BONKOWSKI & ASSOCIATES, INC.
GEOTECHNICAL SERVICES AND HAZARDOUS MATERIALS MANAGEMENT

May 12, 2014
E211346-5

Ms. Karel Detterman, P.G.
Alameda County Health Agency
Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502-6577

RE: Supplemental Indoor Air Sampling Letter Report, Luque's Upholstery Shop
1532 Park Street, Alameda, California, Case No. RO0003080

Dear Ms. Detterman,

Attached herein please find the results of Bonkowski & Associates, Inc. (BAI) supplemental indoor air sampling of the Luque's Upholstery Shop, located at 1532 Park Street, in Alameda, California. The work was conducted because indoor air samples collected previously from this Site contained 19 $\mu g/m^3$ PCE and 640 $\mu g/m^3$ TCE (BAI, 2014a). Luque's Upholstery Shop is located adjacent to the Former Bell Cleaners located at 1534 Park Street, a reported dry cleaning solvent release site. This work builds upon the results of previous environmental investigations conducted at this Site, including the above referenced *Indoor Air Sampling Report (BAI, 2014a), Sub-Slab Vapor Sampling Report (BAI, 2014b), and Conceptual Site Model Report* (BAI, 2013).

Field Methods

On April 25, 2014, Bonkowski & Associates engineers collected indoor air samples A-7 and A-8 from within the Luque's Upholstery shop for the purposes of evaluating the quality of indoor air. The air samples were collected in the work room, in close proximity to the former dry cleaning and cooking machines, and hazardous waste filter storage units in the former dry cleaner suite (Figure 1). Indoor air sample A-8 was collected on a normal business day over an 8-hour period, between the hours of 8:00 a.m. and 4:00 p.m. Sample A-7 was collected while the shop was closed during the subsequent 24 hour period. The air samples were collected in 6-liter Summa canisters supplied by McCampbell Analytical, Inc. The canisters were transported under EPA Chain-of-Custody to McCampbell for chemical testing. McCampbell tested the samples for PCE, TCE, 1,1-dichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene and vinyl chloride using EPA Method TO-15. McCampbell's laboratory report is provided in Appendix A.

Chemical Test Results

The VOCs PCE and TCE were identified by McCampbell in both air samples collected from within the upholstery shop. No other VOCs were reported. The chemical test results are summarized below.

Indoor Air Chlorinated Hydrocarbon Concentrations*
1532 Park Street, Alameda, California

Sample No.	Sample Duration	Sample Container	PCE ($\mu g/m^3$)	TCE ($\mu g/m^3$)	Sample Date
A-7	24 hours	7790-937	11	19	4/25/2014
A-8	8 hours	7787-934	17	41	4/25/2014

*Positive Test Results

Preliminary Risk Evaluation

BAI conducted a preliminary analysis of the incremental cancer risk and non-cancer hazard of exposure to PCE and TCE in indoor air using these reported concentrations. Cancer Risk and Non-cancer Hazard results are presented in Table 1. The calculations that lead to these results are presented in Appendix B. The DTSC Hazard Quotient (1) was not exceeded for either sample, regardless of its period (8 or 24 hours). The DTSC acceptable incremental cancer risk was only exceeded for the compound TCE (1.18×10^{-6}) in sample A-8. The cumulative risk for this sample also exceeded the acceptable value. This sample was collected over an 8-hour period during the business day. No other discrete sample risk threshold exposures were exceeded.

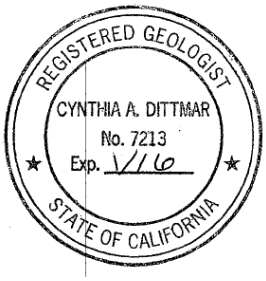
These preliminary data do not suggest substantial indoor air vapor intrusion from a sub slab migratory pathway. However, the data base at this time consists of only two sampling events. Consistent with DTSC guidance, BAI recommends the testing of additional indoor air samples within both the upholstery shop and former Bell Cleaners collected during the late summer. The soil and groundwater sampling tasks previously described in *Site Investigation Work Plan* (BAI, May 2012) require approval by the ACDEH. We recommend that they be implemented without delay.

