

Applied P & Ch Laboratories
Project: JPL, #3484

ATL Work Order: 063531



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Applied P & Ch Laboratory

13760 Magnolia Ave. Chino CA 91710
 Tel: (909) 590-1828 Fax: (909) 590-1498

Subcontract Chain of Custody

Please Print in pen Page of

Subcontract Lab: ATL Contact: Pavi Tel #: 562-989-4045 Fax #: 562-989-4040
 Address: 3275 Walnut Ave. City: Signal Hill State: CA Zip code: 90807
 APCL Client: # 3484 APCL Contact: Leo William

Project Name/Code: JPL Job #:
 BILL TO APCL Sub Quotation #:
 Due Date: Regular Rush: days hours Sampled by: Leo William

Field Sample ID No.	Sample Description	Date Collected	Sample Matrix	Preservation	# of Containers	Analysis	Items	Remarks
MW-22-5		5/8/03 0800	W	HNO ₃	500ml	X	X	Level 4 X phg
MW-22-4		0840				X	X	incl EDD
MW-22-3		0925				X	X	
MW-22-2		1000				X	X	
MW-22-1		1105			2x500ml	X	X	
EB-12-5/8/03		0850			500ml	X	X	
MW-18-5		5/13/03 0810				X	X	
MW-18-4		0925				X	X	
MW-18-3		1010				X	X	
MW-18-2		1050				X	X	
MW-18-1		1130				X	X	
EP-13-5/19/03		1020				X	X	
Dupe-72803						X	X	
MW-13		5/27/03 0830				X	X	
MW-10		1050				X	X	

QC Requirement: Regular; QA/QC Report; WIP; Raw Data; Extended Raw Data CLP; ACE AFCEE NEBSA (E, C or D); Other (Please specify)

Sample Disposal: Return Disposal by APCL Hold for days after receiving date. If not specified, samples will be discarded 45 days after samples are received.

Sample Conditions: Intact; Broken. Cooler Seal: Intact; Broken; None. Tag # Temperature: Room Cold (5.4°C)

Relinquished by [Signature] Date/Time 6/25/03 1700 Received by [Signature] Date/Time 6/26/03 2112M

Relinquished by Date/Time Received by Date/Time

APCL USE ONLY Service #
 Note:
 Clients understand that all terms described in the proposals, quotations for this project, and/or the general terms provided in the current APCL price schedules will be followed. APCL reserves the right to terminate its service or withhold delivery of any reports, if in APCL's sole discretion the terms of the project have been broken.

Applied P & Ch Laboratory

13760 Magnolia Ave. Chino CA 91710
 Tel: (909) 590-1828 Fax: (909) 590-1498

Subcontract Chain of Custody

Please Print in pen Page of

Subcontract Lab: ATL Contact: Puki Tel #: 562 989-4045 Fax #: 562 989-4040
 Address: 3215 Walnut Ave. City: Signal Hill State: CA Zip code: 90807
 APCL Client: # APCL Contact:

Project Name/Code: Job #: Analysis Items:
 BILL TO APCL Sub Quotation #:

Due Date: Regular rush: days hours Sampled by:

Field Sample ID No.	Sample Description	Date Collected	Sample Matrix	Preservation	# of Containers	Analysis Items	Remarks
MW-5		5/28/03 0830	U	HMB	500ml	Cr 200.8	Level 4 pkg
MW-8		↓ 1115			500ml		encl EDD
MW-6		5/29/03 1025			2500ml		← MS/MSD
MW-7		↓ 1220			2500ml		← MS/MSD
MW-15		↓ 1215			500ml		
MW-10		5/29/03 0735					
MW-1		↓ 0950					
MW-9		↓ 1150					

QC Requirement: Regular; QA/QC Report; WIP; Raw Data; Extended Raw Data CLP; ACE AFCEE NEESA (E, C or D); Other (Please specify)

Sample Disposal: Return Disposal by APCL Hold for days after receiving date. If not specified, samples will be discarded 45 days after samples are received.

Sample Conditions: Intact; Broken. Cooler Seal: Intact; Broken; None. Tag # Temperature: Room Cold (5/4 °C)

Relinquished by [Signature] Date/Time 6/25/03 1700 Received by [Signature] Date/Time 6/25/03 2100pm
 Relinquished by Date/Time Received by Date/Time

APCL USE ONLY Service # Note:

APCL Form 4-101, Ver. 4.0, Jan. 17, 2000
 Clients understand that all terms described in the proposals, quotations for this project, and/or the general terms provided in the current APCL price schedules will be followed. APCL reserves the right to terminate its service or withhold delivery of any reports, if in APCL's sole discretion the terms of the project have been broken.

CLIENT: Applied P & Ch Laboratories
Project: JPL, #3484
Lab Order: 063531
Contract No:

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
063531-001A	MW-22-5	Water	5/8/2003	6/26/2003	7/3/2003
063531-002A	MW-22-4	Water	5/8/2003	6/26/2003	7/3/2003
063531-003A	MW-22-3	Water	5/8/2003	6/26/2003	7/3/2003
063531-004A	MW-22-2	Water	5/8/2003	6/26/2003	7/3/2003
063531-005A	MW-22-1	Water	5/8/2003	6/26/2003	7/3/2003
063531-006A	EB-12-5/8/03	Water	5/8/2003	6/26/2003	7/3/2003
063531-007A	MW-18-5	Water	5/13/2003	6/26/2003	7/3/2003
063531-008A	MW-18-4	Water	5/13/2003	6/26/2003	7/3/2003
063531-009A	MW-18-3	Water	5/13/2003	6/26/2003	7/3/2003
063531-010A	MW-18-2	Water	5/13/2003	6/26/2003	7/3/2003
063531-011A	MW-18-1	Water	5/13/2003	6/26/2003	7/3/2003
063531-012A	EB-13-5/13/03	Water	5/13/2003	6/26/2003	7/3/2003
063531-013A	Dupe-72Q03	Water	5/13/2003	6/26/2003	7/3/2003
063531-014A	MW-13	Water	5/27/2003	6/26/2003	7/3/2003
063531-015A	MW-16	Water	5/27/2003	6/26/2003	7/3/2003
063531-016A	MW-5	Water	5/28/2003	6/26/2003	7/3/2003
063531-017A	MW-8	Water	5/28/2003	6/26/2003	7/3/2003
063531-018A	MW-6	Water	5/29/2003	6/26/2003	7/3/2003
063531-019A	MW-7	Water	5/29/2003	6/26/2003	7/3/2003
063531-020A	MW-15	Water	5/29/2003	6/26/2003	7/3/2003
063531-021A	MW-10	Water	5/30/2003	6/26/2003	7/3/2003
063531-022A	MW-1	Water	5/30/2003	6/26/2003	7/3/2003
063531-023A	MW-9	Water	5/30/2003	6/26/2003	7/3/2003



CLIENT: Applied P & Ch Laboratories

Project: JPL, #3484

Lab Order: 063531

CASE NARRATIVE

QC Batch R28956 (EPA 200.8)

Matrix Spike (MS) and /or Matrix Spike Duplicate (MSD) are outside recovery criteria; however, the analytical batch was validated by the Laboratory Control Sample (LCS).

005



Advanced Technology Laboratories

Date: 03-Jul-03

CLIENT: Applied P & Ch Laboratories
Project: JPL, #3484

Lab Order: 063531

Lab ID: 063531-001 **Collection Date:** 5/8/2003 8:00:00 AM
Client Sample ID: MW-22-5 **Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_030702A	QC Batch: R28956	PrepDate:	Analyst: NS		
Chromium	ND	1.0	µg/L	1	7/2/2003
Lead	ND	1.0	µg/L	1	7/2/2003

Lab ID: 063531-002 **Collection Date:** 5/8/2003 8:40:00 AM
Client Sample ID: MW-22-4 **Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_030702A	QC Batch: R28956	PrepDate:	Analyst: NS		
Chromium	2.4	1.0	µg/L	1	7/2/2003
Lead	ND	1.0	µg/L	1	7/2/2003

Lab ID: 063531-003 **Collection Date:** 5/8/2003 9:25:00 AM
Client Sample ID: MW-22-3 **Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_030702A	QC Batch: R28956	PrepDate:	Analyst: NS		
Chromium	ND	1.0	µg/L	1	7/2/2003
Lead	ND	1.0	µg/L	1	7/2/2003

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank E - Value above quantitation range
 * - Value exceeds Maximum Contaminant Level H-Sample exceeding holding time

Results are wet unless otherwise specified

006



Advanced Technology Laboratories

Date: 03-Jul-03

CLIENT: Applied P & Ch Laboratories
Project: JPL, #3484

Lab Order: 063531

Lab ID: 063531-004 **Collection Date:** 5/8/2003 10:00:00 AM
Client Sample ID: MW-22-2 **Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_030702A	QC Batch: R28956	PrepDate:	Analyst: NS		
Chromium	ND	1.0	µg/L	1	7/2/2003
Lead	ND	1.0	µg/L	1	7/2/2003

Lab ID: 063531-005 **Collection Date:** 5/8/2003 11:05:00 AM
Client Sample ID: MW-22-1 **Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_030702A	QC Batch: R28956	PrepDate:	Analyst: NS		
Chromium	1.9	1.0	µg/L	1	7/2/2003
Lead	ND	1.0	µg/L	1	7/2/2003

Lab ID: 063531-006 **Collection Date:** 5/8/2003 8:50:00 AM
Client Sample ID: EB-12-5/8/03 **Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_030702A	QC Batch: R28956	PrepDate:	Analyst: NS		
Chromium	ND	1.0	µg/L	1	7/2/2003
Lead	ND	1.0	µg/L	1	7/2/2003

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank E - Value above quantitation range
 * - Value exceeds Maximum Contaminant Level H-Sample exceeding holding time

Results are wet unless otherwise specified

007



Advanced Technology Laboratories

Date: 03-Jul-03

CLIENT: Applied P & Ch Laboratories
Project: JPL, #3484

Lab Order: 063531

Lab ID: 063531-007 **Collection Date:** 5/13/2003 8:10:00 AM
Client Sample ID: MW-18-5 **Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_030702A	QC Batch: R28956	PrepDate:	Analyst: NS		
Chromium	ND	1.0	µg/L	1	7/2/2003
Lead	ND	1.0	µg/L	1	7/2/2003

Lab ID: 063531-008 **Collection Date:** 5/13/2003 9:25:00 AM
Client Sample ID: MW-18-4 **Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_030702A	QC Batch: R28956	PrepDate:	Analyst: NS		
Chromium	2.0	1.0	µg/L	1	7/2/2003
Lead	ND	1.0	µg/L	1	7/2/2003

Lab ID: 063531-009 **Collection Date:** 5/13/2003 10:10:00 AM
Client Sample ID: MW-18-3 **Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_030702A	QC Batch: R28956	PrepDate:	Analyst: NS		
Chromium	5.4	1.0	µg/L	1	7/2/2003
Lead	ND	1.0	µg/L	1	7/2/2003

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank E - Value above quantitation range
 * - Value exceeds Maximum Contaminant Level H-Sample exceeding holding time

Results are wet unless otherwise specified

008



Advanced Technology Laboratories

Date: 03-Jul-03

CLIENT: Applied P & Ch Laboratories
Project: JPL, #3484

Lab Order: 063531

Lab ID: 063531-010 **Collection Date:** 5/13/2003 10:50:00 AM
Client Sample ID: MW-18-2 **Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_030702A	QC Batch: R28956	PrepDate:	Analyst: NS		
Chromium	ND	1.0	µg/L	1	7/2/2003
Lead	ND	1.0	µg/L	1	7/2/2003

Lab ID: 063531-011 **Collection Date:** 5/13/2003 11:30:00 AM
Client Sample ID: MW-18-1 **Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_030702A	QC Batch: R28956	PrepDate:	Analyst: NS		
Chromium	ND	1.0	µg/L	1	7/2/2003
Lead	ND	1.0	µg/L	1	7/2/2003

Lab ID: 063531-012 **Collection Date:** 5/13/2003 10:20:00 AM
Client Sample ID: EB-13-5/13/03 **Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_030702A	QC Batch: R28956	PrepDate:	Analyst: NS		
Chromium	1.1	1.0	µg/L	1	7/2/2003
Lead	ND	1.0	µg/L	1	7/2/2003

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank E - Value above quantitation range
 * - Value exceeds Maximum Contaminant Level H-Sample exceeding holding time

Results are wet unless otherwise specified

009



Advanced Technology Laboratories

Date: 03-Jul-03

CLIENT: Applied P & Ch Laboratories
Project: JPL, #3484

Lab Order: 063531

Lab ID: 063531-013
Client Sample ID: Dupe-72Q03

Collection Date: 5/13/2003
Matrix: WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_030702A	QC Batch: R28956	PrepDate:	Analyst: NS		
Chromium	2.2	1.0	µg/L	1	7/2/2003
Lead	ND	1.0	µg/L	1	7/2/2003

Lab ID: 063531-014
Client Sample ID: MW-13

Collection Date: 5/27/2003 8:30:00 AM
Matrix: WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_030702A	QC Batch: R28956	PrepDate:	Analyst: NS		
Chromium	16	1.0	µg/L	1	7/2/2003
Lead	ND	1.0	µg/L	1	7/2/2003

Lab ID: 063531-015
Client Sample ID: MW-16

Collection Date: 5/27/2003 10:50:00 AM
Matrix: WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_030702A	QC Batch: R28956	PrepDate:	Analyst: NS		
Chromium	4.5	1.0	µg/L	1	7/2/2003
Lead	ND	1.0	µg/L	1	7/2/2003

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank E - Value above quantitation range
 * - Value exceeds Maximum Contaminant Level H-Sample exceeding holding time

Results are wet unless otherwise specified



Advanced Technology Laboratories

Date: 03-Jul-03

CLIENT: Applied P & Ch Laboratories
Project: JPL, #3484

Lab Order: 063531

Lab ID: 063531-016 **Collection Date:** 5/28/2003 8:30:00 AM
Client Sample ID: MW-5 **Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_030702A	QC Batch: R28956	PrepDate:	Analyst: NS		
Chromium	3.1	1.0	µg/L	1	7/2/2003
Lead	ND	1.0	µg/L	1	7/2/2003

Lab ID: 063531-017 **Collection Date:** 5/28/2003 11:15:00 AM
Client Sample ID: MW-8 **Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_030702A	QC Batch: R28956	PrepDate:	Analyst: NS		
Chromium	1.4	1.0	µg/L	1	7/2/2003
Lead	ND	1.0	µg/L	1	7/2/2003

Lab ID: 063531-018 **Collection Date:** 5/29/2003 10:25:00 AM
Client Sample ID: MW-6 **Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_030702A	QC Batch: R28956	PrepDate:	Analyst: NS		
Chromium	7.1	1.0	µg/L	1	7/2/2003
Lead	ND	1.0	µg/L	1	7/2/2003

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank E - Value above quantitation range
 * - Value exceeds Maximum Contaminant Level H-Sample exceeding holding time

Results are wet unless otherwise specified



Advanced Technology Laboratories

Date: 03-Jul-03

CLIENT: Applied P & Ch Laboratories
Project: JPL, #3484

Lab Order: 063531

Lab ID: 063531-019 **Collection Date:** 5/29/2003 12:20:00 PM
Client Sample ID: MW-7 **Matrix:** WATER

Analyte **Result** **PQL** **Qual** **Units** **DF** **Date Analyzed**

ICP-MS METALS

EPA 200.8

RunID: ICP4_030702B QC Batch: R28957 PrepDate: Analyst: NS
Chromium 4.9 1.0 µg/L 1 7/2/2003
Lead ND 1.0 µg/L 1 7/2/2003

Lab ID: 063531-020 **Collection Date:** 5/29/2003 1:15:00 PM
Client Sample ID: MW-15 **Matrix:** WATER

Analyte **Result** **PQL** **Qual** **Units** **DF** **Date Analyzed**

ICP-MS METALS

EPA 200.8

RunID: ICP4_030702A QC Batch: R28956 PrepDate: Analyst: NS
Chromium 3.9 1.0 µg/L 1 7/2/2003
Lead ND 1.0 µg/L 1 7/2/2003

Lab ID: 063531-021 **Collection Date:** 5/30/2003 7:35:00 AM
Client Sample ID: MW-10 **Matrix:** WATER

Analyte **Result** **PQL** **Qual** **Units** **DF** **Date Analyzed**

ICP-MS METALS

EPA 200.8

RunID: ICP4_030702A QC Batch: R28956 PrepDate: Analyst: NS
Chromium 8.1 1.0 µg/L 1 7/2/2003
Lead ND 1.0 µg/L 1 7/2/2003

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits
J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank E - Value above quantitation range
* - Value exceeds Maximum Contaminant Level H-Sample exceeding holding time

Results are wet unless otherwise specified

012



Advanced Technology Laboratories

Date: 03-Jul-03

CLIENT: Applied P & Ch Laboratories
Project: JPL, #3484

Lab Order: 063531

Lab ID: 063531-022

Collection Date: 5/30/2003 9:50:00 AM

Client Sample ID: MW-1

Matrix: WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_030702B	QC Batch: R28957	PrepDate:	Analyst: NS		
Chromium	2.4	1.0	µg/L	1	7/2/2003
Lead	ND	1.0	µg/L	1	7/2/2003

