SAF-RC-040
300 Area D4 Waste Characterization Sampling - Other Solid
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

No Distribution Required KW 10/29/12
INITIAL/DATE

COMMENTS:

SDG J01609 SAF RC-040

Rad only ☑ Chem only Rad & Chem

☑ Complete Partial

Sample Location/Waste Site: 382-D Garnet Sand

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:J01609

Data Package Contains 7 Pages

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Certificate of Analysis

TestAmerica Laboratories, Inc.

Washington Closure Hanford
2620 Fermi Avenue
Richland, WA 99354

October 26, 2012

Attention: Joan Kessner

SAF Number	:	RC-040
Date SDG Closed	:	October 26, 2012
Number of Samples	:	One (1)
Sample Type	:	Other
SDG Number	:	J01609
Data Deliverable	:	Quick Turn Metals / Summary

CASE NARRATIVE

I. Introduction

On October 26, 2012, one soil sample was received at TestAmerica for analysis. Upon receipt, the sample was assigned the following laboratory ID number to correspond with the Washington Closure Hanford (WCH) specific ID;

WCH ID#	TARL ID#	MATRIX	DATE OF RECEIPT
J1R4V2	MW347	OTHER	10/24/12

II. Sample Receipt

The sample was 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 J01609 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

One batch was analyzed for the samples with the standard metal request list.

Batch 2298060:

The LCS, batch blank, sample, 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: J01609
SAF: RC-040
BATCH: 2298060
MATRIX: SOIL
ANALYSIS DATE: 10/24/12

