

2 September, 2003

Bruce Lewis
Environmental Resources Management
2525 Natomas Park Drive, Suite 350
Sacramento, CA 95833

RE: Aerojet RI/FS
Work Order: P308354

Enclosed are the results of analyses for samples received by the laboratory on 08/19/03 16:01. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Angelee Cari
Project Manager

CA ELAP Certificate #2374

Environmental Resources Management
 2525 Natomas Park Drive, Suite 350
 Sacramento CA, 95833

Project: Aerojet RI/FS
 Project Number: RI-FS
 Project Manager: Bruce Lewis

P308354
Reported:
 09/02/03 15:52

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
10D-SS10	P308354-01	Soil	07/15/03 13:45	08/19/03 16:01
10D-SS21	P308354-02	Soil	07/15/03 14:00	08/19/03 16:01
10D-SS22	P308354-03	Soil	07/15/03 14:05	08/19/03 16:01

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DI STLC CAM Metals by EPA 6000/7000 Series Methods
Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
10D-SS10 (P308354-01) Soil Sampled: 07/15/03 13:45 Received: 08/19/03 16:01									
Silver	ND	0.035	mg/l	1	3080432	08/22/03	08/23/03	EPA 6010B	
Arsenic	ND	0.50	"	"	"	"	"	"	
Barium	0.12	0.050	"	"	"	"	"	"	
Beryllium	ND	0.0050	"	"	"	"	"	"	
Cadmium	ND	0.050	"	"	"	"	"	"	
Chromium	ND	0.050	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.0050	"	"	3080419	08/25/03	08/28/03	EPA 7196	HT-05
Copper	ND	0.050	"	"	3080432	08/22/03	08/23/03	EPA 6010B	
Mercury	ND	0.00025	"	"	3080361	08/25/03	08/25/03	EPA 7470A	HT-05
Manganese	ND	0.050	"	"	3080432	08/22/03	08/23/03	EPA 6010B	
Nickel	ND	0.15	"	"	"	"	"	"	
Lead	ND	0.38	"	"	"	"	"	"	
Zinc	0.40	0.10	"	"	"	"	"	"	
10D-SS21 (P308354-02) Soil Sampled: 07/15/03 14:00 Received: 08/19/03 16:01									
Silver	ND	0.035	mg/l	1	3080432	08/22/03	08/23/03	EPA 6010B	
Arsenic	ND	0.50	"	"	"	"	"	"	
Barium	0.29	0.050	"	"	"	"	"	"	
Beryllium	ND	0.0050	"	"	"	"	"	"	
Cadmium	ND	0.050	"	"	"	"	"	"	
Chromium	ND	0.050	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.0050	"	"	3080419	08/25/03	08/28/03	EPA 7196	HT-05
Copper	ND	0.050	"	"	3080432	08/22/03	08/23/03	EPA 6010B	
Mercury	ND	0.00025	"	"	3080361	08/25/03	08/25/03	EPA 7470A	HT-05
Manganese	0.075	0.050	"	"	3080432	08/22/03	08/23/03	EPA 6010B	
Nickel	ND	0.15	"	"	"	"	"	"	
Lead	ND	0.38	"	"	"	"	"	"	
Zinc	2.0	0.10	"	"	"	"	"	"	

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DI STLC CAM Metals by EPA 6000/7000 Series Methods
Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
10D-SS22 (P308354-03) Soil Sampled: 07/15/03 14:05 Received: 08/19/03 16:01									
Silver	ND	0.035	mg/l	1	3080432	08/22/03	08/23/03	EPA 6010B	
Arsenic	ND	0.50	"	"	"	"	"	"	
Barium	0.14	0.050	"	"	"	"	"	"	
Beryllium	ND	0.0050	"	"	"	"	"	"	
Cadmium	ND	0.050	"	"	"	"	"	"	
Chromium	ND	0.050	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.0050	"	"	3080419	08/25/03	08/28/03	EPA 7196	HT-05
Copper	ND	0.050	"	"	3080432	08/22/03	08/23/03	EPA 6010B	
Mercury	ND	0.00025	"	"	3080361	08/25/03	08/25/03	EPA 7470A	HT-05
Manganese	ND	0.050	"	"	3080432	08/22/03	08/23/03	EPA 6010B	
Nickel	ND	0.15	"	"	"	"	"	"	
Lead	ND	0.38	"	"	"	"	"	"	
Zinc	0.94	0.10	"	"	"	"	"	"	

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DI STLC CAM Metals by EPA 6000/7000 Series Methods - Quality Control
Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3080361 - EPA 245/7470A

