86-8	Delta-BHC		0.05	U
58-89-9	Gamma-BHC(Lindane)		0.05	U
76-44-6	Heptachlor		0.05	U
309-00-2	Aldrin		0.05	U
1024-57-3	Heptachlor Epoxide		0.05	U
959-98-8	Endosulfan I		0.05	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
53494-70-5	Endrin Ketone		0.10	U
7421-93-4	Endrin Aldehyde		0.10	U
72-43-5	Methoxychlor		0.50	U
57-74-9	Chlordane		0.50	U
8001-35-2	Toxaphene		1.00	U
12674-11-2	Aroclor-1016		0.50	U
11104-28-2	Aroclor-1221		0.50	U
11141-16-5	Aroclor-1232		0.50	U
53469-21-9	Aroclor-1242		0.50	U
12672-29-6	Aroclor-1248		0.50	U
11097-69-1	Aroclor-1254		1.00	U
11096-82-5	Aroclor-1260		1.00	U

Q FORMAT:
"U" indicates compound was not detected
"J" indicates compound detected < MDL (Method Detection Limit)
"B" indicates compound was found in daily calibration blank

COMMENTS:

APPROVED:

Organic Laboratory Supervisor

ACZ Laboratories, Inc.
30400 Downhill Dr.
Steamboat Springs, CO 80487
(800) 334-5493
FAX: (303) 879-2216

ACZ

Analytical Results

ACZ Laboratories, Inc.
30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493

Lab Sample ID: ***L16013-06***
Client Sample ID: *MW-1*
Client Project ID: *7004.4, Philips Semi*
ACZ Report ID: *RG56092*

Daniel B. Stephens & Associates
6020 Academy NE Suite 100
Albuquerque, NM 87109
Richard Meixner

Date Sampled: *10/15/97 14:45*
Date Received: *10/17/97*
Date Reported: *11/10/97*

Sample Matrix: *Ground Water*

Metals Analysis

Parameter	EPA Method	Result	Qual	Units	MDL	PQL	Date	Analyst
Antimony, total	M6020 ICP-MS		U	mg/L	0.0004	0.002	10/28/97	fep
Arsenic, total	M6020 ICP-MS		U	mg/L	0.002	0.01	10/28/97	fep
Barium, total	M6010 ICP	0.159		mg/L	0.003	0.01	10/23/97	kr
Beryllium, total	M6010 ICP		U	mg/L	0.002	0.01	10/23/97	kr
Cadmium, total	M6010 ICP		U	mg/L	0.003	0.02	10/23/97	kr
Chromium, total	M6010 ICP		U	mg/L	0.01	0.06	10/23/97	kr
Cobalt, total	M6010 ICP		U	mg/L	0.01	0.06	10/23/97	kr
Copper, total	M6010 ICP		U	mg/L	0.01	0.06	10/23/97	kr
Lead, total	M6020 ICP-MS		U	mg/L	0.0004	0.002	10/28/97	fep
Mercury, total	M7470 CVAA		U	mg/L	0.0002	0.001	10/22/97	bg
Nickel, total	M6010 ICP		U	mg/L	0.01	0.06	10/23/97	kr
Selenium, total	SM 3500-Se C, AA-Hydride		U	mg/L	0.001	0.005	10/31/97	bg
Silver, total	M6010 ICP		U	mg/L	0.006	0.03	10/23/97	kr
Thallium, total	M6020 ICP-MS		U	mg/L	0.0002	0.001	10/28/97	fep
Tin, total	M6010 ICP		U	mg/L	0.1	0.6	11/10/97	crr
Vanadium, total	M6010 ICP		U	mg/L	0.006	0.03	10/23/97	kr
Zinc, total	M6010 ICP	0.01	B	mg/L	0.01	0.06	10/23/97	kr

Metals Prep

Parameter	EPA Method	Result	Qual	Units	MDL	PQL	Date	Analyst
Total Digestion	M3015 ICP						10/22/97	laa
Total Digestion	M3015 ICP-MS						10/23/97	laa

Inorganic Qualifiers (based on EPA CLP 3/90)

U = Analyte was analyzed for but not detected at the indicated MDL

B = Analyte concentration detected at a value between MDL and PQL

PQL = Practical Quantitation Limit

R V Poulsen

Vice President of Operations: Ralph Poulsen

ACZ

Analytical Results

ACZ Laboratories, Inc.
30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493

Lab Sample ID: ***L16013-05***
Client Sample ID: *MW-2*
Client Project ID: *7004.4, Philips Semi*
ACZ Report ID: *RG56091*

Daniel B. Stephens & Associates
6020 Academy NE Suite 100
Albuquerque, NM 87109
Richard Meixner

Date Sampled: *10/15/97 10:45*
Date Received: *10/17/97*
Date Reported: *11/10/97*

Sample Matrix: *Ground Water*

Metals Analysis

Parameter	EPA Method	Result	Qual	Units	MDL	PQL	Date	Analyst
Antimony, total	M6020 ICP-MS		U	mg/L	0.0004	0.002	10/28/97	fep
Arsenic, total	M6020 ICP-MS	0.002	B	mg/L	0.002	0.01	10/28/97	fep
Barium, total	M6010 ICP	0.098		mg/L	0.003	0.01	10/23/97	kr
Beryllium, total	M6010 ICP		U	mg/L	0.002	0.01	10/23/97	kr
Cadmium, total	M6010 ICP		U	mg/L	0.003	0.02	10/23/97	kr
Chromium, total	M6010 ICP		U	mg/L	0.01	0.06	10/23/97	kr
Cobalt, total	M6010 ICP		U	mg/L	0.01	0.06	10/23/97	kr
Copper, total	M6010 ICP		U	mg/L	0.01	0.06	10/23/97	kr
Lead, total	M6020 ICP-MS		U	mg/L	0.0004	0.002	10/28/97	fep
Mercury, total	M7470 CVAA		U	mg/L	0.0002	0.001	10/22/97	bg
Nickel, total	M6010 ICP		U	mg/L	0.01	0.06	10/23/97	kr
Selenium, total	SM 3500-Se C, AA-Hydride		U	mg/L	0.001	0.005	10/31/97	bg
Silver, total	M6010 ICP		U	mg/L	0.006	0.03	10/23/97	kr
Thallium, total	M6020 ICP-MS		U	mg/L	0.0002	0.001	10/28/97	fep
Tin, total	M6010 ICP		U	mg/L	0.1	0.6	11/10/97	crr
Vanadium, total	M6010 ICP		U	mg/L	0.006	0.03	10/23/97	kr
Zinc, total	M6010 ICP	0.01	B	mg/L	0.01	0.06	10/23/97	kr

Metals Prep

Parameter	EPA Method	Result	Qual	Units	MDL	PQL	Date	Analyst
Total Digestion	M3015 ICP						10/22/97	laa
Total Digestion	M3015 ICP-MS						10/23/97	laa

Inorganic Qualifiers (based on EPA CLP 3/90)

U = Analyte was analyzed for but not detected at the indicated MDL

B = Analyte concentration detected at a value between MDL and PQL

PQL = Practical Quantitation Limit

RV Poulsen

Vice President of Operations: Ralph Poulsen

ACZ

Analytical Results

ACZ Laboratories, Inc.
30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493

Lab Sample ID: ***L16013-03***
Client Sample ID: *MW-3*
Client Project ID: *7004.4, Philips Semi*
ACZ Report ID: *RG56089*

Daniel B. Stephens & Associates
6020 Academy NE Suite 100
Albuquerque, NM 87109
Richard Meixner

Date Sampled: *10/14/97 14:30*
Date Received: *10/17/97*
Date Reported: *11/10/97*

Sample Matrix: *Ground Water*

Metals Analysis

Parameter	EPA Method	Result	Qual	Units	MDL	PQL	Date	Analyst
Antimony, total	M6020 ICP-MS		U	mg/L	0.0004	0.002	10/22/97	fep
Arsenic, total	M6020 ICP-MS	0.002	B	mg/L	0.002	0.01	10/24/97	fep
Barium, total	M6010 ICP	0.050		mg/L	0.003	0.01	10/29/97	kr
Beryllium, total	M6010 ICP		U	mg/L	0.002	0.01	10/29/97	kr
Cadmium, total	M6010 ICP		U	mg/L	0.003	0.02	10/29/97	kr
Chromium, total	M6010 ICP	0.01	B	mg/L	0.01	0.06	10/29/97	kr
Cobalt, total	M6010 ICP		U	mg/L	0.01	0.06	10/29/97	kr
Copper, total	M6010 ICP		U	mg/L	0.01	0.06	10/29/97	kr
Lead, total	M6020 ICP-MS		U	mg/L	0.0004	0.002	10/22/97	fep
Mercury, total	M7470 CVAA		U	mg/L	0.0002	0.001	10/22/97	bg
Nickel, total	M6010 ICP	0.01	B	mg/L	0.01	0.06	10/29/97	kr
Selenium, total	SM 3500-Se C, AA-Hydride		U	mg/L	0.001	0.005	10/31/97	bg
Silver, total	M6010 ICP		U	mg/L	0.006	0.03	10/29/97	kr
Thallium, total	M6020 ICP-MS		U	mg/L	0.0002	0.001	10/22/97	fep
Tin, total	M6010 ICP		U	mg/L	0.1	0.6	11/10/97	crr
Vanadium, total	M6010 ICP	0.006	B	mg/L	0.006	0.03	10/29/97	kr
Zinc, total	M6010 ICP	0.01	B	mg/L	0.01	0.06	10/29/97	kr

Metals Prep

Parameter	EPA Method	Result	Qual	Units	MDL	PQL	Date	Analyst
Total Digestion	M3015 ICP						10/21/97	rd
Total Digestion	M3015 ICP-MS						10/23/97	laa

Inorganic Qualifiers (based on EPA CLP 3/90)

U = Analyte was analyzed for but not detected at the indicated MDL

B = Analyte concentration detected at a value between MDL and PQL

PQL = Practical Quantitation Limit

RVPoulsen

Vice President of Operations: Ralph Poulsen

ACZ

Analytical Results

ACZ Laboratories, Inc.
30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493

Lab Sample ID: ***L16013-04***
Client Sample ID: *MW-4*
Client Project ID: *7004.4, Philips Semi*
ACZ Report ID: *RG56090*

Daniel B. Stephens & Associates
6020 Academy NE Suite 100
Albuquerque, NM 87109
Richard Meixner

Date Sampled: *10/14/97 17:40*
Date Received: *10/17/97*
Date Reported: *11/10/97*

Sample Matrix: *Ground Water*

Metals Analysis

Parameter	EPA Method	Result	Qual	Units	MDL	PQL	Date	Analyst
Antimony, total	M6020 ICP-MS		U	mg/L	0.0004	0.002	10/28/97	fep
Arsenic, total	M6020 ICP-MS		U	mg/L	0.002	0.01	10/28/97	fep
Barium, total	M6010 ICP	0.136		mg/L	0.003	0.01	10/23/97	kr
Beryllium, total	M6010 ICP		U	mg/L	0.002	0.01	10/23/97	kr
Cadmium, total	M6010 ICP		U	mg/L	0.003	0.02	10/23/97	kr
Chromium, total	M6010 ICP		U	mg/L	0.01	0.06	10/23/97	kr
Cobalt, total	M6010 ICP		U	mg/L	0.01	0.06	10/23/97	kr
Copper, total	M6010 ICP		U	mg/L	0.01	0.06	10/23/97	kr
Lead, total	M6020 ICP-MS		U	mg/L	0.0004	0.002	10/28/97	fep
Mercury, total	M7470 CVAA		U	mg/L	0.0002	0.001	10/22/97	bg
Nickel, total	M6010 ICP		U	mg/L	0.01	0.06	10/23/97	kr
Selenium, total	SM 3500-Se C, AA-Hydride		U	mg/L	0.001	0.005	10/31/97	bg
Silver, total	M6010 ICP		U	mg/L	0.006	0.03	10/23/97	kr
Thallium, total	M6020 ICP-MS		U	mg/L	0.0002	0.001	10/28/97	fep
Tin, total	M6010 ICP		U	mg/L	0.1	0.6	11/10/97	crr
Vanadium, total	M6010 ICP		U	mg/L	0.006	0.03	10/23/97	kr
Zinc, total	M6010 ICP	0.01	B	mg/L	0.01	0.06	10/23/97	kr

Metals Prep

Parameter	EPA Method	Result	Qual	Units	MDL	PQL	Date	Analyst
Total Digestion	M3015 ICP						10/22/97	laa
Total Digestion	M3015 ICP-MS						10/23/97	laa

Inorganic Qualifiers (based on EPA CLP 3/90)

U = Analyte was analyzed for but not detected at the indicated MDL

B = Analyte concentration detected at a value between MDL and PQL

PQL = Practical Quantitation Limit

RV Poulsen

Vice President of Operations: Ralph Poulsen

ACZ

Analytical Results

ACZ Laboratories, Inc.
30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493

Lab Sample ID: ***L16013-07***
Client Sample ID: *MW-5*
Client Project ID: *7004.4, Philips Semi*
ACZ Report ID: *RG56093*

Daniel B. Stephens & Associates
6020 Academy NE Suite 100
Albuquerque, NM 87109
Richard Meixner

Date Sampled: *10/15/97 16:00*
Date Received: *10/17/97*
Date Reported: *11/10/97*

Sample Matrix: *Ground Water*

Metals Analysis

Parameter	EPA Method	Result	Qual	Units	MDL	PQL	Date	Analyst
Antimony, total	M6020 ICP-MS		U	mg/L	0.002	0.01	11/4/97	fep
Arsenic, total	M6020 ICP-MS	0.01	B	mg/L	0.01	0.06	11/4/97	fep
Barium, total	M6010 ICP	0.161		mg/L	0.003	0.01	10/23/97	kr
Beryllium, total	M6010 ICP		U	mg/L	0.002	0.01	10/23/97	kr
Cadmium, total	M6010 ICP		U	mg/L	0.003	0.02	10/23/97	kr
Chromium, total	M6010 ICP	0.01	B	mg/L	0.01	0.06	10/23/97	kr
Cobalt, total	M6010 ICP		U	mg/L	0.01	0.06	10/23/97	kr
Copper, total	M6010 ICP		U	mg/L	0.01	0.06	10/23/97	kr
Lead, total	M6020 ICP-MS		U	mg/L	0.002	0.01	11/4/97	fep
Mercury, total	M7470 CVAA		U	mg/L	0.0002	0.001	10/22/97	bg
Nickel, total	M6010 ICP		U	mg/L	0.01	0.06	10/23/97	kr
Selenium, total	SM 3500-Se C, AA-Hydride		U	mg/L	0.001	0.005	10/31/97	bg
Silver, total	M6010 ICP		U	mg/L	0.006	0.03	10/23/97	kr
Thallium, total	M6020 ICP-MS	0.001	B	mg/L	0.001	0.006	11/4/97	fep
Tin, total	M6010 ICP		U	mg/L	0.1	0.6	11/10/97	crr
Vanadium, total	M6010 ICP		U	mg/L	0.006	0.03	10/23/97	kr
Zinc, total	M6010 ICP	0.02	B	mg/L	0.01	0.06	10/23/97	kr

Metals Prep

Parameter	EPA Method	Result	Qual	Units	MDL	PQL	Date	Analyst
Total Digestion	M3015 ICP						10/22/97	laa
Total Digestion	M3015 ICP-MS						11/3/97	laa

Inorganic Qualifiers (based on EPA CLP 3/90)

U = Analyte was analyzed for but not detected at the indicated MDL

B = Analyte concentration detected at a value between MDL and PQL

PQL = Practical Quantitation Limit

RV Poulsen

Vice President of Operations: Ralph Poulsen

ACZ

Analytical Results

ACZ Laboratories, Inc.
30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493

Lab Sample ID: ***L16013-01***
Client Sample ID: *NCLF-2*
Client Project ID: *7004.4, Philips Semi*
ACZ Report ID: *RG56087*

Daniel B. Stephens & Associates
6020 Academy NE Suite 100
Albuquerque, NM 87109
Richard Meixner

Date Sampled: *10/14/97 11:25*
Date Received: *10/17/97*
Date Reported: *11/10/97*

Sample Matrix: *Ground Water*

Metals Analysis

Parameter	EPA Method	Result	Qual	Units	MDL	PQL	Date	Analyst
Antimony, total	M6020 ICP-MS		U	mg/L	0.0004	0.002	10/22/97	fep
Arsenic, total	M6020 ICP-MS	0.002	B	mg/L	0.002	0.01	10/24/97	fep
Barium, total	M6010 ICP	0.087		mg/L	0.003	0.01	10/29/97	kr
Beryllium, total	M6010 ICP		U	mg/L	0.002	0.01	10/29/97	kr
Cadmium, total	M6010 ICP	0.003	B	mg/L	0.003	0.02	10/29/97	kr
Chromium, total	M6010 ICP		U	mg/L	0.01	0.06	10/29/97	kr
Cobalt, total	M6010 ICP		U	mg/L	0.01	0.06	10/29/97	kr
Copper, total	M6010 ICP		U	mg/L	0.01	0.06	10/29/97	kr
Lead, total	M6020 ICP-MS		U	mg/L	0.0004	0.002	10/22/97	fep
Mercury, total	M7470 CVAA		U	mg/L	0.0002	0.001	10/22/97	bg
Nickel, total	M6010 ICP		U	mg/L	0.01	0.06	10/29/97	kr
Selenium, total	SM 3500-Se C, AA-Hydride		U	mg/L	0.001	0.005	10/31/97	bg
Silver, total	M6010 ICP		U	mg/L	0.006	0.03	10/29/97	kr
Thallium, total	M6020 ICP-MS		U	mg/L	0.0002	0.001	10/22/97	fep
Tin, total	M6010 ICP		U	mg/L	0.1	0.6	11/10/97	crr
Vanadium, total	M6010 ICP		U	mg/L	0.006	0.03	10/29/97	kr
Zinc, total	M6010 ICP	0.02	B	mg/L	0.01	0.06	10/29/97	kr

Metals Prep

Parameter	EPA Method	Result	Qual	Units	MDL	PQL	Date	Analyst
Total Digestion	M3015 ICP						10/21/97	rd
Total Digestion	M3015 ICP-MS						10/23/97	laa

Inorganic Qualifiers (based on EPA CLP 3/90)

U = Analyte was analyzed for but not detected at the indicated MDL

B = Analyte concentration detected at a value between MDL and PQL

PQL = Practical Quantitation Limit

RV Poulsen

Vice President of Operations: Ralph Poulsen

ACZ

Analytical Results

ACZ Laboratories, Inc.
30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493

Lab Sample ID: ***L16013-02***
Client Sample ID: *NCLF-3*
Client Project ID: *7004.4, Philips Semi*
ACZ Report ID: *RG56088*

Daniel B. Stephens & Associates
6020 Academy NE Suite 100
Albuquerque, NM 87109
Richard Meixner

Date Sampled: *10/14/97 13:25*
Date Received: *10/17/97*
Date Reported: *11/10/97*

Sample Matrix: *Ground Water*

Metals Analysis

Parameter	EPA Method	Result	Qual	Units	MDL	PQL	Date	Analyst
Antimony, total	M6020 ICP-MS		U	mg/L	0.0004	0.002	10/22/97	fep
Arsenic, total	M6020 ICP-MS	0.002	B	mg/L	0.002	0.01	10/24/97	fep
Barium, total	M6010 ICP	0.118		mg/L	0.003	0.01	10/29/97	kr
Beryllium, total	M6010 ICP		U	mg/L	0.002	0.01	10/29/97	kr
Cadmium, total	M6010 ICP	0.004	B	mg/L	0.003	0.02	10/29/97	kr
Chromium, total	M6010 ICP		U	mg/L	0.01	0.06	10/29/97	kr
Cobalt, total	M6010 ICP		U	mg/L	0.01	0.06	10/29/97	kr
Copper, total	M6010 ICP		U	mg/L	0.01	0.06	10/29/97	kr
Lead, total	M6020 ICP-MS		U	mg/L	0.0004	0.002	10/22/97	fep
Mercury, total	M7470 CVAA		U	mg/L	0.0002	0.001	10/22/97	bg
Nickel, total	M6010 ICP		U	mg/L	0.01	0.06	10/29/97	kr
Selenium, total	SM 3500-Se C, AA-Hydride	0.001	B	mg/L	0.001	0.005	10/31/97	bg
Silver, total	M6010 ICP		U	mg/L	0.006	0.03	10/29/97	kr
Thallium, total	M6020 ICP-MS		U	mg/L	0.0002	0.001	10/22/97	fep
Tin, total	M6010 ICP		U	mg/L	0.1	0.6	11/10/97	crr
Vanadium, total	M6010 ICP		U	mg/L	0.006	0.03	10/29/97	kr
Zinc, total	M6010 ICP	0.02	B	mg/L	0.01	0.06	10/29/97	kr

Metals Prep

Parameter	EPA Method	Result	Qual	Units	MDL	PQL	Date	Analyst
Total Digestion	M3015 ICP						10/21/97	rd
Total Digestion	M3015 ICP-MS						10/23/97	laa

Inorganic Qualifiers (based on EPA CLP 3/90)

U = Analyte was analyzed for but not detected at the indicated MDL

B = Analyte concentration detected at a value between MDL and PQL

PQL = Practical Quantitation Limit

R V Poulsen

Vice President of Operations: Ralph Poulsen

ACZ

Analytical Results

ACZ Laboratories, Inc.
30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493

Lab Sample ID: ***L16027-01***
Client Sample ID: *NCLF4*
Client Project ID: *7004.4 Philips Semi*
ACZ Report ID: *RG56051*

Daniel B. Stephens & Associates
6020 Academy NE Suite 100
Albuquerque, NM 87109
Richard Meixner

Date Sampled: *10/17/97 13:15*
Date Received: *10/18/97*
Date Reported: *11/17/97*

Sample Matrix: *Ground Water*

Metals Analysis

Parameter	EPA Method	Result	Qual	Units	MDL	PQL	Date	Analyst
Antimony, total	M6020 ICP-MS		U	mg/L	0.001	0.006	11/5/97	fep
Arsenic, total	M6020 ICP-MS	0.007	B	mg/L	0.006	0.03	11/5/97	fep
Barium, total	M6010 ICP	0.039		mg/L	0.003	0.01	10/23/97	kr
Beryllium, total	M6010 ICP		U	mg/L	0.002	0.01	10/23/97	kr
Cadmium, total	M6010 ICP		U	mg/L	0.003	0.02	10/23/97	kr
Chromium, total	M6010 ICP	0.01	B	mg/L	0.01	0.06	10/23/97	kr
Cobalt, total	M6010 ICP		U	mg/L	0.01	0.06	10/23/97	kr
Copper, total	M6010 ICP	0.01	B	mg/L	0.01	0.06	10/23/97	kr
Lead, total	M6020 ICP-MS	0.001	B	mg/L	0.001	0.006	11/5/97	fep
Mercury, total	M7470 CVAA		U	mg/L	0.0002	0.001	10/22/97	bg
Nickel, total	M6010 ICP		U	mg/L	0.01	0.06	10/23/97	kr
Selenium, total	SM 3500-Se C, AA-Hydride	0.016		mg/L	0.001	0.005	11/6/97	bg
Silver, total	M6010 ICP		U	mg/L	0.006	0.03	10/23/97	kr
Thallium, total	M6020 ICP-MS		U	mg/L	0.0006	0.003	11/6/97	fep
Tin, total	M6010 ICP		U	mg/L	0.1	0.6	11/10/97	crr
Vanadium, total	M6010 ICP		U	mg/L	0.006	0.03	10/23/97	kr
Zinc, total	M6010 ICP	0.03	B	mg/L	0.01	0.06	10/23/97	kr

Metals Prep

Parameter	EPA Method	Result	Qual	Units	MDL	PQL	Date	Analyst
Total Digestion	M3015 ICP						10/22/97	laa
Total Digestion	M3015 ICP-MS						11/4/97	laa

Inorganic Qualifiers (based on EPA CLP 3/90)

U = Analyte was analyzed for but not detected at the indicated MDL

B = Analyte concentration detected at a value between MDL and PQL

PQL = Practical Quantitation Limit

RV Poulsen

Vice President of Operations: Ralph Poulsen

ACZ

Analytical Results

ACZ Laboratories, Inc.
30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493

Lab Sample ID: ***L16027-02***
Client Sample ID: *NCLF4-Matrix Spike*
Client Project ID: *7004.4 Philips Semi*
ACZ Report ID: *RG56052*

Daniel B. Stephens & Associates
6020 Academy NE Suite 100
Albuquerque, NM 87109
Richard Meixner

Date Sampled: *10/17/97 13:15*
Date Received: *10/18/97*
Date Reported: *11/17/97*

Sample Matrix: *Ground Water*

Metals Analysis

Parameter	EPA Method	Result	Qual	Units	MDL	PQL	Date	Analyst
Antimony, total	M6020 ICP-MS	1.030		mg/L	0.002	0.01	11/15/97	lcj
Arsenic, total	M6020 ICP-MS	0.48		mg/L	0.01	0.05	11/15/97	lcj
Barium, total	M6010 ICP	0.500		mg/L	0.003	0.01	11/11/97	kr
Beryllium, total	M6010 ICP	0.442		mg/L	0.002	0.01	11/11/97	kr
Cadmium, total	M6010 ICP	0.489		mg/L	0.003	0.02	11/12/97	kr
Chromium, total	M6010 ICP	0.47		mg/L	0.01	0.05	11/11/97	kr
Cobalt, total	M6010 ICP	0.46		mg/L	0.01	0.05	11/11/97	kr
Copper, total	M6010 ICP	0.48		mg/L	0.01	0.05	11/11/97	kr
Lead, total	M6020 ICP-MS	0.480		mg/L	0.002	0.01	11/15/97	lcj
Mercury, total	M7470 CVAA	0.0051		mg/L	0.0002	0.001	11/13/97	bg
Nickel, total	M6010 ICP	0.47		mg/L	0.01	0.05	11/11/97	kr
Selenium, total	SM 3500-Se C, AA-Hydride	0.032		mg/L	0.001	0.005	11/11/97	bg
Silver, total	M6010 ICP	0.140		mg/L	0.005	0.03	11/11/97	kr
Thallium, total	M6020 ICP-MS	0.238		mg/L	0.001	0.005	11/15/97	lcj
Tin, total	M6010 ICP	1.0		mg/L	0.1	0.5	11/12/97	crr
Vanadium, total	M6010 ICP	0.472		mg/L	0.005	0.03	11/11/97	kr
Zinc, total	M6010 ICP	0.52		mg/L	0.01	0.05	11/11/97	kr

Metals Prep

Parameter	EPA Method	Result	Qual	Units	MDL	PQL	Date	Analyst
Total Digestion	M3015 ICP						11/11/97	cj
Total Digestion	M3015 ICP-MS						11/11/97	cj

Inorganic Qualifiers (based on EPA CLP 3/90)

U = Analyte was analyzed for but not detected at the indicated MDL

B = Analyte concentration detected at a value between MDL and PQL

PQL = Practical Quantitation Limit

RVPoulsen

Vice President of Operations: Ralph Poulsen

ACZ

Analytical Results

ACZ Laboratories, Inc.
30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493

Lab Sample ID: ***L16027-03***
Client Sample ID: *NCLF4-MS Duplicate*
Client Project ID: *7004.4 Philips Semi*
ACZ Report ID: *RG56053*

Daniel B. Stephens & Associates
6020 Academy NE Suite 100
Albuquerque, NM 87109
Richard Meixner

Date Sampled: *10/17/97 13:15*
Date Received: *10/18/97*
Date Reported: *11/17/97*

Sample Matrix: *Ground Water*

Metals Analysis

Parameter	EPA Method	Result	Qual	Units	MDL	PQL	Date	Analyst
Antimony, total	M6020 ICP-MS	1.060		mg/L	0.002	0.01	11/15/97	lcj
Arsenic, total	M6020 ICP-MS	0.49		mg/L	0.01	0.05	11/15/97	lcj
Barium, total	M6010 ICP	0.513		mg/L	0.003	0.01	11/11/97	kr
Beryllium, total	M6010 ICP	0.452		mg/L	0.002	0.01	11/11/97	kr
Cadmium, total	M6010 ICP	0.495		mg/L	0.003	0.02	11/12/97	kr
Chromium, total	M6010 ICP	0.48		mg/L	0.01	0.05	11/11/97	kr
Cobalt, total	M6010 ICP	0.47		mg/L	0.01	0.05	11/11/97	kr
Copper, total	M6010 ICP	0.49		mg/L	0.01	0.05	11/11/97	kr
Lead, total	M6020 ICP-MS	0.494		mg/L	0.002	0.01	11/15/97	lcj
Mercury, total	M7470 CVAA	0.0051		mg/L	0.0002	0.001	11/13/97	bg
Nickel, total	M6010 ICP	0.48		mg/L	0.01	0.05	11/11/97	kr
Selenium, total	SM 3500-Se C, AA-Hydride	0.033		mg/L	0.001	0.005	11/11/97	bg
Silver, total	M6010 ICP	0.142		mg/L	0.005	0.03	11/11/97	kr
Thallium, total	M6020 ICP-MS	0.242		mg/L	0.001	0.005	11/15/97	lcj
Tin, total	M6010 ICP	1.1		mg/L	0.1	0.5	11/12/97	crr
Vanadium, total	M6010 ICP	0.480		mg/L	0.005	0.03	11/11/97	kr
Zinc, total	M6010 ICP	0.53		mg/L	0.01	0.05	11/11/97	kr

Metals Prep

Parameter	EPA Method	Result	Qual	Units	MDL	PQL	Date	Analyst
Total Digestion	M3015 ICP						11/11/97	cj
Total Digestion	M3015 ICP-MS						11/11/97	cj

Inorganic Qualifiers (based on EPA CLP 3/90)

U = Analyte was analyzed for but not detected at the indicated MDL

B = Analyte concentration detected at a value between MDL and PQL

PQL = Practical Quantitation Limit

RV Poulsen

Vice President of Operations: Ralph Poulsen

ACZ

Analytical Results

ACZ Laboratories, Inc.
30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493

Lab Sample ID: *L16027-04*
Client Sample ID: *Equipment Blank*
Client Project ID: *7004.4 Philips Semi*
ACZ Report ID: *RG56054*

Daniel B. Stephens & Associates
6020 Academy NE Suite 100
Albuquerque, NM 87109
Richard Meixner

Date Sampled: *10/17/97 09:45*
Date Received: *10/18/97*
Date Reported: *11/17/97*

Sample Matrix: *Ground Water*

Metals Analysis

Parameter	EPA Method	Result	Qual	Units	MDL	PQL	Date	Analyst
Antimony, total	M6020 ICP-MS		U	mg/L	0.001	0.006	11/5/97	fep
Arsenic, total	M6020 ICP-MS		U	mg/L	0.006	0.03	11/5/97	fep
Barium, total	M6010 ICP		U	mg/L	0.003	0.01	10/23/97	kr
Beryllium, total	M6010 ICP		U	mg/L	0.002	0.01	10/23/97	kr
Cadmium, total	M6010 ICP		U	mg/L	0.003	0.02	10/23/97	kr
Chromium, total	M6010 ICP		U	mg/L	0.01	0.06	10/23/97	kr
Cobalt, total	M6010 ICP		U	mg/L	0.01	0.06	10/23/97	kr
Copper, total	M6010 ICP		U	mg/L	0.01	0.06	10/23/97	kr
Lead, total	M6020 ICP-MS		U	mg/L	0.001	0.006	11/5/97	fep
Mercury, total	M7470 CVAA		U	mg/L	0.0002	0.001	10/22/97	bg
Nickel, total	M6010 ICP		U	mg/L	0.01	0.06	10/23/97	kr
Selenium, total	SM 3500-Se C, AA-Hydride		U	mg/L	0.001	0.005	11/6/97	bg
Silver, total	M6010 ICP		U	mg/L	0.006	0.03	10/23/97	kr
Thallium, total	M6020 ICP-MS		U	mg/L	0.0006	0.003	11/6/97	fep
Tin, total	M6010 ICP		U	mg/L	0.1	0.6	11/10/97	crr
Vanadium, total	M6010 ICP		U	mg/L	0.006	0.03	10/23/97	kr
Zinc, total	M6010 ICP	0.01	B	mg/L	0.01	0.06	10/23/97	kr

Metals Prep

Parameter	EPA Method	Result	Qual	Units	MDL	PQL	Date	Analyst
Total Digestion	M3015 ICP						10/22/97	laa
Total Digestion	M3015 ICP-MS						11/4/97	laa

Inorganic Qualifiers (based on EPA CLP 3/90)

U = Analyte was analyzed for but not detected at the indicated MDL

B = Analyte concentration detected at a value between MDL and PQL

PQL = Practical Quantitation Limit

RV Poulsen

Vice President of Operations: Ralph Poulsen

CHAIN OF CUSTODY RECORD

Laboratory Sample Numbers (ACZ Use Only): L16013

COC # 13199

ACZ Laboratories, Inc.
30400 Downhill Drive
Steamboat Springs, CO 80487
(970) 879-6590 • (800) 334-5493

Name to Appear on Report and Invoice: DBS+A
6020 Academy NE #100
ABQ, NM 87109
Attn: Rich Meixner Tel: 505-822-9400

cc: (Report) - (Invoice) to: (circle one or both)
Attn: Tel:

Project or P.O. # 7004.4 Philips Semiconductors

Shipped Via: FED X X UPS ___ Hand ___ Other ___

SAMPLE IDENTIFICATION	DATE	TIME	Sample Matrix *	# of CONTAINERS	524.1 VOC	8270 SVOC	8080 Pest/PCB	6010, 6020	7470, 7742	metals, Hg, Se					REMARKS
NCLF-2	10-14-97	1125	Ground Water	6	2	1	2		1						524.1 preserv w/ HCl
NCLF-3	↓	1335	↓	↓	2	1	2		1						metals, Hg, Se preserv. w/ HNO_3
MW-3	↓	1430	↓	↓	2	1	2		1						
MW-4	↓	1740	↓	↓	2	1	2		1						
MW-2	10-15-97	1045	↓	↓	2	1	2		1						
MW-1	↓	1445	↓	↓	2	1	2		1						
MW-5	↓	1600	↓	↓	2	1	2		1						

* Matrix Options: SW (Surface water) GW (Ground water) WW (Wastewater) • DW (Drinking water) • SL (Sludge) • SOIL • OIL • Other (Specify)

COMMENTS
3 coolers

SAMPLE DISPOSAL OPTIONS - Please complete section A, or choose one option from sections B AND C. Proper charges will be assessed.

(A) Long-term storage
Hold until _____(date)
for future analysis.

(B) If Sample Is Non-Hazardous
1) Local Disposal
2) RCRA - Permitted Facility
3) Return to Client

(C) If Sample Is Hazardous
1) RCRA-Permitted Facility
2) Return to Client

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	PAGE #
James F. Porcelan	10-16-97	1700				1 OF 1
				10/17/97	10:00	

White - Return w/ sample Yellow - Return w/ sample Pink - Return w/ sample Gold - Keep for your records

CHAIN OF CUSTODY RECORD

Laboratory Sample Numbers (ACZ Use Only): L16027

COC # 13198

ACZ Laboratories, Inc.
30400 Downhill Drive
Steamboat Springs, CO 80487
(970) 879-6590 • (800) 334-5493

Name to Appear on Report and Invoice:
Rich Meixner
David B Stephens + Assoc Inc
6020 Academy Rd NW Abq NM 87109
Attn: Rich Meixner Tel: (505) 822-9400

cc: (Report) - (Invoice) to: (circle one or both)
Attn: Tel:

Project or P.O. #
7004.4
Philips Semi Conductor

Shipped Via: FED X X UPS ___ Hand ___ Other ___

SAMPLE IDENTIFICATION	DATE	TIME	Sample Matrix *	# of CONTAINERS	8080 Pest PCB	8270 SVOC	6010/6020 Metals	524.1 VOCs							REMARKS
NCLF 4	10/17/97	1315	GW	6	2	1	1	2							
NCLF 4 Matrix Spike		1315	GW	6	2	1	1	2							
NCLF 4 MS Duplicate		1315	GW	6	2	1	1	2							
Equipment Blank		0945	wash + Rinse	6	2	1	1	2							

* Matrix Options: SW (Surface water) • GW (Ground water) • WW (Wastewater) • DW (Drinking water) • SL (Sludge) • SOIL • OIL • Other (Specify)

SAMPLE DISPOSAL OPTIONS - *Please complete section A, or choose one option from sections B AND C. Proper charges will be assessed.*

(A) Long-term storage
Hold until _____(date)
for future analysis.

(B) If Sample Is Non-Hazardous
(1) Local Disposal
2) RCRA - Permitted Facility
3) Return to Client

(C) If Sample Is Hazardous
1) RCRA-Permitted Facility
2) Return to Client

COMMENTS

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	PAGE #
[signature]	10/17/97	1530				___ OF ___
			[signature]	10/20/97	10:00	

White - Return w/ sample Yellow - Return w/ sample Pink - Return w/ sample Gold - Keep for your records

Attachment 2

Quality Control Reports
ACZ Laboratories, Inc.

ACZ
30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

QC SUMMARY

QC Report ID: **QC0125**

ACZ Project ID: **L16013**

REPORT TO:

Richard Meixner
Daniel B. Stephens & Associates
6020 Academy NE, Suite 100
Albuquerque, NM 87109
11/12/97

R. Martino
Ron Martino, Organic Supervisor

11/13/97
Date

ACZ

QC SUMMARY

30400 Downhill Drive
Steamboat Springs, CO 80487

ACZ Project #	*L16013*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4, Philips Semi*
Date Received	*10/17/97*
Date Reported	*11/12/97*

Sample Identification

ACZ LAB ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	DATE RECEIVED
L16013-01	NCLF-2	Ground Water	10/14/97	10/17/97
L16013-02	NCLF-3	Ground Water	10/14/97	10/17/97
L16013-03	MW-3	Ground Water	10/14/97	10/17/97
L16013-04	MW-4	Ground Water	10/14/97	10/17/97
L16013-05	MW-2	Ground Water	10/14/97	10/17/97
L16013-06	MW-1	Ground Water	10/14/97	10/17/97
L16013-07	MW-5	Ground Water	10/14/97	10/17/97
L16013-08	Trip Blank	Ground Water	10/14/97	10/17/97

ACZ

QC SUMMARY

30400 Downhill Drive
Steamboat Springs, CO 80487

ACZ Project #	*L16013*	**Matrix**	*Ground Water*
Client	*Daniel B. Stephens & Associates*		
Client Project ID	*7004.4, Philips Semi*	**Analysis Group**	*Volatile Organics 524.2*
Date Received	*10/17/97*		
Date Reported	*11/12/97*	**QC Report**	*Spike Recovery*
Analysis Date:	*10/21/97*		

MATRIX SPIKE

EPA 524.2

Associated Client Samples L16013-01 to -08 Analytical Work Group WG50141

Compound	ACZ ID	SCN#	Sample Value (µg/L)	Spike Value (µg/L)	Found Value (µg/L)	Percent Recovery (%)	Control Limits Lower (%)	Control Limits Upper (%)	Q
1,1 Dichloroethene	L16027-02MS	OP70801-1	0.0	10	8.96	89.6	61	145	Y
Benzene	L16027-02MS	OP70801-1	0.0	10	9.72	97.2	76	127	Y
Trichloroethene	L16027-02MS	OP70801-1	0.0	10	9.94	99.4	71	120	Y
Toluene	L16027-02MS	OP70801-1	0.0	10	10.6	106	76	125	Y
Chlorobenzene	L16027-02MS	OP70801-1	0.0	10	9.99	99.9	75	130	Y

MATRIX SPIKE DUPLICATE

EPA 524.2

Associated Client Samples L16013-01 to -08 Analytical Work Group WG50141

Compound		SCN#	Sample Value (µg/L)	Spike Value (µg/L)	Found Value (µg/L)	Percent Recovery (%)	Control Limits Lower (%)	Control Limits Upper (%)	Q
1,1 Dichloroethene	L16027-03MSD	OP70801-1	0.0	10	9.35	93.5	61	145	Y
Benzene	L16027-03MSD	OP70801-1	0.0	10	10.1	101	76	127	Y
Trichloroethene	L16027-03MSD	OP70801-1	0.0	10	10.5	105	71	120	Y
Toluene	L16027-03MSD	OP70801-1	0.0	10	10.3	103	76	125	Y
Chlorobenzene	L16027-03MSD	OP70801-1	0.0	10	10.7	107	75	130	Y

ACZ

QC SUMMARY

30400 Downhill Drive
Steamboat Springs, CO 80487

ACZ Project #	*L16013*	**Matrix**	*Ground Water*
Client	*Daniel B. Stephens & Associates*		
Client Project ID	*7004.4, Philips Semi*	**Analysis Group**	*Volatile Organics 524.2*
Date Received	*10/17/97*		
Date Reported	*11/12/97*	**QC Report**	*Spike Recovery*
Analysis Date:	*10/21/97*		

LCSW

EPA 524.2

Associated Client Samples L16013-01 to -08 Analytical Work Group WG50141

Compound	ACZ ID	SCN#	True Value (µg/L)	Found Value (µg/L)	Percent Recovery (%)	Control Limits Lower (%)	Control Limits Upper (%)	Q
1,1 Dichloroethene	WG50141LCSW	OP70801-1	10	9.85	98.5	61	145	
Benzene	WG50141LCSW	OP70801-1	10	10.1	101	76	127	
Trichloroethene	WG50141LCSW	OP70801-1	10	10.7	107	71	120	
Toluene	WG50141LCSW	OP70801-1	10	10.3	103	76	125	
Chlorobenzene	WG50141LCSW	OP70801-1	10	10.5	105	75	130	

ACZ

QC SUMMARY

30400 Downhill Drive
Steamboat Springs, CO 80487

ACZ Project #	*L16013*	**Matrix**	*Ground Water*
Client	*Daniel B. Stephens & Associates*		
Client Project ID	*7004.4, Philips Semi*	**Analysis Group**	*Volatile Organics 524.2*
Date Received	*10/17/97*		
Date Reported	*11/12/97*	**QC Report**	*Duplicate Verification*
Analysis date	*10/21/97*		

MATRIX SPIKE DUPLICATE

EPA 524.2

Associated Client Samples: L16013-01 to -08 Analytical Work Group WG50141

Compound	ACZ ID	SCN#	Conc. (µg/L) Sample	Conc. (µg/L) Duplicate	RPD (%)	Control Limits (%) Lower	Control Limits (%) Upper	Q
1,1 Dichloroethene	L16027-03MSD	OP70801-1	8.96	9.35	4.26	0	14	
Benzene	L16027-03MSD	OP70801-1	9.72	10.1	3.83	0	14	
Trichloroethene	L16027-03MSD	OP70801-1	9.94	10.5	5.48	0	11	
Toluene	L16027-03MSD	OP70801-1	10.6	10.3	2.87	0	13	
Chlorobenzene	L16027-03MSD	OP70801-1	10.0	10.7	6.86	0	13	

ACZ

QC SUMMARY

30400 Downhill Drive
Steamboat Springs, CO 80487

ACZ Project #	*L16013*	**Matrix**	*Ground Water*
Client	*Daniel B. Stephens & Associates*		
Client Project ID	*7004.4, Philips Semi*	**Analysis Group**	*Volatile Organics 524.2*
Date Received	*10/17/97*		
Date Reported	*11/12/97*	**QC Report**	*Blank Verification*
Analysis Date	*10/21/97*		

PREP BLANK

EPA 524.2

Associated Client Samples L16013-01 to -08 Analytical Work Group WG50141

ACZ ID	Compound Detected	Found (µg/L)	Q
WG50141PBW	None Detected		U

ACZ

QC SUMMARY

30400 Downhill Drive
Steamboat Springs, CO 80487

ACZ Project #	*L16013*	**Matrix**	*Ground Water*
Client	*Daniel B. Stephens & Associates*		
Client Project ID	*7004.4, Philips Semi*	**Analysis Group**	*Volatile Organics 524.2*
Date Received	*10/17/97*		
Date Reported	*11/12/97*	**QC Report**	*Surrogate Recovery*
Analysis date	*10/21/97*		

SURROGATES

EPA 524.2

Associated Client Samples L16013-01 to -08 Analytical Work Group WG50141

ACZ ID	GC File ID	Analysis Date	SCN#	Spike Value (µg/L)	Sample Value (µg/L)	Percent Recovery (%R)	Control Limits Lower (%)	Control Limits Upper (%)	Q
WG50141PBW		10/21/97	OP70801-1						
Bromofluorobenzene				5	5.50	110	80	120	
1,2-Dichlorobenzene-d_4				5	5.75	115	80	120	
WG50141LCSW		10/21/97	OP70801-1						
Dibromofluoromethane				5	4.86	97.2	80	120	
1,2-Dichlorobenzene-d_4				5	5.69	114	80	120	
L16027-02MS		10/21/97	OP70801-1						
Bromofluorobenzene				5	5.08	102	80	120	
1,2-Dichlorobenzene-d_4				5	5.89	118	80	120	
L16027-03MSD		10/21/97	OP70801-1						
Bromofluorobenzene				5	5.17	103	80	120	
1,2-Dichlorobenzene-d_4				5	6.00	120	80	120	
L16013-01		10/21/97	OP70801-1						
Bromofluorobenzene				5	5.42	108	80	120	
1,2-Dichlorobenzene-d_4				5	5.14	103	80	120	
L16013-02		10/21/97	OP70801-1						
Bromofluorobenzene				5	5.43	109	80	120	
1,2-Dichlorobenzene-d_4				5	5.10	102	80	120	
L16013-03		10/21/97	OP70801-1						
Bromofluorobenzene				5	4.91	98.2	80	120	
1,2-Dichlorobenzene-d_4				5	5.91	118	80	120	
L16013-04		10/21/97	OP70801-1						
Bromofluorobenzene				5	5.28	106	80	120	
1,2-Dichlorobenzene-d_4				5	5.33	107	80	120	

ACZ

QC SUMMARY

30400 Downhill Drive
Steamboat Springs, CO 80487

ACZ Project #	*L16013*	**Matrix**	*Ground Water*
Client	*Daniel B. Stephens & Associates*		
Client Project ID	*7004.4, Philips Semi*	**Analysis Group**	*Volatile Organics 524.2*
Date Received	*10/17/97*		
Date Reported	*11/12/97*	**QC Report**	*Surrogate Recovery*
Analysis date	*10/21/97*		

SURROGATES

EPA 524.2

Associated Client Samples L16013-01 to -08 Analytical Work Group WG50141

ACZ ID	GC File ID	Analysis Date	SCN#	Spike Value (µg/L)	Sample Value (µg/L)	Percent Recovery (%R)	Control Limits Lower (%)	Control Limits Upper (%)	Q
L16013-05		10/21/97	OP70801-1						
Bromofluorobenzene				5	5.03	101	80	120	
1,2-Dichlorobenzene-d_4				5	5.99	120	80	120	
L16013-06		10/21/97	OP70801-1						
Bromofluorobenzene				5	4.89	97.8	80	120	
1,2-Dichlorobenzene-d_4				5	5.68	114	80	120	
L16013-07		10/21/97	OP70801-1						
Bromofluorobenzene				5	4.90	98.0	80	120	
1,2-Dichlorobenzene-d_4				5	5.88	118	80	120	
L16013-08		10/21/97	OP70801-1						
Bromofluorobenzene				5	5.37	107	80	120	
1,2-Dichlorobenzene-d_4				5	4.90	98.0	80	120	

ACZ
30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

QC SUMMARY

QC REFERENCE

QC Report Types

(1)	Calibration Verification - Blanks	Verifies that there is no or minimal contamination in the instrument calibration.
(2)	Calibration Verification - Control Samples	Verifies the accuracy of the instrument calibration.
(3)	Method Verification - Blanks	Verifies that there is no or minimal contamination in the prep method procedure.
(4)	Method Verification - Control Samples	Verifies the accuracy of the method, including the prep procedure.
(5)	Spike Verification	Determines sample matrix interferences, if any.
(6)	Duplicate Verification	Verifies the precision of the instrument and/or method.