Client_id	Matrix	Result_1	Cas_nbr	Parameter	Result	Qualifier	Units	Reporting_Limits_S	Reporting_Limits	Uncertainty_1s	Analyzed_s	Analyzed_:	Decision_level_lc	LCS	Recc	Adde	Analysis_date_time	Batch_nbr	Test_Me	Lab_sample_id
J1R4V2	**SOLID**	**CS**	**7440-22-4**	**Ag**	**-6.31E-02**	**U**	**UG/G**	3.62E+00	3.62E+00	1.60E-01	0.2488	G	1.31E-01				10/24/2012 16:37	2298060	46DQ	MW3471A0
J1R4V2	**SOLID**	**CS**	**7440-38-2**	**As**	**3.92E-01**	**U**	**UG/G**	3.62E+00	3.62E+00	4.30E-01	0.2488	G	3.53E-01				10/24/2012 16:37	2298060	46DQ	MW3471A0
J1R4V2	**SOLID**	**CS**	**7440-39-3**	**Ba**	**1.01E+02**		**UG/G**	2.81E-01	2.81E-01	1.10E+00	0.2488	G	9.00E-01				10/24/2012 16:37	2298060	46DQ	MW3471A0
J1R4V2	**SOLID**	**CS**	**7440-41-7**	**Beryllium**	**5.26E-02**	**U**	**UG/G**	9.04E-02	9.04E-02	1.10E-02	0.2488	G	8.87E-03				10/24/2012 16:37	2298060	46DQ	MW3471A0
J1R4V2	**SOLID**	**CS**	**7440-43-9**	**Cadmium**	**6.70E-02**	**U**	**UG/G**	1.05E+00	1.05E+00	1.30E-02	0.2488	G	1.09E-02				10/24/2012 16:37	2298060	46DQ	MW3471A0
J1R4V2	**SOLID**	**CS**	**7440-47-3**	**Chromium**	**1.98E+00**	**U**	**UG/G**	4.02E+00	4.02E+00	1.10E-01	0.2488	G	8.68E-02				10/24/2012 16:37	2298060	46DQ	MW3471A0
J1R4V2	**SOLID**	**CS**	**7439-92-1**	**Lead**	**6.69E-01**	**U**	**UG/G**	1.85E+00	1.85E+00	3.60E-02	0.2488	G	2.97E-02				10/24/2012 16:37	2298060	46DQ	MW3471A0
J1R4V2	**SOLID**	**CS**	**7782-49-2**	**Se**	**7.39E-01**	**U**	**UG/G**	3.42E+00	3.42E+00	2.80E-01	0.2488	G	2.34E-01				10/24/2012 16:37	2298060	46DQ	MW3471A0
INTRA-LAB BLANK	SOLID	BLK	7440-22-4	Ag	5.74E-04	U	MG/L	1.80E-02	1.80E-02	4.70E-04	1	L	3.86E-04				10/24/2012 16:25	2298060	46DQ	MW3551AA
INTRA-LAB BLANK	SOLID	BLK	7440-38-2	As	-1.78E-03	U	MG/L	1.80E-02	1.80E-02	9.20E-04	1	L	7.56E-04				10/24/2012 16:25	2298060	46DQ	MW3551AA
INTRA-LAB BLANK	SOLID	BLK	7440-39-3	Ba	6.39E-05	U	MG/L	1.40E-03	1.40E-03	9.70E-05	1	L	8.01E-05				10/24/2012 16:25	2298060	46DQ	MW3551AA
INTRA-LAB BLANK	SOLID	BLK	7440-41-7	Beryllium	-1.96E-05	U	MG/L	4.50E-04	4.50E-04	5.00E-05	1	L	4.13E-05				10/24/2012 16:25	2298060	46DQ	MW3551AA
INTRA-LAB BLANK	SOLID	BLK	7440-43-9	Cadmium	3.13E-05	U	MG/L	5.20E-03	5.20E-03	6.30E-05	1	L	5.18E-05				10/24/2012 16:25	2298060	46DQ	MW3551AA
INTRA-LAB BLANK	SOLID	BLK	7440-47-3	Chromium	3.22E-04	U	MG/L	2.00E-02	2.00E-02	3.00E-04	1	L	2.50E-04				10/24/2012 16:25	2298060	46DQ	MW3551AA
INTRA-LAB BLANK	SOLID	BLK	7439-92-1	Lead	-4.79E-05	U	MG/L	9.20E-03	9.20E-03	9.20E-04	1	L	7.57E-04				10/24/2012 16:25	2298060	46DQ	MW3551AA
INTRA-LAB BLANK	SOLID	BLK	7782-49-2	Se	3.80E-03	U	MG/L	1.70E-02	1.70E-02	2.90E-03	1	L	2.37E-03				10/24/2012 16:25	2298060	46DQ	MW3551AA
INTRA-LAB CHECK	SOLID	LCS	7440-22-4	Ag	9.57E-01		MG/L	1.80E-02	1.80E-02	1.20E-02	1	L	1.03E-02	0.96	1		10/24/2012 16:28	2298060	46DQ	MW3551AA
INTRA-LAB CHECK	SOLID	LCS	7440-38-2	As	9.55E-01		MG/L	1.80E-02	1.80E-02	9.00E-03	1	L	7.36E-03	0.95	1		10/24/2012 16:28	2298060	46DQ	MW3551AA
INTRA-LAB CHECK	SOLID	LCS	7440-39-3	Ba	9.98E-01		MG/L	1.40E-03	1.40E-03	1.10E-02	1	L	8.64E-03	1	1		10/24/2012 16:28	2298060	46DQ	MW3551AA
INTRA-LAB CHECK	SOLID	LCS	7440-41-7	Beryllium	9.51E-01		MG/L	4.50E-04	4.50E-04	1.30E-02	1	L	1.04E-02	0.95	1		10/24/2012 16:28	2298060	46DQ	MW3551AA
INTRA-LAB CHECK	SOLID	LCS	7440-43-9	Cadmium	9.23E-01		MG/L	5.20E-03	5.20E-03	5.50E-03	1	L	4.50E-03	0.92	1		10/24/2012 16:28	2298060	46DQ	MW3551AA
INTRA-LAB CHECK	SOLID	LCS	7440-47-3	Chromium	9.72E-01		MG/L	2.00E-02	2.00E-02	1.40E-02	1	L	1.16E-02	0.97	1		10/24/2012 16:28	2298060	46DQ	MW3551AA
INTRA-LAB CHECK	SOLID	LCS	7439-92-1	Lead	9.73E-01		MG/L	9.20E-03	9.20E-03	5.50E-03	1	L	4.50E-03	0.97	1		10/24/2012 16:28	2298060	46DQ	MW3551AA
INTRA-LAB CHECK	SOLID	LCS	7782-49-2	Se	8.63E-01		MG/L	1.70E-02	1.70E-02	4.00E-03	1	L	3.28E-03	0.86	1		10/24/2012 16:28	2298060	46DQ	MW3551AA
J1R4V2	SOLID	DUP	7440-22-4	Ag	4.04E-02	U	UG/G	3.67E+00	3.67E+00	1.30E-01	0.2449	G	1.06E-01				10/24/2012 16:50	2298060	46DQ	MW3471A0
J1R4V2	SOLID	DUP	7440-38-2	As	4.83E-01	U	UG/G	3.67E+00	3.67E+00	3.00E-01	0.2449	G	2.45E-01				10/24/2012 16:50	2298060	46DQ	MW3471A0
J1R4V2	SOLID	DUP	7440-39-3	Ba	1.32E+02		UG/G	2.86E-01	2.86E-01	2.30E+00	0.2449	G	1.93E+00				10/24/2012 16:50	2298060	46DQ	MW3471A0
J1R4V2	SOLID	DUP	7440-41-7	Beryllium	1.11E-01	U	UG/G	9.19E-02	9.19E-02	1.40E-01	0.2449	G	1.18E-01				10/24/2012 16:50	2298060	46DQ	MW3471A0
J1R4V2	SOLID	DUP	7440-43-9	Cadmium	4.56E-02	U	UG/G	1.06E+00	1.06E+00	2.80E-02	0.2449	G	2.30E-02				10/24/2012 16:50	2298060	46DQ	MW3471A0
J1R4V2	SOLID	DUP	7440-47-3	Chromium	2.87E+00	U	UG/G	4.08E+00	4.08E+00	2.00E-01	0.2449	G	1.68E-01				10/24/2012 16:50	2298060	46DQ	MW3471A0
J1R4V2	SOLID	DUP	7439-92-1	Lead	6.60E-01	U	UG/G	1.88E+00	1.88E+00	1.00E-01	0.2449	G	8.51E-02				10/24/2012 16:50	2298060	46DQ	MW3471A0
J1R4V2	SOLID	DUP	7782-49-2	Se	8.31E-01	U	UG/G	3.47E+00	3.47E+00	3.70E-01	0.2449	G	3.04E-01				10/24/2012 16:50	2298060	46DQ	MW3471A0
J1R4V2	SOLID	MS	7440-22-4	Ag	1.91E+02		% REC	3.51E+00	3.51E+00	3.00E+00	0.2561	L	2.50E+00	0.98	195		10/24/2012 16:40	2298060	46DQ	MW3471A0
J1R4V2	SOLID	MS	7440-38-2	As	1.99E+02		% REC	3.51E+00	3.51E+00	1.10E+01	0.2561	L	9.23E+00	1.02	195		10/24/2012 16:40	2298060	46DQ	MW3471A0
J1R4V2	SOLID	MS	7440-39-3	Ba	2.05E+02		% REC	2.73E-01	2.73E-01	4.10E+00	0.2561	L	3.41E+00	1.05	195		10/24/2012 16:40	2298060	46DQ	MW3471A0
J1R4V2	SOLID	MS	7440-41-7	Beryllium	1.94E+02		% REC	8.79E-02	8.79E-02	3.40E+00	0.2561	L	2.80E+00	0.99	195		10/24/2012 16:40	2298060	46DQ	MW3471A0
J1R4V2	SOLID	MS	7440-43-9	Cadmium	1.92E+02		% REC	1.02E+00	1.02E+00	1.10E+01	0.2561	L	9.16E+00	0.98	195		10/24/2012 16:40	2298060	46DQ	MW3471A0
J1R4V2	SOLID	MS	7440-47-3	Chromium	1.96E+02		% REC	3.90E+00	3.90E+00	3.60E+00	0.2561	L	2.99E+00	1	195		10/24/2012 16:40	2298060	46DQ	MW3471A0
J1R4V2	SOLID	MS	7439-92-1	Lead	2.01E+02		% REC	1.80E+00	1.80E+00	1.20E+01	0.2561	L	9.64E+00	1.03	195		10/24/2012 16:40	2298060	46DQ	MW3471A0
J1R4V2	SOLID	MS	7782-49-2	Se	1.79E+02		% REC	3.32E+00	3.32E+00	9.80E+00	0.2561	L	8.05E+00	0.92	195		10/24/2012 16:40	2298060	46DQ	MW3471A0
J1R4V2	SOLID	MSD	7440-22-4	Ag	1.92E+02		% REC	3.58E+00	3.58E+00	1.60E+00	0.2515	L	1.32E+00	0.96	199		10/24/2012 16:45	2298060	46DQ	MW3471A0
J1R4V2	SOLID	MSD	7440-38-2	As	1.94E+02		% REC	3.58E+00	3.58E+00	1.40E+00	0.2515	L	1.19E+00	0.98	199		10/24/2012 16:45	2298060	46DQ	MW3471A0
J1R4V2	SOLID	MSD	7440-39-3	Ba	2.21E+02		% REC	2.78E-01	2.78E-01	8.10E+00	0.2515	L	6.65E+00	1.11	199		10/24/2012 16:45	2298060	46DQ	MW3471A0
J1R4V2	SOLID	MSD	7440-41-7	Beryllium	1.92E+02		% REC	8.95E-02	8.95E-02	2.50E+00	0.2515	L	2.02E+00	0.96	199		10/24/2012 16:45	2298060	46DQ	MW3471A0
J1R4V2	SOLID	MSD	7440-43-9	Cadmium	1.87E+02		% REC	1.03E+00	1.03E+00	9.80E-01	0.2515	L	8.04E-01	0.94	199		10/24/2012 16:45	2298060	46DQ	MW3471A0
J1R4V2	SOLID	MSD	7440-47-3	Chromium	1.94E+02		% REC	3.98E+00	3.98E+00	2.70E+00	0.2515	L	2.19E+00	0.97	199		10/24/2012 16:45	2298060	46DQ	MW3471A0
J1R4V2	SOLID	MSD	7439-92-1	Lead	1.95E+02		% REC	1.83E+00	1.83E+00	1.40E+00	0.2515	L	1.19E+00	0.98	199		10/24/2012 16:45	2298060	46DQ	MW3471A0
J1R4V2	SOLID	MSD	7782-49-2	Se	1.75E+02		% REC	3.38E+00	3.38E+00	2.90E-01	0.2515	L	2.40E-01	0.88	199		10/24/2012 16:45	2298060	46DQ	MW3471A0

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		RC-040-780	Page 1 of 1
Collector: RL STRICKLAND	Company Contact: Tom Edmundson	Telephone No.: 509.947.5192	Project Coordinator: KESSNER, JH	Price Code: 9K
Project Designation: 300 Area D4 Waste Characterization Sampling - Other Solid	Sampling Location: 382-D Garnet Sand		SAF No.: RC-040	Data Turnaround: ~~15 Days~~ 24 hr TRE 10/23/12
Ice Chest No.: N/A	Field Logbook No.: EL-1656	COA: RD4MXX2F00	Method of Shipment: Gov't Vehicle	
Shipped To: TestAmerica Incorporated, Richland	Offsite Property No.: N/A		Bill of Lading/Air Bill No.: N/A	

POSSIBLE SAMPLE HAZARDS/REMARKS
N/A

Special Handling and/or Storage
N/A SDG# J01609
LOT# J2J240424

Report: 10-25-12

J2J240424

Preservation	~~Cool 4C~~ None 10/23/12 TRE											
Type of Container	G/P											
No. of Container(s)	1											
Volume	60mL											
	See item (1) in Special Instructions. TRE 10/23/12 *SEE SPECIAL INSTRUC.											

	ix *	Sample Date	Sample Time									
J1R4V2 MW347	OTHER SOLID	10/24/12	0840	✓								

CHAIN OF POSSESSION	Date/Time	Sign/Print Names	Date/Time
Relinquished By/Removed From: RL STRICKLAND RL Strickland	10/24/12 0950	Received By/Stored In: FED EX RS	10/24/12
Relinquished By/Removed From: RL STRICKLAND RL Strickland	10/24/12 1025 WCH	Received By/Stored In: Julie Bock TALR	10-24-12 1025
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
*Qick Turn Metals Only, any questions please contact Joan Kessner @ 509-375-4688

~~(1) ICP Metals - 6010TR~~ (Client List) {Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silicon, Silver, Sodium, Vanadium, Zinc}; ~~Mercury - 7471 - (CV)~~ TRE 10/23/12

REVIEWED BY TRE DATE 10/24/12

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

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Sample Check-in List

Date/Time Received: 10-24-12 | 1025 Container GM Screen Result: (Airlock) .04 Initials [JB]
Sample GM Screen Result (Sample Receiving) .04 Initials [JB]

Client: WLH SDG #: JO1609 NA [ ] SAF #: RL-040 NA [ ]

Lot Number: J25240424

Chain of Custody # RL-040-780

Shipping Container ID: hand deliv. NA [JB] Air Bill Number: NA [JB]

Samples received inside shipping container/cooler/box Yes [JB] Continue with 1 through 4. Initial appropriate response.
No [ ] Go to 5, add comment to #16.

1. Custody Seals on shipping container intact? Yes [ ] No [ ] No Custody Seal [JB]
2. Custody Seals dated and signed? Yes [ ] No [ ] No Custody Seal [JB]
3. Cooler temperature: 21.9 °C on ice NA [ ]
4. Vermiculite/packing materials is NA [JB] Wet [ ] Dry [ ]

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes [JB] No [ ]
6. Number of samples received (Each sample may contain multiple bottles): 1
7. Containers received: 1 x 60 mLs
8. Sample holding times exceeded? NA [ ] Yes [ ] No [JB]
9. Samples have:
   ___ tape
   JB custody seals
   ___ hazard labels
   JB appropriate sample labels
10. Matrix:
    JB A (FLT, Wipe, Solid, Soil)
    ___ S (Air, Niosh 7400)
    ___ I (Water)
    ___ T (Biological, Ni-63)
11. Samples:
    JB are in good condition
    ___ are broken
    ___ Other
    ___ are leaking
    ___ have air bubbles (Only for samples requiring no head space)
12. Sample pH appropriate for analysis requested Yes [ ] No [ ] NA [JB]
    (If acidification is necessary, then document sample ID, initial pH, amount of HNO_3 added and pH after addition on table overleaf)

    RPL ID # of preservative used :
13. Were any anomalies identified in sample receipt? Yes [ ] No [JB]
14. Description of anomalies (include sample numbers): NA [JB]

LS-023, Rev. 15, 07/11 See over for additional information.

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15. Sample Location, Sample Collector Listed on COC? * Yes [X] No [ ]
*For documentation only. No corrective action needed.

16. Additional Information:

[ ] Client/Courier denied temperature check. [X] Client/Courier unpack cooler.

Sample Custodian: Julie Bock Date: 10-24-12

Client Informed on _____ by _____ Person contacted _____

[X] No action necessary; process as is

Project Manager Rhonda Wyer Date 10/24/12

SAMPLE ID	Initial pH	Acid Amt	Final pH	SAMPLE ID	Initial pH	Acid Amt	Final pH

JB 10-24-12 JB 10-24-12

J2J240424 RW 10/24/12

LS-023, Rev. 15, 07/11

See over for additional information.