Please feel free to contact either of the undersigned at (510) 450-0770 if you have any questions or need any additional information.

Sincerely,
Bonkowski & Associates, Inc.

Michael S. Bonkowski, PG CEG 1329
Senior Managing Principal

Cynthia A. Dittmar, PG 7213
Project Geologist



cc: Ms. Marcia Breese
Mr. Michael von Wittenau

Attachments

Table 1.	Incremental Cancer Risk and Hazard Quotient
Figure 1.	Air Sample Locations
Appendix A.	McCampbell Analytical Laboratory Report
Appendix B.	Incremental Cancer Risk and Hazard Quotient Assessment Calculations – Site Worker

References

California Department of Toxic Substance Control (DTSC), *Final Guidance For The Evaluation And Mitigation Of Subsurface Vapor Intrusion To Indoor Air (Vapor Intrusion Guidance),* October 2011.
Site Investigation Work Plan (BAI, 2012)
Conceptual Site Model, (BAI, 2013)
Indoor Air Sampling Report, (BAI, 2014a)
Sub-Slab Vapor Sampling Report, (BAI, 2014b)

May 12, 2014

Ms. Karel Detterman, P.G.
Alameda County Health Agency
Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502-6577

Subject: Supplemental Indoor Air Sampling Letter Report, Luque's Upholstery Shop, 1532 Park Street, Alameda, California, Case No. RO0003080

Dear Ms. Detterman,

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document is true and correct to the best of my knowledge.

Sincerely yours,

Marcia Breese

Marcia Breese

Enclosure

BONKOWSKI & ASSOCIATES, INC.

Tables

Table 1. Incremental Cancer Risk and Hazard Quotient
1532 Park Street, Alameda, California

Chemical	Incremental Cancer Risk	Hazard Quotient	Sample Date
Luque's Upholstery			
8-Hour Sample			
PCE	7.50×10^{-8}	0.017	4/25/2014
TCE	1.18×10^{-6}	0.81	4/25/2014
Cumulative Risk	1.26×10^{-6}		
Hazard Index		0.827	
24-Hour Sample			
PCE	4.85×10^{-8}	0.011	4/25/2014
TCE	5.48×10^{-7}	0.37	4/25/2014
Cumulative Risk	5.96×10^{-7}		
Hazard Index		0.38	

Assumed Values

C		Indoor Air Concentration
ET	8	Exposure time (hours per day)
EF	260	Exposure Frequency (days per year)
ED	5	Exposure duration
AT_c	70	Period of time over which exposure is averaged - carcinogens (years)
AT_{nc}	30	Period of time over which exposure is averaged - non-carcinogens (years)

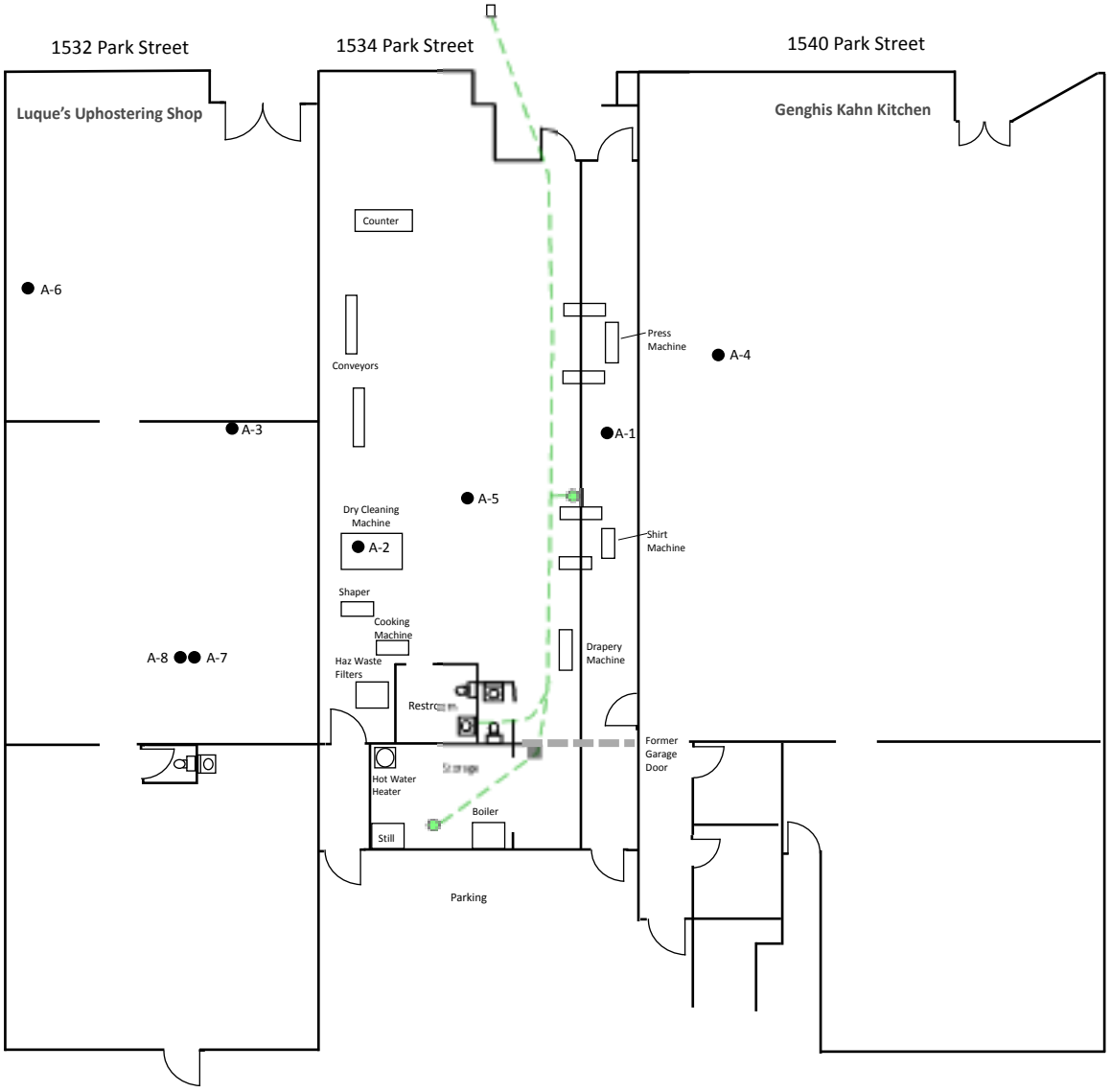
Cumulative Risk - Sum of incremental risks

Hazard Index - Sum of hazard quotients

BONKOWSKI & ASSOCIATES, INC.

Figures

PARK STREET



LEGEND

- A-1 ● Air Sample Location
- Floor Drain
- Sewer Cleanout
- Sewer LIne
- Sewer Box

N

Approximate Scale (feet):

0 10 20

Project No. E211346	1534 PARK STREET ALAMEDA, CALIFORNIA	AIR SAMPLE LOCATIONS	Figure 1
Bonkowski & Associates, Inc.			

BONKOWSKI & ASSOCIATES, INC.

Appendix A

McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1404A82 **Amended:** 05/12/2014

Report Created for: Bonkowski & Associates
6400 Hollis Street, Suite 4
Emeryville, CA 94608

Project Contact: Cynthia Dittmar
Project P.O.:
Project Name: #E211346; Alameda

Project Received: 04/28/2014

Analytical Report reviewed & approved for release on 05/06/2014 by:

Question about your data?

Click here to email McCampbell

Angela Rydelius,
Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.