QC Sample Types

ICV	Initial Calibration Verification	QCS	Quality Control Sample
CCV	Continuing Calibration Verification	ICS	Instrument Check Sample
LCSW	Laboratory Control Sample - Water	LFB	Laboratory Fortified Blank
LCSS	Laboratory Control Sample - Soil	LFM	Laboratory Fortified Matrix
ICB	Initial Calibration Blank	AS	Analytical (Post Digestion) Spike
CCB	Continuing Calibration Blank	MS	Matrix Spike
LRB	Laboratory Reagent Blank	LFMD	Laboratory Fortified Matrix Duplicate
PBW	Prep Blank - Water	ASD	Analytical Spike (Post Digestion) Duplicate
PBS	Prep Blank - Soil	MSD	Matrix Spike Duplicate
		DUP	Sample Duplicate

Unique ACZ QC Summary Qualifiers (Q)

Z	Poor spike recovery is accepted because sample concentration is four times greater than spike concentration.
Y	This sample, instead of one of yours, was used as the quality control sample for the workgroup batch.
X	QC is out of control. See Case Narrative.
W	Poor recovery for Silver quality control is accepted because Silver often precipitates with Chloride.
V	High blank data accepted because sample concentration is 10 times higher than blank concentration
T	High Relative Percent Difference (RPD) accepted because sample concentrations are less than 10x the MDL.
S	ICV/QCS sample not part of workgroup; analyzed immediately following instrument calibration as part of a prevous workgroup.

Method References

(1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(4) EPA 600/4-80-032. Prescribed Procedures for Measurement of Radioactivity in Drinking Water, August 1980.
(5) EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update II, September 1994.
(6) Standard Methods for the Examination of Water and Wastewater, 18th edition, 1992.

Comments

(1) QC results calculated from raw data. Results may vary slightly if the reported (rounded) values are used in the calculations.
(2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3) Animal matrices for Inorganic analyses are reported on an "as received" basis.
(4) All matrices for Organic analyses are reported on an "as received" basis, except for TPH-IR analyses on soils which are reported on a dry weight basis.
(5) The PCN/SCN header on the QC reports stands for Primary Control Number/Secondary Control Number. All stock chemicals are given a PCN and any reagent made at the bench level is assigned a SCN. These numbers track our standards and chemicals so that any reagent is traceable to a certificate of analysis.

This report is subject to the "Terms & Conditions" section in ACZ Laboratories, Inc. 1995 Analytical Services Fee Schedule.

ACZ
30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

QC SUMMARY

QC Report ID: **QC0123**

ACZ Project ID: **L16013**

REPORT TO:

Richard Meixner
Daniel B. Stephens & Associates
6020 Academy NE, Suite 100
Albuquerque, NM 87109
11/12/97

R. Martino
Ron Martino, Organic Supervisor

11/13/97
Date

ACZ

QC SUMMARY

30400 Downhill Drive
Steamboat Springs, CO 80487

ACZ Project #	*L16013*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4, Philips Semi*
Date Received	*10/17/97*
Date Reported	*11/12/97*

Sample Identification

ACZ LAB ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	DATE RECEIVED
L16013-01	NCLF-2	Ground Water	10/14/97	10/17/97
L16013-02	NCLF-3	Ground Water	10/14/97	10/17/97
L16013-03	MW-3	Ground Water	10/14/97	10/17/97
L16013-04	MW-4	Ground Water	10/14/97	10/17/97
L16013-05	MW-2	Ground Water	10/14/97	10/17/97
L16013-06	MW-1	Ground Water	10/14/97	10/17/97
L16013-07	MW-5	Ground Water	10/14/97	10/17/97

ACZ

QC SUMMARY

30400 Downhill Drive
Steamboat Springs, CO 80487

ACZ Project #	*L16013*	**Matrix**	*Ground Water*
Client	*Daniel B. Stephens & Associates*		
Client Project ID	*7004.4, Philips Semi*	**Analysis Group**	*Base/Neutral Acids*
Date Received	*10/17/97*		
Date Reported	*11/12/97*	**QC Report**	*Method Verification*
Analysis Date:	*10/23/97*		

LCSW

EPA 8270

Associated Client Samples L16013-01 to -07

Prep Work Groups WG49963
WG50216
Analytical Work Groups WG50343
WG50451

Compound	ACZ ID	SCN#	True Value (µg/L)	Found Value (µg/L)	Percent Recovery (%)	Control Limits Lower (%)	Control Limits Upper (%)	Q
Phenol	WG49963LCSW	OP61203-1	75	43.0	57.3	12	89	
2-Chlorophenol	WG49963LCSW	OP61203-1	75	50.4	67.2	27	123	
1,4-Dichlorobenzene	WG49963LCSW	OP61203-1	50	30.9	61.8	36	97	
N-Nitroso-di-n-propylamine	WG49963LCSW	OP61203-1	50	23.8	47.6	41	116	
1,2,4-Trichlorobenzene	WG49963LCSW	OP61203-1	50	28.6	57.2	39	98	
4-Chloro-3-Methylphenol	WG49963LCSW	OP61203-1	75	39.9	53.2	23	97	
Acenaphthene	WG49963LCSW	OP61203-1	50	42.3	84.6	46	118	
4-Nitrophenol	WG49963LCSW	OP61203-1	75	30.2	40.3	10	80	
2,4-Dinitrotoluene	WG49963LCSW	OP61203-1	50	28.4	56.8	24	96	
Pentachlorophenol	WG49963LCSW	OP61203-1	75	54.0	72.0	9	103	
Pyrene	WG49963LCSW	OP61203-1	50	28.1	56.2	26	127	

LCSW DUPLICATE

EPA 8270

Associated Client Samples L16013-01 to -07

Prep Work Groups WG49963
WG50451
Analytical Work Groups WG50343
WG50343

Compound	ACZ ID	SCN#	True Value (µg/L)	Found Value (µg/L)	Percent Recovery (%)	Control Limits Lower (%)	Control Limits Upper (%)	Q
Phenol	WG49963LCSWD	OP61203-1	75	41.5	55.3	12	89	
2-Chlorophenol	WG49963LCSWD	OP61203-1	75	48.8	65.1	27	123	
1,4-Dichlorobenzene	WG49963LCSWD	OP61203-1	50	31.5	63.0	36	97	
N-Nitroso-di-n-propylamine	WG49963LCSWD	OP61203-1	50	22.2	44.4	41	116	
1,2,4-Trichlorobenzene	WG49963LCSWD	OP61203-1	50	16.7	33.4	39	98	X
4-Chloro-3-Methylphenol	WG49963LCSWD	OP61203-1	75	41.0	54.7	23	97	
Acenaphthene	WG49963LCSWD	OP61203-1	50	45.2	90.4	46	118	
4-Nitrophenol	WG49963LCSWD	OP61203-1	75	30.8	41.1	10	80	
2,4-Dinitrotoluene	WG49963LCSWD	OP61203-1	50	30.8	61.6	24	96	
Pentachlorophenol	WG49963LCSWD	OP61203-1	75	40.4	53.9	9	103	
Pyrene	WG49963LCSWD	OP61203-1	50	26.6	53.2	26	127	

ACZ

QC SUMMARY

30400 Downhill Drive
Steamboat Springs, CO 80487

ACZ Project #	*L16013*	**Matrix**	*Ground Water*
Client	*Daniel B. Stephens & Associates*		
Client Project ID	*7004.4, Philips Semi*	**Analysis Group**	*Base/Neutral Acids*
Date Received	*10/17/97*		
Date Reported	*11/12/97*	**QC Report**	*Method Verification*
Analysis Date:	*10/23/97*		

LCSW

EPA 8270

Associated Client Samples L16013-01 to -07

Prep Work Groups	WG49963
	WG50216
Analytical Work Groups	WG50343
	WG50451

Compound	ACZ ID	SCN#	True Value (µg/L)	Found Value (µg/L)	Percent Recovery (%)	Control Limits Lower (%)	Control Limits Upper (%)	Q
Phenol	WG50216LCSW	OP61203-1	75	47.2	62.9	12	89	
2-Chlorophenol	WG50216LCSW	OP61203-1	75	57.9	77.2	27	123	
1,4-Dichlorobenzene	WG50216LCSW	OP61203-1	50	37.7	75.4	36	97	
N-Nitroso-di-n-propylamine	WG50216LCSW	OP61203-1	50	27.0	54.0	41	116	
1,2,4-Trichlorobenzene	WG50216LCSW	OP61203-1	50	39.7	79.4	39	98	
4-Chloro-3-Methylphenol	WG50216LCSW	OP61203-1	75	30.8	41.1	23	97	
Acenaphthene	WG50216LCSW	OP61203-1	50	50.8	102	46	118	
4-Nitrophenol	WG50216LCSW	OP61203-1	75	22.5	30.0	10	80	
2,4-Dinitrotoluene	WG50216LCSW	OP61203-1	50	30.1	60.2	24	96	
Pentachlorophenol	WG50216LCSW	OP61203-1	75	19.8	26.4	9	103	
Pyrene	WG50216LCSW	OP61203-1	50	38.8	77.6	26	127	

ACZ

QC SUMMARY

30400 Downhill Drive
Steamboat Springs, CO 80487

ACZ Project #	*L16013*	**Matrix**	*Ground Water*
Client	*Daniel B. Stephens & Associates*		
Client Project ID	*7004.4, Philips Semi*	**Analysis Group**	*Base/Neutral Acids*
Date Received	*10/17/97*		
Date Reported	*11/12/97*	**QC Report**	*Duplicate Verification*
Analysis date	*10/23/97*		

LCSW DUPLICATE

EPA 8270

Associated Client Samples: L16013-01 to -07

Prep Work Groups	WG49963
	WG50216
Analytical Work Groups	WG50343
	WG50451

Compound	ACZ ID	SCN#	Conc. (µg/L) Sample Value	Duplicate Value	RPD (%)	Control Limits Lower (%)	Upper (%)	Q
Phenol	WG49963LCSWD	OP61203-1	43.0	41.5	3.55	0	59	
2-Chlorophenol	WG49963LCSWD	OP61203-1	50.4	48.8	3.23	0	35	
1,4-Dichlorobenzene	WG49963LCSWD	OP61203-1	30.9	31.5	1.92	0	20	
N-Nitroso-di-n-propylamine	WG49963LCSWD	OP61203-1	23.8	22.2	6.96	0	28	
1,2,4-Trichlorobenzene	WG49963LCSWD	OP61203-1	28.6	16.7	52.5	0	36	X
4-Chloro-3-Methylphenol	WG49963LCSWD	OP61203-1	39.9	41.0	2.72	0	47	
Acenaphthene	WG49963LCSWD	OP61203-1	42.3	45.2	6.63	0	27	
4-Nitrophenol	WG49963LCSWD	OP61203-1	30.2	30.8	1.97	0	79	
2,4-Dinitrotoluene	WG49963LCSWD	OP61203-1	28.4	30.8	8.11	0	33	
Pentachlorophenol	WG49963LCSWD	OP61203-1	54.0	40.4	29.0	0	61	
Pyrene	WG49963LCSWD	OP61203-1	28.1	26.6	5.48	0	45	

ACZ

QC SUMMARY

30400 Downhill Drive
Steamboat Springs, CO 80487

ACZ Project #	*L16013*	**Matrix**	*Ground Water*
Client	*Daniel B. Stephens & Associates*		
Client Project ID	*7004.4, Philips Semi*	**Analysis Group**	*Base/Neutral Acids*
Date Received	*10/17/97*		
Date Reported	*11/12/97*	**QC Report**	*Blank Verification*
Analysis Date	*10/23/97*		

PREP BLANK

EPA 8270

Associated Client Samples L16013-01 to -07

Prep Work Groups	WG49963
	WG50216
Analytical Work Groups	WG50343
	WG50451

ACZ ID	Compound Detected	Found Value (µg/L)	Q
WG49963PBW	None Detected		U
WG50216PBW	None Detected		U

ACZ

QC SUMMARY

30400 Downhill Drive
Steamboat Springs, CO 80487

ACZ Project #	*L16013*	**Matrix**	*Ground Water*
Client	*Daniel B. Stephens & Associates*		
Client Project ID	*7004.4, Philips Semi*	**Analysis Group**	*Base/Neutral Acids*
Date Received	*10/17/97*		
Date Reported	*11/12/97*	**QC Report**	*Surrogate Recovery*

Prep Work Groups	WG49963
	WG50216
Analytical Work Groups	WG50343
	WG50451

SURROGATES

EPA 8270

Associated Client Samples L16013-01 to -07

ACZ ID	GC File ID	Analysis Date	SCN#	Spike Value (ug/L)	Sample Value (ug/L)	Percent Recovery (%R)	Control Limits Lower (%)	Control Limits Upper (%)	Q
WG49963PBW	B8634	10/23/97	OP61203-1						
2-Fluorophenol				75	19.7	26.3	21	110	
Phenol-d5				75	34.6	46.1	10	110	
Nitrobenzene-d5				50	31.0	62.0	35	114	
2-Fluorobiphenyl				50	34.6	69.2	43	116	
2,4,6-Tribromophenol				75	28.7	38.3	10	123	
Terphenyl-d14				50	42.9	85.8	33	141	
WG50216PBW	B8634	10/23/97	OP61203-1						
2-Fluorophenol				75	21.1	28.1	21	110	
Phenol-d5				75	47.0	62.7	10	110	
Nitrobenzene-d5				50	21.2	42.4	35	114	
2-Fluorobiphenyl				50	37.0	74.0	43	116	
2,4,6-Tribromophenol				75	26.9	35.9	10	123	
Terphenyl-d14				50	39.5	79.0	33	141	
WG49963LCSW	B8634	10/23/97	OP61203-1						
2-Fluorophenol				75	31.8	42.4	21	110	
Phenol-d5				75	42.9	57.2	10	110	
Nitrobenzene-d5				50	24.7	49.4	35	114	
2-Fluorobiphenyl				50	40.8	81.6	43	116	
2,4,6-Tribromophenol				75	60.8	81.1	10	123	
Terphenyl-d14				50	44.4	88.8	33	141	
WG49963LCSWD	B8634	10/23/97	OP61203-1						
2-Fluorophenol				75	27.7	36.9	21	110	
Phenol-d5				75	41.1	54.8	10	110	
Nitrobenzene-d5				50	27.3	54.6	35	114	
2-Fluorobiphenyl				50	40.0	80.0	43	116	
2,4,6-Tribromophenol				75	64.8	86.4	10	123	
Terphenyl-d14				50	41.9	83.8	33	141	

ACZ

QC SUMMARY

30400 Downhill Drive
Steamboat Springs, CO 80487

ACZ Project #	*L16013*	**Matrix**	*Ground Water*
Client	*Daniel B. Stephens & Associates*		
Client Project ID	*7004.4, Philips Semi*	**Analysis Group**	*Base/Neutral Acids*
Date Received	*10/17/97*		
Date Reported	*11/12/97*	**QC Report**	*Surrogate Recovery*

Prep Work Groups	WG49963
	WG50216
Analytical Work Groups	WG50343
	WG50451

SURROGATES

EPA 8270

Associated Client Samples L16013-01 to -07

ACZ ID	GC File ID	Analysis Date		Spike Value (µg/mL)	Sample Value (µg/mL)	Percent Recovery (%R)	Control Limits Lower (%)	Control Limits Upper (%)	Q
WG50216LCSW	B8639	10/23/97	OP61203-1						
2-Fluorophenol				75	34.9	46.5	21	110	
Phenol-d5				75	48.2	64.3	10	110	
Nitrobenzene-d5				50	35.5	71.0	35	114	
2-Fluorobiphenyl				50	44.2	88.4	43	116	
2,4,6-Tribromophenol				75	43.3	57.7	10	123	
Terphenyl-d14				50	44.6	89.2	33	141	
L16013-01	B8640	10/23/97	OP61203-1						
2-Fluorophenol				75	19.1	25.5	21	110	
Phenol-d5				75	31.6	42.1	10	110	
Nitrobenzene-d5				50	15.6	31.2	35	114	X
2-Fluorobiphenyl				50	31.3	62.6	43	116	
2,4,6-Tribromophenol				75	34.4	45.9	10	123	
Terphenyl-d14				50	35.8	71.6	33	141	
L16013-02	B8641	10/23/97	OP61203-1						
2-Fluorophenol				75	44.3	59.1	21	110	
Phenol-d5				75	59.7	79.6	10	110	
Nitrobenzene-d5				50	36.8	73.6	35	114	
2-Fluorobiphenyl				50	57.1	114	43	116	
2,4,6-Tribromophenol				75	53.3	71.1	10	123	
Terphenyl-d14				50	49.8	100	33	141	
L16013-03	B8641	10/23/97	OP61203-1						
2-Fluorophenol				75	43.6	58.1	21	110	
Phenol-d5				75	56.0	74.7	10	110	
Nitrobenzene-d5				50	29.9	59.8	35	114	
2-Fluorobiphenyl				50	56.9	114	43	116	
2,4,6-Tribromophenol				75	52.4	69.9	10	123	
Terphenyl-d14				50	49.4	98.8	33	141	

ACZ

QC SUMMARY

30400 Downhill Drive
Steamboat Springs, CO 80487

ACZ Project #	*L16013*	**Matrix**	*Ground Water*
Client	*Daniel B. Stephens & Associates*		
Client Project ID	*7004.4, Philips Semi*	**Analysis Group**	*Base/Neutral Acids*
Date Received	*10/17/97*		
Date Reported	*11/12/97*	**QC Report**	*Surrogate Recovery*

Prep Work Groups	WG49963
	WG50216
Analytical Work Groups	WG50343
	WG50451

SURROGATES

EPA 8270

Associated Client Samples L16013-01 to -07

ACZ ID	GC File ID	Analysis Date		Spike Value (µg/mL)	Sample Value (µg/mL)	Percent Recovery (%R)	Control Limits Lower (%)	Control Limits Upper (%)	Q
L16013-04	B8641	10/23/97	OP61203-1						
2-Fluorophenol				75	62.3	83.1	21	110	
Phenol-d5				75	10.5	14.0	10	110	
Nitrobenzene-d5				50	33.8	67.6	35	114	
2-Fluorobiphenyl				50	50.4	101	43	116	
2,4,6-Tribromophenol				75	76.6	102	10	123	
Terphenyl-d14				50	53.1	106	33	141	
L16013-05	B8641	10/23/97	OP61203-1						
2-Fluorophenol				75	34.7	46.3	21	110	
Phenol-d5				75	11.9	15.9	10	110	
Nitrobenzene-d5				50	35.2	70.4	35	114	
2-Fluorobiphenyl				50	55.1	110	43	116	
2,4,6-Tribromophenol				75	82.9	111	10	123	
Terphenyl-d14				50	50.4	101	33	141	
L16013-06	B8641	10/23/97	OP61203-1						
2-Fluorophenol				75	9.87	13.2	21	110	X
Phenol-d5				75	29.9	39.9	10	110	
Nitrobenzene-d5				50	5.90	11.8	35	114	X
2-Fluorobiphenyl				50	34.4	68.8	43	116	
2,4,6-Tribromophenol				75	29.5	39.3	10	123	
Terphenyl-d14				50	39.0	78.0	33	141	
L16013-07	B8641	10/23/97	OP61203-1						
2-Fluorophenol				75	42.9	57.2	21	110	
Phenol-d5				75	61.0	81.3	10	110	
Nitrobenzene-d5				50	22.5	45.0	35	114	
2-Fluorobiphenyl				50	43.4	86.8	43	116	
2,4,6-Tribromophenol				75	29.3	39.1	10	123	
Terphenyl-d14				50	43.9	87.8	33	141	

ACZ
30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

QC REFERENCE

QC Report Types

(1)	Calibration Verification - Blanks	Verifies that there is no or minimal contamination in the instrument calibration.
(2)	Calibration Verification - Control Samples	Verifies the accuracy of the instrument calibration.
(3)	Method Verification - Blanks	Verifies that there is no or minimal contamination in the prep method procedure.
(4)	Method Verification - Control Samples	Verifies the accuracy of the method, including the prep procedure.
(5)	Spike Verification	Determines sample matrix interferences, if any.
(6)	Duplicate Verification	Verifies the precision of the instrument and/or method.

QC Sample Types

ICV	Initial Calibration Verification	QCS	Quality Control Sample
CCV	Continuing Calibration Verification	ICS	Instrument Check Sample
LCSW	Laboratory Control Sample - Water	LFB	Laboratory Fortified Blank
LCSS	Laboratory Control Sample - Soil	LFM	Laboratory Fortified Matrix
ICB	Initial Calibration Blank	AS	Analytical (Post Digestion) Spike
CCB	Continuing Calibration Blank	MS	Matrix Spike
LRB	Laboratory Reagent Blank	LFMD	Laboratory Fortified Matrix Duplicate
PBW	Prep Blank - Water	ASD	Analytical Spike (Post Digestion) Duplicate
PBS	Prep Blank - Soil	MSD	Matrix Spike Duplicate
		DUP	Sample Duplicate

Unique ACZ QC Summary Qualifiers (Q)

Z	Poor spike recovery is accepted because sample concentration is four times greater than spike concentration.
Y	This sample, instead of one of yours, was used as the quality control sample for the workgroup batch.
X	QC is out of control. See Case Narrative.
W	Poor recovery for Silver quality control is accepted because Silver often precipitates with Chloride.
V	High blank data accepted because sample concentration is 10 times higher than blank concentration
T	High Relative Percent Difference (RPD) accepted because sample concentrations are less than 10x the MDL.
S	ICV/QCS sample not part of workgroup; analyzed immediately following instrument calibration as part of a prevous workgroup.

Method References

(1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(4) EPA 600/4-80-032. Prescribed Procedures for Measurement of Radioactivity in Drinking Water, August 1980.
(5) EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update II, September 1994.
(6) Standard Methods for the Examination of Water and Wastewater, 18th edition, 1992.

Comments

(1) QC results calculated from raw data. Results may vary slightly if the reported (rounded) values are used in the calculations.
(2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3) Animal matrices for Inorganic analyses are reported on an "as received" basis.
(4) All matrices for Organic analyses are reported on an "as received" basis, except for TPH-IR analyses on soils which are reported on a dry weight basis.
(5) The PCN/SCN header on the QC reports stands for Primary Control Number/Secondary Control Number. All stock chemicals are given a PCN and any reagent made at the bench level is assigned a SCN. These numbers track our standards and chemicals so that any reagent is traceable to a certificate of analysis.

This report is subject to the "Terms & Conditions" section in ACZ Laboratories, Inc. 1995 Analytical Services Fee Schedule.

ACZ
30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

QC SUMMARY

QC Report ID: **QC0124**

ACZ Project ID: **L16013**

REPORT TO:

Richard Meixner
Daniel B. Stephens & Associates
6020 Academy NE, Suite 100
Albuquerque, NM 87109
11/12/97

R. Martino
Ron Martino, Organic Supervisor

11/12/97
Date

ACZ

QC SUMMARY

30400 Downhill Drive
Steamboat Springs, CO 80487

ACZ Project #	*L16013*
Client	*Daniel B. Stephens & Associates*
Date Received	*10/17/97*
Date Reported	*11/12/97*

Sample Identification

ACZ LAB ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	DATE RECEIVED
L16013-01	NCLF-2	Ground Water	10/14/97	10/17/97
L16013-02	NCLF-3	Ground Water	10/14/97	10/17/97
L16013-03	MW-3	Ground Water	10/14/97	10/17/97
L16013-04	MW-4	Ground Water	10/14/97	10/17/97
L16013-05	MW-2	Ground Water	10/14/97	10/17/97
L16013-06	MW-1	Ground Water	10/14/97	10/17/97
L16013-07	MW-5	Ground Water	10/14/97	10/17/97

ACZ

QC SUMMARY

30400 Downhill Drive
Steamboat Springs, CO 80487

ACZ Project #	*L16013*	**Matrix**	*Ground Water*
Client	*Daniel B. Stephens & Associates*		
Client Project ID	*7004.4, Philips Semi*	**Analysis Group**	*Pesticide*
Date Received	*10/17/97*		
Date Reported	*11/12/97*	**QC Report**	*Method Verification*
Analysis Date:	*10/24/97*		

LCSW

EPA 8080 — Prep Work Groups WG50108, WG50217

Associated Client Samples L16013-01 to -07 — Analytical Work Group WG50438

Compound	ACZ ID	SCN#	True Value (ug/mL)	Found Value (ug/mL)	Percent Recovery (%)	Control Limits Lower (%)	Control Limits Upper (%)	Q
γ-BHC	WG50108LCSW	OP61203-1	25	17.2	68.8	50	150	
Heptachlor	WG50108LCSW	OP61203-1	25	24.1	96.4	50	150	
Aldrin	WG50108LCSW	OP61203-1	25	20.0	80.0	50	150	
Dieldrin	WG50108LCSW	OP61203-1	50	58.3	117	50	150	
Endrin	WG50108LCSW	OP61203-1	50	62.5	125	50	150	
4,4'-DDT	WG50108LCSW	OP61203-1	50	51.6	103	50	150	
γ-BHC	WG50217LCSW	OP61203-1	25	19.4	77.6	50	150	
Heptachlor	WG50217LCSW	OP61203-1	25	29.8	119	50	150	
Aldrin	WG50217LCSW	OP61203-1	25	27.1	108	50	150	
Dieldrin	WG50217LCSW	OP61203-1	50	65.7	131	50	150	
Endrin	WG50217LCSW	OP61203-1	50	67.7	135	50	150	
4,4'-DDT	WG50217LCSW	OP61203-1	50	59.9	120	50	150	

LCSW DUPLICATE

EPA 8080 — Prep Work Groups WG50108, WG50217

Associated Client Samples L16013-01 to -07 — Analytical Work Group WG50438

Compound	ACZ ID	SCN#	True Value (ug/mL)	Found Value (ug/mL)	Percent Recovery (%)	Control Limits Lower (%)	Control Limits Upper (%)	Q
γ-BHC	WG50108LCSWD	OP61203-1	25	17.5	70.0	50	150	
Heptachlor	WG50108LCSWD	OP61203-1	25	24.0	96.0	50	150	
Aldrin	WG50108LCSWD	OP61203-1	25	19.9	79.6	50	150	
Dieldrin	WG50108LCSWD	OP61203-1	50	59.2	118	50	150	
Endrin	WG50108LCSWD	OP61203-1	50	57.2	114	50	150	
4,4'-DDT	WG50108LCSWD	OP61203-1	50	48.6	97.2	50	150	

ACZ

QC SUMMARY

30400 Downhill Drive
Steamboat Springs, CO 80487

ACZ Project #	*L16013*	**Matrix**	*Ground Water*
Client	*Daniel B. Stephens & Associates*		
Client Project ID	*7004.4, Philips Semi*	**Analysis Group**	*Pesticide*
Date Received	*10/17/97*		
Date Reported	*11/12/97*	**QC Report**	*Duplicate Verification*
Analysis date	*10/24/97*		

LCSW DUPLICATE

Prep Work Groups WG50108
EPA 8080 WG50217
Associated Client Samples: L16013-01 to -07 Analytical Work Group WG50438

Compound	ACZ ID	SCN#	Conc. (ng/mL) Sample Value	Duplicate Value	RPD (%)	Control Limits (%) Lower (%)	Upper (%)	Q
γ-BHC	WG50108LCSWD	OP61203-1	17.2	17.5	1.73	0	44	
Heptachlor	WG50108LCSWD	OP61203-1	24.1	24.0	0.42	0	44	
Aldrin	WG50108LCSWD	OP61203-1	20.0	19.9	0.50	0	26	
Dieldrin	WG50108LCSWD	OP61203-1	58.3	59.2	1.53	0	33	
Endrin	WG50108LCSWD	OP61203-1	62.5	57.2	8.86	0	24	
4,4'-DDT	WG50108LCSWD	OP61203-1	51.6	48.6	5.99	0	40	

ACZ

QC SUMMARY

30400 Downhill Drive
Steamboat Springs, CO 80487

ACZ Project #	*L16013*	**Matrix**	*Ground Water*
Client	*Daniel B. Stephens & Associates*		
Client Project ID	*7004.4, Philips Semi*	**Analysis Group**	*Pesticide*
Date Received	*10/17/97*		
Date Reported	*11/12/97*	**QC Report**	*Blank Verification*
Analysis Date	*10/24/97*		

PREP BLANK

EPA 8080

Associated Client Samples L16013-01 to -07

Prep Work Groups WG50108, WG50217

Analytical Work Group WG50438

ACZ ID	Compound Detected	Found Value (ng/mL)	Q
WG50108PBW	None Detected		U
WG50217PBW	None Detected		U

ACZ

QC SUMMARY

30400 Downhill Drive
Steamboat Springs, CO 80487

ACZ Project #	*L16013*	**Matrix**	*Ground Water*
Client	*Daniel B. Stephens & Associates*		
Client Project ID	*7004.4, Philips Semi*	**Analysis Group**	*Pesticide*
Date Received	*10/17/97*		
Date Reported	*11/12/97*	**QC Report**	*Surrogate Recovery*

SURROGATES

EPA 8080

Associated Client Samples L16013-01 to -07

Prep Work Groups WG50108, WG50217

Analytical Work Group WG50438

ACZ ID	GC File ID	Analysis Date	SCN#	Spike Value (ng/mL)	Sample Value (ng/mL)	Percent Recovery (%R)	Control Limits Lower (%)	Control Limits Upper (%)	Q
WG50108PBW		10/24/97	OP61203-1						
TCMX				20	14.2	71.0	50	150	
DCBP				20	13.4	67.0	50	150	
WG50217PBW		10/24/97	OP61203-1						
TCMX				20	20.4	102	50	150	
DCBP				20	15.0	75.0	50	150	
WG50108LCSW		10/24/97	OP61203-1						
TCMX				20	14.7	73.5	50	150	
DCBP				20	20.8	104	50	150	
WG50217LCSW		10/24/97	OP61203-1						
TCMX				20	21.5	108	50	150	
DCBP				20	18.6	93.0	50	150	
WG50108LCSWD		10/24/97	OP61203-1						
TCMX				20	14.0	70.0	50	150	
DCBP				20	18.9	94.5	50	150	
L16013-01		10/24/97	OP61203-1						
TCMX				20	16.8	84.0	50	150	
DCBP				20	16.5	82.5	50	150	
L16013-02		10/24/97	OP61203-1						
TCMX				20	17.8	89.0	50	150	
DCBP				20	18.6	93.0	50	150	
L16013-03		10/24/97	OP61203-1						
TCMX				20	17.4	87.0	50	150	
DCBP				20	20.5	103	50	150	

ACZ

QC SUMMARY

30400 Downhill Drive
Steamboat Springs, CO 80487

ACZ Project #	*L16013*	**Matrix**	*Ground Water*
Client	*Daniel B. Stephens & Associates*		
Client Project ID	*7004.4, Philips Semi*	**Analysis Group**	*Pesticide*
Date Received	*10/17/97*		
Date Reported	*11/12/97*	**QC Report**	*Surrogate Recovery*

SURROGATES

EPA 8080

Associated Client Samples L16013-01 to -07

Prep Work Groups WG50108
WG50217
Analytical Work Group WG50438

ACZ ID	GC File ID	Analysis Date	SCN#	Spike Value (ng/mL)	Sample Value (ng/mL)	Percent Recovery (%R)	Control Limits Lower (%)	Control Limits Upper (%)	Q
L16013-04		10/24/97	OP61203-1						
TCMX				20	20.1	101	50	150	
DCBP				20	17.3	86.5	50	150	
L16013-05		10/24/97	OP61203-1						
TCMX				20	21.0	105	50	150	
DCBP				20	20.4	102	50	150	
L16013-06		10/24/97	OP61203-1						
TCMX				20	20.6	103	50	150	
DCBP				20	17.9	89.5	50	150	
L16013-07		10/24/97	OP61203-1						
TCMX				20	18.5	92.5	50	150	
DCBP				20	14.3	71.5	50	150	

ACZ

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

QC REFERENCE

QC Report Types

(1)	Calibration Verification - Blanks	Verifies that there is no or minimal contamination in the instrument calibration.
(2)	Calibration Verification - Control Samples	Verifies the accuracy of the instrument calibration.
(3)	Method Verification - Blanks	Verifies that there is no or minimal contamination in the prep method procedure.
(4)	Method Verification - Control Samples	Verifies the accuracy of the method, including the prep procedure.
(5)	Spike Verification	Determines sample matrix interferences, if any.
(6)	Duplicate Verification	Verifies the precision of the instrument and/or method.

QC Sample Types

ICV	Initial Calibration Verification	QCS	Quality Control Sample
CCV	Continuing Calibration Verification	ICS	Instrument Check Sample
LCSW	Laboratory Control Sample - Water	LFB	Laboratory Fortified Blank
LCSS	Laboratory Control Sample - Soil	LFM	Laboratory Fortified Matrix
ICB	Initial Calibration Blank	AS	Analytical (Post Digestion) Spike
CCB	Continuing Calibration Blank	MS	Matrix Spike
LRB	Laboratory Reagent Blank	LFMD	Laboratory Fortified Matrix Duplicate
PBW	Prep Blank - Water	ASD	Analytical Spike (Post Digestion) Duplicate
PBS	Prep Blank - Soil	MSD	Matrix Spike Duplicate
		DUP	Sample Duplicate

Unique ACZ QC Summary Qualifiers (Q)

Z	Poor spike recovery is accepted because sample concentration is four times greater than spike concentration.
Y	This sample, instead of one of yours, was used as the quality control sample for the workgroup batch.
X	QC is out of control. See Case Narrative.
W	Poor recovery for Silver quality control is accepted because Silver often precipitates with Chloride.
V	High blank data accepted because sample concentration is 10 times higher than blank concentration
T	High Relative Percent Difference (RPD) accepted because sample concentrations are less than 10x the MDL.
S	ICV/QCS sample not part of workgroup; analyzed immediately following instrument calibration as part of a prevous workgroup.

Method References

(1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(4) EPA 600/4-80-032. Prescribed Procedures for Measurement of Radioactivity in Drinking Water, August 1980.
(5) EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update II, September 1994.
(6) Standard Methods for the Examination of Water and Wastewater, 18th edition, 1992.

Comments

(1) QC results calculated from raw data. Results may vary slightly if the reported (rounded) values are used in the calculations.
(2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3) Animal matrices for Inorganic analyses are reported on an "as received" basis.
(4) All matrices for Organic analyses are reported on an "as received" basis, except for TPH-IR analyses on soils which are reported on a dry weight basis.
(5) The PCN/SCN header on the QC reports stands for Primary Control Number/Secondary Control Number. All stock chemicals are given a PCN and any reagent made at the bench level is assigned a SCN. These numbers track our standards and chemicals so that any reagent is traceable to a certificate of analysis.

This report is subject to the "Terms & Conditions" section in ACZ Laboratories, Inc. 1995 Analytical Services Fee Schedule.

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

QC Report ID: QC1507-B

ACZ Project ID: L16013

REPORT TO:

Richard Meixner
Daniel B. Stephens & Associates
6020 Academy NE Suite 100
Albuquerque, NM 87109
Wednesday, November 12, 1997

NA

Cynthia Clark, Document Control Assistant

Date

S. Habermehl

Scott Habermehl, Project Manager

11/20/97

Date

REPQC001.07.97.03

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

ACZ Project #	*L16013*
QC Report ID	*QC1507-B*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4, Philips Semi*
Date Received	*10/17/97*
Date Reported	*11/12/97*

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ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Sample Identification

ACZ Project #	*L16013*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4, Philips Semi*
Date Received	*10/17/97*
Date Reported	*11/12/97*

ACZ Lab ID	Client Sample ID	Sample Matrix	Date Sampled	Date Received
L16013-01	NCLF-2	Ground Water	10/14/97 11:25:00 AM	10/17/97
L16013-02	NCLF-3	Ground Water	10/14/97 1:25:00 PM	10/17/97
L16013-03	MW-3	Ground Water	10/14/97 2:30:00 PM	10/17/97
L16013-04	MW-4	Ground Water	10/14/97 5:40:00 PM	10/17/97
L16013-05	MW-2	Ground Water	10/15/97 10:45:00 AM	10/17/97
L16013-06	MW-1	Ground Water	10/15/97 2:45:00 PM	10/17/97
L16013-07	MW-5	Ground Water	10/15/97 4:00:00 PM	10/17/97
L16013-08	Trip Blank	Ground Water	10/14/97 11:25:00 AM	10/17/97

Comments:

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Project Summary

ACZ Project # L16013
Client Daniel B. Stephens & Associates
Client Project ID 7004.4, Philips Semi
Date Received 10/17/97
Date Reported 11/12/97

ACZ Lab ID: L16013-

Product Description	Method	01	02	03	04	05	06	07	08
Antimony, total	M6020 ICP-MS	X	X	X	X	X	X	X	
Arsenic, total	M6020 ICP-MS	X	X	X	X	X	X	X	
Barium, total	M6010 ICP	X	X	X	X	X	X	X	
Base Neutral Acid Extractables by GC/MS	M8270	X	X	X	X	X	X	X	
Beryllium, total	M6010 ICP	X	X	X	X	X	X	X	
Cadmium, total	M6010 ICP	X	X	X	X	X	X	X	
Chromium, total	M6010 ICP	X	X	X	X	X	X	X	
Cobalt, total	M6010 ICP	X	X	X	X	X	X	X	
Copper, total	M6010 ICP	X	X	X	X	X	X	X	
Diskette Preparation and Delivery									
Lead, total	M6020 ICP-MS	X	X	X	X	X	X	X	
Mercury, total	M7470 CVAA	X	X	X	X	X	X	X	
Nickel, total	M6010 ICP	X	X	X	X	X	X	X	
Organochlorine Pesticide/PCB	M8080	X	X	X	X	X	X	X	
Selenium, total	SM 3500-Se C, AA-Hydride	X	X	X	X	X	X	X	
Silver, total	M6010 ICP	X	X	X	X	X	X	X	
Thallium, total	M6020 ICP-MS	X	X	X	X	X	X	X	
Tin, total	M6010 ICP	X	X	X	X	X	X	X	
Total Digestion	M3015 ICP	X	X	X	X	X	X	X	
Total Digestion	M3015 ICP-MS	X	X	X	X	X	X	X	
Vanadium, total	M6010 ICP	X	X	X	X	X	X	X	
Volatile Organics by GC/MS	M524.2	X	X	X	X	X	X	X	X
Zinc, total	M6010 ICP	X	X	X	X	X	X	X	

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
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Calibration Verification - Control Samples

Cover Page

ACZ Project #	L16013
QC Report ID	QC1507-B
Client	Daniel B. Stephens & Associates
Client Project ID	7004.4, Philips Semi
Date Received	10/17/97
Date Reported	11/12/97

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Metals - Cold Vapor	
Total Metals	
Metals - Hydride	
Total Metals	
Metals - ICP	
Total Metals	
Metals - ICPMS	
Total Metals	

Additional analytical runs may have been required as a result of matrix effects and/or instrumental problems.
Re-analysis data immediately follows initial QC data as outlined in above sequence.

