



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

REPORT DATE 5/7/2009

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

CONTRACT NUMBER:
PURCHASE ORDER NUMBER:

PROJECT NUMBER:

ANALYTICAL SUMMARY

LIMS BAT #: LIMIT-25087

JOB NUMBER: 115058

PROJECT LOCATION: CITY OF NB (WALSH)

| FIELD SAMPLE # | LAB ID | MATRIX | SAMPLE DESCRIPTION | TEST | Subcontract Lab (if any) Cert. Nos. |
|----------------|----------|--------|--------------------|------------------|-------------------------------------|
| WFC-2Q | 09B13657 | SOIL | Not Specified | as (mg/kg)dw icp | |
| WFC-2Q | 09B13657 | SOIL | Not Specified | solids (percent) | |
| WFC-2R | 09B13658 | SOIL | Not Specified | as (mg/kg)dw icp | |
| WFC-2R | 09B13658 | SOIL | Not Specified | solids (percent) | |



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Comments :

LIMS BATCH NO. : LIMIT-25087

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

In method 6010, The ms recovery is outside control limits for Arsenic. Analysis is in control based on the LFB recoveries. Possibility of sample matrix effects that lead to high bias for reported result cannot be eliminated and is likely.

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

DETAILED CASE NARRATIVE

METHOD SW846-6010 - ADDITIONAL DETAILS

A sample duplicate and ms were performed on sample 09B13657.
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.

5/7/09

Tod Kopycinski
Air Laboratory Manager

Michael Erickson
Assistant Laboratory Director

SIGNATURE

DATE

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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5/7/2009
 Page 1 of 3

Purchase Order No.:

Project Location: CITY OF NB (WALSH)
 Date Received: 5/4/2009

LIMS-BAT #: LIMIT-25087
 Job Number: 115058

Field Sample # : WFC-2Q

Sample ID : 09B13657 ‡Sampled : 4/24/2009
 Not Specified

Sample Matrix: SOIL

| | Units | Results | Date Analyzed | Analyst | RL | SPEC Limit Lo Hi | P/ F |
|---------|--------------|---------|---------------|---------|------|---------------------|------|
| Arsenic | mg/kg dry wt | 57.5 | 05/06/09 | KSH | 2.96 | | |

Field Sample # : WFC-2R

Sample ID : 09B13658 ‡Sampled : 4/24/2009
 Not Specified

Sample Matrix: SOIL

| | Units | Results | Date Analyzed | Analyst | RL | SPEC Limit Lo Hi | P/ F |
|---------|--------------|---------|---------------|---------|------|---------------------|------|
| Arsenic | mg/kg dry wt | 49.8 | 05/06/09 | KSH | 2.87 | | |

Analytical Method:
 SW846 3050/6010

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

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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5/7/2009
 Page 2 of 3

Purchase Order No.:

Project Location: CITY OF NB (WALSH)
 Date Received: 5/4/2009

LIMS-BAT #: LIMIT-25087
 Job Number: 115058

Field Sample # : WFC-2Q

Sample ID : 09B13657 ‡Sampled : 4/24/2009
 Not Specified

Sample Matrix: SOIL

| | Units | Results | Date Analyzed | Analyst | RL | SPEC Limit Lo Hi | P/ F |
|---------------|-------|---------|---------------|---------|----|---------------------|------|
| Solids, total | % | 84.5 | 05/06/09 | NCH | | | |

Field Sample # : WFC-2R

Sample ID : 09B13658 ‡Sampled : 4/24/2009
 Not Specified

Sample Matrix: SOIL

| | Units | Results | Date Analyzed | Analyst | RL | SPEC Limit Lo Hi | P/ F |
|---------------|-------|---------|---------------|---------|----|---------------------|------|
| Solids, total | % | 87.4 | 05/06/09 | NCH | | | |

Analytical Method:
 SM 2540G

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

RL = Reporting Limit

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NM = Not Measured

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

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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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5/7/2009
Page 3 of 3

Purchase Order No.:

Project Location: CITY OF NB (WALSH)
Date Received: 5/4/2009

LIMS-BAT #: LIMIT-25087
Job Number: 115058

** END OF REPORT **

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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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: 5/7/2009

Lims Bat # : LIMIT-25087

Page 1 of 2

QC Batch Number: ICP-21708

| Sample Id | Analysis | QC Analysis | Values | Units | Limits |
|---------------|----------|----------------------|--------|--------------|--------|
| 09B13657 | Arsenic | Sample Amount | 57.48 | mg/kg dry wt | |
| | | Duplicate Value | 64.07 | mg/kg dry wt | |
| | | Duplicate RPD | 10.84 | % | 0-35 |
| | | Sample Amount | 57.48 | mg/kg dry wt | |
| | | Matrix Spk Amt Added | 29.58 | mg/kg dry wt | |
| | | MS Amt Measured | 108.30 | mg/kg dry wt | |
| | | Matrix Spike % Rec. | 171.75 | % | 75-125 |
| BLANK-132582 | Arsenic | Blank | <2.50 | mg/kg dry wt | |
| LFBLANK-94868 | Arsenic | Lab Fort Blank Amt. | 123.00 | mg/kg dry wt | |
| | | Lab Fort Blk. Found | 134.79 | mg/kg dry wt | |
| | | Lab Fort Blk. % Rec. | 109.58 | % | 83-117 |
| | | Dup Lab Fort Bl Amt. | 123.00 | mg/kg dry wt | |
| | | Dup Lab Fort Bl. Fnd | 133.32 | mg/kg dry wt | |
| | | Dup Lab Fort Bl %Rec | 108.39 | % | 83-117 |
| | | Lab Fort Blank Range | 1.19 | units | |
| | | Lab Fort Bl. Av. Rec | 108.98 | % | |
| | | LFB Duplicate RPD | 1.09 | % | 0-30 |



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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: 5/7/2009 Lims Bat #: LIMIT-25087 Page 2 of 2

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 though 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 #: L1MT- 25087 |
| Project Location: City of New Bedford (Walsh) | MADEP RTN¹: |

This Form provides certifications for the following data set: [list Laboratory Sample ID Number(s)]
 09B13657-09B13658

Sample Matrices: Groundwater Soil/Sediment Drinking Water Other: _____

| | | | | | |
|--|-----------|-----------|----------|-------------------------|------------------------|
| MCP SW-846 Methods Used | 8260B () | 8151A () | 8330 () | 6010B (X) | 7470A/1A () |
| | 8270C () | 8081A () | VPH () | 6020 () | 9014M ² () |
| As specified in MADEP Compendium of Analytical Methods. (check all that apply) | 8082 () | 8021B () | EPH () | 7000 S ³ () | 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

| | | |
|----------|---|--|
| A | 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 ¹ |
| 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 ¹ |
| C | 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 ¹ |
| D | <u>VPH and EPH Methods only:</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 ¹ |

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

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

¹ 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: <u>Michael Erickson</u> | Position: Assistant Laboratory Director |
|---|--|

| | |
|---------------------------------------|----------------------------|
| Printed Name: Michael Erickson | Date: <u>5/2/09</u> |
|---------------------------------------|----------------------------|

SAMPLE REACTIVATION FORM

COMPANY TRC Lowell LOCATION on hold budget

CONTACT Dave Sullivan PROJECT ID _____

CONTACT PHONE _____ FAX _____

DATE 5/4 TIME 3:22 TAT 72hr DUE DATE _____

REQUEST TAKEN BY RF GIVEN TO log-in

ACTIVATION REQUEST:

: See attached email

SPECIAL INSTRUCTIONS AND TERMS:

FAXED TO CONTACT FOR APPROVAL: Y N

ACTIVATION IS CORRECT PER OUR REQUEST _____ DATE _____
INITIALS

CONTEST FINAL APPROVAL _____

tferrentino@contestlabs.com

From: "Sullivan, Dave (Lowell,MA-US)" <DSullivan@TRCSOLUTIONS.com>
To: <tferrentino@contestlabs.com>
Cc: "Zhou, Ping (Lowell,MA-US)" <PZhou@trcsolutions.com>; "Denly, Elizabeth (Lowell,MA-US)" <edenly@trcsolutions.com>; "Silverman, Diane (Lowell,MA-US)" <DSilverman@trcsolutions.com>
Sent: Monday, May 04, 2009 2:42 PM
Attach: wfc-2 holds 5 4 2009.pdf
Subject: More holds for samples near WFC-2

Theresa:

Please see the attached chain with samples of interest highlighted in yellow.

Please proceed with the following:

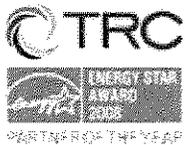
WFC-2Q – arsenic
WFC-2R – arsenic

Can we have the results before the end of the week?

Thanks,

-Dave

David M. Sullivan, LSP, CHMM
Senior Project Manager



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