0095869

SAF-RC-154
618-10 & 618-11 Field Remediation – Soil In-Process
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

Kathy Wendt H4-21 KW 4/18/11
INITIAL/DATE

RECEIVED
APR 21 2011
EDMC

COMMENTS:

SDG J01038 SAF-RC-154

Rad only ☑ Chem only Rad & Chem

☑ Complete Partial

Sample Location/Waste Site: 618-10 N. Surge Trench Soil

Analytical Data Package Prepared For

Washington Closure Hanford

Analysis Provided By

TestAmerica Richland
2800 George Washington Way
Richland WA, 99354
(509)375-3131
Assigned Laboratory Code: TARL

SDG Number:J01038

Data Package Contains 25 Pages

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Certificate of Analysis

TestAmerica Laboratories, Inc.

Washington Closure Hanford
2620 Fermi Avenue
Richland, WA 99354

April 15, 2011

Attention: Joan Kessner

SAF Number	:	RC-154
Date SDG Closed	:	March 31, 2011
Number of Samples	:	Fourteen (14)
Sample Type	:	Soil
SDG Number	:	J01038
Data Deliverable	:	Quick Turn Metals / Summary

CASE NARRATIVE

I. Introduction

Between March 22, 2011 and March 28, 2011, fourteen soil samples were received at TestAmerica for ICP metals analysis. Upon receipt, the samples were assigned the following laboratory ID numbers to correspond with the Washington Closure Hanford (WCH) specific ID;

WCH ID#	TARL ID#	MATRIX	DATE OF RECEIPT
J1C154	MF0TD	SOIL	03/22/11
J1C155	MF0TP	SOIL	03/22/11
J1C156	MF3LK	SOIL	03/23/11
J1C157	MF3LQ	SOIL	03/23/11
J1C158	MF3LX	SOIL	03/23/11
J1C159	MF51T	SOIL	03/24/11
J1C160	MF51W	SOIL	03/24/11
J1C161	MF511	SOIL	03/24/11
J1C162	MF5QM	SOIL	03/28/11
J1C163	MF9QN	SOIL	03/28/11
J1C164	MF9QP	SOIL	03/28/11
J1C165	MF9QQ	SOIL	03/28/11
J1C166	MFTQR	SOIL	03/28/11
J1C167	MF9QT	SOIL	03/28/11

II. Sample Receipt

The samples were received in good condition and no anomalies were noted during check-in.

III. Analytical Results/Methodology

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information, analytical results and the appropriate associated statistical errors. The requested analyses were:

ICP Metals
ICP Metals by method SW-846 6010A

IV. Quality Control

SDG J01038 includes a minimum of one Laboratory Control Samples (LCS) and one method (reagent) blank. A duplicate sample, matrix spike sample and a matrix spike duplicate sample will be analyzed per 20 samples or per month, whichever is more frequent. Any exceptions have been noted in the "Comments" section.

Blanks and LCS are reported in mg/L units, other QC and sample results are reported in the same units.

V. Comments

ICP Metals
ICP Metals by method SW-846 6010A
Four batches were analyzed in March 2011 for samples with the standard metal request list.

Batch 1082413:
Barium exceeded the acceptance criteria in the LCS and ICV. All other batch QC is within the acceptance criteria. Except as noted; the LCS, batch blank, samples, sample duplicate, MS, MSD, ICB, ICV, CCB and CCV results are within contractual limits.

Batch 1082414:
The LCS, batch blank, samples, sample duplicate, MS, MSD, ICB, ICV, CCB and CCV results are within contractual limits.

Batch 1084136:
The final CCV for Cadmium and Selenium was below the acceptance criteria. All other batch QC is within the acceptance criteria. Except as noted; he LCS, batch blank, samples, sample duplicate, MS, MSD, ICB, ICV, CCB and CCV results are within contractual limits.

Batch 1087397:
The initial run indicated a high Barium result in all the batch QC and samples. The batch was reanalyzed; the second run indicated Barium contamination and the Silver, Barium and Selenium was not within the acceptance criteria on the ICV and CCV. An investigation determined that the Barium contamination originated from the syringe filter that was used during the analysis. The failure of the ICV and CCV is under investigation. All other batch QC is within the acceptance criteria. Except as noted; he LCS, batch blank, samples, sample duplicate, MS, MSD, ICB, ICV, CCB and CCV results are within contractual limits.

I certify that this Certificate of Analysis is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager, or a designee as verified by the following signature.

Reviewed and approved:

Rhonda Wagar
Project Manager

SDG: J01038
SAF: RC-154
BATCH: 1082413
MATRIX: SOIL
ANALYSIS DATE: 3/26/11

Client_id	Matrix	Result_typ	Cas_nbr	Parameter	Result	Qualifier	Units	Reporting_	Reporting_	Uncertainty_	Analyzed_s	Analyzed_s	Decision_level_I	LCS	Recovery	AddedAmount	Analysis_date_tin	Batch_nbr	Test_Method	Lab_sampi
J1C154	SOIL		7440-38-2	Arsenic	2.90E+00		UG/G	7.33E-01	7.33E-01	2.60E+00	0.2524	G	2.11E+00				3/26/2011 15:49	1082413	46DQ	MF0TD1
J1C154	SOIL		7440-39-3	Barium	3.90E+01		UG/G	1.19E-01	1.19E-01	2.70E-01	0.2524	G	2.25E-01				3/26/2011 15:49	1082413	46DQ	MF0TD1
J1C154	SOIL		7440-41-7	Beryllium	2.30E-01		UG/G	5.94E-02	5.94E-02	4.40E-02	0.2524	G	3.58E-02				3/26/2011 15:49	1082413	46DQ	MF0TD1
J1C154	SOIL		7440-43-9	Cadmium	1.61E+00		UG/G	7.92E-02	7.92E-02	2.80E-01	0.2524	G	2.31E-01				3/26/2011 15:49	1082413	46DQ	MF0TD1
J1C154	SOIL		7440-47-3	Chromium	6.35E+00		UG/G	1.58E-01	1.58E-01	2.10E+00	0.2524	G	1.76E+00				3/26/2011 15:49	1082413	46DQ	MF0TD1
J1C154	SOIL		7439-92-1	Lead	1.06E+01		UG/G	5.74E-01	5.74E-01	2.10E+00	0.2524	G	1.73E+00				3/26/2011 15:49	1082413	46DQ	MF0TD1
J1C154	SOIL		7782-49-2	Selenium	1.55E+00	U	UG/G	1.01E+00	1.01E+00	5.50E+00	0.2524	G	4.54E+00				3/26/2011 15:49	1082413	46DQ	MF0TD1
J1C154	SOIL		7440-22-4	Silver	-1.73E+00	U	UG/G	1.58E-01	1.58E-01	1.60E+00	0.2524	G	1.32E+00				3/26/2011 15:49	1082413	46DQ	MF0TD1
J1C155	SOIL		7440-38-2	Arsenic	2.00E+00	U	UG/G	7.32E-01	7.32E-01	2.50E+00	0.2526	G	2.08E+00				3/26/2011 16:10	1082413	46DQ	MF0TP1
J1C155	SOIL		7440-39-3	Barium	7.23E+01		UG/G	1.19E-01	1.19E-01	3.00E-01	0.2526	G	2.51E-01				3/26/2011 16:10	1082413	46DQ	MF0TP1
J1C155	SOIL		7440-41-7	Beryllium	4.16E-01		UG/G	5.94E-02	5.94E-02	2.00E-02	0.2526	G	1.63E-02				3/26/2011 16:10	1082413	46DQ	MF0TP1
J1C155	SOIL		7440-43-9	Cadmium	2.24E+00		UG/G	7.92E-02	7.92E-02	4.60E-01	0.2526	G	3.78E-01				3/26/2011 16:10	1082413	46DQ	MF0TP1
J1C155	SOIL		7440-47-3	Chromium	9.63E+00		UG/G	1.58E-01	1.58E-01	4.60E-01	0.2526	G	3.78E-01				3/26/2011 16:10	1082413	46DQ	MF0TP1
J1C155	SOIL		7439-92-1	Lead	1.04E+01		UG/G	5.74E-01	5.74E-01	3.30E+00	0.2526	G	2.74E+00				3/26/2011 16:10	1082413	46DQ	MF0TP1
J1C155	SOIL		7782-49-2	Selenium	3.22E+00	U	UG/G	1.01E+00	1.01E+00	3.30E+00	0.2526	G	2.75E+00				3/26/2011 16:10	1082413	46DQ	MF0TP1
J1C155	SOIL		7440-22-4	Silver	-3.41E+00	U	UG/G	1.58E-01	1.58E-01	1.40E-01	0.2526	G	1.14E-01				3/26/2011 16:10	1082413	46DQ	MF0TP1
INTRA-LAB BLANK	SOIL	BLK	7440-38-2	Arsenic	-1.56E-03	U	MG/L			6.60E-03		L	5.44E-03				3/26/2011 15:39	1082413	46DQ	MF3591B
INTRA-LAB BLANK	SOIL	BLK	7440-39-3	Barium	3.60E-04	U	MG/L			2.30E-03		L	1.91E-03				3/26/2011 15:39	1082413	46DQ	MF3591B
INTRA-LAB BLANK	SOIL	BLK	7440-41-7	Beryllium	3.50E-04		MG/L			8.00E-05		L	6.58E-05				3/26/2011 15:39	1082413	46DQ	MF3591B
INTRA-LAB BLANK	SOIL	BLK	7440-43-9	Cadmium	5.60E-04	U	MG/L			1.90E-03		L	1.53E-03				3/26/2011 15:39	1082413	46DQ	MF3591B
INTRA-LAB BLANK	SOIL	BLK	7440-47-3	Chromium	2.20E-04	U	MG/L			6.00E-03		L	4.92E-03				3/26/2011 15:39	1082413	46DQ	MF3591B
INTRA-LAB BLANK	SOIL	BLK	7439-92-1	Lead	1.33E-02	U	MG/L			2.10E-02		L	1.74E-02				3/26/2011 15:39	1082413	46DQ	MF3591B
INTRA-LAB BLANK	SOIL	BLK	7782-49-2	Selenium	-1.00E-04	U	MG/L			3.10E-02		L	2.56E-02				3/26/2011 15:39	1082413	46DQ	MF3591B
INTRA-LAB BLANK	SOIL	BLK	7440-22-4	Silver	-2.64E-03	U	MG/L			9.60E-03		L	7.90E-03				3/26/2011 15:39	1082413	46DQ	MF3591B
INTRA-LAB CHECK	SOIL	LCS	7440-38-2	Arsenic	9.45E-01		MG/L			2.00E-02		L	1.63E-02	0.94		1	3/26/2011 15:44	1082413	46DQ	MF3591C
INTRA-LAB CHECK	SOIL	LCS	7440-39-3	Barium	7.25E-01		MG/L			2.20E-02		L	1.78E-02	0.73		1	3/26/2011 15:44	1082413	46DQ	MF3591C
INTRA-LAB CHECK	SOIL	LCS	7440-41-7	Beryllium	9.44E-01		MG/L			1.10E-02		L	8.75E-03	0.94		1	3/26/2011 15:44	1082413	46DQ	MF3591C
INTRA-LAB CHECK	SOIL	LCS	7440-43-9	Cadmium	8.81E-01		MG/L			5.60E-03		L	4.61E-03	0.88		1	3/26/2011 15:44	1082413	46DQ	MF3591C
INTRA-LAB CHECK	SOIL	LCS	7440-47-3	Chromium	7.70E-01		MG/L			8.00E-03		L	6.60E-03	0.77		1	3/26/2011 15:44	1082413	46DQ	MF3591C
INTRA-LAB CHECK	SOIL	LCS	7439-92-1	Lead	8.34E-01		MG/L			3.20E-03		L	2.65E-03	0.83		1	3/26/2011 15:44	1082413	46DQ	MF3591C
INTRA-LAB CHECK	SOIL	LCS	7782-49-2	Selenium	8.89E-01		MG/L			3.10E-02		L	2.57E-02	0.89		1	3/26/2011 15:44	1082413	46DQ	MF3591C
INTRA-LAB CHECK	SOIL	LCS	7440-22-4	Silver	8.50E-01		MG/L			1.20E-02		L	9.72E-03	0.85		1	3/26/2011 15:44	1082413	46DQ	MF3591C
J1C154 DUP	SOIL	DUP	7440-38-2	Arsenic	4.81E-01	U	UG/G	7.26E-01	7.26E-01	1.10E+00	0.2547	G	9.27E-01				3/26/2011 16:05	1082413	46DQ	MF0TD1X
J1C154 DUP	SOIL	DUP	7440-39-3	Barium	4.69E+01		UG/G	1.18E-01	1.18E-01	1.60E-01	0.2547	G	1.32E-01				3/26/2011 16:05	1082413	46DQ	MF0TD1X
J1C154 DUP	SOIL	DUP	7440-41-7	Beryllium	2.57E-01		UG/G	5.89E-02	5.89E-02	1.20E-02	0.2547	G	9.69E-03				3/26/2011 16:05	1082413	46DQ	MF0TD1X
J1C154 DUP	SOIL	DUP	7440-43-9	Cadmium	2.11E+00		UG/G	7.85E-02	7.85E-02	5.00E-01	0.2547	G	4.10E-01				3/26/2011 16:05	1082413	46DQ	MF0TD1X
J1C154 DUP	SOIL	DUP	7440-47-3	Chromium	4.96E+00		UG/G	1.57E-01	1.57E-01	1.50E+00	0.2547	G	1.24E+00				3/26/2011 16:05	1082413	46DQ	MF0TD1X
J1C154 DUP	SOIL	DUP	7439-92-1	Lead	7.52E+00		UG/G	5.69E-01	5.69E-01	1.80E+00	0.2547	G	1.48E+00				3/26/2011 16:05	1082413	46DQ	MF0TD1X
J1C154 DUP	SOIL	DUP	7782-49-2	Selenium	1.21E+00	U	UG/G	1.00E+00	1.00E+00	1.90E+00	0.2547	G	1.57E+00				3/26/2011 16:05	1082413	46DQ	MF0TD1X
J1C154 DUP	SOIL	DUP	7440-22-4	Silver	-3.05E+00	U	UG/G	1.57E-01	1.57E-01	1.20E+00	0.2547	G	9.75E-01				3/26/2011 16:05	1082413	46DQ	MF0TD1X
J1C154	SOIL	MSD	7440-38-2	Arsenic	1.96E+02		% RECOVI	7.24E-01	7.24E-01	3.20E+00	0.2554	L	2.60E+00	1		195.8	3/26/2011 16:00	1082413	46DQ	MF0TD1D
J1C154	SOIL	MSD	7440-39-3	Barium	1.73E+02		% RECOVI	1.17E-01	1.17E-01	1.70E+00	0.2554	L	1.38E+00	0.88		195.8	3/26/2011 16:00	1082413	46DQ	MF0TD1D
J1C154	SOIL	MSD	7440-41-7	Beryllium	1.96E+02		% RECOVI	5.87E-02	5.87E-02	7.60E-01	0.2554	L	6.28E-01	1		195.8	3/26/2011 16:00	1082413	46DQ	MF0TD1D
J1C154	SOIL	MSD	7440-43-9	Cadmium	1.95E+02		% RECOVI	7.83E-02	7.83E-02	1.20E+00	0.2554	L	1.01E+00	1		195.8	3/26/2011 16:00	1082413	46DQ	MF0TD1D
J1C154	SOIL	MSD	7440-47-3	Chromium	1.76E+02		% RECOVI	1.57E-01	1.57E-01	3.50E+00	0.2554	L	2.87E+00	0.9		195.8	3/26/2011 16:00	1082413	46DQ	MF0TD1D
J1C154	SOIL	MSD	7439-92-1	Lead	1.84E+02		% RECOVI	5.68E-01	5.68E-01	8.00E-01	0.2554	L	6.60E-01	0.94		195.8	3/26/2011 16:00	1082413	46DQ	MF0TD1D
J1C154	SOIL	MSD	7782-49-2	Selenium	1.82E+02		% RECOVI	9.98E-01	9.98E-01	2.40E+00	0.2554	L	2.01E+00	0.93		195.8	3/26/2011 16:00	1082413	46DQ	MF0TD1D
J1C154	SOIL	MSD	7440-22-4	Silver	1.89E+02		% RECOVI	1.57E-01	1.57E-01	1.20E+00	0.2554	L	9.89E-01	0.96		195.8	3/26/2011 16:00	1082413	46DQ	MF0TD1D
J1C154	SOIL	MS	7440-38-2	Arsenic	2.02E+02		% RECOVI	7.36E-01	7.36E-01	2.80E+00	0.2514	L	2.32E+00	1.01		198.9	3/26/2011 15:54	1082413	46DQ	MF0TD1S
J1C154	SOIL	MS	7440-39-3	Barium	1.83E+02		% RECOVI	1.19E-01	1.19E-01	1.20E+01	0.2514	L	9.50E+00	0.92		198.9	3/26/2011 15:54	1082413	46DQ	MF0TD1S
J1C154	SOIL	MS	7440-41-7	Beryllium	2.01E+02		% RECOVI	5.97E-02	5.97E-02	4.40E+00	0.2514	L	3.60E+00	1.01		198.9	3/26/2011 15:54	1082413	46DQ	MF0TD1S
J1C154	SOIL	MS	7440-43-9	Cadmium	1.99E+02		% RECOVI	7.96E-02	7.96E-02	2.40E+00	0.2514	L	2.00E+00	1		198.9	3/26/2011 15:54	1082413	46DQ	MF0TD1S
J1C154	SOIL	MS	7440-47-3	Chromium	1.77E+02		% RECOVI	1.59E-01	1.59E-01	3.40E+00	0.2514	L	2.79E+00	0.89		198.9	3/26/2011 15:54	1082413	46DQ	MF0TD1S
J1C154	SOIL	MS	7439-92-1	Lead	1.84E+02		% RECOVI	5.77E-01	5.77E-01	9.20E+00	0.2514	L	7.53E+00	0.92		198.9	3/26/2011 15:54	1082413	46DQ	MF0TD1S
J1C154	SOIL	MS	7782-49-2	Selenium	1.87E+02		% RECOVI	1.01E+00	1.01E+00	9.00E+00	0.2514	L	7.39E+00	0.94		198.9	3/26/2011 15:54	1082413	46DQ	MF0TD1S
J1C154	SOIL	MS	7440-22-4	Silver	1.85E+02		% RECOVI	1.59E-01	1.59E-01	9.20E+00	0.2514	L	7.58E+00	0.93		198.9	3/26/2011 15:54	1082413	46DQ	MF0TD1S