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Matrix Aqueous
Analysis Group Metals - Cold Vapor
QC Report ***Calibration Verification-Control Samples***

ACZ Project #	*L16013*
QC Report ID	*QC1507-B*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4, Philips Semi*
Date Received	*10/17/97*
Date Reported	*11/12/97*

Mercury, total

Method M7470 CVAA

ACZ ID	QC Type	PCN / SCN#	Analysis Date	Concentration (mg/L)			Control Limits, %		Q
				True	Found	Q Rec (%)	Lower	Upper	
WG50200CCV1	CCV	II970618-01	10/22/97 5:48:40 PM	0.01	0.00948	94.8	90	110	
WG50200CCV2	CCV	II970618-01	10/22/97 6:05:18 PM	0.01	0.00924	92.4	90	110	
WG50200ICV	ICV	II970618-01	10/22/97 6:29:50 PM	0.01	0.00944	94.4	80	120	

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Matrix *Aqueous*
Analysis Group *Metals - Hydride*
QC Report ***Calibration Verification-Control Samples***

ACZ Project #	*L16013*
QC Report ID	*QC1507-B*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4, Philips Semi*
Date Received	*10/17/97*
Date Reported	*11/12/97*

Selenium, total

Method SM 3500-Se C, AA-Hydride

ACZ ID	QC Type	PCN / SCN#	Analysis Date	Concentration (mg/L)			Control Limits, %		Q
				True	Found	Q Rec (%)	Lower	Upper	
WG50810ICV	ICV	II970815-1	10/31/97 5:33:00 PM	0.02	0.0210	105	90	110	
WG50810CCV2	CCV	II970815-1	10/31/97 5:51:00 PM	0.02	0.0183	91.5	90	110	
WG50810CCV4	CCV	II970815-1	10/31/97 6:45:00 PM	0.02	0.0210	105	90	110	

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Matrix Aqueous
Analysis Group Metals - ICP
QC Report ***Calibration Verification-Control Samples***

ACZ Project #	L16013
QC Report ID	QC1507-B
Client	Daniel B. Stephens & Associates
Client Project ID	7004.4, Philips Semi
Date Received	10/17/97
Date Reported	11/12/97

Total Metals

Method M6010 ICP

Element	ACZ ID	QC Type	PCN / SCN#	Analysis Date	Concentration (mg/L)			Control Limits,%		Q
					True	Found	Q Rec (%)	Lower	Upper	
Barium	WG50304ICV	ICV	II971014-1	10/23/97 10:13:00 AM	1	0.998	99.8	90	110	S
Barium	WG50298CCV2	CCV	II971022-1	10/23/97 1:45:00 PM	5	4.86	97.3	90	110	
Barium	WG50298CCV3	CCV	II971022-1	10/23/97 2:28:00 PM	5	4.93	98.6	90	110	
Barium	WG50298CCV4	CCV	II971022-1	10/23/97 3:08:00 PM	5	4.82	96.4	90	110	
Barium	WG50667ICV	ICV	II9701006-1	10/29/97 10:26:00 AM	1	0.987	98.7	90	110	S
Barium	WG50767CCV1	CCV	II971022-1	10/29/97 12:03:00 PM	5	4.90	98	90	110	
Barium	WG50767CCV2	CCV	II971022-1	10/29/97 12:53:00 PM	5	5.03	100.5	90	110	
Barium	WG50767CCV3	CCV	II971022-1	10/29/97 1:14:00 PM	5	5.02	100.4	90	110	
Beryllium	WG50304ICV	ICV	II971014-1	10/23/97 10:13:00 AM	1	1.03	102.7	90	110	S
Beryllium	WG50298CCV2	CCV	II971022-1	10/23/97 1:45:00 PM	0.25	0.242	96.8	90	110	
Beryllium	WG50298CCV3	CCV	II971022-1	10/23/97 2:28:00 PM	0.25	0.245	98	90	110	
Beryllium	WG50298CCV4	CCV	II971022-1	10/23/97 3:08:00 PM	0.25	0.239	95.5	90	110	
Beryllium	WG50691ICV	ICV	II971014-1	10/29/97 10:21:00 PM	1	1.02	101.6	90	110	
Beryllium	WG50691CCV1	CCV	II971022-1	10/29/97 11:10:00 PM	0.25	0.258	103	90	110	
Beryllium	WG50691CCV2	CCV	II971022-1	10/29/97 11:51:00 PM	0.25	0.258	103.3	90	110	
Cadmium	WG50304ICV	ICV	II971014-1	10/23/97 10:13:00 AM	1	1.02	101.9	90	110	S
Cadmium	WG50298CCV2	CCV	II971022-1	10/23/97 1:45:00 PM	2.5	2.40	96	90	110	
Cadmium	WG50298CCV3	CCV	II971022-1	10/23/97 2:28:00 PM	2.5	2.44	97.5	90	110	
Cadmium	WG50298CCV4	CCV	II971022-1	10/23/97 3:08:00 PM	2.5	2.38	95.2	90	110	
Cadmium	WG50667ICV	ICV	II9701006-1	10/29/97 10:26:00 AM	1	0.993	99.3	90	110	S
Cadmium	WG50767CCV1	CCV	II971022-1	10/29/97 12:03:00 PM	2.5	2.66	106.4	90	110	
Cadmium	WG50767CCV2	CCV	II971022-1	10/29/97 12:53:00 PM	2.5	2.69	107.8	90	110	
Cadmium	WG50767CCV3	CCV	II971022-1	10/29/97 1:14:00 PM	2.5	2.71	108.5	90	110	

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Matrix Aqueous
Analysis Group Metals - ICP
QC Report ***Calibration Verification-Control Samples***

ACZ Project #	L16013
QC Report ID	QC1507-B
Client	Daniel B. Stephens & Associates
Client Project ID	7004.4, Philips Semi
Date Received	10/17/97
Date Reported	11/12/97

Total Metals

Method M6010 ICP

Element	ACZ ID	QC Type	PCN / SCN#	Analysis Date	Concentration (mg/L)			Control Limits,%		Q
					True	Found	Q Rec (%)	Lower	Upper	
Chromium	WG50304ICV	ICV	II971014-1	10/23/97 10:13:00 AM	1	1.02	102	90	110	S
Chromium	WG50298CCV2	CCV	II971022-1	10/23/97 1:45:00 PM	1	0.952	95.2	90	110	
Chromium	WG50298CCV3	CCV	II971022-1	10/23/97 2:28:00 PM	1	0.967	96.7	90	110	
Chromium	WG50298CCV4	CCV	II971022-1	10/23/97 3:08:00 PM	1	0.946	94.6	90	110	
Chromium	WG50691ICV	ICV	II971014-1	10/29/97 10:21:00 PM	1	0.994	99.4	90	110	
Chromium	WG50691CCV1	CCV	II971022-1	10/29/97 11:10:00 PM	1	0.993	99.3	90	110	
Chromium	WG50691CCV2	CCV	II971022-1	10/29/97 11:51:00 PM	1	0.998	99.8	90	110	
Cobalt	WG50304ICV	ICV	II971014-1	10/23/97 10:13:00 AM	1	1.01	101.1	90	110	S
Cobalt	WG50298CCV2	CCV	II971022-1	10/23/97 1:45:00 PM	1.25	1.22	97.3	90	110	
Cobalt	WG50298CCV3	CCV	II971022-1	10/23/97 2:28:00 PM	1.25	1.23	98.5	90	110	
Cobalt	WG50298CCV4	CCV	II971022-1	10/23/97 3:08:00 PM	1.25	1.20	96	90	110	
Cobalt	WG50691ICV	ICV	II971014-1	10/29/97 10:21:00 PM	1	0.983	98.3	90	110	
Cobalt	WG50691CCV1	CCV	II971022-1	10/29/97 11:10:00 PM	1.25	1.27	101.6	90	110	
Cobalt	WG50691CCV2	CCV	II971022-1	10/29/97 11:51:00 PM	1.25	1.27	102	90	110	
Copper	WG50304ICV	ICV	II971014-1	10/23/97 10:13:00 AM	1	1.00	100.4	90	110	S
Copper	WG50298CCV2	CCV	II971022-1	10/23/97 1:45:00 PM	1.25	1.21	96.8	90	110	
Copper	WG50298CCV3	CCV	II971022-1	10/23/97 2:28:00 PM	1.25	1.23	98.1	90	110	
Copper	WG50298CCV4	CCV	II971022-1	10/23/97 3:08:00 PM	1.25	1.20	96.1	90	110	
Copper	WG50691ICV	ICV	II971014-1	10/29/97 10:21:00 PM	1	1.00	100.4	90	110	
Copper	WG50691CCV1	CCV	II971022-1	10/29/97 11:10:00 PM	1.25	1.28	102.3	90	110	
Copper	WG50691CCV2	CCV	II971022-1	10/29/97 11:51:00 PM	1.25	1.28	102.4	90	110	

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Matrix Aqueous
Analysis Group Metals - ICP
QC Report ***Calibration Verification-Control Samples***

ACZ Project #	L16013
QC Report ID	QC1507-B
Client	Daniel B. Stephens & Associates
Client Project ID	7004.4, Philips Semi
Date Received	10/17/97
Date Reported	11/12/97

Total Metals

Method M6010 ICP

Element	ACZ ID	QC Type	PCN / SCN#	Analysis Date	Concentration (mg/L)			Control Limits,%		Q
					True	Found	Q Rec (%)	Lower	Upper	
Nickel	WG50304ICV	ICV	II971014-1	10/23/97 10:13:00 AM	1	1.00	100.4	90	110	S
Nickel	WG50298CCV2	CCV	II971022-1	10/23/97 1:45:00 PM	1.25	1.19	95	90	110	
Nickel	WG50298CCV3	CCV	II971022-1	10/23/97 2:28:00 PM	1.25	1.20	96.3	90	110	
Nickel	WG50298CCV4	CCV	II971022-1	10/23/97 3:08:00 PM	1.25	1.18	94.4	90	110	
Nickel	WG50691ICV	ICV	II971014-1	10/29/97 10:21:00 PM	1	0.993	99.3	90	110	
Nickel	WG50691CCV1	CCV	II971022-1	10/29/97 11:10:00 PM	1.25	1.26	100.4	90	110	
Nickel	WG50691CCV2	CCV	II971022-1	10/29/97 11:51:00 PM	1.25	1.27	101.6	90	110	
Silver	WG50304ICV	ICV	II971014-1	10/23/97 10:13:00 AM	1	1.01	101.2	90	110	S
Silver	WG50298CCV2	CCV	II971022-1	10/23/97 1:45:00 PM	1.25	1.20	95.9	90	110	
Silver	WG50298CCV3	CCV	II971022-1	10/23/97 2:28:00 PM	1.25	1.21	97	90	110	
Silver	WG50298CCV4	CCV	II971022-1	10/23/97 3:08:00 PM	1.25	1.19	95.4	90	110	
Silver	WG50691ICV	ICV	II971014-1	10/29/97 10:21:00 PM	1	0.995	99.5	90	110	
Silver	WG50691CCV1	CCV	II971022-1	10/29/97 11:10:00 PM	1.25	1.24	99.5	90	110	
Silver	WG50691CCV2	CCV	II971022-1	10/29/97 11:51:00 PM	1.25	1.25	99.9	90	110	
Tin	WG51354ICV	ICV	II971103-1	11/10/97 1:16:00 PM	4	3.89	97.3	90	110	
Tin	WG51354CCV1	CCV	II971022-1	11/10/97 1:50:00 PM	5	5.09	101.8	90	110	
Tin	WG51354CCV2	CCV	II971022-1	11/10/97 2:23:00 PM	5	4.98	99.6	90	110	
Vanadium	WG50304ICV	ICV	II971014-1	10/23/97 10:13:00 AM	1	1.00	100.3	90	110	S
Vanadium	WG50298CCV2	CCV	II971022-1	10/23/97 1:45:00 PM	1.25	1.17	93.2	90	110	
Vanadium	WG50298CCV3	CCV	II971022-1	10/23/97 2:28:00 PM	1.25	1.18	94.3	90	110	
Vanadium	WG50298CCV4	CCV	II971022-1	10/23/97 3:08:00 PM	1.25	1.15	92.3	90	110	
Vanadium	WG50691ICV	ICV	II971014-1	10/29/97 10:21:00 PM	1	0.996	99.6	90	110	
Vanadium	WG50691CCV1	CCV	II971022-1	10/29/97 11:10:00 PM	1.25	1.23	98.7	90	110	
Vanadium	WG50691CCV2	CCV	II971022-1	10/29/97 11:51:00 PM	1.25	1.24	99	90	110	

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Matrix | *Aqueous*
Analysis Group | *Metals - ICP*
QC Report | ***Calibration Verification-Control Samples***

ACZ Project #	*L16013*
QC Report ID	*QC1507-B*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4, Philips Semi*
Date Received	*10/17/97*
Date Reported	*11/12/97*

Total Metals

Method M6010 ICP

Element	ACZ ID	QC Type	PCN / SCN#	Analysis Date	Concentration (mg/L)			Control Limits,%		Q
					True	Found	Q Rec (%)	Lower	Upper	
Zinc	WG50304ICV	ICV	II971014-1	10/23/97 10:13:00 AM	1	1.02	101.7	90	110	S
Zinc	WG50298CCV2	CCV	II971022-1	10/23/97 1:45:00 PM	1.25	1.20	96.2	90	110	
Zinc	WG50298CCV3	CCV	II971022-1	10/23/97 2:28:00 PM	1.25	1.21	97.1	90	110	
Zinc	WG50298CCV4	CCV	II971022-1	10/23/97 3:08:00 PM	1.25	1.19	95.6	90	110	
Zinc	WG50691ICV	ICV	II971014-1	10/29/97 10:21:00 PM	1	1.00	100.2	90	110	
Zinc	WG50691CCV1	CCV	II971022-1	10/29/97 11:10:00 PM	1.25	1.28	102	90	110	
Zinc	WG50691CCV2	CCV	II971022-1	10/29/97 11:51:00 PM	1.25	1.28	102.2	90	110	

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Matrix Aqueous
Analysis Group Metals - ICPMS
QC Report ***Calibration Verification-Control Samples***

ACZ Project #	L16013
QC Report ID	QC1507-B
Client	Daniel B. Stephens & Associates
Client Project ID	7004.4, Philips Semi
Date Received	10/17/97
Date Reported	11/12/97

Total Metals

Method M6020 ICP-MS

Element	ACZ ID	QC Type	PCN / SCN#	Analysis Date	Concentration (mg/L)			Control Limits,%		Q
					True	Found	Q. Rec (%)	Lower	Upper	
Antimony	WG50169ICV	ICV	MS971008-2	10/21/97 9:49:00 PM	0.05	0.0492	98.4	90	110	
Antimony	WG50169CCV1	CCV	MS971008-2	10/21/97 11:18:00 PM	0.05	0.0501	100.2	90	110	
Antimony	WG50169CCV2	CCV	MS971008-2	10/22/97 12:50:00 AM	0.05	0.0495	99	90	110	
Antimony	WG50169CCV3	CCV	MS971008-2	10/22/97 1:34:00 AM	0.05	0.0495	98.9	90	110	
Antimony	WG50529ICV	ICV	MS971027-2	10/28/97 12:51:00 AM	0.05	0.0507	101.4	90	110	
Antimony	WG50529CCV1	CCV	MS971027-2	10/28/97 2:19:00 AM	0.05	0.0509	101.9	90	110	
Antimony	WG51035ICV	ICV	MS971027-2	11/4/97 5:03:00 PM	0.05	0.0510	102	90	110	
Antimony	WG51035CCV1	CCV	MS971027-2	11/4/97 6:30:00 PM	0.05	0.0529	105.8	90	110	
Arsenic	WG50342ICV	ICV	MS971008-8	10/23/97 6:12:00 PM	0.05	0.0495	99	90	110	
Arsenic	WG50342CCV2	CCV	MS971008-8	10/23/97 10:42:00 PM	0.05	0.0469	93.7	90	110	
Arsenic	WG50342CCV3	CCV	MS971008-8	10/24/97 12:36:00 AM	0.05	0.0473	94.6	90	110	
Arsenic	WG50529ICV	ICV	MS971027-2	10/28/97 12:51:00 AM	0.05	0.0496	99.2	90	110	
Arsenic	WG50529CCV1	CCV	MS971027-2	10/28/97 2:19:00 AM	0.05	0.0488	97.5	90	110	
Arsenic	WG51035ICV	ICV	MS971027-2	11/4/97 5:03:00 PM	0.05	0.0522	104.4	90	110	
Arsenic	WG51035CCV1	CCV	MS971027-2	11/4/97 6:30:00 PM	0.05	0.0499	99.8	90	110	
Lead	WG50169ICV	ICV	MS971008-2	10/21/97 9:49:00 PM	0.05	0.0494	98.8	90	110	
Lead	WG50169CCV1	CCV	MS971008-2	10/21/97 11:18:00 PM	0.05	0.0500	100	90	110	
Lead	WG50169CCV2	CCV	MS971008-2	10/22/97 12:50:00 AM	0.05	0.0494	98.8	90	110	
Lead	WG50169CCV3	CCV	MS971008-2	10/22/97 1:34:00 AM	0.05	0.0501	100.2	90	110	
Lead	WG50529ICV	ICV	MS971027-2	10/28/97 12:51:00 AM	0.05	0.0518	103.5	90	110	
Lead	WG50529CCV1	CCV	MS971027-2	10/28/97 2:19:00 AM	0.05	0.0513	102.7	90	110	
Lead	WG51035ICV	ICV	MS971027-2	11/4/97 5:03:00 PM	0.05	0.0530	106	90	110	
Lead	WG51035CCV1	CCV	MS971027-2	11/4/97 6:30:00 PM	0.05	0.0529	105.8	90	110	

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Matrix Aqueous
Analysis Group Metals - ICPMS
QC Report ***Calibration Verification-Control Samples***

ACZ Project #	L16013
QC Report ID	QC1507-B
Client	Daniel B. Stephens & Associates
Client Project ID	7004.4, Philips Semi
Date Received	10/17/97
Date Reported	11/12/97

Total Metals

Method M6020 ICP-MS

Element	ACZ ID	QC Type	PCN / SCN#	Analysis Date	Concentration (mg/L)			Control Limits,%		Q
					True	Found	Q Rec (%)	Lower	Upper	
Thallium	WG50169ICV	ICV	MS971008-2	10/21/97 9:49:00 PM	0.05	0.0491	98.2	90	110	
Thallium	WG50169CCV1	CCV	MS971008-2	10/21/97 11:18:00 PM	0.05	0.0498	99.6	90	110	
Thallium	WG50169CCV2	CCV	MS971008-2	10/22/97 12:50:00 AM	0.05	0.0489	97.7	90	110	
Thallium	WG50169CCV3	CCV	MS971008-2	10/22/97 1:34:00 AM	0.05	0.0499	99.8	90	110	
Thallium	WG50529ICV	ICV	MS971027-2	10/28/97 12:51:00 AM	0.05	0.0514	102.7	90	110	
Thallium	WG50529CCV1	CCV	MS971027-2	10/28/97 2:19:00 AM	0.05	0.0510	102	90	110	
Thallium	WG51035ICV	ICV	MS971027-2	11/4/97 5:03:00 PM	0.05	0.0514	102.8	90	110	
Thallium	WG51035CCV1	CCV	MS971027-2	11/4/97 6:30:00 PM	0.05	0.0509	101.8	90	110	

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Calibration Verification - Blanks

Cover Page

ACZ Project #	*L16013*
QC Report ID	*QC1507-B*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4, Philips Semi*
Date Received	*10/17/97*
Date Reported	*11/12/97*

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Metal Analysis	15
Metals - Cold Vapor	
Total Metals	
Metals - Hydride	
Total Metals	
Metals - ICP	
Total Metals	
Metals - ICPMS	
Total Metals	

Additional analytical runs may have been required as a result of matrix effects and/or instrumental problems.
Re-analysis data immediately follows initial QC data as outlined in above sequence.

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Matrix *Aqueous*
Analysis Group *Metals - Hydride*
QC Report ***Calibration Verification-Blanks***

ACZ Project #	*L16013*
QC Report ID	*QC1507-B*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4, Philips Semi*
Date Received	*10/17/97*
Date Reported	*11/12/97*

Selenium, total

Method SM 3500-Se C, AA-Hydride

ACZ ID	QC Type	Analysis Date	Concentration			Control Limits		Units	Q
			MDL	Found	Q	Lower	Upper		
WG50810ICB	ICB	10/31/97 5:34:00 PM	0.001	0.000100		-0.001	0.001	mg/L	
WG50810CCB2	CCB	10/31/97 5:52:00 PM	0.001	-0.000100		-0.001	0.001	mg/L	
WG50810CCB4	CCB	10/31/97 6:47:00 PM	0.001	0.000		-0.001	0.001	mg/L	

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Matrix Aqueous
Analysis Group Metals - Cold Vapor
QC Report ***Calibration Verification-Blanks***

ACZ Project #	*L16013*
QC Report ID	*QC1507-B*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4, Philips Semi*
Date Received	*10/17/97*
Date Reported	*11/12/97*

Mercury, total

Method M7470 CVAA

ACZ ID	QC Type	Analysis Date	Concentration			Control Limits		Units	Q
			MDL	Found	Q	Lower	Upper		
WG50200CCB1	CCB	10/22/97 5:50:07 PM	0.0002	-0.000100		-0.0002	0.0002	mg/L	
WG50200CCB2	CCB	10/22/97 6:06:45 PM	0.0002	-0.000100		-0.0002	0.0002	mg/L	
WG50200ICB	ICB	10/22/97 6:31:17 PM	0.0002	0.000		-0.0002	0.0002	mg/L	

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Matrix Aqueous
Analysis Group Metals - ICP
QC Report ***Calibration Verification-Blanks***

ACZ Project #	L16013
QC Report ID	QC1507-B
Client	Daniel B. Stephens & Associates
Client Project ID	7004.4, Philips Semi
Date Received	10/17/97
Date Reported	11/12/97

Total Metals

Method M6010 ICP

Element	ACZ ID	QC Type	Analysis Date	Concentration			Control Limits		Units	Q
				MDL	Found	Q	Lower	Upper		
Barium	WG50304ICB	ICB	10/23/97 10:17:00 AM	0.003	0.000700		-0.003	0.003	mg/L	S
Barium	WG50298CCB2	CCB	10/23/97 1:48:00 PM	0.003	0.00120		-0.003	0.003	mg/L	
Barium	WG50298CCB3	CCB	10/23/97 2:32:00 PM	0.003	0.00180		-0.003	0.003	mg/L	
Barium	WG50298CCB4	CCB	10/23/97 3:11:00 PM	0.003	0.00120		-0.003	0.003	mg/L	
Barium	WG50667ICB	ICB	10/29/97 10:30:00 AM	0.003	0.000700		-0.003	0.003	mg/L	S
Barium	WG50767CCB1	CCB	10/29/97 12:08:00 PM	0.003	0.00140		-0.003	0.003	mg/L	
Barium	WG50767CCB2	CCB	10/29/97 12:57:00 PM	0.003	0.00170		-0.003	0.003	mg/L	
Barium	WG50767CCB3	CCB	10/29/97 1:18:00 PM	0.003	0.00130		-0.003	0.003	mg/L	
Beryllium	WG50304ICB	ICB	10/23/97 10:17:00 AM	0.002	0.000700		-0.002	0.002	mg/L	S
Beryllium	WG50298CCB2	CCB	10/23/97 1:48:00 PM	0.002	0.000200		-0.002	0.002	mg/L	
Beryllium	WG50298CCB3	CCB	10/23/97 2:32:00 PM	0.002	0.000100		-0.002	0.002	mg/L	
Beryllium	WG50298CCB4	CCB	10/23/97 3:11:00 PM	0.002	0.000100		-0.002	0.002	mg/L	
Beryllium	WG50691ICB	ICB	10/29/97 10:25:00 PM	0.002	0.000500		-0.002	0.002	mg/L	
Beryllium	WG50691CCB1	CCB	10/29/97 11:14:00 PM	0.002	0.000200		-0.002	0.002	mg/L	
Beryllium	WG50691CCB2	CCB	10/29/97 11:55:00 PM	0.002	0.000200		-0.002	0.002	mg/L	
Cadmium	WG50304ICB	ICB	10/23/97 10:17:00 AM	0.003	-0.000800		-0.003	0.003	mg/L	S
Cadmium	WG50298CCB2	CCB	10/23/97 1:48:00 PM	0.003	-0.000200		-0.003	0.003	mg/L	
Cadmium	WG50298CCB3	CCB	10/23/97 2:32:00 PM	0.003	-0.000400		-0.003	0.003	mg/L	
Cadmium	WG50298CCB4	CCB	10/23/97 3:11:00 PM	0.003	-0.000700		-0.003	0.003	mg/L	
Cadmium	WG50667ICB	ICB	10/29/97 10:30:00 AM	0.003	0.000300		-0.003	0.003	mg/L	S
Cadmium	WG50767CCB1	CCB	10/29/97 12:08:00 PM	0.003	0.000		-0.003	0.003	mg/L	
Cadmium	WG50767CCB2	CCB	10/29/97 12:57:00 PM	0.003	0.00100		-0.003	0.003	mg/L	
Cadmium	WG50767CCB3	CCB	10/29/97 1:18:00 PM	0.003	0.000500		-0.003	0.003	mg/L	

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Matrix Aqueous
Analysis Group Metals - ICP
QC Report ***Calibration Verification-Blanks***

ACZ Project #	L16013
QC Report ID	QC1507-B
Client	Daniel B. Stephens & Associates
Client Project ID	7004.4, Philips Semi
Date Received	10/17/97
Date Reported	11/12/97

Total Metals

Method M6010 ICP

Element	ACZ ID	QC Type	Analysis Date	Concentration			Control Limits		Units	Q
				MDL	Found	Q	Lower	Upper		
Chromium	WG50304ICB	ICB	10/23/97 10:17:00 AM	0.01	-0.00190		-0.01	0.01	mg/L	S
Chromium	WG50298CCB2	CCB	10/23/97 1:48:00 PM	0.01	0.00170		-0.01	0.01	mg/L	
Chromium	WG50298CCB3	CCB	10/23/97 2:32:00 PM	0.01	0.00170		-0.01	0.01	mg/L	
Chromium	WG50298CCB4	CCB	10/23/97 3:11:00 PM	0.01	0.000300		-0.01	0.01	mg/L	
Chromium	WG50691ICB	ICB	10/29/97 10:25:00 PM	0.01	0.00170		-0.01	0.01	mg/L	
Chromium	WG50691CCB1	CCB	10/29/97 11:14:00 PM	0.01	0.00170		-0.01	0.01	mg/L	
Chromium	WG50691CCB2	CCB	10/29/97 11:55:00 PM	0.01	0.00870		-0.01	0.01	mg/L	
Cobalt	WG50304ICB	ICB	10/23/97 10:17:00 AM	0.01	-0.00130		-0.01	0.01	mg/L	S
Cobalt	WG50298CCB2	CCB	10/23/97 1:48:00 PM	0.01	0.00190		-0.01	0.01	mg/L	
Cobalt	WG50298CCB3	CCB	10/23/97 2:32:00 PM	0.01	0.00310		-0.01	0.01	mg/L	
Cobalt	WG50298CCB4	CCB	10/23/97 3:11:00 PM	0.01	-0.00150		-0.01	0.01	mg/L	
Cobalt	WG50691ICB	ICB	10/29/97 10:25:00 PM	0.01	-0.00190		-0.01	0.01	mg/L	
Cobalt	WG50691CCB1	CCB	10/29/97 11:14:00 PM	0.01	0.00290		-0.01	0.01	mg/L	
Cobalt	WG50691CCB2	CCB	10/29/97 11:55:00 PM	0.01	0.00150		-0.01	0.01	mg/L	
Copper	WG50304ICB	ICB	10/23/97 10:17:00 AM	0.01	-0.00100		-0.01	0.01	mg/L	S
Copper	WG50298CCB2	CCB	10/23/97 1:48:00 PM	0.01	-0.000500		-0.01	0.01	mg/L	
Copper	WG50298CCB3	CCB	10/23/97 2:32:00 PM	0.01	-0.00140		-0.01	0.01	mg/L	
Copper	WG50298CCB4	CCB	10/23/97 3:11:00 PM	0.01	0.000		-0.01	0.01	mg/L	
Copper	WG50691ICB	ICB	10/29/97 10:25:00 PM	0.01	0.00210		-0.01	0.01	mg/L	
Copper	WG50691CCB1	CCB	10/29/97 11:14:00 PM	0.01	0.00160		-0.01	0.01	mg/L	
Copper	WG50691CCB2	CCB	10/29/97 11:55:00 PM	0.01	0.00470		-0.01	0.01	mg/L	

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Matrix Aqueous
Analysis Group Metals - ICP
QC Report ***Calibration Verification-Blanks***

ACZ Project #	*L16013*
QC Report ID	*QC1507-B*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4, Philips Semi*
Date Received	*10/17/97*
Date Reported	*11/12/97*

Total Metals

Method M6010 ICP

Element	ACZ ID	QC Type	Analysis Date	Concentration			Control Limits		Units	Q
				MDL	Found	Q	Lower	Upper		
Nickel	WG50304ICB	ICB	10/23/97 10:17:00 AM	0.01	0.00150		-0.01	0.01	mg/L	S
Nickel	WG50298CCB2	CCB	10/23/97 1:48:00 PM	0.01	-0.000700		-0.01	0.01	mg/L	
Nickel	WG50298CCB3	CCB	10/23/97 2:32:00 PM	0.01	0.000		-0.01	0.01	mg/L	
Nickel	WG50298CCB4	CCB	10/23/97 3:11:00 PM	0.01	0.00210		-0.01	0.01	mg/L	
Nickel	WG50691ICB	ICB	10/29/97 10:25:00 PM	0.01	0.00270		-0.01	0.01	mg/L	
Nickel	WG50691CCB1	CCB	10/29/97 11:14:00 PM	0.01	0.00180		-0.01	0.01	mg/L	
Nickel	WG50691CCB2	CCB	10/29/97 11:55:00 PM	0.01	0.00720		-0.01	0.01	mg/L	
Silver	WG50304ICB	ICB	10/23/97 10:17:00 AM	0.005	0.00200		-0.005	0.005	mg/L	S
Silver	WG50298CCB2	CCB	10/23/97 1:48:00 PM	0.005	0.00140		-0.005	0.005	mg/L	
Silver	WG50298CCB3	CCB	10/23/97 2:32:00 PM	0.005	0.00270		-0.005	0.005	mg/L	
Silver	WG50298CCB4	CCB	10/23/97 3:11:00 PM	0.005	0.000700		-0.005	0.005	mg/L	
Silver	WG50691ICB	ICB	10/29/97 10:25:00 PM	0.005	0.000900		-0.005	0.005	mg/L	
Silver	WG50691CCB1	CCB	10/29/97 11:14:00 PM	0.005	0.00180		-0.005	0.005	mg/L	
Silver	WG50691CCB2	CCB	10/29/97 11:55:00 PM	0.005	0.00310		-0.005	0.005	mg/L	
Tin	WG51354ICB	ICB	11/10/97 1:18:00 PM	0.1	-0.0100		-0.1	0.1	mg/L	
Tin	WG51354CCB i	CCB	11/10/97 1:52:00 PM	0.1	-0.0100		-0.1	0.1	mg/L	
Tin	WG51354CCB2	CCB	11/10/97 2:26:00 PM	0.1	-0.0100		-0.1	0.1	mg/L	
Vanadium	WG50304ICB	ICB	10/23/97 10:17:00 AM	0.005	0.000		-0.005	0.005	mg/L	S
Vanadium	WG50298CCB2	CCB	10/23/97 1:48:00 PM	0.005	0.000600		-0.005	0.005	mg/L	
Vanadium	WG50298CCB3	CCB	10/23/97 2:32:00 PM	0.005	0.00240		-0.005	0.005	mg/L	
Vanadium	WG50298CCB4	CCB	10/23/97 3:11:00 PM	0.005	0.000		-0.005	0.005	mg/L	
Vanadium	WG50691ICB	ICB	10/29/97 10:25:00 PM	0.005	0.000700		-0.005	0.005	mg/L	
Vanadium	WG50691CCB1	CCB	10/29/97 11:14:00 PM	0.005	0.00220		-0.005	0.005	mg/L	
Vanadium	WG50691CCB2	CCB	10/29/97 11:55:00 PM	0.005	0.00320		-0.005	0.005	mg/L	

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Matrix Aqueous
Analysis Group Metals - ICP
QC Report ***Calibration Verification-Blanks***

ACZ Project #	*L16013*
QC Report ID	*QC1507-B*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4, Philips Semi*
Date Received	*10/17/97*
Date Reported	*11/12/97*

Total Metals

Method M6010 ICP

Element	ACZ ID	QC Type	Analysis Date	Concentration			Control Limits		Units	Q
				MDL	Found	Q	Lower	Upper		
Zinc	WG50304ICB	ICB	10/23/97 10:17:00 AM	0.01	-0.000200		-0.01	0.01	mg/L	S
Zinc	WG50298CCB2	CCB	10/23/97 1:48:00 PM	0.01	-0.000800		-0.01	0.01	mg/L	
Zinc	WG50298CCB3	CCB	10/23/97 2:32:00 PM	0.01	-0.000800		-0.01	0.01	mg/L	
Zinc	WG50298CCB4	CCB	10/23/97 3:11:00 PM	0.01	-0.000900		-0.01	0.01	mg/L	
Zinc	WG50691ICB	ICB	10/29/97 10:25:00 PM	0.01	0.000		-0.01	0.01	mg/L	
Zinc	WG50691CCB1	CCB	10/29/97 11:14:00 PM	0.01	0.000500		-0.01	0.01	mg/L	
Zinc	WG50691CCB2	CCB	10/29/97 11:55:00 PM	0.01	0.00100		-0.01	0.01	mg/L	

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Matrix Aqueous
Analysis Group Metals - ICPMS
QC Report ***Calibration Verification-Blanks***

ACZ Project #	L16013
QC Report ID	QC1507-B
Client	Daniel B. Stephens & Associates
Client Project ID	7004.4, Philips Semi
Date Received	10/17/97
Date Reported	11/12/97

Total Metals

Method M6020 ICP-MS

Element	ACZ ID	QC Type	Analysis Date	Concentration			Control Limits		Units	Q
				MDL	Found	Q	Lower	Upper		
Antimony	WG50169ICB	ICB	10/21/97 9:56:00 PM	0.0002	0.000		-0.0002	0.0002	mg/L	
Antimony	WG50169CCB1	CCB	10/21/97 11:25:00 PM	0.0002	0.000		-0.0002	0.0002	mg/L	
Antimony	WG50169CCB2	CCB	10/22/97 12:57:00 AM	0.0002	0.000		-0.0002	0.0002	mg/L	
Antimony	WG50169CCB3	CCB	10/22/97 1:42:00 AM	0.0002	0.000		-0.0002	0.0002	mg/L	
Antimony	WG50529ICB	ICB	10/28/97 12:58:00 AM	0.0002	0.000		-0.0002	0.0002	mg/L	
Antimony	WG50529CCB1	CCB	10/28/97 2:26:00 AM	0.0002	0.000		-0.0002	0.0002	mg/L	
Antimony	WG51035ICB	ICB	11/4/97 5:10:00 PM	0.0002	0.000		-0.0002	0.0002	mg/L	
Antimony	WG51035CCB1	CCB	11/4/97 6:37:00 PM	0.0002	0.000		-0.0002	0.0002	mg/L	
Arsenic	WG50342ICB	ICB	10/23/97 6:23:00 PM	0.001	0.000		-0.001	0.001	mg/L	
Arsenic	WG50342CCB2	CCB	10/23/97 10:53:00 PM	0.001	-0.000200		-0.001	0.001	mg/L	
Arsenic	WG50342CCB3	CCB	10/24/97 12:47:00 AM	0.001	-0.000100		-0.001	0.001	mg/L	
Arsenic	WG50529ICB	ICB	10/28/97 12:58:00 AM	0.001	0.000		-0.001	0.001	mg/L	
Arsenic	WG50529CCB1	CCB	10/28/97 2:26:00 AM	0.001	0.000		-0.001	0.001	mg/L	
Arsenic	WG51035ICB	ICB	11/4/97 5:10:00 PM	0.001	0.000		-0.001	0.001	mg/L	
Arsenic	WG51035CCB1	CCB	11/4/97 6:37:00 PM	0.001	0.000100		-0.001	0.001	mg/L	
Lead	WG50169ICB	ICB	10/21/97 9:56:00 PM	0.0002	0.000		-0.0002	0.0002	mg/L	
Lead	WG50169CCB1	CCB	10/21/97 11:25:00 PM	0.0002	0.000		-0.0002	0.0002	mg/L	
Lead	WG50169CCB2	CCB	10/22/97 12:57:00 AM	0.0002	0.000		-0.0002	0.0002	mg/L	
Lead	WG50169CCB3	CCB	10/22/97 1:42:00 AM	0.0002	0.000		-0.0002	0.0002	mg/L	
Lead	WG50529ICB	ICB	10/28/97 12:58:00 AM	0.0002	0.000		-0.0002	0.0002	mg/L	
Lead	WG50529CCB1	CCB	10/28/97 2:26:00 AM	0.0002	0.000		-0.0002	0.0002	mg/L	
Lead	WG51035ICB	ICB	11/4/97 5:10:00 PM	0.0002	0.000		-0.0002	0.0002	mg/L	
Lead	WG51035CCB1	CCB	11/4/97 6:37:00 PM	0.0002	0.000		-0.0002	0.0002	mg/L	

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Matrix Aqueous
Analysis Group Metals - ICPMS
QC Report ***Calibration Verification-Blanks***

ACZ Project #	*L16013*
QC Report ID	*QC1507-B*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4, Philips Semi*
Date Received	*10/17/97*
Date Reported	*11/12/97*

Total Metals

Method M6020 ICP-MS

Element	ACZ ID	QC Type	Analysis Date	Concentration			Control Limits		Units	Q
				MDL	Found	Q	Lower	Upper		
Thallium	WG50169ICB	ICB	10/21/97 9:56:00 PM	0.0001	-0.000100		-0.0001	0.0001	mg/L	
Thallium	WG50169CCB1	CCB	10/21/97 11:25:00 PM	0.0001	-0.000100		-0.0001	0.0001	mg/L	
Thallium	WG50169CCB2	CCB	10/22/97 12:57:00 AM	0.0001	-0.000100		-0.0001	0.0001	mg/L	
Thallium	WG50169CCB3	CCB	10/22/97 1:42:00 AM	0.0001	-0.000100		-0.0001	0.0001	mg/L	
Thallium	WG50529ICB	ICB	10/28/97 12:58:00 AM	0.0001	0.000		-0.0001	0.0001	mg/L	
Thallium	WG50529CCB1	CCB	10/28/97 2:26:00 AM	0.0001	0.000		-0.0001	0.0001	mg/L	
Thallium	WG51035ICB	ICB	11/4/97 5:10:00 PM	0.0001	0.000		-0.0001	0.0001	mg/L	
Thallium	WG51035CCB1	CCB	11/4/97 6:37:00 PM	0.0001	0.000		-0.0001	0.0001	mg/L	

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Spike Verification

Cover Page

ACZ Project #	L16013
QC Report ID	QC1507-B
Client	Daniel B. Stephens & Associates
Client Project ID	7004.4, Philips Semi
Date Received	10/17/97
Date Reported	11/12/97

	Page
Metal Analysis	24
Metals - Cold Vapor	
Total Metals	
Metals - Hydride	
Total Metals	
Metals - ICP	
Total Metals	
Metals - ICPMS	
Total Metals	

Additional analytical runs may have been required as a result of matrix effects and/or instrumental problems.
Re-analysis data immediately follows initial QC data as outlined in above sequence.