Lab ID: 063531-023

Collection Date: 5/30/2003 11:50:00 AM

Client Sample ID: MW-9

Matrix: WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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ICP-MS METALS

EPA 200.8

RunID: ICP4_030702B	QC Batch: R28957	PrepDate:	Analyst: NS		
Chromium	4.3	1.0	µg/L	1	7/2/2003
Lead	ND	1.0	µg/L	1	7/2/2003

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank E - Value above quantitation range
 * - Value exceeds Maximum Contaminant Level H-Sample exceeding holding time

Results are wet unless otherwise specified



ATL Number: 063531

(EPA 200.8) BLANK *

Instrument ID: ICP 4
Date Digested: N/A
Digestion Method: N/A

Dilution Factor: 1
Matrix: Water
Date Analyzed: 07/02/2003

QC Batch Number: R28956

Analyte	DLR	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Preparation Blank	C
				1	C	2	C	3	C		
Chromium	1	0.208		0.132		0.042		0.086		0.104	
Lead	1	0.009		0.022		0.020		0.045		-0.001	

ATL Number: 063531

(EPA 200.8) BLANK *

Instrument ID: ICP 4
Date Digested: N/A
Digestion Method: N/A

Dilution Factor: 1
Matrix: Water
Date Analyzed: 07/02/2003

QC Batch Number: R28957

Analyte	DLR	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Preparation Blank		
				1	C	2	C	3	C		C	
Chromium	1	0.208		0.086		0.062					-0.129	
Lead	1	0.009		0.045		0.036					0.057	

015



Advanced Technology Laboratories

Advanced Technology
Laboratories

CLIENT: Applied P & Ch Laboratories
Work Order: 063531
Project: JPL, #3484

Date: 03-Jul-03

ANALYTICAL QC SUMMARY REPORT

TestCode: 200.8_W

Sample ID: MB-R28956	SampType: MBLK	TestCode: 200.8_W	Units: µg/L	Prep Date:	Run ID: ICP4_030702A						
Client ID: ZZZZZ	Batch ID: R28956	TestNo: EPA 200.8		Analysis Date: 7/2/2003	SeqNo: 436380						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	ND	1.0									
Lead	ND	1.0									

Sample ID: MB-R28957	SampType: MBLK	TestCode: 200.8_W	Units: µg/L	Prep Date:	Run ID: ICP4_030702B						
Client ID: ZZZZZ	Batch ID: R28957	TestNo: EPA 200.8		Analysis Date: 7/2/2003	SeqNo: 436387						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	ND	1.0									
Lead	ND	1.0									

Sample ID: LCS-R28956	SampType: LCS	TestCode: 200.8_W	Units: µg/L	Prep Date:	Run ID: ICP4_030702A						
Client ID: ZZZZZ	Batch ID: R28956	TestNo: EPA 200.8		Analysis Date: 7/2/2003	SeqNo: 436379						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	10.45	1.0	10	0	104	85	115	0	0	0	
Lead	10.07	1.0	10	0	101	85	115	0	0	0	

Sample ID: LCS-R28957	SampType: LCS	TestCode: 200.8_W	Units: µg/L	Prep Date:	Run ID: ICP4_030702B						
Client ID: ZZZZZ	Batch ID: R28957	TestNo: EPA 200.8		Analysis Date: 7/2/2003	SeqNo: 436386						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	10	1.0	10	0	100	85	115	0	0	0	
Lead	10.34	1.0	10	0	103	85	115	0	0	0	

Sample ID: 063531-005AMS	SampType: MS	TestCode: 200.8_W	Units: µg/L	Prep Date:	Run ID: ICP4_030702A						
Client ID: MW-22-1	Batch ID: R28956	TestNo: EPA 200.8		Analysis Date: 7/2/2003	SeqNo: 436360						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 R - RPD outside accepted recovery limits
 S - Spike Recovery outside accepted recovery limits
 B - Analyte detected in the associated Method Blank
 Calculations are based on raw values
 DO - Surrogate dilute out
 H - Sample exceeded holding time



CLIENT: Applied P & Ch Laboratories
Work Order: 063531
Project: JPL, #3484

ANALYTICAL QC SUMMARY REPORT

TestCode: 200.8_W

Sample ID: 063531-005AMS	SampType: MS	TestCode: 200.8_W	Units: µg/L	Prep Date:	Run ID: ICP4_030702A						
Client ID: MW-22-1	Batch ID: R28956	TestNo: EPA 200.8		Analysis Date: 7/2/2003	SeqNo: 436360						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	9.387	1.0	10	1.886	75	80	120	0	0	0	S
Lead	9.478	1.0	10	0	94.8	80	120	0	0	0	

Sample ID: 063531-018AMS	SampType: MS	TestCode: 200.8_W	Units: µg/L	Prep Date:	Run ID: ICP4_030702A						
Client ID: MW-6	Batch ID: R28956	TestNo: EPA 200.8		Analysis Date: 7/2/2003	SeqNo: 436375						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	14.83	1.0	10	7.127	77	80	120	0	0	0	S
Lead	9.566	1.0	10	0	95.7	80	120	0	0	0	

Sample ID: 063531-019AMS	SampType: MS	TestCode: 200.8_W	Units: µg/L	Prep Date:	Run ID: ICP4_030702B						
Client ID: MW-7	Batch ID: R28957	TestNo: EPA 200.8		Analysis Date: 7/2/2003	SeqNo: 436382						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	13.39	1.0	10	4.868	85.2	80	120	0	0	0	
Lead	9.939	1.0	10	0	99.4	80	120	0	0	0	

Sample ID: 063531-005AMS	SampType: MSD	TestCode: 200.8_W	Units: µg/L	Prep Date:	Run ID: ICP4_030702A						
Client ID: MW-22-1	Batch ID: R28956	TestNo: EPA 200.8		Analysis Date: 7/2/2003	SeqNo: 436361						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	9.279	1.0	10	1.886	73.9	80	120	9.387	1.16	20	S
Lead	9.557	1.0	10	0	95.6	80	120	9.478	0.830	20	

Sample ID: 063531-018AMS	SampType: MSD	TestCode: 200.8_W	Units: µg/L	Prep Date:	Run ID: ICP4_030702A						
Client ID: MW-6	Batch ID: R28956	TestNo: EPA 200.8		Analysis Date: 7/2/2003	SeqNo: 436376						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	14.95	1.0	10	7.127	78.3	80	120	14.83	0.839	20	S

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits DO- Surrogate dilute out
 J - Analyte detected below quantitation limits B - Analyte detected in the associated Method Blank H - Sample exceeded holding time
 R - RPD outside accepted recovery limits Calculations are based on raw values



CLIENT: Applied P & Ch Laboratories
Work Order: 063531
Project: JPL, #3484

ANALYTICAL QC SUMMARY REPORT

TestCode: 200.8_W

Sample ID: 063531-018AMSD	SampType: MSD	TestCode: 200.8_W	Units: µg/L	Prep Date:	Run ID: ICP4_030702A						
Client ID: MW-6	Batch ID: R28956	TestNo: EPA 200.8		Analysis Date: 7/2/2003	SeqNo: 436376						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	9.484	1.0	10	0	94.8	80	120	9.566	0.861	20	

Sample ID: 063531-019AMSD	SampType: MSD	TestCode: 200.8_W	Units: µg/L	Prep Date:	Run ID: ICP4_030702B						
Client ID: MW-7	Batch ID: R28957	TestNo: EPA 200.8		Analysis Date: 7/2/2003	SeqNo: 436383						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	13.45	1.0	10	4.868	85.8	80	120	13.39	0.432	20	
Lead	9.767	1.0	10	0	97.7	80	120	9.939	1.75	20	

Sample ID: 063531-005ADUP	SampType: DUP	TestCode: 200.8_W	Units: µg/L	Prep Date:	Run ID: ICP4_030702A						
Client ID: MW-22-1	Batch ID: R28956	TestNo: EPA 200.8		Analysis Date: 7/2/2003	SeqNo: 436388						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	1.802	1.0	0	0	0	0	0	1.886	4.56	30	
Lead	ND	1.0	0	0	0	0	0	0	0	30	

Sample ID: 063531-018ADUP	SampType: DUP	TestCode: 200.8_W	Units: µg/L	Prep Date:	Run ID: ICP4_030702A						
Client ID: MW-6	Batch ID: R28956	TestNo: EPA 200.8		Analysis Date: 7/2/2003	SeqNo: 436389						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	7.198	1.0	0	0	0	0	0	7.127	0.991	30	
Lead	ND	1.0	0	0	0	0	0	0	0	30	

Sample ID: 063531-019ADUP	SampType: DUP	TestCode: 200.8_W	Units: µg/L	Prep Date:	Run ID: ICP4_030702B						
Client ID: MW-7	Batch ID: R28957	TestNo: EPA 200.8		Analysis Date: 7/2/2003	SeqNo: 436406						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	4.852	1.0	0	0	0	0	0	4.868	0.329	30	
Lead	ND	1.0	0	0	0	0	0	0	0	30	

Qualifiers: ND - Not Detected at the Reporting Limit
 S - Spike Recovery outside accepted recovery limits
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 R - RPD outside accepted recovery limits
 DO - Surrogate dilute out
 H - Sample exceeded holding time
 Calculations are based on raw values

Test Code: 200.8_W

Test Number: EPA 200.8

Test Name: ICPMS METALS

Matrix: Aqueous Units: µg/L

**METHOD DETECTION /
REPORTING LIMITS**

Updated: 13-Feb-03

Type	Analyte	MDL	PQL
A	Aluminum	1.66	10
A	Antimony	0.0309	0.5
A	Arsenic	0.0309	1
A	Barium	0.0638	1
A	Beryllium	0.0349	0.5
A	Cadmium	0.0319	0.5
A	Calcium	10.5	50
A	Chromium	0.111	0.5
A	Cobalt	0.0353	0.5
A	Copper	0.0785	1
A	Iron	4.73	10
A	Lead	0.134	1
A	Magnesium	7.09	50
A	Manganese	0.216	1
A	Mercury	0.467	1
A	Molybdenum	0.0409	0.5
A	Nickel	0.0711	1
A	Potassium	8.66	50
A	Selenium	0.188	0.5
A	Silver	0.0377	0.5
A	Sodium	9.70	50
A	Thallium	0.0304	0.5
A	Tin	5.00	10
A	Vanadium	0.0606	1
A	Zinc	3.34	10



Method 200.8

Sample/Batch Report

User Name: Nancy
 Computer Name: ICPMS PE 6100
 Sample File: D:\ELAN\Sample\2003\July\030702.sam
 Report Date/Time: Wednesday, July 02, 2003 10:16:40

A/S Loc.	Batch ID	Sample ID	Description	Sample Type	Init. Quant.	Prep. Vol.	Aliquot Vol.	Diluted Vol.	Solids Ratio
7		ICV							
1		ICB							
9		MB							
10		LCS	> R28956	NS	7/2/03				
11		063531-001A							
12		063531-002A							
13		063531-003A							
14		063531-004A							
15		063531-005A							
16		063531-005ADUP							
17		063531-005AMS							
18		063531-005AMSD							
7		CCV							
8		CCB							
19		063531-006A							
20		063531-007A							
21		063531-008A							
22		063531-009A							
23		063531-010A							
24		063531-011A							
25		063531-012A							
26		063531-013A							
27		063531-014A							
28		063531-015A							
7		CCV							
8		CCB							
29		063531-016A							
30		063531-017A							
31		063531-018A							
32		063531-018ADUP							
33		063531-018AMS							
34		063531-018AMSD							
35		063531-020A							
36		063531-021A							
37		MB-	> R28957						
38		LCS-							
7		CCV							
8		CCB							
39		063531-019A							
40		063531-019ADUP							
41		063531-019AMS							
42		063531-019AMSD							
43		063531-022A							
44		063531-023A							
7		CCV							
8		CCB							

CAL: NST030702 B/20
 C/10
 D/5
 E/0.5

ICU/CCU: NST030702 G

LCS: NST030702 F

M/MSD: NST030702 A

ICP 4
 NS, 7/2/03

021

ICP-MS : Turbidity Check and Sample Preparation Log

QC Number: 12280956

Date Read / Digested: 7/2/03

Method (Circle one): 1) 200.8 Matrix (Circle one):
 1) Drinking Water
 2) 3010A
 3) 3050B
 4) 3051
 4) Soil
 5) Solid
 6) Other water

100 NTU: 10 NTU
 Std Code: SCA-0022
 Initials: WS

Acid Lot #
 Hydrochloric 12/A
 Nitric 12/A

Sample ID	Turbidity Result *	Sample Wt./Vol.	Spike / LCS Amt. Added	Spike / LCS Conc. (ppm)	Spike Code	Final Vol (ml)	Initials	Comments
MS 63531-005A/018A	0.09	10	0.10 mL	1 ppm	NST030702A	10	WS	
MSD 63531-005A/018A	-	-	-	-	-	-	-	-
Method Blank	-	-	-	-	-	-	-	-
LCS	-	-	0.10 mL	1 ppm	NST030702F	-	-	-
Blank MS	-	-	-	-	-	-	-	-
Blank MSD	-	-	-	-	-	-	-	-

1	63531-001A	0.12	10			10	WS	
2	-002	0.09						
3	-003	0.12						
4	-004	0.25						
5	-005	0.07						
6	-006	0.06						
7	-007	0.32						
8	-008	0.16						
9	-009	0.04						
10	-010	0.10						
11	-011	0.26						
12	-012	0.03						
13	-013	0.10						
14	-014	0.08						
15	-015	0.06						
16	-016	0.10						
17	-017	0.18						
18	-018	0.05						
19	-020	0.05						
20	-024	0.07						
DUP	63531-005A	0.09						
	63531-018A	0.06						

* Turbidity <1 NTU DOES NOT need sample preparation.

ICP-MS : Turbidity Check and Sample Preparation Log

QC Number: 028957

Date Read / Digested: 7/2/03

Method (Circle one): 200B Turb. Calibration Matrix (Circle one):
 1) 200B 100 NTU: 10.21M 1) Drinking Water 4) Soil
 2) 3010A Std Code: SCB-002 2) Ground Water 5) Solid
 3) 3050B Initials: WS 3) Liquid 6) Other written
 4) 3051

Sample ID	Turbidity Result *	Sample Wt./Vol.	Spike / LCS Amt. Added	Spike / LCS Conc. (ppm)	Spike Code	Final Vol (ml)	Initials	Comments
MS 63531-019A	0.13	10	0.10ml	1 ppm	P2030702A	10	WS	
MSD	-	-	-	-	-	-	-	-
Method Blank	-	-	-	-	-	-	-	-
LCS	-	-	0.10ml	1 ppm	N2030702F	10	WS	
Blank MS	-	-	-	-	-	-	-	-
Blank MSD	-	-	-	-	-	-	-	-
1 63531-019A	0.13	10				10	WS	
2 -022A	0.03							
3 -023A	0.36							
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
DUP 63531-019A	0.05	10				10	WS	

* Turbidity <1 NTU DOES NOT need sample preparation.

Instrument Tuning Report

File Name: 030702.tun
File Path: D:\ELAN\TUNING\2003\July

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
Be	9.012	9.026	2048	2040	0.751	
Mg	23.985	23.979	5694	2020	0.752	
Rh	102.905	102.928	24980	1955	0.780	
Ce	139.905	139.929	33967	2010	0.806	
Pb	207.977	207.979	50417	2270	0.789	
U	238.050	238.026	57615	2435	0.801	

n24

Daily Performance Report

Sample ID: 030702-daily

Sample Date/Time: Wednesday, July 02, 2003 09:44:44

Sample Description:

Method File: c:\elandata\Method\Daily.mth

Dataset File: d:\elan\daily performance\2003\july\030702-daily.010

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: c:\elandata\Optimize\default.dac

Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35

Current Dead Time (ns): 35

Summary

Analyte	Mass	Meas. Intens.	Mean	Net Intens.	Mean	Net Intens.	SD	Net Intens.	RSD
Mg	24.0	55618.4		55618.364		1172.464		2.1	
Rh	102.9	166374.5		166374.488		3189.923		1.9	
In	114.9	203541.6		203541.642		5208.013		2.6	
Pb	208.0	85889.6		85889.589		1902.495		2.2	
[> Ba	137.9	170809.5		170809.526		3060.149		1.8	
[Ba++	69.0	4493.4		0.026		0.000		1.2	
[> Ce	139.9	208749.5		208749.484		4302.774		2.1	
[CeO	155.9	5892.4		0.028		0.000		1.1	
Bkgd	220.0	3.2		3.233		0.480		14.9	

Current Optimization File Data

Current Value	Description
0.86	Nebulizer Gas Flow
7.00	Lens Voltage
1100.00	ICP RF Power
-1875.00	Analog Stage Voltage
1775.00	Pulse Stage Voltage
85.00	Discriminator Threshold
-1.50	AC Rod Offset
60.00	Service DAC 1
0.00	Quadrupole Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	5	5.5	5694.8
Co	59	5	6.0	101332.1
In	115	5	6.5	250316.0

025

ATL Number: 063531

(EPA 200.8) - INITIAL CALIBRATION

Instrument ID: ICP4

Date(s) Analyzed: 07/02/03

Initial Calibration:

ANALYTE	INTENSITY				r2
	LEVEL I	LEVEL II	LEVEL III	LEVEL IV	
CHROMIUM	20665.000	57905	99283	179085.000	0.999905
LEAD	2471.000	1855	35355	69441.000	0.999854

Standard Concentration:	0.5 ppb	5 ppb	10 ppb	20 ppb
Standard ID:	MST030702E	MST030702D	MST030702C	MST030702B

Calibration Acceptance Criteria: > 0.995 Correlation



ATL Number: 063531

**(EPA 200.8) INITIAL AND CONTINUING CALIBRATION VERIFICATION
(EXTERNAL REFERENCE STANDARD)**

Instrument ID: ICP4

Date Analyzed: 07/02/2003

Initial Calibration Verification: Source: LEEMAN LABS. Standard Code: MST030702G

Continuing Calibration Verification: LEEMAN LABS MST030702G

QC BATCH NO.: R28956

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration				
	True	Found	%R(1)	True	Found CCV1	%R(1)	Found CCV2	%R(1)
Chromium	10.0	10.263	103	10.0	9.839	98	9.662	97
Lead	10.0	9.933	99	10.0	10.331	103	10.312	103

ICV Limits: 90 -110%
CCV Limits: 85 -115%

ATL Number: 063531

(EPA 200.8) INITIAL AND CONTINUING CALIBRATION VERIFICATION
(EXTERNAL REFERENCE STANDARD)

Instrument ID: ICP4

Date Analyzed: 07/02/2003

Initial Calibration Verification: Source: LEEMAN LABS. Standard Code: MST030702G

Continuing Calibration Verification: LEEMAN LABS MST030702G

QC BATCH NO. R28956

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration				Found	%R(1)
	True	Found	%R(1)	True	Found CCV3	%R(1)	Found CCV4		
Chromium	10.0	10.263	103	10.0	9.937	99			
Lead	10.0	9.9330	99	10.0	10.360	104			

ICV Limits: 90 -110%
CCV Limits: 85 -115%



ATL Number: 063531

(EPA 200.8) INITIAL AND CONTINUING CALIBRATION VERIFICATION
(EXTERNAL REFERENCE STANDARD)

Instrument ID: ICP4

Date Analyzed: 07/02/2003

Initial Calibration Verification: Source: LEEMAN LABS. Standard Code: MST030702G

Continuing Calibration Verification: LEEMAN LABS MST030702G

QC BATCH NO. R28957

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration				
	True	Found	%R(1)	True	Found CCV1	%R(1)	Found CCV2	%R(1)
Chromium	10.0	10.263	103	10.0	9.937	99	9.960	100
Lead	10.0	9.9330	99	10.0	10.360	104	10.389	104

ICV Limits: 90 -110%
CCV Limits: 85 -115%



ATL Number: 063531

Instrument ID: ICP4 Internal Standard ID: MST030606A

Date Analyzed: 07/02/2003 Standard Concentration: 10 mg/L

QC Batch: R28956

Lab ID	Sample Description	Lithium		Sc		Ge		In		Terbium	
		Intensity	% Rec	Intensity	% Rec	Intensity	% Rec	Intensity	% Rec	Intensity	% Rec
	Calibration Blank		--	656991	--		---		---	1097775	---
MB-R28956	MB-R28956			653261	99					1090166	99
LCS-R28956	LCS-R28956			653297	99					1116668	102
063531-001A				772876	118					1121588	102
063531-002A				814689	124					1135475	103
063531-003A				794350	121					1132817	103
063531-004A				802364	122					1114564	102
063531-005A				777776	118					1092177	99
063531-005ADUP				757127	115					1078105	98
063531-005AMS				735575	112					1062831	97
063531-005AMSD				736738	112					1066796	97
063531-006A				608934	93					1040453	95
063531-007A				684289	104					1064138	97
063531-008A				705184	107					1069813	97
063531-009A				705238	107					1083626	99
063531-010A				694687	106					1070070	97
063531-011A				744428	113					1084138	99
063531-012A				631492	96					1073158	98
063531-013A				714560	109					1095447	100
063531-014A				773195	118					1082737	99
063531-015A				761248	116					1081807	99
063531-016A				709869	108					1082664	99

* Outside Acceptance Criteria
Acceptance Criteria: 60 - 125%



ATL Number: 063531

Instrument ID: ICP4 Internal Standard ID: MSI030606A

Date Analyzed: 07/02/2003 Standard Concentration: 10 mg/L

QC Batch: R28956

Lab ID	Sample Description	Lithium		Sc		Ge		In		Terbium	
		Intensity	% Rec	Intensity	% Rec	Intensity	% Rec	Intensity	% Rec	Intensity	% Rec
	Calibration Blank		---	656991	---		---		---	109775	---
063531-017A				718771	109					1087200	99
063531-018A				775354	118					1094198	100
063531-018ADUP				793818	121					1133247	103
063531-018AMS				791493	120					1139305	104
063531-018AMSD				801966	122					1151446	105
063531-020A				741578	113					1146947	104
063531-021A				768963	117					1143779	104

* Outside Acceptance Criteria
Acceptance Criteria: 60 - 125%



ATL Number: 063531

Instrument ID: ICP4 Internal Standard ID: MSI030606A

Date Analyzed: 07/02/2003 Standard Concentration: 10 mg/L

QC Batch: R28957

Lab ID	Sample Description	Lithium		Sc		Ge		In		Terbium	
		Intensity	% Rec	Intensity	% Rec	Intensity	% Rec	Intensity	% Rec	Intensity	% Rec
Calibration Blank											
MB-R28957				632244	96					1130678	103
LCS-R28957				637515	97					1128138	103
063531-019A				772853	118					1175835	107
063531-019ADUP				778643	119					1210032	110
063531-019AMS				799773	122					1229732	112
063531-019AMSD				788329	120					1197717	109
063531-022A				779234	119					1205710	110
063531-023A				802173	122					1208464	110

* Outside Acceptance Criteria
Acceptance Criteria: 60 - 125%

Metals Working Standard Prep Log

Date	Standard Name	Working Std Code	Stock Info		Preparation	
			Stock Std Code	Stock Concentration	Stock Concentration	Amount Taken from Stock
4-18-03	ICPMS - Internal Std	MST030418 A	MST030217 D	Sc	1000 ppm	1 ml
|	|	|	E	In	|	|
|	|	|	F	Tr	|	|
4-18-03	ICPMS - Tuning Stock Soln	MST030418 B	MST-010523 E	Mg	1000 ppm	0.5 ml
|	|	|	MST030414 H	Cu	|	|
|	|	|	MST030217 J	Rh	|	|
|	|	|	MST030414 E	Cd	|	|
|	|	|	MST030414 C	Ba	|	|
|	|	|	MST030217 G	Ce	|	|
|	|	|	MST030414 F	Pb	|	|
|	|	|	MST030414 D	Be	|	|
|	|	|	MST030414 G	Co	|	|
|	|	|	MST030217 H	Tl	|	|
|	|	|	MST030217 I	U	|	|
|	|	|	MST030217 E	Fe	|	|
4-21-03	ICPMS - 10 ppb Tuning Soln	MST030421 A	MST030418 B		1 ppm	10 ml
|	|	|	MST030402 A		10 ppm	5 ml
4-22-03	ICPMS - STD ₁	MST030422 A	MST030402 B		1000 ppm	0.05
|	- 20	B	MST030422		1 ppm	1 ml
|	- 10	C	|		20 ppb	25
|	- 5	D	|		10 ppb	25

Metals Working Standard Prep Log

Preparation			Expiration Dates		Comments	Initials
Final Vol. (ml)	Final Conc. (ug/ml)	Diluent Matrix (ie H ₂ O)	Working STD *	Exp Date		
100 ml	10 ppm	DI H ₂ O + HNO ₃ 2%	7-17-03	High Purity		WOS
500 ml	1 ppm	DI H ₂ O + HNO ₃ 2%	7-17-03	Ultra Scientific High Purity		WOS
1000 ml	10 ppb	DI H ₂ O + HNO ₃ 2%	7-20-03	Ultra Scientific / High Purity		WOS
50	1 ppm	DI H ₂ O + HNO ₃ 2%	7-21-03	Leeman		WOS
	20 ppb					
	10 ppb					
	5 ppb					

* Check working std versus all manufacturer's

034²⁰

Metals Working Standard Prep Log

Date	Standard Name	Working Std Code	Stock Info		Preparation	
			Stock Std Code	Stock Concentration	Stock Concentration	Amount Taken from Stock
06-09-03	ICPMs - 50 I - 10	HST030609 I J K	HST030609 H	100ppb	100ppb	25
			I	30ppb	30ppb	10
			HST030609 F	1ppm	1ppm	2.5
			HST030402 A	10ppm	10ppm	5
06-10-03	ICPM - STD, I - 10 ICPM - LCS, I - Iw/cw @ 10	HST030610 A B C D	HST030610 A	1ppm	1ppm	0.5
			HST022216 D	10ppm	10ppm	5
			HST030610 C	1ppm	1ppm	0.5
			HST030612 A	1ppm	1ppm	5
06-13-03	ICPMs - STD, I - 20 I - 10 I - 5 I - 0.5	HST030613 G H I J K L	HST030402 A	10ppm	10ppm	5
			HST030402 B	1000ppm	1000ppm	0.05
			HST030613 G	1ppm	1ppm	1
			H	20ppb	20ppb	25
06-24-03	ICPMs - LCS, I - Iw/cw @ 10 ICPMs - STD, I - 20 I - 10 I - 5 I - 0.5	HST030624 A B C D E	HST022216 D	10ppm	10ppm	5
			HST022216 B	1000ppm	1000ppm	0.05
			HST030613 L	1ppm	1ppm	0.5
			HST030402 A	10ppm	10ppm	5
08-31-03	I - 20 I - 10 I - 5 I - 0.5	HST030624 A B C D E	HST030624 A	1ppm	1ppm	1
			B	20ppb	20ppb	25
			C	10ppb	10ppb	25
			D	5ppb	5ppb	5

Metals Working Standard Prep Log

Preparation		Expiration Dates		Comments	Initials
Final Vol. (ml)	Final Conc. (ug/ml)	Diluent Matrix (ie H ₂ O)	Working STD *			Exp Date	Manufacturer
50	50 ppb	DI H ₂ O + HNO ₃	09-07-03		W.S.
	10 ppb	|	|		|
	5 ppb	|	|		|
50	1 ppm	DI H ₂ O + HNO ₃	09-08-03	all	W.S.
	10 ppb	|	|		|
	1 ppm	|	|		|
	10 ppb	|	|		|
50	10 ppb	DI H ₂ O + HNO ₃	09-10-03		W.S.
	1 ppm	DI H ₂ O + HNO ₃	09-11-03		W.S.
	20 ppb	|	|		|
	10 ppb	|	|		|
	5 ppb	|	|		|
	0.5 ppb	|	|		|
	1 ppm	|	|		|
	10 ppb	|	|		|
50	1 ppm	DI H ₂ O + HNO ₃	09-22-03		W.S.
	20 ppb	|	|		|
	10 ppb	|	|		|
	5 ppb	|	|		|
	0.5 ppb	|	|		|

Metals Working Standard Prep Log

Date	Standard Name	Working Std Code	Stock Info		Preparation	
			Stock Std Code	Stock Concentration	Stock Concentration	Amount Taken from Stock
06-05-03	ICPMS - 10	NST030605 C	NST030605 B	20 ppb	20 ppb	25
	I - 5	D	C	10 ppb	10 ppb	25
	I - 0.5	E	D	5 ppb	5 ppb	5
	ICPMS - LCS ₁	F	NST021216 D NST021216 B	1000 ppm	1000 ppm	5 0.05
	I - ICP/CW @ 10	G	NST030605	1 ppm	1 ppm	0.5
06-06-03	ICPMS Internal Std.	NST030606 A	NST030606 A	1000 ppm	1000 ppm	1 ml
			B Ge			
			C Tb			
			D Sc			
			E In			
			F Tm			
06-05-03	Ag - HS/MSD / 10 ppm	NST030605 A	NST030414 C	1000 ppm	1000 ppm	0.5
06-07-03	ICPMS - STD ₁	NST030609 A	NST030462 A NST030462 B NST030609 A	1000 ppm 1000 ppm 1000 ppm	1000 ppm 1000 ppm 1000 ppm	5 0.05 5
	I - 20	B	NST030609 A	1 ppm	1 ppm	1
	I - 10	C	B	20 ppb	20 ppb	25
	I - 5	D	C	10 ppb	10 ppb	25
	I - 0.5	E	D	5 ppb	5 ppb	5
	ICPMS - LCS ₁	F	NST021216 D NST021216 B NST030462 B	1000 ppm 1000 ppm 1000 ppm	1000 ppm 1000 ppm 1000 ppm	5 0.05 5
	I - ICP/CW @ 10	G	NST030609 F	1 ppm	1 ppm	0.5
	ICPMS - 100	H	NST030609 A	1 ppm	1 ppm	5

Metals Working Standard Prep Log

Preparation	Expiration Dates		Diluent Matrix (ie H ₂ O)	Manufacturer	Comments	Initials
	Final Vol. (ml)	Final Conc. (ug/ml)					Working STD *	Exp Date
1	50	10ppb	DI H ₂ O + 2% HNO ₃	Leeman		NS
		5ppb				
		0.5ppb				
		1ppm		Leeman		
		10ppb				
5	100	10ppm	DI H ₂ O + 2% HNO ₃	High Purity		NS
10	50	10ppm	DI H ₂ O + 2% HNO ₃	Leeman High Purity	NS 6-6-03	NS
				Leeman High Purity	NS 6-11-03	NS
				Leeman High Purity		
15	50	10ppm	DI H ₂ O + 2% HNO ₃	Leeman High Purity		
		20ppb				
		10ppb				
		5ppb				
		0.5ppb				
		1ppm		Leeman High Purity		
		10ppb				
		100ppb		Leeman High Purity		
20	50	10ppm	DI H ₂ O + 2% HNO ₃	Leeman High Purity		

* Check working std versus all manufacturer's

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Metals Working Standard Prep Log

Date	Standard Name	Working Std Code	Stock Info		Preparation	
			Stock Std Code	Stock Concentration	Stock Concentration	Amount Taken from Stock
10-21-03	ICPMS - LCS,	HIST030624F	HIST021216J	10 ppm	10 ppm	5
	I - Iw/cw@10	I G	HIST030624F	1 ppm	1 ppm	0.5
06-25-03	ICPMS - STD,	HIST030625A	HIST030401A HIST030401B HIST030401C HIST030401D HIST030401E HIST030401F HIST030401G HIST030401H HIST030401I HIST030401J	10 ppm 1000 ppm 10 ppm	10 ppm 1000 ppm 10 ppm	0.05
	I - 400	A B	HIST030625A	1 ppm	1 ppm	20
	I - 200	C	B	400 ppb	400 ppb	25
	I - 50	D	C	200 ppb	200 ppb	12.5
	ICPMS - LCS,	E	HIST021216J HIST021216K HIST030401B	10 ppm 1000 ppm 10 ppm	10 ppm 1000 ppm 10 ppm	0.05
	I - Iw/cw@10	F	HIST030625E	1 ppm	1 ppm	10
10-16-03	ICPMS - STD,	HIST030626A	HIST030402A HIST030402B	10 ppm 1000 ppm	10 ppm 1000 ppm	5
	I - 20	B	HIST030626A	1 ppm	1 ppm	1
	I - 10	C	B	20 ppb	20 ppb	25
	I - 5	D	C	10 ppb	10 ppb	25
	I - 0.5	E	D	5 ppb	5 ppb	5
	ICPMS - LCS,	F	HIST021216J HIST021216K	10 ppm 1000 ppm	10 ppm 1000 ppm	0.05
	I - Iw/cw@10	G	HIST021216F	1 ppm	1 ppm	0.5
7-7-03	ICPMS - STD,	HIST030702A	HIST030401B HIST030402A	10 ppm 1000 ppm	10 ppm 1000 ppm	5
	I - 20	B	HIST030702A	1 ppm	1 ppm	1
	I - 10	C	B	20 ppb	20 ppb	25
	I - 5	D	C	10 ppb	10 ppb	25
	I - 0.5	E	D	5 ppb	5 ppb	5

Metals Working Standard Prep Log

Preparation		Expiration Dates		Comments	Initials
Final Vol. (ml)	Final Conc. (ug/ml)	Diluent Matrix (ie H ₂ O)	Working STD * Exp Date			Manufacturer
50	1 ppm	DI H ₂ O 2 ^{1/2} (100)	09-22-03	Waters	WJ
I	10 ppb	I	I	I	I
50	1 ppm	DI H ₂ O 2 ^{1/2} (100)	09-23-03	Waters 100% purity	NS
I	400 ppb	I	I	I	I
I	200 ppb	I	I	I	I
I	50 ppb	I	I	Waters at Fra Scientific	I
I	1 ppm	I	I	I	I
I	200 ppb	I	I	I	I
50	1 ppm	DI H ₂ O 2 ^{1/2} (100)	9-24-03	Waters	NS
I	20 ppb	I	I	I	I
I	10 ppb	I	I	I	I
I	5 ppb	I	I	I	I
I	0.5 ppb	I	I	I	I
I	1 ppm	I	I	Waters	I
I	10 ppb	I	I	I	I
50	1 ppm	DI H ₂ O 2 ^{1/2} (100)	9-30-03	Waters	NS
I	20 ppb	I	I	I	I
I	10 ppb	I	I	I	I
I	5 ppb	I	I	I	I
I	0.5 ppb	I	I	I	I