SDG: J01038
SAF: RC-154
BATCH: 182414
MATRIX: SOIL
ANALYSIS DATE: 3/26/11

Client_id	Matrix	Result_typ	Cas_nbr	Parameter	Result	Qualifier	Units	Reportin...	Limit	Uncer...	Analyzed_	Analyzed_	Decision_levi	LCSRecov	AddedAmo	Analysis_d	Batch_nbr	Test_Method	Lab_sample_id
J1C156	SOIL		7440-38-2	Arsenic	-0.2	U	UG/G	0...	0.66	1.8	0.272	G	1.51			40628.7	1082414	46DQ	MF3LK1
J1C156	SOIL		7440-39-3	Barium	68.7		UG/G	0.11	0.11	0.96	0.272	G	0.789			40628.7	1082414	46DQ	MF3LK1
J1C156	SOIL		7440-41-7	Beryllium	0.199		UG/G	0.0551	0.0551	0.015	0.272	G	0.0121			40628.7	1082414	46DQ	MF3LK1
J1C156	SOIL		7440-43-9	Cadmium	2.95		UG/G	0.0735	0.0735	0.46	0.272	G	0.375			40628.7	1082414	46DQ	MF3LK1
J1C156	SOIL		7440-47-3	Chromium	4.58		UG/G	0.147	0.147	1.5	0.272	G	1.22			40628.7	1082414	46DQ	MF3LK1
J1C156	SOIL		7439-92-1	Lead	6.74		UG/G	0.533	0.533	3.4	0.272	G	2.82			40628.7	1082414	46DQ	MF3LK1
J1C156	SOIL		7782-49-2	Selenium	2.23	U	UG/G	0.938	0.938	4.6	0.272	G	3.74			40628.7	1082414	46DQ	MF3LK1
J1C156	SOIL		7440-22-4	Silver	-5.24	U	UG/G	0.147	0.147	0.45	0.272	G	0.369			40628.7	1082414	46DQ	MF3LK1
J1C157	SOIL		7440-38-2	Arsenic	-0.122	U	UG/G	0.697	0.697	0.73	0.2654	G	0.601			40628.73	1082414	46DQ	MF3LQ1
J1C157	SOIL		7440-39-3	Barium	62.9		UG/G	0.113	0.113	0.37	0.2654	G	0.307			40628.73	1082414	46DQ	MF3LQ1
J1C157	SOIL		7440-41-7	Beryllium	0.187		UG/G	0.0565	0.0565	0.011	0.2654	G	0.0093			40628.73	1082414	46DQ	MF3LQ1
J1C157	SOIL		7440-43-9	Cadmium	3.22		UG/G	0.0754	0.0754	0.63	0.2654	G	0.518			40628.73	1082414	46DQ	MF3LQ1
J1C157	SOIL		7440-47-3	Chromium	5.1		UG/G	0.151	0.151	1.1	0.2654	G	0.874			40628.73	1082414	46DQ	MF3LQ1
J1C157	SOIL		7439-92-1	Lead	5.78		UG/G	0.546	0.546	2.3	0.2654	G	1.92			40628.73	1082414	46DQ	MF3LQ1
J1C157	SOIL		7782-49-2	Selenium	1.16	U	UG/G	0.961	0.961	3.7	0.2654	G	3.05			40628.73	1082414	46DQ	MF3LQ1
J1C157	SOIL		7440-22-4	Silver	-4.73	U	UG/G	0.151	0.151	0.44	0.2654	G	0.366			40628.73	1082414	46DQ	MF3LQ1
J1C158	SOIL		7440-38-2	Arsenic	-0.0905	U	UG/G	0.644	0.644	2	0.2872	G	1.67			40628.73	1082414	46DQ	MF3LX1
J1C158	SOIL		7440-39-3	Barium	67		UG/G	0.104	0.104	0.65	0.2872	G	0.536			40628.73	1082414	46DQ	MF3LX1
J1C158	SOIL		7440-41-7	Beryllium	0.178		UG/G	0.0522	0.0522	0.021	0.2872	G	0.0172			40628.73	1082414	46DQ	MF3LX1
J1C158	SOIL		7440-43-9	Cadmium	3.1		UG/G	0.0696	0.0696	0.44	0.2872	G	0.361			40628.73	1082414	46DQ	MF3LX1
J1C158	SOIL		7440-47-3	Chromium	5.13		UG/G	0.139	0.139	1.2	0.2872	G	0.971			40628.73	1082414	46DQ	MF3LX1
J1C158	SOIL		7439-92-1	Lead	7.57		UG/G	0.505	0.505	2.6	0.2872	G	2.13			40628.73	1082414	46DQ	MF3LX1
J1C158	SOIL		7782-49-2	Selenium	1.93		UG/G	0.888	0.888	0.84	0.2872	G	0.693			40628.73	1082414	46DQ	MF3LX1
J1C158	SOIL		7440-22-4	Silver	-4.98	U	UG/G	0.139	0.139	0.35	0.2872	G	0.286			40628.73	1082414	46DQ	MF3LX1
INTRA-LAB BLANK	SOIL	BLK	7440-38-2	Arsenic	-0.00443	U	MG/L			0.0058		L	0.00479			40628.7	1082414	46DQ	MF36C1B
INTRA-LAB BLANK	SOIL	BLK	7440-39-3	Barium	0.00009	U	MG/L			0.0018		L	0.00148			40628.7	1082414	46DQ	MF36C1B
INTRA-LAB BLANK	SOIL	BLK	7440-41-7	Beryllium	-0.00024	U	MG/L			0		L	0			40628.7	1082414	46DQ	MF36C1B
INTRA-LAB BLANK	SOIL	BLK	7440-43-9	Cadmium	0.00018	U	MG/L			0.0024		L	0.00196			40628.7	1082414	46DQ	MF36C1B
INTRA-LAB BLANK	SOIL	BLK	7440-47-3	Chromium	-0.0023	U	MG/L			0.0054		L	0.00441			40628.7	1082414	46DQ	MF36C1B
INTRA-LAB BLANK	SOIL	BLK	7439-92-1	Lead	0.0156		MG/L			0.0099		L	0.00811			40628.7	1082414	46DQ	MF36C1B
INTRA-LAB BLANK	SOIL	BLK	7782-49-2	Selenium	0.00669	U	MG/L			0.023		L	0.0185			40628.7	1082414	46DQ	MF36C1B
INTRA-LAB BLANK	SOIL	BLK	7440-22-4	Silver	-0.00419	U	MG/L			0.0031		L	0.00252			40628.7	1082414	46DQ	MF36C1B
INTRA-LAB CHECK	SOIL	LCS	7440-38-2	Arsenic	1.04		MG/L			0.0064		L	0.00525	1.04	1	40628.7	1082414	46DQ	MF36C1C
INTRA-LAB CHECK	SOIL	LCS	7440-39-3	Barium	0.906		MG/L			0.0032		L	0.0026	0.91	1	40628.7	1082414	46DQ	MF36C1C
INTRA-LAB CHECK	SOIL	LCS	7440-41-7	Beryllium	1.03		MG/L			0.0022		L	0.00181	1.03	1	40628.7	1082414	46DQ	MF36C1C
INTRA-LAB CHECK	SOIL	LCS	7440-43-9	Cadmium	1		MG/L			0.0038		L	0.00316	1	1	40628.7	1082414	46DQ	MF36C1C
INTRA-LAB CHECK	SOIL	LCS	7440-47-3	Chromium	0.944		MG/L			0.002		L	0.00166	0.94	1	40628.7	1082414	46DQ	MF36C1C
INTRA-LAB CHECK	SOIL	LCS	7439-92-1	Lead	0.998		MG/L			0.03		L	0.025	1	1	40628.7	1082414	46DQ	MF36C1C
INTRA-LAB CHECK	SOIL	LCS	7782-49-2	Selenium	0.965		MG/L			0.025		L	0.0204	0.96	1	40628.7	1082414	46DQ	MF36C1C
INTRA-LAB CHECK	SOIL	LCS	7440-22-4	Silver	1		MG/L			0.0094		L	0.00775	1	1	40628.7	1082414	46DQ	MF36C1C
J1C156 DUP	SOIL	DUP	7440-38-2	Arsenic	-0.258	U	UG/G	0.592	0.592	1.8	0.3125	G	1.47			40628.71	1082414	46DQ	MF3LK1X
J1C156 DUP	SOIL	DUP	7440-39-3	Barium	144		UG/G	0.096	0.096	1	0.3125	G	0.819			40628.71	1082414	46DQ	MF3LK1X
J1C156 DUP	SOIL	DUP	7440-41-7	Beryllium	0.21		UG/G	0.048	0.048	0.019	0.3125	G	0.0158			40628.71	1082414	46DQ	MF3LK1X
J1C156 DUP	SOIL	DUP	7440-43-9	Cadmium	3.07		UG/G	0.064	0.064	0.29	0.3125	G	0.237			40628.71	1082414	46DQ	MF3LK1X
J1C156 DUP	SOIL	DUP	7440-47-3	Chromium	5.04		UG/G	0.128	0.128	1.8	0.3125	G	1.48			40628.71	1082414	46DQ	MF3LK1X
J1C156 DUP	SOIL	DUP	7439-92-1	Lead	7.73		UG/G	0.464	0.464	1.8	0.3125	G	1.44			40628.71	1082414	46DQ	MF3LK1X
J1C156 DUP	SOIL	DUP	7782-49-2	Selenium	2.99		UG/G	0.816	0.816	2.7	0.3125	G	2.23			40628.71	1082414	46DQ	MF3LK1X
J1C156 DUP	SOIL	DUP	7440-22-4	Silver	-4.85	U	UG/G	0.128	0.128	0.39	0.3125	G	0.324			40628.71	1082414	46DQ	MF3LK1X
J1C156	SOIL	MSD	7440-38-2	Arsenic	155		% RECOV	0.59	0.59	2.1	0.3137	L	1.73	0.97	159.4	40628.71	1082414	46DQ	MF3LK1D
J1C156	SOIL	MSD	7440-39-3	Barium	157		% RECOV	0.0956	0.0956	1.2	0.3137	L	0.983	0.98	159.4	40628.71	1082414	46DQ	MF3LK1D
J1C156	SOIL	MSD	7440-41-7	Beryllium	156		% RECOV	0.0478	0.0478	0.65	0.3137	L	0.532	0.98	159.4	40628.71	1082414	46DQ	MF3LK1D
J1C156	SOIL	MSD	7440-43-9	Cadmium	159		% RECOV	0.0638	0.0638	0.76	0.3137	L	0.624	1	159.4	40628.71	1082414	46DQ	MF3LK1D
J1C156	SOIL	MSD	7440-47-3	Chromium	154		% RECOV	0.128	0.128	1.7	0.3137	L	1.4	0.96	159.4	40628.71	1082414	46DQ	MF3LK1D
J1C156	SOIL	MSD	7439-92-1	Lead	163		% RECOV	0.462	0.462	3.8	0.3137	L	3.09	1.02	159.4	40628.71	1082414	46DQ	MF3LK1D
J1C156	SOIL	MSD	7782-49-2	Selenium	146		% RECOV	0.813	0.813	6.3	0.3137	L	5.14	0.92	159.4	40628.71	1082414	46DQ	MF3LK1D
J1C156	SOIL	MSD	7440-22-4	Silver	165		% RECOV	0.128	0.128	2.1	0.3137	L	1.69	1.03	159.4	40628.71	1082414	46DQ	MF3LK1D
J1C156	SOIL	MS	7440-38-2	Arsenic	193		% RECOV	0.72	0.72	2.1	0.2568	L	1.7	0.99	194.7	40628.71	1082414	46DQ	MF3LK1S
J1C156	SOIL	MS	7440-39-3	Barium	175		% RECOV	0.117	0.117	3.9	0.2568	L	3.23	0.9	194.7	40628.71	1082414	46DQ	MF3LK1S
J1C156	SOIL	MS	7440-41-7	Beryllium	194		% RECOV	0.0584	0.0584	1.2	0.2568	L	1.02	1	194.7	40628.71	1082414	46DQ	MF3LK1S
J1C156	SOIL	MS	7440-43-9	Cadmium	197		% RECOV	0.0779	0.0779	1.4	0.2568	L	1.11	1.01	194.7	40628.71	1082414	46DQ	MF3LK1S
J1C156	SOIL	MS	7440-47-3	Chromium	190		% RECOV	0.156	0.156	0.86	0.2568	L	0.711	0.98	194.7	40628.71	1082414	46DQ	MF3LK1S
J1C156	SOIL	MS	7439-92-1	Lead	200		% RECOV	0.565	0.565	2	0.2568	L	1.63	1.03	194.7	40628.71	1082414	46DQ	MF3LK1S
J1C156	SOIL	MS	7782-49-2	Selenium	181		% RECOV	0.993	0.993	2.6	0.2568	L	2.16	0.93	194.7	40628.71	1082414	46DQ	MF3LK1S
J1C156	SOIL	MS	7440-22-4	Silver	202		% RECOV	0.156	0.156	2.3	0.2568	L	1.91	1.04	194.7	40628.71	1082414	46DQ	MF3LK1S