ACZ

QC Summary

30400 Downhill Drive
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Matrix *Aqueous*
Analysis Group *Metals - Cold Vapor*
QC Report ***Spike Verification***

ACZ Project #	*L16013*
QC Report ID	*QC1507-B*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4, Philips Semi*
Date Received	*10/17/97*
Date Reported	*11/12/97*

Mercury, total

Method M7470 CVAA

ACZ ID	QC Type	PCN / SCN#	Analysis Date	Concentration Added	Sample	Q	Spike	Q	Units	Rec (%)	Control Limits, % Lower	Upper	Q
L16013-01AS	AS	II970618-02	10/22/97 5:43:06 PM	0.005		U	0.00585		mg/L	117	75	125	
L16013-01ASD	ASD	II970618-02	10/22/97 5:44:28 PM	0.005		U	0.00561		mg/L	110	75	125	

ACZ

QC Summary

30400 Downhill Drive
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Matrix *Aqueous*
Analysis Group *Metals - Hydride*
QC Report ***Spike Verification***

ACZ Project #	*L16013*
QC Report ID	*QC1507-B*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4, Philips Semi*
Date Received	*10/17/97*
Date Reported	*11/12/97*

Selenium, total

Method SM 3500-Se C, AA-Hydride

ACZ ID	QC Type	PCN / SCN#	Analysis Date	Concentration Added	Sample	Q	Spike	Q	Units	Rec (%)	Control Limits, % Lower	Upper	Q
L16013-01AS	AS	II970826-4	10/31/97 6:31:00 PM	0.02		U	0.0221		mg/L	110	75	125	
L16013-01ASD	ASD	II970826-4	10/31/97 6:32:00 PM	0.02		U	0.0225		mg/L	110	75	125	

ACZ	Client

ACZ

QC Summary

30400 Downhill Drive
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Matrix *Aqueous*
Analysis Group *Metals - ICP*
QC Report ***Spike Verification***

ACZ Project #	*L16013*
QC Report ID	*QC1507-B*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4, Philips Semi*
Date Received	*10/17/97*
Date Reported	*11/12/97*

Total Metals

Method M6010 ICP

Element	ACZ ID	QC Type	PCN / SCN#	Analysis Date	Concentration Added	Sample	Q	Spike	Q	Units	Rec (%)	Control Limits,% Lower	Upper	Q
Barium	L16013-04MS	MS	PCN6024	10/23/97 2:35:00 P	0.55	0.136		0.660		mg/L	94.4	80	120	
Barium	L16013-04MSD	MSD	PCN6024	10/23/97 2:39:00 P	0.55	0.136		0.657		mg/L	94	80	120	
Barium	L16013-02MS	MS	PCN6024	10/29/97 12:45:00 P	0.55	0.118		0.646		mg/L	95.1	80	120	
Barium	L16013-02MSD	MSD	PCN6024	10/29/97 12:49:00 P	0.55	0.118		0.652		mg/L	96.3	80	120	
Beryllium	L16013-04MS	MS	PCN6024	10/23/97 2:35:00 P	0.55		U	0.505		mg/L	91.1	80	120	
Beryllium	L16013-04MSD	MSD	PCN6024	10/23/97 2:39:00 P	0.55		U	0.502		mg/L	90.4	80	120	
Beryllium	L16013-02MS	MS	PCN6024	10/29/97 11:39:00 P	0.55		U	0.521		mg/L	93.8	80	120	
Beryllium	L16013-02MSD	MSD	PCN6024	10/29/97 11:43:00 P	0.55		U	0.522		mg/L	94.1	80	120	
Cadmium	L16013-04MS	MS	PCN6024	10/23/97 2:35:00 P	0.55		U	0.512		mg/L	92.3	80	120	
Cadmium	L16013-04MSD	MSD	PCN6024	10/23/97 2:39:00 P	0.55		U	0.507		mg/L	91.4	80	120	
Cadmium	L16013-02MS	MS	PCN6024	10/29/97 12:45:00 P	0.55	0.004	B	0.577		mg/L	103.2	80	120	
Cadmium	L16013-02MSD	MSD	PCN6024	10/29/97 12:49:00 P	0.55	0.004	B	0.567		mg/L	101.4	80	120	
Chromium	L16013-04MS	MS	PCN6024	10/23/97 2:35:00 P	0.55		U	0.518		mg/L	93.4	80	120	
Chromium	L16013-04MSD	MSD	PCN6024	10/23/97 2:39:00 P	0.55		U	0.517		mg/L	93.2	80	120	
Chromium	L16013-02MS	MS	PCN6024	10/29/97 11:39:00 P	0.55		U	0.534		mg/L	96.1	80	120	
Chromium	L16013-02MSD	MSD	PCN6024	10/29/97 11:43:00 P	0.55		U	0.531		mg/L	95.6	80	120	
Cobalt	L16013-04MS	MS	PCN6024	10/23/97 2:35:00 P	0.55		U	0.521		mg/L	93.8	80	120	
Cobalt	L16013-04MSD	MSD	PCN6024	10/23/97 2:39:00 P	0.55		U	0.519		mg/L	93.5	80	120	
Cobalt	L16013-02MS	MS	PCN6024	10/29/97 11:39:00 P	0.55		U	0.526		mg/L	94.8	80	120	
Cobalt	L16013-02MSD	MSD	PCN6024	10/29/97 11:43:00 P	0.55		U	0.526		mg/L	94.8	80	120	
Copper	L16013-04MS	MS	PCN6024	10/23/97 2:35:00 P	0.55		U	0.529		mg/L	95.3	80	120	
Copper	L16013-04MSD	MSD	PCN6024	10/23/97 2:39:00 P	0.55		U	0.522		mg/L	94.1	80	120	
Copper	L16013-02MS	MS	PCN6024	10/29/97 11:39:00 P	0.55		U	0.544		mg/L	98.1	80	120	
Copper	L16013-02MSD	MSD	PCN6024	10/29/97 11:43:00 P	0.55		U	0.549		mg/L	99	80	120	

ACZ

QC Summary

30400 Downhill Drive
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Matrix | *Aqueous*
Analysis Group | *Metals - ICP*
QC Report | ***Spike Verification***

ACZ Project #	*L16013*
QC Report ID	*QC1507-B*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4, Philips Semi*
Date Received	*10/17/97*
Date Reported	*11/12/97*

Total Metals

Method M6010 ICP

Element	ACZ ID	QC Type	PCN / SCN#	Analysis Date	Concentration Added	Sample	Q	Spike	Q	Units	Rec (%)	Control Limits,% Lower	Upper	Q
Nickel	L16013-04MS	MS	PCN6024	10/23/97 2:35:00 P	0.55		U	0.517		mg/L	93.1	80	120	
Nickel	L16013-04MSD	MSD	PCN6024	10/23/97 2:39:00 P	0.55		U	0.512		mg/L	92.2	80	120	
Nickel	L16013-02MS	MS	PCN6024	10/29/97 11:39:00 P	0.55		U	0.542		mg/L	97.7	80	120	
Nickel	L16013-02MSD	MSD	PCN6024	10/29/97 11:43:00 P	0.55		U	0.540		mg/L	97.4	80	120	
Silver	L16013-04MS	MS	II971009-4	10/23/97 2:35:00 P	0.55		U	0.154		mg/L	27.7	80	120	W
Silver	L16013-04MSD	MSD	II971009-4	10/23/97 2:39:00 P	0.55		U	0.151		mg/L	27.2	80	120	W
Silver	L16013-02MS	MS	II971009-4	10/29/97 11:39:00 P	0.55		U	0.105		mg/L	18.9	80	120	W
Silver	L16013-02MSD	MSD	II971009-4	10/29/97 11:43:00 P	0.55		U	0.103		mg/L	18.5	80	120	W
Tin	L16013-02MS	MS	PCN6024	11/10/97 1:36:00 P	1		U	1.23		mg/L	111	80	120	
Tin	L16013-02MSD	MSD	PCN6024	11/10/97 1:39:00 P	1		U	1.24		mg/L	112	80	120	
Vanadium	L16013-04MS	MS	PCN6124	10/23/97 2:35:00 P	0.55		U	0.519		mg/L	93.6	80	120	
Vanadium	L16013-04MSD	MSD	PCN6124	10/23/97 2:39:00 P	0.55		U	0.519		mg/L	93.4	80	120	
Vanadium	L16013-02MS	MS	PCN6124	10/29/97 11:39:00 P	0.55		U	0.542		mg/L	97.6	80	120	
Vanadium	L16013-02MSD	MSD	PCN6124	10/29/97 11:43:00 P	0.55		U	0.540		mg/L	97.3	80	120	
Zinc	L16013-04MS	MS	PCN6124	10/23/97 2:35:00 P	0.55	0.01	B	0.539		mg/L	95.3	80	120	
Zinc	L16013-04MSD	MSD	PCN6124	10/23/97 2:39:00 P	0.55	0.01	B	0.532		mg/L	94	80	120	
Zinc	L16013-02MS	MS	PCN6124	10/29/97 11:39:00 P	0.55	0.02	B	0.565		mg/L	98.1	80	120	
Zinc	L16013-02MSD	MSD	PCN6124	10/29/97 11:43:00 P	0.55	0.02	B	0.565		mg/L	98.2	80	120	

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Matrix Aqueous
Analysis Group Metals - ICPMS
QC Report ***Spike Verification***

ACZ Project #	L16013
QC Report ID	QC1507-B
Client	Daniel B. Stephens & Associates
Client Project ID	7004.4, Philips Semi
Date Received	10/17/97
Date Reported	11/12/97

Total Metals

Method M6020 ICP-MS

Element	ACZ ID	QC Type	PCN / SCN#	Analysis Date	Concentration Added	Sample	Q	Spike	Q	Units	Rec (%)	Control Limits,% Lower	Upper	Q
Antimony	L16013-03MS	MS	MS971021-1	10/22/97 1:19:00 A	0.2		U	0.173		mg/L	86.4	75	125	
Antimony	L16013-03MSD	MSD	MS971021-1	10/22/97 1:27:00 A	0.2		U	0.176		mg/L	88.2	75	125	
Antimony	L15883-01MS	MS	MS971021-1	10/28/97 2:34:00 A	0.2		U	0.171		mg/L	85.6	75	125	Y
Antimony	L15883-01MSD	MSD	MS971021-1	10/28/97 2:41:00 A	0.2		U	0.169		mg/L	84.4	75	125	Y
Antimony	L16013-07MS	MS	MS971021-1	11/4/97 6:08:00 PM	0.2		U	0.194		mg/L	97.2	75	125	
Antimony	L16013-07MSD	MSD	MS971021-1	11/4/97 6:15:00 PM	0.2		U	0.199		mg/L	99.7	75	125	
Arsenic	L15783-38MS	MS	MS971021-1	10/23/97 7:31:00 P	0.1		U	0.0913		mg/L	91.3	75	125	Y
Arsenic	L15783-38MSD	MSD	MS971021-1	10/23/97 7:42:00 P	0.1		U	0.0902		mg/L	90.2	75	125	Y
Arsenic	L15883-01MS	MS	MS971021-1	10/28/97 2:34:00 A	0.1		U	0.0795		mg/L	79.5	75	125	Y
Arsenic	L15883-01MSD	MSD	MS971021-1	10/28/97 2:41:00 A	0.1		U	0.0788		mg/L	78.8	75	125	Y
Arsenic	L16013-07MS	MS	MS971021-1	11/4/97 6:08:00 PM	0.1	0.01	B	0.0916		mg/L	81.6	75	125	
Arsenic	L16013-07MSD	MSD	MS971021-1	11/4/97 6:15:00 PM	0.1	0.01	B	0.0939		mg/L	83.9	75	125	
Lead	L16013-03MS	MS	MS971021-1	10/22/97 1:19:00 A	0.1		U	0.0928		mg/L	92.8	75	125	
Lead	L16013-03MSD	MSD	MS971021-1	10/22/97 1:27:00 A	0.1		U	0.0928		mg/L	92.8	75	125	
Lead	L15883-01MS	MS	MS971021-1	10/28/97 2:34:00 A	0.1		U	0.0896		mg/L	89.6	75	125	Y
Lead	L15883-01MSD	MSD	MS971021-1	10/28/97 2:41:00 A	0.1		U	0.0886		mg/L	88.6	75	125	Y
Lead	L16013-07MS	MS	MS971021-1	11/4/97 6:08:00 PM	0.1		U	0.0989		mg/L	98.9	75	125	
Lead	L16013-07MSD	MSD	MS971021-1	11/4/97 6:15:00 PM	0.1		U	0.0986		mg/L	98.6	75	125	
Thallium	L16013-03MS	MS	MS971021-1	10/22/97 1:19:00 A	0.05		U	0.0459		mg/L	91.7	75	125	
Thallium	L16013-03MSD	MSD	MS971021-1	10/22/97 1:27:00 A	0.05		U	0.0461		mg/L	92.3	75	125	
Thallium	L15883-01MS	MS	MS971021-1	10/28/97 2:34:00 A	0.05		U	0.0442		mg/L	88.3	75	125	Y
Thallium	L15883-01MSD	MSD	MS971021-1	10/28/97 2:41:00 A	0.05		U	0.0438		mg/L	87.6	75	125	Y
Thallium	L16013-07MS	MS	MS971021-1	11/4/97 6:08:00 PM	0.05	0.001	B	0.0479		mg/L	93.8	75	125	
Thallium	L16013-07MSD	MSD	MS971021-1	11/4/97 6:15:00 PM	0.05	0.001	B	0.0480		mg/L	93.9	75	125	

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Duplicate Verification

Cover Page

ACZ Project #	L16013
QC Report ID	QC1507-B
Client	Daniel B. Stephens & Associates
Client Project ID	7004.4, Philips Semi
Date Received	10/17/97
Date Reported	11/12/97

	Page
Metal Analysis	30
Metals - Cold Vapor	
Total Metals	
Metals - Hydride	
Total Metals	
Metals - ICP	
Total Metals	
Metals - ICPMS	
Total Metals	

Additional analytical runs may have been required as a result of matrix effects and/or instrumental problems.
Re-analysis data immediately follows initial QC data as outlined in above sequence.

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
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Matrix *Aqueous*
Analysis Group *Metals - Cold Vapor*
QC Report ***Duplicate Verification***

ACZ Project #	*L16013*
QC Report ID	*QC1507-B*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4, Philips Semi*
Date Received	*10/17/97*
Date Reported	*11/12/97*

Mercury, total

Method M7470 CVAA

ACZ ID	QC Type	Analysis Date	Concentration (mg/L)				RPD	Control Limits, %		Q
			Sample	Q	Duplicate	Q	(%)	Lower	Upper	
L16013-01ASD	ASD	10/22/97 5:44:28 PM	0.00585		0.00561		4.2	0	25	

ACZ	Client

ACZ

QC Summary

30400 Downhill Drive
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Matrix *Aqueous*
Analysis Group *Metals - Hydride*
QC Report ***Duplicate Verification***

ACZ Project #	*L16013*
QC Report ID	*QC1507-B*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4, Philips Semi*
Date Received	*10/17/97*
Date Reported	*11/12/97*

Selenium, total

Method SM 3500-Se C, AA-Hydride

ACZ ID	QC Type	Analysis Date	Concentration (mg/L)				RPD	Control Limits, %		Q
			Sample	Q	Duplicate	Q	(%)	Lower	Upper	
L16013-01ASD	ASD	10/31/97 6:32:00 PM	0.0221		0.0225		1.8	0	20	

ACZ	Client

ACZ

QC Summary

30400 Downhill Drive
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Fax: (970) 879-2216

Matrix *Aqueous*
Analysis Group *Metals - ICP*
QC Report ***Duplicate Verification***

ACZ Project #	*L16013*
QC Report ID	*QC1507-B*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4, Philips Semi*
Date Received	*10/17/97*
Date Reported	*11/12/97*

Total Metals

Method M6010 ICP

Element	ACZ ID	QC Type	Concentration (mg/L)				RPD	Control Limits, %		Q
			Sample	Q	Duplicate	Q	(%)	Lower	Upper	
Barium	L16013-04MSD	MSD	0.660		0.657		0.4	0	20	
Barium	L16013-02MSD	MSD	0.646		0.652		1	0	20	
Beryllium	L16013-04MSD	MSD	0.505		0.502		0.8	0	20	
Beryllium	L16013-02MSD	MSD	0.521		0.522		0.3	0	20	
Cadmium	L16013-04MSD	MSD	0.512		0.507		1	0	20	
Cadmium	L16013-02MSD	MSD	0.577		0.567		1.8	0	20	
Chromium	L16013-04MSD	MSD	0.518		0.517		0.1	0	20	
Chromium	L16013-02MSD	MSD	0.534		0.531		0.5	0	20	
Cobalt	L16013-04MSD	MSD	0.521		0.519		0.3	0	20	
Cobalt	L16013-02MSD	MSD	0.526		0.526		0	0	20	
Copper	L16013-04MSD	MSD	0.529		0.522		1.3	0	20	
Copper	L16013-02MSD	MSD	0.544		0.549		0.9	0	20	
Nickel	L16013-04MSD	MSD	0.517		0.512		0.9	0	20	
Nickel	L16013-02MSD	MSD	0.542		0.540		0.4	0	20	
Silver	L16013-04MSD	MSD	0.154		0.151		1.8	0	20	
Silver	L16013-02MSD	MSD	0.105		0.103		2.2	0	20	
Tin	L16013-02MSD	MSD	1.23		1.24		0.9	0	20	
Vanadium	L16013-04MSD	MSD	0.519		0.519		0.1	0	20	
Vanadium	L16013-02MSD	MSD	0.542		0.540		0.4	0	20	

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Matrix *Aqueous*
Analysis Group *Metals - ICP*
QC Report ***Duplicate Verification***

ACZ Project #	*L16013*
QC Report ID	*QC1507-B*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4, Philips Semi*
Date Received	*10/17/97*
Date Reported	*11/12/97*

Total Metals

Method M6010 ICP

Element	ACZ ID	QC Type	Concentration (mg/L)				RPD	Control Limits, %		Q
			Sample	Q	Duplicate	Q	(%)	Lower	Upper	
Zinc	L16013-04MSD	MSD	0.539		0.532		1.4	0	20	
Zinc	L16013-02MSD	MSD	0.565		0.565		0	0	20	

ACZ	Client

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Matrix | *Aqueous*
Analysis Group | *Metals - ICPMS*
QC Report | ***Duplicate Verification***

ACZ Project #	*L16013*
QC Report ID	*QC1507-B*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4, Philips Semi*
Date Received	*10/17/97*
Date Reported	*11/12/97*

Total Metals

Method M6020 ICP-MS

Element	ACZ ID	QC Type	Concentration (mg/L)				RPD	Control Limits, %		Q
			Sample	Q	Duplicate	Q	(%)	Lower	Upper	
Antimony	L16013-03MSD	MSD	0.173		0.176		2	0	20	
Antimony	L15883-01MSD	MSD	0.171		0.169		1.4	0	20	Y
Antimony	L16013-07MSD	MSD	0.194		0.199		2.5	0	20	
Arsenic	L15783-38MSD	MSD	0.0913		0.0902		1.2	0	20	Y
Arsenic	L15883-01MSD	MSD	0.0795		0.0788		0.9	0	20	Y
Arsenic	L16013-07MSD	MSD	0.0916		0.0939		2.5	0	20	
Lead	L16013-03MSD	MSD	0.0928		0.0928		0	0	20	
Lead	L15883-01MSD	MSD	0.0896		0.0886		1.1	0	20	Y
Lead	L16013-07MSD	MSD	0.0989		0.0986		0.3	0	20	
Thallium	L16013-03MSD	MSD	0.0459		0.0461		0.6	0	20	
Thallium	L15883-01MSD	MSD	0.0442		0.0438		0.9	0	20	Y
Thallium	L16013-07MSD	MSD	0.0479		0.0480		0.1	0	20	

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Method Verification - Control Samples
Cover Page

ACZ Project #	*L16013*
QC Report ID	*QC1507-B*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4, Philips Semi*
Date Received	*10/17/97*
Date Reported	*11/12/97*

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Metal Analysis	36
Metals - Cold Vapor	
Total Metals	
Metals - Hydride	
Total Metals	
Metals - ICP	
Total Metals	
Metals - ICPMS	
Total Metals	

Additional analytical runs may have been required as a result of matrix effects and/or instrumental problems.
Re-analysis data immediately follows initial QC data as outlined in above sequence.

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
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Matrix Aqueous
Analysis Group Metals - Cold Vapor
QC Report ***Method Verification-Control Samples***

ACZ Project #	*L16013*
QC Report ID	*QC1507-B*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4, Philips Semi*
Date Received	*10/17/97*
Date Reported	*11/12/97*

Mercury, total

Method M7470 CVAA

ACZ ID	QC Type	PCN / SCN#	Analysis Date	Concentration (mg/L) True	Found	Q	Rec (%)	Control Limits,% Lower	Upper	Q
WG50200LCSW	LCSW	II970618-01	10/22/97 5:36:19 PM	0.01	0.0104		103.7	80	120	
WG50200LFB	LFB	II970618-02	10/22/97 5:37:39 PM	0.005	0.00564		112.8	80	120	

ACZ

QC Summary

30400 Downhill Drive
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Matrix Aqueous
Analysis Group Metals - Hydride
QC Report ***Method Verification-Control Samples***

ACZ Project #	*L16013*
QC Report ID	*QC1507-B*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4, Philips Semi*
Date Received	*10/17/97*
Date Reported	*11/12/97*

Selenium, total

Method SM 3500-Se C, AA-Hydride

ACZ ID	QC Type	PCN / SCN#	Analysis Date	Concentration (mg/L)			Rec (%)	Control Limits,%		Q
				True	Found	Q		Lower	Upper	
WG50810LCSW	LCSW	II970815-1	10/31/97 5:09:00 PM	0.02	0.0212		106	80	120	
WG50810LFB	LFB	II970826-4	10/31/97 5:11:00 PM	0.02	0.0217		108.5	80	120	

ACZ

QC Summary

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Fax: (970) 879-2216

Matrix | *Aqueous*
Analysis Group | *Metals - ICP*
QC Report | ***Method Verification-Control Samples***

ACZ Project #	*L16013*
QC Report ID	*QC1507-B*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4, Philips Semi*
Date Received	*10/17/97*
Date Reported	*11/12/97*

Total Metals

Method M6010 ICP

Element	ACZ ID	QC Type	PCN / SCN#	Analysis Date	Concentration (mg/L)			Control Limits, mg/L		Q
					True	Found	Q	Lower	Upper	
Barium	WG50298LCSW	LCSW	II971022-1	10/23/97 1:20:00 PM	1	0.930		0.5943953	1.2642195	
Barium	WG50767LCSW	LCSW	II971016-1	10/29/97 12:24:00 PM	1	0.874		0.5943953	1.2642195	
Beryllium	WG50298LCSW	LCSW	II971022-1	10/23/97 1:20:00 PM	1	0.932		0.553781	1.3874957	
Beryllium	WG50691LCSW	LCSW	II971016-1	10/29/97 11:18:00 PM	1	0.892		0.553781	1.3874957	
Cadmium	WG50298LCSW	LCSW	II971022-1	10/23/97 1:20:00 PM	1	0.931		0.6106019	1.3082012	
Cadmium	WG50767LCSW	LCSW	II971016-1	10/29/97 12:24:00 PM	1	0.950		0.6106019	1.3082012	
Chromium	WG50298LCSW	LCSW	II971022-1	10/23/97 1:20:00 PM	1	0.934		0.5588468	1.3247292	
Chromium	WG50691LCSW	LCSW	II971016-1	10/29/97 11:18:00 PM	1	0.880		0.5588468	1.3247292	
Cobalt	WG50298LCSW	LCSW	II971022-1	10/23/97 1:20:00 PM	1	0.931		0.6114838	1.3052647	
Cobalt	WG50691LCSW	LCSW	II971016-1	10/29/97 11:18:00 PM	1	0.872		0.6114838	1.3052647	
Copper	WG50298LCSW	LCSW	II971022-1	10/23/97 1:20:00 PM	1	0.920		0.6165977	1.2516539	
Copper	WG50691LCSW	LCSW	II971016-1	10/29/97 11:18:00 PM	1	0.878		0.6165977	1.2516539	
Nickel	WG50298LCSW	LCSW	II971022-1	10/23/97 1:20:00 PM	1	0.919		0.6140346	1.2895714	
Nickel	WG50691LCSW	LCSW	II971016-1	10/29/97 11:18:00 PM	1	0.887		0.6140346	1.2895714	
Silver	WG50298LCSW	LCSW	II971022-1	10/23/97 1:20:00 PM	1	0.934		0.2129385	1.5884465	
Silver	WG50691LCSW	LCSW	II971016-1	10/29/97 11:18:00 PM	1	0.876		0.2129385	1.5884465	
Tin	WG51354LCSW	LCSW	II971016-1	11/10/97 1:26:00 PM	1	1.04		0.8	1.2	
Tin	WG51354LCSW	LCSW	II971016-1	11/10/97 1:47:00 PM	1	1.04		0.8	1.2	

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
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Matrix Aqueous
Analysis Group Metals - ICP
QC Report ***Method Verification-Control Samples***

ACZ Project #	L16013
QC Report ID	QC1507-B
Client	Daniel B. Stephens & Associates
Client Project ID	7004.4, Philips Semi
Date Received	10/17/97
Date Reported	11/12/97

Total Metals

Method M6010 ICP

Element	ACZ ID	QC Type	PCN / SCN#	Analysis Date	Concentration (mg/L)			Control Limits, mg/L		Q
					True	Found	Q	Lower	Upper	
Vanadium	WG50298LCSW	LCSW	II971022-1	10/23/97 1:20:00 PM	1	0.924		0.5982154	1.2894771	
Vanadium	WG50691LCSW	LCSW	II971016-1	10/29/97 11:18:00 PM	1	0.878		0.5982154	1.2894771	
Zinc	WG50298LCSW	LCSW	II971022-1	10/23/97 1:20:00 PM	1	0.921		0.6470225	1.3108975	
Zinc	WG50691LCSW	LCSW	II971016-1	10/29/97 11:18:00 PM	1	0.886		0.6470225	1.3108975	

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
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Fax: (970) 879-2216

Matrix Aqueous
Analysis Group Metals - ICPMS
QC Report ***Method Verification-Control Samples***

ACZ Project #	L16013
QC Report ID	QC1507-B
Client	Daniel B. Stephens & Associates
Client Project ID	7004.4, Philips Semi
Date Received	10/17/97
Date Reported	11/12/97

Total Metals

Method M6020 ICP-MS

Element	ACZ ID	QC Type	PCN / SCN#	Analysis Date	Concentration (mg/L) True	Found	Q	Rec (%)	Control Limits,% Lower	Upper	Q
Antimony	WG50169LCSW	LCSW	II971012-1	10/21/97 10:33:00 PM	0.1	0.0826		82.6	75	125	
Antimony	WG50529LCSW	LCSW	MS971016-2	10/28/97 1:34:00 AM	0.1	0.0830		83	75	125	
Antimony	WG51035LCSW	LCSW	II971012-1	11/4/97 5:47:00 PM	0.1	0.0973		97.3	75	125	
Arsenic	WG50342LCSW	LCSW	II970909-3	10/23/97 10:08:00 PM	0.1	0.0898		89.8	75	125	
Arsenic	WG50529LCSW	LCSW	MS971016-2	10/28/97 1:34:00 AM	0.1	0.0793		79.3	75	125	
Arsenic	WG51035LCSW	LCSW	II971012-1	11/4/97 5:47:00 PM	0.1	0.0931		93.1	75	125	
Lead	WG50169LCSW	LCSW	II971012-1	10/21/97 10:33:00 PM	0.1	0.0943		94.3	75	125	
Lead	WG50529LCSW	LCSW	MS971016-2	10/28/97 1:34:00 AM	0.1	0.0902		90.2	75	125	
Lead	WG51035LCSW	LCSW	II971012-1	11/4/97 5:47:00 PM	0.1	0.101		101	75	125	
Thallium	WG50169LCSW	LCSW	II971012-1	10/21/97 10:33:00 PM	0.1	0.0943		94.3	75	125	
Thallium	WG50529LCSW	LCSW	MS971016-2	10/28/97 1:34:00 AM	0.1	0.0905		90.5	75	125	
Thallium	WG51035LCSW	LCSW	II971012-1	11/4/97 5:47:00 PM	0.1	0.0991		99.1	75	125	

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Method Verification - Blanks

Cover Page

ACZ Project #	*L16013*
QC Report ID	*QC1507-B*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4, Philips Semi*
Date Received	*10/17/97*
Date Reported	*11/12/97*

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Metal Analysis	42
Metals - Cold Vapor	
Total Metals	
Metals - Hydride	
Total Metals	
Metals - ICP	
Total Metals	
Metals - ICPMS	
Total Metals	

Additional analytical runs may have been required as a result of matrix effects and/or instrumental problems.
Re-analysis data immediately follows initial QC data as outlined in above sequence.

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Matrix Aqueous
Analysis Group Metals - Cold Vapor
QC Report ***Method Verification-Blanks***

ACZ Project #	*L16013*
QC Report ID	*QC1507-B*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4, Philips Semi*
Date Received	*10/17/97*
Date Reported	*11/12/97*

Mercury, total

Method M7470 CVAA

ACZ ID	QC Type	Analysis Date	Concentration (mg/L)			Control Limits		Q
			MDL	Found	Q	Lower	Upper	
WG50200PBW	PBW	10/22/97 5:34:59 PM	0.0002	-0.0000500		-0.0004	0.0004	

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
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Fax: (970) 879-2216

Matrix Aqueous
Analysis Group Metals - Hydride
QC Report ***Method Verification-Blanks***

ACZ Project #	*L16013*
QC Report ID	*QC1507-B*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4, Philips Semi*
Date Received	*10/17/97*
Date Reported	*11/12/97*

Selenium, total

Method SM 3500-Se C, AA-Hydride

ACZ ID	QC Type	Analysis Date	Concentration (mg/L)			Control Limits		Q
			MDL	Found	Q	Lower	Upper	
WG50810PBW	PBW	10/31/97 5:08:00 PM	0.001	-0.000400		-0.002	0.002	

ACZ

QC Summary

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Fax: (970) 879-2216

Matrix *Aqueous*
Analysis Group *Metals - ICP*
QC Report ***Method Verification-Blank***

ACZ Project #	*L16013*
QC Report ID	*QC1507-B*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4, Philips Semi*
Date Received	*10/17/97*
Date Reported	*11/12/97*

Total Metals

Method M6010 ICP

Element	ACZ ID	QC Type	Analysis Date	Concentration (mg/L)			Control Limits		Q
				MDL	Found	Q	Lower	Upper	
Barium	WG50298PBW	PBW	10/23/97 1:16:00 PM	0.003	0.000188		-0.006	0.006	
Barium	WG50767PBW	PBW	10/29/97 12:20:00 PM	0.003	0.000488		-0.006	0.006	
Beryllium	WG50298PBW	PBW	10/23/97 1:16:00 PM	0.002	0.000		-0.004	0.004	
Beryllium	WG50691PBW	PBW	10/29/97 11:06:00 PM	0.002	0.000124		-0.004	0.004	
Cadmium	WG50298PBW	PBW	10/23/97 1:16:00 PM	0.003	-0.000936		-0.006	0.006	
Cadmium	WG50767PBW	PBW	10/29/97 12:20:00 PM	0.003	0.00269		-0.006	0.006	
Chromium	WG50298PBW	PBW	10/23/97 1:16:00 PM	0.01	0.00136		-0.02	0.02	
Chromium	WG50691PBW	PBW	10/29/97 11:06:00 PM	0.01	-0.00217		-0.02	0.02	
Cobalt	WG50298PBW	PBW	10/23/97 1:16:00 PM	0.01	0.000764		-0.02	0.02	
Cobalt	WG50691PBW	PBW	10/29/97 11:06:00 PM	0.01	-0.000000700		-0.02	0.02	
Copper	WG50298PBW	PBW	10/23/97 1:16:00 PM	0.01	-0.000000200		-0.02	0.02	
Copper	WG50691PBW	PBW	10/29/97 11:06:00 PM	0.01	0.000518		-0.02	0.02	
Nickel	WG50298PBW	PBW	10/23/97 1:16:00 PM	0.01	-0.00276		-0.02	0.02	
Nickel	WG50691PBW	PBW	10/29/97 11:06:00 PM	0.01	0.00359		-0.02	0.02	
Silver	WG50298PBW	PBW	10/23/97 1:16:00 PM	0.005	0.000112		-0.01	0.01	
Silver	WG50691PBW	PBW	10/29/97 11:06:00 PM	0.005	-0.00139		-0.01	0.01	
Tin	WG51354PBW	PBW	11/10/97 1:23:00 PM	0.1	0.0222		-0.2	0.2	
Tin	WG51354PBW	PBW	11/10/97 1:44:00 PM	0.1	0.000		-0.2	0.2	

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Matrix | *Aqueous*
Analysis Group | *Metals - ICP*
QC Report | ***Method Verification-Blank***

ACZ Project #	*L16013*
QC Report ID	*QC1507-B*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4, Philips Semi*
Date Received	*10/17/97*
Date Reported	*11/12/97*

Total Metals

Method M6010 ICP

Element	ACZ ID	QC Type	Analysis Date	Concentration (mg/L)			Control Limits		Q
				MDL	Found	Q	Lower	Upper	
Vanadium	WG50298PBW	PBW	10/23/97 1:16:00 PM	0.005	-0.00000180		-0.01	0.01	
Vanadium	WG50691PBW	PBW	10/29/97 11:06:00 PM	0.005	0.000721		-0.01	0.01	
Zinc	WG50298PBW	PBW	10/23/97 1:16:00 PM	0.01	0.00448		-0.02	0.02	
Zinc	WG50691PBW	PBW	10/29/97 11:06:00 PM	0.01	0.00208		-0.02	0.02	

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Matrix *Aqueous*
Analysis Group *Metals - ICPMS*
QC Report ***Method Verification-Blank***

ACZ Project #	*L16013*
QC Report ID	*QC1507-B*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4, Philips Semi*
Date Received	*10/17/97*
Date Reported	*11/12/97*

Total Metals

Method M6020 ICP-MS

Element	ACZ ID	QC Type	Analysis Date	Concentration (mg/L)			Control Limits		Q
				MDL	Found	Q	Lower	Upper	
Antimony	WG50169PBW	PBW	10/21/97 10:26:00 PM	0.0002	0.0000175		-0.0002	0.0002	
Antimony	WG50529PBW	PBW	10/28/97 1:27:00 AM	0.0002	0.0000165		-0.0002	0.0002	
Antimony	WG51035PBW	PBW	11/4/97 5:40:00 PM	0.0002	0.0000471		-0.0002	0.0002	
Arsenic	WG50342PBW	PBW	10/23/97 9:57:00 PM	0.001	0.0000302		-0.001	0.001	
Arsenic	WG50529PBW	PBW	10/28/97 1:27:00 AM	0.001	0.00000880		-0.001	0.001	
Arsenic	WG51035PBW	PBW	11/4/97 5:40:00 PM	0.001	0.000258		-0.001	0.001	
Lead	WG50169PBW	PBW	10/21/97 10:26:00 PM	0.0002	0.0000849		-0.0002	0.0002	
Lead	WG50529PBW	PBW	10/28/97 1:27:00 AM	0.0002	0.0000274		-0.0002	0.0002	
Lead	WG51035PBW	PBW	11/4/97 5:40:00 PM	0.0002	0.000146		-0.0002	0.0002	
Thallium	WG50169PBW	PBW	10/21/97 10:26:00 PM	0.0001	-0.0000616		-0.0001	0.0001	
Thallium	WG50529PBW	PBW	10/28/97 1:27:00 AM	0.0001	-0.00000390		-0.0001	0.0001	
Thallium	WG51035PBW	PBW	11/4/97 5:40:00 PM	0.0001	0.000182		-0.0001	0.0001	

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Analysis Run Log

Cover Page

ACZ Project #	*L16013*
QC Report ID	*QC1507-B*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4, Philips Semi*
Date Received	*10/17/97*
Date Reported	*11/12/97*

		Page
Metal Analysis		48
Selenium (Total) by Hydride	WG50810	
Metals (Total) by ICP	WG50298	
	WG50691	
	WG50767	
	WG51354	
Metals (Total) by ICP-MS	WG50169	
	WG50342	
	WG50529	
	WG51035	
Mercury (Total) by CVAA	WG50200	

ACZ

QC Summary

30400 Downhill Drive
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QC Report | ***Analysis Run Log***

Analysis | ***Selenium (Total) by Hydride***

ACZ Project #	L16013
Client	Daniel B. Stephens & Associates
Client Project ID	7004.4, Philips Semi
Date Received	10/17/97
Date Reported	11/12/97

Workgroup: WG50810

ACZ ID	Measure Date	Dilution	Se
WG50810ICV	10/31/97	1	X
WG50810ICB	10/31/97	1	X
WG50810PBW	10/31/97	1	X
WG50810LCSW	10/31/97	1	X
WG50810LFB	10/31/97	1	X
ZZZ	10/31/97	2	X
ZZZ	10/31/97	1	X
ZZZ	10/31/97	1	X
ZZZ	10/31/97	1	X
ZZZ	10/31/97	1	X
ZZZ	10/31/97	1	X
L16013-01	10/31/97	1	X
WG50810CCV1	10/31/97	1	X
WG50810CCB1	10/31/97	1	X
WG50810ICV	10/31/97	1	X
WG50810ICB	10/31/97	1	X
WG50810PBW1	10/31/97	1	X
WG50810LCSW1	10/31/97	1	X
WG50810LFB1	10/31/97	1	X
ZZZ	10/31/97	2	X
ZZZ	10/31/97	1	X
ZZZ	10/31/97	1	X
ZZZ	10/31/97	1	X
ZZZ	10/31/97	1	X
ZZZ	10/31/97	5	X
L16013-01	10/31/97	1	X
WG50810CCV2	10/31/97	1	X
WG50810CCB2	10/31/97	1	X
L16013-01AS	10/31/97	1	X
L16013-01ASD	10/31/97	1	X
L16013-02	10/31/97	1	X
L16013-03	10/31/97	1	X
L16013-04	10/31/97	1	X
L16013-05	10/31/97	1	X
L16013-06	10/31/97	1	X
L16013-07	10/31/97	1	X
L16013-07AS	10/31/97	1	X
L16013-07ASD	10/31/97	1	X

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QC Report | ***Analysis Run Log***

Analysis | ***Selenium (Total) by Hydride***

ACZ Project #	L16013
Client	Daniel B. Stephens & Associates
Client Project ID	7004.4, Philips Semi
Date Received	10/17/97
Date Reported	11/12/97

Workgroup: WG50810 **(Continued)**

ACZ ID	Measure Date	Dilution	Se
WG50810CCV3	10/31/97	1	X
WG50810CCB3	10/31/97	1	X
WG50810ICV	10/31/97	1	X
WG50810ICB	10/31/97	1	X
L16013-01AS	10/31/97	1	X
L16013-01ASD	10/31/97	1	X
L16013-02	10/31/97	1	X
L16013-03	10/31/97	1	X
L16013-04	10/31/97	1	X
L16013-05	10/31/97	1	X
L16013-06	10/31/97	1	X
L16013-07	10/31/97	1	X
L16013-07AS	10/31/97	1	X
L16013-07ASD	10/31/97	1	X
WG50810CCV4	10/31/97	1	X
WG50810CCB4	10/31/97	1	X
ZZZ	10/31/97	1	X
ZZZ	10/31/97	1	X
ZZZ	10/31/97	1	X
ZZZ	10/31/97	1	X
ZZZ	10/31/97	1	X
ZZZ	10/31/97	1	X
ZZZ	10/31/97	1	X
WG50810CCV5	10/31/97	1	X
WG50810CCB5	10/31/97	1	X

ACZ

QC Summary

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QC Report | ***Analysis Run Log***

Analysis | ***Metals (Total) by ICP***

ACZ Project # L16013
Client Daniel B. Stephens & Associates
Client Project ID 7004.4, Philips Semi
Date Received 10/17/97
Date Reported 11/12/97

Workgroup: WG50298

ACZ ID	Measure Date	Dilution	Ag	Ba	Be	Cd	Cr	Cu	Ni	V	Zn
WG50298CCV1	10/23/97	1	X	X	X	X	X	X	X	X	X
WG50298CCB1	10/23/97	1	X	X	X	X	X	X	X	X	X
WG50298ICSABI	10/23/97	1	X	X	X	X	X	X	X	X	X
WG50298PBW	10/23/97	1	X	X	X	X	X	X	X	X	X
WG50298LCSW	10/23/97	1.11	X	X	X	X	X	X	X	X	X
ZZZ	10/23/97	2.22				X	X	X	X	X	X
ZZZ	10/23/97	1.11				X	X	X	X	X	X
L15940-02SDL	10/23/97	5.55	X	X	X	X	X	X	X	X	X
L15940-02MS	10/23/97	1.11	X	X	X	X	X	X	X	X	X
L15940-02MSD	10/23/97	1.11	X	X	X	X	X	X	X	X	X
ZZZ	10/23/97	1.11				X	X	X	X	X	X
WG50298CCV2	10/23/97	1	X	X	X	X	X	X	X	X	X
WG50298CCB2	10/23/97	1	X	X	X	X	X	X	X	X	X
ZZZ	10/23/97	2.22	X	X	X	X	X	X	X	X	X
ZZZ	10/23/97	1.11	X	X	X	X	X	X	X	X	X
ZZZ	10/23/97	1.11	X	X	X	X	X	X	X	X	X
ZZZ	10/23/97	1.11	X	X	X	X	X	X	X	X	X
ZZZ	10/23/97	5.55	X	X	X	X	X	X	X	X	X
ZZZ	10/23/97	2.22	X	X	X	X	X	X	X	X	X
ZZZ	10/23/97	1.11	X	X		X	X				
ZZZ	10/23/97	5.55	X	X		X	X				
L16013-04	10/23/97	1.11	X	X	X	X	X	X	X	X	X
L16013-04SDL	10/23/97	5.55	X	X	X	X	X	X	X	X	X
WG50298CCV3	10/23/97	1	X	X	X	X	X	X	X	X	X
WG50298CCB3	10/23/97	1	X	X	X	X	X	X	X	X	X
L16013-04MS	10/23/97	1.11	X	X	X	X	X	X	X	X	X
L16013-04MSD	10/23/97	1.11	X	X	X	X	X	X	X	X	X
L16013-05	10/23/97	1.11	X	X	X	X	X	X	X	X	X
L16013-06	10/23/97	1.11	X	X	X	X	X	X	X	X	X
L16013-07	10/23/97	1.11	X	X	X	X	X	X	X	X	X
ZZZ	10/23/97	1.11	X	X	X	X	X	X	X	X	X
ZZZ	10/23/97	1.11	X	X	X	X	X	X	X	X	X
WG50298CCV4	10/23/97	1	X	X	X	X	X	X	X	X	X
WG50298CCB4	10/23/97	1	X	X	X	X	X	X	X	X	X
WG50298ICSABF	10/23/97	1	X	X	X	X	X	X	X	X	X
WG50298CCV5	10/23/97	1	X	X	X	X	X	X	X	X	X
WG50298CCB5	10/23/97	1	X	X	X	X	X	X	X	X	X

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QC Report *Analysis Run Log*

Analysis *Metals (Total) by ICP*

ACZ Project # L16013
Client Daniel B. Stephens & Associates
Client Project ID 7004.4, Philips Semi
Date Received 10/17/97
Date Reported 11/12/97

Workgroup: WG50691

ACZ ID	Measure Date	Dilution	Ag	Be	Cr	Cu	Ni	V	Zn
WG50691HCAL1	10/29/97	1	X	X	X	X	X	X	X
WG50691ICSABI	10/29/97	1	X	X	X	X	X	X	X
WG50691PBW	10/29/97	1	X	X	X	X	X	X	X
WG50691LCSW	10/29/97	1.11	X	X	X	X	X	X	X
ZZZ	10/29/97	100			X				
L15951-58SDL	10/29/97	5	X	X	X	X	X	X	X
L15951-58MS	10/29/97	1	X	X	X	X	X	X	X
L15951-58MSD	10/29/97	1	X	X	X	X	X	X	X
WG50691PBW	10/29/97	1	X	X	X	X	X	X	X
WG50691CCV1	10/29/97	1	X	X	X	X	X	X	X
WG50691CCB1	10/29/97	1	X	X	X	X	X	X	X
WG50691LCSW	10/29/97	1	X	X	X	X	X	X	X
ZZZ	10/29/97	1.11				X			X
L16013-01	10/29/97	1.11	X	X	X	X	X	X	X
L16013-02	10/29/97	1.11	X	X	X	X	X	X	X
L16013-02SDL	10/29/97	5.55	X	X	X	X	X	X	X
L16013-02MS	10/29/97	1.11	X	X	X	X	X	X	X
L16013-02MSD	10/29/97	1.11	X	X	X	X	X	X	X
L16013-03	10/29/97	1.11	X	X	X	X	X	X	X
WG50691CCV2	10/29/97	1	X	X	X	X	X	X	X
WG50691CCB2	10/29/97	1	X	X	X	X	X	X	X
WG50691ICSABF	10/29/97	1	X	X	X	X	X	X	X
WG50691CCV3	10/30/97	1	X	X	X	X	X	X	X
WG50691CCB3	10/30/97	1	X	X	X	X	X	X	X

ACZ

QC Summary

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QC Report *Analysis Run Log*

Analysis *Metals (Total) by ICP*

ACZ Project #	L16013
Client	Daniel B. Stephens & Associates
Client Project ID	7004.4, Philips Semi
Date Received	10/17/97
Date Reported	11/12/97

Workgroup: WG50767

ACZ ID	Measure Date	Dilution	Ba	Cd
WG50767CCV1	10/29/97	1	X	X
WG50767CCB1	10/29/97	1	X	X
WG50767ICSABI	10/29/97	1	X	X
WG50767PBW	10/29/97	1	X	X
WG50767LCSW	10/29/97	1	X	X
ZZZ	10/29/97	1.11	X	
L16013-01	10/29/97	1.11	X	X
L16013-02	10/29/97	1.11	X	X
L16013-02SDL	10/29/97	5.55	X	X
L16013-02MS	10/29/97	1.11	X	X
L16013-02MSD	10/29/97	1.11	X	X
WG50767CCV2	10/29/97	1	X	X
WG50767CCB2	10/29/97	1	X	X
L16013-03	10/29/97	1.11	X	X
WG50767ICSABF	10/29/97	1	X	X
WG50767CCV3	10/29/97	1	X	X
WG50767CCB3	10/29/97	1	X	X

ACZ

QC Summary

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QC Report | ***Analysis Run Log***

Analysis | ***Metals (Total) by ICP***

ACZ Project # L16013
Client Daniel B. Stephens & Associates
Client Project ID 7004.4, Philips Semi
Date Received 10/17/97
Date Reported 11/12/97

Workgroup: WG51354

ACZ ID	Measure Date	Dilution	Sn
WG51354HCAL1	11/10/97	1	X
WG51354ICV	11/10/97	1	X
WG51354ICB	11/10/97	1	X
WG51354ICSABI	11/10/97	1	X
WG51354PBW	11/10/97	1.11	X
WG51354LCSW	11/10/97	1.11	X
L16013-01	11/10/97	1.11	X
L16013-02	11/10/97	1.11	X
L16013-02SDL	11/10/97	5.55	X
L16013-02MS	11/10/97	1.11	X
L16013-02MSD	11/10/97	1.11	X
L16013-03	11/10/97	1.11	X
WG51354PBW	11/10/97	1.11	X
WG51354LCSW	11/10/97	1.11	X
WG51354CCV1	11/10/97	1	X
WG51354CCB1	11/10/97	1	X
L16013-04	11/10/97	1.11	X
L16013-04SDL	11/10/97	5.55	X
L16013-04MS	11/10/97	1.11	X
L16013-04MSD	11/10/97	1.11	X
L16013-05	11/10/97	1.11	X
L16013-06	11/10/97	1.11	X
L16013-07	11/10/97	1.11	X
ZZZ	11/10/97	1.11	X
WG51354CCV2	11/10/97	1	X
WG51354CCB2	11/10/97	1	X
ZZZ	11/10/97	1.11	X
WG51354ICSABF	11/10/97	1	X
WG51354CCV3	11/10/97	1	X
WG51354CCB3	11/10/97	1	X

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QC Report *Analysis Run Log*

Analysis *Metals (Total) by ICP-MS*

ACZ Project # L16013
Client Daniel B. Stephens & Associates
Client Project ID 7004.4, Philips Semi
Date Received 10/17/97
Date Reported 11/12/97

Workgroup: WG50169

ACZ ID	Measure Date	Dilution	Pb	Sb	Tl
WG50169ICV	10/21/97	1	X	X	X
WG50169ICB	10/21/97	1	X	X	X
WG50169PBW	10/21/97	2	X	X	X
WG50169LCSW	10/21/97	2.22	X	X	X
L15824-06SDL	10/21/97	11.1	X	X	X
L15824-06MS	10/21/97	2	X	X	X
L15824-06MSD	10/21/97	2	X	X	X
ZZZ	10/21/97	2.22	X	X	X
WG50169CCV1	10/21/97	1	X	X	X
WG50169CCB1	10/21/97	1	X	X	X
ZZZ	10/21/97	2.22	X	X	X
L16013-01	10/22/97	2.22	X	X	X
L16013-02	10/22/97	2.22	X	X	X
WG50169CCV2	10/22/97	1	X	X	X
WG50169CCB2	10/22/97	1	X	X	X
L16013-03	10/22/97	2.22	X	X	X
L16013-03SDL	10/22/97	5	X	X	X
L16013-03SDL	10/22/97	11.1	X	X	X
L16013-03MS	10/22/97	2	X	X	X
L16013-03MSD	10/22/97	2	X	X	X
WG50169CCV3	10/22/97	1	X	X	X
WG50169CCB3	10/22/97	1	X	X	X

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QC Report *Analysis Run Log*

Analysis *Metals (Total) by ICP-MS*

ACZ Project # L16013
Client Daniel B. Stephens & Associates
Client Project ID 7004.4, Philips Semi
Date Received 10/17/97
Date Reported 11/12/97

Workgroup: WG50342

ACZ ID	Measure Date	Dilution	As
WG50342ICV	10/23/97	1	X
WG50342ICB	10/23/97	1	X
WG50342ICSAB	10/23/97	1	X
ZZZ	10/23/97	5	X
L15783-38SDL	10/23/97	25	X
L15783-38SDL	10/23/97	5	X
L15783-38MS	10/23/97	5	X
L15783-38MSD	10/23/97	5	X
ZZZ	10/23/97	5	X
ZZZ	10/23/97	200	X
ZZZ	10/23/97	200	X
WG50342CCV1	10/23/97	1	X
WG50342CCB1	10/23/97	1	X
ZZZ	10/23/97	5	X
ZZZ	10/23/97	500	X
ZZZ	10/23/97	200	X
ZZZ	10/23/97	20	X
ZZZ	10/23/97	5	X
ZZZ	10/23/97	5	X
WG50342PBW	10/23/97	2	X
WG50342LCSW	10/23/97	2.22	X
ZZZ	10/23/97	2.22	X
WG50342CCV2	10/23/97	1	X
WG50342CCB2	10/23/97	1	X
L16013-01	10/24/97	2.22	X
L16013-02	10/24/97	2.22	X
L16013-03	10/24/97	2.22	X
WG50342CCV3	10/24/97	1	X
WG50342CCB3	10/24/97	1	X

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QC Report | ***Analysis Run Log***

Analysis | ***Metals (Total) by ICP-MS***

ACZ Project # L16013
Client Daniel B. Stephens & Associates
Client Project ID 7004.4, Philips Semi
Date Received 10/17/97
Date Reported 11/12/97

Workgroup: WG50529

ACZ ID	Measure Date	Dilution	As	Pb	Sb	Tl
WG50529ICV	10/28/97	1	X	X	X	X
WG50529ICB	10/28/97	1	X	X	X	X
WG50529ICSAB	10/28/97	1	X			
WG50529PBW	10/28/97	2	X	X	X	X
WG50529LCSW	10/28/97	2.22	X	X	X	X
L16013-04	10/28/97	2.22	X	X	X	X
L16013-05	10/28/97	2.22	X	X	X	X
L16013-06	10/28/97	2.22	X	X	X	X
L15883-01SDL	10/28/97	10	X	X	X	X
WG50529CCV1	10/28/97	1	X	X	X	X
WG50529CCB1	10/28/97	1	X	X	X	X
L15883-01MS	10/28/97	2	X	X	X	X
L15883-01MSD	10/28/97	2	X	X	X	X
WG50529CCV2	10/28/97	1	X	X	X	X
WG50529CCB2	10/28/97	1	X	X	X	X

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QC Report | ***Analysis Run Log***

Analysis | ***Metals (Total) by ICP-MS***

ACZ Project # L16013
Client Daniel B. Stephens & Associates
Client Project ID 7004.4, Philips Semi
Date Received 10/17/97
Date Reported 11/12/97

Workgroup: WG51035

ACZ ID	Measure Date	Dilution	As	Pb	Sb	Tl
WG51035ICV	11/4/97	1	X	X	X	X
WG51035ICB	11/4/97	1	X	X	X	X
WG51035ICSAB	11/4/97	1	X			
WG51035PBW	11/4/97	2	X	X	X	X
WG51035LCSW	11/4/97	2.22	X	X	X	X
L16013-07	11/4/97	11.1	X	X	X	X
L16013-07SDL	11/4/97	5	X	X	X	X
L16013-07SDL	11/4/97	55.5	X	X	X	X
L16013-07MS	11/4/97	2	X	X	X	X
L16013-07MSD	11/4/97	2	X	X	X	X
WG51035CCV1	11/4/97	1	X	X	X	X
WG51035CCB1	11/4/97	1	X	X	X	X
WG51035CCV2	11/4/97	1	X	X	X	X
WG51035CCB2	11/4/97	1	X	X	X	X

ACZ

QC Summary

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QC Report | ***Analysis Run Log***

Analysis | ***Mercury (Total) by CVAA***

ACZ Project # L16013
Client Daniel B. Stephens & Associates
Client Project ID 7004.4, Philips Semi
Date Received 10/17/97
Date Reported 11/12/97

Workgroup: WG50200

ACZ ID	Measure Date	Dilution	Hg
WG50200ICV	10/22/97	1	X
WG50200ICB	10/22/97	1	X
WG50200PBW	10/22/97	1	X
WG50200LCSW	10/22/97	1	X
WG50200LFB	10/22/97	1	X
ZZZ	10/22/97	1	X
ZZZ	10/22/97	5	X
L16013-01	10/22/97	1	X
L16013-01AS	10/22/97	1	X
L16013-01ASD	10/22/97	1	X
L16013-02	10/22/97	1	X
L16013-03	10/22/97	1	X
WG50200CCV1	10/22/97	1	X
WG50200CCB1	10/22/97	1	X
L16013-04	10/22/97	1	X
L16013-05	10/22/97	1	X
L16013-06	10/22/97	1	X
L16013-07	10/22/97	1	X
ZZZ	10/22/97	1	X
ZZZ	10/22/97	1	X
L16027-04AS	10/22/97	1	X
L16027-04ASD	10/22/97	1	X
WG50200CCV2	10/22/97	1	X
WG50200CCB2	10/22/97	1	X
WG50200CCV3	10/22/97	1	X
WG50200CCB3	10/22/97	1	X
ZZZ	10/22/97	1	X
L16027-04AS	10/22/97	1	X
L16027-04ASD	10/22/97	1	X
WG50200CCV4	10/22/97	1	X
WG50200ICV	10/22/97	1	X
WG50200ICB	10/22/97	1	X
WG50200CCV5	10/22/97	1	X
WG50200CCB4	10/22/97	1	X
ZZZ	10/22/97	1	X
L16027-04AS	10/22/97	1	X
L16027-04ASD	10/22/97	1	X
WG50200CCV6	10/22/97	1	X

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QC Report | ***Analysis Run Log***

Analysis | ***Mercury (Total) by CVAA***

ACZ Project #	L16013
Client	Daniel B. Stephens & Associates
Client Project ID	7004.4, Philips Semi
Date Received	10/17/97
Date Reported	11/12/97

Workgroup: WG50200 **(Continued)**

ACZ ID	Measure Date	Dilution	Hg
WG50200CCB5	10/22/97	1	X

ACZ
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QC REFERENCE

QC Report Types

(1)	Calibration Verification - Blanks	Verifies that there is no or minimal contamination in the instrument calibration.
(2)	Calibration Verification - Control Samples	Verifies the accuracy of the instrument calibration.
(3)	Method Verification - Blanks	Verifies that there is no or minimal contamination in the prep method procedure.
(4)	Method Verification - Control Samples	Verifies the accuracy of the method, including the prep procedure.
(5)	Spike Verification	Determines sample matrix interferences, if any.
(6)	Duplicate Verification	Verifies the precision of the instrument and/or method.

