AEI CONSULTANTS
ENVIRONMENTAL & ENGINEERING SERVICES

2500 Camino Diablo, Walnut Creek, CA 94597
tel 800-801-3224
fax 925-944-2895
www.aeiconsultants.com

November 7, 2007



Mr. Bruce Burrows
The Burrows Company
6 Southpoint Road
Orinda, CA 94563

**Subject:** **Indoor Air Sampling / Montessori School**
7272 San Ramon Road
Dublin, California
AEI Project No. 263294
ACHCSA File # RO0002863

Dear Mr. Burrows:

This letter report has been prepared on your behalf to briefly summarize the findings of AEI's indoor air sampling activities conducted inside the Montessori School unit (7238 San Ramon Road, Dublin), which is adjacent to the Crow Canyon dry cleaning facility (7272 San Ramon Road, Dublin). The indoor air sampling was requested by the Alameda County Health Care Services Agency (ACHCSA), in a letter dated May 9, 2007, to evaluate exposure and risk to school occupants from vapor intrusion of tetrachloroethylene (PCE) from the adjacent dry cleaning unit.

Indoor air sampling activities were performed on October 20, 2007. A total of three (3) 6-liter Summa™ canisters were set up throughout the property; two (2) inside the school and one (1) outside the school (as a background sample). Three canisters were initially planned within the school, however, due to a leakage problem in one of the canisters, only two were able to sample inside. The canisters collected air samples (IDA-1, IDA-2, and ODA-1) utilizing flow regulators configured to capture an integrated air sample over 8 hours (a typical "school day"). Sample IDA-1 was collected in the kitchen area near the apparent vapor infiltration point, IDA-2 in the center of the large room in the school, and ODA-1 outside of the building, away from the source zone. The canisters set up inside the school were situated within the "breathing zone" for children, approximately 3 feet off the ground. The air samples were analyzed for PCE and its breakdown products by method TO-15 modified. Please refer to Figure 2 for locations of the canister sampling locations.

PCE was detected in samples IDA-1, IDA-2, and ODA-2 at concentrations of 1.3 micrograms per cubic meter ($ug/m^3$), 1.1 $ug/m^3$, and 0.34 $ug/m^3$, respectively. None of PCE's breakdown products were detected exceeding laboratory detection limits in any of the samples. The Bay Area Air Quality Management Division (BAAQMD) maintains ambient air monitoring data

stations (Appendix C-1) which document various pollutant concentrations in ambient, outdoor air for several Bay Area stations. The three stations closest to the site were used for PCE ambient background concentration comparisons; Concord, Livermore, and San Leandro. For Concord, the background concentrations range from non-detect (less than 0.01 ug/$m^3$) to 0.18 ug/$m^3$; Livermore, background concentrations range from non-detect to 0.04 ug/$m^3$; San Leandro, background concentrations range from non-detect to 0.05 ug/$m^3$.

For comparison, the California Human Health Screening Levels (CHSSLs) residential indoor air human health screening level for PCE is 0.41 ug/$m^3$ (Table 2, January 2005). The CHSSLs are screening levels of various chemicals in soil or soil gas prepared by the California Environmental Protection Agency (Cal EPA). The presence of a chemical at concentrations in excess of a CHHSL does not indicate that adverse impacts to human health are occurring or will occur but suggest that further evaluation of potential human health concerns is warranted. In addition, it is the owner's requirement to determine whether the tenants should be made aware of conditions within the school unit.

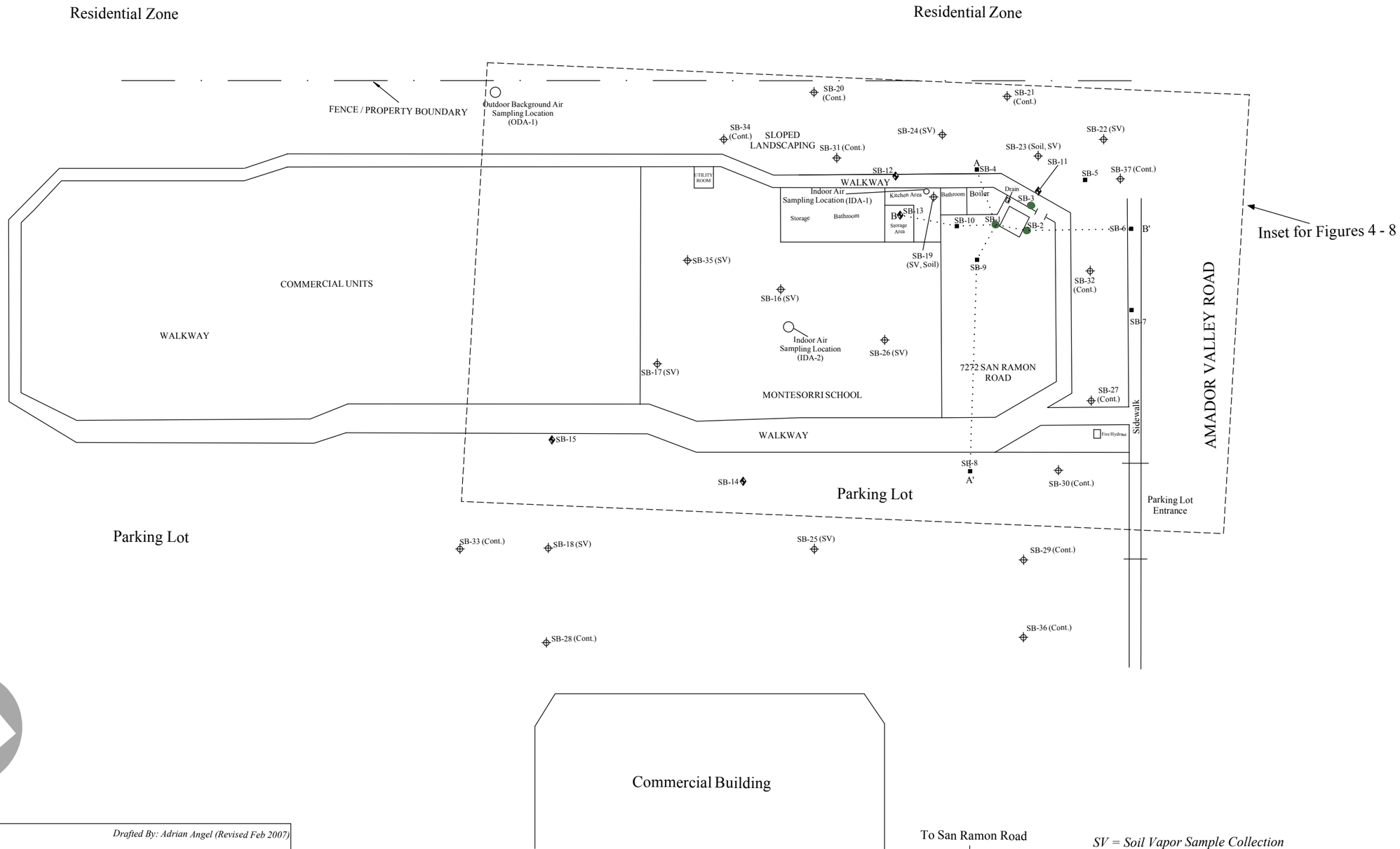
If you have any questions regarding this investigation, please contact me at (925) 283-6000 extension 132.

Sincerely,

Adrian M. Angel
Project Geologist

References:

1) Bay Area Air Quality Management District Toxic Air Contaminants, 2003 Annual Report
2) Use of California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties, January 2005




*Drafted By: Adrian Angel (Revised Feb 2007)*

Legend:

- ▪ Soil Boring Locations (02/2-6/06)
- ● Soil Boring Locations (01/27/05)
- ♦ Soil Boring (12/27/06 and 1/15/07)
- ○ Indoor Air Sample (10/20/07)
- ····· Fence Line (See Figs 10 and 11)

*SV = Soil Vapor Sample Collection*
*Soil = Soil Sample Collection*
*Cont. = Contigency Boring*

**AEI CONSULTANTS**
2500 CAMINO DIABLO BLVD, SUITE 200, WALNUT CREEK, CA

# SITE PLAN

7272 San Ramon Road
Dublin, CA 94568

**FIGURE 2**
PROJECT NO. 263294

**McCampbell Analytical, Inc.**
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

| | | |
|---|---|---|
| AEI Consultants<br>2500 Camino Diablo, Ste. #200<br>Walnut Creek, CA 94597 | Client Project ID: #115876; Bruce Burrows | Date Sampled: 10/20/07 |
| | | Date Received: 10/23/07 |
| | Client Contact: Adrian Angel | Date Reported: 10/31/07 |
| | Client P.O.: | Date Completed: 10/31/07 |

**WorkOrder: 0710766**

October 31, 2007

Dear Adrian:

Enclosed are:

1). the results of **3** analyzed samples from your **#115876; Bruce Burrows project,**

2). a QC report for the above samples

3). a copy of the chain of custody, and

4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Best regards,

Angela Rydelius, Lab Manager

**McCampbell Analytical, Inc.**
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD



**WorkOrder: 0710766** **ClientID: AEL**

☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty

**Report to:**
Adrian Angel
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597

Email: aangel@aeiconsultants.com
TEL: (925) 283-6000 FAX: (925) 283-6121
ProjectNo: #115876; Bruce Burrows
PO:

**Bill to:**
Denise Mockel
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
dmockel@aeiconsultants.com

**Requested TAT:** 5 days

***Date Received:*** **10/23/2007**
***Date Printed:*** **10/24/2007**

| Sample ID | ClientSampID | Matrix | Collection Date | Hold | Requested Tests (See legend below) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 0710766-001 | IDA-1 | Air | 10/20/2007 | ☐ | A | | | | | | | | | | | |
| 0710766-002 | IDA-2 | Air | 10/20/2007 | ☐ | A | | | | | | | | | | | |
| 0710766-003 | ODA-1 | Air | 10/20/2007 | ☐ | A | | | | | | | | | | | |

**Test Legend:**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1 | TO15-8010_SOIL(UG/M3) | 2 | | 3 | | 4 | | 5 | |
| 6 | | 7 | | 8 | | 9 | | 10 | |
| 11 | | 12 | | | | | | | |

The following SampIDs: 001A, 002A, 003A contain testgroup.

**Prepared by:**

**Comments:**

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

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# Sample Receipt Checklist

Client Name: **AEI Consultants**

Date and Time Received: **10/23/2007 10:29:15 PM**

Project Name: **#115876; Bruce Burrows**

Checklist completed and reviewed by: Brendon Steele

WorkOrder N°: **0710766** Matrix Air

Carrier: Client Drop-In

## Chain of Custody (COC) Information

| | | |
|---|---|---|
| Chain of custody present? | Yes ☑ | No ☐ |
| Chain of custody signed when relinquished and received? | Yes ☑ | No ☐ |
| Chain of custody agrees with sample labels? | Yes ☑ | No ☐ |
| Sample IDs noted by Client on COC? | Yes ☑ | No ☐ |
| Date and Time of collection noted by Client on COC? | Yes ☐ | No ☑ |
| Sampler's name noted on COC? | Yes ☑ | No ☐ |

## Sample Receipt Information

| | | | |
|---|---|---|---|
| Custody seals intact on shipping container/cooler? | Yes ☐ | No ☐ | NA ☑ |
| Shipping container/cooler in good condition? | Yes ☑ | No ☐ | |
| Samples in proper containers/bottles? | Yes ☑ | No ☐ | |
| Sample containers intact? | Yes ☑ | No ☐ | |
| Sufficient sample volume for indicated test? | Yes ☑ | No ☐ | |

## Sample Preservation and Hold Time (HT) Information

| | | | |
|---|---|---|---|
| All samples received within holding time? | Yes ☑ | No ☐ | |
| Container/Temp Blank temperature | Cooler Temp: | | NA ☑ |
| Water - VOA vials have zero headspace / no bubbles? | Yes ☐ | No ☐ | No VOA vials submitted ☑ |
| Sample labels checked for correct preservation? | Yes ☑ | No ☐ | |
| TTLC Metal - pH acceptable upon receipt (pH<2)? | Yes ☐ | No ☐ | NA ☑ |

Client contacted: Date contacted: Contacted by:

Comments:

07107766

# McCAMPBELL ANALYTICAL INC.

110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553-5560
Telephone: (925) 798-1620 Fax: (925) 798-1622

# CHAIN OF CUSTODY RECORD

**TURN AROUND TIME** ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAY

**EDF Required?** ☐ Yes ☐ No **Email PDF Report: YES**

**Report To:** Adrian Angel **Bill To:** Same

**Company:** AEI Consultants
2500 Camino Diablo, Suite 200
Walnut Creek, CA 94597 **E-Mail:** aangel@aeiconsultants.com

**Tel:** (925) 944-2899, extension 132 **Fax:** (925) 944-2895

**Project #:** 115876 **Project Name:** Bruce Burrows

**Project Location:** 7272 San Ramon Road, Dublin, CA

**Sampler Signature:**

| SAMPLE ID (Field Point Name) | LOCATION | SAMPLING Date | SAMPLING Time | # Containers | Type Containers | MATRIX Water | MATRIX Soil | MATRIX Air | MATRIX Sludge | MATRIX Other | METHOD PRESERVED Ice | METHOD PRESERVED HCl | METHOD PRESERVED $HNO_3$ | METHOD PRESERVED Other |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IDA-1 | | 10/20/07 | | | | | | | | | | | | |
| IDA-2 | | " | | | | | | | | | | | | |
| ODA-1 | | " | | | | | | | | | | | | |

**Analysis Request**

| BTEX & TPH as Gas (602/8020 + 8015)/MTBE | TPH as Diesel (8015) | Total Petroleum Oil & Grease (5520 E&F/B&F) | Total Petroleum Hydrocarbons (418.1) | HVOCs EPA 8260 (8010 list) | BTEX ONLY (EPA 602 / 8020) | Pesticides EPA 608 / 8080 | PCBs EPA 608 / 8080 | VOCs EPA 624 / 8260 | EPA 625 / 8270 | PAH's / PNA's by EPA 625 / 8270 / 8310 | CAM-17 Metals | LUFT 5 Metals | Lead (7240/7421/239.2/6010) | RCI |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

**Other**

| MTBE (EPA Method 8260) | | | |
|---|---|---|---|
| X | TGS HVOCs added per taker | | |
| | Off hold 10/23/07 | | |
| | per fax | | |

**Comments**

HOLD

| Relinquished By: | Date: | Time: | Received By: |
|---|---|---|---|
| | 10/22/07 | 6:00 | |
| Relinquished By: | Date: | Time: | Received By: |
| Relinquished By: | Date: | Time: | Received By: |

ICE/t° NA
GOOD CONDITION yes
HEAD SPACE ABSENT
DECHLORINATED IN LAB

| PRESERVATION APPROPRIATE | VOAS | O&G | METALS | OTHER |
|---|---|---|---|---|
| CONTAINERS | yes | | | |
| PERSERVED IN LAB | | | | |

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Telephone: 877-252-9262 Fax: 925-252-9269

| | | |
|---|---|---|
| AEI Consultants | Client Project ID: #115876; Bruce Burrows | Date Sampled: 10/20/07 |
| 2500 Camino Diablo, Ste. #200 | | Date Received: 10/23/07 |
| Walnut Creek, CA 94597 | Client Contact: Adrian Angel | Date Extracted: 10/30/07-10/31/07 |
| | Client P.O.: | Date Analyzed 10/30/07-10/31/07 |

**Halogenated Volatile Organic Compounds in µg/m³***

Extraction Method: TO15 Analytical Method: TO15 Work Order: 0710766

| Lab ID | 0710766-001A | 0710766-002A | 0710766-003A | | Reporting Limit for DF =1 | |
|---|---|---|---|---|---|---|
| Client ID | IDA-1 | IDA-2 | ODA-1 | | | |
| Matrix | Air | Air | Air | | | |
| Initial Pressure | 9.01 | 12.13 | 11.58 | | | |
| Final Pressure | 18.01 | 24.17 | 23.06 | | S | A |
| **Compound** | **Concentration** | | | | ug/kg | µg/m³ |
| cis-1,2-Dichloroethene | ND | ND | ND | | NA | 7.3 |
| trans-1,2-Dichloroethene | ND | ND | ND | | NA | 15 |
| Tetrachloroethene | 1.3 | 1.1 | 0.34 | | NA | 0.34 |
| Trichloroethene | ND | ND | ND | | NA | 1.1 |
| Vinyl Chloride | ND,k | ND,k | ND,k | | NA | 0.1 |
| **Surrogate Recoveries (%)** | | | | | | |
| %SS1: | 110 | 103 | 106 | | | |
| %SS2: | 103 | 102 | 104 | | | |
| %SS3: | 107 | 104 | 102 | | | |
| **Comments** | | | | | | |

*vapor samples are reported in µg/m³.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or surrogate coelutes with another peak.

j) sample diluted due to high organic content; k) this compound's reporting limit does not meet the indoor air ESL.

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| | | |
|---|---|---|
| AEI Consultants<br>2500 Camino Diablo, Ste. #200<br>Walnut Creek, CA 94597 | Client Project ID: #115876; Bruce Burrows | Date Sampled: 10/20/07 |
| | | Date Received: 10/23/07 |
| | Client Contact: Adrian Angel | Date Extracted: 10/30/07-10/31/07 |
| | Client P.O.: | Date Analyzed 10/30/07-10/31/07 |

**Halogenated Volatile Organic Compounds in nL/L***

Extraction Method: TO15 Analytical Method: TO15 Work Order: 0710766

| Lab ID | 0710766-001A | 0710766-002A | 0710766-003A | | Reporting Limit for DF =1 | |
|---|---|---|---|---|---|---|
| Client ID | IDA-1 | IDA-2 | ODA-1 | | | |
| Matrix | Air | Air | Air | | | |
| Initial Pressure | 9.01 | 12.13 | 11.58 | | | |
| Final Pressure | 18.01 | 24.17 | 23.06 | | S | A |
| **Compound** | **Concentration** | | | | ug/kg | nL/L |
| cis-1,2-Dichloroethene | ND | ND | ND | | NA | 1.8 |
| trans-1,2-Dichloroethene | ND | ND | ND | | NA | 3.6 |
| Tetrachloroethene | 0.19 | 0.15 | 0.0496 | | NA | 0.05 |
| Trichloroethene | ND | ND | ND | | NA | 0.2 |
| Vinyl Chloride | ND,k | ND,k | ND,k | | NA | 0.04 |
| **Surrogate Recoveries (%)** | | | | | | |
| %SS1: | 110 | 103 | 106 | | | |
| %SS2: | 103 | 102 | 104 | | | |
| %SS3: | 107 | 104 | 102 | | | |
| **Comments** | | | | | | |

*vapor samples are reported in nL/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or surrogate coelutes with another peak.

j) sample diluted due to high organic content; k) this compound's reporting limit does not meet the indoor air ESL.

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# QC SUMMARY REPORT FOR TO15

W.O. Sample Matrix: Air/Air QC Matrix: Air WorkOrder 0710766

**EPA Method TO15** **Extraction TO15** **BatchID: 31433** **Spiked Sample ID: N/A**

| Analyte | Sample | Spiked | MS | MSD | MS-MSD | LCS | LCSD | LCS-LCSD | Acceptance Criteria (%) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | nL/L | nL/L | % Rec. | % Rec. | % RPD | % Rec. | % Rec. | % RPD | MS / MSD | RPD | LCS/LCSD | RPD |
| Bromodichloromethane | N/A | 25 | N/A | N/A | N/A | 111 | 116 | 4.32 | N/A | N/A | 70 - 130 | 30 |
| Bromoform | N/A | 25 | N/A | N/A | N/A | 123 | 128 | 4.38 | N/A | N/A | 70 - 130 | 30 |
| Carbon Tetrachloride | N/A | 25 | N/A | N/A | N/A | 112 | 118 | 4.86 | N/A | N/A | 70 - 130 | 30 |
| Chlorobenzene | N/A | 25 | N/A | N/A | N/A | 101 | 106 | 4.15 | N/A | N/A | 70 - 130 | 30 |
| Chloroethane | N/A | 25 | N/A | N/A | N/A | 109 | 111 | 1.81 | N/A | N/A | 70 - 130 | 30 |
| Chloroform | N/A | 25 | N/A | N/A | N/A | 104 | 107 | 2.69 | N/A | N/A | 70 - 130 | 30 |
| Chloromethane | N/A | 25 | N/A | N/A | N/A | 104 | 106 | 1.69 | N/A | N/A | 70 - 130 | 30 |
| Dibromochloromethane | N/A | 25 | N/A | N/A | N/A | 123 | 127 | 3.49 | N/A | N/A | 70 - 130 | 30 |
| 1,2-Dibromoethane (EDB) | N/A | 25 | N/A | N/A | N/A | 104 | 106 | 2.44 | N/A | N/A | 70 - 130 | 30 |
| 1,3-Dichlorobenzene | N/A | 25 | N/A | N/A | N/A | 99.1 | 104 | 4.42 | N/A | N/A | 70 - 130 | 30 |
| 1,4-Dichlorobenzene | N/A | 25 | N/A | N/A | N/A | 99.3 | 102 | 2.93 | N/A | N/A | 70 - 130 | 30 |
| Dichlorodifluoromethane | N/A | 25 | N/A | N/A | N/A | 90.3 | 88 | 2.53 | N/A | N/A | 70 - 130 | 30 |
| 1,1-Dichloroethane | N/A | 25 | N/A | N/A | N/A | 110 | 112 | 2.27 | N/A | N/A | 70 - 130 | 30 |
| 1,2-Dichloroethane (1,2-DCA) | N/A | 25 | N/A | N/A | N/A | 106 | 108 | 2.27 | N/A | N/A | 70 - 130 | 30 |
| cis-1,2-Dichloroethene | N/A | 25 | N/A | N/A | N/A | 100 | 104 | 3.90 | N/A | N/A | 70 - 130 | 30 |
| trans-1,2-Dichloroethene | N/A | 25 | N/A | N/A | N/A | 99.6 | 101 | 1.85 | N/A | N/A | 70 - 130 | 30 |
| 1,2-Dichloropropane | N/A | 25 | N/A | N/A | N/A | 91.3 | 95.9 | 4.90 | N/A | N/A | 70 - 130 | 30 |
| cis-1,3-Dichloropropene | N/A | 25 | N/A | N/A | N/A | 109 | 112 | 2.06 | N/A | N/A | 70 - 130 | 30 |
| trans-1,3-Dichloropropene | N/A | 25 | N/A | N/A | N/A | 111 | 114 | 2.54 | N/A | N/A | 70 - 130 | 30 |
| 1,2-Dichloro-1,1,2,2-tetrafluoroetha | N/A | 25 | N/A | N/A | N/A | 104 | 103 | 0.519 | N/A | N/A | 70 - 130 | 30 |
| Freon 113 | N/A | 25 | N/A | N/A | N/A | 103 | 104 | 1.10 | N/A | N/A | 70 - 130 | 30 |
| Isopropyl Alcohol | N/A | 25 | N/A | N/A | N/A | 90 | 90.7 | 0.762 | N/A | N/A | 70 - 130 | 30 |
| Methylene chloride | N/A | 25 | N/A | N/A | N/A | 95.4 | 97.6 | 2.29 | N/A | N/A | 70 - 130 | 30 |
| 1,1,1,2-Tetrachloroethane | N/A | 25 | N/A | N/A | N/A | 102 | 104 | 2.26 | N/A | N/A | 70 - 130 | 30 |
| 1,1,2,2-Tetrachloroethane | N/A | 25 | N/A | N/A | N/A | 91.2 | 94.7 | 3.76 | N/A | N/A | 70 - 130 | 30 |
| Tetrachloroethene | N/A | 25 | N/A | N/A | N/A | 103 | 105 | 1.68 | N/A | N/A | 70 - 130 | 30 |
| 1,2,4-Trichlorobenzene | N/A | 25 | N/A | N/A | N/A | 105 | 106 | 1.28 | N/A | N/A | 70 - 130 | 30 |
| 1,1,1-Trichloroethane | N/A | 25 | N/A | N/A | N/A | 112 | 116 | 3.66 | N/A | N/A | 70 - 130 | 30 |
| 1,1,2-Trichloroethane | N/A | 25 | N/A | N/A | N/A | 101 | 104 | 3.79 | N/A | N/A | 70 - 130 | 30 |
| Trichloroethene | N/A | 25 | N/A | N/A | N/A | 101 | 105 | 3.67 | N/A | N/A | 70 - 130 | 30 |
| Trichlorofluoromethane | N/A | 25 | N/A | N/A | N/A | 116 | 119 | 2.63 | N/A | N/A | 70 - 130 | 30 |
| Vinyl Chloride | N/A | 25 | N/A | N/A | N/A | 108 | 101 | 7.24 | N/A | N/A | 70 - 130 | 30 |

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

* MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.
NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

DHS ELAP Certification N° 1644

QA/QC Officer

**McCampbell Analytical, Inc.**
"When Quality Counts"

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Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

# QC SUMMARY REPORT FOR TO15

W.O. Sample Matrix: Air/Air QC Matrix: Air WorkOrder 0710766

**EPA Method TO15** **Extraction TO15** **BatchID: 31433** **Spiked Sample ID: N/A**

| Analyte | Sample | Spiked | MS | MSD | MS-MSD | LCS | LCSD | LCS-LCSD | Acceptance Criteria (%) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | nL/L | nL/L | % Rec. | % Rec. | % RPD | % Rec. | % Rec. | % RPD | MS / MSD | RPD | LCS/LCSD | RPD |
| %SS1: | N/A | 500 | N/A | N/A | N/A | 104 | 107 | 2.17 | N/A | N/A | 70 - 130 | 30 |
| %SS2: | N/A | 500 | N/A | N/A | N/A | 101 | 103 | 2.22 | N/A | N/A | 70 - 130 | 30 |
| %SS3: | N/A | 500 | N/A | N/A | N/A | 100 | 101 | 0.781 | N/A | N/A | 70 - 130 | 30 |

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 31433 SUMMARY

| Sample ID | Date Sampled | Date Extracted | Date Analyzed | Sample ID | Date Sampled | Date Extracted | Date Analyzed |
|---|---|---|---|---|---|---|---|
| 0710766-001A | 10/20/07 | 10/24/07 | 10/30/07 2:22 PM | 0710766-001A | 10/20/07 | 10/24/07 | 10/30/07 2:22 PM |
| 0710766-002A | 10/20/07 | 10/24/07 | 10/31/07 3:14 PM | 0710766-002A | 10/20/07 | 10/24/07 | 10/31/07 3:14 PM |
| 0710766-003A | 10/20/07 | 10/24/07 | 10/31/07 12:02 PM | 0710766-003A | 10/20/07 | 10/24/07 | 10/31/07 12:02 PM |

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

* MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.
NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.