ESAT Controlled Number: ESAT5.17.00905-pj 17 NOV 09

RECEIVED
NOV 23 2009
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF LAND QUALITY

DATE: November 17, 2009

Indiana Dept of Environmental Management
ATTN: Mark Jaworski
100 N. Senate Avenue – Room N1255
Indianapolis, IN 46804-2222

SITE NAME: Beck's Lake Site (IN)

CASE #	LAB	SAMPLES	SDG	MATRIX
39095	A4 Scientific	14	ME2QT0	soil

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

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

Data Received by:_____ Date:_____

PROBLEMS:

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

_____

_____

Received by Data Management Coordinator, CRL for file.

Signature:_____ Date:_____

FROM: **U.S. EPA - Region 5**
Sylvia Griffin
Central Regional Laboratory
536 S. Clark, 10th Floor
Chicago, IL 60605

Sent By: Pat Joyner
Data Coordinator
ESAT Region 5 **TechLaw**

Controlled Document

ESAT5.15.00368
ACH
11-16-09

Regional Transmittal Form

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 11/12/09

SUBJECT: Review of Data
Received for review on 10/23/09

FROM: Stephen L. Ostrodka, Chief (SRT-5J)
Superfund Field Services Section

TO: Data User: IDEM

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

SITE NAME: Beck's Lake Site (IN)

CASE NUMBER: 39095 SDG NUMBER: ME2QT0

Number and Type of Samples: 14 soils

Sample Numbers: ME2QT0-T9, W0-W3

Laboratory: A4 Scientific Hrs. for Review: 14

Following are our findings:

CC: Howard Pham
Region 5 TOPO
Mail Code SRT-5J

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

Fourteen (14) soil samples, numbered ME2QT0-T9, W0-W3, were collected on October 5-6, 2009. The lab received the samples on October 9, 2009 in good condition. All samples were analyzed for metals. All samples were analyzed using the CLP SOW ILM05.4 analysis procedures.

The inorganic analyses were performed using an Inductively Coupled Plasma-Atomic Emission Spectroscopy (ICP-AES) procedure.

All percent solids calculations initially used by the laboratory were incorrect. The Laboratory resubmitted Forms 3 (results), 5A (matrix spike) and 6 (duplicate) and the percent solids logbook with the corrected values on them; however, all non-detect values are now reported 10X too low (ie ME2QT0 Sb result reported as 0.81U mg/kg when it should be 8.1U mg/kg. The uncorrected CRQL for Sb is 6.0 mg/kg).

Serial Dilution non-detects results were not reported after dilution correction (CRQL times 5). Corrections were made on Form 8 by this reviewer.

Non-standard dilution factors were used by the Laboratory (1.3X, 2.7X, 2.8X); volumes used in preparing the dilutions are not included in the case. Dilutions seem to be calculated to produce a diluted result at approximately 80% of the linear range of the element.

Due to the elevated detection limit used by the laboratory, barium and potassium cannot be seen in the LCS. The laboratory MDL (Ba = 6.8 mg/kg, K = 155 mg/kg) is greater than the upper acceptance limit for the LCS (Ba = 2.2 mg/kg, K = 85.3 mg/kg). According to the True Value Summary Table for LCSS(0405), acceptance limits for barium, potassium and sodium are advisory only. CLP does not make allowances for advisory limits. Since the laboratory cannot see the LCS values for these elements, validation of the digestion is not possible and all detects will be estimated "J" and non-detects will be estimated "UJ".

Note: All barium and potassium results are flagged "J+" by CADRE. This appears to be because CADRE used the non-detect values of 20 and 500 mg/kg respectively for the solid LCS as detects.

1. HOLDING TIME:

No defects were found.

2. CALIBRATIONS:

No defects were found for the calibration or the CRQL standards.

3. BLANKS:

No defects were found for the preparation blank or ICB/CCBs.

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

The following inorganic samples are associated with a solid laboratory control sample (LCS) with found amounts below the method detection limit (MDL). The LCS upper control limit is less than the laboratory MDL.

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

Barium

ME2QT0, ME2QT1, ME2QT2, ME2QT3, ME2QT4, ME2QT5, ME2QT6, ME2QT7, ME2QT8, ME2QT9, ME2QW0, ME2QW1, ME2QW2, ME2QW3

Potassium

ME2QT0, ME2QT1, ME2QT2, ME2QT3, ME2QT4, ME2QT5, ME2QT6, ME2QT7, ME2QT8, ME2QT9, ME2QW0, ME2QW1, ME2QW2, ME2QW3

No defects were found for the matrix spike.

5. LABORATORY AND FIELD DUPLICATE:

No defects were found for the laboratory duplicate samples. No samples were identified as field duplicates.

6. ICP ANALYSIS:

The following results are affected by an interference check "A" sample (ICSA) for which false negative concentration values greater than the absolute value of the MDL were obtained. The sample contains Al, Ca, Fe or Mg at a level comparable to that of the ICSA.

Hits less than 10 times the absolute value of the ICSA are qualified "J-", non-detects are qualified "UJ". Hits greater than 10 times the ICSA are not qualified.

Silver

ME2QT1, ME2QT2, ME2QT3, ME2QT5, ME2QT6, ME2QT8, ME2QT9, ME2QW0, ME2QW3

The following inorganic samples are associated with negative sample results whose absolute

values are greater than the CRQL, indicating interference.
Non-detects are qualified "R".

Silver
ME2QT6, ME2QT8, ME2QT9, ME2QW0

No defects were found for the serial dilution.

7. SAMPLE RESULTS:

The following inorganic samples have analyte concentrations reported above the method detection limit (MDL) but below the quantitation limit (CRQL).
Results are qualified "J".

Antimony
ME2QW3

Beryllium
ME2QT0, ME2QT1, ME2QT2, ME2QT3, ME2QT4, ME2QT7, ME2QT8, ME2QT9, ME2QW0, ME2QW1, ME2QW2, ME2QW3

Cadmium
ME2QT4, ME2QT7, ME2QW1, ME2QW2

Cobalt
ME2QT0, ME2QT1, ME2QT2, ME2QT3, ME2QT4, ME2QT5, ME2QT6, ME2QT7, ME2QW0, ME2QW1, ME2QW2, ME2QW3

Potassium
ME2QT0, ME2QT1, ME2QT4, ME2QT5, ME2QT6, ME2QT7, ME2QT8, ME2QT9, ME2QW1, ME2QW2, ME2QW3

Selenium
ME2QT1, ME2QT2, ME2QT4, ME2QT6, ME2QW0, ME2QW3

Silver
ME2QW3

All data, except those qualified above, are acceptable.

CADRE ILM05.4 Data Qualifier Sheet

Qualifiers	Data Qualifier Definitions
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
UJ	The analyte was analyzed for, but not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Analytical Results (Qualified Data)

Case #: 39095 SDG : ME2QT0
Site : BECK'S LAKE SITE
Lab. : A4
Reviewer : S. CONNET
Date : 11/12/2009

Number of Soil Samples : 14
Number of Water Samples : 0

Sample Number :	ME2QT0		ME2QT1		ME2QT2		ME2QT3		ME2QT4	
Sampling Location :	S1		S2		S3		S23		S4	
Matrix :	Soil		Soil		Soil		Soil		Soil	
Units :	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Date Sampled :	10/5/2009		10/5/2009		10/5/2009		10/5/2009		10/6/2009	
Time Sampled :										
%Solids :	73.5		69.3		82.4		84.0		77.9	
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	2800		4460		4360		4320		2490	
ANTIMONY	8.1	U	8.6	U	7.3	U	6.9	U	7.6	U
ARSENIC	13.9		11.5		28.3		28.7		15.9	
BARIUM	81.1	J	121	J	99.2	J	123	J	89.3	J
BERYLLIUM	0.25	J	0.36	J	0.31	J	0.31	J	0.22	J
CADMIUM	1.1		0.93		3.6		4.2		0.58	J
CALCIUM	10700		13500		13000		13500		58400	
CHROMIUM	8.6		10.5		80.1		111		5.7	
COBALT	2.8	J	3.3	J	4.2	J	4.1	J	3.4	J
COPPER	27.2		32.9		46.5		51.4		12.3	
IRON	11300		14000		13000		13000		12400	
LEAD	81.5		78.5		83.4		105		65.3	
MAGNESIUM	2140		2050		4130		3370		5370	
MANGANESE	159		153		318		377		384	
NICKEL	6.8		8.7		12.6		12.2		6.9	
POTASSIUM	235	J	535	J	735	J	781	J	235	J
SELENIUM	4.7	U	2.1	J	1.6	J	4.0	U	1.8	J
SILVER	1.3	U	1.4	UJ	2.3	J-	3.0	J-	14.0	
SODIUM	674	U	714	U	607	U	578	U	635	U
THALLIUM	3.4	U	3.6	U	3.0	U	2.9	U	3.2	U
VANADIUM	11.2		15.1		13.9		14.1		9.7	
ZINC	108		118		430		527		63.9	

Analytical Results (Qualified Data)

Case #: 39095 SDG : ME2QT0
Site : BECK'S LAKE SITE
[illegible] : A4
Reviewer : S. CONNET
Date : 11/12/2009

Sample Number :	ME2QT5		ME2QT6		ME2QT7		ME2QT8		ME2QT9	
Sampling Location :	S5		S6		S7		S8		S9	
Matrix :	Soil		Soil		Soil		Soil		Soil	
Units :	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Date Sampled :	10/6/2009		10/6/2009		10/6/2009		10/6/2009		10/6/2009	
Time Sampled :										
%Solids :	81.4		76.9		82.6		78.6		78.0	
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	2460		3030		3790		3250		3140	
ANTIMONY	7.4	U	7.7	U	7.2	U	7.6	U	7.6	U
ARSENIC	15.1		34.3		9.6		29.4		32.7	
BARIUM	67.5	J	137	J	71.0	J	139	J	135	J
BERYLLIUM	0.61	U	0.64	U	0.41	J	0.24	J	0.21	J
CADMIUM	0.65		1.5		0.53	J	1.9		1.8	
CALCIUM	23800		21200		6940		10100		10000	
CHROMIUM	6.9		9.4		6.9		10.3		10.4	
COBALT	2.4	J	2.6	J	2.0	J	6.3	U	6.4	U
COPPER	14.7		35.8		21.1		37.5		37.3	
IRON	12300		67100		7670		145000		153000	
LEAD	41.6		118		68.7		296		242	
MAGNESIUM	2400		3010		1270		1150		1150	
MANGANESE	237		199		81.1		213		196	
NICKEL	5.6		7.8		5.7		9.7		8.9	
POTASSIUM	265	J	520	J	318	J	399	J	389	J
SELENIUM	4.3	U	3.8	J	4.2	U	6.5		6.1	
SILVER	1.2	UJ	1.3	R	1.2	U	1.3	R	1.3	R
SODIUM	614	U	644	U	599	U	630	U	635	U
THALLIUM	3.1	U	3.2	U	3.0	U	3.1	U	3.2	U
VANADIUM	9.7		17.3		14.4		23.6		23.8	
ZINC	62.6		128		59.5		194		175	

Analytical Results (Qualified Data)

Case #: 39095 SDG : ME2QT0
Site : BECK'S LAKE SITE
Lab. : A4
Reviewer : S. CONNET
Date : 11/12/2009

Sample Number :	ME2QW0		ME2QW1		ME2QW2		ME2QW3			
Sampling Location :	S10		S11		S12		S13			
Matrix :	Soil		Soil		Soil		Soil			
Units :	mg/Kg		mg/Kg		mg/Kg		mg/Kg			
Date Sampled :	10/6/2009		10/6/2009		10/6/2009		10/6/2009			
Time Sampled :										
%Solids :	78.2		81.2		80.9		74.3			
Dilution Factor :	1.0		1.0		1.0		1.0			
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	4310		2780		2570		5080			
ANTIMONY	7.5	U	7.4	U	7.4	U	4.1	J		
ARSENIC	29.0		8.8		6.1		12.9			
BARIUM	140	J	67.1	J	56.8	J	379	J		
BERYLLIUM	0.48	J	0.31	J	0.28	J	0.49	J		
CADMIUM	1.1		0.58	J	0.52	J	7.0			
CALCIUM	68000		11000		13800		15200			
CHROMIUM	11.8		9.7		9.5		79.7			
COBALT	3.6	J	2.0	J	2.1	J	6.2	J		
COPPER	33.0		19.5		18.6		280			
IRON	31900		11200		8940		22800			
LEAD	81.4		76.7		70.7		665			
MAGNESIUM	4950		3590		5720		3140			
MANGANESE	440		147		137		402			
NICKEL	9.9		5.0		4.9		41.3			
POTASSIUM	746	J	329	J	380	J	630	J		
SELENIUM	2.7	J	4.3	U	4.3	U	1.9	J		
SILVER	1.3	R	1.2	U	1.2	U	0.66	J-		
SODIUM	627	U	616	U	618	U	666	U		
THALLIUM	3.1	U	3.1	U	3.1	U	3.3	U		
VANADIUM	17.6		10.6		10.1		16.6			
ZINC	133		74.0		62.8		1030			

EPA **USEPA Contract Laboratory Program**
Inorganic Traffic Report & Chain of Custody Record

Case No: 39095
DAS No:
SDG No: ME2QT0

L

ate Shipped:	10/8/2009
arrier Name:	FedEx
bill:	811417072185
ipped to:	A4 Scientific, Inc. 1544 Sawdust Road Suite 505 The Woodlands TX 77380 (281) 292-5277

Chain of Custody Record

Relinquished By	(Date / Time)	Received By	(Date / Time)
1 Timothy R Johnson	10/8/09 12:00pm		
2			
3			
4		C Holdelan	10/9/9

Sampler Signature:

For Lab Use Only

Lab Contract No: EPW08063
Unit Price: Ø
Transfer To:
Lab Contract No:
Unit Price:

NORGANIC AMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME		ORGANIC SAMPLE No.	FOR LAB USE ONLY Sample Condition On Receipt
E2QT0	Surface Soil (0"-12")/ Tim Johnson	L/G	ICP/MS (21)	5C129601 (Ice Only) (1)	S1	S: 10/5/2009	18:47		0010980-01 INTACT
ME2QT1	Surface Soil (0"-12")/ Tim Johnson	L/G	ICP/MS (21)	5C129602 (Ice Only) (1)	S2	S: 10/5/2009	19:03		-02
ME2QT2	Surface Soil (0"-12")/ Tim Johnson	L/G	ICP/MS (21)	5C129603 (Ice Only) (1)	S3	S: 10/5/2009	19:37		-03
ME2QT3	Surface Soil (0"-12")/ Tim Johnson	L/G	ICP/MS (21)	5C129604 (Ice Only) (1)	S23	S: 10/5/2009	19:38		-04
ME2QT4	Surface Soil (0"-12")/ Rick Milton	L/G	ICP/MS (21)	5C129605 (Ice Only) (1)	S4	S: 10/6/2009	9:15		-05
ME2QT5	Surface Soil (0"-12")/ Rick Milton	L/G	ICP/MS (21)	5C129606 (Ice Only) (1)	S5	S: 10/6/2009	9:25		-06
ME2QT6	Surface Soil (0"-12")/ Rick Milton	L/G	ICP/MS (21)	5C129607 (Ice Only) (1)	S6	S: 10/6/2009	9:50		-07
ME2QT7	Surface Soil (0"-12")/ Rick Milton	L/G	ICP/MS (21)	5C129608 (Ice Only) (1)	S7	S: 10/6/2009	9:58		-08
ME2QT8	Surface Soil (0"-12")/ Rick Milton	L/G	ICP/MS (21)	5C129609 (Ice Only) (1)	S8	S: 10/6/2009	11:03		-09
ME2QT9	Surface Soil (0"-12")/ Rick Milton	L/G	ICP/MS (21)	5C129610 (Ice Only) (1)	S9	S: 10/6/2009	11:03		-10

ment for Case Complete?N	Sample(s) to be used for laboratory QC:	Additional Sampler Signature(s): David P. Chesler	Cooler Temperature Upon Receipt: 5°	Chain of Custody Seal Number: 23933 23711
Analysis Key:	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G		Custody Seal Intact? Y Shipment Iced? Y

MS = CLP TAL Total Metals ICP/MS

5-420591360-100809-0001

LABORATORY COPY

es preliminary results. Requests for preliminary results will increase analytical costs.
py to Sample Management Office, Attn: Heather Bauer, CSC, 15000 Conference Center Dr., Chantilly, VA 20151-3819; Phone 703/818-4200; Fax

F2V5.1.047 Page 1 of 2

USEPA Contract Laboratory Program
Inorganic Traffic Report & Chain of Custody Record

Case No: 39095
DAS No:
SDG No: ME2QTO

L

Date Shipped:	10/8/2009
Carrier Name:	FedEx
Airbill:	811417072185
Shipped to:	A4 Scientific, Inc. 1544 Sawdust Road Suite 505 The Woodlands TX 77380 (281) 292-5277

Chain of Custody Record

Relinquished By	(Date / Time)	Received By	(Date / Time)
1			
2			
3			
4		C. Haldelan	10/9/9 1041

Sampler Signature:

For Lab Use Only

Lab Contract No:	EPW08063
Unit Price:	Ø
Transfer To:	
Lab Contract No:	
Unit Price:	

INORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME	ORGANIC SAMPLE No.	FOR LAB USE ONLY Sample Condition On Receipt
ME2QW0	Surface Soil (0"-12")/ Rick Milton	L/G	ICP/MS (21)	5C129611 (Ice Only) (1)	S10	S: 10/6/2009 11:30		0010980 - 71 INTACT
ME2[illegible]1	Surface Soil (0"-12")/ Rick Milton	L/G	ICP/MS (21)	5C129612 (Ice Only) (1)	S11	S: 10/6/2009 13:33		-12
ME2[illegible]2	Surface Soil (0"-12")/ Rick Milton	L/G	ICP/MS (21)	5C129614 (Ice Only) (1)	S12	S: 10/6/2009 13:33		-13
ME[illegible]	Surface Soil (0"-12")/ Rick Milton	L/G	ICP/MS (21)	5C129613 (Ice Only) (1)	S13	S: 10/6/2009 13:45		-14

Shipment for Case Complete?N	Sample(s) to be used for laboratory QC:	Additional Sampler Signature(s):	Cooler Temperature Upon Receipt: 5°	Chain of Custody Seal Number: 23933, 23711
Analysis Key:	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G		Custody Seal Intact? Y Shipment Iced? Y

ICP/MS = CLP TAL Total Metals ICP/MS

Number: 5-420891360-100809-0001

LABORATORY COPY

Requests for preliminary results will increase analytical costs.

Copy to: Management Office, Attn: Heather Bauer, CSC, 15000 Conference Center Dr., Chantilly, VA 20151-3819; Phone 703/818-4200; Fax

F2V5.1.04

A4 SCIENTIFIC, INC.

1544 Sawdust Road, Suite 505 • The Woodlands, TX 77380 • Phone (281) 292-5277

Contract #: EPW08063	Case #: 39095	SDG #: ME2QT0

SDG NARRATIVE

SAMPLE RECIEPT & LOGIN

The following samples were received on the dates listed against them. The samples were logged in for analysis as listed.

Client Sample	*Lab Sample*	*Matrix*	*#Cont.*	*Received*	*Analysis*	*Comments*
ME2QT0	0010980-01	Soil	1	10/09/09 10:41	ILM05.4-ICPAES	MS/DUP
ME2QT1	0010980-02	Soil	1	10/09/09 10:41	ILM05.4-ICPAES	
ME2QT2	0010980-03	Soil	1	10/09/09 10:41	ILM05.4-ICPAES	
ME2QT3	0010980-04	Soil	1	10/09/09 10:41	ILM05.4-ICPAES	
ME2QT4	0010980-05	Soil	1	10/09/09 10:41	ILM05.4-ICPAES	
ME2QT5	0010980-06	Soil	1	10/09/09 10:41	ILM05.4-ICPAES	
ME2QT6	0010980-07	Soil	1	10/09/09 10:41	ILM05.4-ICPAES	
ME2QT7	0010980-08	Soil	1	10/09/09 10:41	ILM05.4-ICPAES	
ME2QT8	0010980-09	Soil	1	10/09/09 10:41	ILM05.4-ICPAES	
ME2QT9	0010980-10	Soil	1	10/09/09 10:41	ILM05.4-ICPAES	
ME2QW0	0010980-11	Soil	1	10/09/09 10:41	ILM05.4-ICPAES	
ME2QW1	0010980-12	Soil	1	10/09/09 10:41	ILM05.4-ICPAES	
ME2QW2	0010980-13	Soil	1	10/09/09 10:41	ILM05.4-ICPAES	
ME2QW3	0010980-14	Soil	1	10/09/09 10:41	ILM05.4-ICPAES	

Issue: The TR/COC lists the analysis as ICP-MS CLP Total Metals; however, per scheduling the analysis required is ICP-AES Metals.
Resolution: In accordance with previous direction from Region 5, the laboratory will note the issue in the SDG Narrative, perform the analyses as indicated on the Scheduling Notification Form, and proceed with the analysis of the samples.

No other discrepancies of issues were noted during receipt and login.

ICP-AES

Soil Samples were digested by Hot-Block technique (HS2) and analyzed using a Thermo Electron ICAP6500.

MS and DUP were performed on sample "ME2QT0" and they were within the QC limits.

A4 SCIENTIFIC, INC.

1544 Sawdust Road, Suite 505 • The Woodlands, TX 77380 • Phone (281) 292-5277

Contract #: EPW08063	Case #: 39095	SDG #: ME2QT0

SDG NARRATIVE

Serial Dilution was performed on sample "ME2QT0" and they were within the QC limits.

No problems were encountered during sample preparation or analysis.

All samples were prepared and analyzed with in the contractual holding times.

The following equations are used for calculation of sample results from raw instrument output data:

ICP-AES

SOIL Samples:

Concentration (dry Wt.) (mg/kg) = $\frac{C*V}{W*S}*DF$

Where,
C = Concentration (mg/L)
V = Final sample volume in Liters (L) (0.1L)
W = Wet sample weight (kg) (0.001kg)
S = % solids/100
DF = Dilution Factor

USEPA-CLP

OCT 2 3 2009

COVER PAGE

ab Name: A4 Scientific, Inc. Contract: EPW08063

ab Code: A4 Case No: 39095 NRAS No.: SDG No: ME2QT0

OW No.: ILM05.4

EPA Sample No.	Lab Sample ID
ME2QT0	0010980-01
ME2QT0D	0010980-01D
ME2QT0S	0010980-01S
ME2QT1	0010980-02
ME2QT2	0010980-03
ME2QT3	0010980-04
ME2QT4	0010980-05
ME2QT5	0010980-06
ME2QT6	0010980-07
ME2QT7	0010980-08
ME2QT8	0010980-09
ME2QT9	0010980-10
ME2QW0	0010980-11
ME2QW1	0010980-12
ME2QW2	0010980-13
ME2QW3	0010980-14

		ICP-AES	ICP-MS
Were ICP-AES and ICP-MS interelement corrections applied?	(Yes/No)	YES	YES
Were ICP-AES and ICP-MS background corrections applied?	(Yes/No)	YES	YES
If yes, were raw data generated before application of background corrections?	(Yes/No)	NO	NO

Comments:

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

ignature: Sree Teerupalli Name: SREE LAKSHMI TEERUPALLI

ate: [illegible] [illegible]

USEPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME2QT0

Lab Name: A4 Scientific, Inc. Contract: EPW08063

Lab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QT0

Matrix (soil/water): SOIL Lab Sample ID: 0010980-01

Level (low/med): LOW Date Received: 10/09/2009

% Solids: 73.5

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2800			P
7440-36-0	Antimony	8.1 ~~0.81~~	U	w 11-12-09	P
7440-38-2	Arsenic	13.9			P
7440-39-3	Barium	81.1			P
7440-41-7	Beryllium	0.25			P
7440-43-9	Cadmium	1.1			P
7440-70-2	Calcium	10700			P
7440-47-3	Chromium	8.6			P
7440-48-4	Cobalt	2.8			P
7440-50-8	Copper	27.2			P
7439-89-6	Iron	11300			P
7439-92-1	Lead	81.5			P
7439-95-4	Magnesium	2140			P
7439-96-5	Manganese	160			P
7440-02-0	Nickel	6.8			P
7440-09-7	Potassium	235			P
7782-49-2	Selenium	4.7 ~~0.47~~	U	w 11-12-09	P
7440-22-4	Silver	1.3 ~~0.13~~	U		P
7440-23-5	Sodium	674 ~~67.4~~	U		P
7440-28-0	Thallium	3.4 ~~0.34~~	U		P
7440-62-2	Vanadium	11.2			P
7440-66-6	Zinc	108			P

Color Before: BLACK Clarity Before: CLOUDY Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments: 109

USEPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME2QT1

Lab Name: A4 Scientific, Inc. Contract: EPW08063

Lab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QT0

Matrix (soil/water): SOIL Lab Sample ID: 0010980-02

Level (low/med): LOW Date Received: 10/09/2009

% Solids: 69.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4460			P
7440-36-0	Antimony	8.6 ~~0.86~~	U	w 11-12-09	P
7440-38-2	Arsenic	13.5			P
7440-39-3	Barium	121			P
7440-41-7	Beryllium	0.36			P
7440-43-9	Cadmium	0.93			P
7440-70-2	Calcium	13500			P
7440-47-3	Chromium	10.5			P
7440-48-4	Cobalt	3.3			P
7440-50-8	Copper	32.9			P
7439-89-6	Iron	14000			P
7439-92-1	Lead	78.5			P
7439-95-4	Magnesium	2050			P
7439-96-5	Manganese	153			P
7440-02-0	Nickel	8.7			P
7440-09-7	Potassium	535			P
7782-49-2	Selenium	2.1			P
7440-22-4	Silver	1.4 ~~0.14~~	U	w 11-12-09	P
7440-23-5	Sodium	714 ~~71.4~~	U		P
7440-28-0	Thallium	3.6 ~~0.36~~	U		P
7440-62-2	Vanadium	15.1			P
7440-66-6	Zinc	118			P

Color Before: BLACK Clarity Before: CLOUDY Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

mments: 114

USEPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME2QT2

Lab Name: A4 Scientific, Inc. Contract: EPW08063

Lab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QT0

Matrix (soil/water): SOIL Lab Sample ID: 0010980-03

Level (low/med): LOW Date Received: 10/09/2009

% Solids: 82.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4360			P
7440-36-0	Antimony	7.3 ~~0.73~~	U	w 11-12-09	P
7440-38-2	Arsenic	28.3			P
7440-39-3	Barium	99.2			P
7440-41-7	Beryllium	0.31			P
7440-43-9	Cadmium	3.6			P
7440-70-2	Calcium	13000			P
7440-47-3	Chromium	80.1			P
7440-48-4	Cobalt	4.2			P
7440-50-8	Copper	46.5			P
7439-89-6	Iron	13000			P
7439-92-1	Lead	83.4			P
7439-95-4	Magnesium	4130			P
7439-96-5	Manganese	318			P
7440-02-0	Nickel	12.6			P
7440-09-7	Potassium	735			P
7782-49-2	Selenium	1.6			P
7440-22-4	Silver	2.3			P
7440-23-5	Sodium	607 ~~60.7~~	U	w 11-12-09	P
7440-28-0	Thallium	3.0 ~~0.30~~	U		P
7440-62-2	Vanadium	13.9			P
7440-66-6	Zinc	430			P

Color Before: BLACK Clarity Before: CLOUDY Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments: 115

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USEPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME2QT3

Lab Name: A4 Scientific, Inc. Contract: EPW08063

Lab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QT0

Matrix (soil/water): SOIL Lab Sample ID: 0010980-04

Level (low/med): LOW Date Received: 10/09/2009

% Solids: 84.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4320			P
7440-36-0	Antimony	6.9 ~~0.69~~	U	nll-12-09	P
7440-38-2	Arsenic	28.7			P
7440-39-3	Barium	123			P
7440-41-7	Beryllium	0.31			P
7440-43-9	Cadmium	4.2			P
7440-70-2	Calcium	13500			P
7440-47-3	Chromium	111			P
7440-48-4	Cobalt	4.1			P
7440-50-8	Copper	51.4			P
7439-89-6	Iron	13000			P
7439-92-1	Lead	105			P
7439-95-4	Magnesium	3370			P
7439-96-5	Manganese	377			P
7440-02-0	Nickel	12.2			P
7440-09-7	Potassium	781			P
7782-49-2	Selenium	4.0 ~~0.40~~	U		P
7440-22-4	Silver	3.0		nll-12-09	P
7440-23-5	Sodium	578 ~~57.8~~	U		P
7440-28-0	Thallium	2.9 ~~0.29~~	U		P
7440-62-2	Vanadium	14.1			P
7440-66-6	Zinc	527			P