QC Sample Types

ICV	Initial Calibration Verification	QCS	Quality Control Sample
CCV	Continuing Calibration Verification	ICS	Instrument Check Sample
LCSW	Laboratory Control Sample - Water	LFB	Laboratory Fortified Blank
LCSS	Laboratory Control Sample - Soil	LFM	Laboratory Fortified Matrix
ICB	Initial Calibration Blank	AS	Analytical (Post Digestion) Spike
CCB	Continuing Calibration Blank	MS	Matrix Spike
LRB	Laboratory Reagent Blank	LFMD	Laboratory Fortified Matrix Duplicate
PBW	Prep Blank - Water	ASD	Analytical Spike (Post Digestion) Duplicate
PBS	Prep Blank - Soil	MSD	Matrix Spike Duplicate
		DUP	Sample Duplicate

Unique ACZ QC Summary Qualifiers (Q)

Z	Poor spike recovery is accepted because sample concentration is four times greater than spike concentration.
Y	This sample, instead of one of yours, was used as the quality control sample for the workgroup batch.
X	QC is out of control. See Case Narrative.
W	Poor recovery for Silver quality control is accepted because Silver often precipitates with Chloride.
V	High blank data accepted because sample concentration is 10 times higher than blank concentration
T	High Relative Percent Difference (RPD) accepted because sample concentrations are less than 10x the MDL.
S	ICV/QCS sample not part of workgroup; analyzed immediately following instrument calibration as part of a prevous workgroup.

Method References

(1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(4) EPA 600/4-80-032. Prescribed Procedures for Measurement of Radioactivity in Drinking Water, August 1980.
(5) EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update II, September 1994.
(6) Standard Methods for the Examination of Water and Wastewater, 18th edition, 1992.

Comments

(1) QC results calculated from raw data. Results may vary slightly if the reported (rounded) values are used in the calculations.
(2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3) Animal matrices for Inorganic analyses are reported on an "as received" basis.
(4) All matrices for Organic analyses are reported on an "as received" basis, except for TPH-IR analyses on soils which are reported on a dry weight basis.
(5) The PCN/SCN header on the QC reports stands for Primary Control Number/Secondary Control Number. All stock chemicals are given a PCN and any reagent made at the bench level is assigned a SCN. These numbers track our standards and chemicals so that any reagent is traceable to a certificate of analysis.

This report is subject to the "Terms & Conditions" section in ACZ Laboratories, Inc. 1995 Analytical Services Fee Schedule.

ACZ
30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

QC SUMMARY

QC Report ID: **QC0130**

ACZ Project ID: **L16027**

REPORT TO:

Richard Meixner
Daniel B. Stephens & Associates
6020 Academy NE, Suite 100
Albuquerque, NM 87109
11/18/97

R. Martino
Ron Martino, Organic Supervisor

11/18/97
Date

ACZ

QC SUMMARY

30400 Downhill Drive
Steamboat Springs, CO 80487

ACZ Project #	*L16027*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4 Phillips Semi*
Date Received	*10/18/97*
Date Reported	*11/18/97*

Sample Identification

ACZ LAB ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	DATE RECEIVED
L16027-01	NCLF4	Ground Water	10/17/97	10/18/97
L16027-02	NCLF4-Matrix Spike	Ground Water	10/17/97	10/18/97
L16027-03	NCLF4-MS Duplicate	Ground Water	10/17/97	10/18/97
L16027-04	Equipment Blank	Ground Water	10/17/97	10/18/97

ACZ

QC SUMMARY

30400 Downhill Drive
Steamboat Springs, CO 80487

ACZ Project #	*L16027*	**Matrix**	*Ground Water*
Client	*Daniel B. Stephens & Associates*		
Client Project ID	*7004.4 Phillips Semi*	**Analysis Group**	*Volatile Organics 524.2*
Date Received	*10/18/97*		
Date Reported	*11/18/97*	**QC Report**	*Spike Recovery*
Analysis Date:	*10/21/97*		

MATRIX SPIKE

EPA M524.2

Associated Client Samples L16027-01 to -04 Analytical Work Group WG50141

Compound	ACZ ID	SCN#	Sample Value (µg/L)	Spike Value (µg/L)	Found Value (µg/L)	Percent Recovery (%)	Control Limits Lower (%)	Control Limits Upper (%)	Q
1,1 Dichloroethene	L16027-02MS	OP70801-1	0.0	10	8.96	89.6	61	145	
Benzene	L16027-02MS	OP70801-1	0.0	10	9.72	97.2	76	127	
Trichloroethene	L16027-02MS	OP70801-1	0.0	10	9.94	99.4	71	120	
Toluene	L16027-02MS	OP70801-1	0.0	10	10.6	106	76	125	
Chlorobenzene	L16027-02MS	OP70801-1	0.0	10	9.99	99.9	75	130	

MATRIX SPIKE DUPLICATE

EPA M524.2

Associated Client Samples L16027-01 to -04 Analytical Work Group WG50141

Compound		SCN#	Sample Value (µg/L)	Spike Value (µg/L)	Found Value (µg/L)	Percent Recovery (%)	Control Limits Lower (%)	Control Limits Upper (%)	Q
1,1 Dichloroethene	L16027-03MSD	OP70801-1	0.0	10	9.35	93.5	61	145	
Benzene	L16027-03MSD	OP70801-1	0.0	10	10.1	101	76	127	
Trichloroethene	L16027-03MSD	OP70801-1	0.0	10	10.5	105	71	120	
Toluene	L16027-03MSD	OP70801-1	0.0	10	10.3	103	76	125	
Chlorobenzene	L16027-03MSD	OP70801-1	0.0	10	10.7	107	75	130	

ACZ

QC SUMMARY

30400 Downhill Drive
Steamboat Springs, CO 80487

ACZ Project #	*L16027*	**Matrix**	*Ground Water*
Client	*Daniel B. Stephens & Associates*		
Client Project ID	*7004.4 Phillips Semi*	**Analysis Group**	*Volatile Organics 524.2*
Date Received	*10/18/97*		
Date Reported	*11/18/97*	**QC Report**	*Spike Recovery*
Analysis Date:	*10/21/97*		

LCSW

EPA M524.2

Associated Client Samples L16027-01 to -04 Analytical Work Group WG50141

Compound	ACZ ID	SCN#	True Value (µg/L)	Found Value (µg/L)	Percent Recovery (%)	Control Limits Lower (%)	Control Limits Upper (%)	Q
1,1 Dichloroethene	WG50141LCSW	OP70801-1	10	9.85	98.5	61	145	
Benzene	WG50141LCSW	OP70801-1	10	10.1	101	76	127	
Trichloroethene	WG50141LCSW	OP70801-1	10	10.7	107	71	120	
Toluene	WG50141LCSW	OP70801-1	10	10.3	103	76	125	
Chlorobenzene	WG50141LCSW	OP70801-1	10	10.5	105	75	130	

ACZ

QC SUMMARY

30400 Downhill Drive
Steamboat Springs, CO 80487

ACZ Project #	*L16027*	**Matrix**	*Ground Water*
Client	*Daniel B. Stephens & Associates*		
Client Project ID	*7004.4 Phillips Semi*	**Analysis Group**	*Volatile Organics 524.2*
Date Received	*10/18/97*		
Date Reported	*11/18/97*	**QC Report**	*Duplicate Verification*
Analysis date	*10/21/97*		

MATRIX SPIKE DUPLICATE

EPA M524.2

Associated Client Samples: L16027-01 to -04 Analytical Work Group WG50141

			Conc. (µg/L)		RPD	Control Limits (%)		
Compound	ACZ ID	SCN#	Sample	Duplicate	(%)	Lower	Upper	Q
1,1 Dichloroethene	L16027-03MSD	OP70801-1	8.96	9.35	4.26	0	14	
Benzene	L16027-03MSD	OP70801-1	9.72	10.1	3.44	0	14	
Trichloroethene	L16027-03MSD	OP70801-1	9.94	10.5	5.00	0	11	
Toluene	L16027-03MSD	OP70801-1	10.6	10.3	2.11	0	13	
Chlorobenzene	L16027-03MSD	OP70801-1	10.0	10.7	7.14	0	13	

ACZ

QC SUMMARY

30400 Downhill Drive
Steamboat Springs, CO 80487

ACZ Project #	*L16027*	**Matrix**	*Ground Water*
Client	*Daniel B. Stephens & Associates*		
Client Project ID	*7004.4 Phillips Semi*	**Analysis Group**	*Volatile Organics 524.2*
Date Received	*10/18/97*		
Date Reported	*11/18/97*	**QC Report**	*Blank Verification*
Analysis Date	*10/21/97*		

PREP BLANK

EPA M524.2

Associated Client Samples L16027-01 to -04 Analytical Work Group WG50141

ACZ ID	Compound Detected	Found (µg/L)	Q
WG50141PBW	None Detected		U

ACZ

QC SUMMARY

30400 Downhill Drive
Steamboat Springs, CO 80487

ACZ Project #	*L16027*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4 Phillips Semi*
Date Received	*10/18/97*
Date Reported	*11/18/97*
Analysis date	*10/21/97*

Matrix *Ground Water*

Analysis Group *Volatile Organics 524.2*

QC Report *Surrogate Recovery*

SURROGATES

EPA M524.2

Associated Client Samples L16027-01 to -04 Analytical Work Group WG50141

ACZ ID	GC File ID	Analysis Date	SCN#	Spike Value (µg/L)	Sample Value (µg/L)	Percent Recovery (%R)	Control Limits Lower (%)	Control Limits Upper (%)	Q
WG50141PBW		10/21/97	OP70801-1						
1,2-Dichlorobenzene-d_4				5	5.75	115	80	120	
Bromofluorobenzene				5	5.50	110	80	120	
WG50141LCSW		10/21/97	OP70801-1						
1,2-Dichlorobenzene-d_4				5	5.64	113	80	120	
Bromofluorobenzene				5	4.86	97.2	80	120	
L16027-02MS		10/21/97	OP70801-1						
1,2-Dichlorobenzene-d_4				5	5.89	118	80	120	
Bromofluorobenzene				5	5.08	102	80	120	
L16027-03MSD		10/21/97	OP70801-1						
1,2-Dichlorobenzene-d_4				5	6.00	120	80	120	
Bromofluorobenzene				5	5.17	103	80	120	
L16027-01		10/21/97	OP70801-1						
1,2-Dichlorobenzene-d_4				5	5.84	117	80	120	
Bromofluorobenzene				5	4.97	99.4	80	120	
L16027-04		10/21/97	OP70801-1						
1,2-Dichlorobenzene-d_4				5	5.90	118	80	120	
Bromofluorobenzene				5	5.40	108	80	120	

ACZ

30400 Downhill Drive
Steamboat Springs, CO 80487
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QC SUMMARY

QC REFERENCE

QC Report Types

(1)	Calibration Verification - Blanks	Verifies that there is no or minimal contamination in the instrument calibration.
(2)	Calibration Verification - Control Samples	Verifies the accuracy of the instrument calibration.
(3)	Method Verification - Blanks	Verifies that there is no or minimal contamination in the prep method procedure.
(4)	Method Verification - Control Samples	Verifies the accuracy of the method, including the prep procedure.
(5)	Spike Verification	Determines sample matrix interferences, if any.
(6)	Duplicate Verification	Verifies the precision of the instrument and/or method.

QC Sample Types

ICV	Initial Calibration Verification	QCS	Quality Control Sample
CCV	Continuing Calibration Verification	ICS	Instrument Check Sample
LCSW	Laboratory Control Sample - Water	LFB	Laboratory Fortified Blank
LCSS	Laboratory Control Sample - Soil	LFM	Laboratory Fortified Matrix
ICB	Initial Calibration Blank	AS	Analytical (Post Digestion) Spike
CCB	Continuing Calibration Blank	MS	Matrix Spike
LRB	Laboratory Reagent Blank	LFMD	Laboratory Fortified Matrix Duplicate
PBW	Prep Blank - Water	ASD	Analytical Spike (Post Digestion) Duplicate
PBS	Prep Blank - Soil	MSD	Matrix Spike Duplicate
		DUP	Sample Duplicate

Unique ACZ QC Summary Qualifiers (Q)

Z	Poor spike recovery is accepted because sample concentration is four times greater than spike concentration.
Y	This sample, instead of one of yours, was used as the quality control sample for the workgroup batch.
X	QC is out of control. See Case Narrative.
W	Poor recovery for Silver quality control is accepted because Silver often precipitates with Chloride.
V	High blank data accepted because sample concentration is 10 times higher than blank concentration
T	High Relative Percent Difference (RPD) accepted because sample concentrations are less than 10x the MDL.
S	ICV/QCS sample not part of workgroup; analyzed immediately following instrument calibration as part of a prevous workgroup.

Method References

(1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(4) EPA 600/4-80-032. Prescribed Procedures for Measurement of Radioactivity in Drinking Water, August 1980.
(5) EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update II, September 1994.
(6) Standard Methods for the Examination of Water and Wastewater, 18th edition, 1992.

Comments

(1) QC results calculated from raw data. Results may vary slightly if the reported (rounded) values are used in the calculations.
(2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3) Animal matrices for Inorganic analyses are reported on an "as received" basis.
(4) All matrices for Organic analyses are reported on an "as received" basis, except for TPH-IR analyses on soils which are reported on a dry weight basis.
(5) The PCN/SCN header on the QC reports stands for Primary Control Number/Secondary Control Number. All stock chemicals are given a PCN and any reagent made at the bench level is assigned a SCN. These numbers track our standards and chemicals so that any reagent is traceable to a certificate of analysis.

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ACZ
30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

QC SUMMARY

QC Report ID: **QC0128**

ACZ Project ID: **L16027**

REPORT TO:

Richard Meixner
Daniel B. Stephens & Associates
6020 Academy NE, Suite 100
Albuquerque, NM 87109
11/18/97

R. Martino
Ron Martino, Organic Supervisor

11/19/97
Date

ACZ

QC SUMMARY

30400 Downhill Drive
Steamboat Springs, CO 80487

ACZ Project #	*L16027*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4 Phillips Semi*
Date Received	*10/18/97*
Date Reported	*11/18/97*

Sample Identification

ACZ LAB ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	DATE RECEIVED
L16027-01	NCLF4	Ground Water	10/17/97	10/18/97
L16027-02	NCLF4-Matrix Spike	Ground Water	10/17/97	10/18/97
L16027-03	NCLF4-MS Duplicate	Ground Water	10/17/97	10/18/97
L16027-04	Equipment Blank	Ground Water	10/17/97	10/18/97

ACZ

QC SUMMARY

30400 Downhill Drive
Steamboat Springs, CO 80487

ACZ Project #	*L16027*	**Matrix**	*Ground Water*
Client	*Daniel B. Stephens & Associates*		
Client Project ID	*7004.4 Phillips Semi*	**Analysis Group**	*Base/Neutral Acids*
Date Received	*10/18/97*		
Date Reported	*11/18/97*	**QC Report**	*Spike Recovery*
Analysis Date:	*10/24/97*		

MATRIX SPIKE

EPA M8270 — Prep Work Group WG50216
Associated Client Samples L16027-01 to -04 — Analytical Work Group WG50451

Compound	ACZ ID	SCN#	Sample Value (µg/L)	Spike Value (µg/L)	Found Value (µg/L)	Percent Recovery (%)	Control Limits Lower (%)	Control Limits Upper (%)	Q
Phenol	L16027-02MS	OP61203-1	0	75	47.2	62.9	12	89	
2-Chlorophenol	L16027-02MS	OP61203-1	0	75	58.0	77.3	27	123	
1,4-Dichlorobenzene	L16027-02MS	OP61203-1	0	50	37.7	75.4	36	97	
N-Nitroso-di-n-propylamine	L16027-02MS	OP61203-1	0	50	27.0	54.0	41	116	
1,2,4-Trichlorobenzene	L16027-02MS	OP61203-1	0	50	39.7	79.4	39	98	
4-Chloro-3-Methylphenol	L16027-02MS	OP61203-1	0	75	30.8	41.1	23	97	
Acenaphthene	L16027-02MS	OP61203-1	0	50	50.8	102	46	118	
4-Nitrophenol	L16027-02MS	OP61203-1	0	75	22.9	30.5	10	90	
2,4-Dinitrotoluene	L16027-02MS	OP61203-1	0	50	30.1	60.2	24	96	
Pentachlorophenol	L16027-02MS	OP61203-1	0	75	19.8	26.4	9	103	
Pyrene	L16027-02MS	OP61203-1	0	50	38.8	77.6	26	127	

MATRIX SPIKE DUPLICATE

EPA M8270 — Prep Work Group WG50216
Associated Client Samples L16027-01 to -04 — Analytical Work Group WG50451

Compound	ACZ ID	SCN#	Sample Value (µg/L)	Spike Value (µg/L)	Found Value (µg/L)	Percent Recovery (%)	Control Limits Lower (%)	Control Limits Upper (%)	Q
Phenol	L16027-03MSD	OP61203-1	0	75	51.0	68.0	12	89	
2-Chlorophenol	L16027-03MSD	OP61203-1	0	75	59.9	79.9	27	123	
1,4-Dichlorobenzene	L16027-03MSD	OP61203-1	0	50	38.9	77.8	36	97	
N-Nitroso-di-n-propylamine	L16027-03MSD	OP61203-1	0	50	25.8	51.6	41	116	
1,2,4-Trichlorobenzene	L16027-03MSD	OP61203-1	0	50	41.4	82.8	39	98	
4-Chloro-3-Methylphenol	L16027-03MSD	OP61203-1	0	75	32.0	42.7	23	97	
Acenaphthene	L16027-03MSD	OP61203-1	0	50	48.8	97.6	46	118	
4-Nitrophenol	L16027-03MSD	OP61203-1	0	75	22.3	29.7	10	90	
2,4-Dinitrotoluene	L16027-03MSD	OP61203-1	0	50	27.6	55.2	24	96	
Pentachlorophenol	L16027-03MSD	OP61203-1	0	75	24.6	32.8	9	103	
Pyrene	L16027-03MSD	OP61203-1	0	50	39.3	78.6	26	127	

ACZ

QC SUMMARY

30400 Downhill Drive
Steamboat Springs, CO 80487

ACZ Project # *L16027*
Client *Daniel B. Stephens & Associates*
Client Project ID *7004.4 Phillips Semi*
Date Received *10/18/97*
Date Reported *11/18/97*
Analysis Date: *10/24/97*

Matrix *Ground Water*
Analysis Group *Base/Neutral Acids*
QC Report *Method Verification*

LCSW

EPA M8270 — Prep Work Group WG50216
Associated Client Samples L16027-01 to -04 — Analytical Work Group WG50451

Compound	ACZ ID	SCN#	True Value (µg/L)	Found Value (µg/L)	Percent Recovery (%)	Control Limits Lower (%)	Control Limits Upper (%)	Q
Phenol	WG50216LCSW	OP61203-1	75	47.2	62.9	12	89	
2-Chlorophenol	WG50216LCSW	OP61203-1	75	57.9	77.2	27	123	
1,4-Dichlorobenzene	WG50216LCSW	OP61203-1	50	37.7	75.4	36	97	
N-Nitroso-di-n-propylamine	WG50216LCSW	OP61203-1	50	27.0	54.0	41	116	
1,2,4-Trichlorobenzene	WG50216LCSW	OP61203-1	50	39.7	79.4	39	98	
4-Chloro-3-Methylphenol	WG50216LCSW	OP61203-1	75	30.8	41.1	23	97	
Acenaphthene	WG50216LCSW	OP61203-1	50	50.8	102	46	118	
4-Nitrophenol	WG50216LCSW	OP61203-1	75	22.5	30.0	10	80	
2,4-Dinitrotoluene	WG50216LCSW	OP61203-1	50	30.1	60.2	24	96	
Pentachlorophenol	WG50216LCSW	OP61203-1	75	19.8	26.4	9	103	
Pyrene	WG50216LCSW	OP61203-1	50	38.8	77.6	26	127	

ACZ

QC SUMMARY

30400 Downhill Drive
Steamboat Springs, CO 80487

ACZ Project #	*L16027*	**Matrix**	*Ground Water*
Client	*Daniel B. Stephens & Associates*		
Client Project ID	*7004.4 Phillips Semi*	**Analysis Group**	*Base/Neutral Acids*
Date Received	*10/18/97*		
Date Reported	*11/18/97*	**QC Report**	*Duplicate Verification*
Analysis date	*10/24/97*		

Matrix Spike Duplicate

EPA M8270 — Prep Work Group WG50216

Associated Client Samples: L16027-01 to -04 — Analytical Work Group WG50451

Compound	ACZ ID	SCN#	Conc. (µg/L) Sample Value	Duplicate Value	RPD (%)	Control Limits Lower (%)	Upper (%)	Q
Phenol	L16027-03MSD	OP61203-1	47.2	51.0	7.74	0	59	
2-Chlorophenol	L16027-03MSD	OP61203-1	58.0	59.9	3.22	0	35	
1,4-Dichlorobenzene	L16027-03MSD	OP61203-1	37.7	38.9	3.13	0	20	
N-Nitroso-di-n-propylamine	L16027-03MSD	OP61203-1	27.0	25.8	4.55	0	28	
1,2,4-Trichlorobenzene	L16027-03MSD	OP61203-1	39.7	41.4	4.19	0	36	
4-Chloro-3-Methylphenol	L16027-03MSD	OP61203-1	30.8	32.0	3.82	0	47	
Acenaphthene	L16027-03MSD	OP61203-1	50.8	48.8	4.02	0	27	
4-Nitrophenol	L16027-03MSD	OP61203-1	22.9	22.3	2.65	0	79	
2,4-Dinitrotoluene	L16027-03MSD	OP61203-1	30.1	27.6	8.67	0	33	
Pentachlorophenol	L16027-03MSD	OP61203-1	19.8	24.6	21.6	0	61	
Pyrene	L16027-03MSD	OP61203-1	38.8	39.3	1.28	0	45	

ACZ

QC SUMMARY

30400 Downhill Drive
Steamboat Springs, CO 80487

ACZ Project #	*L16027*	**Matrix**	*Ground Water*
Client	*Daniel B. Stephens & Associates*		
Client Project ID	*7004.4 Phillips Semi*	**Analysis Group**	*Base/Neutral Acids*
Date Received	*10/18/97*		
Date Reported	*11/18/97*	**QC Report**	*Blank Verification*
Analysis Date	*10/24/97*		

PREP BLANK

EPA M8270 — Prep Work Group WG50216

Associated Client Samples L16027-01 to -04 — Analytical Work Group WG50451

ACZ ID	Compound Detected	Found Value (µg/L)	Q
WG50216PBW	None Detected		U

ACZ
30400 Downhill Drive
Steamboat Springs, CO 80487

QC SUMMARY

ACZ Project #	*L16027*	**Matrix**	*Ground Water*
Client	*Daniel B. Stephens & Associates*		
Client Project ID	*7004.4 Phillips Semi*	**Analysis Group**	*Base/Neutral Acids*
Date Received	*10/18/97*		
Date Reported	*11/18/97*	**QC Report**	*Surrogate Recovery*

SURROGATES

EPA M8270 — Prep Work Group WG50216

Associated Client Samples L16027-01 to -04 — Analytical Work Group WG50451

ACZ ID	GC File ID	Analysis Date	SCN#	Spike Value (ug/L)	Sample Value (ug/L)	Percent Recovery (%R)	Control Limits Lower (%)	Control Limits Upper (%)	Q
WG50216PBW	B8634	10/24/97	OP61203-1						
2-Fluorophenol				75	21.1	28.1	21	110	
Phenol-d5				75	47.0	62.7	10	110	
Nitrobenzene-d5				50	21.2	42.4	35	114	
2-Fluorobiphenyl				50	37.0	74.0	43	116	
2,4,6-Tribromophenol				75	26.9	35.9	10	123	
Terphenyl-d14				50	39.5	79.0	33	141	
WG50216LCSW	B8634	10/24/97	OP61203-1						
2-Fluorophenol				75	34.9	46.5	21	110	
Phenol-d5				75	48.2	64.3	10	110	
Nitrobenzene-d5				50	35.4	70.8	35	114	
2-Fluorobiphenyl				50	44.2	88.4	43	116	
2,4,6-Tribromophenol				75	43.3	57.7	10	123	
Terphenyl-d14				50	44.6	89.2	33	141	
L16027-02MS	B8639	10/24/97	OP61203-1						
2-Fluorophenol				75	34.9	46.5	21	110	
Phenol-d5				75	48.2	64.3	10	110	
Nitrobenzene-d5				50	35.5	71.0	35	114	
2-Fluorobiphenyl				50	44.2	88.4	43	116	
2,4,6-Tribromophenol				75	43.4	57.9	10	123	
Terphenyl-d14				50	44.6	89.2	33	141	
L16027-03MSD	B8639	10/24/97	OP61203-1						
2-Fluorophenol				75	42.3	56.4	21	110	
Phenol-d5				75	50.2	66.9	10	110	
Nitrobenzene-d5				50	35.8	71.6	35	114	
2-Fluorobiphenyl				50	44.3	88.6	43	116	
2,4,6-Tribromophenol				75	40.5	54.0	10	123	
Terphenyl-d14				50	45.6	91.2	33	141	

ACZ

QC SUMMARY

30400 Downhill Drive
Steamboat Springs, CO 80487

ACZ Project #	*L16027*	**Matrix**	*Ground Water*
Client	*Daniel B. Stephens & Associates*		
Client Project ID	*7004.4 Phillips Semi*	**Analysis Group**	*Base/Neutral Acids*
Date Received	*10/18/97*		
Date Reported	*11/18/97*	**QC Report**	*Surrogate Recovery*

SURROGATES

EPA M8270 — Prep Work Group WG50216

Associated Client Samples L16027-01 to -04 — Analytical Work Group WG50451

ACZ ID	GC File ID	Analysis Date		Spike Value (µg/mL)	Sample Value (µg/mL)	Percent Recovery (%R)	Control Limits Lower (%)	Control Limits Upper (%)	Q
L16027-01	B8637	10/24/97	OP61203-1						
2-Fluorophenol				75	47.5	63.3	21	110	
Phenol-d5				75	45.4	60.5	10	110	
Nitrobenzene-d5				50	25.3	50.6	35	114	
2-Fluorobiphenyl				50	43.5	87.0	43	116	
2,4,6-Tribromophenol				75	31.7	42.3	10	123	
Terphenyl-d14				50	45.6	91.2	33	141	
L16027-04	B8641	10/24/97	OP61203-1						
2-Fluorophenol				75	20.3	27.1	21	110	
Phenol-d5				75	24.4	32.5	10	110	
Nitrobenzene-d5				50	33.0	66.0	35	114	
2-Fluorobiphenyl				50	33.4	66.8	43	116	
2,4,6-Tribromophenol				75	27.6	36.8	10	123	
Terphenyl-d14				50	43.5	87.0	33	141	

ACZ

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

QC REFERENCE

QC Report Types

(1)	Calibration Verification - Blanks	Verifies that there is no or minimal contamination in the instrument calibration.
(2)	Calibration Verification - Control Samples	Verifies the accuracy of the instrument calibration.
(3)	Method Verification - Blanks	Verifies that there is no or minimal contamination in the prep method procedure.
(4)	Method Verification - Control Samples	Verifies the accuracy of the method, including the prep procedure.
(5)	Spike Verification	Determines sample matrix interferences, if any.
(6)	Duplicate Verification	Verifies the precision of the instrument and/or method.

QC Sample Types

ICV	Initial Calibration Verification	QCS	Quality Control Sample
CCV	Continuing Calibration Verification	ICS	Instrument Check Sample
LCSW	Laboratory Control Sample - Water	LFB	Laboratory Fortified Blank
LCSS	Laboratory Control Sample - Soil	LFM	Laboratory Fortified Matrix
ICB	Initial Calibration Blank	AS	Analytical (Post Digestion) Spike
CCB	Continuing Calibration Blank	MS	Matrix Spike
LRB	Laboratory Reagent Blank	LFMD	Laboratory Fortified Matrix Duplicate
PBW	Prep Blank - Water	ASD	Analytical Spike (Post Digestion) Duplicate
PBS	Prep Blank - Soil	MSD	Matrix Spike Duplicate
		DUP	Sample Duplicate

Unique ACZ QC Summary Qualifiers (Q)

Z	Poor spike recovery is accepted because sample concentration is four times greater than spike concentration.
Y	This sample, instead of one of yours, was used as the quality control sample for the workgroup batch.
X	QC is out of control. See Case Narrative.
W	Poor recovery for Silver quality control is accepted because Silver often precipitates with Chloride.
V	High blank data accepted because sample concentration is 10 times higher than blank concentration
T	High Relative Percent Difference (RPD) accepted because sample concentrations are less than 10x the MDL.
S	ICV/QCS sample not part of workgroup; analyzed immediately following instrument calibration as part of a prevous workgroup.

Method References

(1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(4) EPA 600/4-80-032. Prescribed Procedures for Measurement of Radioactivity in Drinking Water, August 1980.
(5) EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update II, September 1994.
(6) Standard Methods for the Examination of Water and Wastewater, 18th edition, 1992.

Comments

(1) QC results calculated from raw data. Results may vary slightly if the reported (rounded) values are used in the calculations.
(2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3) Animal matrices for Inorganic analyses are reported on an "as received" basis.
(4) All matrices for Organic analyses are reported on an "as received" basis, except for TPH-IR analyses on soils which are reported on a dry weight basis.
(5) The PCN/SCN header on the QC reports stands for Primary Control Number/Secondary Control Number. All stock chemicals are given a PCN and any reagent made at the bench level is assigned a SCN. These numbers track our standards and chemicals so that any reagent is traceable to a certificate of analysis.

This report is subject to the "Terms & Conditions" section in ACZ Laboratories, Inc. 1995 Analytical Services Fee Schedule.

ACZ
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Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

QC SUMMARY

QC Report ID: **QC0129**

ACZ Project ID: **L16027**

REPORT TO:

Richard Meixner
Daniel B. Stephens & Associates
6020 Academy NE, Suite 100
Albuquerque, NM 87109
11/18/97

R. Martino
Ron Martino, Organic Supervisor

11/18/97
Date

ACZ

QC SUMMARY

30400 Downhill Drive
Steamboat Springs, CO 80487

ACZ Project #	*L16027*
Client	*Daniel B. Stephens & Associates*
Date Received	*10/18/97*
Date Reported	*11/18/97*

Sample Identification

ACZ LAB ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	DATE RECEIVED
L16027-01	NCLF4	Ground Water	10/17/97	10/18/97
L16027-02	NCLF4-Matrix Spike	Ground Water	10/17/97	10/18/97
L16027-03	NCLF4-MS Duplicate	Ground Water	10/17/97	10/18/97
L16027-04	Equipment Blank	Ground Water	10/17/97	10/18/97

ACZ

QC SUMMARY

30400 Downhill Drive
Steamboat Springs, CO 80487

ACZ Project #	*L16027*	**Matrix**	*Ground Water*
Client	*Daniel B. Stephens & Associates*		
Client Project ID	*7004.4 Phillips Semi*	**Analysis Group**	*PPS - 846*
Date Received	*10/18/97*		
Date Reported	*11/18/97*	**QC Report**	*Spike Recovery*
Analysis Date:	*10/24/97*		

MATRIX SPIKE

EPA M8080 — Prep Work Group WG50228
Associated Client Samples L16027-01 to -04 — Analytical Work Group WG50438

Compound	ACZ ID	SCN#	True Value (ng/mL)	Found Value (ng/mL)	Percent Recovery (%)	Control Limits Lower (%)	Control Limits Upper (%)	Q
γ-BHC	L16027-02MS	OP61203-1	25	24.9	99.5	50	150	
Heptachlor	L16027-02MS	OP61203-1	25	25.7	103	50	150	
Aldrin	L16027-02MS	OP61203-1	25	21.6	86.4	50	150	
Dieldrin	L16027-02MS	OP61203-1	50	47.6	95.3	50	150	
Endrin	L16027-02MS	OP61203-1	50	48.6	97.1	50	150	
4,4'-DDT	L16027-02MS	OP61203-1	50	40.6	81.1	50	150	

MATRIX SPIKE DUPLICATE

EPA M8080 — Prep Work Group WG50228
Associated Client Samples L16027-01 to -04 — Analytical Work Group WG50438

Compound	ACZ ID	SCN#	True Value (ng/mL)	Found Value (ng/mL)	Percent Recovery (%)	Control Limits Lower (%)	Control Limits Upper (%)	Q
γ-BHC	L16027-03MSD	OP61203-1	25	25.5	102	50	150	
Heptachlor	L16027-03MSD	OP61203-1	25	26.3	105	50	150	
Aldrin	L16027-03MSD	OP61203-1	25	21.8	87.1	50	150	
Dieldrin	L16027-03MSD	OP61203-1	50	52.4	105	50	150	
Endrin	L16027-03MSD	OP61203-1	50	51.6	103	50	150	
4,4'-DDT	L16027-03MSD	OP61203-1	50	48.9	97.9	50	150	

ACZ

QC SUMMARY

30400 Downhill Drive
Steamboat Springs, CO 80487

ACZ Project #	*L16027*	**Matrix**	*Ground Water*
Client	*Daniel B. Stephens & Associates*		
Client Project ID	*7004.4 Phillips Semi*	**Analysis Group**	*PPS - 846*
Date Received	*10/18/97*		
Date Reported	*11/18/97*	**QC Report**	*Method Verification*
Analysis Date:	*10/24/97*		

LCSW

EPA M8080 — Prep Work Group WG50228

Associated Client Samples L16027-01 to -04 — Analytical Work Group WG50438

Compound	ACZ ID	SCN#	True Value (ng/mL)	Found Value (ng/mL)	Percent Recovery (%)	Control Limits Lower (%)	Control Limits Upper (%)	Q
γ-BHC	WG50228LCSW	OP61203-1	25	29.5	118	50	150	
Heptachlor	WG50228LCSW	OP61203-1	25	27.0	108	50	150	
Aldrin	WG50228LCSW	OP61203-1	25	23.7	94.8	50	150	
Dieldrin	WG50228LCSW	OP61203-1	50	64.9	130	50	150	
Endrin	WG50228LCSW	OP61203-1	50	70.8	142	50	150	
4,4'-DDT	WG50228LCSW	OP61203-1	50	81.5	163	50	150	X

ACZ

QC SUMMARY

30400 Downhill Drive
Steamboat Springs, CO 80487

ACZ Project #	*L16027*	**Matrix**	*Ground Water*
Client	*Daniel B. Stephens & Associates*		
Client Project ID	*7004.4 Phillips Semi*	**Analysis Group**	*PPS - 846*
Date Received	*10/18/97*		
Date Reported	*11/18/97*	**QC Report**	*Duplicate Verification*
Analysis date	*10/24/97*		

MATRIX SPIKE DUPLICATE

EPA M8080 — Prep Work Group WG50228

Associated Client Samples: L16027-01 to -04 — Analytical Work Group WG50438

Compound	ACZ ID	SCN#	Conc. (ng/mL) Sample Value	Duplicate Value	RPD (%)	Control Limits (%) Lower (%)	Upper (%)	Q
γ-BHC	L16027-03MSD	OP61203-1	24.9	25.5	2.31	0	44	
Heptachlor	L16027-03MSD	OP61203-1	25.7	26.3	2.58	0	44	
Aldrin	L16027-03MSD	OP61203-1	21.6	21.8	0.78	0	26	
Dieldrin	L16027-03MSD	OP61203-1	47.6	52.4	9.57	0	33	
Endrin	L16027-03MSD	OP61203-1	48.6	51.6	6.03	0	24	
4,4'-DDT	L16027-03MSD	OP61203-1	40.6	48.9	18.8	0	40	

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QC SUMMARY

30400 Downhill Drive
Steamboat Springs, CO 80487

ACZ Project #	*L16027*	**Matrix**	*Ground Water*
Client	*Daniel B. Stephens & Associates*		
Client Project ID	*7004.4 Phillips Semi*	**Analysis Group**	*PPS - 846*
Date Received	*10/18/97*		
Date Reported	*11/18/97*	**QC Report**	*Blank Verification*
Analysis Date	*10/24/97*		

PREP BLANK

EPA M8080		Prep Work Group	WG50228
Associated Client Samples	L16027-01 to -04	Analytical Work Group	WG50438

ACZ ID	Compound Detected	Found Value (ng/mL)	Q
WG50228PBW	None Detected		U

ACZ

QC SUMMARY

30400 Downhill Drive
Steamboat Springs, CO 80487

ACZ Project #	*L16027*	**Matrix**	*Ground Water*
Client	*Daniel B. Stephens & Associates*		
Client Project ID	*7004.4 Phillips Semi*	**Analysis Group**	*PPS - 846*
Date Received	*10/18/97*		
Date Reported	*11/18/97*	**QC Report**	*Surrogate Recovery*

SURROGATES

EPA M8080 — Prep Work Group WG50228

Associated Client Samples L16027-01 to -04 — Analytical Work Group WG50438

ACZ ID	GC File ID	Analysis Date	SCN#	Spike Value (ng/mL)	Sample Value (ng/mL)	Percent Recovery (%R)	Control Limits Lower (%)	Control Limits Upper (%)	Q
WG50228PBW		10/24/97	OP61203-1						
TCMX				20	18.9	94.5	50	150	
DCBP				20	14.1	70.5	50	150	
WG50228LCSW		10/24/97	OP61203-1						
TCMX				20	20.8	104	50	150	
DCBP				20	24.1	121	50	150	
L16027-02MS		10/24/97	OP61203-1						
TCMX				20	18.3	91.5	50	150	
DCBP				20	14.4	72.0	50	150	
L16027-03MSD		10/24/97	OP61203-1						
TCMX				20	18.2	91.0	50	150	
DCBP				20	18.7	93.5	50	150	
L16027-01		10/24/97	OP61203-1						
TCMX				20	18.9	94.5	50	150	
DCBP				20	14.1	70.5	50	150	
L16027-04		10/24/97	OP61203-1						
TCMX				20	20.1	101	50	150	
DCBP				20	13.1	65.5	50	150	

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QC SUMMARY

QC REFERENCE

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LCSS	Laboratory Control Sample - Soil	LFM	Laboratory Fortified Matrix
ICB	Initial Calibration Blank	AS	Analytical (Post Digestion) Spike
CCB	Continuing Calibration Blank	MS	Matrix Spike
LRB	Laboratory Reagent Blank	LFMD	Laboratory Fortified Matrix Duplicate
PBW	Prep Blank - Water	ASD	Analytical Spike (Post Digestion) Duplicate
PBS	Prep Blank - Soil	MSD	Matrix Spike Duplicate
		DUP	Sample Duplicate

Unique ACZ QC Summary Qualifiers (Q)

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S	ICV/QCS sample not part of workgroup; analyzed immediately following instrument calibration as part of a prevous workgroup.

