

ANALYTICAL REPORT

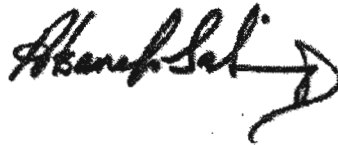
Job Number: 720-18062-2

Job Description: Santa Cruz Rail Line

For:

AMEC Geomatrix Inc.
2101 Webster Street, 12th Floor
Oakland, CA 94612

Attention: Mr. Matt Goerz



Approved for release.
Afsaneh Salimpour
Project Manager I
3/4/2009 3:17 PM

Afsaneh Salimpour
Project Manager I
afsaneh.salimpour@testamericainc.com
03/04/2009

EXECUTIVE SUMMARY - Detections

Client: AMEC Geomatrix Inc.

Job Number: 720-18062-2

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-18062-2 Arsenic	SB-73-1.5	4.7	0.99	mg/Kg	6010B
720-18062-3 Arsenic	SB-73-4.5	6.7	1.0	mg/Kg	6010B

METHOD SUMMARY

Client: AMEC Geomatrix Inc.

Job Number: 720-18062-2

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Metals (ICP)	TAL SF	SW846 6010B	
Preparation, Metals	TAL SF		SW846 3050B

Lab References:

TAL SF = TestAmerica San Francisco

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: AMEC Geomatrix Inc.

Job Number: 720-18062-2

Method	Analyst	Analyst ID
SW846 6010B	Arndt, Christopher	CA

SAMPLE SUMMARY

Client: AMEC Geomatrix Inc.

Job Number: 720-18062-2

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
720-18062-2	SB-73-1.5	Solid	02/10/2009 1550	02/11/2009 1650
720-18062-3	SB-73-4.5	Solid	02/10/2009 1553	02/11/2009 1650

Analytical Data

Client: AMEC Geomatrix Inc.

Job Number: 720-18062-2

Client Sample ID: SB-73-1.5

Lab Sample ID: 720-18062-2
Client Matrix: Solid

Date Sampled: 02/10/2009 1550
Date Received: 02/11/2009 1650

6010B Metals (ICP)

Method: 6010B
Preparation: 3050B
Dilution: 1.0
Date Analyzed: 03/02/2009 1752
Date Prepared: 03/02/2009 0920

Analysis Batch: 720-47256
Prep Batch: 720-47236

Instrument ID: Varian ICP
Lab File ID: N/A
Initial Weight/Volume: 1.01 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Arsenic		4.7		0.99

Analytical Data

Client: AMEC Geomatrix Inc.

Job Number: 720-18062-2

Client Sample ID: SB-73-4.5

Lab Sample ID: 720-18062-3

Date Sampled: 02/10/2009 1553

Client Matrix: Solid

Date Received: 02/11/2009 1650

6010B Metals (ICP)

Method: 6010B

Analysis Batch: 720-47256

Instrument ID:

Varian ICP

Preparation: 3050B

Prep Batch: 720-47236

Lab File ID:

N/A

Dilution: 1.0

Initial Weight/Volume:

0.98 g

Date Analyzed: 03/02/2009 1756

Final Weight/Volume:

50 mL

Date Prepared: 03/02/2009 0920

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Arsenic		6.7		1.0

DATA REPORTING QUALIFIERS

Lab Section	Qualifier	Description
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Quality Control Results

Client: AMEC Geomatrix Inc.

Job Number: 720-18062-2

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 720-47236					
LCS 720-47236/2-A	Lab Control Spike	T	Solid	3050B	
LCSD 720-47236/3-A	Lab Control Spike Duplicate	T	Solid	3050B	
LCSSRM 720-47236/25-A	LCS-Standard Reference Material	T	Solid	3050B	
MB 720-47236/1-A	Method Blank	T	Solid	3050B	
720-18062-2	SB-73-1.5	T	Solid	3050B	
720-18062-2MS	Matrix Spike	T	Solid	3050B	
720-18062-2MSD	Matrix Spike Duplicate	T	Solid	3050B	
720-18062-3	SB-73-4.5	T	Solid	3050B	
Analysis Batch:720-47256					
LCS 720-47236/2-A	Lab Control Spike	T	Solid	6010B	720-47236
LCSD 720-47236/3-A	Lab Control Spike Duplicate	T	Solid	6010B	720-47236
LCSSRM 720-47236/25-A	LCS-Standard Reference Material	T	Solid	6010B	720-47236
MB 720-47236/1-A	Method Blank	T	Solid	6010B	720-47236
720-18062-2	SB-73-1.5	T	Solid	6010B	720-47236
720-18062-2MS	Matrix Spike	T	Solid	6010B	720-47236
720-18062-2MSD	Matrix Spike Duplicate	T	Solid	6010B	720-47236
720-18062-3	SB-73-4.5	T	Solid	6010B	720-47236

Report Basis

T = Total

Quality Control Results

Client: AMEC Geomatrix Inc.

Job Number: 720-18062-2

Method Blank - Batch: 720-47236

**Method: 6010B
Preparation: 3050B**

Lab Sample ID: MB 720-47236/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/02/2009 1732
Date Prepared: 03/02/2009 0920

Analysis Batch: 720-47256
Prep Batch: 720-47236
Units: mg/Kg

Instrument ID: Varian ICP
Lab File ID: N/A
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Arsenic	ND		1.0

LCS-Standard Reference Material - Batch:

**Method: 6010B
Preparation: 3050B**

Lab Sample ID: LCSSRM 720-47236/25-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/02/2009 1925
Date Prepared: 03/02/2009 0920

Analysis Batch: 720-47256
Prep Batch: 720-47236
Units: mg/Kg

Instrument ID: Varian ICP
Lab File ID: N/A
Initial Weight/Volume: 0.98 g
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	22.7	20.9	92	69 - 119	

**Lab Control Spike/
Lab Control Spike Duplicate Recovery Report - Batch: 720-47236**

**Method: 6010B
Preparation: 3050B**

LCS Lab Sample ID: LCS 720-47236/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/02/2009 1736
Date Prepared: 03/02/2009 0920

Analysis Batch: 720-47256
Prep Batch: 720-47236
Units: mg/Kg

Instrument ID: Varian ICP
Lab File ID: N/A
Initial Weight/Volume: 1.05 g
Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 720-47236/3-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/02/2009 1740
Date Prepared: 03/02/2009 0920

Analysis Batch: 720-47256
Prep Batch: 720-47236
Units: mg/Kg

Instrument ID: Varian ICP
Lab File ID: N/A
Initial Weight/Volume: 1.04 g
Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Arsenic	102	102	80 - 120	1	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: AMEC Geomatrix Inc.

Job Number: 720-18062-2

**Laboratory Control/
Laboratory Duplicate Data Report - Batch: 720-47236**

**Method: 6010B
Preparation: 3050B**

LCS Lab Sample ID: LCS 720-47236/2-A Units: mg/Kg
 Client Matrix: Solid
 Dilution: 1.0
 Date Analyzed: 03/02/2009 1736
 Date Prepared: 03/02/2009 0920

LCSD Lab Sample ID: LCSD 720-47236/3-A
 Client Matrix: Solid
 Dilution: 1.0
 Date Analyzed: 03/02/2009 1740
 Date Prepared: 03/02/2009 0920

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Arsenic	190	192	194	196

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-47236**

**Method: 6010B
Preparation: 3050B**

MS Lab Sample ID: 720-18062-2 Analysis Batch: 720-47256
 Client Matrix: Solid Prep Batch: 720-47236
 Dilution: 1.0
 Date Analyzed: 03/02/2009 1744
 Date Prepared: 03/02/2009 0920

Instrument ID: Varian ICP
 Lab File ID: N/A
 Initial Weight/Volume: 0.97 g
 Final Weight/Volume: 50 mL

MSD Lab Sample ID: 720-18062-2 Analysis Batch: 720-47256
 Client Matrix: Solid Prep Batch: 720-47236
 Dilution: 1.0
 Date Analyzed: 03/02/2009 1748
 Date Prepared: 03/02/2009 0920

Instrument ID: Varian ICP
 Lab File ID: N/A
 Initial Weight/Volume: 0.97 g
 Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Arsenic	92	93	75 - 125	1	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: AMEC Geomatrix Inc.

Job Number: 720-18062-2

**Matrix Spike/
Matrix Spike Duplicate Data Report - Batch: 720-47236**

**Method: 6010B
Preparation: 3050B**

MS Lab Sample ID: 720-18062-2 Units: mg/Kg
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/02/2009 1744
Date Prepared: 03/02/2009 0920

MSD Lab Sample ID: 720-18062-2
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 03/02/2009 1748
Date Prepared: 03/02/2009 0920

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Arsenic	4.7	206	206	194	196

Calculations are performed before rounding to avoid round-off errors in calculated results.

720-18062-2

Sharma, Dimple

From: Klitzke, Tiffany [Tiffany.Klitzke@amec.com]
Sent: Wednesday, February 25, 2009 4:59 PM
To: Sharma, Dimple
Cc: Salimpour, Afsaneh; Goerz, Matt
Subject: request to remove samples from hold

Hi Dimple,
In addition to my earlier request I would like to take the following samples off of hold:

From Job #720-18061-1, please analyze the following samples for arsenic by 6010:
SB-71-1.5
SB-71-4.5
SB-72-1.5
SB-72-4.5

From Job #720-18062-1, please analyze SB-73-1.5 and SB-73-4.5 for arsenic by 6010.

From Job #720-18099-1, please analyze SB-95-1.5 for arsenic. Also, analyze SB-96-1.5 for PAHs by 8270C SIM and for arsenic.

Thanks!

Tiffany Klitzke Staff Geologist

AMEC Geomatrix 2101 Webster St., 12th Fl. : Oakland, CA 94612

510.663.4144 (direct) 510.663.4141 (fax) Tiffany.Klitzke@amec.com

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P.S. Please update your address book with my new email: Tiffany.Klitzke@amec.com Thanks.

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Its contents (including any attachments) may contain confidential and/or privileged information. If you are not an intended recipient you must not use, disclose, disseminate, copy or print its contents. If you receive this e-mail in error, please notify the sender by reply e-mail and delete and destroy the message.

2/26/2009

Login Sample Receipt Check List

Client: AMEC Geomatrix Inc.

Job Number: 720-18062-2

Login Number: 18062
Creator: Bullock, Tracy
List Number: 1

List Source: TestAmerica San Francisco

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	SEE NCM
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