Color Before: BLACK Clarity Before: CLOUDY Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

nments: 116

USEPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME2QT4

Lab Name: A4 Scientific, Inc. Contract: EPW08063

Lab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QT0

Matrix (soil/water): SOIL Lab Sample ID: 0010980-05

Level (low/med): LOW Date Received: 10/09/2009

% Solids: 77.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2490			P
7440-36-0	Antimony	9.6 ~~0.76~~	U	11-12-09	P
7440-38-2	Arsenic	15.9			P
7440-39-3	Barium	89.3			P
7440-41-7	Beryllium	0.22			P
7440-43-9	Cadmium	0.58			P
7440-70-2	Calcium	58400			P
7440-47-3	Chromium	5.7			P
7440-48-4	Cobalt	3.4			P
7440-50-8	Copper	12.3			P
7439-89-6	Iron	12400			P
7439-92-1	Lead	65.3			P
7439-95-4	Magnesium	5370			P
7439-96-5	Manganese	384			P
7440-02-0	Nickel	6.9			P
7440-09-7	Potassium	235			P
7782-49-2	Selenium	1.8			P
7440-22-4	Silver	14.0			P
7440-23-5	Sodium	635 ~~63.5~~	U	11-12-09	P
7440-28-0	Thallium	3.2 ~~0.32~~	U		P
7440-62-2	Vanadium	9.7			P
7440-66-6	Zinc	63.9			P

Color Before: BLACK Clarity Before: CLOUDY Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments: 117

USEPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME2QT5

Lab Name: A4 Scientific, Inc. Contract: EPW08063

Lab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QT0

Matrix (soil/water): SOIL Lab Sample ID: 0010980-06

Level (low/med): LOW Date Received: 10/09/2009

% Solids: 81.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2460			P
7440-36-0	Antimony	9.4 ~~0.74~~	U		P
7440-38-2	Arsenic	15.1		u 4-12-09	P
7440-39-3	Barium	67.5			P
7440-41-7	Beryllium	0.61 ~~0.64~~ ~~0.06~~	U		P
7440-43-9	Cadmium	0.65			P
7440-70-2	Calcium	23800			P
7440-47-3	Chromium	6.9			P
7440-48-4	Cobalt	2.4			P
7440-50-8	Copper	14.7			P
7439-89-6	Iron	12300			P
7439-92-1	Lead	41.6			P
7439-95-4	Magnesium	2400			P
7439-96-5	Manganese	237			P
7440-02-0	Nickel	5.6			P
7440-09-7	Potassium	265			P
7782-49-2	Selenium	4.3 ~~0.43~~	U	u 4-12-09	P
7440-22-4	Silver	1.2 ~~0.12~~	U		P
7440-23-5	Sodium	614 ~~61.4~~	U		P
7440-28-0	Thallium	3.1 ~~0.31~~	U		P
7440-62-2	Vanadium	9.7			P
7440-66-6	Zinc	62.6			P

Color Before: BLACK Clarity Before: CLOUDY Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

mments: 118

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1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME2QT6

Lab Name: A4 Scientific, Inc. Contract: EPW08063

Lab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QT0

Matrix (soil/water): SOIL Lab Sample ID: 0010980-07

Level (low/med): LOW Date Received: 10/09/2009

% Solids: 76.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3030			P
7440-36-0	Antimony	7.7 ~~0.77~~	U		P
7440-38-2	Arsenic	34.3		w 11-12-09	P
7440-39-3	Barium	137			P
7440-41-7	Beryllium	0.64 ~~0.06~~	U		P
7440-43-9	Cadmium	1.5			P
7440-70-2	Calcium	21200			P
7440-47-3	Chromium	9.4			P
7440-48-4	Cobalt	2.6			P
7440-50-8	Copper	35.8			P
7439-89-6	Iron	67100		D	P
7439-92-1	Lead	118			P
7439-95-4	Magnesium	3010			P
7439-96-5	Manganese	199			P
7440-02-0	Nickel	7.8			P
7440-09-7	Potassium	520			P
7782-49-2	Selenium	3.8			P
7440-22-4	Silver	1.3 ~~0.13~~	U	w 11-12-09	P
7440-23-5	Sodium	644 ~~64.4~~	U		P
7440-28-0	Thallium	3.2 ~~0.32~~	U		P
7440-62-2	Vanadium	17.3			P
7440-66-6	Zinc	128			P

Color Before: BLACK Clarity Before: CLOUDY Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments: 119

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USEPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME2QT7

Lab Name: A4 Scientific, Inc. Contract: EPW08063

Lab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QT0

Matrix (soil/water): SOIL Lab Sample ID: 0010980-08

Level (low/med): LOW Date Received: 10/09/2009

% Solids: 82.6

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3790			P
7440-36-0	Antimony	7.2 ~~0.72~~	U	w 11-12-09	P
7440-38-2	Arsenic	9.6			P
7440-39-3	Barium	71.0			P
7440-41-7	Beryllium	0.41			P
7440-43-9	Cadmium	0.53			P
7440-70-2	Calcium	6940			P
7440-47-3	Chromium	6.9			P
7440-48-4	Cobalt	2.0			P
7440-50-8	Copper	21.1			P
7439-89-6	Iron	7670			P
7439-92-1	Lead	68.7			P
7439-95-4	Magnesium	1270			P
7439-96-5	Manganese	81.1			P
7440-02-0	Nickel	5.7			P
7440-09-7	Potassium	318			P
7782-49-2	Selenium	4.2 ~~0.42~~	U	w 11-12-09	P
7440-22-4	Silver	1.2 ~~0.12~~	U		P
7440-23-5	Sodium	599 ~~59.9~~	U		P
7440-28-0	Thallium	3.0 ~~0.30~~	U		P
7440-62-2	Vanadium	14.4			P
7440-66-6	Zinc	59.5			P

Color Before: BLACK Clarity Before: CLOUDY Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

mments: 120

USEPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME2QT8

Lab Name: A4 Scientific, Inc. Contract: EPW08063

Lab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QT0

Matrix (soil/water): SOIL Lab Sample ID: 0010980-09

Level (low/med): LOW Date Received: 10/09/2009

% Solids: 78.6

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3250			P
7440-36-0	Antimony	7.6 ~~0.76~~	U	a 11-12-09	P
7440-38-2	Arsenic	29.4			P
7440-39-3	Barium	139			P
7440-41-7	Beryllium	0.24			P
7440-43-9	Cadmium	1.9			P
7440-70-2	Calcium	10100			P
7440-47-3	Chromium	10.3			P
7440-48-4	Cobalt	6.3 ~~0.63~~	U	a 11-12-09	P
7440-50-8	Copper	37.5			P
7439-89-6	Iron	145000		D	P
7439-92-1	Lead	296			P
7439-95-4	Magnesium	1150			P
7439-96-5	Manganese	213			P
7440-02-0	Nickel	9.7			P
7440-09-7	Potassium	399			P
7782-49-2	Selenium	6.5			P
7440-22-4	Silver	1.3 ~~0.13~~	U	a 11-12-09	P
7440-23-5	Sodium	630 ~~63.0~~	U		P
7440-28-0	Thallium	3.1 ~~0.31~~	U		P
7440-62-2	Vanadium	23.6			P
7440-66-6	Zinc	194			P

Color Before: BLACK Clarity Before: CLOUDY Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments: 121

USEPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME2QT9

Lab Name: A4 Scientific, Inc. Contract: EPW08063

Lab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QT0

Matrix (soil/water): SOIL Lab Sample ID: 0010980-10

Level (low/med): LOW Date Received: 10/09/2009

% Solids: 77.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3140			P
7440-36-0	Antimony	7.6 ~~0.76~~	U	u 11-12-09	P
7440-38-2	Arsenic	32.7			P
7440-39-3	Barium	135			P
7440-41-7	Beryllium	0.21			P
7440-43-9	Cadmium	1.8			P
7440-70-2	Calcium	10000			P
7440-47-3	Chromium	10.4			P
7440-48-4	Cobalt	6.4 ~~0.64~~	U	u 11-12-09	P
7440-50-8	Copper	37.3			P
7439-89-6	Iron	153000		D	P
7439-92-1	Lead	242			P
7439-95-4	Magnesium	1150			P
7439-96-5	Manganese	196			P
7440-02-0	Nickel	8.9			P
7440-09-7	Potassium	389			P
7782-49-2	Selenium	6.1			P
7440-22-4	Silver	1.3 ~~0.13~~	U	u 11-12-09	P
7440-23-5	Sodium	65 ~~63.5~~	U		P
7440-28-0	Thallium	3.2 ~~0.32~~	U		P
7440-62-2	Vanadium	23.8			P
7440-66-6	Zinc	175			P

Color Before: BLACK Clarity Before: CLOUDY Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

mments: 122

USEPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME2QW0

Lab Name: A4 Scientific, Inc. Contract: EPW08063

Lab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QT0

Matrix (soil/water): SOIL Lab Sample ID: 0010980-11

Level (low/med): LOW Date Received: 10/09/2009

% Solids: 78.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4310			P
7440-36-0	Antimony	75 ~~0.75~~	U	u11-12-09	P
7440-38-2	Arsenic	29.0			P
7440-39-3	Barium	140			P
7440-41-7	Beryllium	0.48			P
7440-43-9	Cadmium	1.1			P
7440-70-2	Calcium	68000		D	P
7440-47-3	Chromium	11.8			P
7440-48-4	Cobalt	3.6			P
7440-50-8	Copper	33.0			P
7439-89-6	Iron	31900			P
7439-92-1	Lead	81.4			P
7439-95-4	Magnesium	4950			P
7439-96-5	Manganese	440			P
7440-02-0	Nickel	9.9			P
7440-09-7	Potassium	746			P
7782-49-2	Selenium	2.7			P
7440-22-4	Silver	1.3 ~~0.13~~	U	u11-12-09	P
7440-23-5	Sodium	627 ~~62.7~~	U		P
7440-28-0	Thallium	3.1 ~~0.31~~	U		P
7440-62-2	Vanadium	17.6			P
7440-66-6	Zinc	133			P

Color Before: BLACK Clarity Before: CLOUDY Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments: 123

USEPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME2QW1

Lab Name: A4 Scientific, Inc. Contract: EPW08063

Lab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QT0

Matrix (soil/water): SOIL Lab Sample ID: 0010980-12

Level (low/med): LOW Date Received: 10/09/2009

% Solids: 81.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2780			P
7440-36-0	Antimony	7.4 ~~0.74~~	U	W(1-12-09	P
7440-38-2	Arsenic	8.8			P
7440-39-3	Barium	67.1			P
7440-41-7	Beryllium	0.31			P
7440-43-9	Cadmium	0.58			P
7440-70-2	Calcium	11000			P
7440-47-3	Chromium	9.7			P
7440-48-4	Cobalt	2.0			P
7440-50-8	Copper	19.5			P
7439-89-6	Iron	11200			P
7439-92-1	Lead	76.7			P
7439-95-4	Magnesium	3590			P
7439-96-5	Manganese	147			P
7440-02-0	Nickel	5.0			P
7440-09-7	Potassium	329			P
7782-49-2	Selenium	4.3 ~~0.43~~	U	W(1-12-09	P
7440-22-4	Silver	1.2 ~~0.12~~	U		P
7440-23-5	Sodium	616 ~~61.6~~	U		P
7440-28-0	Thallium	3.1 ~~0.31~~	U		P
7440-62-2	Vanadium	10.6			P
7440-66-6	Zinc	74.0			P

Color Before: BLACK Clarity Before: CLOUDY Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments: 124

USEPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME2QW2

Lab Name: A4 Scientific, Inc. Contract: EPW08063

Lab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QT0

Matrix (soil/water): SOIL Lab Sample ID: 0010980-13

Level (low/med): LOW Date Received: 10/09/2009

% Solids: 80.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2570			P
7440-36-0	Antimony	7.4 ~~0.74~~	U	w11-12-09	P
7440-38-2	Arsenic	6.1			P
7440-39-3	Barium	56.8			P
7440-41-7	Beryllium	0.28			P
7440-43-9	Cadmium	0.52			P
7440-70-2	Calcium	13800			P
7440-47-3	Chromium	9.5			P
7440-48-4	Cobalt	2.1			P
7440-50-8	Copper	18.6			P
7439-89-6	Iron	8940			P
7439-92-1	Lead	70.7			P
7439-95-4	Magnesium	5720			P
7439-96-5	Manganese	137			P
7440-02-0	Nickel	4.9			P
7440-09-7	Potassium	380			P
7782-49-2	Selenium	4.3 ~~0.43~~	U	w11-12-09	P
7440-22-4	Silver	1.2 ~~0.12~~	U		P
7440-23-5	Sodium	618 ~~61.8~~	U		P
7440-28-0	Thallium	3.1 ~~0.31~~	U		P
7440-62-2	Vanadium	10.1			P
7440-66-6	Zinc	62.8			P

Color Before: BLACK Clarity Before: CLOUDY Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments: 126

USEPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME2QW3

Lab Name: A4 Scientific, Inc. Contract: EPW08063

Lab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QT0

Matrix (soil/water): SOIL Lab Sample ID: 0010980-14

Level (low/med): LOW Date Received: 10/09/2009

% Solids: 74.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5080			P
7440-36-0	Antimony	4.1			P
7440-38-2	Arsenic	12.9			P
7440-39-3	Barium	379			P
7440-41-7	Beryllium	0.49			P
7440-43-9	Cadmium	7.0			P
7440-70-2	Calcium	15200			P
7440-47-3	Chromium	79.7			P
7440-48-4	Cobalt	6.2			P
7440-50-8	Copper	280			P
7439-89-6	Iron	22800			P
7439-92-1	Lead	665			P
7439-95-4	Magnesium	3140			P
7439-96-5	Manganese	402			P
7440-02-0	Nickel	41.3			P
7440-09-7	Potassium	630			P
7782-49-2	Selenium	1.9			P
7440-22-4	Silver	0.66			P
7440-23-5	Sodium	bba ~~66.6~~	U	11-12-09	P
7440-28-0	Thallium	3.7 ~~0.33~~	U		P
7440-62-2	Vanadium	16.6			P
7440-66-6	Zinc	1030			P

Color Before: BLACK Clarity Before: CLOUDY Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

mments: 127

USEPA-CLP

3-IN
BLANKS

ıb Name: A4 Scientific, Inc. Contract: EPW08063

ıb Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QT0

:eparation Blank Matrix (soil/water): SOIL

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

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
		C	1	C	2	C	3	C		C	M
Aluminum	200.000	U	200.000	U	200.000	U	200.000	U	20.000	U	P
Antimony	60.000	U	60.000	U	60.000	U	60.000	U	6.000	U	P
Arsenic	10.000	U	10.000	U	10.000	U	10.000	U	1.000	U	P
Barium	200.000	U	200.000	U	200.000	U	200.000	U	20.000	U	P
Beryllium	5.000	U	5.000	U	5.000	U	5.000	U	0.500	U	P
Cadmium	5.000	U	5.000	U	5.000	U	5.000	U	0.500	U	P
Calcium	5000.000	U	5000.000	U	5000.000	U	5000.000	U	500.000	U	P
Chromium	10.000	U	10.000	U	10.000	U	10.000	U	1.000	U	P
Cobalt	50.000	U	50.000	U	50.000	U	50.000	U	5.000	U	P
Copper	25.000	U	25.000	U	25.000	U	25.000	U	2.500	U	P
Iron	100.000	U	100.000	U	100.000	U	100.000	U	4.586	J	P
Lead	10.000	U	10.000	U	10.000	U	10.000	U	1.000	U	P
Magnesium	5000.000	U	5000.000	U	5000.000	U	5000.000	U	500.000	U	P
Manganese	15.000	U	15.000	U	15.000	U	15.000	U	1.500	U	P
Nickel	40.000	U	40.000	U	40.000	U	40.000	U	4.000	U	P
Potassium	5000.000	U	5000.000	U	5000.000	U	5000.000	U	500.000	U	P
Selenium	35.000	U	35.000	U	35.000	U	35.000	U	3.500	U	P
Silver	10.000	U	10.000	U	10.000	U	10.000	U	1.000	U	P
Sodium	5000.000	U	5000.000	U	5000.000	U	5000.000	U	500.000	U	P
Thallium	25.000	U	25.000	U	25.000	U	25.000	U	2.500	U	P
Vanadium	50.000	U	50.000	U	50.000	U	50.000	U	5.000	U	P
Zinc	60.000	U	60.000	U	60.000	U	60.000	U	6.000	U	P

USEPA-CLP

3-IN
BLANKS

ıb Name: A4 Scientific, Inc. Contract: EPW08063

ıb Code: A4 Case No.: 39095 NRAS No.: _____ SDG NO.: ME2QT0

:eparation Blank Matrix (soil/water): _____

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

Analyte	Initial Calibration Blank(ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Aluminum			200.000	U	78.642	J	200.000	U			P
Antimony			60.000	U	60.000	U	60.000	U			P
Arsenic			10.000	U	10.000	U	10.000	U			P
Barium			200.000	U	200.000	U	200.000	U			P
Beryllium			5.000	U	5.000	U	5.000	U			P
Cadmium			5.000	U	5.000	U	5.000	U			P
Calcium			5000.000	U	5000.000	U	5000.000	U			P
Chromium			10.000	U	10.000	U	10.000	U			P
Cobalt			50.000	U	50.000	U	50.000	U			P
Copper			25.000	U	25.000	U	25.000	U			P
Iron			100.000	U	43.341	J	100.000	U			P
Lead			10.000	U	10.000	U	10.000	U			P
Magnesium			5000.000	U	5000.000	U	5000.000	U			P
Manganese			15.000	U	15.000	U	15.000	U			P
Nickel			40.000	U	40.000	U	40.000	U			P
Potassium			5000.000	U	5000.000	U	5000.000	U			P
Selenium			35.000	U	35.000	U	35.000	U			P
Silver			10.000	U	10.000	U	10.000	U			P
Sodium			5000.000	U	5000.000	U	5000.000	U			P
Thallium			25.000	U	25.000	U	25.000	U			P
Vanadium			50.000	U	50.000	U	50.000	U			P
Zinc			60.000	U	60.000	U	60.000	U			P

USEPA-CLP

3-IN
BLANKS

b Name: A4 Scientific, Inc. Contract: EPW08063

b Code: A4 Case No.: 39095 NRAS No.: _____ SDG NO.: ME2QT0

eparation Blank Matrix (soil/water): _____

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

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Aluminum			200.000	U	200.000	U	200.000	U			P
Antimony			60.000	U	60.000	U	60.000	U			P
Arsenic			10.000	U	10.000	U	10.000	U			P
Barium			200.000	U	200.000	U	200.000	U			P
Beryllium			5.000	U	5.000	U	5.000	U			P
Cadmium			5.000	U	5.000	U	5.000	U			P
Calcium			5000.000	U	5000.000	U	5000.000	U			P
Chromium			10.000	U	10.000	U	10.000	U			P
Cobalt			50.000	U	50.000	U	50.000	U			P
Copper			25.000	U	25.000	U	25.000	U			P
Iron			100.000	U	100.000	U	100.000	U			P
Lead			10.000	U	10.000	U	10.000	U			P
Magnesium			5000.000	U	5000.000	U	5000.000	U			P
Manganese			15.000	U	15.000	U	15.000	U			P
Nickel			40.000	U	40.000	U	40.000	U			P
Potassium			5000.000	U	5000.000	U	5000.000	U			P
Selenium			35.000	U	35.000	U	35.000	U			P
Silver			10.000	U	10.000	U	10.000	U			P
Sodium			5000.000	U	5000.000	U	5000.000	U			P
Thallium			25.000	U	25.000	U	25.000	U			P
Vanadium			50.000	U	50.000	U	50.000	U			P
Zinc			60.000	U	60.000	U	60.000	U			P

USEPA-CLP

3-IN
BLANKS

b Name: A4 Scientific, Inc. Contract: EPW08063

b Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QT0

eparation Blank Matrix (soil/water):

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

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Aluminum			200.000	U	200.000	U					P
Antimony			60.000	U	60.000	U					P
Arsenic			10.000	U	10.000	U					P
Barium			200.000	U	200.000	U					P
Beryllium			5.000	U	5.000	U					P
Cadmium			5.000	U	5.000	U					P
Calcium			5000.000	U	5000.000	U					P
Chromium			10.000	U	10.000	U					P
Cobalt			50.000	U	50.000	U					P
Copper			25.000	U	25.000	U					P
Iron			100.000	U	100.000	U					P
Lead			10.000	U	10.000	U					P
Magnesium			5000.000	U	5000.000	U					P
Manganese			15.000	U	15.000	U					P
Nickel			40.000	U	40.000	U					P
Potassium			5000.000	U	5000.000	U					P
Selenium			35.000	U	35.000	U					P
Silver			10.000	U	10.000	U					P
Sodium			5000.000	U	5000.000	U					P
Thallium			25.000	U	25.000	U					P
Vanadium			50.000	U	50.000	U					P
Zinc			60.000	U	60.000	U					P

USEPA-CLP

3-IN
BLANKS

ɔ Name: A4 Scientific, Inc. Contract: EPW08063

ɔ Code: A4 Case No.: 39095 NRAS No.: _____ SDG NO.: ME2QT0

eparation Blank Matrix (soil/water): _____

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

Analyte	Initial Calibration Blank(ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
		C	1	C	2	C	3	C		C	M
Calcium	5000.000	U	5000.000	U	5000.000	U	5000.000	U			P
Iron	100.000	U	100.000	U	100.000	U	100.000	U			P

USEPA-CLP

4A-IN

ICP-AES INTERFERENCE CHECK SAMPLE

b Name: A4 Scientific, Inc. Contract: EPW08063

b Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QT0

P-AES Instrument ID: B-ICAP6500 ICS Source: A(1206) & B(0203)

ncentration Units: ug/L

	True		Initial Found				Final Found			
nalyte	Sol.A	Sol AB	Sol.A	%R	Sol AB	%R	Sol.A	%R	Sol.AB	%R
luminum	244000	241000	219000	90	223000	93	219000	90	222000	92
ntimony	0	589	-13.0		507	86	-15.8		498	85
rsenic	0	101	3.2		87.3	86	-0.27		105	104
arium	2.0	495	24.5	1225	472	95	24.1	1205	469	95
eryllium	0	475	0.64		437	92	0.62		434	91
admium	0	940	0.21		876	93	0.056		869	92
alcium	235000	231000	216000	92	220000	95	215000	91	218000	94
hromium	43.0	511	43.5	101	483	95	43.1	100	479	94
obalt	4.0	461	8.6	215	463	100	8.3	208	464	101
opper	23.0	548	29.2	127	482	88	28.5	124	482	88
ron	95600	94800	85200	89	86100	91	85100	89	86000	91
ead	10.0	61.0	10.8	108	56.8	93	8.3	83	59.3	97
agnesium	248000	251000	217000	88	219000	87	216000	87	218000	87
anganese	19.0	502	25.3	133	476	95	25.2	133	473	94
ickel	21.0	984	23.3	111	930	95	24.2	115	930	95
otassium	0	0	114		193		173		98.7	
elenium	0	53.0	4.6		48.5	92	0.94		53.2	100
ilver	0	206	-2.8		183	89	-3.5		183	89
odium	0	0	839		838		816		822	
hallium	0	103	0.14		85.1	83	-2.5		99.0	96
anadium	0	494	12.0		462	94	12.4		463	94
inc	28.0	1028	38.6	138	946	92	38.0	136	942	92

USEPA-CLP

4A-IN

ICP-AES INTERFERENCE CHECK SAMPLE

ab Name: A4 Scientific, Inc. Contract: EPW08063

ab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QT0

CP-AES Instrument ID: B-ICAP6500 ICS Source: A(1206) & B(0203)

oncentration Units: ug/L

Analyte	True		Initial Found				Final Found			
	Sol.A	Sol AB	Sol.A	%R	Sol AB	%R	Sol.A	%R	Sol.AB	%R
Aluminum	244000	241000					219000	90	221000	92
Antimony	0	589					-14.4		497	84
Arsenic	0	101					-0.66		103	102
Barium	2.0	495					23.9	1195	468	95
Beryllium	0	475					0.65		433	91
Cadmium	0	940					0.18		870	93
Calcium	235000	231000					214000	91	217000	94
Chromium	43.0	511					43.1	100	480	94
Cobalt	4.0	461					8.4	210	463	100
Copper	23.0	548					27.9	121	478	87
Iron	95600	94800					83600	87	85100	90
Lead	10.0	61.0					12.3	123	60.6	99
Magnesium	248000	251000					213000	86	217000	86
Manganese	19.0	502					25.3	133	474	94
Nickel	21.0	984					23.4	111	919	93
Potassium	0	0					117		105	
Selenium	0	53.0					7.6		50.6	95
Silver	0	206					-3.6		179	87
Sodium	0	0					814		831	
Thallium	0	103					-0.20		101	98
Vanadium	0	494					12.0		459	93
Zinc	28.0	1028					38.0	136	936	91

USEPA-CLP

4A-IN

ICP-AES INTERFERENCE CHECK SAMPLE

ab Name: A4 Scientific, Inc. Contract: EPW08063

ab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QT0

CP-AES Instrument ID: B-ICAP6500 ICS Source: A(1206) & B(0203)

oncentration Units: ug/L

	True		Initial Found				Final Found			
nalyte	Sol.A	Sol AB	Sol.A	%R	Sol AB	%R	Sol.A	%R	Sol.AB	%R
luminum	244000	241000					218000	89	222000	92
ntimony	0	589					-15.5		499	85
rsenic	0	101					2.6		100	99
arium	2.0	495					23.9	1195	468	95
eryllium	0	475					0.59		434	91
admium	0	940					0.095		879	94
alcium	235000	231000					214000	91	217000	94
hromium	43.0	511					43.2	100	483	95
o t	4.0	461					8.2	205	466	101
opper	23.0	548					28.2	123	475	87
ron	95600	94800					83200	87	83800	88
ead	10.0	61.0					9.7	97	58.5	96
agnesium	248000	251000					212000	85	214000	85
anganese	19.0	502					25.3	133	476	95
ickel	21.0	984					23.4	111	912	93
otassium	0	0					196		107	
elenium	0	53.0					1.1		48.7	92
ilver	0	206					-3.4		178	86
odium	0	0					817		824	
hallium	0	103					-2.8		101	98
anadium	0	494					12.0		452	91
inc	28.0	1028					38.1	136	935	91

USEPA-CLP

4A-IN

ICP-AES INTERFERENCE CHECK SAMPLE

ab Name: A4 Scientific, Inc. Contract: EPW08063

ab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QT0

CP-AES Instrument ID: B-ICAP6500 ICS Source: A(1206) & B(0203)

oncentration Units: ug/L

Analyte	True		Initial Found				Final Found			
	Sol.A	Sol AB	Sol.A	%R	Sol AB	%R	Sol.A	%R	Sol.AB	%R
Aluminum	244000	241000					217000	89	219000	91
Antimony	0	589					-13.0		498	85
Arsenic	0	101					2.0		100	99
Barium	2.0	495					23.9	1195	465	94
Beryllium	0	475					0.67		431	91
Cadmium	0	940					0.12		876	93
Calcium	235000	231000					213000	91	215000	93
Chromium	43.0	511					43.4	101	484	95
Cobalt	4.0	461					8.2	205	464	10
Copper	23.0	548					28.4	123	482	88
Iron	95600	94800					82800	87	83900	89
Lead	10.0	61.0					8.7	87	61.2	100
Magnesium	248000	251000					212000	85	215000	86
Manganese	19.0	502					25.4	134	476	95
Nickel	21.0	984					23.1	110	913	93
Potassium	0	0					122		166	
Selenium	0	53.0					2.0		52.1	98
Silver	0	206					-4.3		179	87
Sodium	0	0					810		813	
Thallium	0	103					-1.2		99.6	97
Vanadium	0	494					11.9		458	93
Zinc	28.0	1028					37.5	134	932	91

USEPA-CLP

4A-IN

ICP-AES INTERFERENCE CHECK SAMPLE

ab Name: A4 Scientific, Inc. Contract: EPW08063

ab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QT0

CP-AES Instrument ID: B-ICAP6500 ICS Source: A(1206) & B(0203)

oncentration Units: ug/L

	True		Initial Found				Final Found			
nalyte	Sol.A	Sol AB	Sol.A	%R	Sol AB	%R	Sol.A	%R	Sol.AB	%R
luminum	244000	241000					217000	89	223000	93
ntimony	0	589					-13.7		497	84
rsenic	0	101					-2.3		103	102
arium	2.0	495					23.9	1195	473	96
eryllium	0	475					0.64		431	91
admium	0	940					0.32		864	92
alcium	235000	231000					214000	91	218000	94
hromium	43.0	511					43.7	102	478	94
obalt	4.0	461					8.4	210	459	100
opper	23.0	548					29.5	128	476	87
ron	95600	94800					84300	88	84600	89
ead	10.0	61.0					12.6	126	57.1	94
agnesium	248000	251000					217000	88	218000	87
anganese	19.0	502					25.4	134	471	94
ickel	21.0	984					24.1	115	918	93
otassium	0	0					144		43.5	
elenium	0	53.0					4.9		51.8	98
ilver	0	206					-3.3		180	87
odium	0	0					802		809	
hallium	0	103					-2.1		100	97
anadium	0	494					12.1		457	93
inc	28.0	1028					38.5	138	931	91

Form IVA-IN

ILM05.4

USEPA-CLP

5A-IN

MATRIX SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

ME2QT0S

Lab Name: A4 Scientific, Inc. Contract: EPW08063

Lab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QT0

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

% Solids for Sample: 73.5

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum		3247.9960		2796.7270		0.00	0		P
Antimony	75 - 125	25.6645		0.2860	J	26.94	94		P
Arsenic	75 - 125	22.8194		13.9025		10.78	83		P
Barium	75 - 125	617.9969		81.0972		538.83	100		P
Beryllium	75 - 125	13.3345		0.2497		13.47	97		P
Cadmium	75 - 125	13.3552		1.1406		13.47	91		P
Calcium		10313.6700		10667.2100		0.00	0		P
Chromium	75 - 125	60.9995		8.6116		53.88	97		P
Cobalt	75 - 125	140.1697		2.7979		134.71	102		P
Copper	75 - 125	93.3320		27.1947		67.35	98		P
Iron		10885.6300		11258.7100		0.00	0		P
Lead		84.0944		81.4953		5.39	48		P
Magnesium		2062.9760		2141.5780		0.00	0		P
Manganese	75 - 125	285.6739		159.5003		134.71	94		P
Nickel	75 - 125	139.0786		6.7748		134.71	98		P
Potassium		217.8690		234.6467		0.00	0		P
Selenium	75 - 125	13.7718		1.2866		13.47	93		P
Silver	75 - 125	12.2968		0.1347	U	13.47	91		P
Sodium		67.3537	U	66.2255	J	0.00	0		P
Thallium	75 - 125	12.5683		0.3368	U	13.47	93		P
Vanadium	75 - 125	140.5537		11.1801		134.71	96		P
Zinc	75 - 125	230.8817		107.5268		134.71	92		P

Comments:

USEPA-CLP

6-IN

DUPLICATES

EPA SAMPLE NO.

ME2QT0D

Lab Name: A4 Scientific, Inc. Contract: EPW08063

Lab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QT0

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

% Solids for Sample: 73.5 % Solids for Duplicate: 75.8

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		2796.7270		3318.8520		17		P
Antimony		0.2860	J	0.8082	U	200		P
Arsenic		13.9025		15.7089		12		P
Barium		81.0972		99.3608		20		P
Beryllium	0.0674	0.2497		0.2912		15		P
Cadmium		1.1406		1.3399		16		P
Calcium		10667.2100		12855.6600		19		P
Chromium		8.6116		9.1492		6		P
Cobalt	0.6735	2.7979		3.0224		8		P
Copper		27.1947		30.2243		11		P
Iron		11258.7100		12680.9500		12		P
Lead		81.4953		91.6926		12		P
Magnesium		2141.5780		2492.2880		15		P
Manganese		159.5003		170.6608		7		P
Nickel		6.7748		7.7189		13		P
Potassium	67.3537	234.6467		256.9880		9		P
Selenium	0.4715	1.2866		1.8326		35		P
Silver		0.1347	U	0.1347	U			P
Sodium	67.3537	66.2255	J	67.3537	U	200		P
Thallium		0.3368	U	0.3368	U			P
Vanadium		11.1801		12.8000		14		P
Zinc		107.5268		115.1714		7		P

7 - IN
LABORATORY CONTROL SAMPLE

ab Name: A4 Scientific, Inc. Contract: EPW08063

ab Code: A4 Case No.: 39095 NRAS No: SDG NO.: ME2QT0

olid LCS Source: LCSS04050899

queous LCS Source:

Analyte	Aqueous (ug/L)			Solid (mg/kg)					
	True	Found	%R	True	Found	C	Limits		%R
Aluminum				115.0	147.6		54.7	175.0	128
Antimony				66.0	81.1		27.6	104.0	123
Arsenic				253.0	246.4		154.0	352.0	97
Barium				1.6	6.8	U	1.0	2.2	0
Beryllium				4.9	5.1		3.0	6.8	104
Cadmium				10.9	13.4		7.7	14.0	123
Calcium				44200.0	47753.4		30300.0	58200.0	108
Chromium				27.1	28.6		18.5	35.7	106
Cobalt				37.4	43.4		24.2	50.6	116
Copper				1770.0	1835.5		20.0	2230.0	10[illegible]
Iron				6470.0	6484.9		4280.0	8660.0	10[illegible]
Lead				56.9	61.9		41.4	72.4	109
Magnesium				29200.0	28668.9		20500.0	37900.0	98
Manganese				61.0	63.8		41.6	80.5	105
Nickel				16.3	17.7		9.0	23.7	109
Potassium				39.7	155.3	U	0.0	85.3	0
Selenium				10.0	11.3		4.1	15.9	113
Silver				5.9	7.2		2.7	9.1	122
Sodium				72.5	157.3	U	0.0	216.0	0
Thallium				9.5	9.4		2.9	16.1	99
Vanadium				17.6	19.3		11.6	23.7	110
Zinc				47.5	49.7		20.5	74.4	105

8-IN

ICP-AES and ICP-MS SERIAL DILUTIONS

EPA SAMPLE NO.

ME2QT0L

ab Name: A4 Scientific, Inc. Contract: EPW08063

ab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QT0

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

oncentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	20761.50		20189.75		3		P
Antimony	60.00	U	300 ~~60.00~~	U			P
Arsenic	103.21		93.28		10		P
Barium	602.03		595.88	J	1		P
Beryllium	1.85	J	25.0 ~~5.00~~	U	100		P
Cadmium	8.47		25.0 ~~5.00~~	U	100		P
Calcium	79188.00		77952.50		2		P
Chromium	63.93		61.98		3		P
Cobalt	20.77	J	250. ~~50.00~~	U	100		P
Copper	201.88		189.41		6		P
Iron	83579.00		81820.00		2		P
Lead	604.98		564.00		7		P
Magnesium	15898.00		15698.75	J	1		P
Manganese	1184.05		1174.03		1		P
Nickel	50.29		200 ~~40.00~~	U	100		P
Potassium	1741.90	J	25000 ~~5000.00~~	U	100		P
Selenium	35.00	U	175 ~~35.00~~	U			P
Silver	10.00	U	50.0 ~~10.00~~	U			P
Sodium	5000.00	U	25000 ~~5000.00~~	U			P
Thallium	25.00	U	125 ~~25.00~~	U			P
Vanadium	83.00		250 ~~50.00~~	U	100		P
Zinc	798.22		762.28		5		P

CORRECTIONS BY
S. CONNET (ESAT
DATA REVIEWER).
~ 11-6-09

000000051

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9-IN

METHOD DETECTION LIMITS (ANNUALLY)

ab Name: A4 Scientific, Inc. Contract: EPW08063

ab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QT0

strument Type: P Instrument ID: B-ICAP6500 Date: 12/31/2008

reparation Method: NP1

ncentration Units (ug/L or mg/kg): UG/L

Analyte	Wave-Length /Mass	CRQL	MDL
Aluminum	396.15	200.0	69.1
Antimony	206.83	60.0	20.8
Arsenic	189.04	10.0	3.4
Barium	455.40	200.0	68.5
Beryllium	313.04	5.0	1.7
Cadmium	228.80	5.0	1.7
Calcium	317.93	5000.0	1660
Chromium	267.72	10.0	3.2
Cobalt	228.62	50.0	16.2
Copper	324.75	25.0	8.5
Iron	259.94	100.0	37.8
Lead	220.35	10.0	2.5
Magnesium	279.07	5000.0	1680
Manganese	257.61	15.0	5.6
Nickel	231.60	40.0	13.3
Potassium	766.49	5000.0	1640
Selenium	196.09	35.0	13.8
Silver	328.07	10.0	3.6
Sodium	589.59	5000.0	1650
Thallium	190.86	25.0	9.3
Vanadium	292.40	50.0	17.9
Zinc	206.20	60.0	23.1

Comments:

USEPA-CLP

9-IN

METHOD DETECTION LIMITS (ANNUALLY)

ab Name: A4 Scientific, Inc. Contract: EPW08063

ab Code: A4 Case No.: 39095 NRAS No.: - SDG NO.: ME2QT0

strument Type: P Instrument ID: B-ICAP6500 Date: 12/31/2008

reparation Method: HS2

ncentration Units (ug/L or mg/kg): MG/KG

Analyte	Wave-Length /Mass	CRQL	MDL
Aluminum	396.15	20.0	6.4
Antimony	206.83	6.0	1.7
Arsenic	189.04	1.00	0.36
Barium	455.40	20.0	7.0
Beryllium	313.04	0.50	0.16
Cadmium	228.80	0.50	0.16
Calcium	317.93	500	163
Chromium	267.72	1.00	0.37
Cobalt	228.62	5.0	1.6
Copper	324.75	2.50	0.70
Iron	259.94	10.0	3.5
Lead	220.35	1.00	0.38
Magnesium	279.07	500	156
Manganese	257.61	1.50	0.51
Nickel	231.60	4.0	1.2
Potassium	766.49	500	160
Selenium	196.09	3.5	1.3
Silver	328.07	1.00	0.32
Sodium	589.59	500	162
Thallium	190.86	2.50	0.85
Vanadium	292.40	5.0	1.6
Zinc	206.20	6.0	2.2

Comments:

USEPA-CLP

12-IN

PREPARATION LOG

b Name: A4 Scientific, Inc. Contract: EPW08063

ıb Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QT0

eparation Method: HS2

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
PBSZ0	10/19/2009	1.00	100
LCSSZ0	10/19/2009	1.03	100
ME2QT0	10/19/2009	1.01	100
ME2QT0D	10/19/2009	1.01	100
ME2QT0S	10/19/2009	1.01	100
ME2QT1	10/19/2009	1.01	100
ME2QT2	10/19/2009	1.00	100
ME2QT3	10/19/2009	1.03	100
ME2QT4	10/19/2009	1.01	100
ME2QT5	10/19/2009	1.00	100
ME2QT6	10/19/2009	1.01	100
ME2QT7	10/19/2009	1.01	100
ME2QT8	10/19/2009	1.01	100
ME2QT9	10/19/2009	1.01	100
ME2QW0	10/19/2009	1.02	100
ME2QW1	10/19/2009	1.00	100
ME2QW2	10/19/2009	1.00	100
ME2QW3	10/19/2009	1.01	100

000000057

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13-IN

ANALYSIS RUN LOG

Lab Name: A4 Scientific, Inc. Contract: EPW08063

Lab Code: A4 Case No.: 39095 NRAS No.: SDG No.: ME2QT0

Instrument ID: B-ICAP6500 Analysis Method: P

Start Date: 10/20/2009 End Date: 10/20/2009

EPA Sample NO.	D/F	Time	Analytes																								
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN		
SO	1.0	1301	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
S	1.0	1305	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICV	1.0	1308	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICB	1.0	1312	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CRI	1.0	1315	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSA	1.0	1319	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSAB	1.0	1322	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCV	1.0	1326	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB	1.0	1329	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ZZZZZZ	1.0	1333																										
ZZZZZZ	1.0	1336																										
ZZZZZZ	1.0	1340																										
ZZZZZZ	1.0	1344																										
ZZZZZZ	1.0	1347																										
ZZZZZZ	5.0	1351																										
ZZZZZZ	1.0	1354																										
ZZZZZZ	1.0	1358																										
ZZZZZZ	1.0	1402																										
ZZZZZZ	1.0	1405																										
CCV	1.0	1409	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB	1.0	1412	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ZZZZZZ	1.0	1416																										
ZZZZZZ	1.0	1419																										
ZZZZZZ	1.0	1423																										
ZZZZZZ	1.0	1426																										
ZZZZZZ	5.0	1430																										
ZZZZZZ	1.0	1433																										
ZZZZZZ	1.0	1437																										
CRI	1.0	1441	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSA	1.0	1444	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSAB	1.0	1448	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCV	1.0	1451	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB	1.0	1455	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ZZZZZZ	1.0	1458																										
ZZZZZZ	1.0	1502																										
ZZZZZZ	1.0	1505																										
ZZZZZZ	1.0	1509																										

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13-IN

ANALYSIS RUN LOG

Lab Name: A4 Scientific, Inc. Contract: EPW08063

Lab Code: A4 Case No.: 39095 NRAS No.: SDG No.: ME2QT0

Instrument ID: B-ICAP6500 Analysis Method: P

Start Date: 10/20/2009 End Date: 10/20/2009

EPA Sample NO.	D/F	Time	Analytes																								
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN		
ZZZZZZ	1.0	1513																										
ZZZZZZ	1.0	1516																										
ZZZZZZ	1.0	1520																										
ZZZZZZ	1.0	1523																										
ZZZZZZ	1.0	1527																										
ZZZZZZ	1.0	1530																										
CCV	1.0	1534	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB	1.0	1537	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ZZZZZZ	1.0	1541																										
ZZZZZZ	1.0	1545																										
ZZZZZZ	1.0	1548																										
ZZZZZZ	1.0	1552																										
ZZZZZZ	1.0	1555																										
ZZZZZZ	1.0	1559																										
ZZZZZZ	1.0	1602																										
CRI	1.0	1606	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSA	1.0	1609	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSAB	1.0	1613	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCV	1.0	1616	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB	1.0	1620	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ZZZZZZ	1.0	1623																										
ZZZZZZ	1.0	1627																										
ZZZZZZ	1.0	1631																										
ZZZZZZ	1.0	1634																										
ZZZZZZ	1.0	1638																										
ZZZZZZ	5.0	1641																										
ZZZZZZ	1.0	1645																										
ZZZZZZ	1.0	1649																										
ZZZZZZ	1.0	1652																										
ZZZZZZ	1.0	1656																										
CCV	1.0	1659	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB	1.0	1703	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ZZZZZZ	1.0	1706																										
ZZZZZZ	1.0	1710																										
ZZZZZZ	1.0	1713																										
ZZZZZZ	1.0	1717																										
ZZZZZZ	1.0	1720																										

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13-IN

ANALYSIS RUN LOG

Lab Name: A4 Scientific, Inc. Contract: EPW08063

Lab Code: A4 Case No.: 39095 NRAS No.: SDG No.: ME2QT0

Instrument ID: B-ICAP6500 Analysis Method: P

Start Date: 10/20/2009 End Date: 10/20/2009

EPA Sample NO.	D/F	Time	Analytes																								
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN		
ZZZZZZ	1.0	1724																										
ZZZZZZ	1.0	1728																										
CRI	1.0	1731	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSA	1.0	1735	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSAB	1.0	1738	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCV	1.0	1742	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB	1.0	1745	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ZZZZZZ	1.0	1749																										
ZZZZZZ	1.0	1752																										
ZZZZZZ	1.0	1756																										
ZZZZZZ	1.0	1759																										
PRSZ0	1.0	1803	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
[illegible]Z0	1.0	1806	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QT0	1.0	1810	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QT0D	1.0	1814	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ZZZZZZ	1.0	1817																										
ZZZZZZ	1.0	1821																										
CCV	1.0	1824	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB	1.0	1828	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QT0S	1.0	1831	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QT0L	5.0	1835	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QT1	1.0	1838	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QT2	1.0	1842	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QT3	1.0	1845	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ZZZZZZ	1.0	1849																										
ZZZZZZ	1.0	1852																										
CRI	1.0	1856	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSA	1.0	1859	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSAB	1.0	1903	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCV	1.0	1906	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB	1.0	1910	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QT4	1.0	1914	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QT5	1.0	1917	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QT6	1.0	1921	X	X	X	X	X	X	X	X	X	X		X	X	X		X	X	X	X	X	X	X	X			
[illegible]T7	1.0	1924	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QT8	1.0	1928	X	X	X	X	X	X	X	X	X	X		X	X	X		X	X	X	X	X	X	X	X			
ME2QT9	1.0	1931	X	X	X	X	X	X	X	X	X	X		X	X	X		X	X	X	X	X	X	X	X			

USEPA-CLP

13-IN

ANALYSIS RUN LOG

Lab Name: A4 Scientific, Inc. Contract: EPW08063

Lab Code: A4 Case No.: 39095 NRAS No.: SDG No.: ME2QT0

Instrument ID: B-ICAP6500 Analysis Method: P

Start Date: 10/20/2009 End Date: 10/20/2009

EPA Sample NO.	D/F	Time	Analytes																									
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN		
ME2QW0	1.0	1935	X	X	X	X	X	X		X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QW1	1.0	1939	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ZZZZZZ	1.0	1942																										
ZZZZZZ	1.0	1946																										
CCV	1.0	1949	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB	1.0	1953	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QW2	1.0	1956	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QW3	1.0	2000	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ZZZZZZ	1.0	2003																										
ZZZZZZ	1.0	2007																										
ZZZZZZ	1.0	2011																										
ZZZZZZ	1.0	2014																										
ZZZZZZ	1.0	2018																										
CRI	1.0	2021	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSA	1.0	2025	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSAB	1.0	2028	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCV	1.0	2032	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB	1.0	2035	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			

000000051

Form XIII-IN

USEPA-CLP

13-IN

ANALYSIS RUN LOG

Lab Name: A4 Scientific, Inc. Contract: EPW08063

Lab Code: A4 Case No.: 39095 NRAS No.: SDG No.: ME2QT0

Instrument ID: B-ICAP6500 Analysis Method: P

Start Date: 10/21/2009 End Date: 10/21/2009

EPA Sample NO.	D/F	Time	Analytes																									
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN		
S0	1.0	1214							X				X															
S	1.0	1217							X				X															
ICV	1.0	1221							X				X															
ICB	1.0	1224							X				X															
CRI	1.0	1228							X				X															
ICSA	1.0	1231							X				X															
ICSAB	1.0	1235							X				X															
CCV	1.0	1238							X				X															
CCB	1.0	1242							X				X															
ZZZZZZ	1.0	1245																										
ME2QT6	1.3	1249											X															
ME2QT8	2.7	1252											X															
[illegible]2QT9	2.8	1256											X															
ME2QW0	1.3	1300							X																			
ZZZZZZ	4.6	1303																										
ZZZZZZ	1.8	1307																										
ZZZZZZ	1.4	1310																										
ZZZZZZ	1.0	1314																										
ZZZZZZ	1.0	1318																										
CCV	1.0	1321							X				X															
CCB	1.0	1325							X				X															
ZZZZZZ	1.0	1328																										
ZZZZZZ	1.0	1332																										
ZZZZZZ	1.0	1335																										
ZZZZZZ	1.0	1339																										
ZZZZZZ	1.0	1343																										
ZZZZZZ	1.0	1346																										
CRI	1.0	1350							X				X															
ICSA	1.0	1353							X				X															
ICSAB	1.0	1357							X				X															
CCV	1.0	1400							X				X															
CCB	1.0	1404							X				X															

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

Sample Delivery Group: ME2QTO CERCLIS No: IND980904379

Case No: 39095 Site Name/Location: Beck's Lake Site (IN)

Contractor or EPA Lab: AH Scientific Data User: IDEM

No. of Samples: 14 Date Sampled or Date Received: 23 Oct 09

Have Chain-of-Custody records been received? Yes X No ____

Have traffic reports or packing lists been received? Yes X No ____

If no, are traffic reports or packing list numbers written on the Chain-of-Custody Record?

Yes ____ No ____

If no, which traffic report or packing list numbers are missing?

____ ____ ____ ____

____ ____ ____ ____

Are basic data forms in? Yes X No ____

No of samples claimed: 14 No. of samples received: ____

Received by: Pat A Joyner Date: 23 Oct 09

Received by LSSS: Pat A Joyner Date: 27 Oct 09

Review started: 10-30-09 Reviewer Signature: [signature]

Total time spent on review: ~~13~~ 14 w11-12-09 Date review completed: ~~11-6-09~~ w11-12-09 11-12-09

Copied by: A. C. Harvey Date: Nov 16 2009

Mailed to user by: Pat A Joyner Date: 17 Nov 09

DATA USER:

Please fill in the blanks below and return this form to:

Sylvia Griffin, Data Mgmt. Coordinator, Region V, ML-10C

Data received by: ____ Date: ____

Data review received by: ____ Date: ____

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

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

____

____

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

ESAT Controlled Number: ESAT5.17-00903-PY12NOV09

DATE: November 12, 2009

Indiana Dept of Environmental Management
ATTN: Mark Jaworski
100 N. Senate Avenue – Room N1255
Indianapolis, IN 46804-2222

SITE NAME: Beck's Lake Site (IN)

CASE #	LAB	SAMPLES	SDG	MATRIX
39095	A4 Scientific	12	ME2QW4	soil

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

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

Data Received by:_____ Date:_____

PROBLEMS:

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

_____

_____

Received by Data Management Coordinator, CRL for file.

Signature:_____ Date:_____

FROM: **U.S. EPA - Region 5**
Sylvia Griffin
Central Regional Laboratory
536 S. Clark, 10th Floor
Chicago, IL 60605

Sent By: Pat Joyner
Data Coordinator
ESAT Region 5 **TechLaw**

RECEIVED
NOV 17 2009
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF LAND QUALITY

Confidential Document

ESAT5.15.00366

Regional Transmittal Form

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 11/9/09

SUBJECT: Review of Data
Received for review on 10/23/09

FROM: Stephen L. Ostrodka, Chief (SRT-5J)
Superfund Field Services Section

TO: Data User: IDEM

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

SITE NAME: Beck's Lake Site (IN)

CASE NUMBER: 39095 **SDG NUMBER:** ME2QW4

Number and Type of Samples: 12 soils

Sample Numbers: ME2QW4-W8, X0-X6

Laboratory: A4 Scientific **Hrs. for Review:** 10 + 2.50 minutes

Following are our findings:

CC: Howard Pham
Region 5 TOPO
Mail Code: SRT-5J

Below is a summary of the out-of-control [illegible] for this case:

Twelve (12) soil samples, numbered ME2QW4-W8, X0-X6, were collected on October 6, 2009. The lab received the samples on October 9, 2009 in good condition. All samples were analyzed for metals. All samples were analyzed using the CLP SOW ILM05.4 analysis procedures.

The inorganic analyses were performed using an Inductively Coupled Plasma-Atomic Emission Spectroscopy (ICP-AES) procedure.

Serial Dilution non-detects results were not reported after dilution correction (CRQL times 5). Corrections were made on Form 8 by this reviewer.

Due to the elevated detection limit used by the laboratory, barium and potassium cannot be seen in the LCS. The laboratory MDL (Ba = 6.8 mg/kg, K = 155 mg/kg) is greater than the upper acceptance limit for the LCS (Ba = 2.2 mg/kg, K = 85.3 mg/kg). According to the True Value Summary Table for LCSS(0405), acceptance limits for barium, potassium and sodium are advisory only. CLP does not make allowances for advisory limits. Since the laboratory cannot see the LCS values for these elements, validation of the digestion is not possible and all detects will be estimated "J" and non-detects will be estimated "UJ".

Note: All barium and potassium results are flagged "J+" by CADRE. This appears to be because CADRE used the non-detect values of 20 and 500 mg/kg respectively for the solid LCS as detects.

1. EXCEEDING TABLE:

No defects were found.

2. CALIBRATIONS:

No defects were found for the calibration or the CRQL standards.

3. BLANKS:

No defects were found for the preparation blank or ICB/CCBs.

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

The following inorganic samples are associated with a solid laboratory control sample (LCS) with found amounts below the method detection limit (MDL). The LCS upper control limit is less than the laboratory MDL.
Hits are qualified "J" and non-detects are qualified "UJ".

Barium
ME2QW4, ME2QW5, ME2QW6, ME2QW7, ME2QW8, ME2QX0, ME2QX1, ME2QX2, ME2QX3, ME2QX4, ME2QX5, ME2QX6

Potassium
ME2QW4, ME2QW5, ME2QW6, ME2QW7, ME2QW8, ME2QX0, ME2QX1, ME2QX2, ME2QX3, ME2QX4, ME2QX5, ME2QX6

No defects were found for the matrix spike.

5. LABORATORY AND FIELD DUPLICATE:

The following inorganic samples are associated with duplicate results which did not meet relative percent difference (RPD) primary criteria. Region 5 uses 35%RPD control criteria for soil samples.
Hits are qualified "J" and non-detects are qualified "UJ".

Zinc
ME2QW4, ME2QW5, ME2QW6, ME2QW7, ME2QW8, ME2QX0, ME2QX1, ME2QX2, ME2QX3, ME2QX4, ME2QX5, ME2QX6

No samples were identified as field duplicates.

6. [illegible]

The following results are affected by an [illegible] (ICSA) [illegible] false negative concentration values greater than the absolute value of the MDL were obtained. The sample contains Al, Ca, Fe or Mg at a level comparable to that of the ICSA.

Hits less than 10 times the absolute value of the ICSA are qualified "J", non-detects are qualified "UJ". Hits greater than 10 times the ICSA are not qualified.

Silver

ME2QW4, ME2QW5, ME2QW7, ME2QW8, ME2QX1

No defects were found for the serial dilution.

7. SAMPLE RESULTS:

The following inorganic samples have analyte concentrations reported above the method detection limit (MDL) but below the quantitation limit (CRQL).

Results are qualified "J".

Beryllium

ME2QW4, ME2QW6, ME2QW7, ME2QW8, ME2QX0, ME2QX1, ME2QX2, ME2QX3, ME2QX4, ME2QX5, ME2QX6

Cadmium

ME2QX0, ME2QX2, ME2QX5, ME2QX6

Cobalt

ME2QW4, ME2QW5, ME2QW6, ME2QW7, ME2QW8, ME2QX0, ME2QX1, ME2QX2, ME2QX3, ME2QX5, ME2QX6

Nickel

ME2QX4

Potassium

ME2QW4, ME2QW5, ME2QW6, ME2QW7, ME2QW8, ME2QX0, ME2QX1, ME2QX2, ME2QX3, ME2QX4, ME2QX5, ME2QX6

Selenium

ME2QW4

All data, except those qualified above, are acceptable.

Case #: 39095 SDG : ME2QW4
Site : BECK'S LAKE SITE
Number of Soil Samples : 12
Number of Water Samples : 0
Reviewer : S. CONNET
Date : 11/9/2009

Sample Number :	ME2QW4		ME2QW5		ME2QW6		ME2QW7		ME2QW8	
Sampling Location :	S14		S15		S16		S17		S24	
Matrix :	Soil		Soil		Soil		Soil		Soil	
Units :	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Date Sampled :	10/6/2009		10/6/2009		10/6/2009		10/6/2009		10/6/2009	
Time Sampled :										
%Solids :	78.9		91.6		78.3		83.5		83.2	
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	3630		1980		4380		2310		2280	
ANTIMONY	7.6	U	6.4	U	7.7	U	7.0	U	7.1	U
ARSENIC	30.8		5.4		4.1		12.2		10.3	
BARIUM	250	J	30.9	J	76.6	J	62.7	J	60.8	J
BERYLLIUM	0.39	J	0.54	U	0.45	J	0.20	J	0.23	J
CADMIUM	2.1		0.62		0.73		0.62		0.61	
CALCIUM	35900		30600		10600		9180		11400	
CHROMIUM	10.8		7.2		9.5		7.0		6.2	
COBALT	4.5	J	2.8	J	2.7	J	2.9	J	2.8	J
COPPER	75.4		20.2		37.5		24.2		153	
IRON	23200		8080		6550		13000		13400	
AD	179		58.4		59.3		62.0		58.2	
MAGNESIUM	3600		8510		2920		3180		3630	
MANGANESE	540		255		202		139		141	
NICKEL	11.7		6.4		7.5		7.1		6.5	
POTASSIUM	504	J	269	J	372	J	387	J	383	J
SELENIUM	2.4	J	3.7	U	4.5	U	4.1	U	4.2	U
SILVER	1.3	UJ	1.1	UJ	1.3	U	1.2	UJ	1.2	UJ
SODIUM	634	U	535	U	639	U	581	U	595	U
THALLIUM	3.2	U	2.7	U	3.2	U	2.9	U	3.0	U
VANADIUM	15.5		7.3		17.7		10.5		10.0	
ZINC	407	J	111	J	81.5	J	136	J	267	J

CADRE ILM[illegible] Data Qualifier Sheet

Qualifiers	Data Qualifier Definitions
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
UJ	The analyte was analyzed for, but not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Reviewed by: Stephen Connet
[illegible] 9, [illegible]009

Case #: 39095 SDG : ME2QW4
Site : DE[illegible] LAKE SITE
[illegible]. : A4
Reviewer : S. CONNET
Date : 11/9/2009

Sample Number :	ME2QX0		ME2QX1		ME2QX2		ME2QX3		ME2QX4	
Sampling Location :	S19		S20		S21		S22		S31	
Matrix :	Soil		Soil		Soil		Soil		Soil	
Units :	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Date Sampled :	10/6/2009		10/6/2009		10/6/2009		10/6/2009		10/6/2009	
Time Sampled :										
%Solids :	78.8		72.8		82.6		78.3		85.9	
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	3110		3020		3750		3050		2720	
ANTIMONY	7.5	U	8.2	U	7.3	U	7.5	U	6.8	U
ARSENIC	7.9		12.2		9.1		8.2		2.7	
BARIUM	58.4	J	62.2	J	74.7	J	58.4	J	65.2	J
BERYLLIUM	0.25	J	0.28	J	0.30	J	0.36	J	0.23	J
CADMIUM	0.48	J	0.71		0.55	J	0.65		0.58	
CALCIUM	5190		39100		7140		12500		2220	
CHROMIUM	6.3		10.9		7.0		7.1		7.8	
COBALT	2.7	J	3.3	J	3.7	J	2.9	J	5.7	U
COPPER	15.2		24.6		16.1		20.7		14.6	
IRON	7250		12300		10200		10500		3550	
[illegible]AD	29.3		51.1		55.6		157		124	
MAGNESIUM	1080		6610		2040		4220		689	
MANGANESE	68.7		365		306		245		89.2	
NICKEL	5.4		8.0		7.2		7.7		4.0	J
POTASSIUM	289	J	286	J	496	J	376	J	298	J
SELENIUM	4.4	U	4.8	U	4.2	U	4.4	U	4.0	U
SILVER	1.3	U	1.4	UJ	1.2	U	1.3	U	1.1	U
SODIUM	628	U	687	U	605	U	626	U	571	U
THALLIUM	3.1	U	3.4	U	3.0	U	3.1	U	2.9	U
VANADIUM	10.2		10.8		12.7		11.0		7.9	
ZINC	41.6	J	73.6	J	66.8	J	79.2	J	94.7	J

Analytical Results (Qualified Data)

Case #: 39095 SDG : ME2QW4
Site : BECK'S LAKE SITE
Lab. : A4
Reviewer : S. CONNET
Date : 11/9/2009

Sample Number :	ME2QX5		ME2QX6							
Sampling Location :	S32		S33							
Matrix :	Soil		Soil							
Units :	mg/Kg		mg/Kg							
Date Sampled :	10/6/2009		10/6/2009							
Time Sampled :										
%Solids :	76.8		73.3							
Dilution Factor :	1.0		1.0							
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	4120		4400							
ANTIMONY	7.7	U	8.0	U						
ARSENIC	3.4		7.8							
BARIUM	55.8	J	64.8	J						
BERYLLIUM	0.35	J	0.33	J						
CADMIUM	0.41	J	0.56	J						
CALCIUM	23000		12800							
CHROMIUM	9.8		11.0							
COBALT	3.1	J	5.2	J						
COPPER	16.4		26.3							
IRON	5590		10100							
LEAD	30.7		28.9							
MAGNESIUM	3650		3850							
MANGANESE	338		237							
NICKEL	6.9		11.9							
POTASSIUM	509	J	515	J						
SELENIUM	4.5	U	4.7	U						
SILVER	1.3	U	1.3	U						
SODIUM	638	U	669	U						
THALLIUM	3.2	U	3.3	U						
VANADIUM	11.2		16.2							
ZINC	138	J	52.1	J						

[illegible] Contract Laboratory Program
[illegible]nic Traffic Report & Chain of Custody Record

Case No: 30000
DAS No:
SDG No: ME2Q[illegible]

Date Shipped:	10/8/2009
Carrier Name:	FedEx
Airbill:	8114170/2196
Shipped to:	A4 Scientific, Inc. 1544 Sawdust Road Suite 505 The Woodlands TX 77380 (281) 292-5277

Chain of Custody Record

Relinquished By	(Date / Time)	Received By	(Date / Time)
1 [signature]	10/8/09 12:00pm		
2			
3			1041
4		[signature]	10/9/9

Sampler Signature:

For Lab Use Only

Lab Contract No:	EDW08063
Unit Price:	
Transfer To:	
Lab Contract No:	
Unit Price:	

INORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME	ORGANIC SAMPLE No.	FOR LAB USE ONLY Sample Condition On Receipt
ME2QW4	Surface Soil (0"-12")/ Rick Milton	L/G	ICP/MS (21)	5C129615 (Ice Only) (1)	S14	S: 10/6/2009 13:55		0010979-01 INTACT
ME2QW5	Surface Soil (0"-12")/ Rick Milton	L/G	ICP/MS (21)	5C129616 (Ice Only) (1)	S15	S: 10/6/2009 14:35		-02
ME2QW6	Surface Soil (0"-12")/ Rick Milton	L/G	ICP/MS (21)	5C129617 (Ice Only) (1)	S16	S: 10/6/2009 14:55		-03
ME2QW7	Surface Soil (0"-12")/ Rick Milton	L/G	ICP/MS (21)	5C129619 (Ice Only) (1)	S17	S: 10/6/2009 16:35		-04
ME2QW8	Surface Soil (0"-12")/ Rick Milton	L/G	ICP/MS (21)	5C129618 (Ice Only) (1)	S24	S: 10/6/2009 16:36		-05
ME2QW9	Surface Soil (0"-12")/ Rick Milton	L/G	ICP/MS (21)	5C129620 (1)	S18	S: 10/6/2009 16:45		-06 not received
ME2QX0	Surface Soil (0"-12")/ Rick Milton	L/G	ICP/MS (21)	5C129621 (Ice Only) (1)	S19	S: 10/6/2009 16:50		-07
ME2QX1	Surface Soil (0"-12")/ Rick Milton	L/G	ICP/MS (21)	5C129622 (Ice Only) (1)	S20	S: 10/6/2009 18:25		-08
ME2QX2	Surface Soil (0"-12")/ Rick Milton	L/G	ICP/MS (21)	5C129623 (Ice Only) (1)	S21	S: 10/6/2009 18:30		-09
ME2QX3	Surface Soil (0"-12")/ Rick Milton	L/G	ICP/MS (21)	5C129624 (Ice Only) (1)	S22	S: 10/6/2009 18:45		

Shipment for Case Complete?N	Sample(s) to be used for laboratory QC:	Additional Sampler Signature(s): [signature]	Cooler Temperature Upon Receipt:	Chain of Custody Seal Number: 23712 [illegible]
Analysis Key:	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G		Custody Seal Intact? Y Shipment Is? Y

ICP/MS = CLP TAL Total Metals ICP/MS

TR Number: 5-420891360-100809-0002

LABORATORY COPY

PR provides preliminary results. Requests for preliminary results will increase analytical costs.
Send Copy to: Sample Management Office, Attn: Heather Bauer, CSC, 15000 Conference Center Dr., Chantilly, VA 20151-3819; Phone 703/818-4200; Fax 703/818-4602

USEPA Contract Laboratory Program
Inorganic Traffic Report & Chain of Custody Record

Case No: 39096
DAS No:
SDG No: ME2QW4

Date Shipped:	10/[illegible]/2009
Carrier Name:	FedEx
Airbill:	811417072196
Shipped to:	A4 Scientific, Inc. 1544 Sawdust Road Suite 505 The Woodlands TX 77380 (281) 29[illegible]-5277

Chain of Custody Record

Relinquished By	(Date / Time)	Received By	(Date / Time)
1			
2			
3			
4		C Holdelan 10/9/9	1041

Sampler Signature:

For Lab Use Only

Lab Contract No:	EPW08063
Unit Price:	Ø
Transfer To:	
Lab Contract No:	
Unit Price:	

INORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME		ORGANIC SAMPLE No.	FOR LAB USE ONLY Sample Condition On Receipt
ME2QX4	Surface Soil (0"-12")/ Dan Chesterson	L/G	ICP/MS (21)	5C129625 (Ice Only) (1)	S31	S: 10/6/2009	10:55		0010979-010 INTACT
ME2QX5	Surface Soil (0"-12")/ Dan Chesterson	L/G	ICP/MS (21)	5C129626 (Ice Only) (1)	S32	S: 10/6/2009	11:20		-11
ME2QX6	Surface Soil (0"-12")/ Dan Chesterson	L/G	ICP/MS (21)	5C129627 (Ice Only) (1)	S33	S: 10/6/2009	11:40		-12

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

ICP/MS = CLP TAL Total Metals ICP/MS

TR Number: 5-420891360-100809-0002

LABORATORY COPY

PR provides preliminary results. Requests for preliminary results will increase analytical costs.
Send Copy to: Sample [illegible]agement Office, Attn: Heather Bauer, CSC, 15000 Conference Center Dr., Chant[illegible]'A 20151-3819; Phone 703/818-4200; Fax 703/818-4200

F2V5.1.047 Pa[illegible] of 2

A4 SCIENTIFIC, INC.

1104 Sawdust Road, Suite 595 • The Woodlands, TX 77380 • Phone (281) 292-5277

[illegible]	Case #: 39095	SDG #: ME2QW4

SDG NARRATIVE

SAMPLE RECIEPT & LOGIN

The following samples were received on the dates listed against them. The samples were logged in for analysis as listed.

Client Sample	*Lab Sample*	*Matrix*	*#Cont.*	*Received*	*Analysis*	*Comments*
ME2QW4	0010979-01	Soil	1	10/09/09 10:41	ILM05.4-ICPAES	MS/DUP
ME2QW5	0010979-02	Soil	1	10/09/09 10:41	ILM05.4-ICPAES	
ME2QW6	0010979-03	Soil	1	10/09/09 10:41	ILM05.4-ICPAES	
ME2QW7	0010979-04	Soil	1	10/09/09 10:41	ILM05.4-ICPAES	
ME2QW8	0010979-05	Soil	1	10/09/09 10:41	ILM05.4-ICPAES	
ME2QX0	0010979-06	Soil	1	10/09/09 10:41	ILM05.4-ICPAES	
ME2QX1	0010979-07	Soil	1	10/09/09 10:41	ILM05.4-ICPAES	
ME2QX2	0010979-08	Soil	1	10/09/09 10:41	ILM05.4-ICPAES	
ME2QX3	0010979-09	Soil	1	10/09/09 10:41	ILM05.4-ICPAES	
ME2QX4	0010979-10	Soil	1	10/09/09 10:41	ILM05.4-ICPAES	
ME2QX5	0010979-11	Soil	1	10/09/09 10:41	ILM05.4-ICPAES	
ME2QX6	0010979-12	Soil	1	10/09/09 10:41	ILM05.4-ICPAES	

Issue: The TR/COC lists the analysis as ICP-MS CLP Total Metals; however, per scheduling the analysis required is ICP-AES Metals.
Resolution: In accordance with previous direction from Region 5, the laboratory will note the issue in the SDG Narrative, perform the analyses as indicated on the Scheduling Notification Form, and proceed with the analysis of the samples.

No other discrepancies of issues were noted during receipt and login.

ICP-AES

Soil Samples were digested by Hot-Block technique (HS2) and analyzed using a Thermo Electron ICAP6500.

MS and DUP were performed on sample "ME2QW4" and they were within the QC limits. The RPD for Zn exceeded the QC limits.

Serial Dilution was performed on sample "ME2QW4" and they were within the QC limits.

No problems were encountered during sample preparation or analysis.

A4 SCIENTIFIC, INC.
1544 Sawdust Road, Suite 505 • The Woodlands, TX 77380 • Phone (281) 292-5277

Contract #: EPW06063	Case #: 39095	SDG #: ME2QW4

SDG NARRATIVE

All samples were prepared and analyzed with in the contractual holding times.

The following equations are used for calculation of sample results from raw instrument output data:

ICP-AES
SOIL Samples:

$$\text{Concentration (dry Wt.) (mg/kg)} = \frac{C * V}{W * S} * DF$$

Where,
C = Concentration (mg/L)
V = Final sample volume in Liters (L) (0.1L)
W = Wet sample weight (kg) (0.001kg)
S = % solids/100
DF = Dilution Factor

OCT 2 3 2009

COVER PAGE

[illegible] EPW08063

[illegible] A4 Case No: 39095 NRAS No.: SDG No: ME2QW4

[illegible] ILM05.4

EPA Sample No.	Lab Sample ID
ME2QW4	0010979-01
ME2QW4D	0010979-01D
ME2QW4S	0010979-01S
ME2QW5	0010979-02
ME2QW6	0010979-03
ME2QW7	0010979-04
ME2QW8	0010979-05
ME2QX0	0010979-06
ME2QX1	0010979-07
ME2QX2	0010979-08
ME2QX3	0010979-09
ME2QX4	0010979-10
ME2QX5	0010979-11
ME2QX6	0010979-12

		ICP-AES	ICP-MS
ere ICP-AES and ICP-MS interelement corrections pplied?	(Yes/No)	YES	YES
ere ICP-AES and ICP-MS background corrections pplied?	(Yes/No)	YES	YES
If yes, were raw data generated before application of background corrections?	(Yes/No)	NO	NO

omments:

certify that this data package is in compliance with the terms and conditions of the ntract, both technically and for completeness, for other than the conditions detailed re. Release of the data contained in this hardcopy data package and in the computer-readable data mitted on diskette (or via an alternate means of electronic ssion, if approved in advance by USEPA) has been authorized by the Laboratory or the Manager's designee, as verified by the following signature.

[illegible] Name: [illegible]

[illegible] Title: QA SPECIALIST

USEPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME2QW4

Name: A4 Scientific, Inc. Contract: EPW08063

Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QW4

trix (soil/water): SOIL Lab Sample ID: 0010979-01

vel (low/med): LOW Date Received: 10/09/2009

Solids: 78.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3630			P
7440-36-0	Antimony	7.6	U		P
7440-38-2	Arsenic	30.8			P
7440-39-3	Barium	250			P
7440-41-7	Beryllium	0.39	J		P
7440-43-9	Cadmium	2.1			P
7440-70-2	Calcium	35900			P
7440-47-3	Chromium	10.8			P
7440-48-4	Cobalt	4.5	J		P
7440-50-8	Copper	75.4			P
7439-89-6	Iron	23200			P
7439-92-1	Lead	179			P
7439-95-4	Magnesium	3600			P
7439-96-5	Manganese	540			P
7440-02-0	Nickel	11.7			P
7440-09-7	Potassium	504	J		P
7782-49-2	Selenium	2.4	J		P
7440-22-4	Silver	1.3	U		P
7440-23-5	Sodium	634	U		P
7440-28-0	Thallium	3.2	U		P
7440-62-2	Vanadium	15.5			P
7440-66-6	Zinc	407		*	P

Color Before: BLACK Clarity Before: CLOUDY Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME2QW5

b Name: A4 Scientific, Inc. Contract: EPW08063

b Code: A4 Case No.: 39095 MRAS No.: SDG NO.: ME2QW4

trix (soil/water): SOIL Lab Sample ID: 0010979-02

vel (low/med): LOW Date Received: 10/09/2009

Solids: 91.6

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1980			P
7440-36-0	Antimony	6.4	U		P
7440-38-2	Arsenic	5.4			P
7440-39-3	Barium	30.9			P
7440-41-7	Beryllium	0.54	U		P
7440-43-9	Cadmium	0.62			P
7440-70-2	Calcium	30600			P
7440-47-3	Chromium	7.2			P
7440-48-4	Cobalt	2.8	J		P
7440-50-8	Copper	20.2			P
7439-89-6	Iron	8080			P
7439-92-1	Lead	58.4			P
7439-95-4	Magnesium	8510			P
7439-96-5	Manganese	255			P
7440-02-0	Nickel	6.4			P
7440-09-7	Potassium	269	J		P
7782-49-2	Selenium	3.7	U		P
7440-22-4	Silver	1.1	U		P
7440-23-5	Sodium	535	U		P
7440-28-0	Thallium	2.7	U		P
7440-62-2	Vanadium	7.3			P
7440-66-6	Zinc	111		*	P

Color Before: BLACK Clarity Before: CLOUDY Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME2QW6

Name: A4 Scientific, Inc. Contract: EPW08063

Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QW4

trix (soil/water): SOIL Lab Sample ID: 0010979-03

vel (low/med): LOW Date Received: 10/09/2009

Solids: 78.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4380			P
7440-36-0	Antimony	7.7	U		P
7440-38-2	Arsenic	4.1			P
7440-39-3	Barium	76.6			P
7440-41-7	Beryllium	0.45	J		P
7440-43-9	Cadmium	0.73			P
7440-70-2	Calcium	10600			P
7440-47-3	Chromium	9.5			P
7440-48-4	Cobalt	2.7	J		P
7440-50-8	Copper	37.5			P
7439-89-6	Iron	6550			P
7439-92-1	Lead	59.3			P
7439-95-4	Magnesium	2920			P
7439-96-5	Manganese	202			P
7440-02-0	Nickel	7.5			P
7440-09-7	Potassium	372	J		P
7782-49-2	Selenium	4.5	U		P
7440-22-4	Silver	1.3	U		P
7440-23-5	Sodium	639	U		P
7440-28-0	Thallium	3.2	U		P
7440-62-2	Vanadium	17.7			P
7440-66-6	Zinc	81.5		*	P

Color Before: BLACK Clarity Before: CLOUDY Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

USEPA CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME2QW7

Name: A1 Scientific, Inc. Contract: EPW08063

Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QW4

trix (soil/water): SOIL Lab Sample ID: 0010979-04

vel (low/med): LOW Date Received: 10/09/2009

Solids: 83.5

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2310			P
7440-36-0	Antimony	7.0	U		P
7440-38-2	Arsenic	12.2			P
7440-39-3	Barium	62.7			P
7440-41-7	Beryllium	0.20	J		P
7440-43-9	Cadmium	0.62			P
7440-70-2	Calcium	9180			P
7440-47-3	Chromium	7.0			P
7440-48-4	Cobalt	2.9	J		P
7440-50-8	Copper	24.2			P
7439-89-6	Iron	13000			P
7439-92-1	Lead	62.0			P
7439-95-4	Magnesium	3180			P
7439-96-5	Manganese	139			P
7440-02-0	Nickel	7.1			P
7440-09-7	Potassium	387	J		P
7782-49-2	Selenium	4.1	U		P
7440-22-4	Silver	1.2	U		P
7440-23-5	Sodium	581	U		P
7440-28-0	Thallium	2.9	U		P
7440-62-2	Vanadium	10.5			P
7440-66-6	Zinc	136		*	P

Color Before: BLACK Clarity Before: CLOUDY Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

EPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME2QW8

Name: A4 Scientific, Inc. Contract: EPW08063

Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QW4

trix (soil/water): SOIL Lab Sample ID: 0010979-05

vel (low/med): LOW Date Received: 10/09/2009

Solids: 83.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2280			P
7440-36-0	Antimony	7.1	U		P
7440-38-2	Arsenic	10.3			P
7440-39-3	Barium	60.8			P
7440-41-7	Beryllium	0.23	J		P
7440-43-9	Cadmium	0.61			P
7440-70-2	Calcium	11400			P
7440-47-3	Chromium	6.2			P
7440-48-4	Cobalt	2.8	J		P
7440-50-8	Copper	153			P
7439-89-6	Iron	13400			P
7439-92-1	Lead	58.2			P
7439-95-4	Magnesium	3630			P
7439-96-5	Manganese	141			P
7440-02-0	Nickel	6.5			P
7440-09-7	Potassium	383	J		P
7782-49-2	Selenium	4.2	U		P
7440-22-4	Silver	1.2	U		P
7440-23-5	Sodium	595	U		P
7440-28-0	Thallium	3.0	U		P
7440-62-2	Vanadium	10.0			P
7440-66-6	Zinc	267		*	P

Color Before: BLACK Clarity Before: CLOUDY Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME2QX0

Lab Name: A4 Scientific, Inc. Contract: EPW08063

Lab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QW4

Matrix (soil/water): SOIL Lab Sample ID: 0010979-06

Level (low/med): LOW Date Received: 10/09/2009

% Solids: 78.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3110			P
7440-36-0	Antimony	7.5	U		P
7440-38-2	Arsenic	7.9			P
7440-39-3	Barium	58.4			P
7440-41-7	Beryllium	0.25	J		P
7440-43-9	Cadmium	0.48	J		P
7440-70-2	Calcium	5190			P
7440-47-3	Chromium	6.3			P
7440-48-4	Cobalt	2.7	J		P
7440-50-8	Copper	15.2			P
7439-89-6	Iron	7250			P
7439-92-1	Lead	29.3			P
7439-95-4	Magnesium	1080			P
7439-96-5	Manganese	68.7			P
7440-02-0	Nickel	5.4			P
7440-09-7	Potassium	289	J		P
7782-49-2	Selenium	4.4	U		P
7440-22-4	Silver	1.3	U		P
7440-23-5	Sodium	628	U		P
7440-28-0	Thallium	3.1	U		P
7440-62-2	Vanadium	10.2			P
7440-66-6	Zinc	41.6		*	P

Color Before: BLACK Clarity Before: CLOUDY Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments: 100

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1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME2QX1

b Name: A4 Scientific, Inc. Contract: EPW08063

b Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QW4

trix (soil/water): SOIL Lab Sample ID: 0010979-07

vel (low/med): LOW Date Received: 10/09/2009

Solids: 72.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3020			P
7440-36-0	Antimony	8.2	U		P
7440-38-2	Arsenic	12.2			P
7440-39-3	Barium	62.2			P
7440-41-7	Beryllium	0.28	J		P
7440-43-9	Cadmium	0.71			P
7440-70-2	Calcium	39100			P
7440-47-3	Chromium	10.9			P
7440-48-4	Cobalt	3.3	J		P
7440-50-8	Copper	24.6			P
7439-89-6	Iron	12300			P
7439-92-1	Lead	51.1			P
7439-95-4	Magnesium	6610			P
7439-96-5	Manganese	365			P
7440-02-0	Nickel	8.0			P
7440-09-7	Potassium	286	J		P
7782-49-2	Selenium	4.8	U		P
7440-22-4	Silver	1.4	U		P
7440-23-5	Sodium	687	U		P
7440-28-0	Thallium	3.4	U		P
7440-62-2	Vanadium	10.8			P
7440-66-6	Zinc	73.6		*	P

Color Before: BLACK Clarity Before: CLOUDY Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments: 101

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME2QX2

Lab Name: A4 Scientific, Inc. Contract: EPW08063

Lab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QW4

Matrix (soil/water): SOIL Lab Sample ID: 0010979-08

Level (low/med): LOW Date Received: 10/09/2009

% Solids: 82.6

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3750			P
7440-36-0	Antimony	7.3	U		P
7440-38-2	Arsenic	9.1			P
7440-39-3	Barium	74.7			P
7440-41-7	Beryllium	0.30	J		P
7440-43-9	Cadmium	0.55	J		P
7440-70-2	Calcium	7140			P
7440-47-3	Chromium	7.0			P
7440-48-4	Cobalt	3.7	J		P
7440-50-8	Copper	16.1			P
7439-89-6	Iron	10200			P
7439-92-1	Lead	55.6			P
7439-95-4	Magnesium	2040			P
7439-96-5	Manganese	306			P
7440-02-0	Nickel	7.2			P
7440-09-7	Potassium	496	J		P
7782-49-2	Selenium	4.2	U		P
7440-22-4	Silver	1.2	U		P
7440-23-5	Sodium	605	U		P
7440-28-0	Thallium	3.0	U		P
7440-62-2	Vanadium	12.7			P
7440-66-6	Zinc	66.8		*	P

Color Before: BLACK Clarity Before: CLOUDY Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments: 100

USEPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME2QX3

Name: A4 Scientific, Inc. Contract: EPW08063

Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QW4

Matrix (soil/water): SOIL Lab Sample ID: 0010979-09

Level (low/med): LOW Date Received: 10/09/2009

% Solids: 78.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3050			P
7440-36-0	Antimony	7.5	U		P
7440-38-2	Arsenic	8.2			P
7440-39-3	Barium	58.4			P
7440-41-7	Beryllium	0.36	J		P
7440-43-9	Cadmium	0.65			P
7440-70-2	Calcium	12500			P
7440-47-3	Chromium	7.1			P
7440-48-4	Cobalt	2.9	J		P
7440-50-8	Copper	20.7			P
7439-89-6	Iron	10500			P
7439-92-1	Lead	157			P
7439-95-4	Magnesium	4220			P
7439-96-5	Manganese	245			P
7440-02-0	Nickel	7.7			P
7440-09-7	Potassium	376	J		P
7782-49-2	Selenium	4.4	U		P
7440-22-4	Silver	1.3	U		P
7440-23-5	Sodium	626	U		P
7440-28-0	Thallium	3.1	U		P
7440-62-2	Vanadium	11.0			P
7440-66-6	Zinc	79.2		*	P

Color Before: BLACK Clarity Before: CLOUDY Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments: 103

00000018

USEPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME2QX4

Lab Name: A1 Scientific, Inc. Contract: EPW08063

Lab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QW4

Matrix (soil/water): SOIL Lab Sample ID: 0010979-10

Level (low/med): LOW Date Received: 10/09/2009

Solids: 85.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2720			P
7440-36-0	Antimony	6.8	U		P
7440-38-2	Arsenic	2.7			P
7440-39-3	Barium	65.2			P
7440-41-7	Beryllium	0.23	J		P
7440-43-9	Cadmium	0.58			P
7440-70-2	Calcium	2220			P
7440-47-3	Chromium	7.8			P
7440-48-4	Cobalt	5.7	U		P
7440-50-8	Copper	14.6			P
7439-89-6	Iron	3550			P
7439-92-1	Lead	124			P
7439-95-4	Magnesium	689			P
7439-96-5	Manganese	89.2			P
7440-02-0	Nickel	4.0	J		P
7440-09-7	Potassium	298	J		P
7782-49-2	Selenium	4.0	U		P
7440-22-4	Silver	1.1	U		P
7440-23-5	Sodium	571	U		P
7440-28-0	Thallium	2.9	U		P
7440-62-2	Vanadium	7.9			P
7440-66-6	Zinc	94.7		*	P

Color Before: BLACK Clarity Before: CLOUDY Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments: 104

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME2QX5

b Name: A4 Scientific, Inc. Contract: EPW08063

b Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QW4

trix (soil/water): SOIL Lab Sample ID: 0010979-11

vel (low/med): LOW Date Received: 10/09/2009

Solids: 76.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4120			P
7440-36-0	Antimony	7.7	U		P
7440-38-2	Arsenic	3.4			P
7440-39-3	Barium	55.8			P
7440-41-7	Beryllium	0.35	J		P
7440-43-9	Cadmium	0.41	J		P
7440-70-2	Calcium	23000			P
7440-47-3	Chromium	9.8			P
7440-48-4	Cobalt	3.1	J		P
7440-50-8	Copper	16.4			P
7439-89-6	Iron	5590			P
7439-92-1	Lead	30.7			P
7439-95-4	Magnesium	3650			P
7439-96-5	Manganese	338			P
7440-02-0	Nickel	6.9			P
7440-09-7	Potassium	509	J		P
7782-49-2	Selenium	4.5	U		P
7440-22-4	Silver	1.3	U		P
7440-23-5	Sodium	638	U		P
7440-28-0	Thallium	3.2	U		P
7440-62-2	Vanadium	11.2			P
7440-66-6	Zinc	138		*	P

Color Before: BLACK Clarity Before: CLOUDY Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments: 105

IA-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME2QX6

Lab Name: AA Analytical, Inc. Contract: EPW08063

Lab Code: AA Case No.: 39095 MRAS No.: SDG NO.: ME2QW4

Matrix (soil/water): SOIL Lab Sample ID: 0010979-12

Level (low/med): LOW Date Received: 10/09/2009

% Solids: 73.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4400			P
7440-36-0	Antimony	8.0	U		P
7440-38-2	Arsenic	7.8			P
7440-39-3	Barium	64.8			P
7440-41-7	Beryllium	0.33	J		P
7440-43-9	Cadmium	0.56	J		P
7440-70-2	Calcium	12800			P
7440-47-3	Chromium	11.0			P
7440-48-4	Cobalt	5.2	J		P
7440-50-8	Copper	26.3			P
7439-89-6	Iron	10100			P
7439-92-1	Lead	28.9			P
7439-95-4	Magnesium	3850			P
7439-96-5	Manganese	237			P
7440-02-0	Nickel	11.9			P
7440-09-7	Potassium	515	J		P
7782-49-2	Selenium	4.7	U		P
7440-22-4	Silver	1.3	U		P
7440-23-5	Sodium	669	U		P
7440-28-0	Thallium	3.3	U		P
7440-62-2	Vanadium	16.2			P
7440-66-6	Zinc	52.1		*	P

Color Before: BLACK Clarity Before: CLOUDY Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments: 106

USEPA-CLP

3-IN

BLANKS

Name: A4 Scientific, Inc. Contract: EPW08063

Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QW4

Preparation Blank Matrix (soil/water): SOIL

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

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
		C	1	C	2	C	3	C		C	M
Aluminum	200.000	U	200.000	U	200.000	U	200.000	U	20.000	U	P
Antimony	60.000	U	60.000	U	60.000	U	60.000	U	6.000	U	P
Arsenic	10.000	U	10.000	U	10.000	U	10.000	U	1.000	U	P
Barium	200.000	U	200.000	U	200.000	U	200.000	U	20.000	U	P
Beryllium	5.000	U	5.000	U	5.000	U	5.000	U	0.500	U	P
Cadmium	5.000	U	5.000	U	5.000	U	5.000	U	0.500	U	P
Calcium	5000.000	U	5000.000	U	5000.000	U	5000.000	U	500.000	U	P
Chromium	10.000	U	10.000	U	10.000	U	10.000	U	1.000	U	P
Cobalt	50.000	U	50.000	U	50.000	U	50.000	U	5.000	U	P
Copper	25.000	U	25.000	U	25.000	U	25.000	U	2.500	U	P
Iron	100.000	U	100.000	U	100.000	U	100.000	U	10.000	U	P
Lead	10.000	U	10.000	U	10.000	U	10.000	U	1.000	U	P
Magnesium	5000.000	U	5000.000	U	5000.000	U	5000.000	U	500.000	U	P
Manganese	15.000	U	15.000	U	15.000	U	15.000	U	1.500	U	P
Nickel	40.000	U	40.000	U	40.000	U	40.000	U	4.000	U	P
Potassium	5000.000	U	5000.000	U	5000.000	U	5000.000	U	500.000	U	P
Selenium	35.000	U	35.000	U	35.000	U	35.000	U	3.500	U	P
Silver	10.000	U	10.000	U	10.000	U	10.000	U	1.000	U	P
Sodium	5000.000	U	5000.000	U	5000.000	U	5000.000	U	500.000	U	P
Thallium	25.000	U	25.000	U	25.000	U	25.000	U	2.500	U	P
Vanadium	50.000	U	50.000	U	50.000	U	50.000	U	5.000	U	P
Zinc	60.000	U	60.000	U	60.000	U	60.000	U	6.000	U	P

3-IN
BLANKS

Lab Name: AA Solutions, Inc. Contract: EPW08063

Lab Code: A4 Case No.: 39085 NRAS No.: SDG NO.: ME2QW4

Preparation Blank Matrix (soil/water): _____

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

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Aluminum			200.000	U	78.642	J	200.000	U			P
Antimony			60.000	U	60.000	U	60.000	U			P
Arsenic			10.000	U	10.000	U	10.000	U			P
Barium			200.000	U	200.000	U	200.000	U			P
Beryllium			5.000	U	5.000	U	5.000	U			P
Cadmium			5.000	U	5.000	U	5.000	U			P
Calcium			5000.000	U	5000.000	U	5000.000	U			P
Chromium			10.000	U	10.000	U	10.000	U			P
Cobalt			50.000	U	50.000	U	50.000	U			P
Copper			25.000	U	25.000	U	25.000	U			P
Iron			100.000	U	43.341	J	100.000	U			P
Lead			10.000	U	10.000	U	10.000	U			P
Magnesium			5000.000	U	5000.000	U	5000.000	U			P
Manganese			15.000	U	15.000	U	15.000	U			P
Nickel			40.000	U	40.000	U	40.000	U			P
Potassium			5000.000	U	5000.000	U	5000.000	U			P
Selenium			35.000	U	35.000	U	35.000	U			P
Silver			10.000	U	10.000	U	10.000	U			P
Sodium			5000.000	U	5000.000	U	5000.000	U			P
Thallium			25.000	U	25.000	U	25.000	U			P
Vanadium			50.000	U	50.000	U	50.000	U			P
Zinc			60.000	U	60.000	U	60.000	U			P

3-IN
BLANKS

Lab Name: A4 Scientific, Inc. Contract: EPW08063

Lab Code: A4 Case No.: 39095 NRAS No.: _____ SDG NO.: ME2QW4

Preparation Blank Matrix (soil/water): _____

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

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Aluminum			200.000	U	200.000	U	200.000	U			P
Antimony			60.000	U	60.000	U	60.000	U			P
Arsenic			10.000	U	10.000	U	10.000	U			P
Barium			200.000	U	200.000	U	200.000	U			P
Beryllium			5.000	U	5.000	U	5.000	U			P
Cadmium			5.000	U	5.000	U	5.000	U			P
Calcium			5000.000	U	5000.000	U	5000.000	U			P
Chromium			10.000	U	10.000	U	10.000	U			P
Cobalt			50.000	U	50.000	U	50.000	U			P
Copper			25.000	U	25.000	U	25.000	U			P
Iron			100.000	U	100.000	U	100.000	U			P
Lead			10.000	U	10.000	U	10.000	U			P
Magnesium			5000.000	U	5000.000	U	5000.000	U			P
Manganese			15.000	U	15.000	U	15.000	U			P
Nickel			40.000	U	40.000	U	40.000	U			P
Potassium			5000.000	U	5000.000	U	5000.000	U			P
Selenium			35.000	U	35.000	U	35.000	U			P
Silver			10.000	U	10.000	U	10.000	U			P
Sodium			5000.000	U	5000.000	U	5000.000	U			P
Thallium			25.000	U	25.000	U	25.000	U			P
Vanadium			50.000	U	50.000	U	50.000	U			P
Zinc			60.000	U	60.000	U	60.000	U			P

USEPA-CLP

4A-IN

ICP-AES INTERFERENCE CHECK SAMPLE

Lab Name: A4 Scientific, Inc. Contract: EPW[illegible]

Lab Code: A4 Case No.: [illegible] SAS No.: [illegible] SDG No.: [illegible]

ICP-AES Instrument ID: B-ICAP6500 ICS Source: A(1206) & B(0203)

Concentration Units: ug/L

Analyte	True		Initial Found				Final Found			
	Sol.A	Sol AB	Sol.A	%R	Sol AB	%R	Sol.A	%R	Sol.AB	%R
Aluminum	244000	241000	219000	90	223000	93	219000	90	222000	92
Antimony	0	589	-13.0		507	86	-15.8		498	85
Arsenic	0	101	3.2		87.3	86	-0.27		105	104
Barium	2.0	495	24.5	1225	472	95	24.1	1205	469	95
Beryllium	0	475	0.64		437	92	0.62		434	91
Cadmium	0	940	0.21		876	93	0.056		869	92
Calcium	235000	231000	216000	92	220000	95	215000	91	218000	94
Chromium	43.0	511	43.5	101	483	95	43.1	100	479	94
Cobalt	4.0	461	8.6	215	463	100	8.3	208	464	101
Copper	23.0	548	29.2	127	482	88	28.5	124	482	88
Iron	95600	94800	85200	89	86100	91	85100	89	86000	91
Lead	10.0	61.0	10.8	108	56.8	93	8.3	83	59.3	97
Magnesium	248000	251000	217000	88	219000	87	216000	87	218000	87
Manganese	19.0	502	25.3	133	476	95	25.2	133	473	94
Nickel	21.0	984	23.3	111	930	95	24.2	115	930	95
Potassium	0	0	114		193		173		98.7	
Selenium	0	53.0	4.6		48.5	92	0.94		53.2	100
Silver	0	206	-2.8		183	89	-3.5		183	89
Sodium	0	0	839		838		816		822	
Thallium	0	103	0.14		85.1	83	-2.5		99.0	96
Vanadium	0	494	12.0		462	94	12.4		463	94
Zinc	28.0	1028	38.6	138	946	92	38.0	136	942	92

USEPA-CLP

4A-IN

ICP-AES INTERFERENCE CHECK SAMPLE

Lab Name: A4 Scientific, Inc. Contract: EPW08063

Lab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QW4

ICP-AES Instrument ID: B-ICAP6500 ICS Source: A(1206) & B(0203)

Concentration Units: ug/L

Analyte	True		Initial Found				Final Found			
	Sol.A	Sol AB	Sol.A	%R	Sol AB	%R	Sol.A	%R	Sol.AB	%R
Aluminum	244000	241000					219000	90	221000	92
Antimony	0	589					-14.4		497	84
Arsenic	0	101					-0.66		103	102
Barium	2.0	495					23.9	1195	468	95
Beryllium	0	475					0.65		433	91
Cadmium	0	940					0.18		870	93
Calcium	235000	231000					214000	91	217000	94
Chromium	43.0	511					43.1	100	480	94
Cobalt	4.0	461					8.4	210	463	100
Copper	23.0	548					27.9	121	478	87
Iron	95600	94800					83600	87	85100	90
Lead	10.0	61.0					12.3	123	60.6	99
Magnesium	248000	251000					213000	86	217000	86
Manganese	19.0	502					25.3	133	474	94
Nickel	21.0	984					23.4	111	919	93
Potassium	0	0					117		105	
Selenium	0	53.0					7.6		50.6	95
Silver	0	206					-3.6		179	87
Sodium	0	0					814		831	
Thallium	0	103					-0.20		101	98
Vanadium	0	494					12.0		459	93
Zinc	28.0	1028					38.0	136	936	91

4A-IN

ICP-AES INTERFERENCE CHECK SAMPLE

Name: A4 Scientific, Inc. Contract: EPW08063

Lab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QW4

P-AES Instrument ID: B-ICAP6500 ICS Source: A(1206) & B(0203)

ncentration Units: ug/L

	True		Initial Found				Final Found			
nalyte	Sol.A	Sol AB	Sol.A	%R	Sol AB	%R	Sol.A	%R	Sol.AB	%R
luminum	244000	241000					218000	89	222000	92
ntimony	0	589					-15.5		499	85
rsenic	0	101					2.6		100	99
arium	2.0	495					23.9	1195	468	95
eryllium	0	475					0.59		434	91
admium	0	940					0.095		879	94
alcium	235000	231000					214000	91	217000	94
omium	43.0	511					43.2	100	483	95
obalt	4.0	461					8.2	205	466	101
opper	23.0	548					28.2	123	475	87
ron	95600	94800					83200	87	83800	88
ead	10.0	61.0					9.7	97	58.5	96
agnesium	248000	251000					212000	85	214000	85
anganese	19.0	502					25.3	133	476	95
ickel	21.0	984					23.4	111	912	93
otassium	0	0					196		107	
elenium	0	53.0					1.1		48.7	92
ilver	0	206					-3.4		178	86
odium	0	0					817		824	
hallium	0	103					-2.8		101	98
anadium	0	494					12.0		452	91
inc	28.0	1028					38.1	136	935	91

4A-IN

ICP-AES INTERFERENCE CHECK SAMPLE

Lab Name: A4 Scientific, Inc. Contract: EPW08063

Lab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QW4

ICP-AES Instrument ID: B-ICAP6500 ICS Source: A(1206) & B(0203)

Concentration Units: ug/L

Analyte	True		Initial Found				Final Found			
	Sol.A	Sol AB	Sol.A	%R	Sol AB	%R	Sol.A	%R	Sol.AB	%R
Aluminum	244000	241000					217000	89	219000	91
Antimony	0	589					-13.0		498	85
Arsenic	0	101					2.0		100	99
Barium	2.0	495					23.9	1195	465	94
Beryllium	0	475					0.67		431	91
Cadmium	0	940					0.12		876	93
Calcium	235000	231000					213000	91	215000	93
Chromium	43.0	511					43.4	101	484	95
Cobalt	4.0	461					8.2	205	464	101
Copper	23.0	548					28.4	123	482	88
Iron	95600	94800					82800	87	83900	89
Lead	10.0	61.0					8.7	87	61.2	100
Magnesium	248000	251000					212000	85	215000	86
Manganese	19.0	502					25.4	134	476	95
Nickel	21.0	984					23.1	110	913	93
Potassium	0	0					122		166	
Selenium	0	53.0					2.0		52.1	98
Silver	0	206					-4.3		179	87
Sodium	0	0					810		813	
Thallium	0	103					-1.2		99.6	97
Vanadium	0	494					11.9		458	93
Zinc	28.0	1028					37.5	134	932	91

USEPA-CLP

5A-IN

MATRIX SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

ME2QW4

Name: A4 Scientific, Inc. Contract: EPW08063

Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QW4

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

Solids for Sample: 78.9

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum		4038.2760		3634.6010		0.00	0		P
Antimony	75 - 125	23.7503		7.6046	U	25.35	94		P
Arsenic	75 - 125	39.1413		30.8226		10.14	82		P
Barium	75 - 125	748.9797		250.0951		506.97	98		P
Beryllium	75 - 125	12.6312		0.3889	J	12.67	97		P
Cadmium	75 - 125	13.4639		2.0668		12.67	90		P
Calcium		35085.5500		35865.6500		0.00	0		P
Chromium	75 - 125	59.7117		10.8317		50.70	96		P
Cobalt	75 - 125	134.7212		4.5232	J	126.74	103		P
Copper	75 - 125	136.9772		75.4011		63.37	97		P
Iron		22660.9600		23178.7100		0.00	0		P
Lead		177.9594		178.7579		5.07	-16		P
Magnesium		3511.0900		3600.6340		0.00	0		P
Manganese		639.8035		539.8162		126.74	79		P
Nickel	75 - 125	137.3447		11.6793		126.74	99		P
Potassium		485.3486	J	504.2205	J	0.00	0		P
Selenium	75 - 125	13.8162		2.3976	J	12.67	90		P
Silver	75 - 125	11.5055		1.2674	U	12.67	91		P
Sodium		633.7136	U	633.7136	U	0.00	0		P
Thallium	75 - 125	11.8059		3.1686	U	12.67	93		P
Vanadium	75 - 125	139.1191		15.4544		126.74	98		P
Zinc	75 - 125	517.8771		407.1293		126.74	87		P

Comments:

6-IN

DUPLICATES

EPA SAMPLE NO.

ME2QW4D

Name: A4 Scientific, Inc. Contract: EPW08063

Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QW4

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

% Solids for Sample: 78.9 % Solids for Duplicate: 78.4

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		3634.6010		3523.0670		3		P
Antimony		7.6046	U	7.6046	U			P
Arsenic		30.8226		31.9740		4		P
Barium		250.0951		244.1065		2		P
Beryllium		0.3889	J	0.4105	J	5		P
Cadmium	0.6337	2.0668		2.2318		8		P
Calcium		35865.6500		35155.2600		2		P
Chromium		10.8317		11.3171		4		P
Cobalt		4.5232	J	4.7176	J	4		P
Copper		75.4011		92.5564		20		P
Iron		23178.7100		23423.3200		1		P
Lead		178.7579		164.2522		8		P
Magnesium		3600.6340		3620.9760		1		P
Manganese		539.8162		539.4360		0		P
Nickel	5.0697	11.6793		11.7075		0		P
Potassium		504.2205	J	506.5082	J	0		P
Selenium		2.3976	J	2.7763	J	15		P
Silver		1.2674	U	1.2674	U			P
Sodium		633.7136	U	633.7136	U			P
Thallium		3.1686	U	3.1686	U			P
Vanadium	6.3371	15.4544		15.7896		2		P
Zinc		407.1293		250.0444		48	*	P

7 - IN
LABORATORY CONTROL SAMPLE

o Name: A4 Scientific, Inc. Contract: EPW08063

o Code: A4 Case No.: 39095 NRAS No: SDG NO.: ME2QW4

lid LCS Source: LCSS04050899

ueous LCS Source:

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum				115.0	107.8		54.7	175.0	94
Antimony				66.0	60.5		27.6	104.0	92
Arsenic				253.0	205.9		154.0	352.0	81
Barium				1.6	7.0	U	1.0	2.2	0
Beryllium				4.9	4.5		3.0	6.8	92
Cadmium				10.9	11.7		7.7	14.0	107
Calcium				44200.0	42405.0		30300.0	58200.0	96
Chromium				27.1	25.3		18.5	35.7	93
balt				37.4	36.8		24.2	50.6	98
Copper				1770.0	1604.0		20.0	2230.0	91
Iron				6470.0	5441.1		4280.0	8660.0	84
Lead				56.9	53.0		41.4	72.4	93
Magnesium				29200.0	25642.5		20500.0	37900.0	88
Manganese				61.0	56.4		41.6	80.5	92
Nickel				16.3	15.0		9.0	23.7	92
Potassium				39.7	160.0	U	0.0	85.3	0
Selenium				10.0	9.0		4.1	15.9	90
Silver				5.9	5.0		2.7	9.1	85
Sodium				72.5	162.0	U	0.0	216.0	0
Thallium				9.5	8.3		2.9	16.1	87
Vanadium				17.6	17.0		11.6	23.7	97
Zinc				47.5	40.6		20.5	74.4	85

8-IN

ICP-AES and ICP-MS SERIAL DILUTIONS

EPA SAMPLE NO.

ME2QW4L

Lab Name: A4 Scientific, Inc. Contract: EPW08063

Lab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QW4

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

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	28677.00		28347.25		1		P
Antimony	60.00	U	300 ~~60.00~~	U			P
Arsenic	243.19		244.88		1		P
Barium	1973.25		1947.95		1		P
Beryllium	3.07	J	25.0 ~~5.00~~	U	100		P
Cadmium	16.31		15.95	J	2		P
Calcium	282980.00		285807.50		1		P
Chromium	85.46		85.86		0		P
Cobalt	35.69	J	250 ~~50.00~~	U	100		P
Copper	594.91		578.33		3		P
Iron	182880.00		184007.50		1		P
Lead	1410.40		1336.20		5		P
Magnesium	28409.00		28735.75		1		P
Manganese	4259.15		4290.53		1		P
Nickel	92.15		86.63	J	6		P
Potassium	3978.30	J	25000 ~~5000.00~~	U	100		P
Selenium	18.92	J	175 ~~35.00~~	U	100		P
Silver	10.00	U	50.0 ~~10.00~~	U			P
Sodium	5000.00	U	25000 ~~5000.00~~	U			P
Thallium	25.00	U	125 ~~25.00~~	U			P
Vanadium	121.93		122.35	J	0		P
Zinc	3212.25		3124.35		3		P

CORRECTIONS BY
S. CONNET (ESAT
DATA REVIEWER).
11-9-09

USEPA-CLP

9-IN

METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: A4 Scientific, Inc. Contract: EPW08063

Lab Code: A4 Case No.: [illegible] CAS No.: SDG NO.: ME2QW4

Instrument Type: P Instrument ID: B-ICAP6500 Date: 12/31/2008

Preparation Method: NP1

Concentration Units (ug/L or mg/kg): UG/L

Analyte	Wave-Length /Mass	CRQL	MDL
Aluminum	396.15	200.0	69.1
Antimony	206.83	60.0	20.8
Arsenic	189.04	10.0	3.4
Barium	455.40	200.0	68.5
Beryllium	313.04	5.0	1.7
Cadmium	228.80	5.0	1.7
Calcium	317.93	5000.0	1660
Chromium	267.72	10.0	3.2
Cobalt	228.62	50.0	16.2
Copper	324.75	25.0	8.5
Iron	259.94	100.0	37.8
Lead	220.35	10.0	2.5
Magnesium	279.07	5000.0	1680
Manganese	257.61	15.0	5.6
Nickel	231.60	40.0	13.3
Potassium	766.49	5000.0	1640
Selenium	196.09	35.0	13.8
Silver	328.07	10.0	3.6
Sodium	589.59	5000.0	1650
Thallium	190.86	25.0	9.3
Vanadium	292.40	50.0	17.9
Zinc	206.20	60.0	23.1

Comments:

USE[illegible]

9-IN

METHOD DETECTION LIMITS (ANNUALLY)

[illegible] A4 Scientific, Inc. Contract: EPW08063

[illegible] Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QW4

[illegible]trument Type: P Instrument ID: B-ICAP6500 Date: 12/31/2008

[illegible]eparation Method: HS2

[illegible]centration Units (ug/L or mg/kg): MG/KG

Analyte	Wave-Length /Mass	CRQL	MDL
Aluminum	396.15	20.0	6.4
Antimony	206.83	6.0	1.7
Arsenic	189.04	1.00	0.36
Barium	455.40	20.0	7.0
Beryllium	313.04	0.50	0.16
Cadmium	228.80	0.50	0.16
Calcium	317.93	500	163
Chromium	267.72	1.00	0.37
Cobalt	228.62	5.0	1.6
Copper	324.75	2.50	0.70
Iron	259.94	10.0	3.5
Lead	220.35	1.00	0.38
Magnesium	279.07	500	156
Manganese	257.61	1.50	0.51
Nickel	231.60	4.0	1.2
Potassium	766.49	500	160
Selenium	196.09	3.5	1.3
Silver	328.07	1.00	0.32
Sodium	589.59	500	162
Thallium	190.86	2.50	0.85
Vanadium	292.40	5.0	1.6
Zinc	206.20	6.0	2.2

Comments:

000000043

Form IX-IN

CLP A-CLP

12-IN

PREPARATION LOG

Name: A4 Scientific, Inc. Contract: EPW08063

Lab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QW4

Preparation Method: HS2

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
PBSY9	10/19/2009	1.00	100
LCSSY9	10/19/2009	1.00	100
ME2QW4	10/19/2009	1.00	100
ME2QW4D	10/19/2009	1.00	100
ME2QW4S	10/19/2009	1.00	100
ME2QW5	10/19/2009	1.02	100
ME2QW6	10/19/2009	1.00	100
ME2QW7	10/19/2009	1.03	100
ME2QW8	10/19/2009	1.01	100
ME2QX0	10/19/2009	1.01	100
ME2QX1	10/19/2009	1.00	100
ME2QX2	10/19/2009	1.00	100
ME2QX3	10/19/2009	1.02	100
ME2QX4	10/19/2009	1.02	100
ME2QX5	10/19/2009	1.02	100
ME2QX6	10/19/2009	1.02	100

USEPA-CLP

13-IN

ANALYSIS RUN LOG

ab Name: A4 Scientific, Inc. Contract: EPW08063

ab Code: A4 Case No.: 39095 NRAS No.: SDG No.: ME2QW4

nstrument ID: B-ICAP6500 Analysis Method: P

tart Date: 10/20/2009 End Date: 10/20/2009

EPA Sample NO.	D/F	Time	Analytes																								
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN		
S0	1.0	1301	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
S	1.0	1305	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICV	1.0	1308	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICB	1.0	1312	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CRI	1.0	1315	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSA	1.0	1319	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSAB	1.0	1322	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCV	1.0	1326	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB	1.0	1329	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ZZZZZZ	1.0	1333																										
ZZZZZZ	1.0	1336																										
ZZZZZZ	1.0	1340																										
ZZZZZZ	1.0	1344																										
ZZZZZZ	1.0	1347																										
ZZZZZZ	5.0	1351																										
ZZZZZZ	1.0	1354																										
ZZZZZZ	1.0	1358																										
ZZZZZZ	1.0	1402																										
ZZZZZZ	1.0	1405																										
CCV	1.0	1409	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB	1.0	1412	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ZZZZZZ	1.0	1416																										
ZZZZZZ	1.0	1419																										
ZZZZZZ	1.0	1423																										
ZZZZZZ	1.0	1426																										
ZZZZZZ	5.0	1430																										
ZZZZZZ	1.0	1433																										
ZZZZZZ	1.0	1437																										
CRI	1.0	1441	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSA	1.0	1444	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSAB	1.0	1448	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCV	1.0	1451	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB	1.0	1455	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ZZZZZZ	1.0	1458																										
ZZZZZZ	1.0	1502																										
ZZZZZZ	1.0	1505																										
ZZZZZZ	1.0	1509																										

Form XIII-IN ILM05.4

USEPA-CLP

13-IN

ANALYSIS RUN LOG

Lab Name: A4 Scientific, Inc. Contract: E9W08063

Lab Code: A4 Case No.: 39095 MRAS No.: SDG No.: ME2QW4

Instrument ID: B-ICAP6500 Analysis Method: P

Start Date: 10/20/2009 End Date: 10/20/2009

EPA Sample NO.	D/F	Time	Analytes																								
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN		
ZZZZZZ	1.0	1513																										
ZZZZZZ	1.0	1516																										
ZZZZZZ	1.0	1520																										
ZZZZZZ	1.0	1523																										
ZZZZZZ	1.0	1527																										
ZZZZZZ	1.0	1530																										
CCV	1.0	1534	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB	1.0	1537	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ZZZZZZ	1.0	1541																										
ZZZZZZ	1.0	1545																										
ZZZZZZ	1.0	1548																										
ZZZZZZ	1.0	1552																										
ZZZZZZ	1.0	1555																										
ZZZZZZ	1.0	1559																										
ZZZZZZ	1.0	1602																										
CRI	1.0	1606	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSA	1.0	1609	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSAB	1.0	1613	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCV	1.0	1616	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB	1.0	1620	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
PBSY9	1.0	1623	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
LCSSY9	1.0	1627	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QW4	1.0	1631	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QW4D	1.0	1634	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QW4S	1.0	1638	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QW4L	5.0	1641	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QW5	1.0	1645	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QW6	1.0	1649	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ZZZZZZ	1.0	1652																										
ZZZZZZ	1.0	1656																										
CCV	1.0	1659	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB	1.0	1703	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QW7	1.0	1706	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QW8	1.0	1710	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
[illegible]	1.0	1713	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
[illegible]	1.0	1717	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
[illegible]	1.0	1720	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			

Form XIII-IN ILM05.4

USEPA-CLP

13-IN

ANALYSIS RUN LOG

ab Name: A4 Scientific, Inc. Contract: EPW08063

ab Code: A4 Case No.: 39095 NRAS No.: SDG No.: ME2QW4

nstrument ID: B-ICAP6500 Analysis Method: P

tart Date: 10/20/2009 End Date: 10/20/2009

EPA Sample NO.	D/F	Time	Analytes																									
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN		
ZZZZZZ	1.0	1724																										
ZZZZZZ	1.0	1728																										
CRI	1.0	1731	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSA	1.0	1735	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSAB	1.0	1738	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCV	1.0	1742	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB	1.0	1745	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QX3	1.0	1749	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QX4	1.0	1752	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QX5	1.0	1756	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QX6	1.0	1759	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ZZZZZZ	1.0	1803																										
ZZZZZZ	1.0	1806																										
ZZZZZZ	1.0	1810																										
ZZZZZZ	1.0	1814																										
ZZZZZZ	1.0	1817																										
ZZZZZZ	1.0	1821																										
CCV	1.0	1824	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB	1.0	1828	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ZZZZZZ	1.0	1831																										
ZZZZZZ	5.0	1835																										
ZZZZZZ	1.0	1838																										
ZZZZZZ	1.0	1842																										
ZZZZZZ	1.0	1845																										
ZZZZZZ	1.0	1849																										
ZZZZZZ	1.0	1852																										
CRI	1.0	1856	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSA	1.0	1859	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSAB	1.0	1903	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCV	1.0	1906	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB	1.0	1910	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			

000000050

Form XIII-IN ILM05.4

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

Sample Delivery Group: [illegible] CERCLIS No: IND980904379

Case No: 39095 Site Name/Location: Beckis Abate Site (IN)

Contractor or EPA Lab: AH Scientific Data User: IDEM

No. of Samples: 12 Date Sampled or Date Received: 23 Oct 09

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

____ ____ ____ ____
____ ____ ____ ____

Are basic data forms in? Yes X No ____
No of samples claimed: 12 No. of samples received: ____

Received by: [illegible] Date: 23 Oct 09

Received by LSSS: [illegible] Date: 27 Oct 09

Review started: 11-4-09 Reviewer Signature: [illegible]

Total time spent on review: 10 + 25 minutes Date review completed: 11-9-09

Copied by: ____ Date: ____

Mailed to user by: [illegible] Date: 12 Nov 09

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

Data received by: ____ Date: ____

Data review received by: ____ Date: ____

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

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

____

____

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

ESAT Controlled Number: ESAT5.17.00904-py 13NOV09

DATE: November 13, 2009

Indiana Dept of Environmental Management
ATTN: Mark Jaworski
100 N. Senate Avenue – Room N1255
Indianapolis, IN 46804-2222

RECEIVED
NOV 23 2009
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF LAND QUALITY

SITE NAME: Beck's Lake Site (IN)

CASE #	LAB	SAMPLES	SDG	MATRIX
39095	A4 Scientific	13	ME2QX7	soil

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

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

Data Received by:_____ Date:_____

PROBLEMS:

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

_____

_____

Received by Data Management Coordinator, CRL for file.