Method References

(1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
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(5) EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update II, September 1994.
(6) Standard Methods for the Examination of Water and Wastewater, 18th edition, 1992.

Comments

(1) QC results calculated from raw data. Results may vary slightly if the reported (rounded) values are used in the calculations.
(2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3) Animal matrices for Inorganic analyses are reported on an "as received" basis.
(4) All matrices for Organic analyses are reported on an "as received" basis, except for TPH-IR analyses on soils which are reported on a dry weight basis.
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ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

QC Report ID: QC1515-A

ACZ Project ID: L16027

REPORT TO:

Richard Meixner
Daniel B. Stephens & Associates
6020 Academy NE Suite 100
Albuquerque, NM 87109
Tuesday, November 18, 1997

Cynthia Clark

Cynthia Clark, Document Control Assistant

11/18/97

Date

S. Habermehl

Scott Habermehl, Project Manager

11/21/97

Date

REPQC001.07.97.03

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

ACZ Project #	*L16027*
QC Report ID	*QC1515-A*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4 Philips Semi*
Date Received	*10/18/97*
Date Reported	*11/18/97*

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ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
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Fax: (970) 879-2216

Sample Identification

ACZ Project #	*L16027*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4 Philips Semi*
Date Received	*10/18/97*
Date Reported	*11/18/97*

ACZ Lab ID	Client Sample ID	Sample Matrix	Date Sampled	Date Received
L16027-01	NCLF4	Ground Water	10/17/97 1:15:00 PM	10/18/97
L16027-02	NCLF4-Matrix Spike	Ground Water	10/17/97 1:15:00 PM	10/18/97
L16027-03	NCLF4-MS Duplicate	Ground Water	10/17/97 1:15:00 PM	10/18/97
L16027-04	Equipment Blank	Ground Water	10/17/97 9:45:00 AM	10/18/97

Comments:

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Project Summary

ACZ Project # L16027
Client Daniel B. Stephens & Associates
Client Project ID 7004.4 Philips Semi
Date Received 10/18/97
Date Reported 11/18/97

ACZ Lab ID: L16027-

Product Description	Method	01	02	03	04						
Antimony, total	M6020 ICP-MS	X	X	X	X						
Arsenic, total	M6020 ICP-MS	X	X	X	X						
Barium, total	M6010 ICP	X	X	X	X						
Base Neutral Acid Extractables by GC/MS	M8270	X	X	X	X						
Beryllium, total	M6010 ICP	X	X	X	X						
Cadmium, total	M6010 ICP	X	X	X	X						
Chromium, total	M6010 ICP	X	X	X	X						
Cobalt, total	M6010 ICP	X	X	X	X						
Copper, total	M6010 ICP	X	X	X	X						
Diskette Preparation and Delivery											
Lead, total	M6020 ICP-MS	X	X	X	X						
Mercury, total	M7470 CVAA	X	X	X	X						
Nickel, total	M6010 ICP	X	X	X	X						
Organochlorine Pesticide/PCB	M8080	X	X	X	X						
Selenium, total	SM 3500-Se C, AA-Hydride	X	X	X	X						
Silver, total	M6010 ICP	X	X	X	X						
Thallium, total	M6020 ICP-MS	X	X	X	X						
Tin, total	M6010 ICP	X	X	X	X						
Total Digestion	M3015 ICP	X	X	X	X						
Total Digestion	M3015 ICP-MS	X	X	X	X						
Vanadium, total	M6010 ICP	X	X	X	X						
Volatile Organics by GC/MS	M524.2	X	X	X	X						
Zinc, total	M6010 ICP	X	X	X	X						

ACZ

QC Summary

30400 Downhill Drive
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Calibration Verification - Control Samples

Cover Page

ACZ Project #	L16027
QC Report ID	QC1515-A
Client	Daniel B. Stephens & Associates
Client Project ID	7004.4 Philips Semi
Date Received	10/18/97
Date Reported	11/18/97

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Metal Analysis	6
Metals - Cold Vapor	
Total Metals	
Metals - Hydride	
Total Metals	
Metals - ICP	
Total Metals	
Metals - ICPMS	
Total Metals	

Additional analytical runs may have been required as a result of matrix effects and/or instrumental problems.
Re-analysis data immediately follows initial QC data as outlined in above sequence.

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
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Fax: (970) 879-2216

Matrix *Aqueous*
Analysis Group *Metals - Cold Vapor*
QC Report ***Calibration Verification-Control Samples***

ACZ Project #	*L16027*
QC Report ID	*QC1515-A*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4 Philips Semi*
Date Received	*10/18/97*
Date Reported	*11/18/97*

Mercury, total

Method M7470 CVAA

ACZ ID	QC Type	PCN / SCN#	Analysis Date	Concentration (mg/L)			Control Limits, %		Q
				True	Found	Q Rec (%)	Lower	Upper	
WG50200ICV	ICV	II970618-01	10/22/97 5:32:10 PM	0.01	0.00969	96.9	80	120	
WG50200CCV1	CCV	II970618-01	10/22/97 5:48:40 PM	0.01	0.00948	94.8	90	110	
WG50200CCV2	CCV	II970618-01	10/22/97 6:05:18 PM	0.01	0.00924	92.4	90	110	
WG50200CCV3	CCV	II970618-01	10/22/97 6:11:48 PM	0.01	0.00971	97.1	90	110	
WG50200ICV	ICV	II970618-01	10/22/97 6:29:50 PM	0.01	0.00944	94.4	80	120	
WG50200CCV5	CCV	II970618-01	10/22/97 6:45:12 PM	0.01	0.00924	92.4	90	110	
WG50200CCV6	CCV	II970618-01	10/22/97 6:53:25 PM	0.01	0.00940	94	90	110	
WG51641ICV	ICV	II970618-01	11/13/97 5:01:50 PM	0.01	0.0103	103.2	80	120	
WG51641CCV1	CCV	II970618-01	11/13/97 5:18:25 PM	0.01	0.0105	104.6	90	110	

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Matrix Aqueous
Analysis Group Metals - Hydride
QC Report ***Calibration Verification-Control Samples***

ACZ Project #	*L16027*
QC Report ID	*QC1515-A*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4 Philips Semi*
Date Received	*10/18/97*
Date Reported	*11/18/97*

Selenium, total

Method SM 3500-Se C, AA-Hydride

ACZ ID	QC Type	PCN / SCN#	Analysis Date	Concentration (mg/L)				Control Limits, %		Q
				True	Found	Q	Rec (%)	Lower	Upper	
WG51202ICV	ICV	II970815-1	11/6/97 9:40:00 PM	0.02	0.0205		102.5	90	110	
WG51202CCV1	CCV	II970815-1	11/6/97 9:58:00 PM	0.02	0.0206		103	90	110	
WG51515ICV	ICV	II970815-1	11/11/97 5:57:00 PM	0.02	0.0201		100.5	90	110	
WG51515CCV1	CCV	II970815-1	11/11/97 6:15:00 PM	0.02	0.0201		100.5	90	110	

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Matrix Aqueous
Analysis Group Metals - ICP
QC Report ***Calibration Verification-Control Samples***

ACZ Project #	L16027
QC Report ID	QC1515-A
Client	Daniel B. Stephens & Associates
Client Project ID	7004.4 Philips Semi
Date Received	10/18/97
Date Reported	11/18/97

Total Metals

Method M6010 ICP

Element	ACZ ID	QC Type	PCN / SCN#	Analysis Date	Concentration (mg/L)			Control Limits,%		Q
					True	Found	Q Rec (%)	Lower	Upper	
Barium	WG50304ICV	ICV	II971014-1	10/23/97 10:13:00 AM	1	0.998	99.8	90	110	S
Barium	WG50298CCV3	CCV	II971022-1	10/23/97 2:28:00 PM	5	4.93	98.6	90	110	
Barium	WG50298CCV4	CCV	II971022-1	10/23/97 3:08:00 PM	5	4.82	96.4	90	110	
Barium	WG51551ICV	ICV	II971014-1	11/11/97 4:31:00 PM	1	0.982	98.2	90	110	S
Barium	WG51570CCV1	CCV	II971022-1	11/11/97 5:46:00 PM	5	5.00	100.1	90	110	
Barium	WG51570CCV2	CCV	II971022-1	11/11/97 6:29:00 PM	5	4.89	97.9	90	110	
Beryllium	WG50304ICV	ICV	II971014-1	10/23/97 10:13:00 AM	1	1.03	102.7	90	110	S
Beryllium	WG50298CCV3	CCV	II971022-1	10/23/97 2:28:00 PM	0.25	0.245	98	90	110	
Beryllium	WG50298CCV4	CCV	II971022-1	10/23/97 3:08:00 PM	0.25	0.239	95.5	90	110	
Beryllium	WG51551ICV	ICV	II971014-1	11/11/97 4:31:00 PM	1	1.01	101.4	90	110	S
Beryllium	WG51570CCV1	CCV	II971022-1	11/11/97 5:46:00 PM	0.25	0.255	102.2	90	110	
Beryllium	WG51570CCV2	CCV	II971022-1	11/11/97 6:29:00 PM	0.25	0.250	99.9	90	110	
Cadmium	WG50304ICV	ICV	II971014-1	10/23/97 10:13:00 AM	1	1.02	101.9	90	110	S
Cadmium	WG50298CCV3	CCV	II971022-1	10/23/97 2:28:00 PM	2.5	2.44	97.5	90	110	
Cadmium	WG50298CCV4	CCV	II971022-1	10/23/97 3:08:00 PM	2.5	2.38	95.2	90	110	
Cadmium	WG51601ICV	ICV	II971103-1	11/12/97 9:43:00 AM	1	1.01	101	90	110	
Cadmium	WG51601CCV1	CCV	II971022-1	11/12/97 10:26:00 AM	2.5	2.58	103.2	90	110	
Chromium	WG50304ICV	ICV	II971014-1	10/23/97 10:13:00 AM	1	1.02	102	90	110	S
Chromium	WG50298CCV3	CCV	II971022-1	10/23/97 2:28:00 PM	1	0.967	96.7	90	110	
Chromium	WG50298CCV4	CCV	II971022-1	10/23/97 3:08:00 PM	1	0.946	94.6	90	110	
Chromium	WG51551ICV	ICV	II971014-1	11/11/97 4:31:00 PM	1	0.986	98.6	90	110	S
Chromium	WG51570CCV1	CCV	II971022-1	11/11/97 5:46:00 PM	1	0.991	99.1	90	110	
Chromium	WG51570CCV2	CCV	II971022-1	11/11/97 6:29:00 PM	1	0.971	97.1	90	110	

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Matrix Aqueous
Analysis Group Metals - ICP
QC Report ***Calibration Verification-Control Samples***

ACZ Project #	L16027
QC Report ID	QC1515-A
Client	Daniel B. Stephens & Associates
Client Project ID	7004.4 Philips Semi
Date Received	10/18/97
Date Reported	11/18/97

Total Metals

Method M6010 ICP

Element	ACZ ID	QC Type	PCN / SCN#	Analysis Date	Concentration (mg/L) True	Found	Q	Rec (%)	Control Limits,% Lower	Upper	Q
Cobalt	WG50304ICV	ICV	II971014-1	10/23/97 10:13:00 AM	1	1.01		101.1	90	110	S
Cobalt	WG50298CCV3	CCV	II971022-1	10/23/97 2:28:00 PM	1.25	1.23		98.5	90	110	
Cobalt	WG50298CCV4	CCV	II971022-1	10/23/97 3:08:00 PM	1.25	1.20		96	90	110	
Cobalt	WG51551ICV	ICV	II971014-1	11/11/97 4:31:00 PM	1	0.968		96.8	90	110	S
Cobalt	WG51570CCV1	CCV	II971022-1	11/11/97 5:46:00 PM	1.25	1.24		99.5	90	110	
Cobalt	WG51570CCV2	CCV	II971022-1	11/11/97 6:29:00 PM	1.25	1.22		98	90	110	
Copper	WG50304ICV	ICV	II971014-1	10/23/97 10:13:00 AM	1	1.00		100.4	90	110	S
Copper	WG50298CCV3	CCV	II971022-1	10/23/97 2:28:00 PM	1.25	1.23		98.1	90	110	
Copper	WG50298CCV4	CCV	II971022-1	10/23/97 3:08:00 PM	1.25	1.20		96.1	90	110	
Copper	WG51551ICV	ICV	II971014-1	11/11/97 4:31:00 PM	1	0.967		96.7	90	110	S
Copper	WG51570CCV1	CCV	II971022-1	11/11/97 5:46:00 PM	1.25	1.24		99.1	90	110	
Copper	WG51570CCV2	CCV	II971022-1	11/11/97 6:29:00 PM	1.25	1.21		97.1	90	110	
Nickel	WG50304ICV	ICV	II971014-1	10/23/97 10:13:00 AM	1	1.00		100.4	90	110	S
Nickel	WG50298CCV3	CCV	II971022-1	10/23/97 2:28:00 PM	1.25	1.20		96.3	90	110	
Nickel	WG50298CCV4	CCV	II971022-1	10/23/97 3:08:00 PM	1.25	1.18		94.4	90	110	
Nickel	WG51551ICV	ICV	II971014-1	11/11/97 4:31:00 PM	1	0.986		98.6	90	110	S
Nickel	WG51570CCV1	CCV	II971022-1	11/11/97 5:46:00 PM	1.25	1.24		99.5	90	110	
Nickel	WG51570CCV2	CCV	II971022-1	11/11/97 6:29:00 PM	1.25	1.22		97.9	90	110	
Silver	WG50304ICV	ICV	II971014-1	10/23/97 10:13:00 AM	1	1.01		101.2	90	110	S
Silver	WG50298CCV3	CCV	II971022-1	10/23/97 2:28:00 PM	1.25	1.21		97	90	110	
Silver	WG50298CCV4	CCV	II971022-1	10/23/97 3:08:00 PM	1.25	1.19		95.4	90	110	
Silver	WG51551ICV	ICV	II971014-1	11/11/97 4:31:00 PM	1	0.998		99.8	90	110	S
Silver	WG51570CCV1	CCV	II971022-1	11/11/97 5:46:00 PM	1.25	1.24		99.3	90	110	
Silver	WG51570CCV2	CCV	II971022-1	11/11/97 6:29:00 PM	1.25	1.23		98.1	90	110	

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Matrix Aqueous
Analysis Group Metals - ICP
QC Report ***Calibration Verification-Control Samples***

ACZ Project #	L16027
QC Report ID	QC1515-A
Client	Daniel B. Stephens & Associates
Client Project ID	7004.4 Philips Semi
Date Received	10/18/97
Date Reported	11/18/97

Total Metals

Method M6010 ICP

Element	ACZ ID	QC Type	PCN / SCN#	Analysis Date	Concentration (mg/L) True	Found	Q	Rec (%)	Control Limits,% Lower	Upper	Q
Tin	WG51354ICV	ICV	II971103-1	11/10/97 1:16:00 PM	4	3.89		97.3	90	110	
Tin	WG51354CCV1	CCV	II971022-1	11/10/97 1:50:00 PM	5	5.09		101.8	90	110	
Tin	WG51354CCV2	CCV	II971022-1	11/10/97 2:23:00 PM	5	4.98		99.6	90	110	
Tin	WG51354CCV3	CCV	II971022-1	11/10/97 2:35:00 PM	5	4.93		98.6	90	110	
Tin	WG51571ICV	ICV	II971103-1	11/12/97 3:47:00 PM	4	3.78		94.5	90	110	
Tin	WG51571CCV1	CCV	II971022-1	11/12/97 4:21:00 PM	5	5.03		100.6	90	110	
Vanadium	WG50304ICV	ICV	II971014-1	10/23/97 10:13:00 AM	1	1.00		100.3	90	110	S
Vanadium	WG50298CCV3	CCV	II971022-1	10/23/97 2:28:00 PM	1.25	1.18		94.3	90	110	
Vanadium	WG50298CCV4	CCV	II971022-1	10/23/97 3:08:00 PM	1.25	1.15		92.3	90	110	
Vanadium	WG51551ICV	ICV	II971014-1	11/11/97 4:31:00 PM	1	0.996		99.6	90	110	S
Vanadium	WG51570CCV1	CCV	II971022-1	11/11/97 5:46:00 PM	1.25	1.22		97.6	90	110	
Vanadium	WG51570CCV2	CCV	II971022-1	11/11/97 6:29:00 PM	1.25	1.20		95.9	90	110	
Zinc	WG50304ICV	ICV	II971014-1	10/23/97 10:13:00 AM	1	1.02		101.7	90	110	S
Zinc	WG50298CCV3	CCV	II971022-1	10/23/97 2:28:00 PM	1.25	1.21		97.1	90	110	
Zinc	WG50298CCV4	CCV	II971022-1	10/23/97 3:08:00 PM	1.25	1.19		95.6	90	110	
Zinc	WG51551ICV	ICV	II971014-1	11/11/97 4:31:00 PM	1	0.996		99.6	90	110	S
Zinc	WG51570CCV1	CCV	II971022-1	11/11/97 5:46:00 PM	1.25	1.26		101	90	110	
Zinc	WG51570CCV2	CCV	II971022-1	11/11/97 6:29:00 PM	1.25	1.24		99.6	90	110	

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Matrix Aqueous
Analysis Group Metals - ICPMS
QC Report ***Calibration Verification-Control Samples***

ACZ Project #	L16027
QC Report ID	QC1515-A
Client	Daniel B. Stephens & Associates
Client Project ID	7004.4 Philips Semi
Date Received	10/18/97
Date Reported	11/18/97

Total Metals

Method M6020 ICP-MS

Element	ACZ ID	QC Type	PCN / SCN#	Analysis Date	Concentration (mg/L)			Control Limits,%		Q
					True	Found	Q Rec (%)	Lower	Upper	
Antimony	WG51145ICV	ICV	MS971027-2	11/5/97 4:11:00 PM	0.05	0.0518	103.7	90	110	
Antimony	WG51145CCV1	CCV	MS971027-2	11/5/97 5:41:00 PM	0.05	0.0524	104.9	90	110	
Antimony	WG51145CCV2	CCV	MS971027-2	11/5/97 7:11:00 PM	0.05	0.0518	103.5	90	110	
Antimony	WG51761ICV	ICV	MS971027-2	11/15/97 11:03:00 AM	0.05	0.0504	100.7	90	110	
Antimony	WG51761CCV1	CCV	MS971027-2	11/15/97 12:33:00 PM	0.05	0.0506	101.2	90	110	
Arsenic	WG51145ICV	ICV	MS971027-2	11/5/97 4:11:00 PM	0.05	0.0511	102.2	90	110	
Arsenic	WG51145CCV1	CCV	MS971027-2	11/5/97 5:41:00 PM	0.05	0.0502	100.4	90	110	
Arsenic	WG51145CCV2	CCV	MS971027-2	11/5/97 7:11:00 PM	0.05	0.0503	100.5	90	110	
Arsenic	WG51761ICV	ICV	MS971027-2	11/15/97 11:03:00 AM	0.05	0.0475	95.1	90	110	
Arsenic	WG51761CCV1	CCV	MS971027-2	11/15/97 12:33:00 PM	0.05	0.0481	96.3	90	110	
Lead	WG51145ICV	ICV	MS971027-2	11/5/97 4:11:00 PM	0.05	0.0518	103.6	90	110	
Lead	WG51145CCV1	CCV	MS971027-2	11/5/97 5:41:00 PM	0.05	0.0539	107.8	90	110	
Lead	WG51145CCV2	CCV	MS971027-2	11/5/97 7:11:00 PM	0.05	0.0524	104.7	90	110	
Lead	WG51761ICV	ICV	MS971027-2	11/15/97 11:03:00 AM	0.05	0.0484	96.9	90	110	
Lead	WG51761CCV1	CCV	MS971027-2	11/15/97 12:33:00 PM	0.05	0.0491	98.2	90	110	
Thallium	WG51220ICV	ICV	MS971027-2	11/6/97 2:40:00 PM	0.05	0.0517	103.4	90	110	
Thallium	WG51220CCV1	CCV	MS971027-2	11/6/97 4:10:00 PM	0.05	0.0520	103.9	90	110	
Thallium	WG51220CCV2	CCV	MS971027-2	11/6/97 4:39:00 PM	0.05	0.0518	103.6	90	110	
Thallium	WG51761ICV	ICV	MS971027-2	11/15/97 11:03:00 AM	0.05	0.0480	96	90	110	
Thallium	WG51761CCV1	CCV	MS971027-2	11/15/97 12:33:00 PM	0.05	0.0489	97.9	90	110	

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Calibration Verification - Blanks

Cover Page

ACZ Project #	*L16027*
QC Report ID	*QC1515-A*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4 Philips Semi*
Date Received	*10/18/97*
Date Reported	*11/18/97*

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Metal Analysis	13
Metals - Cold Vapor	
Total Metals	
Metals - Hydride	
Total Metals	
Metals - ICP	
Total Metals	
Metals - ICPMS	
Total Metals	

Additional analytical runs may have been required as a result of matrix effects and/or instrumental problems.
Re-analysis data immediately follows initial QC data as outlined in above sequence.

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Matrix Aqueous
Analysis Group Metals - Cold Vapor
QC Report ***Calibration Verification-Blanks***

ACZ Project #	*L16027*
QC Report ID	*QC1515-A*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4 Philips Semi*
Date Received	*10/18/97*
Date Reported	*11/18/97*

Mercury, total

Method M7470 CVAA

ACZ ID	QC Type	Analysis Date	Concentration			Control Limits		Units	Q
			MDL	Found	Q	Lower	Upper		
WG50200ICB	ICB	10/22/97 5:33:36 PM	0.0002	-0.000100		-0.0002	0.0002	mg/L	
WG50200CCB1	CCB	10/22/97 5:50:07 PM	0.0002	-0.000100		-0.0002	0.0002	mg/L	
WG50200CCB2	CCB	10/22/97 6:06:45 PM	0.0002	-0.000100		-0.0002	0.0002	mg/L	
WG50200CCB3	CCB	10/22/97 6:13:15 PM	0.0002	-0.000100		-0.0002	0.0002	mg/L	
WG50200ICB	ICB	10/22/97 6:31:17 PM	0.0002	0.000		-0.0002	0.0002	mg/L	
WG50200CCB4	CCB	10/22/97 6:46:38 PM	0.0002	0.000		-0.0002	0.0002	mg/L	
WG50200CCB5	CCB	10/22/97 6:54:53 PM	0.0002	0.000		-0.0002	0.0002	mg/L	
WG51641ICB	ICB	11/13/97 5:03:18 PM	0.0002	0.000		-0.0002	0.0002	mg/L	
WG51641CCB1	CCB	11/13/97 5:19:52 PM	0.0002	0.000		-0.0002	0.0002	mg/L	

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Matrix *Aqueous*
Analysis Group *Metals - Hydride*
QC Report ***Calibration Verification-Blanks***

ACZ Project #	*L16027*
QC Report ID	*QC1515-A*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4 Philips Semi*
Date Received	*10/18/97*
Date Reported	*11/18/97*

Selenium, total

Method SM 3500-Se C, AA-Hydride

ACZ ID	QC Type	Analysis Date	Concentration			Control Limits		Units	Q
			MDL	Found	Q	Lower	Upper		
WG51202ICB	ICB	11/6/97 9:42:00 PM	0.001	0.000100		-0.001	0.001	mg/L	
WG51202CCB1	CCB	11/6/97 10:00:00 PM	0.001	-0.000100		-0.001	0.001	mg/L	
WG51515ICB	ICB	11/11/97 5:58:00 PM	0.001	-0.000100		-0.001	0.001	mg/L	
WG51515CCB1	CCB	11/11/97 6:16:00 PM	0.001	-0.000100		-0.001	0.001	mg/L	

ACZ	Client

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Matrix | *Aqueous*
Analysis Group | *Metals - ICP*
QC Report | ***Calibration Verification-Blanks***

ACZ Project #	*L16027*
QC Report ID	*QC1515-A*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4 Philips Semi*
Date Received	*10/18/97*
Date Reported	*11/18/97*

Total Metals

Method M6010 ICP

Element	ACZ ID	QC Type	Analysis Date	Concentration			Control Limits		Units	Q
				MDL	Found	Q	Lower	Upper		
Barium	WG50304ICB	ICB	10/23/97 10:17:00 AM	0.003	0.000700		-0.003	0.003	mg/L	S
Barium	WG50298CCB3	CCB	10/23/97 2:32:00 PM	0.003	0.00180		-0.003	0.003	mg/L	
Barium	WG50298CCB4	CCB	10/23/97 3:11:00 PM	0.003	0.00120		-0.003	0.003	mg/L	
Barium	WG51551ICB	ICB	11/11/97 4:34:00 PM	0.003	0.000400		-0.003	0.003	mg/L	S
Barium	WG51570CCB1	CCB	11/11/97 5:50:00 PM	0.003	0.00210		-0.003	0.003	mg/L	
Barium	WG51570CCB2	CCB	11/11/97 6:33:00 PM	0.003	0.00210		-0.003	0.003	mg/L	
Beryllium	WG50304ICB	ICB	10/23/97 10:17:00 AM	0.002	0.000700		-0.002	0.002	mg/L	S
Beryllium	WG50298CCB3	CCB	10/23/97 2:32:00 PM	0.002	0.000100		-0.002	0.002	mg/L	
Beryllium	WG50298CCB4	CCB	10/23/97 3:11:00 PM	0.002	0.000100		-0.002	0.002	mg/L	
Beryllium	WG51551ICB	ICB	11/11/97 4:34:00 PM	0.002	0.000100		-0.002	0.002	mg/L	S
Beryllium	WG51570CCB1	CCB	11/11/97 5:50:00 PM	0.002	0.000		-0.002	0.002	mg/L	
Beryllium	WG51570CCB2	CCB	11/11/97 6:33:00 PM	0.002	0.000		-0.002	0.002	mg/L	
Cadmium	WG50304ICB	ICB	10/23/97 10:17:00 AM	0.003	-0.000800		-0.003	0.003	mg/L	S
Cadmium	WG50298CCB3	CCB	10/23/97 2:32:00 PM	0.003	-0.000400		-0.003	0.003	mg/L	
Cadmium	WG50298CCB4	CCB	10/23/97 3:11:00 PM	0.003	-0.000700		-0.003	0.003	mg/L	
Cadmium	WG51601ICB	ICB	11/12/97 9:46:00 AM	0.003	-0.00210		-0.003	0.003	mg/L	
Cadmium	WG51601CCB1	CCB	11/12/97 10:30:00 AM	0.003	-0.000600		-0.003	0.003	mg/L	
Chromium	WG50304ICB	ICB	10/23/97 10:17:00 AM	0.01	-0.00190		-0.01	0.01	mg/L	S
Chromium	WG50298CCB3	CCB	10/23/97 2:32:00 PM	0.01	0.00170		-0.01	0.01	mg/L	
Chromium	WG50298CCB4	CCB	10/23/97 3:11:00 PM	0.01	0.000300		-0.01	0.01	mg/L	
Chromium	WG51551ICB	ICB	11/11/97 4:34:00 PM	0.01	-0.00160		-0.01	0.01	mg/L	S
Chromium	WG51570CCB1	CCB	11/11/97 5:50:00 PM	0.01	0.000		-0.01	0.01	mg/L	
Chromium	WG51570CCB2	CCB	11/11/97 6:33:00 PM	0.01	0.000		-0.01	0.01	mg/L	

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Matrix | *Aqueous*
Analysis Group | *Metals - ICP*
QC Report | ***Calibration Verification-Blanks***

ACZ Project #	*L16027*
QC Report ID	*QC1515-A*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4 Philips Semi*
Date Received	*10/18/97*
Date Reported	*11/18/97*

Total Metals

Method M6010 ICP

Element	ACZ ID	QC Type	Analysis Date	Concentration			Control Limits		Units	Q
				MDL	Found	Q	Lower	Upper		
Cobalt	WG50304ICB	ICB	10/23/97 10:17:00 AM	0.01	-0.00130		-0.01	0.01	mg/L	S
Cobalt	WG50298CCB3	CCB	10/23/97 2:32:00 PM	0.01	0.00310		-0.01	0.01	mg/L	
Cobalt	WG50298CCB4	CCB	10/23/97 3:11:00 PM	0.01	-0.00150		-0.01	0.01	mg/L	
Cobalt	WG51551ICB	ICB	11/11/97 4:34:00 PM	0.01	0.000		-0.01	0.01	mg/L	S
Cobalt	WG51570CCB1	CCB	11/11/97 5:50:00 PM	0.01	0.00230		-0.01	0.01	mg/L	
Cobalt	WG51570CCB2	CCB	11/11/97 6:33:00 PM	0.01	0.000900		-0.01	0.01	mg/L	
Copper	WG50304ICB	ICB	10/23/97 10:17:00 AM	0.01	-0.00100		-0.01	0.01	mg/L	S
Copper	WG50298CCB3	CCB	10/23/97 2:32:00 PM	0.01	-0.00140		-0.01	0.01	mg/L	
Copper	WG50298CCB4	CCB	10/23/97 3:11:00 PM	0.01	0.000		-0.01	0.01	mg/L	
Copper	WG51551ICB	ICB	11/11/97 4:34:00 PM	0.01	-0.000500		-0.01	0.01	mg/L	S
Copper	WG51570CCB1	CCB	11/11/97 5:50:00 PM	0.01	-0.00200		-0.01	0.01	mg/L	
Copper	WG51570CCB2	CCB	11/11/97 6:33:00 PM	0.01	0.000		-0.01	0.01	mg/L	
Nickel	WG50304ICB	ICB	10/23/97 10:17:00 AM	0.01	0.00150		-0.01	0.01	mg/L	S
Nickel	WG50298CCB3	CCB	10/23/97 2:32:00 PM	0.01	0.000		-0.01	0.01	mg/L	
Nickel	WG50298CCB4	CCB	10/23/97 3:11:00 PM	0.01	0.00210		-0.01	0.01	mg/L	
Nickel	WG51551ICB	ICB	11/11/97 4:34:00 PM	0.01	-0.000800		-0.01	0.01	mg/L	S
Nickel	WG51570CCB1	CCB	11/11/97 5:50:00 PM	0.01	0.000800		-0.01	0.01	mg/L	
Nickel	WG51570CCB2	CCB	11/11/97 6:33:00 PM	0.01	0.00170		-0.01	0.01	mg/L	
Silver	WG50304ICB	ICB	10/23/97 10:17:00 AM	0.005	0.00200		-0.005	0.005	mg/L	S
Silver	WG50298CCB3	CCB	10/23/97 2:32:00 PM	0.005	0.00270		-0.005	0.005	mg/L	
Silver	WG50298CCB4	CCB	10/23/97 3:11:00 PM	0.005	0.000700		-0.005	0.005	mg/L	
Silver	WG51551ICB	ICB	11/11/97 4:34:00 PM	0.005	-0.000100		-0.005	0.005	mg/L	S
Silver	WG51570CCB1	CCB	11/11/97 5:50:00 PM	0.005	-0.00240		-0.005	0.005	mg/L	
Silver	WG51570CCB2	CCB	11/11/97 6:33:00 PM	0.005	-0.000400		-0.005	0.005	mg/L	

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Matrix Aqueous
Analysis Group Metals - ICP
QC Report **Calibration Verification-Blanks**

ACZ Project #	L16027
QC Report ID	QC1515-A
Client	Daniel B. Stephens & Associates
Client Project ID	7004.4 Philips Semi
Date Received	10/18/97
Date Reported	11/18/97

Total Metals

Method M6010 ICP

Element	ACZ ID	QC Type	Analysis Date	Concentration			Control Limits		Units	Q
				MDL	Found	Q	Lower	Upper		
Tin	WG51354ICB	ICB	11/10/97 1:18:00 PM	0.1	-0.0100		-0.1	0.1	mg/L	
Tin	WG51354CCB1	CCB	11/10/97 1:52:00 PM	0.1	-0.0100		-0.1	0.1	mg/L	
Tin	WG51354CCB2	CCB	11/10/97 2:26:00 PM	0.1	-0.0100		-0.1	0.1	mg/L	
Tin	WG51354CCB3	CCB	11/10/97 2:38:00 PM	0.1	0.000		-0.1	0.1	mg/L	
Tin	WG51571ICB	ICB	11/12/97 3:49:00 PM	0.1	0.000		-0.1	0.1	mg/L	
Tin	WG51571CCB1	CCB	11/12/97 4:24:00 PM	0.1	-0.0100		-0.1	0.1	mg/L	
Vanadium	WG50304ICB	ICB	10/23/97 10:17:00 AM	0.005	0.000		-0.005	0.005	mg/L	S
Vanadium	WG50298CCB3	CCB	10/23/97 2:32:00 PM	0.005	0.00240		-0.005	0.005	mg/L	
Vanadium	WG50298CCB4	CCB	10/23/97 3:11:00 PM	0.005	0.000		-0.005	0.005	mg/L	
Vanadium	WG51551ICB	ICB	11/11/97 4:34:00 PM	0.005	-0.000700		-0.005	0.005	mg/L	S
Vanadium	WG51570CCB1	CCB	11/11/97 5:50:00 PM	0.005	-0.00170		-0.005	0.005	mg/L	
Vanadium	WG51570CCB2	CCB	11/11/97 6:33:00 PM	0.005	-0.000700		-0.005	0.005	mg/L	
Zinc	WG50304ICB	ICB	10/23/97 10:17:00 AM	0.01	-0.000200		-0.01	0.01	mg/L	S
Zinc	WG50298CCB3	CCB	10/23/97 2:32:00 PM	0.01	-0.000800		-0.01	0.01	mg/L	
Zinc	WG50298CCB4	CCB	10/23/97 3:11:00 PM	0.01	-0.000900		-0.01	0.01	mg/L	
Zinc	WG51551ICB	ICB	11/11/97 4:34:00 PM	0.01	0.00110		-0.01	0.01	mg/L	S
Zinc	WG51570CCB1	CCB	11/11/97 5:50:00 PM	0.01	-0.000500		-0.01	0.01	mg/L	
Zinc	WG51570CCB2	CCB	11/11/97 6:33:00 PM	0.01	0.000400		-0.01	0.01	mg/L	

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Matrix Aqueous
Analysis Group Metals - ICPMS
QC Report ***Calibration Verification-Blanks***

ACZ Project #	L16027
QC Report ID	QC1515-A
Client	Daniel B. Stephens & Associates
Client Project ID	7004.4 Philips Semi
Date Received	10/18/97
Date Reported	11/18/97

Total Metals

Method M6020 ICP-MS

Element	ACZ ID	QC Type	Analysis Date	Concentration MDL	Found	Q	Control Limits Lower	Upper	Units	Q
Antimony	WG51145ICB	ICB	11/5/97 4:18:00 PM	0.0002	0.000		-0.0002	0.0002	mg/L	
Antimony	WG51145CCB1	CCB	11/5/97 5:48:00 PM	0.0002	0.000		-0.0002	0.0002	mg/L	
Antimony	WG51145CCB2	CCB	11/5/97 7:18:00 PM	0.0002	0.000		-0.0002	0.0002	mg/L	
Antimony	WG51761ICB	ICB	11/15/97 11:10:00 AM	0.0002	0.000		-0.0002	0.0002	mg/L	
Antimony	WG51761CCB1	CCB	11/15/97 12:40:00 PM	0.0002	0.000		-0.0002	0.0002	mg/L	
Arsenic	WG51145ICB	ICB	11/5/97 4:18:00 PM	0.001	0.000100		-0.001	0.001	mg/L	
Arsenic	WG51145CCB1	CCB	11/5/97 5:48:00 PM	0.001	0.000		-0.001	0.001	mg/L	
Arsenic	WG51145CCB2	CCB	11/5/97 7:18:00 PM	0.001	0.000100		-0.001	0.001	mg/L	
Arsenic	WG51761ICB	ICB	11/15/97 11:10:00 AM	0.001	0.000		-0.001	0.001	mg/L	
Arsenic	WG51761CCB1	CCB	11/15/97 12:40:00 PM	0.001	0.000100		-0.001	0.001	mg/L	
Lead	WG51145ICB	ICB	11/5/97 4:18:00 PM	0.0002	0.000		-0.0002	0.0002	mg/L	
Lead	WG51145CCB1	CCB	11/5/97 5:48:00 PM	0.0002	0.000		-0.0002	0.0002	mg/L	
Lead	WG51145CCB2	CCB	11/5/97 7:18:00 PM	0.0002	0.000		-0.0002	0.0002	mg/L	
Lead	WG51761ICB	ICB	11/15/97 11:10:00 AM	0.0002	0.000		-0.0002	0.0002	mg/L	
Lead	WG51761CCB1	CCB	11/15/97 12:40:00 PM	0.0002	0.000		-0.0002	0.0002	mg/L	
Thallium	WG51220ICB	ICB	11/6/97 2:48:00 PM	0.0001	0.000		-0.0001	0.0001	mg/L	
Thallium	WG51220CCB1	CCB	11/6/97 4:17:00 PM	0.0001	0.000		-0.0001	0.0001	mg/L	
Thallium	WG51220CCB2	CCB	11/6/97 4:46:00 PM	0.0001	0.000		-0.0001	0.0001	mg/L	
Thallium	WG51761ICB	ICB	11/15/97 11:10:00 AM	0.0001	0.000		-0.0001	0.0001	mg/L	
Thallium	WG51761CCB1	CCB	11/15/97 12:40:00 PM	0.0001	0.000		-0.0001	0.0001	mg/L	

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(800) 334-5493
Fax: (970) 879-2216

Spike Verification

Cover Page

ACZ Project #	*L16027*
QC Report ID	*QC1515-A*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4 Philips Semi*
Date Received	*10/18/97*
Date Reported	*11/18/97*

	Page
Metal Analysis	20
Metals - Cold Vapor	
Total Metals	
Metals - Hydride	
Total Metals	
Metals - ICP	
Total Metals	
Metals - ICPMS	
Total Metals	

Additional analytical runs may have been required as a result of matrix effects and/or instrumental problems.
Re-analysis data immediately follows initial QC data as outlined in above sequence.

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Matrix *Aqueous*
Analysis Group *Metals - Cold Vapor*
QC Report ***Spike Verification***

ACZ Project #	*L16027*
QC Report ID	*QC1515-C*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4 Philips Semi*
Date Received	*10/18/97*
Date Reported	*11/18/97*

Mercury, total

Method M7470 CVAA

ACZ ID	QC Type	PCN / SCN#	Analysis Date	Concentration Added	Sample	Q	Spike	Q	Units	Rec (%)	Control Limits, % Lower	Upper	Q
L16027-04AS	AS	II970618-02	10/22/97 6:17:19 PM	0.005		U	0.00593		mg/L	118.7	75	125	
L16027-04ASD	ASD	II970618-02	10/22/97 6:18:40 PM	0.005		U	0.00583		mg/L	116.6	75	125	
L16304-01AS	AS	II970618-02	11/13/97 5:22:44 PM	0.005		U	0.00529		mg/L	105.8	75	125	Y
L16304-01ASD	ASD	II970618-02	11/13/97 5:24:11 PM	0.005		U	0.00532		mg/L	106.4	75	125	Y

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Matrix *Aqueous*
Analysis Group *Metals - Hydride*
QC Report ***Spike Verification***

ACZ Project #	*L16027*
QC Report ID	*QC1515-A*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4 Philips Semi*
Date Received	*10/18/97*
Date Reported	*11/18/97*

Selenium, total

Method SM 3500-Se C, AA-Hydride

ACZ ID	QC Type	PCN / SCN#	Analysis Date	Concentration						Rec (%)	Control Limits, %		Q
				Added	Sample	Q	Spike	Q	Units		Lower	Upper	
L16043-06AS	AS	II970826-4	11/6/97 10:36:00 PM	0.02	0.004	B	0.0272		mg/L	96	75	125	Y
L16043-06ASD	ASD	II970826-4	11/6/97 10:38:00 PM	0.02	0.004	B	0.0244		mg/L	82	75	125	Y
L16204-17AS	AS	II970826-4	11/11/97 6:26:00 PM	0.02		U	0.0196		mg/L	98	75	125	Y
L16204-17ASD	ASD	II970826-4	11/11/97 6:28:00 PM	0.02		U	0.0201		mg/L	100	75	125	Y

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Matrix Aqueous
Analysis Group Metals - ICP
QC Report ***Spike Verification***

ACZ Project #	L16027
QC Report ID	QC1515-A
Client	Daniel B. Stephens & Associates
Client Project ID	7004.4 Philips Semi
Date Received	10/18/97
Date Reported	11/18/97

Total Metals

Method M6010 ICP

Element	ACZ ID	QC Type	PCN / SCN#	Analysis Date	Concentration Added	Sample	Q	Spike	Q	Units	Rec (%)	Control Limits,% Lower	Upper	Q
Barium	L16013-04MS	MS	PCN6024	10/23/97 2:35:00 P	0.5	0.136		0.660		mg/L	94.4	80	120	Y
Barium	L16013-04MSD	MSD	PCN6024	10/23/97 2:39:00 P	0.5	0.136		0.657		mg/L	94	80	120	Y
Barium	L16268-03MS	MS	PCN6024	11/11/97 6:37:00 P	0.5	0.03		0.546		mg/L	92.9	80	120	Y
Barium	L16268-03MSD	MSD	PCN6024	11/11/97 6:40:00 P	0.5	0.03		0.534		mg/L	90.9	80	120	Y
Beryllium	L16013-04MS	MS	PCN6024	10/23/97 2:35:00 P	0.5		U	0.505		mg/L	91.1	80	120	Y
Beryllium	L16013-04MSD	MSD	PCN6024	10/23/97 2:39:00 P	0.5		U	0.502		mg/L	90.4	80	120	Y
Beryllium	L16268-03MS	MS	PCN6024	11/11/97 6:37:00 P	0.5		U	0.521		mg/L	93.9	80	120	Y
Beryllium	L16268-03MSD	MSD	PCN6024	11/11/97 6:40:00 P	0.5		U	0.513		mg/L	92.4	80	120	Y
Cadmium	L16013-04MS	MS	PCN6024	10/23/97 2:35:00 P	0.5		U	0.512		mg/L	92.3	80	120	Y
Cadmium	L16013-04MSD	MSD	PCN6024	10/23/97 2:39:00 P	0.5		U	0.507		mg/L	91.4	80	120	Y
Cadmium	L16268-03MS	MS	PCN6024	11/12/97 10:33:00 A	0.5		U	0.539		mg/L	97.1	80	120	Y
Cadmium	L16268-03MSD	MSD	PCN6024	11/12/97 10:37:00 A	0.5		U	0.569		mg/L	102.6	80	120	Y
Chromium	L16013-04MS	MS	PCN6024	10/23/97 2:35:00 P	0.5		U	0.518		mg/L	93.4	80	120	Y
Chromium	L16013-04MSD	MSD	PCN6024	10/23/97 2:39:00 P	0.5		U	0.517		mg/L	93.2	80	120	Y
Chromium	L16268-03MS	MS	PCN6024	11/11/97 6:37:00 P	0.5		U	0.523		mg/L	94.2	80	120	Y
Chromium	L16268-03MSD	MSD	PCN6024	11/11/97 6:40:00 P	0.5		U	0.515		mg/L	92.8	80	120	Y
Cobalt	L16013-04MS	MS	PCN6024	10/23/97 2:35:00 P	0.5		U	0.521		mg/L	93.8	80	120	Y
Cobalt	L16013-04MSD	MSD	PCN6024	10/23/97 2:39:00 P	0.5		U	0.519		mg/L	93.5	80	120	Y
Cobalt	L16268-03MS	MS	PCN6024	11/11/97 6:37:00 P	0.5		U	0.516		mg/L	93	80	120	Y
Cobalt	L16268-03MSD	MSD	PCN6024	11/11/97 6:40:00 P	0.5		U	0.508		mg/L	91.6	80	120	Y
Copper	L16013-04MS	MS	PCN6024	10/23/97 2:35:00 P	0.5		U	0.529		mg/L	95.3	80	120	Y
Copper	L16013-04MSD	MSD	PCN6024	10/23/97 2:39:00 P	0.5		U	0.522		mg/L	94.1	80	120	Y
Copper	L16268-03MS	MS	PCN6024	11/11/97 6:37:00 P	0.5		U	0.524		mg/L	94.4	80	120	Y
Copper	L16268-03MSD	MSD	PCN6024	11/11/97 6:40:00 P	0.5		U	0.510		mg/L	92	80	120	Y

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Matrix | *Aqueous*
Analysis Group | *Metals - ICP*
QC Report | ***Spike Verification***

ACZ Project #	*L16027*
QC Report ID	*QC1515-C*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4 Philips Semi*
Date Received	*10/18/97*
Date Reported	*11/18/97*

Total Metals

Method M6010 ICP

Element	ACZ ID	QC Type	PCN / SCN#	Analysis Date	Concentration Added	Sample	Q	Spike	Q	Units	Rec (%)	Control Limits,% Lower	Upper	Q
Nickel	L16013-04MS	MS	PCN6024	10/23/97 2:35:00 P	0.5		U	0.517		mg/L	93.1	80	120	Y
Nickel	L16013-04MSD	MSD	PCN6024	10/23/97 2:39:00 P	0.5		U	0.512		mg/L	92.2	80	120	Y
Nickel	L16268-03MS	MS	PCN6024	11/11/97 6:37:00 P	0.5		U	0.527		mg/L	95	80	120	Y
Nickel	L16268-03MSD	MSD	PCN6024	11/11/97 6:40:00 P	0.5		U	0.516		mg/L	93	80	120	Y
Silver	L16013-04MS	MS	II971009-4	10/23/97 2:35:00 P	0.5		U	0.154		mg/L	27.7	80	120	W
Silver	L16013-04MSD	MSD	II971009-4	10/23/97 2:39:00 P	0.5		U	0.151		mg/L	27.2	80	120	W
Silver	L16268-03MS	MS	II971009-4	11/11/97 6:37:00 P	0.5		U	0.159		mg/L	28.7	80	120	W
Silver	L16268-03MSD	MSD	II971009-4	11/11/97 6:40:00 P	0.5		U	0.156		mg/L	28.1	80	120	W
Tin	L16013-04MS	MS	PCN6024	11/10/97 2:01:00 P	1		U	1.25		mg/L	113	80	120	Y
Tin	L16013-04MSD	MSD	PCN6024	11/10/97 2:03:00 P	1		U	1.28		mg/L	115	80	120	Y
Tin	L16268-03MS	MS	PCN6024	11/12/97 4:12:00 P	1		U	1.13		mg/L	113	80	120	Y
Tin	L16268-03MSD	MSD	PCN6024	11/12/97 4:15:00 P	1		U	1.12		mg/L	112	80	120	Y
Vanadium	L16013-04MS	MS	PCN6124	10/23/97 2:35:00 P	0.5		U	0.519		mg/L	93.6	80	120	Y
Vanadium	L16013-04MSD	MSD	PCN6124	10/23/97 2:39:00 P	0.5		U	0.519		mg/L	93.4	80	120	Y
Vanadium	L16268-03MS	MS	PCN6125	11/11/97 6:37:00 P	0.5		U	0.533		mg/L	96	80	120	Y
Vanadium	L16268-03MSD	MSD	PCN6125	11/11/97 6:40:00 P	0.5		U	0.524		mg/L	94.4	80	120	Y
Zinc	L16013-04MS	MS	PCN6124	10/23/97 2:35:00 P	0.5	0.01	B	0.539		mg/L	95.3	80	120	Y
Zinc	L16013-04MSD	MSD	PCN6124	10/23/97 2:39:00 P	0.5	0.01	B	0.532		mg/L	94	80	120	Y
Zinc	L16268-03MS	MS	PCN6125	11/11/97 6:37:00 P	0.5	0.03	B	0.585		mg/L	99.9	80	120	Y
Zinc	L16268-03MSD	MSD	PCN6125	11/11/97 6:40:00 P	0.5	0.03	B	0.580		mg/L	99	80	120	Y

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Matrix | *Aqueous*
Analysis Group | *Metals - ICPMS*
QC Report | ***Spike Verification***

ACZ Project #	*L16027*
QC Report ID	*QC1515-A*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4 Philips Semi*
Date Received	*10/18/97*
Date Reported	*11/18/97*

Total Metals

Method M6020 ICP-MS

Element	ACZ ID	QC Type	PCN / SCN#	Analysis Date	Concentration Added	Sample	Q	Spike	Q	Units	Rec (%)	Control Limits,% Lower	Upper	Q
Antimony	L16027-01MS	MS	MS971021-1	11/5/97 6:18:00 PM	0.2		U	0.196		mg/L	97.8	75	125	
Antimony	L16027-01MSD	MSD	MS971021-1	11/5/97 6:26:00 PM	0.2		U	0.199		mg/L	99.7	75	125	
Antimony	L16268-02MS	MS	MS971021-1	11/15/97 12:25:00 P	0.02		U	0.0204		mg/L	102	75	125	Y
Antimony	L16268-02MSD	MSD	MS971021-1	11/15/97 12:47:00 P	0.02		U	0.0201		mg/L	100.5	75	125	Y
Arsenic	L16027-01MS	MS	MS971021-1	11/5/97 6:18:00 PM	0.1	0.007	B	0.0976		mg/L	90.6	75	125	
Arsenic	L16027-01MSD	MSD	MS971021-1	11/5/97 6:26:00 PM	0.1	0.007	B	0.102		mg/L	94.6	75	125	
Arsenic	L16268-02MS	MS	MS971021-1	11/15/97 12:25:00 P	0.02	0.003	B	0.0210		mg/L	90	75	125	Y
Arsenic	L16268-02MSD	MSD	MS971021-1	11/15/97 12:47:00 P	0.02	0.003	B	0.0198		mg/L	84	75	125	Y
Lead	L16027-01MS	MS	MS971021-1	11/5/97 6:18:00 PM	0.1	0.001	B	0.0964		mg/L	95.4	75	125	
Lead	L16027-01MSD	MSD	MS971021-1	11/5/97 6:26:00 PM	0.1	0.001	B	0.0991		mg/L	98.1	75	125	
Lead	L16268-02MS	MS	MS971021-1	11/15/97 12:25:00 P	0.02	0.0005	B	0.0187		mg/L	91	75	125	Y
Lead	L16268-02MSD	MSD	MS971021-1	11/15/97 12:47:00 P	0.02	0.0005	B	0.0189		mg/L	92	75	125	Y
Thallium	L16027-01MS	MS	MS971021-1	11/6/97 3:47:00 PM	0.05		U	0.0525		mg/L	94.6	75	125	
Thallium	L16027-01MSD	MSD	MS971021-1	11/6/97 3:55:00 PM	0.05		U	0.0533		mg/L	96.1	75	125	
Thallium	L16268-02MS	MS	MS971021-1	11/15/97 12:25:00 P	0.02	0.0006	B	0.0192		mg/L	93	75	125	Y
Thallium	L16268-02MSD	MSD	MS971021-1	11/15/97 12:47:00 P	0.02	0.0006	B	0.0194		mg/L	94	75	125	Y

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Duplicate Verification

Cover Page

ACZ Project #	L16027
QC Report ID	QC1515-A
Client	Daniel B. Stephens & Associates
Client Project ID	7004.4 Philips Semi
Date Received	10/18/97
Date Reported	11/18/97

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Metal Analysis	26
Metals - Cold Vapor	
Total Metals	
Metals - Hydride	
Total Metals	
Metals - ICP	
Total Metals	
Metals - ICPMS	
Total Metals	

Additional analytical runs may have been required as a result of matrix effects and/or instrumental problems.
Re-analysis data immediately follows initial QC data as outlined in above sequence.

ACZ

QC Summary

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Matrix Aqueous
Analysis Group Metals - Cold Vapor
QC Report ***Duplicate Verification***

ACZ Project #	*L16027*
QC Report ID	*QC1515-A*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4 Philips Semi*
Date Received	*10/18/97*
Date Reported	*11/18/97*

Mercury, total

Method M7470 CVAA

ACZ ID	QC Type	Analysis Date	Concentration (mg/L)				RPD	Control Limits, %		Q
			Sample	Q	Duplicate	Q	(%)	Lower	Upper	
L16027-04ASD	ASD	10/22/97 6:18:40 PM	0.00593		0.00583		1.7	0	25	
L16304-01ASD	ASD	11/13/97 5:24:11 PM	0.00529		0.00532		0.6	0	25	Y

ACZ

QC Summary

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Matrix *Aqueous*
Analysis Group *Metals - Hydride*
QC Report ***Duplicate Verification***

ACZ Project #	*L16027*
QC Report ID	*QC1515-A*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4 Philips Semi*
Date Received	*10/18/97*
Date Reported	*11/18/97*

Selenium, total

Method SM 3500-Se C, AA-Hydride

ACZ ID	QC Type	Analysis Date	Concentration (mg/L)				RPD	Control Limits, %		Q
			Sample	Q	Duplicate	Q	(%)	Lower	Upper	
L16043-06ASD	ASD	11/6/97 10:38:00 PM	0.0272		0.0244		10.9	0	20	Y
L16027-03DUP	DUP	11/11/97 6:09:00 PM	0.033		0.0325		1.5	0	25	
L16204-17ASD	ASD	11/11/97 6:28:00 PM	0.0196		0.0201		2.5	0	20	Y

ACZ

QC Summary

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Matrix Aqueous
Analysis Group Metals - ICP
QC Report ***Duplicate Verification***

ACZ Project #	L16027
QC Report ID	QC1515-A
Client	Daniel B. Stephens & Associates
Client Project ID	7004.4 Philips Semi
Date Received	10/18/97
Date Reported	11/18/97

Total Metals

Method M6010 ICP

Element	ACZ ID	QC Type	Concentration (mg/L) Sample	Q	Duplicate	Q	RPD (%)	Control Limits, % Lower	Upper	Q
Barium	L16013-04MSD	MSD	0.660		0.657		0.4	0	20	Y
Barium	L16268-03MSD	MSD	0.546		0.534		2.1	0	20	Y
Beryllium	L16013-04MSD	MSD	0.505		0.502		0.8	0	20	Y
Beryllium	L16268-03MSD	MSD	0.521		0.513		1.7	0	20	Y
Cadmium	L16013-04MSD	MSD	0.512		0.507		1	0	20	Y
Cadmium	L16268-03MSD	MSD	0.539		0.569		5.5	0	20	Y
Chromium	L16013-04MSD	MSD	0.518		0.517		0.1	0	20	Y
Chromium	L16268-03MSD	MSD	0.523		0.515		1.5	0	20	Y
Cobalt	L16013-04MSD	MSD	0.521		0.519		0.3	0	20	Y
Cobalt	L16268-03MSD	MSD	0.516		0.508		1.5	0	20	Y
Copper	L16013-04MSD	MSD	0.529		0.522		1.3	0	20	Y
Copper	L16268-03MSD	MSD	0.524		0.510		2.6	0	20	Y
Nickel	L16013-04MSD	MSD	0.517		0.512		0.9	0	20	Y
Nickel	L16268-03MSD	MSD	0.527		0.516		2.1	0	20	Y
Silver	L16013-04MSD	MSD	0.154		0.151		1.8	0	20	Y
Silver	L16268-03MSD	MSD	0.159		0.156		2.1	0	20	Y
Tin	L16013-04MSD	MSD	1.25		1.28		1.8	0	20	Y
Tin	L16268-03MSD	MSD	1.13		1.12		0.9	0	20	Y

ACZ

QC Summary

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Matrix *Aqueous*
Analysis Group *Metals - ICP*
QC Report ***Duplicate Verification***

ACZ Project #	*L16027*
QC Report ID	*QC1515-A*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4 Philips Semi*
Date Received	*10/18/97*
Date Reported	*11/18/97*

Total Metals

Method M6010 ICP

Element	ACZ ID	QC Type	Concentration (mg/L)				RPD	Control Limits, %		Q
			Sample	Q	Duplicate	Q	(%)	Lower	Upper	
Vanadium	L16013-04MSD	MSD	0.519		0.519		0.1	0	20	Y
Vanadium	L16268-03MSD	MSD	0.533		0.524		1.7	0	20	Y
Zinc	L16013-04MSD	MSD	0.539		0.532		1.4	0	20	Y
Zinc	L16268-03MSD	MSD	0.585		0.580		0.8	0	20	Y

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Matrix *Aqueous*
Analysis Group *Metals - ICPMS*
QC Report ***Duplicate Verification***

ACZ Project #	*L16027*
QC Report ID	*QC1515-A*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4 Philips Semi*
Date Received	*10/18/97*
Date Reported	*11/18/97*

Total Metals

Method M6020 ICP-MS

Element	ACZ ID	QC Type	Concentration (mg/L)				RPD	Control Limits, %		Q
			Sample	Q	Duplicate	Q	(%)	Lower	Upper	
Antimony	L16027-01MSD	MSD	0.196		0.199		1.9	0	20	
Antimony	L16268-02MSD	MSD	0.0204		0.0201		1.1	0	20	Y
Arsenic	L16027-01MSD	MSD	0.0976		0.102		4	0	20	
Arsenic	L16268-02MSD	MSD	0.0210		0.0198		5.7	0	20	Y
Lead	L16027-01MSD	MSD	0.0964		0.0991		2.8	0	20	
Lead	L16268-02MSD	MSD	0.0187		0.0189		0.9	0	20	Y
Thallium	L16027-01MSD	MSD	0.0525		0.0533		1.6	0	20	
Thallium	L16268-02MSD	MSD	0.0192		0.0194		0.8	0	20	Y

ACZ

QC Summary

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Method Verification - Control Samples
Cover Page

ACZ Project #	L16027
QC Report ID	QC1515-A
Client	Daniel B. Stephens & Associates
Client Project ID	7004.4 Philips Semi
Date Received	10/18/97
Date Reported	11/18/97

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Metal Analysis	32
Metals - Cold Vapor	
Total Metals	
Metals - Hydride	
Total Metals	
Metals - ICP	
Total Metals	
Metals - ICPMS	
Total Metals	

Additional analytical runs may have been required as a result of matrix effects and/or instrumental problems.
Re-analysis data immediately follows initial QC data as outlined in above sequence.

ACZ

QC Summary

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Matrix | *Aqueous*
Analysis Group | *Metals - Cold Vapor*
QC Report | ***Method Verification-Control Samples***

ACZ Project #	*L16027*
QC Report ID	*QC1515-A*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4 Philips Semi*
Date Received	*10/18/97*
Date Reported	*11/18/97*

Mercury, total

Method M7470 CVAA

ACZ ID	QC Type	PCN / SCN#	Analysis Date	Concentration (mg/L) True	Found	Q	Rec (%)	Control Limits,% Lower	Upper	Q
WG50200LCSW	LCSW	II970618-01	10/22/97 5:36:19 PM	0.01	0.0104		103.7	80	120	
WG50200LFB	LFB	II970618-02	10/22/97 5:37:39 PM	0.005	0.00564		112.8	80	120	
WG51641LCSW	LCSW	II970618-01	11/13/97 5:06:03 PM	0.01	0.00994		99.4	80	120	
WG51641LFB	LFB	II970618-02	11/13/97 5:07:23 PM	0.005	0.00502		100.4	80	120	

ACZ

QC Summary

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Matrix Aqueous
Analysis Group Metals - Hydride
QC Report ***Method Verification-Control Samples***

ACZ Project #	*L16027*
QC Report ID	*QC1515-A*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4 Philips Semi*
Date Received	*10/18/97*
Date Reported	*11/18/97*

Selenium, total

Method SM 3500-Se C, AA-Hydride

ACZ ID	QC Type	PCN / SCN#	Analysis Date	Concentration (mg/L) True	Found	Q	Rec (%)	Control Limits,% Lower	Upper	Q
WG51202LCSW	LCSW	II970815-1	11/6/97 9:45:00 PM	0.02	0.0216		108	80	120	
WG51202LFB	LFB	II970826-4	11/6/97 9:46:00 PM	0.02	0.0215		107.5	80	120	
WG51515LCSW	LCSW	II970815-1	11/11/97 6:01:00 PM	0.02	0.0195		97.5	80	120	
WG51515LFB	LFB	II970826-4	11/11/97 6:03:00 PM	0.02	0.0196		98	80	120	

ACZ

QC Summary

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Matrix Aqueous
Analysis Group Metals - ICP
QC Report ***Method Verification-Control Samples***

ACZ Project #	L16027
QC Report ID	QC1515-A
Client	Daniel B. Stephens & Associates
Client Project ID	7004.4 Philips Semi
Date Received	10/18/97
Date Reported	11/18/97

Total Metals

Method M6010 ICP

Element	ACZ ID	QC Type	PCN / SCN#	Analysis Date	Concentration (mg/L) True	Found	Q	Control Limits, mg/L Lower	Upper	Q
Barium	WG50298LCSW	LCSW	II971022-1	10/23/97 1:20:00 PM	1	0.930		0.5943953	1.2642195	
Barium	WG51570LCSW	LCSW	II971016-1	11/11/97 6:04:00 PM	1	0.970		0.5943953	1.2642195	
Beryllium	WG50298LCSW	LCSW	II971022-1	10/23/97 1:20:00 PM	1	0.932		0.553781	1.3874957	
Beryllium	WG51570LCSW	LCSW	II971016-1	11/11/97 6:04:00 PM	1	0.999		0.553781	1.3874957	
Cadmium	WG50298LCSW	LCSW	II971022-1	10/23/97 1:20:00 PM	1	0.931		0.6106019	1.3082012	
Cadmium	WG51601LCSW	LCSW	II971012-1	11/12/97 10:01:00 AM	1	1.01		0.6106019	1.3082012	
Chromium	WG50298LCSW	LCSW	II971022-1	10/23/97 1:20:00 PM	1	0.934		0.5588468	1.3247292	
Chromium	WG51570LCSW	LCSW	II971016-1	11/11/97 6:04:00 PM	1	0.972		0.5588468	1.3247292	
Cobalt	WG50298LCSW	LCSW	II971022-1	10/23/97 1:20:00 PM	1	0.931		0.6114838	1.3052647	
Cobalt	WG51570LCSW	LCSW	II971016-1	11/11/97 6:04:00 PM	1	0.964		0.6114838	1.3052647	
Copper	WG50298LCSW	LCSW	II971022-1	10/23/97 1:20:00 PM	1	0.920		0.6165977	1.2516539	
Copper	WG51570LCSW	LCSW	II971016-1	11/11/97 6:04:00 PM	1	0.954		0.6165977	1.2516539	
Nickel	WG50298LCSW	LCSW	II971022-1	10/23/97 1:20:00 PM	1	0.919		0.6140346	1.2895714	
Nickel	WG51570LCSW	LCSW	II971016-1	11/11/97 6:04:00 PM	1	0.972		0.6140346	1.2895714	
Silver	WG50298LCSW	LCSW	II971022-1	10/23/97 1:20:00 PM	1	0.934		0.2129385	1.5884465	
Silver	WG51570LCSW	LCSW	II971016-1	11/11/97 6:04:00 PM	1	0.979		0.2129385	1.5884465	
Tin	WG51354LCSW	LCSW	II971016-1	11/10/97 1:47:00 PM	1	1.04		0.8	1.2	
Tin	WG51571LCSW	LCSW	II971016-1	11/12/97 3:58:00 PM	1	0.966		0.8	1.2	

ACZ

QC Summary

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Matrix Aqueous
Analysis Group Metals - ICP
QC Report ***Method Verification-Control Samples***

ACZ Project #	*L16027*
QC Report ID	*QC1515-A*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4 Philips Semi*
Date Received	*10/18/97*
Date Reported	*11/18/97*

Total Metals

Method M6010 ICP

Element	ACZ ID	QC Type	PCN / SCN#	Analysis Date	Concentration (mg/L)			Control Limits, mg/L		Q
					True	Found	Q	Lower	Upper	
Vanadium	WG50298LCSW	LCSW	II971022-1	10/23/97 1:20:00 PM	1	0.924		0.5982154	1.2894771	
Vanadium	WG51570LCSW	LCSW	II971016-1	11/11/97 6:04:00 PM	1	0.976		0.5982154	1.2894771	
Zinc	WG50298LCSW	LCSW	II971022-1	10/23/97 1:20:00 PM	1	0.921		0.6470225	1.3108975	
Zinc	WG51570LCSW	LCSW	II971016-1	11/11/97 6:04:00 PM	1	0.975		0.6470225	1.3108975	

ACZ

QC Summary

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Matrix *Aqueous*
Analysis Group *Metals - ICPMS*
QC Report ***Method Verification-Control Samples***

ACZ Project #	*L16027*
QC Report ID	*QC1515-A*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4 Philips Semi*
Date Received	*10/18/97*
Date Reported	*11/18/97*

Total Metals

Method M6020 ICP-MS

Element	ACZ ID	QC Type	PCN / SCN#	Analysis Date	Concentration (mg/L) True	Found	Q	Rec (%)	Control Limits,% Lower	Upper	Q
Antimony	WG51145LCSW	LCSW	II971012-1	11/5/97 4:55:00 PM	0.1	0.0932		93.2	75	125	
Antimony	WG51761LCSW	LCSW	II971012-1	11/15/97 11:47:00 AM	0.1	0.104		104	75	125	
Arsenic	WG51145LCSW	LCSW	II971012-1	11/5/97 4:55:00 PM	0.1	0.0941		94.1	75	125	
Arsenic	WG51761LCSW	LCSW	II971012-1	11/15/97 11:47:00 AM	0.1	0.101		101	75	125	
Lead	WG51145LCSW	LCSW	II971012-1	11/5/97 4:55:00 PM	0.1	0.0988		98.8	75	125	
Lead	WG51761LCSW	LCSW	II971012-1	11/15/97 11:47:00 AM	0.1	0.104		104	75	125	
Thallium	WG51220LCSW	LCSW	II971012-1	11/6/97 3:24:00 PM	0.1	0.1000		100	75	125	
Thallium	WG51761LCSW	LCSW	II971012-1	11/15/97 11:47:00 AM	0.1	0.104		104	75	125	

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Method Verification - Blanks

Cover Page

ACZ Project #	L16027
QC Report ID	QC1515-A
Client	Daniel B. Stephens & Associates
Client Project ID	7004.4 Philips Semi
Date Received	10/18/97
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Metal Analysis	38
Metals - Cold Vapor	
Total Metals	
Metals - Hydride	
Total Metals	
Metals - ICP	
Total Metals	
Metals - ICPMS	
Total Metals	

Additional analytical runs may have been required as a result of matrix effects and/or instrumental problems.
Re-analysis data immediately follows initial QC data as outlined in above sequence.

ACZ

QC Summary

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Matrix *Aqueous*
Analysis Group *Metals - Cold Vapor*
QC Report ***Method Verification-Blanks***

ACZ Project #	*L16027*
QC Report ID	*QC1515-A*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4 Philips Semi*
Date Received	*10/18/97*
Date Reported	*11/18/97*

Mercury, total

Method M7470 CVAA

ACZ ID	QC Type	Analysis Date	Concentration (mg/L)			Control Limits		Q
			MDL	Found	Q	Lower	Upper	
WG50200PBW	PBW	10/22/97 5:34:59 PM	0.0002	-0.0000500		-0.0004	0.0004	
WG51641PBW	PBW	11/13/97 5:04:41 PM	0.0002	0.0000142		-0.0004	0.0004	

ACZ

QC Summary

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Matrix Aqueous
Analysis Group Metals - Hydride
QC Report ***Method Verification-Blanks***

ACZ Project #	*L16027*
QC Report ID	*QC1515-A*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4 Philips Semi*
Date Received	*10/18/97*
Date Reported	*11/18/97*

Selenium, total

Method SM 3500-Se C, AA-Hydride

ACZ ID	QC Type	Analysis Date	Concentration (mg/L)			Control Limits		Q
			MDL	Found	Q	Lower	Upper	
WG51202PBW	PBW	11/6/97 9:43:00 PM	0.001	-0.000100		-0.002	0.002	
WG51515PBW	PBW	11/11/97 6:00:00 PM	0.001	-0.000100		-0.002	0.002	

ACZ

QC Summary

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Matrix *Aqueous*
Analysis Group *Metals - ICP*
QC Report ***Method Verification-Blank***

ACZ Project #	*L16027*
QC Report ID	*QC1515-A*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4 Philips Semi*
Date Received	*10/18/97*
Date Reported	*11/18/97*

Total Metals

Method M6010 ICP

Element	ACZ ID	QC Type	Analysis Date	Concentration (mg/L)			Control Limits		Q
				MDL	Found	Q	Lower	Upper	
Barium	WG50298PBW	PBW	10/23/97 1:16:00 PM	0.003	0.000188		-0.006	0.006	
Barium	WG51570PBW	PBW	11/11/97 6:00:00 PM	0.003	-0.000541		-0.006	0.006	
Beryllium	WG50298PBW	PBW	10/23/97 1:16:00 PM	0.002	0.000		-0.004	0.004	
Beryllium	WG51570PBW	PBW	11/11/97 6:00:00 PM	0.002	-0.000267		-0.004	0.004	
Cadmium	WG50298PBW	PBW	10/23/97 1:16:00 PM	0.003	-0.000936		-0.006	0.006	
Cadmium	WG51601PBW	PBW	11/12/97 9:57:00 AM	0.003	-0.00362		-0.006	0.006	
Chromium	WG50298PBW	PBW	10/23/97 1:16:00 PM	0.01	0.00136		-0.02	0.02	
Chromium	WG51570PBW	PBW	11/11/97 6:00:00 PM	0.01	-0.00812		-0.02	0.02	
Cobalt	WG50298PBW	PBW	10/23/97 1:16:00 PM	0.01	0.000764		-0.02	0.02	
Cobalt	WG51570PBW	PBW	11/11/97 6:00:00 PM	0.01	-0.00305		-0.02	0.02	
Copper	WG50298PBW	PBW	10/23/97 1:16:00 PM	0.01	-0.000000200		-0.02	0.02	
Copper	WG51570PBW	PBW	11/11/97 6:00:00 PM	0.01	-0.00281		-0.02	0.02	
Nickel	WG50298PBW	PBW	10/23/97 1:16:00 PM	0.01	-0.00276		-0.02	0.02	
Nickel	WG51570PBW	PBW	11/11/97 6:00:00 PM	0.01	-0.00469		-0.02	0.02	
Silver	WG50298PBW	PBW	10/23/97 1:16:00 PM	0.005	0.000112		-0.01	0.01	
Silver	WG51570PBW	PBW	11/11/97 6:00:00 PM	0.006	-0.00309		-0.012	0.012	
Tin	WG51354PBW	PBW	11/10/97 1:44:00 PM	0.1	0.000		-0.2	0.2	
Tin	WG51571PBW	PBW	11/12/97 3:55:00 PM	0.1	0.0111		-0.2	0.2	

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Matrix Aqueous
Analysis Group Metals - ICP
QC Report ***Method Verification-Blank***

ACZ Project #	*L16027*
QC Report ID	*QC1515-A*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4 Philips Semi*
Date Received	*10/18/97*
Date Reported	*11/18/97*

Total Metals

Method M6010 ICP

Element	ACZ ID	QC Type	Analysis Date	Concentration (mg/L)			Control Limits		Q
				MDL	Found	Q	Lower	Upper	
Vanadium	WG50298PBW	PBW	10/23/97 1:16:00 PM	0.005	-0.00000180		-0.01	0.01	
Vanadium	WG51570PBW	PBW	11/11/97 6:00:00 PM	0.006	-0.00345		-0.012	0.012	
Zinc	WG50298PBW	PBW	10/23/97 1:16:00 PM	0.01	0.00448		-0.02	0.02	
Zinc	WG51570PBW	PBW	11/11/97 6:00:00 PM	0.01	-0.00335		-0.02	0.02	

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

Matrix *Aqueous*
Analysis Group *Metals - ICPMS*
QC Report ***Method Verification-Blank***

ACZ Project #	*L16027*
QC Report ID	*QC1515-A*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4 Philips Semi*
Date Received	*10/18/97*
Date Reported	*11/18/97*

Total Metals

Method M6020 ICP-MS

Element	ACZ ID	QC Type	Analysis Date	Concentration (mg/L)			Control Limits		Q
				MDL	Found	Q	Lower	Upper	
Antimony	WG51145PBW	PBW	11/5/97 4:48:00 PM	0.0002	0.0000461		-0.0002	0.0002	
Antimony	WG51761PBW	PBW	11/15/97 11:40:00 AM	0.0004	0.0000378		-0.0004	0.0004	
Arsenic	WG51145PBW	PBW	11/5/97 4:48:00 PM	0.001	0.000118		-0.001	0.001	
Arsenic	WG51761PBW	PBW	11/15/97 11:40:00 AM	0.002	0.000214		-0.002	0.002	
Lead	WG51145PBW	PBW	11/5/97 4:48:00 PM	0.0002	0.0000837		-0.0002	0.0002	
Lead	WG51761PBW	PBW	11/15/97 11:40:00 AM	0.0004	0.000473		-0.0004	0.0004	
Thallium	WG51220PBW	PBW	11/6/97 3:17:00 PM	0.0001	0.0000194		-0.0001	0.0001	
Thallium	WG51761PBW	PBW	11/15/97 11:40:00 AM	0.0002	-0.0000384		-0.0002	0.0002	

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Analysis Run Log

Cover Page

ACZ Project #	*L16027*
QC Report ID	*QC1515-A*
Client	*Daniel B. Stephens & Associates*
Client Project ID	*7004.4 Philips Semi*
Date Received	*10/18/97*
Date Reported	*11/18/97*

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Metal Analysis

Selenium (Total) by Hydride	WG51202 WG51515
Metals (Total) by ICP	WG50298 WG51354 WG51570 WG51571 WG51601
Metals (Total) by ICP-MS	WG51145 WG51220 WG51761
Mercury (Total) by CVAA	WG50200 WG51641

ACZ

QC Summary

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QC Report | ***Analysis Run Log***

Analysis | ***Selenium (Total) by Hydride***

ACZ Project #	L16027
Client	Daniel B. Stephens & Associates
Client Project ID	7004.4 Philips Semi
Date Received	10/18/97
Date Reported	11/18/97

Workgroup: WG51202

ACZ ID	Measure Date	Dilution	Se
WG51202ICV	11/6/97	1	X
WG51202ICB	11/6/97	1	X
WG51202PBW	11/6/97	1	X
WG51202LCSW	11/6/97	1	X
WG51202LFB	11/6/97	1	X
L16027-01	11/6/97	1	X
L16027-04	11/6/97	1	X
ZZZ	11/6/97	1	X
ZZZ	11/6/97	1	X
ZZZ	11/6/97	1	X
WG51202CCV1	11/6/97	1	X
WG51202CCB1	11/6/97	1	X
ZZZ	11/6/97	1	X
ZZZ	11/6/97	1	X
ZZZ	11/6/97	1	X
L16043-06AS	11/6/97	1	X
L16043-06ASD	11/6/97	1	X
ZZZ	11/6/97	1	X
ZZZ	11/6/97	1	X
ZZZ	11/6/97	1	X
ZZZ	11/6/97	1	X
ZZZ	11/6/97	1	X
WG51202CCV2	11/6/97	1	X
WG51202CCB2	11/6/97	1	X
ZZZ	11/6/97	1	X
ZZZ	11/6/97	1	X
ZZZ	11/6/97	1	X
ZZZ	11/6/97	1	X
ZZZ	11/6/97	1	X
L16218-26AS	11/6/97	1	X
L16218-26ASD	11/6/97	1	X
WG51202CCV3	11/6/97	1	X
WG51202CCB3	11/6/97	1	X
WG51202CCV4	11/6/97	1	X
WG51202CCB4	11/6/97	1	X
ZZZ	11/6/97	2	X
L16043-06AS	11/6/97	2	X
L16043-06ASD	11/6/97	2	X

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QC Report | ***Analysis Run Log***

Analysis | ***Selenium (Total) by Hydride***

ACZ Project #	L16027
Client	Daniel B. Stephens & Associates
Client Project ID	7004.4 Philips Semi
Date Received	10/18/97
Date Reported	11/18/97

Workgroup: WG51202 **(Continued)**

ACZ ID	Measure Date	Dilution	Se
WG51202CCV5	11/6/97	1	X
WG51202CCB5	11/6/97	1	X

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QC Report | ***Analysis Run Log***

Analysis | ***Selenium (Total) by Hydride***

ACZ Project # L16027
Client Daniel B. Stephens & Associates
Client Project ID 7004.4 Philips Semi
Date Received 10/18/97
Date Reported 11/18/97

Workgroup: WG51515

ACZ ID	Measure Date	Dilution	Se
WG51515ICV	11/11/97	1	X
WG51515ICB	11/11/97	1	X
WG51515PBW	11/11/97	1	X
WG51515LCSW	11/11/97	1	X
WG51515LFB	11/11/97	1	X
L16027-02	11/11/97	1	X
L16027-03	11/11/97	1	X
L16027-03	11/11/97	1	X
L16027-03DUP	11/11/97	1	X
WG51515CCV1	11/11/97	1	X
WG51515CCB1	11/11/97	1	X
ZZZ	11/11/97	1	X
ZZZ	11/11/97	1	X
ZZZ	11/11/97	1	X
ZZZ	11/11/97	1	X
L16204-17AS	11/11/97	1	X
L16204-17ASD	11/11/97	1	X
ZZZ	11/11/97	1	X
ZZZ	11/11/97	1	X
WG51515CCV2	11/11/97	1	X
WG51515CCB2	11/11/97	1	X
ZZZ	11/11/97	1	X
ZZZ	11/11/97	1	X
ZZZ	11/11/97	1	X
ZZZ	11/11/97	1	X
ZZZ	11/11/97	1	X
ZZZ	11/11/97	1	X
ZZZ	11/11/97	1	X
WG51515CCV3	11/11/97	1	X
WG51515CCB3	11/11/97	1	X
WG51515CCV4	11/11/97	1	X
WG51515CCB4	11/11/97	1	X
ZZZ	11/11/97	2	X
WG51515CCV5	11/11/97	1	X
WG51515CCB5	11/11/97	1	X

ACZ

QC Summary

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QC Report | ***Analysis Run Log***

Analysis | ***Metals (Total) by ICP***

ACZ Project # L16027
Client Daniel B. Stephens & Associates
Client Project ID 7004.4 Philips Semi
Date Received 10/18/97
Date Reported 11/18/97

Workgroup: WG50298

ACZ ID	Measure Date	Dilution	Ag	Ba	Be	Cd	Cr	Cu	Ni	V	Zn
WG50298CCV1	10/23/97	1	X	X	X	X	X	X	X	X	X
WG50298CCB1	10/23/97	1	X	X	X	X	X	X	X	X	X
WG50298ICSABI	10/23/97	1	X	X	X	X	X	X	X	X	X
WG50298PBW	10/23/97	1	X	X	X	X	X	X	X	X	X
WG50298LCSW	10/23/97	1.11	X	X	X	X	X	X	X	X	X
ZZZ	10/23/97	2.22				X	X	X	X	X	X
ZZZ	10/23/97	1.11				X	X	X	X	X	X
L15940-02SDL	10/23/97	5.55	X	X	X	X	X	X	X	X	X
L15940-02MS	10/23/97	1.11	X	X	X	X	X	X	X	X	X
L15940-02MSD	10/23/97	1.11	X	X	X	X	X	X	X	X	X
ZZZ	10/23/97	1.11				X	X	X	X	X	X
WG50298CCV2	10/23/97	1	X	X	X	X	X	X	X	X	X
WG50298CCB2	10/23/97	1	X	X	X	X	X	X	X	X	X
ZZZ	10/23/97	2.22	X	X	X	X	X	X	X	X	X
ZZZ	10/23/97	1.11	X	X	X	X	X	X	X	X	X
ZZZ	10/23/97	1.11	X	X	X	X	X	X	X	X	X
ZZZ	10/23/97	1.11	X	X	X	X	X	X	X	X	X
ZZZ	10/23/97	5.55	X	X	X	X	X	X	X	X	X
ZZZ	10/23/97	2.22	X	X	X	X	X	X	X	X	X
ZZZ	10/23/97	1.11	X	X		X	X				
ZZZ	10/23/97	5.55	X	X		X	X				
ZZZ	10/23/97	1.11	X	X	X	X	X	X	X	X	X
L16013-04SDL	10/23/97	5.55	X	X	X	X	X	X	X	X	X
WG50298CCV3	10/23/97	1	X	X	X	X	X	X	X	X	X
WG50298CCB3	10/23/97	1	X	X	X	X	X	X	X	X	X
L16013-04MS	10/23/97	1.11	X	X	X	X	X	X	X	X	X
L16013-04MSD	10/23/97	1.11	X	X	X	X	X	X	X	X	X
ZZZ	10/23/97	1.11	X	X	X	X	X	X	X	X	X
ZZZ	10/23/97	1.11	X	X	X	X	X	X	X	X	X
ZZZ	10/23/97	1.11	X	X	X	X	X	X	X	X	X
L16027-01	10/23/97	1.11	X	X	X	X	X	X	X	X	X
L16027-04	10/23/97	1.11	X	X	X	X	X	X	X	X	X
WG50298CCV4	10/23/97	1	X	X	X	X	X	X	X	X	X
WG50298CCB4	10/23/97	1	X	X	X	X	X	X	X	X	X
WG50298ICSABF	10/23/97	1	X	X	X	X	X	X	X	X	X
WG50298CCV5	10/23/97	1	X	X	X	X	X	X	X	X	X
WG50298CCB5	10/23/97	1	X	X	X	X	X	X	X	X	X

ACZ	Client

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QC Report | ***Analysis Run Log***

Analysis | ***Metals (Total) by ICP***

ACZ Project # L16027
Client Daniel B. Stephens & Associates
Client Project ID 7004.4 Philips Semi
Date Received 10/18/97
Date Reported 11/18/97

Workgroup: WG51354

ACZ ID	Measure Date	Dilution	Sn
WG51354HCAL1	11/10/97	1	X
WG51354ICV	11/10/97	1	X
WG51354ICB	11/10/97	1	X
WG51354ICSABI	11/10/97	1	X
WG51354PBW	11/10/97	1.11	X
WG51354LCSW	11/10/97	1.11	X
ZZZ	11/10/97	1.11	X
ZZZ	11/10/97	1.11	X
L16013-02SDL	11/10/97	5.55	X
L16013-02MS	11/10/97	1.11	X
L16013-02MSD	11/10/97	1.11	X
ZZZ	11/10/97	1.11	X
WG51354PBW	11/10/97	1.11	X
WG51354LCSW	11/10/97	1.11	X
WG51354CCV1	11/10/97	1	X
WG51354CCB1	11/10/97	1	X
ZZZ	11/10/97	1.11	X
L16013-04SDL	11/10/97	5.55	X
L16013-04MS	11/10/97	1.11	X
L16013-04MSD	11/10/97	1.11	X
ZZZ	11/10/97	1.11	X
ZZZ	11/10/97	1.11	X
ZZZ	11/10/97	1.11	X
L16027-01	11/10/97	1.11	X
WG51354CCV2	11/10/97	1	X
WG51354CCB2	11/10/97	1	X
L16027-04	11/10/97	1.11	X
WG51354ICSABF	11/10/97	1	X
WG51354CCV3	11/10/97	1	X
WG51354CCB3	11/10/97	1	X

ACZ

QC Summary

30400 Downhill Drive
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QC Report | ***Analysis Run Log***

Analysis | ***Metals (Total) by ICP***

ACZ Project # L16027
Client Daniel B. Stephens & Associates
Client Project ID 7004.4 Philips Semi
Date Received 10/18/97
Date Reported 11/18/97

Workgroup: WG51570

ACZ ID	Measure Date	Dilution	Ag	Ba	Be	Cr	Cu	Ni	V	Zn
WG51570CCV1	11/11/97	1	X	X	X	X	X	X	X	X
WG51570CCB1	11/11/97	1	X	X	X	X	X	X	X	X
WG51570ICSABI	11/11/97	1	X	X	X	X	X	X	X	X
WG51570PBW	11/11/97	1.11	X	X	X	X	X	X	X	X
WG51570LCSW	11/11/97	1.11	X	X	X	X	X	X	X	X
L16027-02	11/11/97	1	X	X	X	X	X	X	X	X
L16027-03	11/11/97	1	X	X	X	X	X	X	X	X
ZZZ	11/11/97	1.11	X	X	X	X	X	X	X	X
ZZZ	11/11/97	1.11	X	X	X	X	X	X	X	X
ZZZ	11/11/97	1.11	X	X	X	X	X	X	X	X
L16268-03SDL	11/11/97	5.55	X	X	X	X	X	X	X	X
WG51570CCV2	11/11/97	1	X	X	X	X	X	X	X	X
WG51570CCB2	11/11/97	1	X	X	X	X	X	X	X	X
L16268-03MS	11/11/97	1.11	X	X	X	X	X	X	X	X
L16268-03MSD	11/11/97	1.11	X	X	X	X	X	X	X	X
ZZZ	11/11/97	1.11	X	X	X	X	X	X	X	X
ZZZ	11/11/97	1.11	X	X	X	X	X	X	X	X
ZZZ	11/11/97	5.55		X						
ZZZ	11/11/97	1.11		X						
ZZZ	11/11/97	5.55		X						
ZZZ	11/11/97	1.11		X						
ZZZ	11/11/97	5.55		X						
ZZZ	11/11/97	5.55		X						
WG51570CCV3	11/11/97	1	X	X	X	X	X	X	X	X
WG51570CCB3	11/11/97	1	X	X	X	X	X	X	X	X
L16304-07SDL	11/11/97	27.75	X	X	X	X	X	X	X	X
L16304-07MS	11/11/97	5	X	X	X	X	X	X	X	X
L16304-07MSD	11/11/97	5	X	X	X	X	X	X	X	X
ZZZ	11/11/97	1.11		X						
ZZZ	11/11/97	1.11		X						
ZZZ	11/11/97	1.11		X						
ZZZ	11/11/97	1.11		X						
ZZZ	11/11/97	1.11		X						
ZZZ	11/11/97	1.11		X						
WG51570CCV4	11/11/97	1	X	X	X	X	X	X	X	X
WG51570CCB4	11/11/97	1	X	X	X	X	X	X	X	X
WG51570ICSABF	11/11/97	1	X	X	X	X	X	X	X	X
WG51570CCV5	11/11/97	1	X	X	X	X	X	X	X	X

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QC Report | ***Analysis Run Log***

Analysis | ***Metals (Total) by ICP***

ACZ Project #	L16027
Client	Daniel B. Stephens & Associates
Client Project ID	7004.4 Philips Semi
Date Received	10/18/97
Date Reported	11/18/97

Workgroup: WG51570 **(Continued)**

ACZ ID	Measure Date	Dilution	Ag	Ba	Be	Cr	Cu	Ni	V	Zn
WG51570CCB5	11/11/97	1	X	X	X	X	X	X	X	X

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QC Report | ***Analysis Run Log***

Analysis | ***Metals (Total) by ICP***

ACZ Project # L16027
Client Daniel B. Stephens & Associates
Client Project ID 7004.4 Philips Semi
Date Received 10/18/97
Date Reported 11/18/97

Workgroup: WG51571

ACZ ID	Measure Date	Dilution	Sn
WG51571HCAL1	11/12/97	1	X
WG51571ICV	11/12/97	1	X
WG51571ICB	11/12/97	1	X
WG51571ICSABI	11/12/97	1	X
WG51571PBW	11/12/97	1.11	X
WG51571LCSW	11/12/97	1.11	X
L16027-02	11/12/97	1	X
L16027-03	11/12/97	1	X
L16268-03SDL	11/12/97	5	X
L16268-03MS	11/12/97	1	X
L16268-03MSD	11/12/97	1	X
WG51571ICSABF	11/12/97	1	X
WG51571CCV1	11/12/97	1	X
WG51571CCB1	11/12/97	1	X

ACZ

QC Summary

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QC Report *Analysis Run Log*

Analysis *Metals (Total) by ICP*

ACZ Project # L16027
Client Daniel B. Stephens & Associates
Client Project ID 7004.4 Philips Semi
Date Received 10/18/97
Date Reported 11/18/97

Workgroup: WG51601

ACZ ID	Measure Date	Dilution	Cd
WG51601HCAL1	11/12/97	1	X
WG51601ICSABI	11/12/97	1	X
WG51601PBW	11/12/97	1.11	X
WG51601LCSW	11/12/97	1.11	X
L16027-02	11/12/97	1	X
L16027-03	11/12/97	1	X
ZZZ	11/12/97	2.22	X
ZZZ	11/12/97	1.11	X
ZZZ	11/12/97	2.22	X
L16268-03SDL	11/12/97	11.1	X
WG51601CCV1	11/12/97	1	X
WG51601CCB1	11/12/97	1	X
L16268-03MS	11/12/97	2.22	X
L16268-03MSD	11/12/97	2.22	X
ZZZ	11/12/97	1.11	X
ZZZ	11/12/97	2.22	X
WG51601ICSABF	11/12/97	1	X
WG51601CCV2	11/12/97	1	X
WG51601CCB2	11/12/97	1	X

ACZ

QC Summary

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Fax: (970) 879-2216

QC Report | ***Analysis Run Log***

Analysis | ***Metals (Total) by ICP-MS***

ACZ Project # L16027
Client Daniel B. Stephens & Associates
Client Project ID 7004.4 Philips Semi
Date Received 10/18/97
Date Reported 11/18/97

Workgroup: WG51145

ACZ ID	Measure Date	Dilution	As	Pb	Sb
WG51145ICV	11/5/97	1	X	X	X
WG51145ICB	11/5/97	1	X	X	X
WG51145ICSAB	11/5/97	1	X		
WG51145PBW	11/5/97	2	X	X	X
WG51145LCSW	11/5/97	2.22	X	X	X
WG51145CCV1	11/5/97	1	X	X	X
WG51145CCB1	11/5/97	1	X	X	X
L16027-01	11/5/97	5.55	X	X	X
L16027-01SDL	11/5/97	27.75	X	X	X
L16027-01SDL	11/5/97	5	X	X	X
L16027-01MS	11/5/97	5	X	X	X
L16027-01MSD	11/5/97	5	X	X	X
L16027-04	11/5/97	5.55	X	X	X
L16056-01SDL	11/5/97	5	X	X	X
L16056-01SDL	11/5/97	27.75	X	X	X
WG51145CCV2	11/5/97	1	X	X	X
WG51145CCB2	11/5/97	1	X	X	X
L16056-01MS	11/5/97	5.55	X	X	X
L16056-01MSD	11/5/97	5.55	X	X	X
WG51145CCV3	11/5/97	1	X	X	X
WG51145CCB3	11/5/97	1	X	X	X

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

QC Report | ***Analysis Run Log***

Analysis | ***Metals (Total) by ICP-MS***

ACZ Project # L16027
Client Daniel B. Stephens & Associates
Client Project ID 7004.4 Philips Semi
Date Received 10/18/97
Date Reported 11/18/97

Workgroup: WG51220

ACZ ID	Measure Date	Dilution	TI
WG51220ICV	11/6/97	1	X
WG51220ICB	11/6/97	1	X
WG51220PBW	11/6/97	2	X
WG51220LCSW	11/6/97	2.22	X
L16027-01	11/6/97	5.55	X
L16027-01SDL	11/6/97	27.75	X
L16027-01MS	11/6/97	5.55	X
L16027-01MSD	11/6/97	5.55	X
WG51220CCV1	11/6/97	1	X
WG51220CCB1	11/6/97	1	X
L16027-04	11/6/97	5.55	X
WG51220CCV2	11/6/97	1	X
WG51220CCB2	11/6/97	1	X

ACZ

QC Summary

30400 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

QC Report | *Analysis Run Log*

Analysis | *Metals (Total) by ICP-MS*

ACZ Project # L16027
Client Daniel B. Stephens & Associates
Client Project ID 7004.4 Philips Semi
Date Received 10/18/97
Date Reported 11/18/97

Workgroup: WG51761

ACZ ID	Measure Date	Dilution	As	Pb	Sb	Tl
WG51761ICV	11/15/97	1	X	X	X	X
WG51761ICB	11/15/97	1	X	X	X	X
WG51761ICSAB	11/15/97	1	X			
WG51761PBW	11/15/97	2.22	X	X	X	X
WG51761LCSW	11/15/97	11.1	X	X	X	X
L16027-02	11/15/97	10	X	X	X	X
L16027-03	11/15/97	10	X	X	X	X
L16268-02SDL	11/15/97	10	X	X	X	X
L16268-02MS	11/15/97	2	X	X	X	X
WG51761CCV1	11/15/97	1	X	X	X	X
WG51761CCB1	11/15/97	1	X	X	X	X
L16268-02MSD	11/15/97	2	X	X	X	X
WG51761CCV2	11/15/97	1	X	X	X	X
WG51761CCB2	11/15/97	1	X	X	X	X

ACZ

QC Summary

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Steamboat Springs, CO 80487
(800) 334-5493
Fax: (970) 879-2216

QC Report | ***Analysis Run Log***

Analysis | ***Mercury (Total) by CVAA***

ACZ Project # L16027
Client Daniel B. Stephens & Associates
Client Project ID 7004.4 Philips Semi
Date Received 10/18/97
Date Reported 11/18/97

Workgroup: WG50200

ACZ ID	Measure Date	Dilution	Hg
WG50200ICV	10/22/97	1	X
WG50200ICB	10/22/97	1	X
WG50200PBW	10/22/97	1	X
WG50200LCSW	10/22/97	1	X
WG50200LFB	10/22/97	1	X
ZZZ	10/22/97	1	X
ZZZ	10/22/97	5	X
ZZZ	10/22/97	1	X
L16013-01AS	10/22/97	1	X
L16013-01ASD	10/22/97	1	X
ZZZ	10/22/97	1	X
ZZZ	10/22/97	1	X
WG50200CCV1	10/22/97	1	X
WG50200CCB1	10/22/97	1	X
ZZZ	10/22/97	1	X
ZZZ	10/22/97	1	X
ZZZ	10/22/97	1	X
ZZZ	10/22/97	1	X
L16027-01	10/22/97	1	X
L16027-04	10/22/97	1	X
L16027-04AS	10/22/97	1	X
L16027-04ASD	10/22/97	1	X
WG50200CCV2	10/22/97	1	X
WG50200CCB2	10/22/97	1	X
WG50200CCV3	10/22/97	1	X
WG50200CCB3	10/22/97	1	X
L16027-04	10/22/97	1	X
L16027-04AS	10/22/97	1	X
L16027-04ASD	10/22/97	1	X
WG50200CCV4	10/22/97	1	X
WG50200ICV	10/22/97	1	X
WG50200ICB	10/22/97	1	X
WG50200CCV5	10/22/97	1	X
WG50200CCB4	10/22/97	1	X
L16027-04	10/22/97	1	X
L16027-04AS	10/22/97	1	X
L16027-04ASD	10/22/97	1	X
WG50200CCV6	10/22/97	1	X

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QC Report | ***Analysis Run Log***

Analysis | ***Mercury (Total) by CVAA***

ACZ Project #	L16027
Client	Daniel B. Stephens & Associates
Client Project ID	7004.4 Philips Semi
Date Received	10/18/97
Date Reported	11/18/97

Workgroup: WG50200 **(Continued)**

ACZ ID	Measure Date	Dilution	Hg
WG50200CCB5	10/22/97	1	X

ACZ

QC Summary

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QC Report | ***Analysis Run Log***

Analysis | ***Mercury (Total) by CVAA***

ACZ Project # L16027
Client Daniel B. Stephens & Associates
Client Project ID 7004.4 Philips Semi
Date Received 10/18/97
Date Reported 11/18/97

Workgroup: WG51641

ACZ ID	Measure Date	Dilution	Hg
WG51641ICV	11/13/97	1	X
WG51641ICB	11/13/97	1	X
WG51641PBW	11/13/97	1	X
WG51641LCSW	11/13/97	1	X
WG51641LFB	11/13/97	1	X
L16027-02	11/13/97	1	X
L16027-03	11/13/97	1	X
ZZZ	11/13/97	1	X
ZZZ	11/13/97	1	X
ZZZ	11/13/97	1	X
ZZZ	11/13/97	1	X
ZZZ	11/13/97	1	X
WG51641CCV1	11/13/97	1	X
WG51641CCB1	11/13/97	1	X
ZZZ	11/13/97	1	X
L16304-01AS	11/13/97	1	X
L16304-01ASD	11/13/97	1	X
ZZZ	11/13/97	1	X
ZZZ	11/13/97	1	X
ZZZ	11/13/97	1	X
L16304-04AS	11/13/97	1	X
L16304-04ASD	11/13/97	1	X
ZZZ	11/13/97	1	X
ZZZ	11/13/97	1	X
WG51641CCV2	11/13/97	1	X
WG51641CCB2	11/13/97	1	X
ZZZ	11/13/97	1	X
ZZZ	11/13/97	1	X
ZZZ	11/13/97	1	X
ZZZ	11/13/97	1	X
ZZZ	11/13/97	1	X
ZZZ	11/13/97	1	X
ZZZ	11/13/97	1	X
WG51641CCV3	11/13/97	1	X
WG51641CCB3	11/13/97	1	X

ACZ
30400 Downhill Drive
Steamboat Springs, CO 80487
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Fax: (970) 879-2216

QC REFERENCE

QC Report Types

(1)	Calibration Verification - Blanks	Verifies that there is no or minimal contamination in the instrument calibration.
(2)	Calibration Verification - Control Samples	Verifies the accuracy of the instrument calibration.
(3)	Method Verification - Blanks	Verifies that there is no or minimal contamination in the prep method procedure.
(4)	Method Verification - Control Samples	Verifies the accuracy of the method, including the prep procedure.
(5)	Spike Verification	Determines sample matrix interferences, if any.
(6)	Duplicate Verification	Verifies the precision of the instrument and/or method.

QC Sample Types

ICV	Initial Calibration Verification	QCS	Quality Control Sample
CCV	Continuing Calibration Verification	ICS	Instrument Check Sample
LCSW	Laboratory Control Sample - Water	LFB	Laboratory Fortified Blank
LCSS	Laboratory Control Sample - Soil	LFM	Laboratory Fortified Matrix
ICB	Initial Calibration Blank	AS	Analytical (Post Digestion) Spike
CCB	Continuing Calibration Blank	MS	Matrix Spike
LRB	Laboratory Reagent Blank	LFMD	Laboratory Fortified Matrix Duplicate
PBW	Prep Blank - Water	ASD	Analytical Spike (Post Digestion) Duplicate
PBS	Prep Blank - Soil	MSD	Matrix Spike Duplicate
		DUP	Sample Duplicate

Unique ACZ QC Summary Qualifiers (Q)

Z	Poor spike recovery is accepted because sample concentration is four times greater than spike concentration.
Y	This sample, instead of one of yours, was used as the quality control sample for the workgroup batch.
X	QC is out of control. See Case Narrative.
W	Poor recovery for Silver quality control is accepted because Silver often precipitates with Chloride.
V	High blank data accepted because sample concentration is 10 times higher than blank concentration
T	High Relative Percent Difference (RPD) accepted because sample concentrations are less than 10x the MDL.
S	ICV/QCS sample not part of workgroup; analyzed immediately following instrument calibration as part of a prevous workgroup.

Method References

(1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(4) EPA 600/4-80-032. Prescribed Procedures for Measurement of Radioactivity in Drinking Water, August 1980.
(5) EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update II, September 1994.
(6) Standard Methods for the Examination of Water and Wastewater, 18th edition, 1992.

Comments

(1) QC results calculated from raw data. Results may vary slightly if the reported (rounded) values are used in the calculations.
(2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3) Animal matrices for Inorganic analyses are reported on an "as received" basis.
(4) All matrices for Organic analyses are reported on an "as received" basis, except for TPH-IR analyses on soils which are reported on a dry weight basis.
(5) The PCN/SCN header on the QC reports stands for Primary Control Number/Secondary Control Number. All stock chemicals are given a PCN and any reagent made at the bench level is assigned a SCN. These numbers track our standards and chemicals so that any reagent is traceable to a certificate of analysis.

This report is subject to the "Terms & Conditions" section in ACZ Laboratories, Inc. 1995 Analytical Services Fee Schedule.

Attachment 3

Laboratory Results
Hall Environmental
Analysis Laboratory

RECEIVED NOV 1 2 1997

Hall Environmental Analysis Laboratory, Inc.

Hall Environmental Analysis Laboratory
4901 Hawkins NE Suite A
Albuquerque, NM 87109
(505)345-3975

10/28/97

Daniel B. Stephens and Associates, Inc.
6020 Academy NE, Suite 100
Albuquerque, NM 87109

Dear Mr. Rich Meixner,

Enclosed are the results for the analyses that were requested. These were done according to EPA procedures or the equivalent.

Detection limits are determined by EPA methodology. No determination of compounds below these levels (denoted by nd or the < sign) has been made.

Please don't hesitate to contact me for any additional information or clarifications.

Sincerely,

Nancy McDuffie
Assistant Laboratory Manager

Project: 9710044/Philips

Results for sample: NCLF-2

Date collected: 10/14/97	Date received: 10/15/97
Date extracted: 10/20/97	Date analyzed: 10/27/97
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: Philips	HEAL #: 9710044-1
Project Manager: Rich Meixner	Sampled by: J. Jordan/T. Deeds
Matrix: Aqueous	

Test: EPA 8310

Compound	Result	Detection limit	Units
Naphthalene	nd	2.5	PPB (µg/L)
1-Methyl naphthalene	nd	2.5	PPB (µg /L)
2-Methyl naphthalene	nd	2.5	PPB (µg /L)
Acenaphthylene	nd	2.5	PPB (µg /L)
Acenaphthene	nd	2.5	PPB (µg /L)
Fluorene	nd	0.20	PPB (µg /L)
Phenanthrene	nd	0.60	PPB (µg /L)
Anthracene	nd	0.60	PPB (µg /L)
Fluoranthene	nd	0.30	PPB (µg /L)
Pyrene	nd	0.30	PPB (µg /L)
Benzo(a)anthracene	nd	0.02	PPB (µg /L)
Chrysene	nd	0.20	PPB (µg /L)
Benzo(b)fluoranthene	nd	0.02	PPB (µg /L)
Benzo(k)fluoranthene	nd	0.02	PPB (µg /L)
Benzo(a)pyrene	nd	0.02	PPB (µg /L)
Dibenzo(a,h)anthracene	nd	0.04	PPB (µg /L)
Benzo(g,h,i)perylene	nd	0.03	PPB (µg /L)
Indeno(1,2,3-cd)pyrene	nd	0.08	PPB (µg /L)

Benzo(e)pyrene (Surrogate) Recovery = 106 % Dilution Factor = 1

Results for sample: NCLF-3

Date collected: 10/14/97	Date received: 10/15/97
Date extracted: 10/20/97	Date analyzed: 10/27/97
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: Philips	HEAL #: 9710044-2
Project Manager: Rich Meixner	Sampled by: J. Jordan/T. Deeds
Matrix: Aqueous	

Test: EPA 8310

Compound	Result	Detection limit	Units
Naphthalene	nd	2.5	PPB (μg/L)
1-Methyl naphthalene	nd	2.5	PPB (μg /L)
2-Methyl naphthalene	nd	2.5	PPB (μg /L)
Acenaphthylene	nd	2.5	PPB (μg /L)
Acenaphthene	nd	2.5	PPB (μg /L)
Fluorene	nd	0.20	PPB (μg /L)
Phenanthrene	nd	0.60	PPB (μg /L)
Anthracene	nd	0.60	PPB (μg /L)
Fluoranthene	nd	0.30	PPB (μg /L)
Pyrene	nd	0.30	PPB (μg /L)
Benzo(a)anthracene	nd	0.02	PPB (μg /L)
Chrysene	nd	0.20	PPB (μg /L)
Benzo(b)fluoranthene	nd	0.02	PPB (μg /L)
Benzo(k)fluoranthene	nd	0.02	PPB (μg /L)
Benzo(a)pyrene	nd	0.02	PPB (μg /L)
Dibenzo(a,h)anthracene	nd	0.04	PPB (μg /L)
Benzo(g,h,i)perylene	nd	0.03	PPB (μg /L)
Indeno(1,2,3-cd)pyrene	nd	0.08	PPB (μg /L)

Benzo(e)pyrene (Surrogate) Recovery = 105 % Dilution Factor = 1

Results for sample: MW-3

Date collected: 10/14/97	Date received: 10/15/97
Date extracted: 10/20/97	Date analyzed: 10/27/97
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: Philips	HEAL #: 9710044-3
Project Manager: Rich Meixner	Sampled by: J. Jordan/T. Deeds
Matrix: Aqueous	

Test: EPA 8310

Compound	Result	Detection limit	Units
Naphthalene	nd	2.5	PPB (µg/L)
1-Methyl naphthalene	nd	2.5	PPB (µg /L)
2-Methyl naphthalene	nd	2.5	PPB (µg /L)
Acenaphthylene	nd	2.5	PPB (µg /L)
Acenaphthene	nd	2.5	PPB (µg /L)
Fluorene	nd	0.20	PPB (µg /L)
Phenanthrene	nd	0.60	PPB (µg /L)
Anthracene	nd	0.60	PPB (µg /L)
Fluoranthene	nd	0.30	PPB (µg /L)
Pyrene	nd	0.30	PPB (µg /L)
Benzo(a)anthracene	nd	0.02	PPB (µg /L)
Chrysene	nd	0.20	PPB (µg /L)
Benzo(b)fluoranthene	nd	0.02	PPB (µg /L)
Benzo(k)fluoranthene	nd	0.02	PPB (µg /L)
Benzo(a)pyrene	nd	0.02	PPB (µg /L)
Dibenzo(a,h)anthracene	nd	0.04	PPB (µg /L)
Benzo(g,h,i)perylene	nd	0.03	PPB (µg /L)
Indeno(1,2,3-cd)pyrene	nd	0.08	PPB (µg /L)

Benzo(e)pyrene (Surrogate) Recovery = 105 % Dilution Factor = 1

Results for sample: MW-4

Date collected: 10/14/97	Date received: 10/15/97
Date extracted: 10/20/97	Date analyzed: 10/27/97
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: Philips	HEAL #: 9710044-4
Project Manager: Rich Meixner	Sampled by: J. Jordan/T. Deeds
Matrix: Aqueous	

Test: EPA 8310

Compound	Result	Detection limit	Units
Naphthalene	nd	2.5	PPB (µg/L)
1-Methyl naphthalene	nd	2.5	PPB (µg /L)
2-Methyl naphthalene	nd	2.5	PPB (µg /L)
Acenaphthylene	nd	2.5	PPB (µg /L)
Acenaphthene	nd	2.5	PPB (µg /L)
Fluorene	nd	0.20	PPB (µg /L)
Phenanthrene	nd	0.60	PPB (µg /L)
Anthracene	nd	0.60	PPB (µg /L)
Fluoranthene	nd	0.30	PPB (µg /L)
Pyrene	nd	0.30	PPB (µg /L)
Benzo(a)anthracene	nd	0.02	PPB (µg /L)
Chrysene	nd	0.20	PPB (µg /L)
Benzo(b)fluoranthene	nd	0.02	PPB (µg /L)
Benzo(k)fluoranthene	nd	0.02	PPB (µg /L)
Benzo(a)pyrene	nd	0.02	PPB (µg /L)
Dibenzo(a,h)anthracene	nd	0.04	PPB (µg /L)
Benzo(g,h,i)perylene	nd	0.03	PPB (µg /L)
Indeno(1,2,3-cd)pyrene	nd	0.08	PPB (µg /L)

Benzo(e)pyrene (Surrogate) Recovery = 96 % Dilution Factor = 1

Results for sample: MW-2

Date collected: 10/15/97	Date received: 10/15/97
Date extracted: 10/20/97	Date analyzed: 10/27/97
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: Philips	HEAL #: 9710044-5
Project Manager: Rich Meixner	Sampled by: J. Jordan/T. Deeds
Matrix: Aqueous	

Test: EPA 8310

Compound	Result	Detection limit	Units
Naphthalene	nd	2.5	PPB (µg/L)
1-Methyl naphthalene	nd	2.5	PPB (µg /L)
2-Methyl naphthalene	nd	2.5	PPB (µg /L)
Acenaphthylene	nd	2.5	PPB (µg /L)
Acenaphthene	nd	2.5	PPB (µg /L)
Fluorene	nd	0.20	PPB (µg /L)
Phenanthrene	nd	0.60	PPB (µg /L)
Anthracene	nd	0.60	PPB (µg /L)
Fluoranthene	nd	0.30	PPB (µg /L)
Pyrene	nd	0.30	PPB (µg /L)
Benzo(a)anthracene	nd	0.02	PPB (µg /L)
Chrysene	nd	0.20	PPB (µg /L)
Benzo(b)fluoranthene	nd	0.02	PPB (µg /L)
Benzo(k)fluoranthene	nd	0.02	PPB (µg /L)
Benzo(a)pyrene	nd	0.02	PPB (µg /L)
Dibenzo(a,h)anthracene	nd	0.04	PPB (µg /L)
Benzo(g,h,i)perylene	nd	0.03	PPB (µg /L)
Indeno(1,2,3-cd)pyrene	nd	0.08	PPB (µg /L)

Benzo(e)pyrene (Surrogate) Recovery = 111 % Dilution Factor = 1

Results for sample: MW-1

Date collected: 10/15/97	Date received: 10/15/97
Date extracted: 10/20/97	Date analyzed: 10/27/97
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: Philips	HEAL #: 9710044-6
Project Manager: Rich Meixner	Sampled by: J. Jordan/T. Deeds
Matrix: Aqueous	

Test: EPA 8310

Compound	Result	Detection limit	Units
Naphthalene	nd	2.5	PPB (µg/L)
1-Methyl naphthalene	nd	2.5	PPB (µg /L)
2-Methyl naphthalene	nd	2.5	PPB (µg /L)
Acenaphthylene	nd	2.5	PPB (µg /L)
Acenaphthene	nd	2.5	PPB (µg /L)
Fluorene	nd	0.20	PPB (µg /L)
Phenanthrene	nd	0.60	PPB (µg /L)
Anthracene	nd	0.60	PPB (µg /L)
Fluoranthene	nd	0.30	PPB (µg /L)
Pyrene	nd	0.30	PPB (µg /L)
Benzo(a)anthracene	nd	0.02	PPB (µg /L)
Chrysene	nd	0.20	PPB (µg /L)
Benzo(b)fluoranthene	nd	0.02	PPB (µg /L)
Benzo(k)fluoranthene	nd	0.02	PPB (µg /L)
Benzo(a)pyrene	nd	0.02	PPB (µg /L)
Dibenzo(a,h)anthracene	nd	0.04	PPB (µg /L)
Benzo(g,h,i)perylene	nd	0.03	PPB (µg /L)
Indeno(1,2,3-cd)pyrene	nd	0.08	PPB (µg /L)

Benzo(e)pyrene (Surrogate) Recovery = 108 % Dilution Factor = 1

Results for sample: MW-5

Date collected: 10/15/97	Date received: 10/15/97
Date extracted: 10/20/97	Date analyzed: 10/27/97
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: Philips	HEAL #: 9710044-7
Project Manager: Rich Meixner	Sampled by: J. Jordan/T. Deeds
Matrix: Aqueous	

Test: EPA 8310

Compound	Result	Detection limit	Units
Naphthalene	nd	2.5	PPB (µg/L)
1-Methyl naphthalene	nd	2.5	PPB (µg /L)
2-Methyl naphthalene	nd	2.5	PPB (µg /L)
Acenaphthylene	nd	2.5	PPB (µg /L)
Acenaphthene	nd	2.5	PPB (µg /L)
Fluorene	nd	0.20	PPB (µg /L)
Phenanthrene	nd	0.60	PPB (µg /L)
Anthracene	nd	0.60	PPB (µg /L)
Fluoranthene	nd	0.30	PPB (µg /L)
Pyrene	nd	0.30	PPB (µg /L)
Benzo(a)anthracene	nd	0.02	PPB (µg /L)
Chrysene	nd	0.20	PPB (µg /L)
Benzo(b)fluoranthene	nd	0.02	PPB (µg /L)
Benzo(k)fluoranthene	nd	0.02	PPB (µg /L)
Benzo(a)pyrene	nd	0.02	PPB (µg /L)
Dibenzo(a,h)anthracene	nd	0.04	PPB (µg /L)
Benzo(g,h,i)perylene	nd	0.03	PPB (µg /L)
Indeno(1,2,3-cd)pyrene	nd	0.08	PPB (µg /L)

Benzo(e)pyrene (Surrogate) Recovery = 105 % Dilution Factor = 1

Results for sample: NCLF-2

Date collected: 10/14/97	Date received: 10/15/97
Date extracted: 10/27/97	Date analyzed: 10/27/97
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: Philips	HEAL #: 9710044-1
Project Manager: Rich Meixner	Sampled by: J. Jordan/T. Deeds
Matrix: Aqueous	

Test: EPA 504

Compound	Result	Units
EDB	<0.01	PPB (μg/L)
DBCP	<0.01	PPB (μg/L)

Dilution Factor = 1

Results for sample: NCLF-3

Date collected: 10/14/97	Date received: 10/15/97
Date extracted: 10/27/97	Date analyzed: 10/27/97
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: Philips	HEAL #: 9710044-2
Project Manager: Rich Meixner	Sampled by: J. Jordan/T. Deeds
Matrix: Aqueous	

Test: EPA 504

Compound	Result	Units
EDB	<0.01	PPB (μg/L)
DBCP	<0.01	PPB (μg/L)

Dilution Factor = 1

Results for sample: MW-3

Date collected: 10/14/97	Date received: 10/15/97
Date extracted: 10/27/97	Date analyzed: 10/27/97
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: Philips	HEAL #: 9710044-3
Project Manager: Rich Meixner	Sampled by: J. Jordan/T. Deeds
Matrix: Aqueous	

Test: EPA 504

Compound	Result	Units
EDB	<0.01	PPB (μg/L)
DBCP	<0.01	PPB (μg/L)

Dilution Factor = 1

Results for sample: MW-4

Date collected: 10/14/97	Date received: 10/15/97
Date extracted: 10/27/97	Date analyzed: 10/27/97
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: Philips	HEAL #: 9710044-4
Project Manager: Rich Meixner	Sampled by: J. Jordan/T. Deeds
Matrix: Aqueous	

Test: EPA 504

Compound	Result	Units
EDB	<0.01	PPB (μg/L)
DBCP	<0.01	PPB (μg/L)

Dilution Factor = 1

Results for sample: MW-2

Date collected: 10/15/97	Date received: 10/15/97
Date extracted: 10/27/97	Date analyzed: 10/27/97
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: Philips	HEAL #: 9710044-5
Project Manager: Rich Meixner	Sampled by: J. Jordan/T. Deeds
Matrix: Aqueous	

Test: EPA 504

Compound	Result	Units
EDB	<0.01	PPB (μg/L)
DBCP	<0.01	PPB (μg/L)

Dilution Factor = 1

Results for sample: MW-1

Date collected: 10/15/97	Date received: 10/15/97
Date extracted: 10/27/97	Date analyzed: 10/27/97
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: Philips	HEAL #: 9710044-6
Project Manager: Rich Meixner	Sampled by: J. Jordan/T. Deeds
Matrix: Aqueous	

Test: EPA 504

Compound	Result	Units
EDB	<0.01	PPB (μg/L)
DBCP	<0.01	PPB (μg/L)

Dilution Factor = 1

Results for sample: MW-5

Date collected: 10/15/97	Date received: 10/15/97
Date extracted: 10/27/97	Date analyzed: 10/27/97
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: Philips	HEAL #: 9710044-7
Project Manager: Rich Meixner	Sampled by: J. Jordan/T. Deeds
Matrix: Aqueous	

Test: EPA 504

Compound	Result	Units
EDB	<0.01	PPB (μg/L)
DBCP	<0.01	PPB (μg/L)

Dilution Factor = 1

Results for sample: Extraction Blank

Date extracted: 10/27/97	Date analyzed: 10/27/97
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: Philips	HEAL #: EB 10/27
Project Manager: Rich Meixner	Sampled by: NA
Matrix: Aqueous	

Test: EPA 8010

Compound	Result	Units
EDC	<0.01	PPB (μg/L)
DBCP	<0.01	PPB (μg/L)

Dilution Factor = 1

Results for QC: Extraction Blank

Date extracted: 10/20/97	Date analyzed: 10/27/97
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: Philips	HEAL #: EB 10/20
Project Manager: Rich Meixner	Sampled by: NA
Matrix: Aqueous	

Test: EPA 8310

Compound	Result	Detection limit	Units
Naphthalene	nd	2.5	PPB (µg/L)
1-Methyl naphthalene	nd	2.5	PPB (µg /L)
2-Methyl naphthalene	nd	2.5	PPB (µg /L)
Acenaphthylene	nd	2.5	PPB (µg /L)
Acenaphthene	nd	2.5	PPB (µg /L)
Fluorene	nd	0.20	PPB (µg /L)
Phenanthrene	nd	0.60	PPB (µg /L)
Anthracene	nd	0.60	PPB (µg /L)
Fluoranthene	nd	0.30	PPB (µg /L)
Pyrene	nd	0.30	PPB (µg /L)
Benzo(a)anthracene	nd	0.02	PPB (µg /L)
Chrysene	nd	0.20	PPB (µg /L)
Benzo(b)fluoranthene	nd	0.02	PPB (µg /L)
Benzo(k)fluoranthene	nd	0.02	PPB (µg /L)
Benzo(a)pyrene	nd	0.02	PPB (µg /L)
Dibenzo(a,h)anthracene	nd	0.04	PPB (µg /L)
Benzo(g,h,i)perylene	nd	0.03	PPB (µg /L)
Indeno(1,2,3-cd)pyrene	nd	0.08	PPB (µg /L)

Benzo(e)pyrene (Surrogate) Recovery = 103 % Dilution Factor = 1

Results for QC: Matrix Spike/Matrix Spike Dup

Date extracted: 10/20/97	Date analyzed: 10/27/97
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: Philips	HEAL #: 9710053-3,4 MS/MSD
Project Manager: Rich Meixner	
Matrix: Aqueous	UNITS: PPB(μg/L)

Test: EPA 8310

Compound	Sample Result	Amount Added	Matrix Spike	MS %	MS Dup	MSD %	RPD
Naphthalene	<2.5	51.4	33.2	65	30.9	60	7
Acenaphthylene	<2.5	46.5	28.5	61	28.1	60	1
Acenaphthene	<2.5	49.4	33.3	67	32.7	66	2
Fluorene	<0.2	29.9	19.2	64	19.1	64	1
Phenanthrene	<0.6	4.02	2.94	73	2.87	71	2
Fluoroanthene	<0.3	2.43	2.01	83	1.84	76	9
Pyrene	<0.3	4.05	2.89	71	3.01	74	4
Benzo(a)pyrene	<0.02	0.248	0.224	90	0.214	86	5
Benzo(k)fluoranthene	<0.03	0.103	0.105	102	0.091	88	13

Results for QC: Blank Spike/Blank Spike Dup

Date extracted: 10/27/97	Date analyzed:10/27/97
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: Philips	HEAL #: BS/BSD 10/27
Project Manager: Rich Meixner	
Matrix: Aqueous	UNITS: PPB(μg/L)

Test: EPA 504

Compound	Sample Result	Amount Added	Blank Spike	BS %	BS Dup	BSD %	RPD
EDB	<0.01	0.10	0.104	104	0.102	102	2
DBCP	<0.01	0.10	0.103	103	0.105	105	2

CHAIN-OF-CUSTODY RECORD

HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite A
Albuquerque, New Mexico 87109
505.345.3975
Fax 505.345.4107

Client: DBS&A

Address: 6020 Academy NE #100 ABQ, NM 87105

Phone #: 822-9400

Fax #: 822-8877

Project Name: Philips

Project #: 7004.4

Project Manager: Rich Meixner

Sampler: J. Jordan / T. Deeds

Samples Cold?: ☒ Yes ☐ No

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative: $HgCl_2$	Preservative: HCl	Preservative:	HEAL No.	BTEX + MTBE (602/8020)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015 MOD (Gas/Diesel)	TPH (Method 418.1)	8010/8020 Volatiles	EDB (Method 504) + DBCP	EDC (Method 8010)	8310 PNA or PAH (Benzo-A-Pyrene)	RCRA 8 Metals	Cations (Na, K, Ca, Mg)	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8080 Pesticides / PCB's	8260 (VOA)	8270 (Semi-VOA)			Air Bubbles or Headspace (Y or N)
10-14-97	1125	water	NCLF-2	1-1L Amber 2-40ml VOA		X	none	9710044-1						X		X									N
10-14-97	1335		NCLF-3	1-1L Amber 2-40ml VOA		X	none	-2						X		X									N
10-14-97	1430		MW-3	1-1L Amber 2-40ml VOA		X	none	-3						X		X									N
10-14-97	1740		MW-4	1-1L Amber 2-40ml VOA		X	none	-4						X		X									N
10-15-97	1045		MW-2	1-1L Amber 2-40ml VOA		X	none	-5						X		X									N
10-15-97	1445		MW-1	1-1L Amber 2-40ml VOA		X	none	-6						X		X									N
10-15-97	1600		MW-5	1-1L Amber 2-40ml VOA		X	none	-7						X		X									N

Date	Time	Relinquished By: (Signature)	Received By: (Signature)
10-15-97	1830	James L. Jordan	[illegible]
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)

Remarks:

RECEIVED NOV 1 2 1997

Hall Environmental Analysis Laboratory, Inc.

Hall Environmental Analysis Laboratory
4901 Hawkins NE Suite A
Albuquerque, NM 87109
(505) 345-3975

11/3/97

Daniel B. Stephens and Associates, Inc.
6020 Academy NE, Suite 100
Albuquerque, NM 87109

Dear Mr. Rich Meixner,

Enclosed are the results for the analyses that were requested. These were done according to EPA procedures or the equivalent.

Detection limits are determined by EPA methodology. No determination of compounds below these levels (denoted by the nd or < sign) has been made.

Please don't hesitate to contact me for any additional information or clarifications.

Sincerely,

Nancy McDuffie
Assistant Laboratory Manager

Project: 9710053/Philips Semi Conductor

Results for sample: Equip Blank

Date collected: 10/17/97	Date received: 10/17/97
Date extracted: 10/20,30/97	Date analyzed: 10/27,30/97
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: Philips Semi Conductor	HEAL #: 9710053-1
Project Manager: Rich Meixner	Sampled by: T. Deeds
Matrix: Aqueous	

Test: EPA 8310

Compound	Result	Detection limit	Units
Naphthalene	nd	2.5	PPB (μg/L)
1-Methyl naphthalene	nd	2.5	PPB (μg /L)
2-Methyl naphthalene	nd	2.5	PPB (μg /L)
Acenaphthylene	nd	2.5	PPB (μg /L)
Acenaphthene	nd	2.5	PPB (μg /L)
Fluorene	nd	0.20	PPB (μg /L)
Phenanthrene	nd	0.60	PPB (μg /L)
Anthracene	nd	0.60	PPB (μg /L)
Fluoranthene	nd	0.30	PPB (μg /L)
Pyrene	nd	0.30	PPB (μg /L)
Benzo(a)anthracene	nd	0.02	PPB (μg /L)
Chrysene	nd	0.20	PPB (μg /L)
Benzo(b)fluoranthene	nd	0.02	PPB (μg /L)
Benzo(k)fluoranthene	nd	0.02	PPB (μg /L)
Benzo(a)pyrene	nd	0.02	PPB (μg /L)
Dibenzo(a,h)anthracene	nd	0.04	PPB (μg /L)
Benzo(g,h,i)perylene	nd	0.03	PPB (μg /L)
Indeno(1,2,3-cd)pyrene	nd	0.08	PPB (μg /L)

Benzo(e)pyrene (Surrogate) Recovery = 98 % Dilution Factor = 1

Test: EPA 504

Compound	Result	Units
EDB	<0.01	PPB (μg/L)
DBCP	<0.01	PPB (μg/L)

Dilution Factor = 1

Results for sample: NCLF-4

Date collected: 10/17/97	Date received: 10/17/97
Date extracted: 10/20/97	Date analyzed: 10/27/97
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: Philips Semi Conductor	HEAL #: 9710053-2
Project Manager: Rich Meixner	Sampled by: T. Deeds
Matrix: Aqueous	

Test: EPA 8310

Compound	Result	Detection limit	Units
Naphthalene	nd	2.5	PPB (µg/L)
1-Methyl naphthalene	nd	2.5	PPB (µg /L)
2-Methyl naphthalene	nd	2.5	PPB (µg /L)
Acenaphthylene	nd	2.5	PPB (µg /L)
Acenaphthene	nd	2.5	PPB (µg /L)
Fluorene	nd	0.20	PPB (µg /L)
Phenanthrene	nd	0.60	PPB (µg /L)
Anthracene	nd	0.60	PPB (µg /L)
Fluoranthene	nd	0.30	PPB (µg /L)
Pyrene	nd	0.30	PPB (µg /L)
Benzo(a)anthracene	nd	0.02	PPB (µg /L)
Chrysene	nd	0.20	PPB (µg /L)
Benzo(b)fluoranthene	nd	0.02	PPB (µg /L)
Benzo(k)fluoranthene	nd	0.02	PPB (µg /L)
Benzo(a)pyrene	nd	0.02	PPB (µg /L)
Dibenzo(a,h)anthracene	nd	0.04	PPB (µg /L)
Benzo(g,h,i)perylene	nd	0.03	PPB (µg /L)
Indeno(1,2,3-cd)pyrene	nd	0.08	PPB (µg /L)

Benzo(e)pyrene (Surrogate) Recovery = 100 % Dilution Factor = 1

Results for QC: Extraction Blank

Date extracted: 10/20/97	Date analyzed: 10/27/97
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: Philips Semi Conductor	HEAL #: EB 10/20
Project Manager: Rich Meixner	Sampled by: T. Deeds
Matrix: Aqueous	

Test: EPA 8310

Compound	Result	Detection limit	Units
Naphthalene	nd	2.5	PPB (µg/L)
1-Methyl naphthalene	nd	2.5	PPB (µg /L)
2-Methyl naphthalene	nd	2.5	PPB (µg /L)
Acenaphthylene	nd	2.5	PPB (µg /L)
Acenaphthene	nd	2.5	PPB (µg /L)
Fluorene	nd	0.20	PPB (µg /L)
Phenanthrene	nd	0.60	PPB (µg /L)
Anthracene	nd	0.60	PPB (µg /L)
Fluoranthene	nd	0.30	PPB (µg /L)
Pyrene	nd	0.30	PPB (µg /L)
Benzo(a)anthracene	nd	0.02	PPB (µg /L)
Chrysene	nd	0.20	PPB (µg /L)
Benzo(b)fluoranthene	nd	0.02	PPB (µg /L)
Benzo(k)fluoranthene	nd	0.02	PPB (µg /L)
Benzo(a)pyrene	nd	0.02	PPB (µg /L)
Dibenzo(a,h)anthracene	nd	0.04	PPB (µg /L)
Benzo(g,h,i)perylene	nd	0.03	PPB (µg /L)
Indeno(1,2,3-cd)pyrene	nd	0.08	PPB (µg /L)

Benzo(e)pyrene (Surrogate) Recovery = 103 % Dilution Factor = 1

Results for sample: NCLF-4

Date collected: 10/17/97	Date received: 10/17/97
Date extracted: 10/30/97	Date analyzed: 10/30/97
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: Philips Semi Conductor	HEAL #: 9710053-5
Project Manager: Rich Meixner	Sampled by: T. Deeds
Matrix: Aqueous	

Test: EPA 504

Compound	Result	Units
EDB	<0.01	PPB (μg/L)
DBCP	<0.01	PPB (μg/L)

Dilution Factor = 1

Results for sample: Trip Blank

Date collected: NA	Date received: NA
Date extracted: 10/30/97	Date analyzed: 10/30/97
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: Philips Semi Conductor	HEAL #: 9710053-7
Project Manager: Rich Meixner	Sampled by: T. Deeds
Matrix: Aqueous	

Test: EPA 504

Compound	Result	Units
EDB	<0.01	PPB (μg/L)
DBCP	<0.01	PPB (μg/L)

Dilution Factor = 1

Results for QC: Extraction Blank

Date extracted: 10/30/97	Date analyzed: 10/30/97
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: Philips Semi Conductor	HEAL #: EB 10/30
Project Manager: Rich Meixner	Sampled by: T. Deeds
Matrix: Aqueous	

Test: EPA 504

Compound	Result	Units
EDB	<0.01	PPB (μg/L)
DBCP	<0.01	PPB (μg/L)

Dilution Factor = 1

Results for QC: Matrix Spike/Matrix Spike Dup

Date extracted: 10/20,30/97	Date analyzed:10/27,30/97
Client: Daniel B. Stephens and Associates, Inc.	
Project Name: Philips Semi Conductor	HEAL #: 9710053-3,4 MS/MSD
Project Manager: Rich Meixner	9710053-6 MS/MSD
Matrix: Aqueous	UNITS: PPB(μg/L)

Test: EPA 8310

Compound	Sample Result	Amount Added	Matrix Spike	MS %	MS Dup	MSD %	RPD
Naphthalene	<2.5	51.4	33.2	65	30.9	60	7
Acenaphthylene	<2.5	46.5	28.5	61	28.1	60	1
Acenaphthene	<2.5	49.4	33.3	67	32.7	66	2
Fluorene	<0.2	29.9	19.2	64	19.1	64	1
Phenanthrene	<0.6	4.02	2.94	73	2.87	71	2
Flouroanthene	<0.3	2.43	2.01	83	1.84	76	9
Pyrene	<0.3	4.05	2.89	71	3.01	74	4
Benzo(a)pyrene	<0.02	0.248	0.224	90	0.214	86	5
Benzo(k) fluoranthene	<0.03	0.103	0.105	102	0.091	88	13

Test: EPA 504

Compound	Sample Result	Amount Added	Matrix Spike	MS %	MS Dup	MSD %	RPD
EDB	<0.01	0.10	0.126	126	0.124	124	2
DBCP	<0.01	0.10	0.102	102	0.101	101	1

CHAIN-OF-CUSTODY RECORD

HALL ENVIRONMENTAL ANALYSIS LABORATORY
2403 San Mateo NE, Suite P-13
Albuquerque, New Mexico 87110
505.880.1803

Client: DB Stephens + Assoc Inc

Address: 6020 Academy Suite 100
Alby NM 87109

Phone #: 822-9400

Fax #: 822-8877

Project Name: Philips Semi Conductor

Project #: 7004.4

Project Manager: Rich Meixner

Sampler: Terry Deets

Samples Cold? ☒ Yes ☐ No

ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative: $HgCl_2$	Preservative: HCl	Preservative: Other	HEAL No.	BTEX (Method 602/8020)	BTEX + MTBE (602/8020)	TPH Method 8015 MOD (Gas/Diesel)	BTEX + TPH + MTBE (Gasoline Only)	BTEX + MTBE + TPH (Gas + Diesel)	TPH (Method 418.1)	601/602 Volatiles	EDB (Method 504.1) + DBCP	EDC	610 (PNA or PAH)	8310 Benzo(a) Pyrene			Air Bubbles or Headspace (Y or N)
10/17/97	0845	H_2O	Equip Blank	1-1lt			None	9710053-1											X			Y
"	"	"	"	2-40ml		X		-1-2								X						N
"	1315	H_2O	NCLF4	1-1lt			X	-2-3											X			
	"	"	NCLF4 Matrix Spike	1-1lt			X	-3-4											X			
	"	"	NCLF4 MS Duplicate	1-1lt			X	-4-5											X			
10/17/97	1315	H_2O	NCLF4	2-40ml		X		-5-6								X						
"	"	"	NCLF4 Matrix Spike	2-40ml		X		-6-7								X						
			DS Trip Blk	1-40ml		X		-7 DS								X						

Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)
10/17/97	1558	[signature]	[signature]
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)

Remarks: