



Tuesday, September 04, 2012

Andrew Oko
Novato Sanitary District
500 Davidson St.
Novato, CA 94945

RE: Lab Order: M080946
Project ID: NOVATO SLUDGE 2nd SAMPLE 2012

Collected By: C.WILLIAMS/T.SILVA
PO/Contract #:

Dear Andrew Oko:

Enclosed are the analytical results for sample(s) received by the laboratory on Wednesday, August 22, 2012. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Enclosures

Project Manager: Todd Albertson

REPORT OF LABORATORY ANALYSIS

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**SAMPLE SUMMARY**

Lab Order: M080946

Project ID: NOVATO SLUDGE 2nd SAMPLE 2012

Lab ID	Sample ID	Matrix	Date Collected	Date Received
M080946001	NOVATO SLUDGE	Solid	8/22/2012 08:15	8/22/2012 15:50

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NARRATIVE

Lab Order: M080946

Project ID: NOVATO SLUDGE 2nd SAMPLE 2012

General Qualifiers and Notes

Caltest authorizes this report to be reproduced only in its entirety. Results are specific to the sample(s) as submitted and only to the parameter(s) reported.

Caltest certifies that all test results for wastewater and hazardous waste analyses meet all applicable NELAC requirements; all microbiology and drinking water testing meet applicable ELAP requirements, unless stated otherwise.

All analyses performed by EPA Methods or Standard Methods (SM) 20th Edition except where noted (SMOL=online edition).

Caltest collects samples in compliance with 40 CFR, EPA Methods, Cal. Title 22, and Standard Methods.

Dilution Factors (DF) reported greater than '1' have been used to adjust the result, Reporting Limit (RL), and Method Detection Limit (MDL).

All Solid, sludge, and/or biosolids data is reported in Wet Weight, unless otherwise specified.

Filtrations performed at Caltest for dissolved metals (excluding mercury) and/or pH analysis were not performed within the 15 minute holding time as specified by 40CFR 136.3 table II.

Results Qualifiers: Report fields may contain codes and non-numeric data correlating to one or more of the following definitions:

ND - Non Detect - indicates analytical result has not been detected.

RL - Reporting Limit is the quantitation limit at which the laboratory is able to detect an analyte. An analyte not detected at or above the RL is reported as ND unless otherwise noted or qualified. For analyses pertaining to the State Implementation Plan of the California Toxics Rule, the Caltest Reporting Limit (RL) is equivalent to the Minimum Level (ML). A standard is always run at or below the ML. Where Reporting Limits are elevated due to dilution, the ML calibration criteria has been met.

J - reflects estimated analytical result value detected below the Reporting Limit (RL) and above the Method Detection Limit (MDL). The 'J' flag is equivalent to the DNQ Estimated Concentration flag.

E - indicates an estimated analytical result value.

B - indicates the analyte has been detected in the blank associated with the sample.

NC - means not able to be calculated for RPD or Spike Recoveries.

SS - compound is a Surrogate Spike used per laboratory quality assurance manual.

NOTE: This document represents a complete Analytical Report for the samples referenced herein and should be retained as a permanent record thereof.

Qualifiers and Compound Notes

- 1 Analyte(s) reported as 'ND' means not detected at or above the listed Method Detection Limits (MDL).



ANALYTICAL RESULTS

Lab Order: M080946

Project ID NOVATO SLUDGE 2nd SAMPLE 2012

Lab ID:	M080946001	Date Collected:	8/22/2012 08:15	Matrix:	Solid					
Sample ID:	NOVATO SLUDGE	Date Received:	8/22/2012 15:50	Results are expressed as wet weight values						
Parameters	Result	Units	R. L.	MDL	DF	Prepared	Batch	Analyzed	Batch	Qual
Metals Analysis by ICP		Prep Method:	SW846 3050B			Prep by:	UK			
		Analytical Method:	SW846 6010B					Analyzed by:	LM	
Arsenic	ND	mg/kg	2.0	0.30	1	08/24/12 00:00	MPR 11164	08/28/12 00:00	MIC 3927	1
Chromium	1.3	mg/kg	1.0	0.20	1	08/24/12 00:00	MPR 11164	08/28/12 00:00	MIC 3927	
Nickel	1.1	mg/kg	1.0	0.30	1	08/24/12 00:00	MPR 11164	08/28/12 00:00	MIC 3927	
Percent Solids Analysis		Analytical Method:	SM20-2540 B					Analyzed by:	MYS	
Solids, Percent	5.2	%	0.1	0.1	1			08/29/12 18:27	WGR 4896	

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QUALITY CONTROL DATA

Lab Order: M080946

Project ID: NOVATO SLUDGE 2nd SAMPLE 2012

Analysis Description: Metals Analysis by ICP**QC Batch:** MPR/11164**Analysis Method:** SW846 6010B**QC Batch Method:** SW846 3050B**METHOD BLANK:** 469253

Parameter	Blank Result	Reporting Limit	MDL	Units	Qualifiers
Arsenic	ND	2.0	0.3	mg/kg	
Chromium	ND	1.0	0.2	mg/kg	
Nickel	ND	1.0	0.30	mg/kg	

LABORATORY CONTROL SAMPLE: 469254

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	20	18	90	75-125	
Chromium	mg/kg	20	19	97	75-125	
Nickel	mg/kg	20	20	98	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 469256 469257

Parameter	Units	M080998001 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Arsenic	mg/kg	9.1	20	26	25	82	81	75-125	0.8	35	
Chromium	mg/kg	70	20	89	88	94	87	75-125	1.8	35	
Nickel	mg/kg	58	20	76	74	89	80	75-125	2.6	35	

Analysis Description: Percent Solids Analysis**QC Batch:** WGR/4896**Analysis Method:** SM20-2540 B**QC Batch Method:** SM20-2540 B**METHOD BLANK:** 469968

Parameter	Blank Result	Reporting Limit	MDL	Units	Qualifiers
Solids, Percent	ND	0.1	0.1	%	

SAMPLE DUPLICATE: 469969

Parameter	Units	M080024011 Result	DUP Result	RPD	Max RPD	Qualifiers
Solids, Percent	%	10.1	10	0	20	

**QUALITY CONTROL DATA**

Lab Order: M080946

Project ID: NOVATO SLUDGE 2nd SAMPLE 2012

Analysis Description: Percent Solids Analysis
Analysis Method: SM20-2540 B

QC Batch: WGR/4896
QC Batch Method: SM20-2540 B

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**QUALITY CONTROL DATA QUALIFIERS**

Lab Order: M080946

Project ID: NOVATO SLUDGE 2nd SAMPLE 2012

QUALITY CONTROL PARAMETER QUALIFIERS

Results Qualifiers: Report fields may contain codes and non-numeric data correlating to one or more of the following definitions:

NS - means not spiked and will not have recoveries reported for Analyte Spike Amounts

QC Codes Keys: These descriptors are used to help identify the specific QC samples and clarify the report.

MB - Method Blank

Method Blanks are reported to the same Method Detection Limits (MDLs) or Reporting Limits (RLs) as the analytical samples in the corresponding QC batch.

LCS/LCSD - Laboratory Control Spike / Laboratory Control Spike Duplicate

DUP - Duplicate of Original Sample Matrix

MS/MSD - Matrix Spike / Matrix Spike Duplicate

RPD - Relative Percent Difference

%Recovery - Spike Recovery stated as a percentage

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Lab Order: M080946

Project ID: NOVATO SLUDGE 2nd SAMPLE 2012

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
M080946001	NOVATO SLUDGE	SW846 3050B	MPR/11164	SW846 6010B	MIC/3927
M080946001	NOVATO SLUDGE	SM20-2540 B	WGR/4896		

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