1534 Willow Pass Rd. Pittsburg, CA 94565 ♦ TEL: (877) 252-9262 ♦ FAX: (925) 252-9269 ♦ www.mccampbell.com

NELAP: 4033ORELAP ♦ ELAP: 1644 ♦ ISO/IEC: 17025:2005 ♦ WSDE: C972-11 ♦ ADEC: UST-098 ♦ UCMR3

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Glossary of Terms & Qualifier Definitions

Client: Bonkowski & Associates
Project: #E211346; Alameda
WorkOrder: 1404A82

Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
NR	Matrix interferences, or 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.
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
TEQ	Toxicity Equivalence

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Case Narrative

Client: Bonkowski & Associates
Project: #E211346; Alameda

Work Order: 1404A82
May 12, 2014

TO-15 ANALYSIS

All summa canisters are EVACUATED 5 days after the reporting of the results. Please call or email if a longer retention time is required.

In an effort to attain the lowest reporting limits possible for the majority of the TO-15 target list, high level compounds may be analyzed using EPA Method 8260B.

Polymer (Tedlar) bags are not recommended for TO15 samples. The disadvantages are listed in Appendix B of the DTSC Advisory of April 2012.

The Analytical results for the following compounds were obtained using Selective Ion Mode (SIM):

1,1-Dichloroethane
Cis-1,2-Dichloroethene
Trans-1,2-Dichloroethene
Tetrachloroethene
Trichloroethene
Vinyl Chloride

CDPH ELAP 1644 ♦ NELAP 4033ORELAP

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Bonkowski & Associates	**WorkOrder:**	1404A82
Project:	#E211346; Alameda	**Extraction Method:**	TO15
Date Received:	4/28/14 16:10	**Analytical Method:**	TO15
Date Prepared:	4/23/14	**Unit:**	µg/m³

TO15 Canister Certification in µg/m³

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
E211346-A7	**1404A82-001A**	**Indoor Air**	**04/25/2014 15:23**	**GC24**	**90105**

Initial Pressure (psia)	Final Pressure (psia)
1.00	**1.00**

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.10	1	04/23/2014 15:30
cis-1,2-Dichloroethene	ND	0.40	1	04/23/2014 15:30
trans-1,2-Dichloroethene	ND	0.40	1	04/23/2014 15:30
Tetrachloroethene	ND	0.034	1	04/23/2014 15:30
Trichloroethene	ND	0.0055	1	04/23/2014 15:30
Vinyl Chloride	ND	0.0026	1	04/23/2014 15:30

Surrogates	REC (%)	Limits	
1,2-DCA-d4	99	70-130	04/23/2014 15:30
Toluene-d8	99	70-130	04/23/2014 15:30
4-BFB	97	70-130	04/23/2014 15:30

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
E211346-A8	**1404A82-002A**	**Indoor Air**	**04/25/2014 08:08**	**GC24**	**90105**

Initial Pressure (psia)	Final Pressure (psia)
1.00	**1.00**

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethene	ND	0.10	1	04/23/2014 14:36
cis-1,2-Dichloroethene	ND	0.40	1	04/23/2014 14:36
trans-1,2-Dichloroethene	ND	0.40	1	04/23/2014 14:36
Tetrachloroethene	ND	0.034	1	04/23/2014 14:36
Trichloroethene	ND	0.0055	1	04/23/2014 14:36
Vinyl Chloride	ND	0.0026	1	04/23/2014 14:36

Surrogates	REC (%)	Limits	
1,2-DCA-d4	99	70-130	04/23/2014 14:36
Toluene-d8	99	70-130	04/23/2014 14:36
4-BFB	97	70-130	04/23/2014 14:36

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	Bonkowski & Associates	**WorkOrder:**	1404A82
Project:	#E211346; Alameda	**Extraction Method:**	TO15
Date Received:	4/28/14 16:10	**Analytical Method:**	TO15
Date Prepared:	5/6/14	**Unit:**	µg/m³

Volatile Organic Compounds in µg/m³

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
E211346-A7	**1404A82-001A**	**Indoor Air**	**04/25/2014 15:23**	**GC24**	**90105**

Initial Pressure (psia)	Final Pressure (psia)
15.21	**15.21**

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethane	ND	0.41	1	05/06/2014 14:09
cis-1,2-Dichloroethene	ND	0.0040	1	05/06/2014 14:09
trans-1,2-Dichloroethene	ND	0.0040	1	05/06/2014 14:09
Tetrachloroethene	**11**	0.034	1	05/06/2014 14:09
Trichloroethene	**19**	0.0055	1	05/06/2014 14:09
Vinyl Chloride	ND	0.0026	1	05/06/2014 14:09

Surrogates	REC (%)	Limits	
1,2-DCA-d4	107	70-130	05/06/2014 14:09
Toluene-d8	99	70-130	05/06/2014 14:09
4-BFB	101	70-130	05/06/2014 14:09

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
E211346-A8	**1404A82-002A**	**Indoor Air**	**04/25/2014 08:08**	**GC24**	**90105**

Initial Pressure (psia)	Final Pressure (psia)
15.24	**15.24**

Analytes	Result	RL	DF	Date Analyzed
1,1-Dichloroethane	ND	0.41	1	05/06/2014 15:04
cis-1,2-Dichloroethene	ND	0.0040	1	05/06/2014 15:04
trans-1,2-Dichloroethene	ND	0.0040	1	05/06/2014 15:04
Tetrachloroethene	**17**	0.034	1	05/06/2014 15:04
Trichloroethene	**41**	0.0055	1	05/06/2014 15:04
Vinyl Chloride	ND	0.0026	1	05/06/2014 15:04

Surrogates	REC (%)	Limits	
1,2-DCA-d4	109	70-130	05/06/2014 15:04
Toluene-d8	99	70-130	05/06/2014 15:04
4-BFB	100	70-130	05/06/2014 15:04

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:	Bonkowski & Associates	**WorkOrder:**	1404A82
Date Prepared:	5/6/14	**BatchID:**	90105
Date Analyzed:	5/6/14	**Extraction Method:**	TO15
Instrument:	GC24	**Analytical Method:**	TO15
Matrix:	Soilgas	**Unit:**	nL/L
Project:	#E211346; Alameda	**Sample ID:**	MB/LCS-90105

QC Summary Report for TO15

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	25	-	-	-	-
Acrolein	ND	29.0	0.50	25	-	116	60-140
Acrylonitrile	ND	26.5	0.50	25	-	106	60-140
tert-Amyl methyl ether (TAME)	ND	29.6	0.50	25	-	119	60-140
Benzene	ND	24.2	0.50	25	-	96.6	60-140
Benzyl chloride	ND	33.3	0.50	25	-	133	60-140
Bromodichloromethane	ND	27.2	0.50	25	-	109	60-140
Bromoform	ND	28.6	0.50	25	-	114	60-140
Bromomethane	ND	-	0.50	-	-	-	-
1,3-Butadiene	ND	-	0.50	-	-	-	-
2-Butanone (MEK)	ND	-	25	-	-	-	-
t-Butyl alcohol (TBA)	ND	-	10	-	-	-	-
Carbon Disulfide	ND	26.8	0.50	25	-	107	60-140
Carbon Tetrachloride	ND	27.0	0.50	25	-	108	60-140
Chlorobenzene	ND	26.0	0.50	25	-	104	60-140
Chloroethane	ND	26.3	0.50	25	-	105	60-140
Chloroform	ND	22.1	0.50	25	-	88.4	60-140
Chloromethane	ND	22.5	0.50	25	-	89.9	60-140
Cyclohexane	ND	-	5.0	-	-	-	-
Dibromochloromethane	ND	29.0	0.50	25	-	116	60-140
1,2-Dibromo-3-chloropropane	ND	33.5	0.012	25	-	134	60-140
1,2-Dibromoethane (EDB)	ND	26.6	0.50	25	-	107	60-140
1,2-Dichlorobenzene	ND	-	0.50	-	-	-	-
1,3-Dichlorobenzene	ND	27.0	0.50	25	-	108	60-140
1,4-Dichlorobenzene	ND	26.0	0.50	25	-	104	60-140
Dichlorodifluoromethane	ND	23.1	0.50	25	-	92.3	60-140
1,1-Dichloroethane	ND	26.4	0.50	25	-	106	60-140
1,2-Dichloroethane (1,2-DCA)	ND	25.2	0.50	25	-	101	60-140
1,1-Dichloroethene	ND	-	0.50	-	-	-	-
cis-1,2-Dichloroethene	ND	26.2	0.50	25	-	105	60-140
trans-1,2-Dichloroethene	ND	25.4	0.50	25	-	101	60-140
1,2-Dichloropropane	ND	25.6	0.50	25	-	102	60-140
cis-1,3-Dichloropropene	ND	29.6	0.50	25	-	118	60-140
trans-1,3-Dichloropropene	ND	28.5	0.50	25	-	114	60-140
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	22.4	0.50	25	-	89.6	60-140
Diisopropyl ether (DIPE)	ND	26.0	0.50	25	-	104	60-140
1,4-Dioxane	ND	28.2	0.50	25	-	113	60-140
Ethanol	ND	-	50	-	-	-	-
Ethyl acetate	ND	27.2	0.50	25	-	109	60-140
Ethyl tert-butyl ether (ETBE)	ND	27.2	0.50	25	-	109	60-140

