

Analytical Data Package Prepared For

Fluor Hanford, Inc.

Analysis Provided By

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

SDG Number: Wp 5355

Data Package Contains 10 Pages

Certificate of Analysis

Fluor Hanford
1200 Jadwin Ave.
Richland, WA 99352

March 26, 2008

Attention: Steve Trent

SAF Number	:	F08-039
Date SDG Closed	:	March 13, 2008
Number of Samples	:	One (1)
Sample Type	:	Water
SDG Number	:	W05355
Data Deliverable	:	24 Hour / 15 Day

CASE NARRATIVE

I. Introduction

On March 13, 2008 one sample was received at TestAmerica Laboratories Richland (TALR) for chemical analysis. Upon receipt, the sample was assigned to lot J8C130352 and assigned the following laboratory ID number to correspond with the Fluor Hanford (FH) specific ID:

<u>FH ID#</u>	<u>STLR ID#</u>	<u>MATRIX</u>	<u>DATE OF RECEIPT</u>
B1TNL8	KJJ5K	WATER	3/13/08

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.

March 26, 2008

The requested analyses were:

Chemical Analysis

Chromium by EPA method SW8466010

IV. Quality Control

The analytical results for each analysis performed includes a minimum of one laboratory control sample (LCS), one method (reagent) blank, and one duplicate sample analysis. Any exceptions have been noted in the "Comments" section.

QC and sample results are reported in the same units.

V. Comments

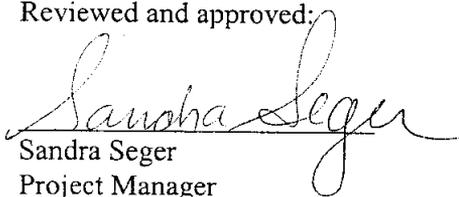
Chemical Analysis

Chromium by EPA method SW8466010

The LCS, batch blank, sample and duplicate sample results are within contractual requirements.

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:


Sandra Seger
Project Manager

Analysis Date: 3/13/2008

QC Batch #: 8073549

Analyte: Chromium

MDL 0.0194

Sample ID	Comment	Client ID	Instrum't Reading (mg/L)	Final Vol. (L)	Dilution Factor	Recov'd Cr (mg/L)	Results (ug/L)	Yield
kjj5k1aa	10:1 dilution	B1TNL8	0.2727	1	10	2.727	2727	
kjj5k1ac-MS	10:1 dilution MS	B1TNL8	1.171	1	10	11.71	11710	89.83%
kjj5k1ad-MSD	10:1 dilution MSD	B1TNL8	1.164	1	10	11.64	11640	89.13%
kjj5k1ae DUP	10:1 dilution - Duplicate	B1TNL8	0.2637	1	10	2.637	2637	
kjfv1aa	Reagent Blank		-0.002	0.05	1	-0.002	<MDL	
kjfv1ac	LCS		0.95	0.05	1	0.95		95.00%

**Richland Laboratory
 Data Review Check List
 Metals**

Batch Number(s) 8073549				
Lab Sample Numbers or SDG:				
Method/Test/Parameter: Metals				
Review Item	Yes (✓)	No (✓)	N/A (✓)	2 nd Level Review (✓)
A. Initial Calibration				
1. Performed at required frequency with required number of levels?	✓			✓
2. Correlation coefficient within QC limits?	✓			✓
3. Initial calibration verification (ICV) analyzed immediately after calibration and results within QC limits?	✓			✓
4. Initial calibration blank (ICB) analyzed immediately after ICV and concentrations of all parameters ≤ reporting limit?	✓			✓
B. Continuing Calibration				
1. CCV analyzed at required frequency and all parameters within QC limits?	✓			✓
2. CCB analyzed at required frequency and all results ≤ reporting limit?	✓			✓
C. Sample Analysis				
1. Were any samples with concentrations above the linear range for any parameter diluted and reanalyzed?	✓			✓
2. Were all sample holding times met?	✓			✓
D. QC Samples				
1. All results for the preparation blank below limits?	✓			✓
2. MS or MS/MSD recoveries within QC limits and %RPD (for MSD) acceptable?			✓	✓
3. LCS percent recovery within QC limits and %RPD (for LCSD) acceptable?	✓			✓
4. Analytical spikes within QC limits where applicable?	✓			✓
5. ICP only: One serial dilution performed per SDG?			✓	✓
6. ICP only: CRDL standard (CRI or CRA) analyzed at required frequency?			✓	✓
7. ICP only: Interference check samples (ICSA, ICSAB) and HICAL analyzed at the required frequencies and within QC limits?	✓			✓

Review Item	Yes (✓)	No (✓)	N/A (✓)	2 nd Level Review (✓)
E. Other	✓			
1. Are all nonconformances included and noted?				✓
2. Is the correct date and time of analysis shown?	✓			✓
3. Did the analyst sign and date the front page of the analytical run?	✓			✓
4. Correct methodology used?	✓			✓
5. Transcriptions checked?	✓			✓
6. Calculations checked at minimum frequency?	✓			✓
7. Units checked?	✓			✓

Comments on any "No" response

Analyst: *Ann E. Whitcomb*
 Second-Level Review: *Jodie C.*

Date 3/13/08
 Date: 3/26/08

COLLECTOR
NCO Samplers

PRICE CODE 1A

DATA
TURNAROUND
24 Hours /
15 Days

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

PROJECT COORDINATOR
TRENT, SJ

COMPANY CONTACT
WIDRIG, DL

TELEPHONE NO.
376-2858

PROJECT DESIGNATION
DR-5 GW Treatment Facility Regen Waste Characterization - Special Sampling

SAF NO.
F08-039

COA
122569ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

FIELD LOGBOOK NO.
HMF-N-4283

ACTUAL SAMPLE DEPTH

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE	DATA TURNAROUND
DR-5 GW Treatment Facility Regen Waste Characterization - Special Sampling	WIDRIG, DL	376-2858	TRENT, SJ	1A	24 Hours / 15 Days
FIELD LOGBOOK NO. HMF-N-4283			SAF NO. F08-039	AIR QUALITY <input type="checkbox"/>	
ACTUAL SAMPLE DEPTH			COA 122569ES10	METHOD OF SHIPMENT	GOVERNMENT VEHICLE
OFFSITE PROPERTY NO. N/A			BILL OF LADING/AIR BILL NO. N/A		

PRESERVATION	HNO3 to pH
<2	
TYPE OF CONTAINER	
CP	
NO. OF CONTAINER(S)	
1	
VOLUME	
500ml	
SAMPLE ANALYSIS	
ICP Metals - 6010a (TAL) (Chromium)	

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	SIGN/ PRINT NAMES	DATE/TIME RECEIVED BY/STORED IN
B1TNL8	WATER	3-13-08	10:40		3-13-08 3:30 PM TALLER
CHAIN OF POSSESSION					
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
R. R. FOX		3-13-08			
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
 ** The field samplers are requested to filter the sample with a 0.45 micron filter and preserve with HNO3 to a pH less than 2.

J8C13035Z
 W05355
 DME 3-14-08
 KJJSK

LABORATORY SECTION	TITLE	DATE/TIME
RECEIVED BY		
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DATE/TIME



Sample Check-in List DUE 3-14-08

Date/Time Received: 3-13-08 1355 GM Screen Result 0.2K

Client: FLH SDG #: W05355 NA [] SAF #: F08-039 NA []

Work Order Number: J8C130352 Chain of Custody # F08-039-080

Shipping Container ID: _____ Air Bill # _____

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

6. Number of samples in shipping container: 1

7. Sample holding times exceeded? NA Yes [] No []

8. Samples have:

- Tape Hazard Labels
- Custody Seals Appropriate Sample Labels

9. Samples are:

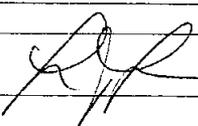
- In Good Condition Leaking
 - Broken Have Air Bubbles
- (Only for samples requiring no head space.)

10. Sample pH taken? NA [] pH<2 pH>2 [] pH>9 [] Amount HNO₃ Added _____

11. Sample Location, Sample Collector Listed? *
*For documentation only. No corrective action needed.

12. Were any anomalies identified in sample receipt? Yes [] No

13. Description of anomalies (include sample numbers): _____

Sample Custodian:  Date: 3-13-08

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____

[] No action necessary; process as is.

Project Manager _____ Date _____

3/13/2008 6:41:38 PM

Sample Preparation/Analysis

Balance Id:

108302, Fluor Hanford Inc
Management Federal Servi

88 NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION
EA Chromium, Hexavalent (7196A)
01 STANDARD TEST SET

Waste

Pipet #:

AnalyteDueDate: 03/14/2008

Sep1 DT/Tm Tech:

Batch: 8073549 WATER ug/L

PM, Quote: SS , 29754

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 8073549 88EA,

Prep Tech:

Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
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1 KJ5K-1-AA

J8C130352-1-SAMP

03/13/2008 10:40

AmiRec: 500MLP

#Containers: 1

Scr:

Alpha:

Beta:

2 KJ5K-1-AC-S

J8C130352-1-MS

03/13/2008 10:40

AmiRec: 500MLP

#Containers: 1

Scr:

Alpha:

Beta:

3 KJ5K-1-AD-D

J8C130352-1-MSD

03/13/2008 10:40

AmiRec: 500MLP

#Containers: 1

Scr:

Alpha:

Beta:

4 KJ5K-1-AE-X

J8C130352-1-DUP

03/13/2008 10:40

AmiRec: 500MLP

#Containers: 1

Scr:

Alpha:

Beta:

5 KJ5K-1-AA-B

J8C130000-549-BLK

03/13/2008 10:40

AmiRec: 500MLP

#Containers: 1

Scr:

Alpha:

Beta:

6 KJ5K-1-AC-C

J8C130000-549-LCS

03/13/2008 10:40

AmiRec: 500MLP

#Containers: 1

Scr:

Alpha:

Beta:

3/13/2008 6:41:39 PM

Sample Preparation/Analysis

88 NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION
EA Chromium, Hexavalent (7196A)
01 STANDARD TEST SET

Analyte Due Date: 03/14/2008

ug/L

Batch: 8073549

SEO Batch, Test: None

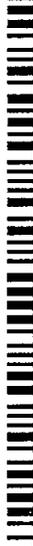
Balance Id:

Pipet #:

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech:

Work Order, Lot, Sample Date Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On / Off (24hr) Circle	CR Analyst, Init/Date	Comments:
								

Comments:

All Clients for Batch:
108302, Fluor Hanford Inc

Waste Management Federal Servi, SS, 29754

KJJ5K1AA-SAMP Constituent List:

KJJ5K1AC-MS Constituent List:

KJJ5K1AD-MSD:

KJKFV1AA-BLK:

KJKFV1AC-LCS:

KJJ5K1AA-SAMP Calc Info:

Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
KJJ5K1AC-MS Calc Info:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
KJJ5K1AD-MSD:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
KJKFV1AA-BLK:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
KJKFV1AC-LCS:				
Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

Approved By

Date: