



39 Spruce Street ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

REPORT DATE 4/20/2009

TRC SOLUTIONS - LOWELL  
650 SUFFOLK STREET  
LOWELL, MA 01852  
ATTN: DAVID SULLIVAN

CONTRACT NUMBER:  
PURCHASE ORDER NUMBER:

PROJECT NUMBER:

#### ANALYTICAL SUMMARY

LIMS BAT #: LIMIT-24827  
JOB NUMBER: 115058

PROJECT LOCATION: CITY OF NEW BEDFORD(WALSH)

FIELD SAMPLE #	LAB ID	MATRIX	SAMPLE DESCRIPTION	TEST	Subcontract Lab (if any) Cert. Nos.
JV-A	09B12416	SOIL	Not Specified	as (mg/kg)dw icp	
JV-A	09B12416	SOIL	Not Specified	solids (percent)	
JV-I	09B12422	SOIL	Not Specified	as (mg/kg)dw icp	
JV-I	09B12422	SOIL	Not Specified	solids (percent)	
JV-ID	09B12424	SOIL	Not Specified	as (mg/kg)dw icp	
JV-ID	09B12424	SOIL	Not Specified	solids (percent)	
JV-J	09B12417	SOIL	Not Specified	as (mg/kg)dw icp	
JV-J	09B12417	SOIL	Not Specified	solids (percent)	
JV-N	09B12419	SOIL	Not Specified	as (mg/kg)dw icp	
JV-N	09B12419	SOIL	Not Specified	solids (percent)	
JV-S	09B12423	SOIL	Not Specified	as (mg/kg)dw icp	
JV-S	09B12423	SOIL	Not Specified	solids (percent)	
JV-T	09B12418	SOIL	Not Specified	as (mg/kg)dw icp	
JV-T	09B12418	SOIL	Not Specified	solids (percent)	
JV-U QC	09B12420	SOIL	Not Specified	as (mg/kg)dw icp	
JV-U QC	09B12420	SOIL	Not Specified	solids (percent)	
JV-V	09B12421	SOIL	Not Specified	as (mg/kg)dw icp	
JV-V	09B12421	SOIL	Not Specified	solids (percent)	



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#### ANALYTICAL SUMMARY

LIMS BAT #: LIMT-24827  
JOB NUMBER: 115058

Comments :

LIMS BATCH NO. : LIMT-24827

#### CASE NARRATIVE SUMMARY

Recommended sample holding times were not exceeded for all samples unless listed below:  
None Exceeded

All samples for the method(s) listed were received preserved properly in the proper containers at 4°C +/- 2 degrees as specified on the chain-of-custody form unless listed below:  
All properly preserved

There are no (other) analytical issues which affect the usability of the data.

#### DETAILED CASE NARRATIVE

#### METHOD SW846-6010 - ADDITIONAL DETAILS

A duplicate and matrix spike performed on sample 09B12420.  
Only As was requested and reported

The results of analyses performed are based on samples as submitted to the laboratory and relate only to the items collected and tested.

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations. AIHA accreditations only apply to NIOSH methods and Environmental Lead Analyses.

AIHA 100033	AIHA ELLAP (LEAD) 100033	NORTH CAROLINA CERT. # 652
MASSACHUSETTS MA0100	NEW HAMPSHIRE NELAP 2516	NEW JERSEY NELAP NJ MA007 (AIR)
CONNECTICUT PH-0567	VERMONT DOH (LEAD) No. LL015036	FLORIDA DOH E871027 (AIR)
NEW YORK ELAP/NELAP 10899	RHODE ISLAND (LIC. No. 112)	

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

*Edward Denson 4/20/09*

SIGNATURE

DATE

Tod Kopyscinski  
Air Laboratory Manager

Michael Erickson  
Assistant Laboratory Director

Edward Denson  
Technical Director

Daren Damboragian  
Organics Department Supervisor

\* See end of data tabulation for notes and comments pertaining to this sample

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Purchase Order No.:

Project Location: CITY OF NEW BEDFORD(WALSH)

LIMS-BAT #: LIMIT-24827

Date Received: 4/16/2009

Job Number: 115058

Field Sample #: JV-A

Sample ID : 09B12416

‡Sampled : 4/16/2009  
Not Specified

Sample Matrix: SOIL

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
Arsenic	mg/kg dry wt	5.71	04/20/09	OP	2.86		

Field Sample #: JV-I

Sample ID : 09B12422

‡Sampled : 4/16/2009  
Not Specified

Sample Matrix: SOIL

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
Arsenic	mg/kg dry wt	15.0	04/20/09	OP	2.94		

Field Sample #: JV-ID

Sample ID : 09B12424

‡Sampled : 4/16/2009  
Not Specified

Sample Matrix: SOIL

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
Arsenic	mg/kg dry wt	17.8	04/20/09	OP	2.93		

Field Sample #: JV-J

Sample ID : 09B12417

‡Sampled : 4/16/2009  
Not Specified

Sample Matrix: SOIL

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
Arsenic	mg/kg dry wt	6.62	04/20/09	OP	2.92		

Field Sample #: JV-N

Sample ID : 09B12419

‡Sampled : 4/16/2009  
Not Specified

Sample Matrix: SOIL

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
Arsenic	mg/kg dry wt	7.34	04/20/09	OP	2.94		

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

NM = Not Measured

\* = See end of report for comments and notes applying to this sample

‡ = See attached chain-of-custody record for time sampled

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.