4. ELAN Instrument Control Session

File Edit Analysis Methods Reports Help



Data Only Method - c:\elandata\Method\ATL-TUNING250.mth

Method Processing Integration Calibration Standards

Samples / Reading: Read Reading Time: 0:00:00.000
 Readings / Reading: Avg. Read Rate Time: 0:00:00.171
 Replicates: Total Sample Time: 0:03:00.000
 Tuning File: Restore Settings
 Integration File:

	Analysis #	Sample Name	Int. Name	Integration #	W/A	Count Time (sec/100 pps)
1		5	10	Scanning	20	20
2		22	26	Scanning	20	20
3		102	104	Scanning	20	20
4		139	141	Scanning	20	20
5		206	209	Scanning	20	20

Tuning - D:\ELAN\TUNING\2003\July\030702.tun

Auto Tune Auto Tune Only
 Read Rate (pps/100 pps): Integration File:

	Analysis	Wave Name	Standard Wave Name	Wave Number	Integration W/A Value	Integration W/A
1	Be	9.0122	9.026	2048	2040	0.751
2	Mg	23.985	23.9785	5694	2020	0.752
3	Rh	102.905	102.928	24980	1955	0.780
4	Ce	139.905	139.929	33967	2010	0.806
5	Pb	207.977	207.979	50417	2270	0.789
6	U	238.05	238.026	57615	2435	0.801

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 10:19:08

Dataset File: D:\ELAN\Dataset\2003\July\030702\Blank.001

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: Blank

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[>	Sc-1	45		656991	0.3		ug/L	%
|	Cr	52		15120	2.6		ug/L	%
[	Cr	53		93861	3.3		ug/L	%
[>	Tb	159		1097775	1.8		ug/L	%
|	Pb	207		225	2.5		ug/L	%
[	Pb	208		1083	2.7		ug/L	%

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 10:21:26

Dataset File: D:\ELAN\Dataset\2003\July\030702\Standard 1.002

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: Standard 1

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	662428	0.8		ug/L		%
|	Cr	52	15120	20665	2.1	0.500	0.031	ug/L	6.1 %
[	Cr	53	93861	104422	1.6	0.500	0.061	ug/L	12.1 %
[>	Tb	159	1097775	1096944	0.9		ug/L		%
|	Pb	207	225	2471	0.8	0.500	0.003	ug/L	0.6 %
[	Pb	208	1083	11511	1.0	0.500	0.005	ug/L	1.0 %

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 10:23:59

Dataset File: D:\ELAN\Dataset\2003\July\030702\Standard 2.003

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: Standard 2

Sample Type: .

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	662923	0.4		ug/L		%
|	Cr	52	15120	57905	1.2	4.987	0.104	ug/L	2.1 %
[	Cr	53	93861	112003	1.7	4.780	0.640	ug/L	13.4 %
[>	Tb	159	1097775	1110084	0.6		ug/L		%
|	Pb	207	225	18555	1.0	4.988	0.033	ug/L	0.7 %
[	Pb	208	1083	85731	0.2	4.988	0.017	ug/L	0.4 %

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 10:26:34

Dataset File: D:\ELAN\Dataset\2003\July\030702\Standard 3.004

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: Standard 3

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	663011	1.0		ug/L		%
|	Cr	52	15120	99283	1.0	9.964	0.045	ug/L	0.4 %
[	Cr	53	93861	118596	2.2	9.060	1.349	ug/L	14.9 %
[>	Tb	159	1097775	1119471	0.6		ug/L		%
|	Pb	207	225	35355	1.1	9.891	0.112	ug/L	1.1 %
[	Pb	208	1083	164573	0.9	9.906	0.035	ug/L	0.4 %

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 10:29:09

Dataset File: D:\ELAN\Dataset\2003\July\030702\Standard 4.005

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: Standard 4

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	662070	1.1		ug/L		%
|	Cr	52	15120	179085	0.9	19.868	0.155 ug/L		0.8 %
[	Cr	53	93861	130290	1.7	17.963	0.377 ug/L		2.1 %
[>	Tb	159	1097775	1121797	0.2		ug/L		%
|	Pb	207	225	69441	1.8	19.866	0.362 ug/L		1.8 %
{	Pb	208	1083	322753	1.3	19.867	0.264 ug/L		1.3 %



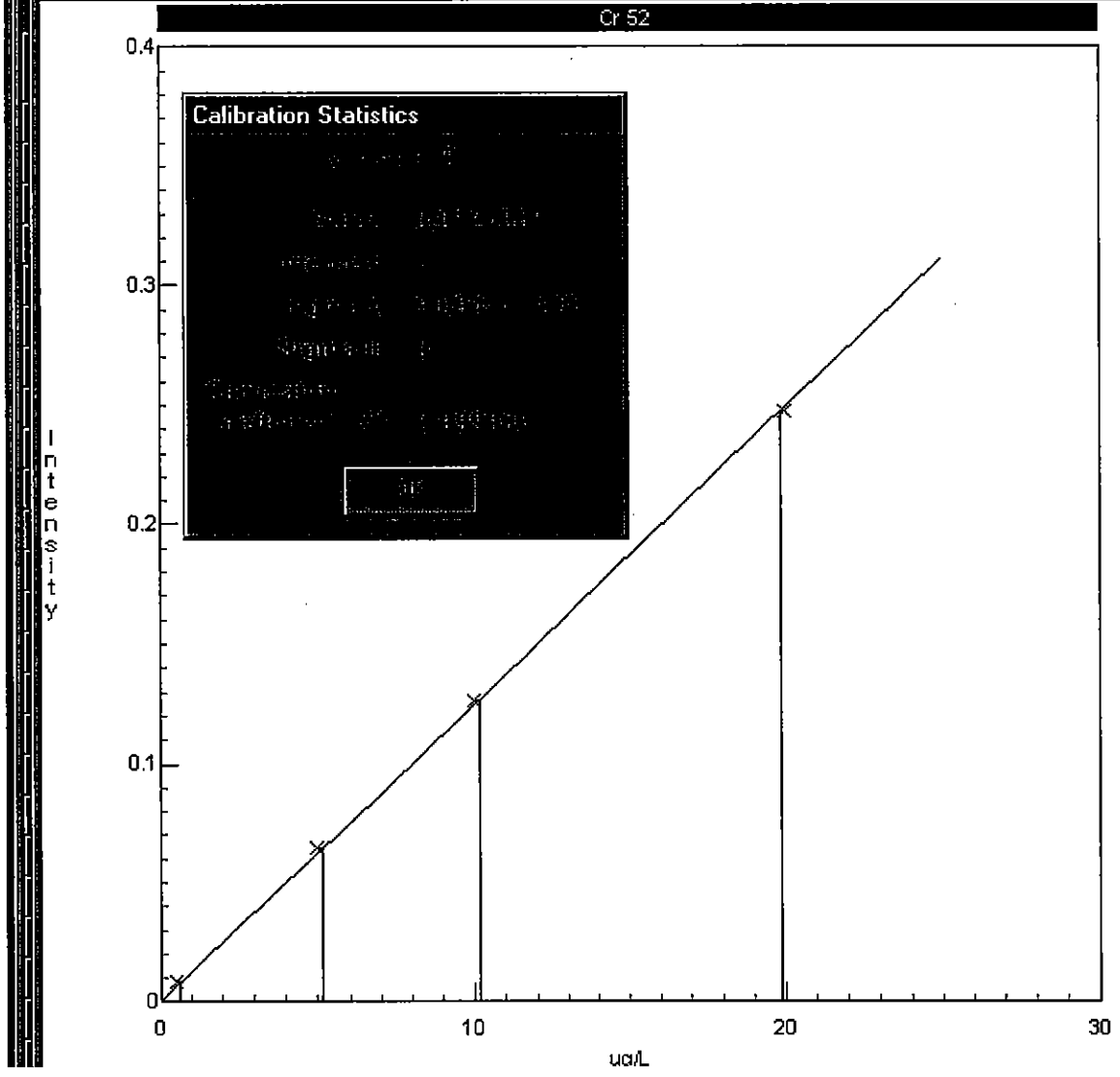
Quantitative Analysis Manager Dataset - D:\ELAN\Dataset\2503\July\030702\

Run	Batch ID	Sample ID	Time
1		Blank	10:19:08 Wed 02-Jul-03
2		Standard 1	10:21:26 Wed 02-Jul-03

Calibration View - D:\ELAN\SYSTEM\2503\July\030702.cci



Analyte: Cr 52 First Prev Next Last Curve Type: Linear Thru Zero





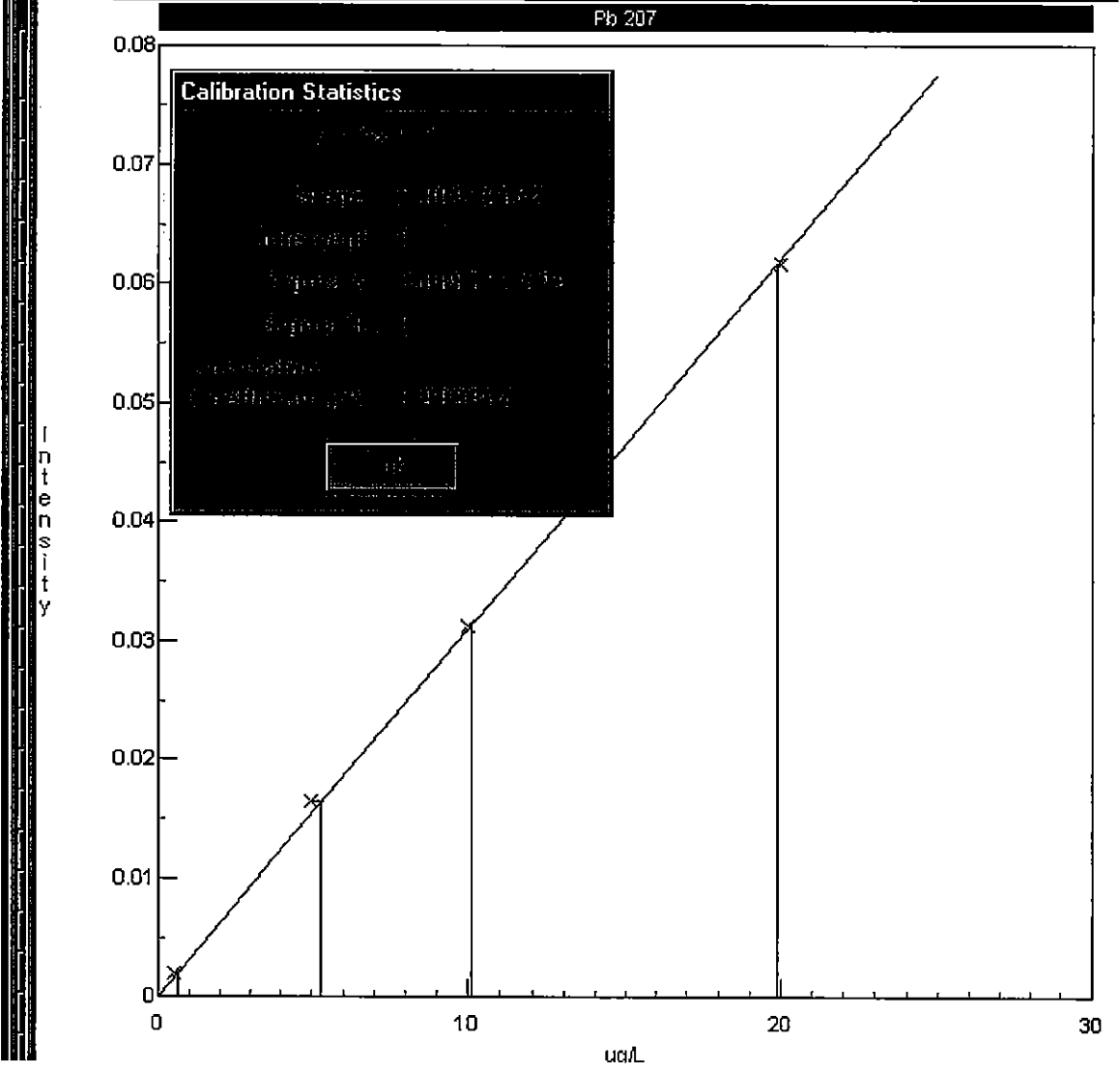
Quantitative Analysis M Dataset - D:\ELAN\Dataset\2003July\0307021

Run ID	Sample ID	Time
1	Blank	10:19:08 Wed 02-Jul-03
2	Standard 1	10:21:26 Wed 02-Jul-03

Calibration View - D:\ELAN\SYSTEM\2003July\0307021.cal



Analyte: **Pb 207** Method: **Flow** Mode: **Peak** Curve Type: **Linear Thru Zero**



Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 10:31:46

Dataset File: D:\ELAN\Dataset\2003\July\030702\ICV.006

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: ICV

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[>	Sc-1	45	656991	658471	0.9		ug/L	%
|	Cr	52	15120	99325	0.3	10.263	0.138 ug/L	1.3 %
L	Cr	53	93861	121127	1.6	13.687	0.747 ug/L	5.5 %
[>	Tb	159	1097775	1110589	0.9		ug/L	%
|	Pb	207	225	34490	2.1	9.933	0.186 ug/L	1.9 %
L	Pb	208	1083	161500	1.5	10.008	0.184 ug/L	1.8 %

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 10:34:06

Dataset File: D:\ELAN\Dataset\2003\July\030702\ICB.007

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: ICB

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	657022	0.6		ug/L		%
|	Cr	52	15120	16822	0.4	0.208	0.020	ug/L	9.5 %
L	Cr	53	93861	113456	1.2	9.937	1.001	ug/L	10.1 %
[>	Tb	159	1097775	1118639	0.7		ug/L		%
|	Pb	207	225	260	4.7	0.009	0.004	ug/L	45.9 %
L	Pb	208	1083	1215	1.3	0.007	0.001	ug/L	20.0 %

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 10:45:06

Dataset File: D:\ELAN\Dataset\2003\July\030702\MB.008

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: MB - 028956 vs 7/2/03

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[>	Sc-1	45	656991	653261	0.5		ug/L	%
|	Cr	52	15120	15883	1.5	0.104	0.024 ug/L	23.4 %
L	Cr	53	93861	102259	2.7	4.554	1.364 ug/L	30.0 %
[>	Tb	159	1097775	1090166	1.8		ug/L	%
|	Pb	207	225	219	6.3	-0.001	0.005 ug/L	370.7 %
L	Pb	208	1083	1020	2.6	-0.004	0.003 ug/L	77.4 %

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 10:47:48

Dataset File: D:\ELAN\Dataset\2003\July\030702\LCS.009

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: LCS - 128956 NS 71263

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	653297	0.4		ug/L		%
|	Cr	52	15120	100047	0.7	10.446	0.055	ug/L	0.5 %
|	Cr	53	93861	124328	1.4	15.805	0.799	ug/L	5.1 %
[>	Tb	159	1097775	1116668	1.5		ug/L		%
|	Pb	207	225	35147	1.2	10.070	0.194	ug/L	1.9 %
|	Pb	208	1083	161816	0.9	9.974	0.207	ug/L	2.1 %

054

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 10:50:06

Dataset File: D:\ELAN\Dataset\2003\July\030702\063531-001A.010

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 063531-001A

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	772876	1.0		ug/L		%
|	Cr	52	15120	17529	0.6	-0.027	0.027	ug/L	101.4 %
L	Cr	53	93861	17156	4.5	-40.198	0.404	ug/L	1.0 %
[>	Tb	159	1097775	1121588	1.4		ug/L		%
|	Pb	207	225	495	4.8	0.076	0.005	ug/L	7.2 %
L	Pb	208	1083	2373	2.4	0.078	0.002	ug/L	2.0 %

055

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 10:52:24

Dataset File: D:\ELAN\DataSet\2003\July\030702\063531-002A.011

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 063531-002A

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	814689	0.6		ug/L		%
|	Cr	52	15120	43075	0.5	2.397	0.040	ug/L	1.7 %
[	Cr	53	93861	13651	1.5	-42.013	0.112	ug/L	0.3 %
[>	Tb	159	1097775	1135475	0.7		ug/L		%
|	Pb	207	225	459	8.4	0.064	0.012	ug/L	18.4 %
[	Pb	208	1083	2108	3.3	0.060	0.005	ug/L	7.6 %

056

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 10:54:42

Dataset File: D:\ELAN\Dataset\2003\July\030702\063531-003A.012

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 063531-003A

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	794350	0.4			ug/L	%
|	Cr	52	15120	26447	0.5	0.825	0.008	ug/L	1.0 %
{	Cr	53	93861	10657	1.1	-43.126	0.040	ug/L	0.1 %
[>	Tb	159	1097775	1132817	0.7			ug/L	%
|	Pb	207	225	437	1.5	0.058	0.002	ug/L	3.4 %
L	Pb	208	1083	2065	2.4	0.058	0.002	ug/L	4.2 %