SDG: J01038
SAF: RC-154
BATCH: 1084136
MATRIX: SOIL

Client_id	Matrix	Result_	Cas_nbr	Parameter	Result	Qualifier	Units	Reporting_L	Reporting_L	Uncertaint	Analyzed_	Analyzed	Decision_le	LCS Recov	Added Am	Analysis_date_tir	Batch_nbr	Test_Meth	Lab_sample_id
J1C159	SOIL		7440-38-2	Arsenic	-0.0169	U	UG/G	0.693	0.693	1.6	0.2669	G	1.33			40628.75417	1084136	46DQ	MF51T1
J1C159	SOIL		7440-39-3	Barium	60.4		UG/G	0.112	0.112	0.82	0.2669	G	0.675			40628.75417	1084136	46DQ	MF51T1
J1C159	SOIL		7440-41-7	Beryllium	0.197		UG/G	0.0562	0.0562	0.015	0.2669	G	0.0123			40628.75417	1084136	46DQ	MF51T1
J1C159	SOIL		7440-43-9	Cadmium	3.11		UG/G	0.0749	0.0749	0.33	0.2669	G	0.268			40628.75417	1084136	46DQ	MF51T1
J1C159	SOIL		7440-47-3	Chromium	6.59		UG/G	0.15	0.15	0.43	0.2669	G	0.351			40628.75417	1084136	46DQ	MF51T1
J1C159	SOIL		7439-92-1	Lead	6.62		UG/G	0.543	0.543	4.8	0.2669	G	3.95			40628.75417	1084136	46DQ	MF51T1
J1C159	SOIL		7782-49-2	Selenium	2.38	U	UG/G	0.955	0.955	6	0.2669	G	4.9			40628.75417	1084136	46DQ	MF51T1
J1C159	SOIL		7440-22-4	Silver	-4.74	U	UG/G	0.15	0.15	0.77	0.2669	G	0.632			40628.75417	1084136	46DQ	MF51T1
J1C160	SOIL		7440-38-2	Arsenic	0.255	U	UG/G	0.451	0.451	0.044	0.4101	G	0.0361			40628.77639	1084136	46DQ	MF51W1
J1C160	SOIL		7440-39-3	Barium	72.5		UG/G	0.0732	0.0732	0.83	0.4101	G	0.686			40628.77639	1084136	46DQ	MF51W1
J1C160	SOIL		7440-41-7	Beryllium	0.19		UG/G	0.0366	0.0366	0.0098	0.4101	G	0.00802			40628.77639	1084136	46DQ	MF51W1
J1C160	SOIL		7440-43-9	Cadmium	3.29		UG/G	0.0488	0.0488	0.32	0.4101	G	0.267			40628.77639	1084136	46DQ	MF51W1
J1C160	SOIL		7440-47-3	Chromium	4.37		UG/G	0.0975	0.0975	0.73	0.4101	G	0.604			40628.77639	1084136	46DQ	MF51W1
J1C160	SOIL		7439-92-1	Lead	5.08		UG/G	0.354	0.354	3.2	0.4101	G	2.59			40628.77639	1084136	46DQ	MF51W1
J1C160	SOIL		7782-49-2	Selenium	2.43		UG/G	0.622	0.622	0.94	0.4101	G	0.77			40628.77639	1084136	46DQ	MF51W1
J1C160	SOIL		7440-22-4	Silver	-4.97	U	UG/G	0.0975	0.0975	0.52	0.4101	G	0.425			40628.77639	1084136	46DQ	MF51W1
J1C161	SOIL		7440-38-2	Arsenic	-0.331	U	UG/G	0.586	0.586	2.4	0.3158	G	2			40628.77986	1084136	46DQ	MF5111
J1C161	SOIL		7440-39-3	Barium	64.8		UG/G	0.095	0.095	1.2	0.3158	G	0.992			40628.77986	1084136	46DQ	MF5111
J1C161	SOIL		7440-41-7	Beryllium	0.177		UG/G	0.0475	0.0475	0.025	0.3158	G	0.0208			40628.77986	1084136	46DQ	MF5111
J1C161	SOIL		7440-43-9	Cadmium	3.18		UG/G	0.0633	0.0633	0.2	0.3158	G	0.167			40628.77986	1084136	46DQ	MF5111
J1C161	SOIL		7440-47-3	Chromium	6.2		UG/G	0.127	0.127	0.54	0.3158	G	0.448			40628.77986	1084136	46DQ	MF5111
J1C161	SOIL		7439-92-1	Lead	6.74		UG/G	0.459	0.459	4.3	0.3158	G	3.52			40628.77986	1084136	46DQ	MF5111
J1C161	SOIL		7782-49-2	Selenium	1.91	U	UG/G	0.807	0.807	5	0.3158	G	4.12			40628.77986	1084136	46DQ	MF5111
J1C161	SOIL		7440-22-4	Silver	-4.46	U	UG/G	0.127	0.127	0.56	0.3158	G	0.461			40628.77986	1084136	46DQ	MF5111
INTRA-LAB BL	SOIL	BLK	7440-38-2	Arsenic	-0.00893	U	MG/L			0.014		L	0.0118			40628.74722	1084136	46DQ	MF6P51B
INTRA-LAB BL	SOIL	BLK	7440-39-3	Barium	0.00031	U	MG/L			0.0011		L	0.000905			40628.74722	1084136	46DQ	MF6P51B
INTRA-LAB BL	SOIL	BLK	7440-41-7	Beryllium	-0.00009	U	MG/L			0.00012		L	0.0000987			40628.74722	1084136	46DQ	MF6P51B
INTRA-LAB BL	SOIL	BLK	7440-43-9	Cadmium	-0.00014	U	MG/L			0.0026		L	0.00214			40628.74722	1084136	46DQ	MF6P51B
INTRA-LAB BL	SOIL	BLK	7440-47-3	Chromium	0.00152	U	MG/L			0.0028		L	0.0023			40628.74722	1084136	46DQ	MF6P51B
INTRA-LAB BL	SOIL	BLK	7439-92-1	Lead	0.0176		MG/L			0.0024		L	0.00199			40628.74722	1084136	46DQ	MF6P51B
INTRA-LAB BL	SOIL	BLK	7782-49-2	Selenium	0.0049	U	MG/L			0.013		L	0.0107			40628.74722	1084136	46DQ	MF6P51B
INTRA-LAB BL	SOIL	BLK	7440-22-4	Silver	-0.00134	U	MG/L			0.0014		L	0.00118			40628.74722	1084136	46DQ	MF6P51B
INTRA-LAB CI	SOIL	LCS	7440-38-2	Arsenic	0.974		MG/L			0.0027		L	0.00222	0.97	1	40628.75069	1084136	46DQ	MF6P51C
INTRA-LAB CI	SOIL	LCS	7440-39-3	Barium	0.913		MG/L			0.037		L	0.0301	0.91	1	40628.75069	1084136	46DQ	MF6P51C
INTRA-LAB CI	SOIL	LCS	7440-41-7	Beryllium	0.977		MG/L			0.01		L	0.0086	0.98	1	40628.75069	1084136	46DQ	MF6P51C
INTRA-LAB CI	SOIL	LCS	7440-43-9	Cadmium	0.954		MG/L			0.017		L	0.014	0.95	1	40628.75069	1084136	46DQ	MF6P51C
INTRA-LAB CI	SOIL	LCS	7440-47-3	Chromium	0.916		MG/L			0.027		L	0.0218	0.92	1	40628.75069	1084136	46DQ	MF6P51C
INTRA-LAB CI	SOIL	LCS	7439-92-1	Lead	0.971		MG/L			0.013		L	0.0106	0.97	1	40628.75069	1084136	46DQ	MF6P51C
INTRA-LAB CI	SOIL	LCS	7782-49-2	Selenium	0.921		MG/L			0.015		L	0.0125	0.92	1	40628.75069	1084136	46DQ	MF6P51C
INTRA-LAB CI	SOIL	LCS	7440-22-4	Silver	1		MG/L			0.032		L	0.0263	1	1	40628.75069	1084136	46DQ	MF6P51C
J1C159 DUP	SOIL	DUP	7440-38-2	Arsenic	0.3	U	UG/G	0.62	0.62	4	0.2984	G	3.3			40628.77222	1084136	46DQ	MF51T1X
J1C159 DUP	SOIL	DUP	7440-39-3	Barium	65.3		UG/G	0.101	0.101	1.3	0.2984	G	1.05			40628.77222	1084136	46DQ	MF51T1X
J1C159 DUP	SOIL	DUP	7440-41-7	Beryllium	0.184		UG/G	0.0503	0.0503	0.034	0.2984	G	0.0276			40628.77222	1084136	46DQ	MF51T1X
J1C159 DUP	SOIL	DUP	7440-43-9	Cadmium	3.48		UG/G	0.067	0.067	0.33	0.2984	G	0.27			40628.77222	1084136	46DQ	MF51T1X
J1C159 DUP	SOIL	DUP	7440-47-3	Chromium	3.29		UG/G	0.134	0.134	0.76	0.2984	G	0.626			40628.77222	1084136	46DQ	MF51T1X
J1C159 DUP	SOIL	DUP	7439-92-1	Lead	5.82		UG/G	0.486	0.486	1.6	0.2984	G	1.3			40628.77222	1084136	46DQ	MF51T1X
J1C159 DUP	SOIL	DUP	7782-49-2	Selenium	2.53	U	UG/G	0.855	0.855	5.4	0.2984	G	4.47			40628.77222	1084136	46DQ	MF51T1X
J1C159 DUP	SOIL	DUP	7440-22-4	Silver	-5.1	U	UG/G	0.134	0.134	0.26	0.2984	G	0.212			40628.77222	1084136	46DQ	MF51T1X
J1C159	SOIL	MSD	7440-38-2	Arsenic	188		% REC	0.743	0.743	2.2	0.2491	L	1.84	0.93	200.7	40628.76875	1084136	46DQ	MF51T1D
J1C159	SOIL	MSD	7440-39-3	Barium	217		% REC	0.12	0.12	4.6	0.2491	L	3.78	1.08	200.7	40628.76875	1084136	46DQ	MF51T1D
J1C159	SOIL	MSD	7440-41-7	Beryllium	191		% REC	0.0602	0.0602	0.85	0.2491	L	0.7	0.95	200.7	40628.76875	1084136	46DQ	MF51T1D
J1C159	SOIL	MSD	7440-43-9	Cadmium	194		% REC	0.0803	0.0803	1.9	0.2491	L	1.55	0.97	200.7	40628.76875	1084136	46DQ	MF51T1D
J1C159	SOIL	MSD	7440-47-3	Chromium	186		% REC	0.161	0.161	2.3	0.2491	L	1.92	0.93	200.7	40628.76875	1084136	46DQ	MF51T1D
J1C159	SOIL	MSD	7439-92-1	Lead	200		% REC	0.582	0.582	2.9	0.2491	L	2.4	1	200.7	40628.76875	1084136	46DQ	MF51T1D
J1C159	SOIL	MSD	7782-49-2	Selenium	177		% REC	1.02	1.02	1.6	0.2491	L	1.33	0.88	200.7	40628.76875	1084136	46DQ	MF51T1D
J1C159	SOIL	MSD	7440-22-4	Silver	209		% REC	0.161	0.161	3.3	0.2491	L	2.74	1.04	200.7	40628.76875	1084136	46DQ	MF51T1D
J1C159	SOIL	MS	7440-38-2	Arsenic	197		% REC	0.764	0.764	6.8	0.2423	L	5.59	0.96	206.4	40628.76528	1084136	46DQ	MF51T1S
J1C159	SOIL	MS	7440-39-3	Barium	241		% REC	0.124	0.124	6.5	0.2423	L	5.36	1.17	206.4	40628.76528	1084136	46DQ	MF51T1S
J1C159	SOIL	MS	7440-41-7	Beryllium	198		% REC	0.0619	0.0619	2.4	0.2423	L	1.95	0.96	206.4	40628.76528	1084136	46DQ	MF51T1S
J1C159	SOIL	MS	7440-43-9	Cadmium	200		% REC	0.0825	0.0825	3.3	0.2423	L	2.71	0.97	206.4	40628.76528	1084136	46DQ	MF51T1S
J1C159	SOIL	MS	7440-47-3	Chromium	192		% REC	0.165	0.165	4.6	0.2423	L	3.75	0.93	206.4	40628.76528	1084136	46DQ	MF51T1S
J1C159	SOIL	MS	7439-92-1	Lead	205		% REC	0.598	0.598	8.4	0.2423	L	6.87	1	206.4	40628.76528	1084136	46DQ	MF51T1S
J1C159	SOIL	MS	7782-49-2	Selenium	184		% REC	1.05	1.05	8	0.2423	L	6.58	0.89	206.4	40628.76528	1084136	46DQ	MF51T1S
J1C159	SOIL	MS	7440-22-4	Silver	214		% REC	0.165	0.165	3.6	0.2423	L	3	1.04	206.4	40628.76528	1084136	46DQ	MF51T1S