Blank (3080361-BLK1)				Prepared & Analyzed: 08/25/03						
Mercury	ND	0.00025	mg/l							
Laboratory Control Sample (3080361-BS1)				Prepared & Analyzed: 08/25/03						
Mercury	0.00761	0.00025	mg/l	0.00796		96	80-120			
Matrix Spike (3080361-MS1)				Prepared & Analyzed: 08/25/03						
Mercury	0.00737	0.00025	mg/l	0.00796	0.00012	91	80-120			
Matrix Spike Dup (3080361-MSD1)				Prepared & Analyzed: 08/25/03						
Mercury	0.00734	0.00025	mg/l	0.00796	0.00012	91	80-120	0.4	20	

Batch 3080419 - General Preparation

Blank (3080419-BLK1)				Prepared: 08/25/03 Analyzed: 08/28/03						
Hexavalent Chromium	ND	0.0050	mg/l							
Laboratory Control Sample (3080419-BS1)				Prepared: 08/25/03 Analyzed: 08/28/03						
Hexavalent Chromium	0.0978	0.0050	mg/l	0.100		98	80-120			
Matrix Spike (3080419-MS1)				Prepared: 08/25/03 Analyzed: 08/28/03						
Hexavalent Chromium	0.0518	0.0050	mg/l	0.100	ND	52	75-125			Q-LIM
Matrix Spike Dup (3080419-MSD1)				Prepared: 08/25/03 Analyzed: 08/28/03						
Hexavalent Chromium	0.0538	0.0050	mg/l	0.100	ND	54	75-125	4	20	Q-LIM

Batch 3080432 - Title 22-STLC

Blank (3080432-BLK1)				Prepared: 08/22/03 Analyzed: 08/23/03						
Arsenic	ND	0.50	mg/l							
Barium	ND	0.050	"							
Beryllium	ND	0.0050	"							
Cadmium	ND	0.050	"							
Chromium	ND	0.050	"							
Copper	ND	0.050	"							
Lead	ND	0.38	"							
Manganese	ND	0.050	"							
Nickel	ND	0.15	"							
Silver	ND	0.035	"							
Zinc	ND	0.10	"							

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DI STLC CAM Metals by EPA 6000/7000 Series Methods - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3080432 - Title 22-STLC
Laboratory Control Sample (3080432-BS1)

Prepared: 08/22/03 Analyzed: 08/23/03

Arsenic	2.51	0.50	mg/l	2.50		100	80-120			
Barium	2.65	0.050	"	2.50		106	80-120			
Beryllium	0.258	0.0050	"	0.250		103	80-120			
Cadmium	0.251	0.050	"	0.250		100	80-120			
Chromium	2.61	0.050	"	2.50		104	80-120			
Copper	2.66	0.050	"	2.50		106	80-120			
Lead	2.53	0.38	"	2.50		101	80-120			
Manganese	2.55	0.050	"	2.50		102	80-120			
Nickel	2.56	0.15	"	2.50		102	80-120			
Silver	0.264	0.035	"	0.250		106	80-120			
Zinc	2.54	0.10	"	2.50		102	80-120			

Matrix Spike (3080432-MS1)

Source: P308355-01

Prepared: 08/22/03 Analyzed: 08/23/03

Arsenic	2.70	0.50	mg/l	2.50	ND	108	80-120			
Barium	2.67	0.050	"	2.50	0.054	105	80-120			
Beryllium	0.264	0.0050	"	0.250	ND	106	80-120			
Cadmium	0.277	0.050	"	0.250	ND	111	80-120			
Chromium	2.66	0.050	"	2.50	ND	106	80-120			
Copper	2.63	0.050	"	2.50	ND	105	80-120			
Lead	2.65	0.38	"	2.50	ND	106	80-120			
Manganese	2.61	0.050	"	2.50	0.015	104	80-120			
Nickel	2.59	0.15	"	2.50	ND	104	80-120			
Silver	0.268	0.035	"	0.250	ND	107	80-120			
Zinc	3.94	0.10	"	2.50	1.4	102	80-120			

Matrix Spike Dup (3080432-MSD1)

Source: P308355-01

Prepared: 08/22/03 Analyzed: 08/23/03

Arsenic	3.32	0.50	mg/l	2.50	ND	133	80-120	21	20	QM-07, QR-07
Barium	3.09	0.050	"	2.50	0.054	121	80-120	15	20	QM-07
Beryllium	0.320	0.0050	"	0.250	ND	128	80-120	19	20	QM-07
Cadmium	0.309	0.050	"	0.250	ND	124	80-120	11	20	QM-07
Chromium	3.21	0.050	"	2.50	ND	128	80-120	19	20	QM-07
Copper	3.05	0.050	"	2.50	ND	122	80-120	15	20	QM-07
Lead	3.17	0.38	"	2.50	ND	127	80-120	18	20	QM-07
Manganese	3.14	0.050	"	2.50	0.015	125	80-120	18	20	QM-07
Nickel	3.21	0.15	"	2.50	ND	128	80-120	21	20	QR-07, QM-07
Silver	0.313	0.035	"	0.250	ND	125	80-120	15	20	QM-07

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DI STLC CAM Metals by EPA 6000/7000 Series Methods - Quality Control
Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3080432 - Title 22-STLC

Matrix Spike Dup (3080432-MSD1)	Source: P308355-01		Prepared: 08/22/03		Analyzed: 08/23/03					
Zinc	4.59	0.10	mg/l	2.50	1.4	128	80-120	15	20	QM-07

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Notes and Definitions

- HT-05 This sample was requested to be analyzed beyond the EPA recommended holding time. The results may be useful for their intended purpose.
- Q-LIM The percent recovery was outside of the control limits. The samples results may still be useful for their intended purpose.
- QM-07 The spike recovery was outside control limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- QR-07 The RPD was outside control limits. The results may still be useful for their intended purpose.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

Chain of Custody Record

ME 1098

ET.R. NO: WORK ORDER NO:

SOURCE SITE NO: AUGER HOLE NO:

SAMPLERS (SIGNATURE): *[Signature]*

OCG SAMPLE ID	FIELD SAMPLE NO.	DEPTH (FT.)	DATE MM/DD/YY	TIME	TYPE OF CONTAINER	# OF SAMPLE CONTAINERS	SOIL TYPE (USCS CODE)	REQUESTED SAMPLE ANALYSES				LABORATORY QA/QC	REMARKS				
								VOLATILE ORGANICS EPA 8240	BNA's EPA 8270 C	METALS EPA 6010	PERCHLORATE EDL-SW-006	Cr ⁶	Thallium	WET (TINE 2 LCR)	WET LEACHATE (6010)		
1098 A	C15-SS07	0.5	07/15/03	1130	3x3" 800s	2			X	X	X	X				307335-1	
1098 B	C15-SS06	0.5	07/15/03	1145	"	2			X	X	X	X					
1098 C	C15-SS05	0.5	07/15/03	1200	"	2			X	X	X	X					
1098 D	C15-SS08	0.5	07/15/03	1320	"	2			X	X	X	X					
1098 E	C15-SS09	0.5	07/15/03	1345	"	1											
1098 F	10D-SS21	0.5	07/15/03	1400	"	1							X			10D-SS10	
1098 G	10D-SS22	0.5	07/15/03	1405	"	1							X				
1098 H	C4-SNS01	0.5	07/15/03	0650	"	2			X	X							
1098 I	C4-SNS02	0.5	07/16/03	0710	"	2			X	X							
1098 J	A2D-BML01	2.0	07/16/03	1020	"	3			X	X	X	X					
1098 K	A2D-BML02	2.0	07/16/03	1100	"	3			X	X	X	X					
1098 L	A2D-BML04	2.0	07/16/03	1150	"	3			X	X	X	X					
1098 M	A2D-BML03	2.0	07/16/03	1200	"	3			X	X	X	X					
1098 N																	
1098 O																	
1098 P																	
1098 Q																	
TOTALS																	

RELINQUISHED BY: (SIGNATURE) *[Signature]* DATE/TIME 7/16/03 1405 RECEIVED BY: (SIGNATURE) *[Signature]* DATE/TIME 7/16/03 1426

RELINQUISHED BY: (SIGNATURE) *[Signature]* DATE/TIME 7/16/03 1426 RECEIVED BY: (SIGNATURE) *[Signature]* DATE/TIME 7/16/03 1426

RELINQUISHED BY: (SIGNATURE) *[Signature]* DATE/TIME 7/17/03 1230 RECEIVED BY: (SIGNATURE) *[Signature]* DATE/TIME 7/17/03 1230

COMMENTS: *[Handwritten notes]*

LABORATORY DELIVERED TO: *[Handwritten: FROM SEQUA ANALYTICAL]*

METHOD OF SHIPMENT: *[Handwritten: HAND]*

COOLER CUSTODY: SEAT INTACT NOT INTACT COOLER TEMPERATURE: *[Handwritten: 36]*

TOTAL NO. OF SAMPLE CONTAINERS: *[Handwritten: 27]*