057

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 10:57:01

Dataset File: D:\ELAN\Dataset\2003\July\030702\063531-004A.013

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 063531-004A

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	802364	0.3		ug/L		%
|	Cr	52	15120	24730	1.1	0.627	0.035	ug/L	5.5 %
[	Cr	53	93861	9272	1.4	-43.745	0.054	ug/L	0.1 %
[>	Tb	159	1097775	1114564	1.4		ug/L		%
|	Pb	207	225	449	2.2	0.064	0.001	ug/L	1.8 %
[	Pb	208	1083	2044	1.9	0.059	0.001	ug/L	2.5 %

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 10:59:20

Dataset File: D:\ELAN\Dataset\2003\July\030702\063531-005A.014

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 063531-005A

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	777776	2.0		ug/L		%
|	Cr	52	15120	36170	1.3	1.886	0.069	ug/L	3.7 %
|	Cr	53	93861	11331	0.8	-42.740	0.124	ug/L	0.3 %
[>	Tb	159	1097775	1092177	0.1		ug/L		%
|	Pb	207	225	610	2.8	0.114	0.005	ug/L	4.5 %
|	Pb	208	1083	2773	0.8	0.108	0.001	ug/L	1.3 %

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 11:01:40

Dataset File: D:\ELAN\Dataset\2003\July\030702\063531-005ADUP.015

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 063531-005ADUP

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	757127	0.9		ug/L		%
[	Cr	52	15120	34414	1.8	1.802	0.072	ug/L	4.0 %
[	Cr	53	93861	11056	0.8	-42.731	0.032	ug/L	0.1 %
[>	Tb	159	1097775	1078105	0.5		ug/L		%
[	Pb	207	225	484	8.6	0.078	0.012	ug/L	15.2 %
[	Pb	208	1083	2253	1.7	0.076	0.003	ug/L	3.7 %

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 11:04:00

Dataset File: D:\ELAN\Dataset\2003\July\030702\063531-005AMS.016

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 063531-005AMS

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	735575	0.8		ug/L		%
|	Cr	52	15120	102947	1.3	9.387	0.056	ug/L	0.6 %
[	Cr	53	93861	21103	0.1	-38.037	0.078	ug/L	0.2 %
[>	Tb	159	1097775	1062831	0.3		ug/L		%
|	Pb	207	225	31503	1.1	9.478	0.073	ug/L	0.8 %
[	Pb	208	1083	146823	1.0	9.503	0.077	ug/L	0.8 %

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 11:06:21

Dataset File: D:\ELAN\Dataset\2003\July\030702\063531-005AMSD.017

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 063531-005AMSD

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	736738	0.9		ug/L		%
|	Cr	52	15120	102102	0.4	9.279	0.147	ug/L	1.6 %
[	Cr	53	93861	21029	1.1	-38.087	0.023	ug/L	0.1 %
[>	Tb	159	1097775	1066796	1.7		ug/L		%
|	Pb	207	225	31884	2.1	9.557	0.128	ug/L	1.3 %
[	Pb	208	1083	147558	1.3	9.516	0.041	ug/L	0.4 %

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 11:08:43

Dataset File: D:\ELAN\Dataset\2003\July\030702\CCV.018

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapci.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: CCV

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	572578	0.8			ug/L	%
|	Cr	52	15120	83358	1.9	9.839	0.137	ug/L	1.4 %
|	Cr	53	93861	114698	4.1	19.129	2.236	ug/L	11.7 %
[>	Tb	159	1097775	1023253	1.1			ug/L	%
|	Pb	207	225	33038	1.3	10.331	0.143	ug/L	1.4 %
|	Pb	208	1083	154182	1.2	10.372	0.124	ug/L	1.2 %

063

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 11:11:06

Dataset File: D:\ELAN\Dataset\2003\July\030702\CCB.019

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: CCB

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	577535	1.1		ug/L		%
|	Cr	52	15120	14240	0.8	0.132	0.023	ug/L	17.8 %
|	Cr	53	93861	117585	2.6	20.239	1.979	ug/L	9.8 %
[>	Tb	159	1097775	1020193	1.0		ug/L		%
|	Pb	207	225	280	4.9	0.022	0.004	ug/L	17.6 %
|	Pb	208	1083	1299	4.3	0.020	0.003	ug/L	15.1 %

064

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 11:13:29

Dataset File: D:\ELAN\Dataset\2003\July\030702\063531-006A.020

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 063531-006A

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	608934	0.3			ug/L	%
|	Cr	52	15120	7498	0.5	-0.859	0.007	ug/L	0.9 %
[	Cr	53	93861	17249	6.1	-38.157	0.604	ug/L	1.6 %
[>	Tb	159	1097775	1040453	0.5			ug/L	%
!	Pb	207	225	939	4.7	0.225	0.013	ug/L	5.7 %
[	Pb	208	1083	4438	1.2	0.227	0.002	ug/L	0.9 %

065

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 11:15:50

Dataset File: D:\ELAN\Dataset\2003\July\030702\063531-007A.021

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 063531-007A

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	684289	1.5		ug/L		%
|	Cr	52	15120	19330	0.1	0.421	0.035	ug/L	8.3 %
{	Cr	53	93861	10800	2.3	-42.336	0.201	ug/L	0.5 %
[>	Tb	159	1097775	1064138	2.9		ug/L		%
|	Pb	207	225	509	4.9	0.088	0.004	ug/L	4.0 %
[	Pb	208	1083	2384	4.3	0.087	0.004	ug/L	4.3 %

066

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 11:18:12

Dataset File: D:\ELAN\Dataset\2003\July\030702\063531-008A.022

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 063531-008A

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[>	Sc-1	45	656991	705184	0.2		ug/L	%
|	Cr	52	15120	33645	0.7	1.983	0.033 ug/L	1.7 %
|	Cr	53	93861	10182	1.2	-42.785	0.066 ug/L	0.2 %
[>	Tb	159	1097775	1069813	1.1		ug/L	%
|	Pb	207	225	687	3.0	0.141	0.006 ug/L	4.1 %
|	Pb	208	1083	3260	1.7	0.143	0.002 ug/L	1.4 %

067

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 11:20:35

Dataset File: D:\ELAN\Dataset\2003\July\030702\063531-009A.023

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 063531-009A

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	705238	0.8			ug/L	%
|	Cr	52	15120	63447	1.3	5.375	0.134	ug/L	2.5 %
L	Cr	53	93861	11931	0.3	-41.959	0.035	ug/L	0.1 %
[>	Tb	159	1097775	1083626	0.4			ug/L	%
|	Pb	207	225	528	6.4	0.091	0.010	ug/L	10.8 %
L	Pb	208	1083	2454	1.0	0.089	0.001	ug/L	1.4 %

068

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 11:22:58

Dataset File: D:\ELAN\Dataset\2003\July\030702\063531-010A.024

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 063531-010A

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	694687	0.2			ug/L	%
|	Cr	52	15120	24208	0.9	0.950	0.031	ug/L	3.3 %
L	Cr	53	93861	6785	1.2	-44.341	0.043	ug/L	0.1 %
[>	Tb	159	1097775	1070070	0.5			ug/L	%
|	Pb	207	225	459	4.1	0.072	0.006	ug/L	8.8 %
L	Pb	208	1083	2160	2.0	0.072	0.003	ug/L	4.8 %

069

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 11:25:18

Dataset File: D:\ELAN\Dataset\2003\July\030702\063531-011A.025

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 063531-011A

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	744428	1.2		ug/L		%
|	Cr	52	15120	21265	0.8	0.446	0.041	ug/L	9.1 %
L	Cr	53	93861	6418	0.3	-44.723	0.030	ug/L	0.1 %
[>	Tb	159	1097775	1084138	0.3		ug/L		%
|	Pb	207	225	423	1.9	0.060	0.003	ug/L	4.3 %
L	Pb	208	1083	2050	1.1	0.063	0.001	ug/L	2.3 %

070

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 11:27:34

Dataset File: D:\ELAN\Dataset\2003\July\030702\063531-012A.026

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 063531-012A

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	631492	0.7		ug/L		%
|	Cr	52	15120	23345	1.1	1.120	0.017 ug/L		1.5 %
|	Cr	53	93861	7415	0.8	-43.683	0.037 ug/L		0.1 %
[>	Tb	159	1097775	1073158	0.9		ug/L		%
|	Pb	207	225	1030	5.7	0.243	0.019 ug/L		8.0 %
|	Pb	208	1083	4845	1.4	0.244	0.006 ug/L		2.3 %

071

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 11:29:50

Dataset File: D:\ELAN\Dataset\2003\July\030702\063531-013A.027

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 063531-013A

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	714560	0.7		ug/L		%
|	Cr	52	15120	35817	0.2	2.177	0.030	ug/L	1.4 %
[	Cr	53	93861	7301	0.3	-44.191	0.016	ug/L	0.0 %
[>	Tb	159	1097775	1095447	0.5		ug/L		%
|	Pb	207	225	673	2.2	0.132	0.004	ug/L	3.4 %
[	Pb	208	1083	3102	1.8	0.128	0.004	ug/L	2.9 %

072

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 11:32:08

Dataset File: D:\ELAN\Dataset\2003\July\030702\063531-014A.028

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 063531-014A

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	773195	0.4			ug/L	%
|	Cr	52	15120	171760	0.4	15.986	0.128	ug/L	0.8 %
|	Cr	53	93861	25071	1.3	-36.793	0.110	ug/L	0.3 %
[>	Tb	159	1097775	1082737	1.6			ug/L	%
|	Pb	207	225	311	10.1	0.026	0.008	ug/L	31.0 %
|	Pb	208	1083	1427	4.6	0.023	0.003	ug/L	13.2 %

073

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 11:34:25

Dataset File: D:\ELAN\Dataset\2003\July\030702\063531-015A.029

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 063531-015A

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	761248	0.7		ug/L		%
|	Cr	52	15120	60131	2.2	4.494	0.163	ug/L	3.6 %
|	Cr	53	93861	11473	1.3	-42.574	0.098	ug/L	0.2 %
[>	Tb	159	1097775	1081807	0.8		ug/L		%
|	Pb	207	225	403	4.7	0.054	0.007	ug/L	12.2 %
|	Pb	208	1083	1919	0.8	0.055	0.002	ug/L	2.9 %

074

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 11:36:46

Dataset File: D:\ELAN\Dataset\2003\July\030702\CCV.030

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: **CCV**

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	593793	0.1			ug/L	%
|	Cr	52	15120	85128	1.3	9.662	0.164	ug/L	1.7 %
[	Cr	53	93861	112223	4.7	15.369	2.980	ug/L	19.4 %
[>	Tb	159	1097775	1043620	1.5			ug/L	%
|	Pb	207	225	33639	2.1	10.312	0.090	ug/L	0.9 %
[	Pb	208	1083	156757	1.4	10.339	0.088	ug/L	0.9 %

075

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 11:39:09

Dataset File: D:\ELAN\Dataset\2003\July\030702\CCB.031

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: CCB

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	602415	0.2		ug/L		%
|	Cr	52	15120	14176	2.2	0.042	0.040	ug/L	97.0 %
[	Cr	53	93861	120234	2.8	18.897	1.864	ug/L	9.9 %
[>	Tb	159	1097775	1049658	1.2		ug/L		%
|	Pb	207	225	280	2.0	0.020	0.003	ug/L	14.0 %
[	Pb	208	1083	1319	1.0	0.019	0.002	ug/L	9.5 %

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 11:41:30

Dataset File: D:\ELAN\Dataset\2003\July\030702\063531-016A.032

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 063531-016A

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	709869	0.7		ug/L		%
|	Cr	52	15120	43980	2.8	3.127	0.164	ug/L	5.2 %
|	Cr	53	93861	22983	5.5	-36.806	0.661	ug/L	1.8 %
[>	Tb	159	1097775	1082664	1.0		ug/L		%
|	Pb	207	225	415	6.5	0.057	0.007	ug/L	12.9 %
|	Pb	208	1083	1961	4.5	0.057	0.005	ug/L	9.5 %

077

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 11:43:49

Dataset File: D:\ELAN\Dataset\2003\July\030702\063531-017A.033

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 063531-017A

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	718771	0.7		ug/L		%
|	Cr	52	15120	29397	1.9	1.436	0.083	ug/L	5.8 %
|	Cr	53	93861	13208	3.5	-41.473	0.252	ug/L	0.6 %
[>	Tb	159	1097775	1087200	0.8		ug/L		%
|	Pb	207	225	410	5.4	0.055	0.006	ug/L	11.3 %
|	Pb	208	1083	1902	3.2	0.053	0.003	ug/L	5.7 %

078

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 11:46:08

Dataset File: D:\ELAN\Dataset\2003\July\030702\063531-018A.034

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 063531-018A

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	775354	0.5		ug/L		%
|	Cr	52	15120	86679	0.5	7.127	0.013	ug/L	0.2 %
L	Cr	53	93861	18670	1.0	-39.573	0.117	ug/L	0.3 %
[>	Tb	159	1097775	1094198	1.0		ug/L		%
|	Pb	207	225	406	7.8	0.054	0.010	ug/L	19.4 %
L	Pb	208	1083	1880	0.9	0.051	0.002	ug/L	4.2 %

079

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 11:48:27

Dataset File: D:\ELAN\Dataset\2003\July\030702\063531-018ADUP.035

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 063531-018ADUP

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	793818	0.6		ug/L		%
|	Cr	52	15120	89447	1.5	7.198	0.116	ug/L	1.6 %
[	Cr	53	93861	18380	0.2	-39.882	0.057	ug/L	0.1 %
[>	Tb	159	1097775	1133247	0.4		ug/L		%
|	Pb	207	225	411	2.1	0.051	0.003	ug/L	5.7 %
[	Pb	208	1083	1951	1.5	0.051	0.001	ug/L	2.7 %

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 11:50:47

Dataset File: D:\ELAN\Dataset\2003\July\030702\063531-018AMS.036

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 063531-018AMS

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	791493	0.6		ug/L		%
|	Cr	52	15120	164415	0.6	14.829	0.141	ug/L	1.0 %
[	Cr	53	93861	28299	0.3	-35.684	0.037	ug/L	0.1 %
[>	Tb	159	1097775	1139305	0.6		ug/L		%
|	Pb	207	225	34083	1.5	9.566	0.096	ug/L	1.0 %
[	Pb	208	1083	157965	0.8	9.538	0.029	ug/L	0.3 %

081

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 11:53:08

Dataset File: D:\ELAN\Dataset\2003\July\030702\063531-018AMSD.037

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 063531-018AMSD

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	801966	0.6		ug/L		%
|	Cr	52	15120	167837	0.4	14.954	0.152	ug/L	1.0 %
|	Cr	53	93861	28602	0.8	-35.713	0.067	ug/L	0.2 %
[>	Tb	159	1097775	1151446	0.8		ug/L		%
|	Pb	207	225	34153	1.1	9.484	0.042	ug/L	0.4 %
|	Pb	208	1083	159036	0.7	9.502	0.051	ug/L	0.5 %

082

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 11:55:29

Dataset File: D:\ELAN\Dataset\2003\July\030702\063531-020A.038

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 063531-020A

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	741578	0.3		ug/L		%
|	Cr	52	15120	52841	1.0	3.873	0.048	ug/L	1.2 %
[	Cr	53	93861	11058	0.5	-42.628	0.027	ug/L	0.1 %
[>	Tb	159	1097775	1146947	0.7		ug/L		%
|	Pb	207	225	782	5.3	0.153	0.011	ug/L	6.9 %
[	Pb	208	1083	3568	3.0	0.147	0.006	ug/L	3.9 %

083

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 12:11:13
Dataset File: D:\ELAN\Dataset\2003\July\030702\063531-021A.040
Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth
Optimization File: c:\elandata\Optimize\default.dac
Number of Replicates: 3
Sample ID: 063531-021A
Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[>	Sc-1	45	656991	768963	1.1		ug/L	%
|	Cr	52	15120	95604	0.5	8.134	0.054	0.7 %
[	Cr	53	93861	17983	0.5	-39.804	0.057	0.1 %
[>	Tb	159	1097775	1143779	0.7		ug/L	%
|	Pb	207	225	774	5.2	0.152	0.011	7.1 %
[	Pb	208	1083	3578	1.8	0.148	0.004	2.7 %

084

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 12:13:35

Dataset File: D:\ELAN\Dataset\2003\July\030702\MB-.041

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: MB- R28957 MS 7/2/03

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[>	Sc-1	45	656991	632244	1.0		ug/L	%
|	Cr	52	15120	13537	3.6	-0.129	0.048	37.2 %
|	Cr	53	93861	105067	5.6	7.754	2.686	34.6 %
[>	Tb	159	1097775	1130678	1.4		ug/L	%
|	Pb	207	225	432	4.1	0.057	0.006	10.4 %
|	Pb	208	1083	1997	4.3	0.054	0.007	12.6 %

085

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 12:15:57

Dataset File: D:\ELAN\Dataset\2003\July\030702\LCS-.042

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: LCS- *1228-157 MS 7/2/03*

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[>	Sc-1	45	656991	637515	1.1		ug/L	%
|	Cr	52	15120	94107	1.4	10.003	0.077 ug/L	0.8 %
{	Cr	53	93861	140998	2.7	26.078	1.232 ug/L	4.7 %
[>	Tb	159	1097775	1128138	0.8		ug/L	%
|	Pb	207	225	36476	1.1	10.345	0.121 ug/L	1.2 %
[	Pb	208	1083	170037	1.3	10.375	0.119 ug/L	1.1 %

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 12:18:20

Dataset File: D:\ELAN\Dataset\2003\July\030702\CCV.043

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: **CCV**

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	639026	0.2		ug/L		%
|	Cr	52	15120	93809	1.3	9.937	0.137	ug/L	1.4 %
[	Cr	53	93861	147606	2.8	29.355	2.044	ug/L	7.0 %
[>	Tb	159	1097775	1120635	1.2		ug/L		%
|	Pb	207	225	36285	1.7	10.360	0.188	ug/L	1.8 %
[	Pb	208	1083	168643	1.4	10.359	0.160	ug/L	1.5 %

087

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 12:20:43

Dataset File: D:\ELAN\Dataset\2003\July\030702\CCB.044

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: CCB

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	639585	0.7		ug/L		%
|	Cr	52	15120	15405	2.4	0.086	0.032	ug/L	37.6 %
[	Cr	53	93861	141238	2.6	25.967	1.358	ug/L	5.2 %
[>	Tb	159	1097775	1130118	1.6		ug/L		%
|	Pb	207	225	391	2.5	0.045	0.004	ug/L	9.7 %
[	Pb	208	1083	1816	2.2	0.043	0.004	ug/L	9.2 %

088

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 12:23:06

Dataset File: D:\ELAN\Dataset\2003\July\030702\063531-019A.045

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 063531-019A

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	772853	0.9		ug/L		%
|	Cr	52	15120	64650	0.5	4.868	0.048	ug/L	1.0 %
|	Cr	53	93861	36479	3.9	-31.872	0.542	ug/L	1.7 %
[>	Tb	159	1097775	1175835	0.8		ug/L		%
|	Pb	207	225	595	4.9	0.097	0.008	ug/L	8.1 %
|	Pb	208	1083	2780	2.1	0.095	0.005	ug/L	4.8 %

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 12:25:26

Dataset File: D:\ELAN\Dataset\2003\July\030702\063531-019ADUP.046

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 063531-019ADUP

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[>	Sc-1	45	656991	778643	0.3		ug/L	%
|	Cr	52	15120	64981	0.3	4.852	0.012	0.3 %
|	Cr	53	93861	24453	2.7	-37.132	0.291	0.8 %
[>	Tb	159	1097775	1210032	0.9		ug/L	%
|	Pb	207	225	586	3.7	0.090	0.004	5.0 %
|	Pb	208	1083	2809	0.4	0.092	0.001	1.1 %

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 12:27:42

Dataset File: D:\ELAN\Dataset\2003\July\030702\063531-019AMS.047

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 063531-019AMS

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	799773	0.2		ug/L		%
|	Cr	52	15120	151815	1.0	13.391	0.127	ug/L	0.9 %
|	Cr	53	93861	31975	0.5	-34.276	0.037	ug/L	0.1 %
[>	Tb	159	1097775	1229732	0.6		ug/L		%
|	Pb	207	225	38211	0.7	9.939	0.023	ug/L	0.2 %
|	Pb	208	1083	177082	0.4	9.909	0.034	ug/L	0.3 %

1191

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 12:29:58

Dataset File: D:\ELAN\Dataset\2003\July\030702\063531-019AMSD.048

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 063531-019AMSD

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	788329	0.7		ug/L		%
|	Cr	52	15120	150208	0.5	13.449	0.041	ug/L	0.3 %
L	Cr	53	93861	29947	0.4	-34.939	0.113	ug/L	0.3 %
[>	Tb	159	1097775	1197717	0.2		ug/L		%
|	Pb	207	225	36578	0.8	9.767	0.059	ug/L	0.6 %
L	Pb	208	1083	170245	0.6	9.780	0.049	ug/L	0.5 %

1192

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 12:32:15

Dataset File: D:\ELAN\Dataset\2003\July\030702\063531-022A.049

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 063531-022A

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	779234	0.6		ug/L		%
|	Cr	52	15120	40790	1.6	2.355	0.048	ug/L	2.1 %
|	Cr	53	93861	12032	1.7	-42.451	0.077	ug/L	0.2 %
[>	Tb	159	1097775	1205710	0.1		ug/L		%
|	Pb	207	225	811	2.4	0.151	0.006	ug/L	3.7 %
|	Pb	208	1083	3824	1.8	0.151	0.004	ug/L	2.7 %

093

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 12:34:33

Dataset File: D:\ELAN\Dataset\2003\July\030702\063531-023A.050

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 063531-023A

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[>	Sc-1	45	656991	802173	0.6		ug/L	%
|	Cr	52	15120	61207	1.0	4.278	0.066 ug/L	1.5 %
|	Cr	53	93861	12885	0.7	-42.244	0.067 ug/L	0.2 %
[>	Tb	159	1097775	1208464	0.5		ug/L	%
|	Pb	207	225	2080	1.6	0.488	0.008 ug/L	1.6 %
|	Pb	208	1083	9737	2.6	0.490	0.012 ug/L	2.5 %

094

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 12:36:53

Dataset File: D:\ELAN\Dataset\2003\July\030702\CCV.051

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: **CCV**

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	656991	677603	0.8		ug/L		%
|	Cr	52	15120	99662	0.5	9.960	0.048	ug/L	0.5 %
|	Cr	53	93861	123103	5.0	12.946	3.440	ug/L	26.6 %
[>	Tb	159	1097775	1166803	0.3		ug/L		%
|	Pb	207	225	37886	0.3	10.389	0.044	ug/L	0.4 %
|	Pb	208	1083	175489	0.5	10.353	0.088	ug/L	0.8 %

095

Quantitative Analysis Summary

Sample Date/Time: Wednesday, July 02, 2003 12:39:16

Dataset File: D:\ELAN\Dataset\2003\July\030702\CCB.052

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crpbapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: CCB

Sample Type:

Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[>	Sc-1	45	656991	675684	0.7		ug/L	%
|	Cr	52	15120	16073	1.8	0.062	0.020 ug/L	32.6 %
|	Cr	53	93861	136864	3.6	19.877	2.001 ug/L	10.1 %
[>	Tb	159	1097775	1177489	0.7		ug/L	%
|	Pb	207	225	374	4.7	0.036	0.006 ug/L	15.2 %
|	Pb	208	1083	1662	1.5	0.029	0.002 ug/L	7.2 %

096

Applied P & Ch Laboratory

13760 Magnolia Ave. Chino CA 91710

Tel: (909) 590-1828 Fax: (909) 590-1498

Submitted to:

GEOFON, Inc.

Attention: Leo Williamson

22632 Golden Spring Dr Ste 270

Diamond Bar 91765

Tel: (909)396-7662 Fax: (909)396-1455

APCL Analytical Report

Service ID #: 801-033112

Received: 04/28/03

Collected by:

Extracted: N/A

Collected on:04/28-05/07/03

Tested: N/A

Reported: 05/30/03

Sample Description: Water

Project Description: 04-4428.10 JPL

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result			
				DUPE-4-2Q03	DUPE-5-2Q03	DUPE-6-2Q03	EB-6-4/28/03
				03-03112-1	03-03112-2	03-03112-3	03-03112-4

CHROMIUM (a)

LEAD (a)

Component Analyzed	Method	Unit	PQL	Analysis Result			
				EB-7-4/29/03	EB-8-4/30/03	EB-9-5/1/03	EB-10-5/6/03
				03-03112-5	03-03112-6	03-03112-7	03-03112-8

CHROMIUM (a)

LEAD (a)

Component Analyzed	Method	Unit	PQL	Analysis Result			
				EB-11-5/7/03	MW-3-1	MW-3-2	MW-3-3
				03-03112-9	03-03112-10	03-03112-11	03-03112-12

CHROMIUM (a)

LEAD (a)

Component Analyzed	Method	Unit	PQL	Analysis Result			
				MW-3-4	MW-3-5	MW-11-1	MW-11-2
				03-03112-13	03-03112-14	03-03112-15	03-03112-16

CHROMIUM (a)

LEAD (a)

Component Analyzed	Method	Unit	PQL	Analysis Result			
				MW-11-3	MW-11-4	MW-11-5	MW-12-1
				03-03112-17	03-03112-18	03-03112-19	03-03112-20

CHROMIUM (a)

LEAD (a)

APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result			
				MW-12-2 03-03112-21	MW-12-3 03-03112-22	MW-12-4 03-03112-23	MW-12-5 03-03112-24
CHROMIUM ^(a)							
LEAD ^(a)							

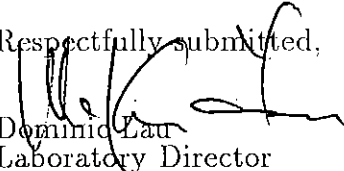
Component Analyzed	Method	Unit	PQL	Analysis Result			
				MW-17-1 03-03112-25	MW-17-2 03-03112-26	MW-17-3 03-03112-27	MW-17-4 03-03112-28
CHROMIUM ^(a)							
LEAD ^(a)							

Component Analyzed	Method	Unit	PQL	Analysis Result			
				MW-17-5 03-03112-29	MW-23-1 03-03112-30	MW-23-2 03-03112-31	MW-23-3 03-03112-32
CHROMIUM ^(a)							
LEAD ^(a)							

Component Analyzed	Method	Unit	PQL	Analysis Result			
				MW-23-4 03-03112-33	MW-23-5 03-03112-34	MW-24-1 03-03112-35	MW-24-2 03-03112-36
CHROMIUM ^(a)							
LEAD ^(a)							

Component Analyzed	Method	Unit	PQL	Analysis Result		
				MW-24-3 03-03112-37	MW-24-4 03-03112-38	MW-24-5 03-03112-39
CHROMIUM ^(a)						
LEAD ^(a)						

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit
 N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.
 J: Reported between PQL and MDL.
 Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DF's are 1.0
^(a) Subcontracted to Advanced Technology Laboratories Inc. See attached.

Respectfully submitted,

 Dominic Lau
 Laboratory Director
 Applied P & Ch Laboratory



INCORPORATED
22632 GOLDEN SPRINGS DR., SUITE 270
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CHAIN-OF-CUSTODY RECORD

LABORATORY COPY

MW-17 6023

GEOFON'S LAB COORDINATOR

LAB COORDINATOR'S PHONE

LAB COORDINATOR'S FAX

LABORATORY SERVICE ID

LABORATORY CONTACT

MAIL REPORT (COMPANY NAME)

Project Name: Brad Shojaee

Project Location: (909) 396-7662

Project Number: (909) 396-1455

LABORATORY PHONE: -

LABORATORY CONTACT: Kenny Chan

GEOFON INC.

Project Manager: Lee W. Williamson

Project Phone Number: (909) 396-1455

Project Fax: (909) 396-1455

LABORATORY ADDRESS: 13760 Margalita Ave

LABORATORY FAX: (909) 590-1498

RECIPIENT NAME: Lee W. Williamson

Project Address: 4800 Oak Grove Dr.

City, State and Zipcode: Pasadena, CA.

Client: US NAVY SUBV

City, State and Zipcode: Diamond Bar, CA 91765

Address: 27632 Golden Springs Dr. #270

Item	Sample Identifier	Matrix	Date	Time	Preserved	# of Cont.	QC Level	T.A.T	Analyses	Comments
1	MW-17-5	H ₂ O	4/28/03	800	341+	III	Normal	X	524.2 (NiO ₂) 200.7 (MnO ₂) 106 (Hex. Chloride) 510.5 (Ca) 320.0 (Ca) 534.0 (Residual) 200.8 (Ca F ₂)	DINERALS: Na/K/Ca/As/Mg/Fe
2	MW-17-4			950				X		
3	MW-17-3			1035				X		
4	MW-17-2			1150				X		
5	MW-17-1			1230				X		
6								X		
7	TB-6-4/28/03	H ₂ O				III	Normal	X		
8	EB-6-4/28/03		4/28/03	1050	341+ 141			X		
9								X		
10								X		

3112

SAMPLES COLLECTED BY: Lee Williamson
 RELINQUISHED BY: Lee Williamson
 RECEIVED BY: [Signature]
 DATE: 4/28/03
 TIME: 1510
 COOLER TEMPERATURE UPON RECEIPT: _____
 SAMPLE'S CONDITION UPON RECEIPT: _____

Distribution: White - Laboratory (To be returned with Analytical Report); Goldenrod - Project File; Yellow - Project Data Manager



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DIAMOND BAR, CA 91765 • (909) 396-7662 • FAX (909) 396-1455

CHAIN-OF-CUSTODY RECORD

LABORATORY COPY

MW-24 0025

GEOFON LAB COORDINATOR: **Brad Shojaee** (909) 396-7662
 LAB COORDINATOR'S PHONE: (909) 396-1455
 LAB COORDINATOR'S FAX: (909) 396-1455
 PROJECT NAME: **JPL MW Mon-2903** PROJECT LOCATION: **MW-24 (E. of Security Bldg.)** PROJECT NUMBER: **04-4428.10**
 PROJECT CONTACT: **Leo W. Williamson** PROJECT PHONE NUMBER: **(714) 920-8729** PROJECT FAX: **(909) 396-1455**
 PROJECT ADDRESS: **4800 Oak Grove Dr.** CITY, STATE AND ZIP CODE: **Pasadena, CA** CLIENT: **US NAVY SWDIR**
 PROJECT MANAGER: **Astria Fakheem** PROJECT MANAGER'S PHONE: **(909) 396-7662** PROJECT MANAGER'S FAX: **(909) 396-1455**

LABORATORY SERVICE ID: **-** LABORATORY CONTACT: **Kenny Chan**
 LABORATORY PHONE: **(661) 590-1828** LABORATORY FAX: **(909) 590-1498**
 LABORATORY ADDRESS: **13760 Maguire Ave** CITY, STATE AND ZIP CODE: **Chino, CA 91710**

MAIL REPORT (COMPANY NAME): **GEOFON INC.**
 RECIPIENT NAME: **Leo W. Williamson**
 ADDRESS: **22632 Golden Springs Dr #270**
 CITY, STATE AND ZIP CODE: **Diamond Bar, CA. 91765**

Item	Sample Identifier	Matrix	Date	Time	Preserved	# of Cont.	QC Level	T.A.T	Analyses												
									524.2 (VOCs)	200.1 (Hex Chloro)	716 (Hex Chloro)	510 (Hex Chloro)	300.0 (C10+)	314 (C10+)	202.8 (C10+)	160.1 (VOCs)	160.1 (VOCs)	160.1 (VOCs)			
1	MW-24-5	H ₂ O	4/29/03	840	HC1 None	3+1+	III	Normal	X	X	X	X	X	X	X	X	X	X	X	X	X
2	MW-24-4			935					X	X	X	X	X	X	X	X	X	X	X	X	X
3	MW-24-3			1040					X	X	X	X	X	X	X	X	X	X	X	X	X
4	MW-24-2			1210					X	X	X	X	X	X	X	X	X	X	X	X	X
5	MW-24-1			1400					X	X	X	X	X	X	X	X	X	X	X	X	X
6																					
7	TB-7-4/29/03	H ₂ O			HC1	2	III	Normal	X												
8	EB-7-4/29/03			4/29/03	HC1 None	3+1+			X	X	X	X	X	X	X	X	X	X	X	X	X
9	DUPE-4-2903				HC1 None	4+1+			X	X	X	X	X	X	X	X	X	X	X	X	X
10																					

SAMPLES COLLECTED BY: **Leo W. Williamson** COURIER AND AIR BILL NUMBER: _____
 REPRODUCED BY: **Leo W. Williamson** RECEIVED BY: **LEONARD S.** DATE: **4/29/03** TIME: **1450**
 COOLER TEMPERATURE UPON RECEIPT: _____
 SAMPLE'S CONDITION UPON RECEIPT: _____

3112

Comments

NORMAL: Na/K/Ca/HS/MS/TE



GEOFON

INCORPORATED

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CHAIN-OF-CUSTODY RECORD

LABORATORY COPY

MW-23 0027

GEOPON'S LAB COORDINATOR

LAB COORDINATOR'S PHONE

LAB COORDINATOR'S FAX

LABORATORY SERVICE ID

LABORATORY CONTACT

MAIL REPORT (COMPANY NAME)

PROJECT NAME: Brad Shojae

LAB COORDINATOR'S PHONE: (909) 396-7662

LAB COORDINATOR'S FAX: (909) 396-1455

LABORATORY SERVICE ID: -

LABORATORY CONTACT: Kenny Chan

MAIL REPORT (COMPANY NAME): GEOFON, INC.

PROJECT ADDRESS: 1714 W. Mon-2903

PROJECT LOCATION: MW-23 (N. of B1 233)

PROJECT NUMBER: 04-442810

LABORATORY PHONE: (909) 90-1828

LABORATORY FAX: (909) 590-1498

RECIPIENT NAME: Leo W. Williamson

PROJECT CONTACT: Leo W. Williamson

PROJECT PHONE NUMBER: (909) 920-8729

PROJECT FAX: (909) 396-1455

LABORATORY ADDRESS: 13760 Magnolia Ave

LABORATORY CONTACT: Kenny Chan

RECIPIENT NAME: Leo W. Williamson

PROJECT ADDRESS: 4800 Oakhurst Dr.

CITY, STATE AND ZIP CODE: Tasaclena, CA

CLIENT: US Navy, SMDIV

CITY, STATE AND ZIP CODE: China, CA 91709

ADDRESS: 22632 Golden Springs Dr. #270

CITY, STATE AND ZIP CODE: Diamond Bar, CA 91765

PROJECT MANAGER: Asrar Fakhem

PROJECT MANAGER'S PHONE: (909) 396-7662

PROJECT MANAGER'S FAX: (909) 396-1455

LABORATORY ADDRESS: 5242 (Vols)

LABORATORY CONTACT: Kenny Chan

CITY, STATE AND ZIP CODE: Diamond Bar, CA 91765

Item	Sample Identifier	Matrix	Date	Time	Preserved	# of Cont.	QC Level	T.A.T	Analyses										Comments
									Asrar Fakhem	Asrar Fakhem	Asrar Fakhem	Asrar Fakhem	Asrar Fakhem	Asrar Fakhem	Asrar Fakhem	Asrar Fakhem	Asrar Fakhem	Asrar Fakhem	
1	MW-23-5	H ₂ O	4/30/03	820	3-11+	III	Normal	N	X	X	X	X	X	X	X	X	X	MINEALS: Na/K/Ca/As/Mg/Fe MS/MSD	
2	MW-23-4			900				N	X	X	X	X	X	X	X	X	X		
3	MW-23-3			940				N	X	X	X	X	X	X	X	X	X		
4	MW-23-2			1025				N	X	X	X	X	X	X	X	X	X		
5	MW-23-1			1100				N	X	X	X	X	X	X	X	X	X		
6																			
7	TB-8-4/30/03	H ₂ O	4/30/03	-	HC1	2	III	Normal	X										
8	EB-8-4/30/03			835	HC1 NONE HNO ₃	3-11+ 1-1+		X	X	X	X	X	X	X	X	X	X		
9																			
10																			

8112

SAMPLES COLLECTED BY: Leo W. Williamson

COURIER AND AIR BILL NUMBER:

RELIQUISHED BY: Leo W. Williamson

RECEIVED BY: [Signature]

DATE: 4/30/03

TIME: 11:35

COOLER TEMPERATURE UPON RECEIPT:

SAMPLE'S CONDITIONS UPON RECEIPT:

DISTRIBUTION: White - Laboratory (To be returned with Analytical Report); Goldenrod - Project File; Yellow - Project Data Manager

COOLER TEMPERATURE UPON RECEIPT:

SAMPLE'S CONDITIONS UPON RECEIPT:



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CHAIN-OF-CUSTODY RECORD

LABORATORY COPY

MW-3

0028

GEOFON LAB COORDINATOR: **Leo W. Williamson**
 LAB COORDINATOR'S PHONE: **(909) 396-7662**
 LAB COORDINATOR'S FAX: **(909) 396-1455**
 PROJECT NAME: **JPL W/MON-2903**
 PROJECT LOCATION: **MW-3 (Selling Ponds)**
 PROJECT NUMBER: **04-4428.10**
 PROJECT CONTACT: **Leo W. Williamson**
 PROJECT PHONE NUMBER: **(714) 920-8729**
 PROJECT FAX: **(909) 396-1455**
 PROJECT ADDRESS: **4800 Oak Grove Dr**
 CITY, STATE AND ZIP CODE: **Pasadena, CA, US WA OR SWOR**
 PROJECT MANAGER: **Asrar Fahren**
 PROJECT MANAGER'S PHONE: **(909) 396-7662**
 PROJECT MANAGER'S FAX: **(909) 396-1455**

LABORATORY SERVICE ID: **-**
 LABORATORY CONTACT: **Kenny Egan**
 LABORATORY ADDRESS: **13760 Magallan Ave.**
 CITY, STATE AND ZIP CODE: **Chino, CA 91710**
 LABORATORY PHONE: **(909) 399-4828**
 LABORATORY FAX: **(909) 590-1498**
 MAIL REPORT (COMPANY NAME): **GEOFON, INC.**
 RECIPIENT NAME: **Leo W. Williamson**
 ADDRESS: **22632 Golden Springs Dr. #270**
 CITY, STATE AND ZIP CODE: **Diamond Bar, CA. 91765**

Item	Sample Identifier	Matrix	Date	Time	Preserved	# of Cont.	QC Level	T.A.T	Analyses										Comments			
									524.2 (VOCs)	200.7 (Methanol)	719.6 (Hex Chlorobenzene)	510.2 (C1 to C4 HCs)	300.0 (C1 to C4 HCs)	314.0 (Benzene)	160.1 (TDS)	200.8 (C.F. PD)	MINERALS: Na/K/Ca/Mg/Fe					
1	MW-3-5	H ₂ O	5/1/03	750	3H+ 1H2	3H+	III	NORMAL	X	X	X	X	X	X	X	X	X	X	X	X	X	
2	MW-3-4			945					X	X	X	X	X	X	X	X	X	X	X	X	X	
3	MW-3-3			925					X	X	X	X	X	X	X	X	X	X	X	X	X	
4	MW-3-2			1050					X	X	X	X	X	X	X	X	X	X	X	X	X	
5	MW-3-1			1130					X	X	X	X	X	X	X	X	X	X	X	X	X	
6																						
7	TB-9-5/1/03	H ₂ O	-	-	HC1	2	III	NORMAL	X													
8	EB-9-5/1/03			805	RC1 NONE NRD3	3H+ 1H+			X	X	X	X	X	X	X	X	X	X	X	X	X	
9	DUPE-5-2903			-			IV		X	X	X	X	X	X	X	X	X	X	X	X	X	
10																						

SAMPLES COLLECTED BY: **Leo W. Williamson**
 RELINQUISHED BY: **Leo W. Williamson**
 CORNER AND AIR BILL NUMBER: **5/1/03 1370**
 RECEIVED BY: **Asrar Fahren**
 DATE: **5/1/03**
 TIME: **1405**
 COOLER TEMPERATURE UPON RECEIPT:
 SAMPLE'S CONDITION UPON RECEIPT:

3112

Distribution: White - Laboratory (To be returned with Analytical Report); Goldenrod - Project File; Yellow - Project Data Manager



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CHAIN-OF-CUSTODY RECORD

LABORATORY COPY

MW-11 0029

GEOPON LAB COORDINATOR Brad Shojaee	LAB COORDINATOR'S PHONE (909) 396-7662	LAB COORDINATOR'S FAX (909) 396-1455	LABORATORY SERVICE ID -	LABORATORY CONTACT Kenny Chan	MAIL REPORT (COMPANY NAME) GEOFON, INC.
PROJECT NAME JPL GW Mon-2003	PROJECT LOCATION MW-11 (S. of B1 277)	PROJECT NUMBER 04-4428.10	LABORATORY PHONE (909) 580-1828	LABORATORY FAX (909) 580-1498	RECIPIENT NAME Lea W. Williamson
PROJECT CONTACT Lea W. Williamson	PROJECT PHONE NUMBER (714) 920-8729	PROJECT FAX (909) 396-1455	LABORATORY ADDRESS 13760 Magnolia Ave	CITY, STATE AND ZIP CODE Chino, CA 91710	ADDRESS 22632 Golden Springs Dr. #270
PROJECT ADDRESS 4800 Oak Grove Dr	CITY, STATE AND ZIP CODE Pasadena, CA	CLIENT US NAVY SWOIV	PROJECT MANAGER'S PHONE (909) 396-7662	PROJECT MANAGER'S FAX (909) 396-1455	CITY, STATE AND ZIP CODE Diamond Bar, CA 91765

Item	Sample Identifier	Matrix		Date	Time	Preserved	# of Cont.	QC Level	T.A.T	Analyses										Comments				
		H ₂ O	5/6/03							755	3-11+	III	Normal	524.2 (VOC)	200.7 & 202.9 (MMHCs)	716.1 Hex (Hex)	510.2, 200.8, 202.9 (PAHs)	200.0 CA (204 INO)	200.0 CA (204 INO)		374.0 (Recovery)	160.1 (Pb) (204 INO)	200.8 (Cd)	
1	MW-11-5	H ₂ O	5/6/03	755	3-11+	III	Normal	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	MINEPAC: Ni/K/Cd/As/Pb/1Fe
2	MW-11-4			840				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	AS/MSD
3	MW-11-3			950				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
4	MW-11-2			1030				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
5	MW-11-1			1105				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
6																								
7	TB-10-5/6/03	H ₂ O						III	Normal	X														
8	EB-10-5/6/03		5/6/03	855	3-11+	III	Normal	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
9																								
10																								

3112

SAMPLES COLLECTED BY Lea W. Williamson	COURIER AND AIR BILL NUMBER	RECEIVED BY AMUNWIT A	DATE 5/6/03 1830	TIME 5/6/03 1315	SAMPLE'S CONDITION UPON RECEIPT
REINQUISHED BY AMUNWIT A					

Distribution: White - Laboratory (To be returned with Analytical Report); Goldenrod - Project File; Yellow - Project Data Manager

Applied P & Ch Laboratory

13760 Magnolia Ave., Chino CA 91710

Tel: (909) 590-1828 Fax: (909) 590-1498

Sample Receiving Checklist

3112

APCL ServiceID:

Client Name/Project:

Geobn

1. Sample Arrival

Date/Time Received

4/28/03 1510

Date/Time Opened

4/28/03 1510

By (name):

Kenn Chan
Adam Wood

Custody Transfer:

Client

Golden State

UPS

US Mail

FedEx

APCL Empl

2. Chain-of-Custody (CoC)

With Samples?

Faxed?

Client has Copy?

Signed, dated? By:

Project ID?

Analyses Clear?

Hold Samples?

on Hold

Received 3

CoC/Docs Zip-Locked under lid?

Compos. #:

#Samples OK?

Discrepancies?

Client notified?

Response (attach docs):

3. Shipping Container/Cooler

Cooler Used? # of

2

Cooled by:

Ice

Blue Ice

Dry Ice

None

Temp °C

3.0

4.2

(Cooler temperature measured from temp blank if present, otherwise measured from the cooler).

Cooler Custody Seal?

Absent

Intact

Tampered?

4. Sample Preservation

pH < 2

pH > 12

If Not, pH =

Preserved by:

Client

APCL

Third Party

5. Holding-time Requirements

pH 24hr

BACT 6/24hr

Cr^{VI} 24hr

NO₃ 48hr

BOD 48hr

Cl₂ ASAP

Turbidity 48hr

DO ASAP

Fe(II) ASAP

HT Expired?

Client notified?

6. Sample Container Condition

Intact?

Broken?

Documented?

Number:

Type:

plastic

glass

Tube: brass/SS

Tedlar Bag

Quantity OK?

Leaking?

Anomaly?

Caps tight?

Air Bubbles?

Anomaly?

Labels:

Unique ID?

Date/Time

Preserved?

7. Turn Around Time

RUSH TAT:

5 days

Std (7-10 days)

Not Marked

8. Sample Matrix

Drinking H₂O

Other Liq

Soil

Wipe

Polymer

Air

Other:

Ground H₂O

Sludge

Filter

Oil/Petro

Paint

W. Water

Extract

Unknown

9. Pre-Login-Check List Completed & OK?

ALL OK? (if not, attach docs)

Client Contact? (Name: _____) Date/Time: _____

Received/Checked by: *[Signature]*

Date: 28 Apr 2003

Time: 7:30 a.m.

*HT: Samples must be analyzed for results to reflect total concentrations. Results generated outside required of holding times are considered minimal values and may be used to define waste as hazardous but not as non-hazardous.

Sample Receiving Checklist

APCL ServiceID: **3112** Client Name/Project: Gordon JPL

1. Sample Arrival

Date/Time Received 4/29/03 1535 Date/Time Opened 4/29/03 1535 By (name): Kenneth
Custody Transfer: Client Golden State UPS US Mail FedEx APCL Empl: Alan Wood

2. Chain-of-Custody (CoC)

With Samples? Faxed? Client has Copy? Signed, dated? By: _____
 Project ID? Analyses Clear? Hold Samples? # on Hold _____ # Received 9
 CoC/Docs Zip-Locked under lid? Compos.#: _____ #Samples OK?
 Discrepancies? Client notified? Response (attach docs): _____

3. Shipping Container/Cooler

Cooler Used? # of 1 Cooled by: Ice Blue Ice Dry Ice None
Temp °C 3.9
(Cooler temperature measured from temp blank if present, otherwise measured from the cooler).
Cooler Custody Seal? Absent Intact Tampered?

4. Sample Preservation

pH <2 pH >12
If Not, pH = _____ Preserved by: Client APCL Third Party _____

5. Holding-time Requirements

pH 24hr BACT 6/24hr Cr^{VI} 24hr NO₃⁻ 48hr BOD 48hr
 Cl₂ ASAP Turbidity 48hr DO ASAP Fe(II) ASAP
 HT Expired? Client notified?

6. Sample Container Condition

Intact? Broken? Documented? Number: _____
Type: plastic glass Tube: brass/SS Tedlar Bag
 Quantity OK? Leaking? Anomaly?
 Caps tight? Air Bubbles? Anomaly?
Labels: Unique ID? Date/Time Preserved?

7. Turn Around Time

RUSH TAT: _____ Std (7-10 days) Not Marked

8. Sample Matrix

Drinking H₂O Other Liq Soil Wipe Polymer Air Other: _____
 Ground H₂O Sludge Filter Oil/Petro Paint W. Water Extract Unknown

9. Pre-Login Check List Completed & OK?

ALL OK? (if not, attach docs) Client Contact? (Name: _____) Date/Time: _____
Received/Checked by: [Signature] Date: 29 Apr 2003 Time: 7:46 a.m.

*HT: Samples must be analyzed for results to reflect total concentrations. Results generated outside required of holding times are considered minimal values and may be used to define waste as hazardous but not as non-hazardous.

Sample Receiving Checklist

3112

APCL Service ID: _____

Client Name/Project: Geobn JPL

1. Sample Arrival

Date/Time Received 4/30/03 1220 Date/Time Opened 4/30/03 1220 By (name): Kenneth Chan

Custody Transfer: Client Golden State UPS US Mail FedEx APCL Empl: Adm Uebel

2. Chain-of-Custody (CoC)

With Samples? Faxed? Client has Copy? Signed, dated? By: _____
 Project ID? Analyses Clear? Hold Samples? # on Hold _____ # Received 7
 CoC/Docs Zip-Locked under lid? Compos. #: _____ #Samples OK?
 Discrepancies? Client notified? Response (attach docs): _____

3. Shipping Container/Cooler

Cooler Used? # of 1 Cooled by: Ice Blue Ice Dry Ice None
Temp °C 4.5

(Cooler temperature measured from temp blank if present, otherwise measured from the cooler).

Cooler Custody Seal? Absent Intact Tampered?

4. Sample Preservation

pH <2 pH >12
If Not, pH = _____ Preserved by: Client APCL Third Party _____

5. Holding-time Requirements

pH 24hr BACT 6/24hr Cr^{VI} 24hr NO₃ 48hr BOD 48hr
 Cl₂ ASAP Turbidity 48hr DO ASAP Fe(II) ASAP
 HT Expired? Client notified?

6. Sample Container Condition

Intact? Broken? Documented? Number: _____
Type: plastic glass Tube: brass/SS Tedlar Bag
 Quantity OK? Leaking? Anomaly?
 Caps tight? Air Bubbles? Anomaly?
Labels: Unique ID? Date/Time Preserved?

7. Turn Around Time

RUSH TAT: _____ Std (7-10 days) Not Marked

8. Sample Matrix

Drinking H₂O Other Liq Soil Wipe Polymer Air Other: _____
 Ground H₂O Sludge Filter Oil/Petro Paint W. Water Extract Unknown

9. Pre-Login Check List Completed & OK?

ALL OK? (if not, attach docs) Client Contact? (Name: _____) Date/Time: _____

Received/Checked by: [Signature] Date: 30 Apr 2003 Time: 7:42 a.m.

*HT: Samples must be analyzed for results to reflect total concentrations. Results generated outside required of holding times are considered minimal values and may be used to define waste as hazardous but not as non-hazardous.

Sample Receiving Checklist

APCL Service ID: **3112**

Client Name/Project: Carbon

1. Sample Arrival

Date/Time Received 5/1/03 1405 Date/Time Opened 5/1/03 1405 By (name): Kenneth Chan
Custody Transfer: Client Golden State UPS US Mail FedEx APCL Emp: Adam Wood

2. Chain-of-Custody (CoC)

With Samples? Faxed? Client has Copy? Signed, dated? By: _____
 Project ID? Analyses Clear? Hold Samples? # on Hold _____ # Received 8
 CoC/Docs Zip-Locked under lid? Compos. #: _____ #Samples OK?
 Discrepancies? Client notified? Response (attach docs): _____

3. Shipping Container/Cooler

Cooler Used? # of 1 Cooled by: Ice Blue Ice Dry Ice None
Temp °C 4.1
(Cooler temperature measured from temp blank if present, otherwise measured from the cooler).
Cooler Custody Seal? Absent Intact Tampered?

4. Sample Preservation

pH <2 pH >12
If Not, pH = _____ Preserved by: Client APCL Third Party _____

5. Holding-time Requirements

pH 24hr BACT 6/24hr Cr^VI 24hr NO₃⁻ 48hr BOD 48hr
 Cl₂ ASAP Turbidity 48hr DO ASAP Fe(II) ASAP
 HT Expired? Client notified?