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Purchase Order No.:

Project Location: CITY OF NEW BEDFORD(WALSH)

LIMS-BAT #: LIMIT-24827

Date Received: 4/16/2009

Job Number: 115058

Field Sample #: JV-S

Sample ID : 09B12423

‡Sampled : 4/16/2009  
Not Specified

Sample Matrix: SOIL

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
Arsenic	mg/kg dry wt	36.1	04/20/09	OP	2.97		

Field Sample #: JV-T

Sample ID : 09B12418

‡Sampled : 4/16/2009  
Not Specified

Sample Matrix: SOIL

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
Arsenic	mg/kg dry wt	10.5	04/20/09	OP	2.93		

Field Sample #: JV-U QC

Sample ID : 09B12420

‡Sampled : 4/16/2009  
Not Specified

Sample Matrix: SOIL

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
Arsenic	mg/kg dry wt	6.68	04/20/09	OP	2.98		

Field Sample #: JV-V

Sample ID : 09B12421

‡Sampled : 4/16/2009  
Not Specified

Sample Matrix: SOIL

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
Arsenic	mg/kg dry wt	6.41	04/20/09	OP	2.92		

Analytical Method:

SW846 3050/6010

SAMPLES ARE DIGESTED WITH NITRIC ACID AND THEN ANALYZED BY  
INDUCTIVELY COUPLED PLASMA EMISSION SPECTROSCOPY.

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Purchase Order No.:

Project Location: CITY OF NEW BEDFORD(WALSH)

LIMS-BAT #: LIMIT-24827

Date Received: 4/16/2009

Job Number: 115058

Field Sample #: JV-A

Sample ID : 09B12416

‡Sampled : 4/16/2009  
Not Specified

Sample Matrix: SOIL

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
Solids, total	%	87.5	04/20/09	NCH			

Field Sample #: JV-I

Sample ID : 09B12422

‡Sampled : 4/16/2009  
Not Specified

Sample Matrix: SOIL

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
Solids, total	%	85.2	04/20/09	NCH			

Field Sample #: JV-ID

Sample ID : 09B12424

‡Sampled : 4/16/2009  
Not Specified

Sample Matrix: SOIL

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
Solids, total	%	85.5	04/20/09	NCH			

Field Sample #: JV-J

Sample ID : 09B12417

‡Sampled : 4/16/2009  
Not Specified

Sample Matrix: SOIL

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
Solids, total	%	85.8	04/20/09	NCH			

Field Sample #: JV-N

Sample ID : 09B12419

‡Sampled : 4/16/2009  
Not Specified

Sample Matrix: SOIL

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
Solids, total	%	85.1	04/20/09	NCH			

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Purchase Order No.:

Project Location: CITY OF NEW BEDFORD(WALSH)

LIMS-BAT #: LIMIT-24827

Date Received: 4/16/2009

Job Number: 115058

Field Sample #: JV-S

Sample ID : 09B12423

‡Sampled : 4/16/2009  
Not Specified

Sample Matrix: SOIL

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
Solids, total	%	84.4	04/20/09	NCH			

Field Sample #: JV-T

Sample ID : 09B12418

‡Sampled : 4/16/2009  
Not Specified

Sample Matrix: SOIL

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
Solids, total	%	85.6	04/20/09	NCH			

Field Sample #: JV-U QC

Sample ID : 09B12420

‡Sampled : 4/16/2009  
Not Specified

Sample Matrix: SOIL

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
Solids, total	%	84.0	04/20/09	NCH			

Field Sample #: JV-V

Sample ID : 09B12421

‡Sampled : 4/16/2009  
Not Specified

Sample Matrix: SOIL

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
Solids, total	%	85.7	04/20/09	NCH			

Analytical Method:

SM 2540G

PERCENT OF SAMPLE REMAINING AFTER DRYING OVERNIGHT AT 103-105 DEGREES CENTIGRADE.

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Purchase Order No.:

Project Location: CITY OF NEW BEDFORD(WALSH)  
Date Received: 4/16/2009

4/20/2009  
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LIMS-BAT #: LIMT-24827  
Job Number: 115058

\*\* END OF REPORT \*\*

RL = Reporting Limit

ND = Not Detected at or above the Reporting Limit

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‡ = See attached chain-of-custody record for time sampled

SPEC LIMIT = a client specified recommended or  
regulatory level for comparison with data to  
determine PASS (P) or FAIL (F) condition of results.

**QC SUMMARY REPORT**

SAMPLE QC: Sample Results with Duplicates

BATCH QC: Lab fortified Blanks and Duplicates

Sample Matrix Spikes and Matrix Spike Duplicates

Standard Reference Materials and Duplicates

Method Blanks

Report Date: 4/20/2009

Lims Bat # : LIMIT-24827

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QC Batch Number: ICP-21619

Sample Id	Analysis	QC Analysis	Values	Units	Limits
09B12420	Arsenic	Sample Amount	6.68	mg/kg dry wt	
		Duplicate Value	6.61	mg/kg dry wt	
		Duplicate RPD	1.07	%	0-35
		Sample Amount	6.68	mg/kg dry wt	
		Matrix Spk Amt Added	29.76	mg/kg dry wt	
		MS Amt Measured	36.50	mg/kg dry wt	
		Matrix Spike % Rec.	100.18	%	75-125
BLANK-132067	Arsenic	Blank	<2.50	mg/kg dry wt	
LFBLANK-94328	Arsenic	Lab Fort Blank Amt.	123.00	mg/kg dry wt	
		Lab Fort Blk. Found	115.70	mg/kg dry wt	
		Lab Fort Blk. % Rec.	94.06	%	83-117
		Dup Lab Fort Bl Amt.	123.00	mg/kg dry wt	
		Dup Lab Fort Bl. Fnd	117.96	mg/kg dry wt	
		Dup Lab Fort Bl %Rec	95.90	%	83-117
		Lab Fort Blank Range	1.83	units	
		Lab Fort Bl. Av. Rec	94.98	%	
		LFB Duplicate RPD	1.93	%	0-30





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### QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates

Sample Matrix Spikes and Matrix Spike Duplicates

BATCH QC: Lab fortified Blanks and Duplicates

Standard Reference Materials and Duplicates

Method Blanks

Report Date: 4/20/2009

Lims Bat #: LIMIT-24827

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### QUALITY CONTROL DEFINITIONS AND ABBREVIATIONS

QC BATCH NUMBER	This is the number assigned to all samples analyzed together that would be subject to comparison with a particular set of Quality Control Data.
LIMITS	Upper and Lower Control Limits for the QC ANALYSIS Reported. All values normally would fall within these statistically determined limits, unless there is an unusual circumstance that would be documented in a NOTE appearing on the last page of the QC SUMMARY REPORT. Not all QC results will have Limits defined.
Sample Amount	Amount of analyte found in a sample.
Blank	Method Blank that has been taken through all the steps of the analysis.
LFBLANK	Laboratory Fortified Blank (a control sample)
STDADD	Standard Added (a laboratory control sample)
Matrix Spk Amt Added	Amount of analyte spiked into a sample
MS Amt Measured	Amount of analyte found including amount that was spiked
Matrix Spike % Rec.	% Recovery of spiked amount in sample.
Duplicate Value	The result from the Duplicate analysis of the sample.
Duplicate RPD	The Relative Percent Difference between two Duplicate Analyses.
Surrogate Recovery	The % Recovery for non-environmental compounds (surrogates) spiked into samples to determine the performance of the analytical methods.
Sur. Recovery (ELCD)	Surrogate Recovery on the Electrolytic Conductivity Detector.
Sur. Recovery (PID)	Surrogate Recovery on the Photoionization Detector.
Standard Measured	Amount measured for a laboratory control sample
Standard Amt Added	Known value for a laboratory control sample
Standard % Recovery	% recovered for a laboratory control sample with a known value.
Lab Fort Blank Amt	Laboratory Fortified Blank Amount Added
Lab Fort Blk. Found	Laboratory Fortified Blank Amount Found
Lab Fort Blk % Rec	Laboratory Fortified Blank % Recovered
Dup Lab Fort Bl Amt	Duplicate Laboratory Fortified Blank Amount Added
Dup Lab Fort Bl Fnd	Duplicate Laboratory Fortified Blank Amount Found
Dup Lab Fort Bl % Rec	Duplicate Laboratory Fortified Blank % Recovery
Lab Fort Blank Range	Laboratory Fortified Blank Range (Absolute value of difference between recoveries for Lab Fortified Blank and Lab Fortified Blank Duplicate).
Lab Fort Bl. Av. Rec.	Laboratory Fortified Blank Average Recovery
Duplicate Sample Amt	Sample Value for Duplicate used with Matrix Spike Duplicate
MSD Amount Added	Matrix Spike Duplicate Amount Added (Spiked)
MSD Amt Measured	Matrix Spike Duplicate Amount Measured
MSD % Recovery	Matrix Spike Duplicate % Recovery
MSD Range	Absolute difference between Matrix Spike and Matrix Spike Duplicate Recoveries

# MADEP MCP ANALYTICAL METHOD REPORT CERTIFICATION FORM

 Laboratory Name: **CON-TEST Analytical Laboratory**

 Project #: **LIMT-24827**

 Project Location: **CITY OF NEW BEDFORD (WALSH)**

 MADEP RTN<sup>1</sup>:

This Form provides certifications for the following data set: [list Laboratory Sample ID Number(s)]

**09B12416 - 09B12424.**

 Sample Matrices: ☐ Groundwater ☒ Soil/Sediment ☐ Drinking Water ☐ Other: \_\_\_\_\_

<b>MCP SW-846 Methods Used</b>	8260B ( )	8151A ( )	8330 ( )	6010B <input checked="" type="checkbox"/>	7470A/1A ( )
	8270C ( )	8081A ( )	VPH ( )	6020 ( )	9014M <sup>2</sup> ( )
As specified in MADEP Compendium of Analytical Methods.  (check all that apply)	8082 ( )	8021B ( )	EPH ( )	7000 S <sup>3</sup> ( )	7196A ( )
	1 List Release Tracking Number (RTN), if known 2 M – SW-846 Method 9014 or MADEP Physiologically Available Cyanide (PAC) Method 3 S – SW-846 Methods 7000 Series List individual method and analyte.				

**An affirmative response to questions A, B, C and D is required for "Presumptive Certainty" status**

<b>A</b>	Were all samples received by the laboratory in a condition consistent with that described on the Chain-of-Custody documentation for the data set?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>B</b>	Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>C</b>	Does the data included in this report meet all the analytical requirements for "Presumptive Certainty", as described in Section 2.0 (a), (b), (c) and (d) of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>D</b>	<u><b>VPH and EPH Methods only:</b></u> Was the VPH or EPH Method conducted without significant modifications (see Section 11.3 of respective Methods)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>

**A response to questions E and F below is required for "Presumptive Certainty" status**

<b>E</b>	Were all analytical QC performance standards and recommendations for the specified methods achieved?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <sup>1</sup>
<b>F</b>	Were results for all analyte-list compounds/elements for the specified method(s) reported?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <sup>1</sup>

<sup>1</sup> All Negative responses must be addressed in an attached Environmental Laboratory case narrative.

**I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.**

 Signature: Edward Denson

Position: Technical Director

Printed Name: Edward Denson

 Date: 4/20/09

## CHAIN OF CUSTODY RECORD

39 SPRUCE ST, 2ND FLOOR  
EAST LONGMEADOW, MA 01028

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[illegible]



**AIHA, NELAC & WBE/DBE Certified**



# **Sample Receipt Checklist**

 CLIENT NAME: TRC MA RECEIVED BY: KO DATE: 4/16/09

1) Was the chain(s) of custody relinquished and signed?

Yes No

2) Does the chain agree with the samples?

Yes No

If not, explain:

3) Are all the samples in good condition?

Yes No

If not, explain:

4) How were the samples received:

 On Ice ☒

 Direct from Sampling ☐

 Ambient ☐

 In Cooler(s) ☒

Were the samples received in Temperature Compliance of (2-6°C)?

Yes No

 Temperature °C by Temp blank 2°C Temperature °C by Temp gun \_\_\_\_\_

5) Are there Dissolved samples for the lab to filter?

Yes No

Who was notified \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

6) Are there any samples "On Hold"?

Yes No

Stored where: \_\_\_\_\_

7) Are there any RUSH or SHORT HOLDING TIME samples?

Yes No

Who was notified \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

8) Location where samples are stored:

19B

 Permission to subcontract samples? Yes No  
 (Walk-in clients only) if not already approved

Client Signature: \_\_\_\_\_

## **Containers sent in to Con-Test**

	# of containers		# of containers
1 Liter Amber		8 oz clear jar	
500 mL Amber		4 oz clear jar	17
250 mL Amber (8oz amber)		2 oz clear jar	
1 Liter Plastic		Other glass jar	
500 mL Plastic		Plastic Bag / Ziploc	
250 mL plastic		Air Cassette	
40 mL Vial - type listed below		Brass Sleeves	
Colisure / bacteria bottle		Tubes	
Dissolved Oxygen bottle		Summa Cans	
Flashpoint bottle		Regulators	
Encore		Other	

Laboratory Comments:

40 mL vials: # HCl \_\_\_\_\_ # Methanol \_\_\_\_\_

# Bisulfate \_\_\_\_\_ # DI Water \_\_\_\_\_

# Thiosulfate \_\_\_\_\_ Unpreserved \_\_\_\_\_

Time and Date Frozen: \_\_\_\_\_

Do all samples have the proper pH: Yes No N/A