SDG: J01038
SAF: RC-154
BATCH: 1087397
MATRIX: SOIL
ANALYSIS DATE: 3/29/11

Client_id	Matrix	Result_type	Cas_nbr	Parameter	Result	Qualif	Units	Reporting_Lim	Reporting_Li	Uncertainty	Analyzed_sa	Analy	Decision_lc	LCSReco	AddedAm	Analysis_date_ti	Batch_nl	Test_Me	Lab_sample_id
J1C162	SOIL		7440-38-2	Arsenic	1.20E-02	U	UG/G	7.40E-01	7.40E-01	4.40E+00	0.2499	G	3.63E+00			3/29/2011 2:50	1E+06	46DQ	MF9QM1
J1C162	SOIL		7440-39-3	Barium	3.65E+02		UG/G	1.20E-01	1.20E-01	7.20E+00	0.2499	G	5.92E+00			3/29/2011 2:50	1E+06	46DQ	MF9QM1
J1C162	SOIL		7440-41-7	Beryllium	1.52E-01		UG/G	6.00E-02	6.00E-02	3.20E-02	0.2499	G	2.63E-02			3/29/2011 2:50	1E+06	46DQ	MF9QM1
J1C162	SOIL		7440-43-9	Cadmium	2.09E+00		UG/G	8.00E-02	8.00E-02	3.20E-01	0.2499	G	2.63E-01			3/29/2011 2:50	1E+06	46DQ	MF9QM1
J1C162	SOIL		7440-47-3	Chromium	6.75E+00		UG/G	1.60E-01	1.60E-01	1.50E+00	0.2499	G	1.24E+00			3/29/2011 2:50	1E+06	46DQ	MF9QM1
J1C162	SOIL		7439-92-1	Lead	4.34E-01	U	UG/G	5.80E-01	5.80E-01	8.20E+00	0.2499	G	6.73E+00			3/29/2011 2:50	1E+06	46DQ	MF9QM1
J1C162	SOIL		7782-49-2	Selenium	1.04E+00	U	UG/G	1.02E+00	1.02E+00	5.20E+00	0.2499	G	4.29E+00			3/29/2011 2:50	1E+06	46DQ	MF9QM1
J1C162	SOIL		7440-22-4	Silver	-3.23E+00	U	UG/G	1.60E-01	1.60E-01	3.30E-01	0.2499	G	2.70E-01			3/29/2011 2:50	1E+06	46DQ	MF9QM1
J1C163	SOIL		7440-38-2	Arsenic	-5.12E-01	U	UG/G	7.49E-01	7.49E-01	1.80E+00	0.247	G	1.52E+00			3/29/2011 3:11	1E+06	46DQ	MF9QN1
J1C163	SOIL		7440-39-3	Barium	3.81E+02		UG/G	1.21E-01	1.21E-01	5.10E-01	0.247	G	4.16E-01			3/29/2011 3:11	1E+06	46DQ	MF9QN1
J1C163	SOIL		7440-41-7	Beryllium	1.62E-01		UG/G	6.07E-02	6.07E-02	1.60E-02	0.247	G	1.33E-02			3/29/2011 3:11	1E+06	46DQ	MF9QN1
J1C163	SOIL		7440-43-9	Cadmium	1.91E+00		UG/G	8.10E-02	8.10E-02	1.30E-01	0.247	G	1.03E-01			3/29/2011 3:11	1E+06	46DQ	MF9QN1
J1C163	SOIL		7440-47-3	Chromium	8.47E+00		UG/G	1.62E-01	1.62E-01	9.90E-01	0.247	G	8.13E-01			3/29/2011 3:11	1E+06	46DQ	MF9QN1
J1C163	SOIL		7439-92-1	Lead	5.15E+00		UG/G	5.87E-01	5.87E-01	8.80E-01	0.247	G	7.26E-01			3/29/2011 3:11	1E+06	46DQ	MF9QN1
J1C163	SOIL		7782-49-2	Selenium	2.60E+00	U	UG/G	1.03E+00	1.03E+00	2.70E+00	0.247	G	2.25E+00			3/29/2011 3:11	1E+06	46DQ	MF9QN1
J1C163	SOIL		7440-22-4	Silver	-3.38E+00	U	UG/G	1.62E-01	1.62E-01	9.50E-01	0.247	G	7.83E-01			3/29/2011 3:11	1E+06	46DQ	MF9QN1
J1C164	SOIL		7440-38-2	Arsenic	9.14E-01	U	UG/G	7.32E-01	7.32E-01	1.00E+00	0.2527	G	8.30E-01			3/29/2011 3:27	1E+06	46DQ	MF9QP1
J1C164	SOIL		7440-39-3	Barium	4.14E+02		UG/G	1.19E-01	1.19E-01	5.80E+00	0.2527	G	4.74E+00			3/29/2011 3:27	1E+06	46DQ	MF9QP1
J1C164	SOIL		7440-41-7	Beryllium	2.02E-01		UG/G	5.94E-02	5.94E-02	3.60E-02	0.2527	G	2.93E-02			3/29/2011 3:27	1E+06	46DQ	MF9QP1
J1C164	SOIL		7440-43-9	Cadmium	2.76E+00		UG/G	7.91E-02	7.91E-02	6.50E-01	0.2527	G	5.34E-01			3/29/2011 3:27	1E+06	46DQ	MF9QP1
J1C164	SOIL		7440-47-3	Chromium	9.61E+00		UG/G	1.58E-01	1.58E-01	4.40E-01	0.2527	G	3.58E-01			3/29/2011 3:27	1E+06	46DQ	MF9QP1
J1C164	SOIL		7439-92-1	Lead	3.43E+00	U	UG/G	5.74E-01	5.74E-01	3.50E+00	0.2527	G	2.92E+00			3/29/2011 3:27	1E+06	46DQ	MF9QP1
J1C164	SOIL		7782-49-2	Selenium	2.19E+00	U	UG/G	1.01E+00	1.01E+00	2.80E+00	0.2527	G	2.28E+00			3/29/2011 3:27	1E+06	46DQ	MF9QP1
J1C164	SOIL		7440-22-4	Silver	-4.22E+00	U	UG/G	1.58E-01	1.58E-01	4.80E-01	0.2527	G	3.94E-01			3/29/2011 3:27	1E+06	46DQ	MF9QP1
J1C165	SOIL		7440-38-2	Arsenic	-1.78E-01	U	UG/G	7.39E-01	7.39E-01	9.80E-01	0.2502	G	8.05E-01			3/29/2011 3:32	1E+06	46DQ	MF9QQ1
J1C165	SOIL		7440-39-3	Barium	3.85E+02		UG/G	1.20E-01	1.20E-01	1.40E+00	0.2502	G	1.11E+00			3/29/2011 3:32	1E+06	46DQ	MF9QQ1
J1C165	SOIL		7440-41-7	Beryllium	1.58E-01		UG/G	6.00E-02	6.00E-02	2.40E-02	0.2502	G	1.97E-02			3/29/2011 3:32	1E+06	46DQ	MF9QQ1
J1C165	SOIL		7440-43-9	Cadmium	2.16E+00		UG/G	7.99E-02	7.99E-02	2.10E-01	0.2502	G	1.74E-01			3/29/2011 3:32	1E+06	46DQ	MF9QQ1
J1C165	SOIL		7440-47-3	Chromium	7.80E+00		UG/G	1.60E-01	1.60E-01	1.40E+00	0.2502	G	1.15E+00			3/29/2011 3:32	1E+06	46DQ	MF9QQ1
J1C165	SOIL		7439-92-1	Lead	4.50E+00		UG/G	5.80E-01	5.80E-01	3.50E+00	0.2502	G	2.91E+00			3/29/2011 3:32	1E+06	46DQ	MF9QQ1
J1C165	SOIL		7782-49-2	Selenium	-4.38E-01	U	UG/G	1.02E+00	1.02E+00	4.90E+00	0.2502	G	4.01E+00			3/29/2011 3:32	1E+06	46DQ	MF9QQ1
J1C165	SOIL		7440-22-4	Silver	-3.98E+00	U	UG/G	1.60E-01	1.60E-01	8.80E-01	0.2502	G	7.23E-01			3/29/2011 3:32	1E+06	46DQ	MF9QQ1
J1C166	SOIL		7440-38-2	Arsenic	-8.86E-01	U	UG/G	7.40E-01	7.40E-01	4.20E+00	0.2499	G	3.44E+00			3/29/2011 3:38	1E+06	46DQ	MF9QR1
J1C166	SOIL		7440-39-3	Barium	3.77E+02		UG/G	1.20E-01	1.20E-01	6.40E+00	0.2499	G	5.25E+00			3/29/2011 3:38	1E+06	46DQ	MF9QR1
J1C166	SOIL		7440-41-7	Beryllium	1.58E-01		UG/G	6.00E-02	6.00E-02	4.00E-02	0.2499	G	3.29E-02			3/29/2011 3:38	1E+06	46DQ	MF9QR1
J1C166	SOIL		7440-43-9	Cadmium	2.29E+00		UG/G	8.00E-02	8.00E-02	9.30E-01	0.2499	G	7.67E-01			3/29/2011 3:38	1E+06	46DQ	MF9QR1
J1C166	SOIL		7440-47-3	Chromium	6.99E+00		UG/G	1.60E-01	1.60E-01	1.90E+00	0.2499	G	1.56E+00			3/29/2011 3:38	1E+06	46DQ	MF9QR1
J1C166	SOIL		7439-92-1	Lead	4.50E+00		UG/G	5.80E-01	5.80E-01	4.40E+00	0.2499	G	3.63E+00			3/29/2011 3:38	1E+06	46DQ	MF9QR1
J1C166	SOIL		7782-49-2	Selenium	9.90E-01	U	UG/G	1.02E+00	1.02E+00	4.80E+00	0.2499	G	3.93E+00			3/29/2011 3:38	1E+06	46DQ	MF9QR1
J1C166	SOIL		7440-22-4	Silver	-3.64E+00	U	UG/G	1.60E-01	1.60E-01	1.00E+00	0.2499	G	8.29E-01			3/29/2011 3:38	1E+06	46DQ	MF9QR1
J1C167	SOIL		7440-38-2	Arsenic	1.56E+00	U	UG/G	7.35E-01	7.35E-01	2.40E+00	0.2517	G	2.01E+00			3/29/2011 3:43	1E+06	46DQ	MF9QT1
J1C167	SOIL		7440-39-3	Barium	2.80E+02		UG/G	1.19E-01	1.19E-01	1.00E+01	0.2517	G	8.25E+00			3/29/2011 3:43	1E+06	46DQ	MF9QT1
J1C167	SOIL		7440-41-7	Beryllium	1.55E-01		UG/G	5.96E-02	5.96E-02	9.10E-02	0.2517	G	7.52E-02			3/29/2011 3:43	1E+06	46DQ	MF9QT1
J1C167	SOIL		7440-43-9	Cadmium	1.98E+00		UG/G	7.95E-02	7.95E-02	6.60E-01	0.2517	G	5.46E-01			3/29/2011 3:43	1E+06	46DQ	MF9QT1
J1C167	SOIL		7440-47-3	Chromium	6.97E+00		UG/G	1.59E-01	1.59E-01	1.20E+00	0.2517	G	9.67E-01			3/29/2011 3:43	1E+06	46DQ	MF9QT1
J1C167	SOIL		7439-92-1	Lead	3.78E+00	U	UG/G	5.76E-01	5.76E-01	5.60E+00	0.2517	G	4.61E+00			3/29/2011 3:43	1E+06	46DQ	MF9QT1
J1C167	SOIL		7782-49-2	Selenium	-8.60E-01	U	UG/G	1.01E+00	1.01E+00	6.00E+00	0.2517	G	4.97E+00			3/29/2011 3:43	1E+06	46DQ	MF9QT1
J1C167	SOIL		7440-22-4	Silver	-2.51E+00	U	UG/G	1.59E-01	1.59E-01	1.30E+00	0.2517	G	1.08E+00			3/29/2011 3:43	1E+06	46DQ	MF9QT1
INTRA-LAB E	SOIL	BLK	7440-38-2	Arsenic	4.46E-03	U	MG/L			1.60E-02		L	1.30E-02			3/29/2011 2:40	1E+06	46DQ	MF9VX1B
INTRA-LAB E	SOIL	BLK	7440-39-3	Barium	1.45E+00		MG/L			9.60E-02		L	7.86E-02			3/29/2011 2:40	1E+06	46DQ	MF9VX1B
INTRA-LAB E	SOIL	BLK	7440-41-7	Beryllium	-6.10E-04	U	MG/L			2.80E-04		L	2.30E-04			3/29/2011 2:40	1E+06	46DQ	MF9VX1B
INTRA-LAB E	SOIL	BLK	7440-43-9	Cadmium	4.00E-04	U	MG/L			5.70E-03		L	4.67E-03			3/29/2011 2:40	1E+06	46DQ	MF9VX1B
INTRA-LAB E	SOIL	BLK	7440-47-3	Chromium	1.94E-02		MG/L			7.20E-03		L	5.94E-03			3/29/2011 2:40	1E+06	46DQ	MF9VX1B
INTRA-LAB E	SOIL	BLK	7439-92-1	Lead	8.30E-03	U	MG/L			2.80E-02		L	2.34E-02			3/29/2011 2:40	1E+06	46DQ	MF9VX1B
INTRA-LAB E	SOIL	BLK	7782-49-2	Selenium	-2.09E-03	U	MG/L			1.40E-02		L	1.16E-02			3/29/2011 2:40	1E+06	46DQ	MF9VX1B
INTRA-LAB E	SOIL	BLK	7440-22-4	Silver	9.83E-03	U	MG/L			9.80E-03		L	8.09E-03			3/29/2011 2:40	1E+06	46DQ	MF9VX1B
INTRA-LAB (	SOIL	LCS	7440-38-2	Arsenic	9.59E-01		MG/L			6.60E-03		L	5.44E-03	0.96	1	3/29/2011 2:45	1E+06	46DQ	MF9VX1C
INTRA-LAB (	SOIL	LCS	7440-39-3	Barium	2.30E+00		MG/L			3.70E-02		L	3.00E-02	2.3	1	3/29/2011 2:45	1E+06	46DQ	MF9VX1C
INTRA-LAB (	SOIL	LCS	7440-41-7	Beryllium	9.60E-01		MG/L			1.10E-02		L	8.80E-03	0.96	1	3/29/2011 2:45	1E+06	46DQ	MF9VX1C
INTRA-LAB (	SOIL	LCS	7440-43-9	Cadmium	9.26E-01		MG/L			6.60E-03		L	5.41E-03	0.93	1	3/29/2011 2:45	1E+06	46DQ	MF9VX1C
INTRA-LAB (	SOIL	LCS	7440-47-3	Chromium	8.24E-01		MG/L			1.10E-02		L	8.64E-03	0.82	1	3/29/2011 2:45	1E+06	46DQ	MF9VX1C
INTRA-LAB (	SOIL	LCS	7439-92-1	Lead	8.60E-01		MG/L			3.10E-02		L	2.53E-02	0.86	1	3/29/2011 2:45	1E+06	46DQ	MF9VX1C
INTRA-LAB (	SOIL	LCS	7782-49-2	Selenium	9.20E-01		MG/L			2.30E-02		L	1.91E-02	0.92	1	3/29/2011 2:45	1E+06	46DQ	MF9VX1C
INTRA-LAB (	SOIL	LCS	7440-22-4	Silver	9.11E-01		MG/L			1.40E-02		L	1.16E-02	0.91	1	3/29/2011 2:45	1E+06	46DQ	MF9VX1C
J1C162 DUP	SOIL	DUP	7440-38-2	Arsenic	1.24E+00	U	UG/G	7.29E-01	7.29E-01	1.70E+00	0.2536	G	1.42E+00			3/29/2011 3:06	1E+06	46DQ	MF9QM1X
J1C162 DUP	SOIL	DUP	7440-39-3	Barium	3.36E+02		UG/G	1.18E-01	1.18E-01	5.90E+00	0.2536	G	4.83E+00			3/29/2011 3:06	1E+06	46DQ	MF9QM1X

J1C162 DUP	SOIL	DUP	7440-41-7	Beryllium	1.77E-01	UG/G	5.91E-02	5.91E-02	5.50E-02	0.2536 G	4.54E-02			3/29/2011 3:06	1E+06 46DQ	MF9QM1X
J1C162 DUP	SOIL	DUP	7440-43-9	Cadmium	2.07E+00	UG/G	7.89E-02	7.89E-02	2.80E-01	0.2536 G	2.30E-01			3/29/2011 3:06	1E+06 46DQ	MF9QM1X
J1C162 DUP	SOIL	DUP	7440-47-3	Chromium	7.77E+00	UG/G	1.58E-01	1.58E-01	5.50E-01	0.2536 G	4.51E-01			3/29/2011 3:06	1E+06 46DQ	MF9QM1X
J1C162 DUP	SOIL	DUP	7439-92-1	Lead	5.16E+00	UG/G	5.72E-01	5.72E-01	4.40E+00	0.2536 G	3.63E+00			3/29/2011 3:06	1E+06 46DQ	MF9QM1X
J1C162 DUP	SOIL	DUP	7782-49-2	Selenium	4.54E+00 U	UG/G	1.01E+00	1.01E+00	9.60E+00	0.2536 G	7.86E+00			3/29/2011 3:06	1E+06 46DQ	MF9QM1X
J1C162 DUP	SOIL	DUP	7440-22-4	Silver	-3.55E+00 U	UG/G	1.58E-01	1.58E-01	2.70E-01	0.2536 G	2.21E-01			3/29/2011 3:06	1E+06 46DQ	MF9QM1X
J1C162	SOIL	MSD	7440-38-2	Arsenic	1.83E+02	% REC(	7.29E-01	7.29E-01	2.30E+00	0.2536 L	1.86E+00	0.93	197.2	3/29/2011 3:01	1E+06 46DQ	MF9QM1D
J1C162	SOIL	MSD	7440-39-3	Barium	1.60E+02	% REC(	1.18E-01	1.18E-01	1.00E+01	0.2536 L	8.42E+00	0.81	197.2	3/29/2011 3:01	1E+06 46DQ	MF9QM1D
J1C162	SOIL	MSD	7440-41-7	Beryllium	1.84E+02	% REC(	5.91E-02	5.91E-02	1.50E+00	0.2536 L	1.21E+00	0.93	197.2	3/29/2011 3:01	1E+06 46DQ	MF9QM1D
J1C162	SOIL	MSD	7440-43-9	Cadmium	1.83E+02	% REC(	7.89E-02	7.89E-02	1.90E+00	0.2536 L	1.56E+00	0.93	197.2	3/29/2011 3:01	1E+06 46DQ	MF9QM1D
J1C162	SOIL	MSD	7440-47-3	Chromium	1.62E+02	% REC(	1.58E-01	1.58E-01	2.80E+00	0.2536 L	2.32E+00	0.82	197.2	3/29/2011 3:01	1E+06 46DQ	MF9QM1D
J1C162	SOIL	MSD	7439-92-1	Lead	1.78E+02	% REC(	5.72E-01	5.72E-01	3.10E+00	0.2536 L	2.51E+00	0.9	197.2	3/29/2011 3:01	1E+06 46DQ	MF9QM1D
J1C162	SOIL	MSD	7782-49-2	Selenium	1.73E+02	% REC(	1.01E+00	1.01E+00	1.30E+00	0.2536 L	1.10E+00	0.86	197.2	3/29/2011 3:01	1E+06 46DQ	MF9QM1D
J1C162	SOIL	MSD	7440-22-4	Silver	1.82E+02	% REC(	1.58E-01	1.58E-01	2.70E+00	0.2536 L	2.25E+00	0.92	197.2	3/29/2011 3:01	1E+06 46DQ	MF9QM1D
J1C162	SOIL	MS	7440-38-2	Arsenic	1.84E+02	% REC(	7.34E-01	7.34E-01	2.20E+00	0.2521 L	1.84E+00	0.93	198.3	3/29/2011 2:55	1E+06 46DQ	MF9QM1S
J1C162	SOIL	MS	7440-39-3	Barium	1.47E+02	% REC(	1.19E-01	1.19E-01	3.70E+00	0.2521 L	3.07E+00	0.74	198.3	3/29/2011 2:55	1E+06 46DQ	MF9QM1S
J1C162	SOIL	MS	7440-41-7	Beryllium	1.83E+02	% REC(	5.95E-02	5.95E-02	1.30E+00	0.2521 L	1.04E+00	0.92	198.3	3/29/2011 2:55	1E+06 46DQ	MF9QM1S
J1C162	SOIL	MS	7440-43-9	Cadmium	1.82E+02	% REC(	7.93E-02	7.93E-02	2.00E+00	0.2521 L	1.68E+00	0.92	198.3	3/29/2011 2:55	1E+06 46DQ	MF9QM1S
J1C162	SOIL	MS	7440-47-3	Chromium	1.60E+02	% REC(	1.59E-01	1.59E-01	2.90E+00	0.2521 L	2.42E+00	0.81	198.3	3/29/2011 2:55	1E+06 46DQ	MF9QM1S
J1C162	SOIL	MS	7439-92-1	Lead	1.78E+02	% REC(	5.75E-01	5.75E-01	7.00E+00	0.2521 L	5.76E+00	0.9	198.3	3/29/2011 2:55	1E+06 46DQ	MF9QM1S
J1C162	SOIL	MS	7782-49-2	Selenium	1.73E+02	% REC(	1.01E+00	1.01E+00	3.90E+00	0.2521 L	3.22E+00	0.87	198.3	3/29/2011 2:55	1E+06 46DQ	MF9QM1S
J1C162	SOIL	MS	7440-22-4	Silver	1.78E+02	% REC(	1.59E-01	1.59E-01	1.50E+00	0.2521 L	1.19E+00	0.9	198.3	3/29/2011 2:55	1E+06 46DQ	MF9QM1S

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-154-039	Page 1 of 1

Collector Orozco, L.	Company Contact Joan Kessner	Telephone No. 509-375-4688	Project Coordinator KESSNER, JH
Project Designation 618-10 & 618-11 Field Remediation - Soil In-Process	Sampling Location 618-10 N. Surge Trench Soil		SAF No. RC-154
Ice Chest No. N/A	Field Logbook No. EL-1648	COA S618DTY000	Method of Shipment Gov Vehicle
Shipped To TestAmerica Incorporated, Richland	Offsite Property No. N/A		Bill of Lading/Air Bill No. N/A

Price Code ~~8L~~ 2A SV 3/22/11

Data Turnaround ~~21 Days~~ 24 hour SV 3/22/11

POSSIBLE SAMPLE HAZARDS/REMARKS

None

Special Handling and/or Storage

None

SDG# J01038
Lot# J1C220421
Due 3-23-11

Preservation	Cool 4C										
Type of Container	aG										
No. of Container(s)	1										
Volume	60mL										
SAMPLE ANALYSIS	See item (1) in Special Instructions.										

Sample No.	Matrix *	Sample Date	Sample Time										
J1C154	SOIL	3-22-11	0718	✓		MFOTD							#1
J1C155	SOIL	3-22-11	0726	✓		MFOTP							#2

CHAIN OF POSSESSION		Sign/Print Names	
Relinquished By/Removed From Loren Orozco Loren Orozco	Date/Time 3-22-11 07:30	Received By/Stored In S. Van Den Hende	Date/Time 3/22/11 0730
Relinquished By/Removed From S. Van Den Hende WCH	Date/Time 3/22/11 0810	Received By/Stored In Angel Alcaraz AMCAR	Date/Time 0810 3-22-11
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time

SPECIAL INSTRUCTIONS

(1) Metals by ICP - 6010 - Quick Turn {Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver}; Metals by ICP - 6010 - Quick Turn (Add On) {Beryllium}

REVIEWED BY RC
DATE 3/22/11

Matrix *
S=Soil
SE=Sediment
SO=Solid
SL=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
WI=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

J1C220421

WCH-EE-011

J1C220421

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Sample Check-in List

Date/Time Received: 3·22·11 0810 GM Screen Result (out) .2 (in) .4 Initials[CK]

Client: WCH SDG #: J01038 NA [ ] SAF #: RC-154 NA [ ]

Work Order Number: JTC220421 Chain of Custody # RC-154-039

Shipping Container ID: hand delivery NA [ ] Air Bill # _____ NA [CK]

Item 1 through 5 for shipping container only. Initial appropriate response.

1. Custody Seals on shipping container intact? Yes [CK] No [ ] No Custody Seal [ ]
2. Custody Seals dated and signed? Yes [CK] No [ ] No Custody Seal [ ]
3. Chain of Custody record present? Yes [CK] No [ ]
4. Cooler temperature: ON ICE NA [CK] 5.Vermiculite/packing materials is NA [ ] Wet [ ] Dry [ ]

Item 6 through 10 for samples. Initial appropriate response.

6. Number of samples in shipping container (Each sample may contain multiple bottles): 2 samples @ 1 X JAR 60ML
7. Sample holding times exceeded? NA [ ] Yes [ ] No [CK]
8. Samples have:
   - ___ tape
   - CK custody seals
   - ___ hazard labels
   - CK appropriate sample labels

   (soil - metals)
9. Samples:
   - CK are in good condition
   - ___ are broken
   - ___ are leaking
   - ___ have air bubbles (Only for samples requiring no head space)
10. Sample pH appropriate for analysis requested Yes [ ] No [ ] N/A [CK] (Note discrepancies in #13)
    (If acidification necessary, then document sample ID, initial pH, amount of HNO_3 added and pH after addition)

    RPL ID # of preservative used : _____
11. Sample Location, Sample Collector Listed? * Yes [CK] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [CK]
13. Description of anomalies (include sample numbers): NA [CK] _____

See other side for additional comments

Sample Custodian: Carmen J [signature] Date: 3·22·11 0810

Client Informed on _____ by _____ Person contacted _____

[✓] No action necessary; process as is

Project Manager [signature] Date 3/22/11

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TestAmerica Laboratories, Inc.

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		RC-154-040	Page 1 of 1
Collector Orozco, L.	Company Contact Joan Kessner	Telephone No. 509-375-4688	Project Coordinator KESSNER, JH	Price Code ~~8L~~ 2A RTC 3/23/11
Project Designation 618-10 & 618-11 Field Remediation - Soil In-Process	Sampling Location 618-10 N. Surge Trench Soil		SAF No. RC-154	Data Turnaround ~~21 Days~~ 24 HRS RTC 3/23/11
Ice Chest No. N/A	Field Logbook No. EL-1648	COA S618DTY000	Method of Shipment Gov Vehicle	
Shipped To TestAmerica Incorporated, Richland	Offsite Property No. N/A		Bill of Lading/Air Bill No. N/A	

POSSIBLE SAMPLE HAZARDS/REMARKS

None

Special Handling and/or Storage

None

J1C230555

			Preservation	Cool 4C								
			Type of Container	aG								
			No. of Container(s)	1								
			Volume	60mL								
		SAMPLE ANALYSIS		See item (1) in Special Instructions.								
Sample No.	Matrix *	Sample Date	Sample Time									
J1C156	SOIL	3-23-11	1210	✓		MF3LK						N #1
J1C157	SOIL	3-23-11	1215	✓		MF3LQ						S #2
J1C158	SOIL	3-23-11	1220	✓		MF3LX						Cent. #3

CHAIN OF POSSESSION		Sign/Print Names	
Relinquished By/Removed From Lyman Orozco [signature]	Date/Time 3/23/11 1235	Received By/Stored In S. VanDenHende	Date/Time 3/23/11 1235
Relinquished By/Removed From S. VanDenHende WCH	Date/Time 3/23/11 1325	Received By/Stored In Cameron [signature] TLER Cameron K	Date/Time 1325 3-23-11
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time

SPECIAL INSTRUCTIONS

(1) Metals by ICP - 6010 - Quick Turn {Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver}; Metals by ICP - 6010 - Quick Turn (Add On) {Beryllium}

Lot# J1C230555
SDG# JC1038
Due 3-24-11

REVIEWED BY RTC DATE 3/23/11

Matrix *
S=Soil
SE=Sediment
SO=Solid
SI=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
WI=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

WCH-EE-011

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Sample Check-in List

Date/Time Received: 3-23-11 1325 GM Screen Result (out) _____ (in) _____ Initials[ ]

Client: WCH SDG #: J01038 NA [ ] SAF #: RC-154 NA [ ]

Work Order Number: J1C230555 Chain of Custody # RC-154-040

Shipping Container ID: hand delivery NA [ ] Air Bill # _____ NA [✓]

Item 1 through 5 for shipping container only. Initial appropriate response.

1. Custody Seals on shipping container intact? Yes [CK] No [ ] No Custody Seal [ ]
2. Custody Seals dated and signed? Yes [CK] No [ ] No Custody Seal [ ]
3. Chain of Custody record present? Yes [CK] No [ ]
4. Cooler temperature: ON ICE NA [CK] 5. Vermiculite/packing materials is NA [ ] Wet [ ] Dry [CK]

Item 6 through 10 for samples. Initial appropriate response.

6. Number of samples in shipping container (Each sample may contain multiple bottles): 3 samples @ 1 XJAR 6UMLG per
7. Sample holding times exceeded? NA [ ] Yes [ ] No [CK]
8. Samples have:
   ____ tape
   CK custody seals
   (soil - quick turn metals)
   ____ hazard labels
   CK appropriate sample labels
9. Samples:
   CK are in good condition
   ____ are broken
   ____ are leaking
   ____ have air bubbles (Only for samples requiring no head space)
10. Sample pH appropriate for analysis requested Yes [ ] No [ ] N/A [CK] (Note discrepancies in #13)
    (If acidification necessary, then document sample ID, initial pH, amount of HNO_3 added and pH after addition)

    RPL ID # of preservative used : _____
11. Sample Location, Sample Collector Listed? * Yes [CK] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [CK]
13. Description of anomalies (include sample numbers): NA [CK] _____

See other side for additional comments

Sample Custodian: [signature] Date: 3-23-11 1325

Client Informed on _____ by _____ Person contacted _____

[✓] No action necessary; process as is

Project Manager [signature] Date 3/23/11

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Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-154-041	Page 1 of 1

Collector Orozco, L.	**Company Contact** Joan Kessner	**Telephone No.** 509-375-4688	**Project Coordinator** KESSNER, JH
Project Designation 618-10 & 618-11 Field Remediation - Soil In-Process	**Sampling Location** 618-10 N. Surge Trench Soil		**SAF No.** RC-154
Ice Chest No. N/A	**Field Logbook No.** EL-1648	**COA** S618DTY000	**Method of Shipment** Gov Vehicle
Shipped To TestAmerica Incorporated, Richland	**Offsite Property No.** N/A		**Bill of Lading/Air Bill No.** N/A

Price Code ~~81~~ SV 3/24/11 2A

Data Turnaround ~~21 Days~~ SV 3/24/11 24 hour

POSSIBLE SAMPLE HAZARDS/REMARKS
None

SDG#JC1038
Lot#J1C240610
Due 3-25-11

Special Handling and/or Storage
None

Preservation	Cool 4C											
Type of Container	aG											
No. of Container(s)	1											
Volume	60mL											
SAMPLE ANALYSIS	See item (1) in Special Instructions.											
Sample No.	Matrix *	Sample Date	Sample Time									
J1C159	SOIL	3/24/11	1200	X	MF51	T						
J1C160	SOIL	3/24/11	1207	X	MF51	W						
J1C161	SOIL	3/24/11	1215	X	MF51	L						

CHAIN OF POSSESSION	Sign/Print Names	
Relinquished By/Removed From: Lorenzo Orozco Lorenzo Orozco — Date/Time 3/24/11 1240	Received By/Stored In: S. Van Den Hende — Date/Time 3/24/11 1240	
Relinquished By/Removed From: S. Van Den Hende — Date/Time 3/24/11 1345	Received By/Stored In: TALR Cameron Kronpa — Date/Time 1345 3-24-11	
Relinquished By/Removed From — Date/Time	Received By/Stored In — Date/Time	
Relinquished By/Removed From — Date/Time	Received By/Stored In — Date/Time	
Relinquished By/Removed From — Date/Time	Received By/Stored In — Date/Time	
Relinquished By/Removed From — Date/Time	Received By/Stored In — Date/Time	

SPECIAL INSTRUCTIONS

(1) Metals by ICP - 6010 - Quick Turn {Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver}; Metals by ICP - 6010 - Quick Turn (Add On) {Beryllium}

REVIEWED BY RTC DATE 3/24/11

Matrix *
S=Soil
SE=Sediment
SO=Solid
SL=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
WI=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

WCH-EE-011

J1C240610

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Sample Check-in List

Date/Time Received: 3.24.11 1345 GM Screen Result (out) .6 (in) 1.0 Initials [CK]

Client: WCH SDG #: J01038 NA [ ] SAF #: RC-154 NA [ ]

Work Order Number: J1C240610 Chain of Custody # RC-154-041

Shipping Container ID: hand delivery NA [ ] Air Bill # _____ NA [✓]

Item 1 through 5 for shipping container only. Initial appropriate response.

1. Custody Seals on shipping container intact? Yes [CK] No [ ] No Custody Seal [ ]
2. Custody Seals dated and signed? Yes [CK] No [ ] No Custody Seal [ ]
3. Chain of Custody record present? Yes [CK] No [ ]
4. Cooler temperature: ON ICE NA [CK] 5. Vermiculite/packing materials is NA [ ] Wet [ ] Dry [CK]

Item 6 through 10 for samples. Initial appropriate response.

6. Number of samples in shipping container (Each sample may contain multiple bottles): 3 samples @ 1x 60mL per
7. Sample holding times exceeded? NA [ ] Yes [ ] No [CK]
8. Samples have:
   ____ tape
   CK custody seals
   ____ hazard labels
   CK appropriate sample labels
   (soil) quick turn metals
9. Samples:
   CK are in good condition
   ____ are broken
   ____ are leaking
   ____ have air bubbles (Only for samples requiring no head space)
10. Sample pH appropriate for analysis requested Yes [ ] No [ ] N/A [CK] (Note discrepancies in #13)
    (If acidification necessary, then document sample ID, initial pH, amount of HNO_3 added and pH after addition)

    RPL ID # of preservative used : _____
11. Sample Location, Sample Collector Listed? * Yes [CK] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [CK]
13. Description of anomalies (include sample numbers): NA [CK] _____

See other side for additional comments

Sample Custodian: Carmen J [signature] Date: 3-24.11 1345

Client Informed on _____ by _____ Person contacted _____

[✓] No action necessary; process as is

Project Manager [signature] Date 3/24/11

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Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-154-042	Page 1 of 2

Collector Orozco, L.	Company Contact Joan Kessner	Telephone No. 509-375-4688	Project Coordinator KESSNER, JH
Project Designation 618-10 & 618-11 Field Remediation - Soil In-Process	Sampling Location 618-10 N. Surge Trench Soil		SAF No. RC-154
Ice Chest No. N/A	Field Logbook No. EL-1648	COA S618DTY000	Method of Shipment Gov Vehicle
Shipped To TestAmerica Incorporated, Richland	Offsite Property No. N/A		Bill of Lading/Air Bill No. N/A

Price Code SU 3/28/11 ~~SL~~ 2A

Data Turnaround SV 3/28/11 ~~21 Days~~ 24 hour

POSSIBLE SAMPLE HAZARDS/REMARKS

None

Special Handling and/or Storage

None

Preservation	Cool 4C						SDG	J01038		
Type of Container	aG						Due 3-27-11			
No. of Container(s)	1						J1C280488			
Volume	60mL									
SAMPLE ANALYSIS	See item (1) in Special Instructions.						J1C280488			

Sample No.	Matrix *	Sample Date	Sample Time										
J1C162	SOIL	3-28-11	1245	✓		MF9	QM						1 North 1
J1C163	SOIL	3-28-11	1305	✓		MF9	QN						2 North 2
J1C164	SOIL	3-28-11	1300	✓		MF9	QP						3 mid 1
J1C165	SOIL	3-28-11	1315	✓		MF9	QQ						4 mid 2
J1C166	SOIL	3-28-11	1252	✓		MF9	QR						5 South 1

CHAIN OF POSSESSION		Sign/Print Names	
Relinquished By/Removed From Loren Orozco Lan Orozco	Date/Time 1325 3-28-11	Received By/Stored In S. Van Den Hende	Date/Time 3/28/11 1325
Relinquished By/Removed From S. Van Den Hende	Date/Time 3/28/11 1530	Received By/Stored In Ange Delaria	Date/Time 1530 3-28-11
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time

SPECIAL INSTRUCTIONS

(1) Metals by ICP - 6010 - Quick Turn {Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver}; Metals by ICP - 6010 - Quick Turn (Add On) {Beryllium}

REVIEWED BY RTC DATE 3/28/11

Matrix *
S=Soil
SE=Sediment
SO=Solid
Sl=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
WI=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

WCH-EE-011

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-154-042	Page 2 of 2

Collector Orozco, L.	**Company Contact** Joan Kessner	**Telephone No.** 509-375-4688	**Project Coordinator** KESSNER, JH
Project Designation 618-10 & 618-11 Field Remediation - Soil In-Process	**Sampling Location** 618-10 N. Surge Trench Soil		**SAF No.** RC-154
Ice Chest No. N/A	**Field Logbook No.** EL-1648	**COA** S618DTY000	**Method of Shipment** Gov Vehicle
Shipped To TestAmerica Incorporated, Richland	**Offsite Property No.** N/A		**Bill of Lading/Air Bill No.** N/A

Price Code SV 3/28/11 ~~8L~~ 2A

Data Turnaround SV 3/28/11 ~~21 Days~~ 24 hour

POSSIBLE SAMPLE HAZARDS/REMARKS

None

Special Handling and/or Storage

None

Preservation	Cool 4C											
Type of Container	aG											
No. of Container(s)	1											
Volume	60mL											
SAMPLE ANALYSIS	See item (1) in Special Instructions.											

Sample No.	Matrix *	Sample Date	Sample Time										
J1C167	SOIL	3-28-11	1310	✓		ME 9QT							6 South 2

CHAIN OF POSSESSION — **Sign/Print Names**

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Loren Orozco [signature]	1325 3-28-11	S VanDenHende [signature]	3/28/11 1325
S. VanDenHende [signature]	3/28/11 1530	[signature]	3-28-11 1530

SPECIAL INSTRUCTIONS

(1) Metals by ICP - 6010 - Quick Turn {Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver}; Metals by ICP - 6010 - Quick Turn (Add On) {Beryllium}

REVIEWED BY [signature] DATE 3/28/11

Matrix *
S=Soil
SE=Sediment
SC=Solid
SI=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
WI=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

WCH-EE-011

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Sample Check-in List

Date/Time Received: 3-28-11 1530 GM Screen Result (out) _____ (in) _____ Initials[ ]

Client: WCH SDG #: S01038 NA [ ] SAF #: RC-154 NA [ ]

Work Order Number: J1C280488 Chain of Custody # RC-154-042

Shipping Container ID: Hand Delivered NA [ ] Air Bill # _____ NA [✓]

Item 1 through 5 for shipping container only. Initial appropriate response.

1. Custody Seals on shipping container intact? Yes [✓] No [ ] No Custody Seal [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ] No Custody Seal [ ]
3. Chain of Custody record present? Yes [✓] No [ ]
4. Cooler temperature: 0 NCE NA [ ] 5. Vermiculite/packing materials is NA [ ] Wet [ ] Dry [✓]

Item 6 through 10 for samples. Initial appropriate response.

6. Number of samples in shipping container (Each sample may contain multiple bottles): 6 Samples @ 1 per
7. Sample holding times exceeded? NA [ ] Yes [ ] No [✓]
8. Samples have:
   ___ tape
   ✓ custody seals
   ___ hazard labels
   ✓ appropriate sample labe J1C280488
9. Samples:
   ✓ are in good condition
   ___ are broken
   ___ are leaking
   ___ have air bubbles (Only for samples requiring no head space)
10. Sample pH appropriate for analysis requested Yes [ ] No [ ] N/A [✓] (Note discrepancies in #13)
    (If acidification necessary, then document sample ID, initial pH, amount of HNO_3 added and pH after addition)

    RPL ID # of preservative used : _____
11. Sample Location, Sample Collector Listed? * Yes [✓] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): NA [✓]

See other side for additional comments

Sample Custodian: [signature] Date: 3-28-11 1530

Client Informed on _____ by _____ Person contacted _____

[✓] No action necessary; process as is

Project Manager [signature] Date 3/28/11

LS-023, Rev. 12, 10/10

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
CHEMISTRY, First/Second Level Review

3/29/2011 6:42:34 AM

Lot No., Due Date: J1C220421; 03/23/2011
Client, Site: 127642; S00N063A00 HANFORD
QC Batch No., Method Test: 1082413; M6010_S 6010A
SDG, Matrix: J01038; SOIL

1.0 Initial Calibration

1.1 Performed at required frequency with required number of levels?	Yes ✓	No	N/A	2nd ✓
1.2 Correlation coefficient within QC limits?	Yes ✓	No	N/A	2nd ✓
1.3 Initial calibration verification (ICV) analyzed immediately after calibration and results within QC limits?	Yes	No ✓	N/A	2nd ✓
1.4 Initial calibration blank (ICB) analyzed immediately after ICV and concentrations of all parameters <= reporting limit?	Yes ✓	No	N/A	2nd ✓

2.0 Continuing Calibration

2.1 CCV analyzed at required frequency and all parameters within QC limits?	Yes ✓	No	N/A	2nd ✓
2.2 CCB analyzed at required frequency and all results <= reporting limit?	Yes ✓	No	N/A	2nd ✓

3.0 Sample Analysis

3.1 Were any samples with concentration above the linear range for any parameter diluted and reanalyzed?	Yes	No	N/A ✓	2nd ✓
3.2 Were all sample holding times met?	Yes ✓	No	N/A	2nd ✓