6. Sample Container Condition

Intact? Broken? Documented? Number: _____
Type: plastic glass Tube: brass/SS Tedlar Bag
 Quantity OK? Leaking? Anomaly?
 Caps tight? Air Bubbles? Anomaly?
Labels: Unique ID? Date/Time Preserved?

7. Turn Around Time

RUSH TAT: _____ Std (7-10 days) Not Marked

8. Sample Matrix

Drinking H₂O Other Liq Soil Wipe Polymer Air Other: _____
 Ground H₂O Sludge Filter Oil/Petro Paint W. Water Extract Unknown

9. Pre-Login Check List Completed & OK?

ALL OK? (if not, attach docs) Client Contact? (Name: _____) Date/Time: _____

Received/Checked by: [Signature] Date: 1 May 2003 Time: 7:42 a.m.

*HT: Samples must be analyzed for results to reflect total concentrations. Results generated outside required of holding times are considered minimal values and may be used to define waste as hazardous but not as non-hazardous.

Applied P & Ch Laboratory

13760 Magnolia Ave., Chino CA 91710

Tel: (909) 590-1828 Fax: (909) 590-1498

Sample Receiving Checklist

APCL ServiceID: **3112** Client Name/Project: Geofon

1. Sample Arrival

Date/Time Received 5/6/03 1315 Date/Time Opened 5/6/03 1315 By (name): Kenneth Chan
Custody Transfer: Client Golden State UPS US Mail FedEx APCL Empl:

2. Chain-of-Custody (CoC)

With Samples? Faxed? Client has Copy? Signed, dated? By: _____
 Project ID? Analyses Clear? Hold Samples? #on Hold _____ # Received 7
 CoC/Docs Zip-Locked under lid? Compos.#: _____ #Samples OK?
 Discrepancies? Client notified? Response (attach docs): _____

3. Shipping Container/Cooler

Cooler Used? # of 1 Cooled by: Ice Blue Ice Dry Ice None
Temp °C 4.1
(Cooler temperature measured from temp blank if present, otherwise measured from the cooler).
Cooler Custody Seal? Absent Intact Tampered?

4. Sample Preservation

pH <2 pH >12
If Not, pH = _____ Preserved by: Client APCL Third Party

5. Holding-time Requirements

pH 24hr BACT 6/24hr Cr^{VI} 24hr NO₃⁻ 48hr BOD 48hr
 Cl₂ ASAP Turbidity 48hr DO ASAP Fe(II) ASAP
 HT Expired? Client notified?

6. Sample Container Condition

Intact? Broken? Documented? Number: _____
Type: plastic glass Tube: brass/SS Tedlar Bag
 Quantity OK? Leaking? Anomaly?
 Caps tight? Air Bubbles? Anomaly?
Labels: Unique ID? Date/Time Preserved?

7. Turn Around Time

RUSH TAT: _____ Std (7-10 days) Not Marked

8. Sample Matrix

Drinking H₂O Other Liq Soil Wipe Polymer Air Other: _____
 Ground H₂O Sludge Filter Oil/Petro Paint W. Water Extract Unknown

9. Pre-Login Check List Completed & OK?

ALL OK? (if not, attach docs) Client Contact? (Name: _____) Date/Time: _____
Received/Checked by: Kenneth Chan Date: 6 May 2003 Time: 7:38 a.m.

*HT: Samples must be analyzed for results to reflect total concentrations. Results generated outside required of holding times are considered minimal values and may be used to define waste as hazardous but not as non-hazardous.

Applied P & Ch Laboratory

13760 Magnolia Ave., Chino CA 91710

Tel: (909) 590-1828 Fax: (909) 590-1498

Sample Receiving Checklist

APCL Service ID **3112** Client Name/Project: Geofon JPL

1. Sample Arrival

Date/Time Received 5/7/03 1225 Date/Time Opened 5/7/03 1225 By (name): Kenny Chan
Custody Transfer: Client Golden State UPS US Mail FedEx APCL Empl: Adam

2. Chain-of-Custody (CoC)

With Samples? Faxed? Client has Copy? Signed, dated? By: _____
 Project ID? Analyses Clear? Hold Samples? # on Hold _____ # Received 8
 CoC/Docs Zip-Locked under lid? Compos. #: _____ #Samples OK?
 Discrepancies? Client notified? Response (attach docs): _____

3. Shipping Container/Cooler

Cooler Used? # of 1 Cooled by: Ice Blue Ice Dry Ice None
Temp °C 4.1
(Cooler temperature measured from temp blank if present, otherwise measured from the cooler).
Cooler Custody Seal? Absent Intact Tampered?

4. Sample Preservation

pH <2 pH >12
If Not, pH = _____ Preserved by: Client APCL Third Party _____

5. Holding-time Requirements

pH 24hr BACT 6/24hr Cr^{VI} 24hr NO₃ 48hr BOD 48hr
 Cl₂ ASAP Turbidity 48hr DO ASAP Fe(II) ASAP
 HT Expired? Client notified?

6. Sample Container Condition

Intact? Broken? Documented? Number: _____
Type: plastic glass Tube: brass/SS Tedlar Bag
 Quantity OK? Leaking? Anomaly?
 Caps tight? Air Bubbles? Anomaly?
Labels: Unique ID? Date/Time Preserved?

7. Turn Around Time

RUSH TAT: _____ Std (7-10 days) Not Marked

8. Sample Matrix

Drinking H₂O Other Liq Soil Wipe Polymer Air Other: _____
 Ground H₂O Sludge Filter Oil/Petro Paint W. Water Extract Unknown

9. Pre-Login Check List Completed & OK?

ALL OK? (if not, attach docs) Client Contact? (Name: _____) Date/Time: _____
Received/Checked by: Kenny Chan Date: 7 May 2003 Time: 7:40 a.m.

*HT: Samples must be analyzed for results to reflect total concentrations. Results generated outside required of holding times are considered minimal values and may be used to define waste as hazardous but not as non-hazardous.

Applied P & Ch Laboratory

13760 Magnolia Ave. Chino CA 91710

Tel: (909) 590-1828 Fax: (909) 590-1498

Sample Login: Check List

03-03112 (0470_ 140) (2202777_ 140)

05/07/03

Part 1: General Information

<input type="checkbox"/> Company Information	Name:	<i>GEOFON, Inc.</i>
	Address:	<i>22632 Golden Spring Dr Ste 270 ,Diamond Bar ,CA 91765</i>
<input type="checkbox"/> Project Information	Project Description:	<i>JPL</i>
	Project #:	<i>04-4428.10</i>
<input type="checkbox"/> Billing Information	P.O. #:	
	Bill Address:	<i>22632 Golden Spring Dr Ste 270 ,Diamond Bar ,CA 91765</i>
	Lab Project ID:	
	Client Database #:	<i>3</i>
<input type="checkbox"/> Receiving Information	Who Received Sample?	<i>Kenny Chan</i>
	Receiving Date/Time:	<i>04/28/03 1510</i>
	COC No.	
<input type="checkbox"/> Shipping Information	Shipping Company	<i>APCL pick up</i>
	Packing Information:	<i>Cooler/Ice Chester</i>
	Cooler Temperature:	<i>3.8 4.2 °C</i>
<input type="checkbox"/> Container Information	Container Provider:	<i>Client</i>
<input type="checkbox"/> Sampling Information	Sampling Person:	
	Sampling Company:	<i>Client</i>
<input type="checkbox"/> Turn-Around-Time Option:		<i>Rush 5 working day(s)</i>
<input type="checkbox"/> QC Option:		<i>NEESA D</i>
<input type="checkbox"/> Disposal Option:		<i>Not specify</i>

Part 2: Sample Information

Seq. #	Sample ID (on COC)	Sample Sub-ID	APCL Sample ID	Matrix	Cont- tainer	Preser- vative	Vol, ml Am. g	# of Replica	Condition G, L, B	Collected mmddyy	Hold ?	Composite Group	TAT Days	
1	MW-17-5	Metal	03-03112-29	W	P	N	500	1	G	042803	N	0	6	<input type="checkbox"/>
2	MW-17-4	Metal	03-03112-28	W	P	N	500	1	G	042803	N	0	6	<input type="checkbox"/>
3	MW-17-3	Metal	03-03112-27	W	P	N	500	1	G	042803	N	0	6	<input type="checkbox"/>
4	MW-17-2	Metal	03-03112-26	W	P	N	500	2	G	042803	N	0	6	<input type="checkbox"/>
5	MW-17-1	Metal	03-03112-25	W	P	N	500	1	G	042803	N	0	6	<input type="checkbox"/>
6	EB-6-4/28/03	Metal	03-03112-4	W	P	N	500	1	G	042803	N	0	6	<input type="checkbox"/>
7	MW-24-5	Metal	03-03112-39	W	P	N	500	1	G	042903	N	0	6	<input type="checkbox"/>
8	MW-24-4	Metal	03-03112-38	W	P	N	500	1	G	042903	N	0	6	<input type="checkbox"/>
9	MW-24-3	Metal	03-03112-37	W	P	N	500	1	G	042903	N	0	6	<input type="checkbox"/>
10	MW-24-2	Metal	03-03112-36	W	P	N	500	1	G	042903	N	0	6	<input type="checkbox"/>
11	MW-24-1	Metal	03-03112-35	W	P	N	500	1	G	042903	N	0	6	<input type="checkbox"/>
12	EB-7-4/29/03	Metal	03-03112-5	W	P	N	500	1	G	042903	N	0	6	<input type="checkbox"/>
13	DUPE-4-2Q03	Metal	03-03112-1	W	P	N	500	1	G	042903	N	0	6	<input type="checkbox"/>
14	MW-23-5	Metal	03-03112-34	W	P	N	500	2	G	043003	N	0	6	<input type="checkbox"/>
15	MW-23-4	Metal	03-03112-33	W	P	N	500	1	G	043003	N	0	6	<input type="checkbox"/>
16	MW-23-3	Metal	03-03112-32	W	P	N	500	1	G	043003	N	0	6	<input type="checkbox"/>
17	MW-23-2	Metal	03-03112-31	W	P	N	500	1	G	043003	N	0	6	<input type="checkbox"/>
18	MW-23-1	Metal	03-03112-30	W	P	N	500	1	G	043003	N	0	6	<input type="checkbox"/>
19	EB-8-4/30/03	Metal	03-03112-6	W	P	N	500	1	G	043003	N	0	6	<input type="checkbox"/>
20	MW-3-5	Metal	03-03112-14	W	P	N	500	1	G	050103	N	0	6	<input type="checkbox"/>
21	MW-3-4	Metal	03-03112-13	W	P	N	500	1	G	050103	N	0	6	<input type="checkbox"/>
22	MW-3-3	Metal	03-03112-12	W	P	N	500	1	G	050103	N	0	6	<input type="checkbox"/>
23	MW-3-2	Metal	03-03112-11	W	P	N	500	1	G	050103	N	0	6	<input type="checkbox"/>
24	MW-3-1	Metal	03-03112-10	W	P	N	500	1	G	050103	N	0	6	<input type="checkbox"/>
25	EB-9-5/1/03	Metal	03-03112-7	W	P	N	500	1	G	050103	N	0	6	<input type="checkbox"/>
26	DUPE-5-2Q03	Metal	03-03112-2	W	P	N	500	1	G	050103	N	0	6	<input type="checkbox"/>
27	MW-11-5	Metal	03-03112-19	W	P	N	500	1	G	050603	N	0	6	<input type="checkbox"/>
28	MW-11-4	Metal	03-03112-18	W	P	N	500	1	G	050603	N	0	6	<input type="checkbox"/>
29	MW-11-3	Metal	03-03112-17	W	P	N	500	2	G	050603	N	0	6	<input type="checkbox"/>
30	MW-11-2	Metal	03-03112-16	W	P	N	500	1	G	050603	N	0	6	<input type="checkbox"/>
31	MW-11-1	Metal	03-03112-15	W	P	N	500	1	G	050603	N	0	6	<input type="checkbox"/>
32	EB-10-5/6/03	Metal	03-03112-8	W	P	N	500	1	G	050603	N	0	6	<input type="checkbox"/>
33	MW-12-5	Metal	03-03112-24	W	P	N	500	1	G	050703	N	0	6	<input type="checkbox"/>
34	MW-12-4	Metal	03-03112-23	W	P	N	500	1	G	050703	N	0	6	<input type="checkbox"/>
35	MW-12-3	Metal	03-03112-22	W	P	N	500	1	G	050703	N	0	6	<input type="checkbox"/>
36	MW-12-2	Metal	03-03112-21	W	P	N	500	1	G	050703	N	0	6	<input type="checkbox"/>
37	MW-12-1	Metal	03-03112-20	W	P	N	500	1	G	050703	N	0	6	<input type="checkbox"/>
38	EB-11-5/7/03	Metal	03-03112-9	W	P	N	500	1	G	050703	N	0	6	<input type="checkbox"/>
39	DUPE-6-2Q03	Metal	03-03112-3	W	P	N	500	1	G	050703	N	0	6	<input type="checkbox"/>

Part 3: Analysis Information

Test Items:

200.7/6010B

Chromium, Cr, by ICP

200.7/6010B

Lead, Pb, by ICP

Seq. #	Client's Sample ID (as given on COC)	Sample Sub-ID	APCL Sample ID	Matrix	CR	PB	
1	MW-17-5	Metal	03-03112-29	W	X	X	<input type="checkbox"/>
2	MW-17-4	Metal	03-03112-28	W	X	X	<input type="checkbox"/>
3	MW-17-3	Metal	03-03112-27	W	X	X	<input type="checkbox"/>
4	MW-17-2	Metal	03-03112-26	W	X	X	<input type="checkbox"/>
5	MW-17-1	Metal	03-03112-25	W	X	X	<input type="checkbox"/>
6	EB-6-4/28/03	Metal	03-03112-4	W	X	X	<input type="checkbox"/>
7	MW-24-5	Metal	03-03112-39	W	X	X	<input type="checkbox"/>
8	MW-24-4	Metal	03-03112-38	W	X	X	<input type="checkbox"/>
9	MW-24-3	Metal	03-03112-37	W	X	X	<input type="checkbox"/>
10	MW-24-2	Metal	03-03112-36	W	X	X	<input type="checkbox"/>
11	MW-24-1	Metal	03-03112-35	W	X	X	<input type="checkbox"/>
12	EB-7-4/29/03	Metal	03-03112-5	W	X	X	<input type="checkbox"/>
13	DUPE-4-2Q03	Metal	03-03112-1	W	X	X	<input type="checkbox"/>
14	MW-23-5	Metal	03-03112-34	W	X	X	<input type="checkbox"/>
15	MW-23-4	Metal	03-03112-33	W	X	X	<input type="checkbox"/>
16	MW-23-3	Metal	03-03112-32	W	X	X	<input type="checkbox"/>
17	MW-23-2	Metal	03-03112-31	W	X	X	<input type="checkbox"/>
18	MW-23-1	Metal	03-03112-30	W	X	X	<input type="checkbox"/>
19	EB-8-4/30/03	Metal	03-03112-6	W	X	X	<input type="checkbox"/>
20	MW-3-5	Metal	03-03112-14	W	X	X	<input type="checkbox"/>
21	MW-3-4	Metal	03-03112-13	W	X	X	<input type="checkbox"/>
22	MW-3-3	Metal	03-03112-12	W	X	X	<input type="checkbox"/>
23	MW-3-2	Metal	03-03112-11	W	X	X	<input type="checkbox"/>
24	MW-3-1	Metal	03-03112-10	W	X	X	<input type="checkbox"/>
25	EB-9-5/1/03	Metal	03-03112-7	W	X	X	<input type="checkbox"/>
26	DUPE-5-2Q03	Metal	03-03112-2	W	X	X	<input type="checkbox"/>
27	MW-11-5	Metal	03-03112-19	W	X	X	<input type="checkbox"/>
28	MW-11-4	Metal	03-03112-18	W	X	X	<input type="checkbox"/>
29	MW-11-3	Metal	03-03112-17	W	X	X	<input type="checkbox"/>
30	MW-11-2	Metal	03-03112-16	W	X	X	<input type="checkbox"/>
31	MW-11-1	Metal	03-03112-15	W	X	X	<input type="checkbox"/>
32	EB-10-5/6/03	Metal	03-03112-8	W	X	X	<input type="checkbox"/>
33	MW-12-5	Metal	03-03112-24	W	X	X	<input type="checkbox"/>
34	MW-12-4	Metal	03-03112-23	W	X	X	<input type="checkbox"/>
35	MW-12-3	Metal	03-03112-22	W	X	X	<input type="checkbox"/>
36	MW-12-2	Metal	03-03112-21	W	X	X	<input type="checkbox"/>
37	MW-12-1	Metal	03-03112-20	W	X	X	<input type="checkbox"/>
38	EB-11-5/7/03	Metal	03-03112-9	W	X	X	<input type="checkbox"/>
39	DUPE-6-2Q03	Metal	03-03112-3	W	X	X	<input type="checkbox"/>

Client's Requirement:

RUN MS/MSD ON SAMPLE # 17, 26, 34

Login By En-Yu Paul Kou

Check By 