Signature:_____ Date:_____

FROM: **U.S. EPA - Region 5**
Sylvia Griffin
Central Regional Laboratory
536 S. Clark, 10th Floor
Chicago, IL 60605

Sent By: Pat Joyner
Data Coordinator
ESAT Region 5 **TechLaw**

Controlled Document

ESAT5.15.00367
acK
11-13-09

Regional Transmittal Form

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 11/10/09

SUBJECT: Review of Data
Received for review on 10/23/09

FROM: Stephen L. Ostrodka, Chief (SRT-5J)
Superfund Field Services Section

TO: Data User: IDEM

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

SITE NAME: Beck's Lake Site (IN)

CASE NUMBER: 39095 SDG NUMBER: ME2QX7

Number and Type of Samples: 13 soils

Sample Numbers: ME2QX7-X9, Y0-Y9

Laboratory: A4 Scientific Hrs. for Review: 7

Following are our findings:

CC: Howard Pham
[illegible] SRT-5J

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

Thirteen (13) soil samples, numbered ME2QX7-X9, Y0-Y9, were collected on October 6, 2009. The lab received the samples on October 9, 2009. The Field Chain of Custody Record for samples ME2QY7-Y9 was not signed by the sampler. All samples were analyzed for metals. All samples were analyzed using the CLP SOW ILM05.4 analysis procedures.

The inorganic analyses were performed using an Inductively Coupled Plasma-Atomic Emission Spectroscopy (ICP-AES) procedure.

Form 3s (Blanks) were not included in the case for the second (dilution) run. Form 4As (ICS) appear to be mixed: Ca and Fe values on case page 42 are from run 2. It appears that some Ca and Fe values are missing but it is difficult to determine all the missing values. Serial Dilution non-detects results were not reported after dilution correction (CRQL times 5). Corrections were made on Form 8 by this reviewer.

Non-standard dilution factors were used by the Laboratory (4.6X, 1.8X, 1.4X); volumes used in preparing the dilutions are not included in the case. Dilutions seem to be calculated to produce a diluted result at approximately 80% of the linear range of the element.

Due to the elevated detection limit used by the laboratory, barium and potassium cannot be seen in the LCS. The laboratory MDL (Ba = 6.8 mg/kg, K = 155 mg/kg) is greater than the upper acceptance limit for the LCS (Ba = 2.2 mg/kg, K = 85.3 mg/kg). According to the True Value Summary Table for LCSS(0405), acceptance limits for barium, potassium and sodium are advisory only. CLP does not make allowances for advisory limits. Since the laboratory cannot see the LCS values for these elements, validation of the digestion is not possible and all detects will be estimated "J" and non-detects will be estimated "UJ".

Note: All barium and potassium results and sodium results for ME2QY5, ME2QY7 and ME2QY9 are flagged "J+" by CADRE. This appears to be because CADRE used the non-detect values of 20, 500 and 500 mg/kg respectively for the solid LCS as detects.

1. HOLDING TIMES:

No defects were found.

2. CALIBRATIONS:

No defects were found for the calibration or the CRQL standards.

3. BLANKS:

No defects were found for the preparation blank or ICB/CCBs.

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

The following inorganic samples are associated with a solid laboratory control sample (LCS) with found amounts below the method detection limit (MDL). The LCS upper control limit is less than the laboratory MDL.
Hits are qualified "J" and non-detects are qualified "UJ".

Barium
ME2QX7, ME2QX8, ME2QX9, ME2QY0, ME2QY1, ME2QY2, ME2QY3, ME2QY4, ME2QY5, ME2QY6, ME2QY7, ME2QY8, ME2QY9

Potassium
ME2QX7, ME2QX8, ME2QX9, ME2QY0, ME2QY1, ME2QY2, ME2QY3, ME2QY4, ME2QY5, ME2QY6, ME2QY7, ME2QY8, ME2QY9

No defects were found for the matrix spike.

5. LABORATORY AND FIELD DUPLICATE:

No defects were found for matrix spike or laboratory control samples.

6. ICP ANALYSIS:

The following results are affected by an interference check "A" sample (ICSA) for which false negative concentration values greater than the absolute value of the MDL were obtained. The sample contains Al, Ca, Fe or Mg at a level comparable to that of the ICSA.
Hits less than 10 times the absolute value of the ICSA are qualified "J", non-detects are qualified "UJ". Hits greater than 10 times the ICSA are not qualified.

Silver
ME2QX7, ME2QY2, ME2QY4, ME2QY5, ME2QY6, ME2QY7, ME2QY8, ME2QY9

The following inorganic samples are associated with negative sample results whose absolute values are greater than the CRQL, indicating interference.
Non-detects are qualified "R".

Silver
ME2QY7, ME2QY8, ME2QY9

No defects were found for the serial dilution.

7. SAMPLE RESULTS:

The following inorganic samples have analyte concentrations reported above the method detection limit (MDL) but below the quantitation limit (CRQL).
Results are qualified "J".

Antimony
ME2QY4, ME2QY5, ME2QY8

Beryllium
ME2QX7, ME2QX8, ME2QX9, ME2QY0, ME2QY2, ME2QY3, ME2QY4

Cadmium
ME2QX8, ME2QY0, ME2QY3, ME2QY6

Cobalt
ME2QX7, ME2QX8, ME2QY0, ME2QY2, ME2QY3, ME2QY4, ME2QY6

Nickel
ME2QY1, ME2QY6

Potassium
ME2QX7, ME2QX8, ME2QX9, ME2QY1, ME2QY2, ME2QY3, ME2QY4, ME2QY5, ME2QY7, ME2QY8, ME2QY9

Selenium
ME2QX8, ME2QY2, ME2QY5, ME2QY6, ME2QY7, ME2QY8, ME2QY9

Sodium
ME2QY5, ME2QY7, ME2QY9

All data, except those qualified above, are acceptable.

CADRE ILM05.4 Data Qualifier Sheet

Qualifiers	Data Qualifier Definitions
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
UJ	The analyte was analyzed for, but not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Analytical Results (Qualified Data)

Case #: 39095 SDG : ME2QX7
Site : BECK'S LAKE SITE
Lab. : A4
Reviewer : S. CONNET
Date : 11/10/2009

Number of Soil Samples : 13
Number of Water Samples : 0

Sample Number :	ME2QX7		ME2QX8		ME2QX9		ME2QY0		ME2QY1	
Sampling Location :	S34		S35		S36		S37		S38	
Matrix :	Soil		Soil		Soil		Soil		Soil	
Units :	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Date Sampled :	10/6/2009		10/6/2009		10/6/2009		10/6/2009		10/6/2009	
Time Sampled :										
%Solids :	81.6		63.6		82.8		79.4		79.9	
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	3640		4820		3070		5390		2020	
ANTIMONY	7.3	U	9.3	U	7.0	U	7.5	U	7.4	U
ARSENIC	12.9		9.7		9.7		7.9		12.3	
BARIUM	62.6	J	73.4	J	53.0	J	112	J	40.0	J
BERYLLIUM	0.27	J	0.31	J	0.24	J	0.31	J	0.62	U
CADMIUM	0.79		0.61	J	1.2		0.50	J	0.78	
CALCIUM	10400		26500		4140		2480		6500	
CHROMIUM	7.6		8.5		68.5		12.0		28.4	
COBALT	3.2	J	3.7	J	5.9	U	4.6	J	6.2	U
COPPER	37.2		16.2		16.7		15.1		16.7	
IRON	11600		9010		4490		8210		8690	
LEAD	48.5		29.3		47.3		20.4		32.1	
MAGNESIUM	3440		9160		1230		1180		2560	
MANGANESE	151		185		111		616		44.5	
NICKEL	8.9		10.3		5.1		6.9		4.4	J
POTASSIUM	584	J	370	J	229	J	686	J	410	J
SELENIUM	4.2	U	2.2	J	4.1	U	4.4	U	4.3	U
SILVER	1.2	UJ	1.6	U	1.2	U	1.2	U	1.2	U
SODIUM	607	U	778	U	586	U	623	U	620	U
THALLIUM	3.0	U	3.9	U	2.9	U	3.1	U	3.1	U
VANADIUM	13.5		14.6		7.6		13.1		10.4	
ZINC	121		44.9		77.2		61.3		46.1	

Case #: 39095 SDG : ME2QX7
Site : BECK'S LAKE SITE
Lab : A4
Reviewer : S. CONNET
Date : 11/10/2009

Sample Number :	ME2QY2		ME2QY3		ME2QY4		ME2QY5		ME2QY6	
Sampling Location :	S39		S40		S51		S52		S56	
Matrix :	Soil		Soil		Soil		Soil		Soil	
Units :	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
Date Sampled :	10/6/2009		10/6/2009		10/6/2009		10/6/2009		10/6/2009	
Time Sampled :										
%Solids :	72.2		80.1		88.3		87.8		76.8	
Dilution Factor :	1.0		1.0		1.0		1.0		1.0	
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	4000		2610		6700		5770		875	
ANTIMONY	8.2	U	7.5	U	2.9	J	5.6	J	7.8	U
ARSENIC	25.0		12.3		7.0		12.0		24.5	
BARIUM	91.6	J	58.1	J	303	J	502	J	244	J
BERYLLIUM	0.29	J	0.20	J	0.48	J	0.65		0.65	U
CADMIUM	1.0		0.50	J	149		6.4		0.41	J
CALCIUM	29000		14700		15800		17000		263000	
CHROMIUM	8.1		6.6		23.3		36.3		2.7	
COBALT	3.4	J	2.9	J	4.3	J	8.6		2.7	J
COPPER	26.2		26.9		736		987		5.7	
IRON	17100		9940		27700		35300		22900	
LEAD	45.0		30.4		1860		1030		15.1	
MAGNESIUM	4300		4660		2620		3440		4790	
MANGANESE	213		140		288		756		726	
NICKEL	15.3		6.5		12.6		53.9		4.9	J
POTASSIUM	470	J	383	J	387	J	397	J	651	UJ
SELENIUM	2.0	J	4.4	U	3.9	U	2.7	J	2.0	J
SILVER	1.4	UJ	1.2	U	1.1	UJ	1.1	UJ	1.3	UJ
SODIUM	686	U	624	U	561	U	234	J	651	U
THALLIUM	3.4	U	3.1	U	2.8	U	2.8	U	3.3	U
VANADIUM	14.0		10.6		15.6		17.3		7.5	
ZINC	84.6		63.9		657		2130		24.4	

Analytical Results (Qualified Data)

Case #: 39095 SDG : ME2QX7
Site : BECK'S LAKE SITE
Lab. : A4
Reviewer : S. CONNET
Date : 11/10/2009

Sample Number :	ME2QY7		ME2QY8		ME2QY9					
Sampling Location :	S53		S54		S55					
Matrix :	Soil		Soil		Soil					
Units :	mg/Kg		mg/Kg		mg/Kg					
Date Sampled :	10/6/2009		10/6/2009		10/6/2009					
Time Sampled :										
%Solids :	64.0		84.5		75.0					
Dilution Factor :	1.0		1.0		1.0					
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALUMINUM	7680		5340		14300					
ANTIMONY	19.7		2.1	J	8.0	U				
ARSENIC	21.5		11.9		18.4					
BARIUM	1020	J	565	J	673	J				
BERYLLIUM	0.84		0.69		1.3					
CADMIUM	19.6		5.2		6.6					
CALCIUM	17000		12900		11400					
CHROMIUM	59.6		53.0		39.7					
COBALT	16.5		12.2		10.2					
COPPER	567		169		271					
IRON	115000		49000		76100					
LEAD	2390		730		1010					
MAGNESIUM	2090		2860		1450					
MANGANESE	615		481		585					
NICKEL	206		38.7		55.1					
POTASSIUM	457	J	547	J	426	J				
SELENIUM	5.2	J	2.1	J	4.3	J				
SILVER	1.6	R	1.2	R	1.3	R				
SODIUM	331	J	580	U	227	J				
THALLIUM	3.9	U	2.9	U	3.3	U				
VANADIUM	26.1		23.0		27.3					
ZINC	1960		853		1040					

SEPA

SEPA Contract Laboratory Program
Inorganic Traffic Report & Chain of Custody Record

Case No: 39095
DAS No:
SDG No: ME2QX7

Date Shipped: [illegible]
Carrier Name: [illegible]
Airbill: [illegible]
Shipped to: [illegible] Inc. 15[illegible] Road S[illegible] Th[illegible] TX 77380 [illegible]

Chain of Custody Record

Relinquished By	(Date / Time)	Received By	(Date / Time)
1 Timothy R Johnson	10/8/09 12:00pm		
2			
3			1041
4		C Holdelan	10/9/9

Sampler Signature:

For Lab Use Only

Lab Contract No: EPW08063
Unit Price: Ø
Transfer To:
Lab Contract No:
Unit Price:

INORGANIC SAMPLE No.		CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME		ORGANIC SAMPLE No.	FOR LAB USE ONLY Sample Condition On Receipt
ME2QX7	[illegible]	L/G	ICP/MS (21)	5C129628 (Ice Only) (1)	S34	S: 10/6/2009	12:05		0010981-01 - INTACT
ME2QX8	[illegible]	L/G	ICP/MS (21)	5C129629 (Ice Only) (1)	S35	S: 10/6/2009	13:45		-02
ME2QX9	[illegible]	L/G	ICP/MS (21)	5C129630 (Ice Only) (1)	S36	S: 10/6/2009	14:15		-03
ME2QY0	[illegible]	L/G	ICP/MS (21)	5C129631 (Ice Only) (1)	S37	S: 10/6/2009	14:30		-04
ME2QY1	[illegible]	L/G	ICP/MS (21)	5C129632 (Ice Only) (1)	S38	S: 10/6/2009	16:35		-05
ME2QY2	[illegible]	L/G	ICP/MS (21)	5C129633 (Ice Only) (1)	S39	S: 10/6/2009	16:50		-06
ME2QY3	[illegible]	L/G	ICP/MS (21)	5C129634 (Ice Only) (1)	S40	S: 10/6/2009	17:00		-07
ME2QY4	[illegible]	L/G	ICP/MS (21)	5C129635 (Ice Only) (1)	S51	S: 10/6/2009	16:20		-08
ME2QY5	[illegible]	L/G	ICP/MS (21)	5C129636 (Ice Only) (1)	S52	S: 10/6/2009	16:14		-09
ME2QY6	[illegible]	L/G	ICP/MS (21)	5C129637 (Ice Only) (1)	S56	S: 10/6/2009	16:15		-10

Shipment for Case Complete?Y | [illegible] used for laboratory QC: | Additional Sampler Signature(s): Daniel R Christ[illegible] | Cooler Temperature Upon Receipt: 5° | Chain of Custody Seal Number: 23714 [illegible]

Analysis Key: [illegible] L = Low, M = Low/Medium, H = High | Type/Designate: Composite = C, Grab = G | Custody Seal Int[illegible]

ICP/MS = CLP T[illegible]

TR Number: [illegible]50-100809-0003

PR provides prelim[illegible] preliminary results will increase analytical costs.
Send Copy [illegible] Attn: Heather Bauer, CSC, 15000 Conference Center Dr., Chantilly, VA 20151-3819; Phone 703/818-4200; Fax 703/818-[illegible]

LABORA[illegible]

EPA **USEPA Contract Laboratory Program**
Inorganic Traffic Report & Chain of Custody Record

Case No:	39095
DAS No:	
SDG No:	ME2QX7

L

ate Shipped:	10/8/2009
arrier Name:	FedEx
bill:	[illegible]200
Shipped to:	A4 Scientific, Inc. [illegible] Road Suite [illegible] The Woodlands TX 77380 (281) 29[illegible]77

Chain of Custody Record

Relinquished By	(Date / Time)	Sampler Signature: Received By	(Date / Time)
1			
2			
3			1041
4		A Haldelan	10/9/9

For Lab Use Only

Lab Contract No:	EPW08063
Unit Price:	Ø
Transfer To:	
Lab Contract No:	
Unit Price:	

INORGANIC SAMPLE No.	MATRIX SAMPLE	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME	ORGANIC SAMPLE No.	FOR LAB USE ONLY Sample Condition On Receipt
ME2QY[illegible]	Subsurface Soil (>12")/ Tim Johnson	L/G	ICP/MS (21)	5C129638 (Ice Only) (1)	S53	S: 10/6/2009 16:10		0010981-11 · INTACT
ME2QY[illegible]	Subsurface Soil (>12")/ Tim Johnson	L/G	ICP/MS (21)	5C129639 (Ice Only) (1)	S54	S: 10/6/2009 16:11		-12
ME2Q[illegible]	Subsurface Soil (>12")/ Tim Johnson	L/G	ICP/MS (21)	5C129640 (Ice Only) (1)	S55	S: 10/6/2009 16:17		-13

Shipment Complete	ample(s) to be used for laboratory QC:	Additional Sampler Signature(s):	Cooler Temperature Upon Receipt: 5°
Chain of Custody Seal Number: 23714, 23715			
Analysis	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G	Custody Seal Intact? Y / Shipment Iced? Y

ICP/MS = CLP TAL Tot. Metals ICP/MS

TR N[illegible]891360-100809-0003

LABORAT[illegible]

PR provi[illegible] ...ssts for preliminary results will increase analytical costs.
Send C[illegible] Office, Attn: Heather Bauer, CSC, 15000 Conference Center Dr., Ch[illegible], VA 20151-3819; Phone 703/818-4200; Fax

A4 SCIENTIFIC, INC.
1544 Sawdust Road, Suite 505 • The Woodlands, TX 77380 • Phone (281) 292-5277

Contract #: EPW08063	Case #: 39095	SDG #: ME2QX7

SDG NARRATIVE

SAMPLE RECIEPT & LOGIN

The following samples were received on the dates listed against them. The samples were logged in for analysis as listed.

Client Sample	*Lab Sample*	*Matrix*	*#Cont.*	*Received*	*Analysis*	*Comments*
ME2QX7	0010981-01	Soil	1	10/09/09 10:41	ILM05.4-ICPAES	MS/DUP
ME2QX8	0010981-02	Soil	1	10/09/09 10:41	ILM05.4-ICPAES	
ME2QX9	0010981-03	Soil	1	10/09/09 10:41	ILM05.4-ICPAES	
ME2QY0	0010981-04	Soil	1	10/09/09 10:41	ILM05.4-ICPAES	
ME2QY1	0010981-05	Soil	1	10/09/09 10:41	ILM05.4-ICPAES	
ME2QY2	0010981-06	Soil	1	10/09/09 10:41	ILM05.4-ICPAES	
ME2QY3	0010981-07	Soil	1	10/09/09 10:41	ILM05.4-ICPAES	
ME2QY4	0010981-08	Soil	1	10/09/09 10:41	ILM05.4-ICPAES	
ME2QY5	0010981-09	Soil	1	10/09/09 10:41	ILM05.4-ICPAES	
ME2QY6	0010981-10	Soil	1	10/09/09 10:41	ILM05.4-ICPAES	
ME2QY7	0010981-11	Soil	1	10/09/09 10:41	ILM05.4-ICPAES	
ME2QY8	0010981-12	Soil	1	10/09/09 10:41	ILM05.4-ICPAES	
ME2QY9	0010981-13	Soil	1	10/09/09 10:41	ILM05.4-ICPAES	

Issue: The TR/COC lists the analysis as ICP-MS CLP Total Metals; however, per scheduling the analysis required is ICP-AES Metals.
Resolution: In accordance with previous direction from Region 5, the laboratory will note the issue in the SDG Narrative, perform the analyses as indicated on the Scheduling Notification Form, and proceed with the analysis of the samples.

No other discrepancies of issues were noted during receipt and login.

ICP-AES

Soil Samples were digested by Hot-Block technique (HS2) and analyzed using a Thermo Electron [illegible] 6500.

MS and DUP were performed on sample "ME2QX7" and [illegible]

Serial Dilution was performed on sample "ME2QX7" and the [illegible] were within the QC limits.

A4 SCIENTIFIC, INC.
1544 Sawdust Road, Suite 505 • The Woodlands, TX 77380 • Phone (281) 292-5277

Contract #: EPW08063	Case #: 39095	SDG #: ME2QX7

SDG NARRATIVE

No problems were encountered during sample preparation or analysis.

All samples were prepared and analyzed with in the contractual holding times.

The following Samples were analyzed at a dilution for the analytes listed against them to bring the concentration below the LDRs. The dilutions were made as below:

Sample ID	Analyte	Dilution
ME2QY6	Ca	4.6
ME2QY7	Fe	1.8
ME2QY9	Fe	1.4

The following equations are used for calculation of sample results from raw instrument output data:

ICP-AES

SOIL Samples:

Concentration (dry Wt.) (mg/kg) = $\frac{C*V}{W*S}*DF$

Where,
C = Concentration (mg/L)
V = Final sample volume in Liters (L) (0.1L)
W = Wet sample weight (kg) (0.001kg)
S = % solids/100
DF = Dilution Factor

USEPA-CLP

COVER PAGE

OCT 2 3 2009

b Name: A4 Scientific, Inc. Contract: EPW08063

b Code: A4 Case No: 39095 MRAS No.: SDG No: ME2QX7

W No.: ILM05.4

EPA Sample No.	Lab Sample ID
ME2QX7	0010981-01
ME2QX7D	0010981-01D
ME2QX7S	0010981-01S
ME2QX8	0010981-02
ME2QX9	0010981-03
ME2QY0	0010981-04
ME2QY1	0010981-05
ME2QY2	0010981-06
ME2QY3	0010981-07
ME2QY4	0010981-08
ME2QY5	0010981-09
ME2QY6	0010981-10
ME2QY7	0010981-11
ME2QY8	0010981-12
ME2QY9	0010981-13

		ICP-AES	ICP-MS
ere ICP-AES and ICP-MS interelement corrections pplied?	(Yes/No)	YES	YES
ere ICP-AES and ICP-MS background corrections pplied?	(Yes/No)	YES	YES
If yes, were raw data generated before application of background corrections?	(Yes/No)	NO	NO

omments:

certify that this data package is in compliance with the terms and conditions of the ontract, both technically and for completeness, for other than the conditions detailed bove. Release of the data contained in this hardcopy data package [illegible] ubmitted on diskette [illegible] ransmission, if applicable [illegible] anager or the Manager's [illegible] the following [illegible]

gnature: Sree Teerupalli Name: SREE LAKSHMI TEERUPALLI

10/21/09

Title: QA SPECIALIST

000000001

USEPA-CLP

IA-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME2QX7

ab Name: A4 Scientific, Inc. Contract: EPW08063

ab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QX7

atrix (soil/water): SOIL Lab Sample ID: 0010981-01

evel (low/med): LOW Date Received: 10/09/2009

Solids: 81.6

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3640			P
7440-36-0	Antimony	7.3	U		P
7440-38-2	Arsenic	12.9			P
7440-39-3	Barium	62.6			P
7440-41-7	Beryllium	0.27	J		P
7440-43-9	Cadmium	0.79			P
7440-70-2	Calcium	10400			P
7440-47-3	Chromium	7.6			P
7440-48-4	Cobalt	3.2	J		P
7440-50-8	Copper	37.2			P
7439-89-6	Iron	11600			P
7439-92-1	Lead	48.5			P
7439-95-4	Magnesium	3440			P
7439-96-5	Manganese	151			P
7440-02-0	Nickel	8.9			P
7440-09-7	Potassium	584	J		P
7782-49-2	Selenium	4.2	U		P
7440-22-4	Silver	1.2	U		P
7440-23-5	Sodium	607	U		P
7440-28-0	Thallium	3.0	U		P
7440-62-2	Vanadium	13.5			P
7440-66-6	Zinc	121			P

Color Before: BLACK Clarity Before: CLOUDY Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments: 131

USEPA-CLP

IA-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME. 2X8

b Name: A4 Scientific, Inc. Contract: EPW08052

b Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QX7

trix (soil/water): SOIL Lab Sample ID: 0010981-02

vel (low/med): LOW Date Received: 10/09/2009

Solids: 63.6

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4820			P
7440-36-0	Antimony	9.3	U		P
7440-38-2	Arsenic	9.7			P
7440-39-3	Barium	73.4			P
7440-41-7	Beryllium	0.31	J		P
7440-43-9	Cadmium	0.61	J		P
7440-70-2	Calcium	26500			P
7440-47-3	Chromium	8.5			P
7440-48-4	Cobalt	3.7	J		P
7440-50-8	Copper	16.2			P
7439-89-6	Iron	9010			P
7439-92-1	Lead	29.3			P
7439-95-4	Magnesium	9160			P
7439-96-5	Manganese	185			P
7440-02-0	Nickel	10.3			P
7440-09-7	Potassium	370	J		P
7782-49-2	Selenium	2.2	J		P
7440-22-4	Silver	1.6	U		P
7440-23-5	Sodium	778	U		P
7440-28-0	Thallium	3.9	U		P
7440-62-2	Vanadium	14.6			P
7440-66-6	Zinc	44.9			P

Color Before: BLACK Clarity Before: Texture:

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments: 135

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Form IA-IN ILM05.4

USEPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME2QX9

ab Name: A4 Scientific, Inc. Contract: EPW08063

ab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QX7

atrix (soil/water): SOIL Lab Sample ID: 0010981-03

evel (low/med): LOW Date Received: 10/09/2009

Solids: 82.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3070			P
7440-36-0	Antimony	7.0	U		P
7440-38-2	Arsenic	9.7			P
7440-39-3	Barium	53.0			P
7440-41-7	Beryllium	0.24	J		P
7440-43-9	Cadmium	1.2			P
7440-70-2	Calcium	4140			P
7440-47-3	Chromium	68.5			P
7440-48-4	Cobalt	5.9	U		P
7440-50-8	Copper	16.7			P
7439-89-6	Iron	4490			P
7439-92-1	Lead	47.3			P
7439-95-4	Magnesium	1230			P
7439-96-5	Manganese	111			P
7440-02-0	Nickel	5.1			P
7440-09-7	Potassium	229	J		P
7782-49-2	Selenium	4.1	U		P
7440-22-4	Silver	1.2	U		P
7440-23-5	Sodium	586	U		P
7440-28-0	Thallium	2.9	U		P
7440-62-2	Vanadium	7.6			P
7440-66-6	Zinc	77.2			P

Color Before: [illegible] Clarity Before: CLOUDY Texture: [illegible]

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments: 136

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USEPA-CLP

IA-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME2QY0

ab Name: A4 Scientific, Inc. Contract: EPW08063

ab Code: A4 Case No.: 39095 MRAS No.: SDG NO.: ME2QX7

atrix (soil/water): SOIL Lab Sample ID: 0010981-04

evel (low/med): LOW Date Received: 10/09/2009

Solids: 79.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5390			P
7440-36-0	Antimony	7.5	U		P
7440-38-2	Arsenic	7.9			P
7440-39-3	Barium	112			P
7440-41-7	Beryllium	0.31	J		P
7440-43-9	Cadmium	0.50	J		P
7440-70-2	Calcium	2480			P
7440-47-3	Chromium	12.0			P
7440-48-4	Cobalt	4.6	J		P
7440-50-8	Copper	15.1			P
7439-89-6	Iron	8210			P
7439-92-1	Lead	20.4			P
7439-95-4	Magnesium	1180			P
7439-96-5	Manganese	616			P
7440-02-0	Nickel	6.9			P
7440-09-7	Potassium	686			P
7782-49-2	Selenium	4.4	U		P
7440-22-4	Silver	1.2	U		P
7440-23-5	Sodium	623	U		P
7440-28-0	Thallium	3.1	U		P
7440-62-2	Vanadium	13.1			P
7440-66-6	Zinc	61.3			P

Color Before: [illegible] Clarity Before: [illegible] Artifacts: [illegible]

Color After: [illegible] Clarity After: CLEAR Artifacts:

Comments: 137

Form IA-IN ILM05.4

USEPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME2QY1

ab Name: A4 Scientific, Inc. Contract: EPW08063

ab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QX7

atrix (soil/water): SOIL Lab Sample ID: 0010981-05

evel (low/med): LOW Date Received: 10/09/2009

Solids: 79.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2020			P
7440-36-0	Antimony	7.4	U		P
7440-38-2	Arsenic	12.3			P
7440-39-3	Barium	40.0			P
7440-41-7	Beryllium	0.62	U		P
7440-43-9	Cadmium	0.78			P
7440-70-2	Calcium	6500			P
7440-47-3	Chromium	28.4			P
7440-48-4	Cobalt	6.2	U		P
7440-50-8	Copper	16.7			P
7439-89-6	Iron	8690			P
7439-92-1	Lead	32.1			P
7439-95-4	Magnesium	2560			P
7439-96-5	Manganese	44.5			P
7440-02-0	Nickel	4.4	J		P
7440-09-7	Potassium	410	J		P
7782-49-2	Selenium	4.3	U		P
7440-22-4	Silver	1.2	U		P
7440-23-5	Sodium	620	U		P
7440-28-0	Thallium	3.1	U		P
7440-62-2	Vanadium	10.4			P
7440-66-6	Zinc	46.1			P

Color Before: BLACK Clarity Before: CLOUDY Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments: 138

USEPA-CLP

IA-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME2QY2

ab Name: A4 Scientific, Inc. Contract: [illegible]

ab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QX7

atrix (soil/water): SOIL Lab Sample ID: 0010981-06

evel (low/med): LOW Date Received: 10/09/2009

Solids: 72.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4000			P
7440-36-0	Antimony	8.2	U		P
7440-38-2	Arsenic	25.0			P
7440-39-3	Barium	91.6			P
7440-41-7	Beryllium	0.29	J		P
7440-43-9	Cadmium	1.0			P
7440-70-2	Calcium	29000			P
7440-47-3	Chromium	8.1			P
7440-48-4	Cobalt	3.4	J		P
7440-50-8	Copper	26.2			P
7439-89-6	Iron	17100			P
7439-92-1	Lead	45.0			P
7439-95-4	Magnesium	4300			P
7439-96-5	Manganese	213			P
7440-02-0	Nickel	15.3			P
7440-09-7	Potassium	470	J		P
7782-49-2	Selenium	2.0	J		P
7440-22-4	Silver	1.4	U		P
7440-23-5	Sodium	686	U		P
7440-28-0	Thallium	3.4	U		P
7440-62-2	Vanadium	14.0			P
7440-66-6	Zinc	84.6			P

Color Before: BLACK Clarity Before: CLOUDY Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments: 140

Form IA-IN ILM05.4

USEPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME2QY3

ab Name: A4 Scientific, Inc. Contract: EP[illegible]

ab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QX7

atrix ~~(soil/water)~~: SOIL ~~Lab Sample ID~~: ~~0010981-07~~

evel (low/med): LOW Date Received: 10/09/2009

Solids: 80.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2610			P
7440-36-0	Antimony	7.5	U		P
7440-38-2	Arsenic	12.3			P
7440-39-3	Barium	58.1			P
7440-41-7	Beryllium	0.20	J		P
7440-43-9	Cadmium	0.50	J		P
7440-70-2	Calcium	14700			P
7440-47-3	Chromium	6.6			P
7440-48-4	Cobalt	2.9	J		P
7440-50-8	Copper	26.9			P
7439-89-6	Iron	9940			P
7439-92-1	Lead	30.4			P
7439-95-4	Magnesium	4660			P
7439-96-5	Manganese	140			P
7440-02-0	Nickel	6.5			P
7440-09-7	Potassium	383	J		P
7782-49-2	Selenium	4.4	U		P
7440-22-4	Silver	1.2	U		P
7440-23-5	Sodium	624	U		P
7440-28-0	Thallium	3.1	U		P
7440-62-2	Vanadium	10.6			P
7440-66-6	Zinc	63.9			P

Color Before: BLACK Clarity Before: CLOUDY Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments: 141

USEPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME2QY4

ab Name: A4 Scientific, Inc. Contract: LPW08063

ab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QX7

atrix (soil/water): SOIL Lab Sample ID: 0010981-08

evel (low/med): LOW Date Received: 10/09/2009

Solids: 88.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6700			P
7440-36-0	Antimony	2.9	J		P
7440-38-2	Arsenic	7.0			P
7440-39-3	Barium	303			P
7440-41-7	Beryllium	0.48	J		P
7440-43-9	Cadmium	149			P
7440-70-2	Calcium	15800			P
7440-47-3	Chromium	23.3			P
7440-48-4	Cobalt	4.3	J		P
7440-50-8	Copper	736			P
7439-89-6	Iron	27700			P
7439-92-1	Lead	1860			P
7439-95-4	Magnesium	2620			P
7439-96-5	Manganese	288			P
7440-02-0	Nickel	12.6			P
7440-09-7	Potassium	387	J		P
7782-49-2	Selenium	3.9	U		P
7440-22-4	Silver	1.1	U		P
7440-23-5	Sodium	561	U		P
7440-28-0	Thallium	2.8	U		P
7440-62-2	Vanadium	15.6			P
7440-66-6	Zinc	657			P

Color Before: BLACK Clarity Before: CLOUDY Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments: 1:2

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Form IA-IN ILM05.4

USEPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME2QY5

ab Name: A4 Scientific, Inc. Contract: EPW08063

ab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QX7

atrix (soil/water): SOIL ~~Lab Sample ID:~~ ~~0010981-09~~

evel (low/med): LOW Date Received: 10/09/2009

Solids: 87.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5770			P
7440-36-0	Antimony	5.6	J		P
7440-38-2	Arsenic	12.0			P
7440-39-3	Barium	502			P
7440-41-7	Beryllium	0.65			P
7440-43-9	Cadmium	6.4			P
7440-70-2	Calcium	17000			P
7440-47-3	Chromium	36.3			P
7440-48-4	Cobalt	8.6			P
7440-50-8	Copper	987			P
7439-89-6	Iron	35300			P
7439-92-1	Lead	1030			P
7439-95-4	Magnesium	3440			P
7439-96-5	Manganese	756			P
7440-02-0	Nickel	53.9			P
7440-09-7	Potassium	397	J		P
7782-49-2	Selenium	2.7	J		P
7440-22-4	Silver	1.1	U		P
7440-23-5	Sodium	234	J		P
7440-28-0	Thallium	2.8	U		P
7440-62-2	Vanadium	17.3			P
7440-66-6	Zinc	2130			P

Color Before: [illegible] Clarity Before: [illegible] Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments: 143

USEPA-CLP

IA-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME2QY6

b Name: A4 Scientific, Inc. Contract: EPW09063

b Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QX7

trix (soil/water): SOIL Lab Sample ID: 0010981-10

vel (low/med): LOW Date Received: 10/09/2009

Solids: 76.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	875			P
7440-36-0	Antimony	7.8	U		P
7440-38-2	Arsenic	24.5			P
7440-39-3	Barium	244			P
7440-41-7	Beryllium	0.65	U		P
7440-43-9	Cadmium	0.41	J		P
7440-70-2	Calcium	263000		D	P
7440-47-3	Chromium	2.7			P
7440-48-4	Cobalt	2.7	J		P
7440-50-8	Copper	5.7			P
7439-89-6	Iron	22900			P
7439-92-1	Lead	15.1			P
7439-95-4	Magnesium	4790			P
7439-96-5	Manganese	726			P
7440-02-0	Nickel	4.9	J		P
7440-09-7	Potassium	651	U		P
7782-49-2	Selenium	2.0	J		P
7440-22-4	Silver	1.3	U		P
7440-23-5	Sodium	651	U		P
7440-28-0	Thallium	3.3	U		P
7440-62-2	Vanadium	7.5			P
7440-66-6	Zinc	24.4			P

Color Before: BLACK Clarity Before: Texture:

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments: 14.

USEPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME2QY7

b Name: A4 Scientific, Inc. Contract: [illegible]

b Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QX7

trix (soil/water): SOIL Lab Sample ID: 0010981-11

vel (low/med): LOW Date Received: 10/09/2009

Solids: 64.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7680			P
7440-36-0	Antimony	19.7			P
7440-38-2	Arsenic	21.5			P
7440-39-3	Barium	1020			P
7440-41-7	Beryllium	0.84			P
7440-43-9	Cadmium	19.6			P
7440-70-2	Calcium	17000			P
7440-47-3	Chromium	59.6			P
7440-48-4	Cobalt	16.5			P
7440-50-8	Copper	567			P
7439-89-6	Iron	115000		D	P
7439-92-1	Lead	2390			P
7439-95-4	Magnesium	2090			P
7439-96-5	Manganese	615			P
7440-02-0	Nickel	206			P
7440-09-7	Potassium	457	J		P
7782-49-2	Selenium	5.2	J		P
7440-22-4	Silver	1.6	U		P
7440-23-5	Sodium	331	J		P
7440-28-0	Thallium	3.9	U		P
7440-62-2	Vanadium	26.1			P
7440-66-6	Zinc	1960			P

Color Before: BLACK Clarity Before: CLOUDY Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments: 145

[illegible]

USEPA-CLP

IA-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME2QY8

ab Name: A4 Scientific, Inc. Contract: EPW06063

ab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QX7

atrix (soil/water): SOIL Lab Sample ID: 0010981-12

evel (low/med): LOW Date Received: 10/09/2009

Solids: 84.5

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5340			P
7440-36-0	Antimony	2.1	J		P
7440-38-2	Arsenic	11.9			P
7440-39-3	Barium	565			P
7440-41-7	Beryllium	0.69			P
7440-43-9	Cadmium	5.2			P
7440-70-2	Calcium	12900			P
7440-47-3	Chromium	53.0			P
7440-48-4	Cobalt	12.2			P
7440-50-8	Copper	169			P
7439-89-6	Iron	49000			P
7439-92-1	Lead	730			P
7439-95-4	Magnesium	2860			P
7439-96-5	Manganese	481			P
7440-02-0	Nickel	38.7			P
7440-09-7	Potassium	547	J		P
7782-49-2	Selenium	2.1	J		P
7440-22-4	Silver	1.2	U		P
7440-23-5	Sodium	580	U		P
7440-28-0	Thallium	2.9	U		P
7440-62-2	Vanadium	23.0			P
7440-66-6	Zinc	853			P

Color Before: [illegible] Clarity Before: [illegible] Texture: [illegible]

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments: 143

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Form IA-IN ILM05.4

USEPA-CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ME2QY9

ıb Name: A4 Scientific, Inc. Contract: EPW08063

ıb Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QX7

ıtrix (soil/water): SOIL Lab Sample ID: 0010981-13

ıvel (low/med): LOW Date Received: 10/09/2009

Solids: 75.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	14300			P
7440-36-0	Antimony	8.0	U		P
7440-38-2	Arsenic	18.4			P
7440-39-3	Barium	673			P
7440-41-7	Beryllium	1.3			P
7440-43-9	Cadmium	6.6			P
7440-70-2	Calcium	11400			P
7440-47-3	Chromium	39.7			P
7440-48-4	Cobalt	10.2			P
7440-50-8	Copper	271			P
7439-89-6	Iron	76100		D	P
7439-92-1	Lead	1010			P
7439-95-4	Magnesium	1450			P
7439-96-5	Manganese	585			P
7440-02-0	Nickel	55.1			P
7440-09-7	Potassium	426	J		P
7782-49-2	Selenium	4.3	J		P
7440-22-4	Silver	1.3	U		P
7440-23-5	Sodium	227	J		P
7440-28-0	Thallium	3.3	U		P
7440-62-2	Vanadium	27.3			P
7440-66-6	Zinc	1040			P

Color Before: BLA[illegible] Clarity Before: [illegible] [illegible]

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments: 147

USEPA-CLP

3-IN
BLANKS

ab Name: A4 Scientific, Inc. Contract: EPW08063

ab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QX7

reparation Blank Matrix (soil/water): SOIL

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

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Aluminum	200.000	U	200.000	U	200.000	U	200.000	U	20.000	U	P
Antimony	60.000	U	60.000	U	60.000	U	60.000	U	6.000	U	P
Arsenic	10.000	U	10.000	U	10.000	U	10.000	U	1.000	U	P
Barium	200.000	U	200.000	U	200.000	U	200.000	U	20.000	U	P
Beryllium	5.000	U	5.000	U	5.000	U	5.000	U	0.500	U	P
Cadmium	5.000	U	5.000	U	5.000	U	5.000	U	0.500	U	P
Calcium	5000.000	U	5000.000	U	5000.000	U	5000.000	U	500.000	U	P
Chromium	10.000	U	10.000	U	10.000	U	10.000	U	1.000	U	P
Cobalt	50.000	U	50.000	U	50.000	U	50.000	U	5.000	U	P
Copper	25.000	U	25.000	U	25.000	U	25.000	U	2.500	U	P
Iron	100.000	U	100.000	U	100.000	U	100.000	U	8.581	J	P
Lead	10.000	U	10.000	U	10.000	U	10.000	U	1.000	U	P
Magnesium	5000.000	U	5000.000	U	5000.000	U	5000.000	U	500.000	U	P
Manganese	15.000	U	15.000	U	15.000	U	15.000	U	1.500	U	P
Nickel	40.000	U	40.000	U	40.000	U	40.000	U	4.000	U	P
Potassium	5000.000	U	5000.000	U	5000.000	U	5000.000	U	500.000	U	P
Selenium	35.000	U	35.000	U	35.000	U	35.000	U	3.500	U	P
Silver	10.000	U	10.000	U	10.000	U	10.000	U	1.000	U	P
Sodium	5000.000	U	5000.000	U	5000.000	U	5000.000	U	500.000	U	P
Thallium	25.000	U	25.000	U	25.000	U	25.000	U	2.500	U	P
Vanadium	50.000	U	50.000	U	50.000	U	50.000	U	5.000	U	P
Zinc	60.000	U	60.000	U	60.000	U	60.000	U	6.000	U	P

USEPA-CLP

3-IN
BLANKS

ab Name: A4 Scientific, Inc. Contract: EPW08063

ab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QX7

reparation Blank Matrix (soil/water):

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

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Aluminum			200.000	U	78.642	J	200.000	U			P
Antimony			60.000	U	60.000	U	60.000	U			P
Arsenic			10.000	U	10.000	U	10.000	U			P
Barium			200.000	U	200.000	U	200.000	U			P
Beryllium			5.000	U	5.000	U	5.000	U			P
Cadmium			5.000	U	5.000	U	5.000	U			P
Calcium			5000.000	U	5000.000	U	5000.000	U			P
Chromium			10.000	U	10.000	U	10.000	U			P
Cobalt			50.000	U	50.000	U	50.000	U			P
Copper			25.000	U	25.000	U	25.000	U			P
Iron			100.000	U	43.341	J	100.000	U			P
Lead			10.000	U	10.000	U	10.000	U			P
Magnesium			5000.000	U	5000.000	U	5000.000	U			P
Manganese			15.000	U	15.000	U	15.000	U			P
Nickel			40.000	U	40.000	U	40.000	U			P
Potassium			5000.000	U	5000.000	U	5000.000	U			P
Selenium			35.000	U	35.000	U	35.000	U			P
Silver			10.000	U	10.000	U	10.000	U			P
Sodium			5000.000	U	5000.000	U	5000.000	U			P
Thallium			25.000	U	25.000	U	25.000	U			P
Vanadium			50.000	U	50.000	U	50.000	U			P
Zinc			60.000	U	60.000	U	60.000	U			P

3-IN
BLANKS

ab Name: A4 Scientific, Inc. Contract: EPW08062

ab Code: A4 Case No.: 39095 NRAS No.: _____ SDG NO.: ME2QX7

reparation Blank Matrix (soil/water): _____

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

Analyte	Initial Calibration Blank(ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Aluminum			200.000	U	200.000	U	200.000	U			P
Antimony			60.000	U	60.000	U	60.000	U			P
Arsenic			10.000	U	10.000	U	10.000	U			P
Barium			200.000	U	200.000	U	200.000	U			P
Beryllium			5.000	U	5.000	U	5.000	U			P
Cadmium			5.000	U	5.000	U	5.000	U			P
Calcium			5000.000	U	5000.000	U	5000.000	U			P
Chromium			10.000	U	10.000	U	10.000	U			P
Cobalt			50.000	U	50.000	U	50.000	U			P
Copper			25.000	U	25.000	U	25.000	U			P
Iron			100.000	U	100.000	U	100.000	U			P
Lead			10.000	U	10.000	U	10.000	U			P
Magnesium			5000.000	U	5000.000	U	5000.000	U			P
Manganese			15.000	U	15.000	U	15.000	U			P
Nickel			40.000	U	40.000	U	40.000	U			P
Potassium			5000.000	U	5000.000	U	5000.000	U			P
Selenium			35.000	U	35.000	U	35.000	U			P
Silver			10.000	U	10.000	U	10.000	U			P
Sodium			5000.000	U	5000.000	U	5000.000	U			P
Thallium			25.000	U	25.000	U	25.000	U			P
Vanadium			50.000	U	50.000	U	50.000	U			P
Zinc			60.000	U	60.000	U	60.000	U			P

USEPA-CLP

3-IN
BLANKS

ab Name: A4 Scientific, Inc. Contract: EPW08063

ab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QX7

reparation Blank Matrix (soil/water):

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

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Aluminum			200.000	U	200.000	U	200.000	U			P
Antimony			60.000	U	60.000	U	60.000	U			P
Arsenic			10.000	U	10.000	U	10.000	U			P
Barium			200.000	U	200.000	U	200.000	U			P
Beryllium			5.000	U	5.000	U	5.000	U			P
Cadmium			5.000	U	5.000	U	5.000	U			P
Calcium			5000.000	U	5000.000	U	5000.000	U			P
Chromium			10.000	U	10.000	U	10.000	U			P
Cobalt			50.000	U	50.000	U	50.000	U			P
Copper			25.000	U	25.000	U	25.000	U			P
Iron			100.000	U	100.000	U	100.000	U			P
Lead			10.000	U	10.000	U	10.000	U			P
Magnesium			5000.000	U	5000.000	U	5000.000	U			P
Manganese			15.000	U	15.000	U	15.000	U			P
Nickel			40.000	U	40.000	U	40.000	U			P
Potassium			5000.000	U	5000.000	U	5000.000	U			P
Selenium			35.000	U	35.000	U	35.000	U			P
Silver			10.000	U	10.000	U	10.000	U			P
Sodium			5000.000	U	5000.000	U	5000.000	U			P
Thallium			25.000	U	25.000	U	25.000	U			P
Vanadium			50.000	U	50.000	U	50.000	U			P
Zinc			60.000	U	60.000	U	60.000	U			P

3-IN
BLANKS

ab Name: A4 Scientific, Inc. Contract: EPW09063

ab Code: A4 Case No.: 39095 NRAS No.: _____ SDG NO.: ME2QX7

reparation Blank Matrix (soil/water): _____

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

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Aluminum			200.000	U	200.000	U					P
Antimony			60.000	U	60.000	U					P
Arsenic			10.000	U	10.000	U					P
Barium			200.000	U	200.000	U					P
Beryllium			5.000	U	5.000	U					P
Cadmium			5.000	U	5.000	U					P
Calcium			5000.000	U	5000.000	U					P
Chromium			10.000	U	10.000	U					P
Cobalt			50.000	U	50.000	U					P
Copper			25.000	U	25.000	U					P
Iron			100.000	U	100.000	U					P
Lead			10.000	U	10.000	U					P
Magnesium			5000.000	U	5000.000	U					P
Manganese			15.000	U	15.000	U					P
Nickel			40.000	U	40.000	U					P
Potassium			5000.000	U	5000.000	U					P
Selenium			35.000	U	35.000	U					P
Silver			10.000	U	10.000	U					P
Sodium			5000.000	U	5000.000	U					P
Thallium			25.000	U	25.000	U					P
Vanadium			50.000	U	50.000	U					P
Zinc			60.000	U	60.000	U					P

USEPA-CLP

4A-IN

ICP-AES INTERFERENCE CHECK SAMPLE

ab Name: A4 Scientific, Inc. Contract: EPW08063

ab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QX7

CP-AES Instrument ID: B-ICAP6500 ICS Source: A(1206) & B(0203)

oncentration Units: ug/L

	True		Initial Found				Final Found			
Analyte	Sol.A	Sol AB	Sol.A	%R	Sol AB	%R	Sol.A	%R	Sol.AB	%R
Aluminum	244000	241000	219000	90	223000	93				
Antimony	0	589	-13.0		507	86				
Arsenic	0	101	3.2		87.3	86				
Barium	2.0	495	24.5	1225	472	95				
Beryllium	0	475	0.64		437	92				
Cadmium	0	940	0.21		876	93				
Calcium	235000	231000	247000	105	242000	105	246000	105	243000	105
Chromium	43.0	511	43.5	101	483	95				
Cobalt	4.0	461	8.6	215	463	100				
Copper	23.0	548	29.2	127	482	88				
Iron	95600	94800	93200	97	90600	96	92100	96	90500	95
Lead	10.0	61.0	10.8	108	56.8	93				
Magnesium	248000	251000	217000	88	219000	87				
Manganese	19.0	502	25.3	133	476	95				
Nickel	21.0	984	23.3	111	930	95				
Potassium	0	0	114		193					
Selenium	0	53.0	4.6		48.5	92				
Silver	0	206	-2.8		183	89				
Sodium	0	0	839		838					
Thallium	0	103	0.14		85.1	83				
Vanadium	0	494	12.0		462	94				
Zinc	28.0	1028	38.6	138	946	92				

USEPA-CLP

IVA-IN

ICP-AES INTERFERENCE CHECK SAMPLE

Lab Name: A4 Scientific, Inc. Contract: EPW08063

Lab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QX7

ICP-AES Instrument ID: B-ICAP6500 ICS Source: A(1206) & B(0203)

Concentration Units: ug/L

Analyte	True		Initial Found				Final Found			
	Sol.A	Sol AB	Sol.A	%R	Sol AB	%R	Sol.A	%R	Sol.AB	%R
Aluminum	244000	241000					219000	90	222000	92
Antimony	0	589					-15.8		498	85
Arsenic	0	101					-0.27		105	104
Barium	2.0	495					24.1	1205	469	95
Beryllium	0	475					0.62		434	91
Cadmium	0	940					0.056		869	92
Calcium	235000	231000					215000	91	218000	94
Chromium	43.0	511					43.1	100	479	94
Cobalt	4.0	461					8.3	208	464	101
Copper	23.0	548					28.5	124	482	88
Iron	95600	94800					85100	89	86000	91
Lead	10.0	61.0					8.3	83	59.3	97
Magnesium	248000	251000					216000	87	218000	87
Manganese	19.0	502					25.2	133	473	94
Nickel	21.0	984					24.2	115	930	95
Potassium	0	0					173		98.7	
Selenium	0	53.0					0.94		53.2	100
Silver	0	206					-3.5		183	89
Sodium	0	0					816		822	
Thallium	0	103					-2.5		99.0	96
Vanadium	0	494					12.4		463	94
Zinc	28.0	1028					38.0	136	942	92

000000043

USEPA-CLP

4A-IN

ICP-AES INTERFERENCE CHECK SAMPLE

b Name: A4 Scientific, Inc. Contract: EPW08053

b Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QX7

P-AES Instrument ID: B-ICAP6500 ICS Source: A(1206) & B(0203)

ncentration Units: ug/L

	True		Initial Found				Final Found			
nalyte	Sol.A	Sol AB	Sol.A	%R	Sol AB	%R	Sol.A	%R	Sol.AB	%R
luminum	244000	241000					219000	90	221000	92
ntimony	0	589					-14.4		497	84
rsenic	0	101					-0.66		103	102
arium	2.0	495					23.9	1195	468	95
eryllium	0	475					0.65		433	91
admium	0	940					0.18		870	93
alcium	235000	231000					214000	91	217000	94
hromium	43.0	511					43.1	100	480	94
obalt	4.0	461					8.4	210	463	100
opper	23.0	548					27.9	121	478	87
ron	95600	94800					83600	87	85100	90
ead	10.0	61.0					12.3	123	60.6	99
agnesium	248000	251000					213000	86	217000	86
anganese	19.0	502					25.3	133	474	94
ickel	21.0	984					23.4	111	919	93
otassium	0	0					117		105	
elenium	0	53.0					7.6		50.6	95
ilver	0	206					-3.6		179	87
odium	0	0					814		831	
hallium	0	103					-0.20		101	98
anadium	0	494					12.0		459	93
inc	28.0	1028					38.0	136	936	91

USEPA-CLP

4A-IN

ICP-AES INTERFERENCE CHECK SAMPLE

b Name: A4 Scientific, Inc. Contract: EPW08063

ab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QX7

P-AES Instrument ID: B-ICAP6500 ICS Source: A(1206) & B(0203)

ncentration Units: ug/L

	True		Initial Found				Final Found			
nalyte	Sol.A	Sol AB	Sol.A	%R	Sol AB	%R	Sol.A	%R	Sol.AB	%R
luminum	244000	241000					218000	89	222000	92
ntimony	0	589					-15.5		499	85
rsenic	0	101					2.6		100	99
arium	2.0	495					23.9	1195	468	95
eryllium	0	475					0.59		434	91
admium	0	940					0.095		879	94
alcium	235000	231000					214000	91	217000	94
hromium	43.0	511					43.2	100	483	95
o[illegible]t	4.0	461					8.2	205	466	101
opper	23.0	548					28.2	123	475	87
ron	95600	94800					83200	87	83800	88
ead	10.0	61.0					9.7	97	58.5	96
agnesium	248000	251000					212000	85	214000	85
anganese	19.0	502					25.3	133	476	95
ickel	21.0	984					23.4	111	912	93
otassium	0	0					196		107	
elenium	0	53.0					1.1		48.7	92
ilver	0	206					-3.4		178	86
odium	0	0					817		824	
hallium	0	103					-2.8		101	98
anadium	0	494					12.0		452	91
inc	28.0	1028					38.1	136	935	91

000000045

USEPA-CLP

4A-IN

ICP-AES INTERFERENCE CHECK SAMPLE

b Name: A4 Scientific, Inc. Contract: EPW08063

b Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QX7

P-AES ~~Instrument ID~~: ~~B-ICAP6500~~ ~~ICS Source~~: ~~A(1206) & B(0203)~~

ncentration Units: ug/L

	True		Initial Found				Final Found			
nalyte	Sol.A	Sol AB	Sol.A	%R	Sol AB	%R	Sol.A	%R	Sol.AB	%R
luminum	244000	241000					217000	89	219000	91
ntimony	0	589					-13.0		498	85
rsenic	0	101					2.0		100	99
arium	2.0	495					23.9	1195	465	94
eryllium	0	475					0.67		431	91
admium	0	940					0.12		876	93
alcium	235000	231000					213000	91	215000	93
hromium	43.0	511					43.4	101	484	95
obalt	4.0	461					8.2	205	464	101
opper	23.0	548					28.4	123	482	88
ron	95600	94800					82800	87	83900	89
ead	10.0	61.0					8.7	87	61.2	100
agnesium	248000	251000					212000	85	215000	86
anganese	19.0	502					25.4	134	476	95
ickel	21.0	984					23.1	110	913	93
otassium	0	0					122		166	
elenium	0	53.0					2.0		52.1	98
ilver	0	206					-4.3		179	87
odium	0	0					810		813	
hallium	0	103					-1.2		99.6	97
anadium	0	494					11.9		458	93
inc	28.0	1028					37.5	134	932	91

USEPA-CLP

4A-IN

ICP-AES INTERFERENCE CHECK SAMPLE

ab Name: A4 Scientific, Inc. Contract: EPW08063

ab Code: A4 Case No.: 39095 MRAS No.: SDG NO.: ME2QX7

CP-AES ~~Instrument~~ ID: B-ICAP6500 ~~ICS Source:~~ A(1206) & B(0203)

ncentration Units: ug/L

	True		Initial Found				Final Found			
nalyte	Sol.A	Sol AB	Sol.A	%R	Sol AB	%R	Sol.A	%R	Sol.AB	%R
luminum	244000	241000					217000	89	223000	93
ntimony	0	589					-13.7		497	84
rsenic	0	101					-2.3		103	102
arium	2.0	495					23.9	1195	473	96
eryllium	0	475					0.64		431	91
admium	0	940					0.32		864	92
alcium	235000	231000					214000	91	218000	94
hromium	43.0	511					43.7	102	478	94
o[illegible]t	4.0	461					8.4	210	459	100
opper	23.0	548					29.5	128	476	87
ron	95600	94800					84300	88	84600	89
ead	10.0	61.0					12.6	126	57.1	94
agnesium	248000	251000					217000	88	218000	87
anganese	19.0	502					25.4	134	471	94
ickel	21.0	984					24.1	115	918	93
otassium	0	0					144		43.5	
elenium	0	53.0					4.9		51.8	98
ilver	0	206					-3.3		180	87
odium	0	0					802		809	
hallium	0	103					-2.1		100	97
anadium	0	494					12.1		457	[illegible]
inc	28.0	1028					38	130	931	[illegible]

Form IVA-IN TLM05.4

USEPA-CLP

4A-IN

ICP-AES INTERFERENCE CHECK SAMPLE

ıb Name: A4 Scientific, Inc. Contract: EPW08063

ab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QX7

:P-AES Instrument ID: B-ICAP6500 ICS Source: A(1206) & B(0203)

›ncentration Units: ug/L

	True		Initial Found				Final Found			
ınalyte	Sol.A	Sol AB	Sol.A	%R	Sol AB	%R	Sol.A	%R	Sol.AB	%R
ıluminum	244000	241000					223000	91	224000	93
ıntimony	0	589					-16.5		496	84
ırsenic	0	101					1.9		102	101
3arium	2.0	495					24.8	1240	474	96
3eryllium	0	475					0.70		431	91
:admium	0	940					0.29		869	92
:alcium	235000	231000					216000	92	217000	94
:hromium	43.0	511					42.5	99	478	94
:obalt	4.0	461					8.5	212	460	100
:opper	23.0	548					28.7	125	477	87
:ron	95600	94800					82500	86	83400	88
ıead	10.0	61.0					7.6	76	55.9	92
ıagnesium	248000	251000					213000	86	215000	86
ıanganese	19.0	502					25.3	133	471	94
ıickel	21.0	984					23.4	111	909	92
?otassium	0	0					183		119	
3elenium	0	53.0					4.1		49.4	93
3ilver	0	206					-4.1		180	87
3odium	0	0					775		783	
:hallium	0	103					-4.0		99.5	97
ıanadium	0	494					12.4		453	92
;inc	28.0	1028					38.0	136	923	90

Form IVA-IN

ILM05.4

USEPA-CLP

4A-IN

ICP-AES INTERFERENCE CHECK SAMPLE

ab Name: A4 Scientific, Inc. Contract: EPW08063

ab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QX7

CP-AES Instrument ID: B-ICAP6500 ICS Source: A(1206) & B(0203)

oncentration Units: ug/L

Analyte	True		Initial Found				Final Found			
	Sol.A	Sol AB	Sol.A	%R	Sol AB	%R	Sol.A	%R	Sol.AB	%R
Aluminum	244000	241000					223000	91	225000	93
Antimony	0	589					-14.5		497	84
Arsenic	0	101					0.35		103	102
Barium	2.0	495					25.3	1265	478	97
Beryllium	0	475					0.74		430	91
Cadmium	0	940					0.21		863	92
Calcium	235000	231000					216000	92	218000	94
Chromium	43.0	511					42.9	100	472	92
Co[illegible]t	4.0	461					8.6	215	457	99
Copper	23.0	548					28.6	124	474	86
Iron	95600	94800					83100	87	83700	88
Lead	10.0	61.0					9.9	99	57.2	94
Magnesium	248000	251000					214000	86	216000	86
Manganese	19.0	502					25.2	133	468	93
Nickel	21.0	984					23.6	112	909	92
Potassium	0	0					84.8		179	
Selenium	0	53.0					2.4		52.7	99
Silver	0	206					-3.6		180	87
Sodium	0	0					775		782	
Thallium	0	103					-2.1		101	98
Vanadium	0	494					12.1		452	91
Zinc	28.0	1028					37.6	134	920	89

USEPA-CLP

5A-IN

MATRIX SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

ME2QX7S

ab Name: A4 Scientific, Inc. Contract: EPW08063

ab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QX7

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

Solids for Sample: 81.6

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum		4112.4910		3639.7670		0.00	0		P
Antimony	75 - 125	21.6087		7.2801	U	24.27	89		P
Arsenic	75 - 125	20.3850		12.8980		9.71	77		P
Barium	75 - 125	530.7889		62.6402		485.34	96		P
Beryllium	75 - 125	11.5223		0.2683	J	12.13	93		P
Cadmium	75 - 125	11.2333		0.7895		12.13	86		P
Calcium		10100.3500		10365.4000		0.00	0		P
Chromium	75 - 125	52.6475		7.5934		48.53	93		P
Cobalt	75 - 125	122.6946		3.1781	J	121.34	98		P
Copper	75 - 125	93.7367		37.2331		60.67	93		P
Iron		11185.0900		11645.4900		0.00	0		P
Lead		52.4389		48.5422		4.85	80		P
Magnesium		3102.9170		3439.6240		0.00	0		P
Manganese	75 - 125	262.0426		151.3056		121.34	91		P
Nickel	75 - 125	124.4297		8.8744		121.34	95		P
Potassium		592.1180	J	583.5821	J	0.00	0		P
Selenium	75 - 125	11.8672		4.2467	U	12.13	98		P
Silver	75 - 125	10.7328		1.2134	U	12.13	88		P
Sodium		606.6783	U	606.6783	U	0.00	0		P
Thallium	75 - 125	10.8985		3.0334	U	12.13	90		P
Vanadium	75 - 125	125.4975		13.5174		121.34	92		P
Zinc	75 - 125	227.3527		121.4309		121.34	87		P

omments:

USEPA-CLP

6-IN

DUPLICATES

EPA SAMPLE NO.

ME2QX7D

ab Name: A4 Scientific, Inc. Contract: EPW08063

ab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QX7

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

Solids for Sample: 81.6 % Solids for Duplicate: 81.8

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		3639.7670		3635.1560		0		P
Antimony		7.2801	U	7.2801	U			P
Arsenic		12.8980		12.5862		2		P
Barium	24.2671	62.6402		62.1979		1		P
Beryllium		0.2683	J	0.2615	J	3		P
Cadmium	0.6067	0.7895		0.8086		2		P
Calcium		10365.4000		10295.1500		1		P
Chromium		7.5934		7.4981		1		P
Cobalt		3.1781	J	3.1644	J	0		P
Copper		37.2331		36.2933		3		P
Iron		11645.4900		11451.9600		2		P
Lead		48.5422		47.3149		3		P
Magnesium		3439.6240		3369.3100		2		P
Manganese		151.3056		152.2884		1		P
Nickel	4.8534	8.8744		8.5928		3		P
Potassium		583.5821	J	579.3839	J	1		P
Selenium		4.2467	U	4.2467	U			P
Silver		1.2134	U	1.2134	U			P
Sodium		606.6783	U	606.6783	U			P
Thallium		3.0334	U	3.0334	U			P
Vanadium	6.0668	13.5174		13.1370		3		P
Zinc		121.4309		117.6568		3		P

USEPA-CLP

7 - IN

LABORATORY CONTROL SAMPLE

ab Name: A4 Scientific, Inc. Contract: EPW08063

ab Code: A4 Case No.: 39095 NRAS No: SDG NO.: ME2QX7

olid LCS Source: LCSS04050899

queous LCS Source:

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum				115.0	133.6		54.7	175.0	116
Antimony				66.0	73.1		27.6	104.0	111
Arsenic				253.0	231.9		154.0	352.0	92
Barium				1.6	6.9	U	1.0	2.2	0
Beryllium				4.9	4.8		3.0	6.8	98
Cadmium				10.9	12.7		7.7	14.0	117
Calcium				44200.0	44594.6		30300.0	58200.0	101
Chromium				27.1	27.0		18.5	35.7	100
Cobalt				37.4	40.3		24.2	50.6	108
Copper				1770.0	1762.2		20.0	2230.0	10
Iron				6470.0	6052.5		4280.0	8660.0	94
Lead				56.9	57.6		41.4	72.4	101
Magnesium				29200.0	27420.1		20500.0	37900.0	94
Manganese				61.0	60.2		41.6	80.5	99
Nickel				16.3	16.7		9.0	23.7	102
Potassium				39.7	156.9	U	0.0	85.3	0
Selenium				10.0	10.1		4.1	15.9	101
Silver				5.9	6.4		2.7	9.1	108
Sodium				72.5	158.8	U	0.0	216.0	0
Thallium				9.5	9.0		2.9	16.1	95
Vanadium				17.6	18.4		11.6	23.7	105
Zinc				47.5	45.8		20.5	74.4	96

8-IN

ICP-AES and ICP-MS SERIAL DILUTIONS

EPA SAMPLE NO.

ME2QX7L

ab Name: A4 Scientific, Inc. Contract: EPW08063

ab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QX7

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

oncentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	29997.50		31954.00		7		P
Antimony	60.00	U	300 ~~60.00~~	U			P
Arsenic	106.30		106.26		0		P
Barium	516.26		551.33	J	7		P
Beryllium	2.21	J	25.0 ~~5.00~~	U	100		P
Cadmium	6.51		25.0 ~~5.00~~	U	100		P
Calcium	85427.50		90155.00		6		P
Chromium	62.58		65.83		5		P
Cobalt	26.19	J	250 ~~50.00~~	U	100		P
Copper	306.86		301.48		2		P
Iron	95977.50		98950.00		3		P
Lead	400.07		396.02		1		P
Magnesium	28348.00		29465.00		4		P
Manganese	1247.00		1298.75		4		P
Nickel	73.14		70.33	J	4		P
Potassium	4809.65	J	25000 ~~5000.00~~	U	100		P
Selenium	35.00	U	175 ~~35.00~~	U			P
Silver	10.00	U	50.0 ~~10.00~~	U			P
Sodium	5000.00	U	25000 ~~5000.00~~	U			P
Thallium	25.00	U	125 ~~25.00~~	U			P
Vanadium	111.40		117.55	J	6		P
Zinc	1000.78		975.13		3		P

CORRECTIONS BY
S. CONNET (ESAT
DATA SET [illegible]).

000000053

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9-IN

METHOD DETECTION LIMITS (ANNUALLY)

ab Name: A4 Scientific, Inc. Contract: EPW08063

ab Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QX7

nstrument Type: P Instrument ID: B-ICAP6500 Date: 12/31/2008

~~reparation Method:~~ NP1

oncentration Units (ug/L or mg/kg): UG/L

Analyte	Wave-Length /Mass	CRQL	MDL
Aluminum	396.15	200.0	69.1
Antimony	206.83	60.0	20.8
Arsenic	189.04	10.0	3.4
Barium	455.40	200.0	68.5
Beryllium	313.04	5.0	1.7
Cadmium	228.80	5.0	1.7
Calcium	317.93	5000.0	1660
Chromium	267.72	10.0	3.2
Cobalt	228.62	50.0	16.2
Copper	324.75	25.0	8.5
Iron	259.94	100.0	37.8
Lead	220.35	10.0	2.5
Magnesium	279.07	5000.0	1680
Manganese	257.61	15.0	5.6
Nickel	231.60	40.0	13.3
Potassium	766.49	5000.0	1640
Selenium	196.09	35.0	13.8
Silver	328.07	10.0	3.6
Sodium	589.59	5000.0	1650
Thallium	190.86	25.0	9.3
Vanadium	292.40	50.0	17.9
Zinc	206.20	60.0	23.1

Comments:

USEPA-CLP

9-IN

METHOD DETECTION LIMITS (ANNUALLY)

ab Name: A4 Scientific, Inc. Contract: EPW08063

ab Code: A4 Case No.: 39095 NPAS No.: SDG NO.: ME2QX7

ıstrument Type: P Instrument ID: B-ICAP6500 Date: 12/31/2008

reparation Method: HS2

ɔncentration Units (ug/L or mg/kg): MG/KG

Analyte	Wave-Length /Mass	CRQL	MDL
Aluminum	396.15	20.0	6.4
Antimony	206.83	6.0	1.7
Arsenic	189.04	1.00	0.36
Barium	455.40	20.0	7.0
Beryllium	313.04	0.50	0.16
Cadmium	228.80	0.50	0.16
Calcium	317.93	500	163
Chromium	267.72	1.00	0.37
Cobalt	228.62	5.0	1.6
Copper	324.75	2.50	0.70
Iron	259.94	10.0	3.5
Lead	220.35	1.00	0.38
Magnesium	279.07	500	156
Manganese	257.61	1.50	0.51
Nickel	231.60	4.0	1.2
Potassium	766.49	500	160
Selenium	196.09	3.5	1.3
Silver	328.07	1.00	0.32
Sodium	589.59	500	162
Thallium	190.86	2.50	0.85
Vanadium	292.40	5.0	1.6
Zinc	206.20	6.0	2.2

Comments:

USEPA-CLP

12-IN

PREPARATION LOG

b Name: A4 Scientific, Inc. Contract: EPW08063

ib Code: A4 Case No.: 39095 NRAS No.: SDG NO.: ME2QX7

eparation Method: HS2

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
PBSZ1	10/19/2009	1.00	100
LCSSZ1	10/19/2009	1.02	100
ME2QX7	10/19/2009	1.01	100
ME2QX7D	10/19/2009	1.01	100
ME2QX7S	10/19/2009	1.01	100
ME2QX8	10/19/2009	1.01	100
ME2QX9	10/19/2009	1.03	100
ME2QY0	10/19/2009	1.01	100
ME2QY1	10/19/2009	1.01	100
ME2QY2	10/19/2009	1.01	100
ME2QY3	10/19/2009	1.00	100
ME2QY4	10/19/2009	1.01	100
ME2QY5	10/19/2009	1.02	100
ME2QY6	10/19/2009	1.00	100
ME2QY7	10/19/2009	1.00	100
ME2QY8	10/19/2009	1.02	100
ME2QY9	10/19/2009	1.00	100

USEPA-CLP

XIII-IN

ANALYSIS RUN LOG

ab Name: A4 Scientific, Inc. Contract: EPW08063

ab Code: A4 Case No.: 39095 NRAS No.: SDG No.: ME2[illegible]7

nstrument ID: B-ICAP6500 Analysis Method: P

tart Date: 10/20/2009 End Date: 10/20/2009

EPA Sample NO.	D/F	Time	Analytes																								
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN	
S0	1.0	1301	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
S	1.0	1305	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ICV	1.0	1308	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ICB	1.0	1312	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
CRI	1.0	1315	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ICSA	1.0	1319	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ICSAB	1.0	1322	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
CCV	1.0	1326	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
CCB	1.0	1329	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ZZZZZZ	1.0	1333																									
ZZZZZZ	1.0	1336																									
Z[illegible]ZZ	1.0	1340																									
Z[illegible]ZZZ	1.0	1344																									
ZZZZZZ	1.0	1347																									
ZZZZZZ	5.0	1351																									
ZZZZZZ	1.0	1354																									
ZZZZZZ	1.0	1358																									
ZZZZZZ	1.0	1402																									
ZZZZZZ	1.0	1405																									
CCV	1.0	1409	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
CCB	1.0	1412	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
ZZZZZZ	1.0	1416																									
ZZZZZZ	1.0	1419																									
ZZZZZZ	1.0	1423																									
ZZZZZZ	1.0	1426																									
ZZZZZZ	5.0	1430																									
ZZZZZZ	1.0	1433																									
ZZZZZZ	1.0	1437																									
CRI	1.0	1441	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	[illegible]	[illegible]	X	X	X	X		
ICSA	1.0	1444	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	[illegible]	[illegible]	[illegible]	X	X	X		
ICSAB	1.0	14[illegible]	X	X	[illegible]	X	X	X	X	X	X	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
CCV	1.0	1[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
CCB	1.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	X	X	X	[illegible]		
Z[illegible]ZZ	1.0	1[illegible]8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
ZZZZZZ	1.0	1[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
ZZZZZZ	1.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
ZZZZZZ	1.0	1509																				0	0	0	0	0	0

Form XIII-IN

ILM05.4

USEPA-CLP

LN-IN

ANALYSIS RUN LOG

ab Name: A4 Scientific, Inc. Contract: EPW08063

ab Code: A4 Case No.: 39095 NRAS No.: SDG No.: ME2QX7

nstrument ID: B-ICAP6500 Analysis Method: P

tart Date: 10/20/2009 End Date: 10/20/2009

EPA Sample NO.	D/F	Time	Analytes																								
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN		
ZZZZZZ	1.0	1513																										
ZZZZZZ	1.0	1516																										
ZZZZZZ	1.0	1520																										
ZZZZZZ	1.0	1523																										
ZZZZZZ	1.0	1527																										
ZZZZZZ	1.0	1530																										
CCV	1.0	1534	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB	1.0	1537	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ZZZZZZ	1.0	1541																										
ZZZZZZ	1.0	1545																										
ZZZZZZ	1.0	1548																										
ZZZZZZ	1.0	1552																										
ZZZZZZ	1.0	1555																										
ZZZZZZ	1.0	1559																										
ZZZZZZ	1.0	1602																										
CRI	1.0	1606	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSA	1.0	1609	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSAB	1.0	1613	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCV	1.0	1616	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB	1.0	1620	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ZZZZZZ	1.0	1623																										
ZZZZZZ	1.0	1627																										
ZZZZZZ	1.0	1631																										
ZZZZZZ	1.0	1634																										
ZZZZZZ	1.0	1638																										
ZZZZZZ	5.0	1641																										
ZZZZZZ	1.0	1645																										
ZZZZZZ	1.0	1649																										
ZZZZZZ	1.0	1652																										
ZZZZZZ	1.0	1656																										
CCV	1.0	1659	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB	1.0	1703	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ZZZZZZ	1.0	[illegible]																										
ZZZZZZ	[illegible]	[illegible]																										
ZZZZZZ	1.0	1713																										
ZZZZZZ	1.0	1717																										
ZZZZZZ	1.0	172[illegible]																										

USEPA-CLP

13-IN

ANALYSIS RUN LOG

Lab Name: A4 Scientific, Inc. Contract: EPW08063

Lab Code: A4 Case No.: 39095 MRAS No.: SDG No.: M12QX7

Instrument ID: B-ICAP6500 Analysis Method: P

Start Date: 10/20/2009 End Date: 10/20/2009

EPA Sample NO.	D/F	Time	Analytes																								
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN		
ZZZZZZ	1.0	1724																										
ZZZZZZ	1.0	1728																										
CRI	1.0	1731	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSA	1.0	1735	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSAB	1.0	1738	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCV	1.0	1742	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB	1.0	1745	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ZZZZZZ	1.0	1749																										
ZZZZZZ	1.0	1752																										
ZZZZZZ	1.0	1756																										
ZZZZZZ	1.0	1759																										
[illegible]ZZ	1.0	1803																										
ZZZZZZ	1.0	1806																										
ZZZZZZ	1.0	1810																										
ZZZZZZ	1.0	1814																										
ZZZZZZ	1.0	1817																										
ZZZZZZ	1.0	1821																										
CCV	1.0	1824	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB	1.0	1828	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ZZZZZZ	1.0	1831																										
ZZZZZZ	5.0	1835																										
ZZZZZZ	1.0	1838																										
ZZZZZZ	1.0	1842																										
ZZZZZZ	1.0	1845																										
ZZZZZZ	1.0	1849																										
ZZZZZZ	1.0	1852																										
CRI	1.0	1856	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSA	1.0	1859	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSAB	1.0	[illegible]	[illegible]																									
CCV	1.0	1903	[illegible]																									
CCB	[illegible]	[illegible]																										
ZZZZZZ																												
ZZZZZZ		[illegible]																										
[illegible]		[illegible]																										
ZZZZZZ		[illegible]																										
ZZZZZZ	1.0	1928																										
ZZZZZZ	1.0	1931																										

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ANALYSIS RUN LOG

Lab Name: A4 Scientific, Inc. Contract: EPW08063

Lab Code: A4 Case No.: 39095 NRAS No.: SDG No.: ME2QX7

Instrument ID: B-ICAP6500 Analysis Method: P

Start Date: 10/20/2009 End Date: 10/20/2009

EPA Sample NO.	D/F	Time	Analytes																								
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN		
ZZZZZZ	1.0	1935																										
ZZZZZZ	1.0	1939																										
ZZZZZZ	1.0	1942																										
ZZZZZZ	1.0	1946																										
CCV	1.0	1949	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB	1.0	1953	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ZZZZZZ	1.0	1956																										
ZZZZZZ	1.0	2000																										
PBSZ1	1.0	2003	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ZZZZZZ	1.0	2007																										
LCSSZ1	1.0	2011	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ZZZZZZ	1.0	2014																										
ZZZZZZ	1.0	2018																										
CRI	1.0	2021	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSA	1.0	2025	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSAB	1.0	2028	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCV	1.0	2032	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB	1.0	2035	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QX7	1.0	2039	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QX7D	1.0	2042	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QX7S	1.0	2046	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QX7L	5.0	2049	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QX8	1.0	2053	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QX9	1.0	2056	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QY0	1.0	2100	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QY1	1.0	2104	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ZZZZZZ	1.0	2107																										
ZZZZZZ	1.0	2111																										
CCV	1.0	2114	X	X	X	X	X	X	X	X	X	X	X	X	X	X												
CCB	1.0	2118	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QY2	1.0	2121	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QY3	1.0	2125	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QY4	1.0	2128	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QY5	1.0	2132	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QY6	1.0	2136	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ZZZZZZ	1.0	2139																										
ZZZZZZ	1.0	2143																										

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ANALYSIS RUN LOG

Lab Name: A4 Scientific, Inc. Contract: EPW08063

Lab Code: A4 Case No.: 39095 MRAS No.: SDG No.: ME2QX7

Instrument ID: B-ICAP6500 Analysis Method: P

Start Date: 10/20/2009 End Date: 10/20/2009

EPA Sample NO.	D/F	Time	Analytes																								
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN		
CRI	1.0	2147	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSA	1.0	2150	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSAB	1.0	2154	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCV	1.0	2157	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB	1.0	2200	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QY7	1.0	2204	X	X	X	X	X	X	X	X	X	X		X	X	X		X	X	X	X	X	X	X	X			
ME2QY8	1.0	2208	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ME2QY9	1.0	2211	X	X	X	X	X	X	X	X	X	X		X	X	X		X	X	X	X	X	X	X	X			
ZZZZZZ	1.0	2215																										
ZZZZZZ	1.0	2219																										
ZZZZZZ	1.0	2222																										
[illegible]ZZ	1.0	2226																										
[illegible]	1.0	2229	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSA	1.0	2233	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
ICSAB	1.0	2236	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCV	1.0	2240	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			
CCB	1.0	2243	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X			

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ANALYSIS RUN LOG

Lab Name: A4 Scientific, Inc. Contract: EPW08063

Lab Code: A4 Case No.: 39095 NRAS No.: SDG No.: ME2QX7

Instrument ID: B-ICAP6500 Analysis Method: P

Start Date: 10/21/2009 End Date: 10/21/2009

EPA Sample NO.	D/F	Time	Analytes																								
			AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN		
S0	1.0	1214							X				X														
S	1.0	1217							X				X														
ICV	1.0	1221							X				X														
ICB	1.0	1224							X				X														
CRI	1.0	1228							X				X														
ICSA	1.0	1231							X				X														
ICSAB	1.0	1235							X				X														
CCV	1.0	1238							X				X														
CCB	1.0	1242							X				X														
ZZZZZZ	1.0	1245																									
ZZZZZZ	1.3	1249																									
ZZZZZZ	2.7	1252																									
ZZZZZZ	2.8	1256																									
ZZZZZZ	1.3	1300																									
ME2QY6	4.6	1303							X																		
ME2QY7	1.8	1307											X														
ME2QY9	1.4	1310											X														
ZZZZZZ	1.0	1314																									
ZZZZZZ	1.0	1318																									
CCV	1.0	1321							X				X														
CCB	1.0	1325							X				X														
ZZZZZZ	1.0	1328																									
ZZZZZZ	1.0	1332																									
ZZZZZZ	1.0	1335																									
ZZZZZZ	1.0	1339																									
ZZZZZZ	1.0	1343																									
ZZZZZZ	1.0	1346																									
CRI	1.0	1350							X				X														
ICSA	1.0	1353							X				X														
ICSAB	1.0	1357							X				X														
CCV	1.0	1400																									
CCB	1.0	[illegible]																									

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

Sample Delivery Group: ME2QX4 CERCLIS No: IND980904379

Case No: 39095 Site Name/Location: Beck's Lake Site (IN)

Contractor or EPA Lab: A4 Scientific Data User: IDEM

No. of Samples: 13 Date Sampled or Date Received: 23 Oct 09

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

_____ _____ _____ _____

_____ _____ _____ _____

Are basic data forms in? Yes X No _____
No of samples claimed: 13 No. of samples received: _____

Received by: Pat A Joeyner Date: 23 Oct 09

Received by LSSS: Pat A Joeyner Date: 24 Oct 09

view started: 11-9-09 Reviewer Signature: [signature]

Total time spent on review: 7 +1 Date review completed: 11-10-09

Copied by: A. C. Harvey Date: Nov 12, 2009

Mailed to user by: Pat A Joeyner Date: 12 NOV 09

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

Data received by: _____ Date: _____

Data review received by: _____ Date: _____

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

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

_____

_____

Received by Data Mgmt. Coordinator: _____ Date: _____