4.0 QC Samples

4.1 All results for the preparation blank below limits?	Yes ✓	No	N/A	2nd ✓
4.2 MS or MS/MSD recoveries within QC limits and %RPD for MSD acceptable?	Yes ✓	No	N/A	2nd ✓
4.3 LCS precent recovery within QC limits and %RPD for LCSD acceptable?	Yes	No ✓	N/A	2nd ✓
4.4 Analytical spikes within QC limits where applicable?	Yes ✓	No	N/A	2nd ✓
4.5 ICP only: One serial dilution performed per SDG?	Yes ✓	No	N/A	2nd ✓
4.6 ICP only: CRDL standard (CRI or CRA) analyzed at required frequency?	Yes	No	N/A ✓	2nd ✓
4.7 ICP only: Interference check samples (ICSA,ICSAB) and HICAL analyzed at the required frequencies and within QC limits?	Yes ✓	No	N/A	2nd ✓

5.0 Other

5.1 Are all nonconformances included and noted?	Yes ✓	No	N/A	2nd ✓
5.2 Is the correct date and time of analysis shown?	Yes ✓	No	N/A	2nd ✓
5.3 Did the analyst sign and date the front page of the analytical run?	Yes	No	N/A ✓	2nd ✓
5.4 Correct methodology used?	Yes ✓	No	N/A	2nd ✓
5.5 Transcriptions checked?	Yes ✓	No	N/A	2nd ✓
5.6 Calculations checked at minimum frequency?	Yes ✓	No	N/A	2nd ✓
5.7 Units checked?	Yes ✓	No	N/A	2nd ✓

First Level [signature] Date 3/29/11 Second [signature] Date 3/29/11

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: **10-17869**
NCM Initiated By: Tim Armstrong
Date Opened: 03/29/2011
Date Closed:

Classification: **Anomaly**
Status: **PMREVIEW**
Production Area: Classical Chemistry
Tests: 6010A
Lot #'s (Sample #'s): J1C220421 (1,2), J1C230000 (413),
QC Batches: 1082413,

Nonconformance: QC Result Out of Limits
Subcategory: Invalid instrument calibration or calibration verification

Problem Description / Root Cause

Name	Date	Description
Tim Armstrong	03/29/2011	Barium ICV and batch LCS failed low

Corrective Action

Name	Date	Corrective Action
Tim Armstrong	03/29/2011	Reran to confirm ICV. Investigating cause. Client contacted and requested data be reported.

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

Verified By	Due Date	Status	Notes
		This section not yet completed by QA.	

Approval History

Date Approved	Approved By	Position

TMS 3/29/11

Date Printed: 3/29/2011

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist

CHEMISTRY, First/Second Level Review

3/29/2011 6:48:09 AM

Lot No., Due Date: J1C230555; 03/24/2011
Client, Site: 127642; S00N063A00 HANFORD
QC Batch No., Method Test: 1082414; M6010_S 6010A
SDG, Matrix: J01038; OTHER

	Yes	No	N/A	2nd
1.0 Initial Calibration				
1.1 Performed at required frequency with required number of levels?	✓			✓
1.2 Correlation coefficient within QC limits?	✓			✓
1.3 Initial calibration verification (ICV) analyzed immediately after calibration and results within QC limits?	✓			✓
1.4 Initial calibration blank (ICB) analyzed immediately after ICV and concentrations of all parameters <= reporting limit?	✓			✓
2.0 Continuing Calibration				
2.1 CCV analyzed at required frequency and all parameters within QC limits?	✓			✓
2.2 CCB analyzed at required frequency and all results <= reporting limit?	✓			✓
3.0 Sample Analysis				
3.1 Were any samples with concentration above the linear range for any parameter diluted and reanalyzed?			✓	✓
3.2 Were all sample holding times met?	✓			✓
4.0 QC Samples				
4.1 All results for the preparation blank below limits?	✓			✓
4.2 MS or MS/MSD recoveries within QC limits and %RPD for MSD acceptable?	✓			✓
4.3 LCS precent recovery within QC limits and %RPD for LCSD acceptable?	✓			✓
4.4 Analytical spikes within QC limits where applicable?			✓	✓
4.5 ICP only: One serial dilution performed per SDG?	✓			✓
4.6 ICP only: CRDL standard (CRI or CRA) analyzed at required frequency?			✓	✓
4.7 ICP only: Interference check samples (ICSA,ICSAB) and HICAL analyzed at the required frequencies and within QC limits?	✓			✓
5.0 Other				
5.1 Are all nonconformances included and noted?			✓	✓
5.2 Is the correct date and time of analysis shown?	✓			✓
5.3 Did the analyst sign and date the front page of the analytical run?			✓	✓
5.4 Correct methodology used?	✓			✓
5.5 Transcriptions checked?	✓			✓
5.6 Calculations checked at minimum frequency?	✓			✓
5.7 Units checked?	✓			✓

First Level [signature] Date 3/29/11 Second [signature] Date 3/29/11

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist

CHEMISTRY, First/Second Level Review

3/29/2011 6:44:49 AM

Lot No., Due Date: J1C240610; 03/25/2011
Client, Site: 127642; S00N063A00 HANFORD
QC Batch No., Method Test: 1084136; M6010_S 6010A
SDG, Matrix: J01038; SOIL

1.0 Initial Calibration				
1.1 Performed at required frequency with required number of levels?	Yes ✓	No	N/A	2nd ✓
1.2 Correlation coefficient within QC limits?	Yes ✓	No	N/A	2nd ✓
1.3 Initial calibration verification (ICV) analyzed immediately after calibration and results within QC limits?	Yes ✓	No	N/A	2nd ✓
1.4 Initial calibration blank (ICB) analyzed immediately after ICV and concentrations of all parameters <= reporting limit?	Yes ✓	No	N/A	2nd ✓
2.0 Continuing Calibration				
2.1 CCV analyzed at required frequency and all parameters within QC limits?	Yes	No ✓	N/A	2nd ✓
2.2 CCB analyzed at required frequency and all results <= reporting limit?	Yes ✓	No	N/A	2nd ✓
3.0 Sample Analysis				
3.1 Were any samples with concentration above the linear range for any parameter diluted and reanalyzed?	Yes	No	N/A ✓	2nd ✓
3.2 Were all sample holding times met?	Yes ✓	No	N/A	2nd ✓
4.0 QC Samples				
4.1 All results for the preparation blank below limits?	Yes ✓	No	N/A	2nd ✓
4.2 MS or MS/MSD recoveries within QC limits and %RPD for MSD acceptable?	Yes ✓	No	N/A	2nd ✓
4.3 LCS precent recovery within QC limits and %RPD for LCSD acceptable?	Yes ✓	No	N/A	2nd ✓
4.4 Analytical spikes within QC limits where applicable?	Yes ✓	No	N/A	2nd ✓
4.5 ICP only: One serial dilution performed per SDG?	Yes ✓	No	N/A	2nd ✓
4.6 ICP only: CRDL standard (CRI or CRA) analyzed at required frequency?	Yes	No	N/A ✓	2nd ✓
4.7 ICP only: Interference check samples (ICSA,ICSAB) and HICAL analyzed at the required frequencies and within QC limits?	Yes ✓	No	N/A	2nd ✓
5.0 Other				
5.1 Are all nonconformances included and noted?	Yes ✓	No	N/A	2nd ✓
5.2 Is the correct date and time of analysis shown?	Yes ✓	No	N/A	2nd ✓
5.3 Did the analyst sign and date the front page of the analytical run?	Yes	No	N/A ✓	2nd ✓
5.4 Correct methodology used?	Yes ✓	No	N/A	2nd ✓
5.5 Transcriptions checked?	Yes ✓	No	N/A	2nd ✓
5.6 Calculations checked at minimum frequency?	Yes ✓	No	N/A	2nd ✓
5.7 Units checked?	Yes ✓	No	N/A	2nd ✓

First Level [signature] **Date** 3/29/11 **Second** [signature] **Date** 3/29/11

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: **10-17870**
NCM Initiated By: Tim Armstrong
Date Opened: 03/29/2011
Date Closed:

Classification: **Anomaly**
Status: **PMREVIEW**
Production Area: Classical Chemistry
Tests: 6010A
Lot #'s (Sample #'s): J1C240610 (1,2,3), J1C250000 (136),
QC Batches: 1084136,

Nonconformance: QC Result Out of Limits
Subcategory: Invalid instrument calibration or calibration verification

Problem Description / Root Cause

Name	Date	Description
Tim Armstrong	03/29/2011	Final CCV failed low for Cadium and Selenium.

Corrective Action

Name	Date	Corrective Action
Tim Armstrong	03/29/2011	Investigating. Client contacted and requested data be reported.

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

Verified By	Due Date	Status	Notes
		This section not yet completed by QA.	

Approval History

Date Approved	Approved By	Position

TPA 3/29/11

Date Printed: 3/29/2011

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist

CHEMISTRY, First/Second Level Review

3/30/2011 1:35:42 PM

Lot No., Due Date: J1C280488; 03/29/2011
Client, Site: 127642; S00N063A00 HANFORD
QC Batch No., Method Test: 1087397; M6010_S 6010A
SDG, Matrix: J01038; SOIL

1.0 Initial Calibration

	Yes	No	N/A	2nd
1.1 Performed at required frequency with required number of levels?	✓			✓
1.2 Correlation coefficient within QC limits?	✓			✓
1.3 Initial calibration verification (ICV) analyzed immediately after calibration and results within QC limits?		✓		✓
1.4 Initial calibration blank (ICB) analyzed immediately after ICV and concentrations of all parameters <= reporting limit?	✓			✓

2.0 Continuing Calibration

	Yes	No	N/A	2nd
2.1 CCV analyzed at required frequency and all parameters within QC limits?		✓		✓
2.2 CCB analyzed at required frequency and all results <= reporting limit?	✓			✓

3.0 Sample Analysis

	Yes	No	N/A	2nd
3.1 Were any samples with concentration above the linear range for any parameter diluted and reanalyzed?			✓	✓
3.2 Were all sample holding times met?	✓			✓

4.0 QC Samples

	Yes	No	N/A	2nd
4.1 All results for the preparation blank below limits?				✓
4.2 MS or MS/MSD recoveries within QC limits and %RPD for MSD acceptable?		✓		✓
4.3 LCS precent recovery within QC limits and %RPD for LCSD acceptable?		✓		✓
4.4 Analytical spikes within QC limits where applicable?			✓	✓
4.5 ICP only: One serial dilution performed per SDG?	✓			✓
4.6 ICP only: CRDL standard (CRI or CRA) analyzed at required frequency?			✓	✓
4.7 ICP only: Interference check samples (ICSA,ICSAB) and HICAL analyzed at the required frequencies and within QC limits?	✓			✓

5.0 Other

	Yes	No	N/A	2nd
5.1 Are all nonconformances included and noted?	✓			✓
5.2 Is the correct date and time of analysis shown?				✓
5.3 Did the analyst sign and date the front page of the analytical run?			✓	✓
5.4 Correct methodology used?	✓			✓
5.5 Transcriptions checked?	✓			✓
5.6 Calculations checked at minimum frequency?	✓			✓
5.7 Units checked?	✓			✓

First Level [signature] Date 3/30/11 Second [signature] Date 3/30/11

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: **10-17902**
NCM Initiated By: Tim Armstrong
Date Opened: 03/30/2011
Date Closed:

Classification: **Anomaly**
Status: **PMREVIEW**
Production Area: Classical Chemistry
Tests: 6010A
Lot #'s (Sample #'s): J1C280000 (397), J1C280488 (1,2,3,4,5,6),
QC Batches: 1087397,

Nonconformance: Other (describe in detail)
Subcategory: Other (explanation required)

Problem Description / Root Cause

Name	Date	Description
Tim Armstrong	03/30/2011	Initial run indicated high Barium result in all batch QC and assumed to contaminate samples. CCV failed low for silver, barium and Chromium. Second run indicates Barium contamination and failed SIlver, barium and selenium ICV and CCV.

Corrective Action

Name	Date	Corrective Action
Tim Armstrong	03/30/2011	Barium contamination investigated and determined to orginate from syringe filter, alternatives are being explored. Failure of ICV and CCV under investigation. Data will be reported for client to evaluate.

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

Verified By	Due Date	Status	Notes
		This section not yet completed by QA.	

Approval History

Date Approved	Approved By	Position

Date Printed: 3/30/2011