



ICF International / Laboratory Data Consultants

Environmental Services Assistance Team, Region 9
1337 South 46th Street, Building 201, Richmond, CA 94804-4698
Phone: (510) 412-2300 Fax: (510) 412-2304

MEMORANDUM

TO: Chris Lichens, Remedial Project Manager
Site Cleanup Section 4, SFD-7-4

THROUGH: Rose Fong, ESAT Task Order Manager (TOM)
Quality Assurance (QA) Program, PMD-3

FROM: Doug Lindelof, Data Review Task Manager
Region 9 Environmental Services Assistance Team (ESAT)

ESAT Contract No.: EP-W-06-041
Technical Direction Form No.: 00105041 Amendment 3

DATE: February 28, 2007

SUBJECT: Review of Analytical Data, Tier 3

Attached are comments resulting from ESAT Region 9 review of the following analytical data:

Site:	Omega Chem OU2
Site Account No.:	09 BC LA02
CERCLIS ID No.:	CAD042245001
Case No.:	None
SDG No.:	IPH3268
Laboratory:	Test America Analytical Testing Corp.
Analysis:	Hexavalent Chromium
Samples:	5 Groundwater Samples (see Case Summary)
Collection Dates:	August 31, 2006
Reviewer:	Stan Kott, ESAT/Laboratory Data Consultants

This report has been reviewed by the EPA TOPO for the ESAT contract, whose signature appears above.

If there are any questions, please contact Rose Fong (QA Program/EPA) at (415) 972-3812.

Attachment

SAMPLING ISSUES: Yes No

Data Validation Report

Case No.: None
SDG No.: IPH3268
Site: Omega Chem OU2
Laboratory: Test America Analytical Testing Corp.
Reviewer: Stan Kott, ESAT/LDC
Date: February 28, 2007

I. CASE SUMMARY

Sample Information

Samples: OC2-MW16C-W-0-228, OC2-MW16B-W-0-229,
OC2-MW16A-W-0-230, OC2-MW22-W-0-231, and
OC2-MW21-W-0-232

Concentration and Matrix: Low Concentration Groundwater
Analysis: Hexavalent Chromium
SOW: EPA Method 218.6
Collection Date: August 31, 2006
Sample Receipt Date: August 31, 2006
Preparation Date: August 31, 2006
Analysis Date: September 1, 2006

Field QC

Field Blanks (FB): Not Provided
Equipment Blanks (EB): Not Provided
Background Samples (BG): Not Provided
Field Duplicates (D1): Not Provided

Laboratory QC

Method Blanks (MB): MB
Associated Samples: Samples listed above
Matrix Spike (MS)/MS Duplicate (MSD): IPH3308-04MS/MSD (See Additional Comments)
Duplicate: MSD listed above

Analysis: Hexavalent Chromium

<u>Analyte</u>	<u>Sample Preparation Date</u>	<u>Analysis Date</u>
Hexavalent Chromium	August 31, 2006	September 1, 2006

Sampling Issues

The chain of custody (COC) record form indicates "HCL" for hexavalent chromium sample preservation. Additional information indicates the sample preservation on the COC was incorrect. See Attachments.

The Chain of Custody (COC) record form did not specify a sample to be used for laboratory quality control (QC). As a result, the laboratory selected sample IPH3308-04 for QC analysis. The effect on data quality is not known.

Additional Comments

As directed by the EPA TOPO, a Tier 3 data review was performed. A Table 1A is not requested.

The initial calibration blank (IB) data provided in the data package was analyzed prior to instrument calibration and does not reflect the calibration used to analyze this SDG. The effect on data quality is not known.

The laboratory analyzed the laboratory control sample (LCS) at a 0.050 mg/L concentration not the 0.10 mg/L concentration specified in the method. No adverse effect on data quality is expected.

The laboratory selected sample IPH3308-04 for laboratory QC analysis. Although MS/MSD results met criteria, this sample is from a different SDG and may not reflect the matrix characteristics of the samples in SDG IPH3268. The effect on data quality is not known.

Note that hexavalent chromium results are reported in mg/L instead of µg/L as specified in the method. No adverse effect on data quality is expected.

This report was prepared in accordance with the following documents:

- X Region 9 Standard Operating Procedure 906, *Guidelines for Data Review of Contract Laboratory Program Analytical Services (CLPAS) Inorganic Data Packages*;
- X *Methods For The Determination Of Metals In Environmental Samples*, EPA-600/4-91-010, June 1991; and
- X *USEPA Method 218.6, Determination of Dissolved Hexavalent Chromium in Drinking Water, Groundwater, and Industrial Wastewater Effluents by Ion Chromatography*, Revision 3.3, May 1994.

II. VALIDATION SUMMARY

The data were evaluated based on the following parameters:

	<u>Parameter</u>	<u>Acceptable</u>	<u>Comment</u>
1.	Data Completeness	Yes	
2.	Sample Preservation and Holding Times	Yes	
3.	Calibration	Yes	
	a. Initial		
	b. Initial and Continuing Calibration Verification		
4.	Blanks	Yes	
5.	Laboratory Control Sample (LCS)	Yes	
6.	Duplicate Sample Analysis	Yes	
7.	Matrix Spike Sample Analysis	Yes	
8.	Field Duplicate Sample Analysis	N/A	
9.	Sample Quantitation	Yes	
10.	Overall Assessment	Yes	

N/A = Not Applicable

III. OVERALL ASSESSMENT OF DATA

All of the method requirements specified in Method 218.6 have been met. Reported results for hexavalent chromium in all of the samples were appropriate and correctly calculated.

TABLE 1B

DATA QUALIFIER DEFINITIONS FOR INORGANIC DATA REVIEW

The definitions of the following qualifiers are prepared in accordance with the document *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, October 2004.

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



Rose Fong/R9/USEPA/US
02/28/2007 09:49 AM

To Stan Kott/R9/USEPA/US@EPA
cc
bcc

Subject Omega Chem TestAmerica CRL response

History: This message has been forwarded.

----- Forwarded by Rose Fong/R9/USEPA/US on 02/28/2007 09:48 AM -----



Victoria.Taylor@CH2M.com
02/28/2007 08:45 AM

To Rose Fong/R9/USEPA/US@EPA
cc Daniel.Jablonski@CH2M.com, tom.perina@ch2m.com
Subject FW: Request for Additional Information

I got a response from Test America on the sample preservation issues. They provided the bottle order that indicates how the bottles for the different test methods were preserved. It appears that the COC was incorrectly filled out.

Hopefully this will be enough to resolve the validation issues. Thanks VT

From: Diane Suzuki [mailto:dsuzuki@testamericainc.com]
Sent: Wednesday, February 21, 2007 3:08 PM
To: Taylor, Victoria/BAO
Cc: Jablonski, Daniel/LAC; Perina, Tom/RIV
Subject: RE: Request for Additional Information

Hi Vikki

I started to go through the various workorders, but I thought it would be easier to send you the bottle order that was submitted for this around of sampling. Please note on the bottle order the HCL preservative with the ascorbic acid is not visible. While the method 524.2 allows sodium thiosulfate and HCl as a dechlorinating agent/preservative pair, we have found that it actually damages the trap on the instrument. For this reason, we have been trying to use Ascorbic Acid and HCl exclusively. The HCl is required for THMs when Ascorbic Acid is used.

For the your COC that has HCL only, I believe that due to space limitation, your sampler may not have entered all of the information.

....diane

Date Printed: 8/16/2006 6:02:02AM

BOTTLE ORDER DELIVERY (ALTERNATE ADDRESS)

TESTAMERICA - IRVINE, CA
 17461 Derian Avenue, Suite 100
 Irvine, CA 92614
 Ph: (949) 261-1022 Fax: (949) 260-3297

Date Requested: 08/14/06 8:08PM	Scheduled Date: 08/16/06 Anytime
Requested By: CH2M Hill - Los Angeles	Client Contact: Kerang Sun
Alternate Address: CH2M Hill - Los Angeles 3 Hutton Centre Drive, Ste 200 Santa Ana, CA 92707	Client Phone#: (714) 429-2000 Created By: Diane Suzuki Project Manager: Diane Suzuki

Miscellaneous Items Requested:

Cooler(s): 3 Large Cooler(s)	Ice: None	COC's: 30 Lab COC's	Misc Items: None
---------------------------------	--------------	------------------------	---------------------

Comments:Cross Streets/Driving Directions: None SuppliedComments: Ensure that a copy of the 'Sample Acceptance Policy' is included in the cooler(s) for this request!

Qty	Qty Type	Bottle Type	Analysis	Holding Time	Comments
180	60 - Samples	40 ml VOA w/Ascorbic acid Lot Number(s): 051108	524.2 CA 123-TCP (SIM) DMAC-OUT	14 Days	Collect 3 containers per sample. No headspace!
120	60 - Samples	1 L Amber Lot Number(s): H619101DB	NDMA-1625C Mod	7 Days	Collect 2 containers per sample.
60	Samples	500 ml Poly Lot Number(s): None Assigned	Chromium VI EPA 7199	1 Day	
10	Samples	1 L Amber Lot Number(s): H619101DB	NDMA-1625C Mod	7 Days	These are additional containers for MS/MSD QC samples for NDMA. Please collect the desired sample in triplicate.