(Cont.)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:	Bonkowski & Associates	**WorkOrder:**	1404A82
Date Prepared:	5/6/14	**BatchID:**	90105
Date Analyzed:	5/6/14	**Extraction Method:**	TO15
Instrument:	GC24	**Analytical Method:**	TO15
Matrix:	Soilgas	**Unit:**	nL/L
Project:	#E211346; Alameda	**Sample ID:**	MB/LCS-90105

QC Summary Report for TO15

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Ethylbenzene	ND	27.4	0.50	25	-	110	60-140
4-Ethyltoluene	ND	-	0.50	-	-	-	-
Freon 113	ND	24.7	0.50	25	-	98.8	60-140
Heptane	ND	-	5.0	-	-	-	-
Hexachlorobutadiene	ND	24.7	0.50	25	-	98.8	60-140
Hexane	ND	-	5.0	-	-	-	-
2-Hexanone	ND	-	0.50	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	31.9	0.50	25	-	128	60-140
Methyl-t-butyl ether (MTBE)	ND	27.3	0.50	25	-	109	60-140
Methylene chloride	ND	22.9	0.50	25	-	91.4	60-140
Methyl methacrylate	ND	27.6	0.50	25	-	111	60-140
Naphthalene	ND	60.3	1.0	50	-	121	60-140
Propene	ND	-	50	-	-	-	-
Styrene	ND	28.9	0.50	25	-	116	60-140
1,1,1,2-Tetrachloroethane	ND	26.7	0.50	25	-	107	60-140
1,1,2,2-Tetrachloroethane	ND	26.0	0.50	25	-	104	60-140
Tetrachloroethene	ND	27.8	0.50	25	-	111	60-140
Tetrahydrofuran	ND	22.2	0.50	25	-	89	60-140
Toluene	ND	26.7	0.50	25	-	107	60-140
1,2,4-Trichlorobenzene	ND	30.4	0.50	25	-	122	60-140
1,1,1-Trichloroethane	ND	29.5	0.50	25	-	118	60-140
1,1,2-Trichloroethane	ND	23.2	0.50	25	-	93	60-140
Trichloroethene	ND	24.9	0.50	25	-	99.4	60-140
Trichlorofluoromethane	ND	-	0.50	-	-	-	-
1,2,4-Trimethylbenzene	ND	26.2	0.50	25	-	105	60-140
1,3,5-Trimethylbenzene	ND	24.5	0.50	25	-	97.9	60-140
Vinyl Acetate	ND	-	0.50	-	-	-	-
Vinyl Chloride	ND	22.2	0.50	25	-	89	60-140
Xylenes, Total	ND	76.4	1.5	75	-	102	60-140
Surrogate Recovery							
1,2-DCA-d4	490	573		500	98	115	60-140
Toluene-d8	502	504		500	100	101	60-140
4-BFB	481	496		500	96	99	60-140

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1404A82 **ClientCode: BONK**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Cynthia Dittmar
Bonkowski & Associates
6400 Hollis Street, Suite 4
Emeryville, CA 94608
(510) 450-0770 FAX: (925) 284-3552

Email: cindy@bonkowski.com
cc/3rd Party:
PO:
ProjectNo: #211346; Alameda

Bill to:
Accounts Payable
Bonkowski & Associates
6400 Hollis Street, Suite 4
Emeryville, CA 94608
accounting@bonkowski.com

Requested TAT: 5 days

Date Received: **04/28/2014**
Date Printed: **04/29/2014**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1404A82-001	E211346-A7	Indoor Air	4/25/2014 15:23	☐	A	A										
1404A82-002	E211346-A8	Indoor Air	4/25/2014 8:08	☐	A	A										

Test Legend:

1	TO15_CERT_SCANSIM	2	)15_SCAN-SIM_Indoor(ug/m	3		4		5	
6		7		8		9		10	
11		12							

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

Prepared by: Jena Alfaro

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

WORK ORDER SUMMARY

Client Name: BONKOWSKI & ASSOCIATES
QC Level: LEVEL 2
Work Order: 1404A82
Project: #211346; Alameda
Client Contact: Cynthia Dittmar
Date Received: 4/28/2014
Comments:
Contact's Email: cindy@bonkowski.com

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Number of Containers	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1404A82-001A	E211346-A7	Indoor Air	TO15 for Indoor Air	1	6L Summa	☐	4/25/2014 15:23	5 days		☐	
			TO15 Canister Certification (VOCs, Scan SIM) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>			☐		5 days		☐	
1404A82-002A	E211346-A8	Indoor Air	TO15 for Indoor Air	1	6L Summa	☐	4/25/2014 8:08	5 days		☐	
			TO15 Canister Certification (VOCs, Scan SIM) <1,1-Dichloroethene, cis-1,2-Dichloroethene, Tetrachloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl Chloride>			☐		5 days		☐	

*** NOTE: STLC and TCLP extractions require 48 hrs to complete; therefore, all TATs begin after the extraction is completed (i.e., 24hr TAT yields results in 72 hrs from sample submission).**

Bottle Legend:
6L Summa = 6L Summa Canister

1404A82

McCampbell Analytical, Inc.

1534 Willow Pass Rd. / Pittsburg, Ca. 94565-1701
www.mccampbell.com / main@mccampbell.com
Telephone: (877) 252-9262 / Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME: RUSH ☐ 1 Day ☐ 2 Day ☐ 3 Day ☐ 5 DAY ☑
GeoTracker EDF ☐ PDF ☐ EDD ☐ EQuIS ☐ 10 DAY ☐
UST Clean Up Fund Project ☐ Claim #

Report To: Cindy Dittmar	**Bill To:** Bonkowski & Assoc
Company: Bonkowski & Assoc, Inc.	
6400 Hollis St., Ste 4	
Emeryville, CA 94608	**E-Mail:** cindy@bonkowski.com
Tele: (510) 450-0770 x13	**Fax:** (510) 450-0801
Project #: E211346	**Project Name:** Alameda
Project Location:	
Sampler Signature:	

Analysis Requested

Helium Shroud SN#

Other:

Notes: Please Specify units if different than defaults VOCs is ug/m3 and fixed gas is uL/L. Leak check default is IPA.

1,1-dichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene & VC

Field Sample ID (Location)	Collection Date	Collection Time	Canister SN#	Sampler Kit SN#	VOCs by TO-15 (ug/m3)	8010 by TO-15 (ug/m3)	TPH(g) (ug/m3)	LEED (inc. 4PCH, Formaldehyde, CO, Total VOCs)	Fixed Gas: CO2, Methane, Ethane, Ethylene, Acetylene, CO (please circle or indicate in notes) uL/L	Fixed Gas: O2, N2 (please circle) uL/L	Fixed Gas: Propane uL/L	Helium Leak Check (%)	Leak Check (IPA, Norflorane, 1,1-difluroethane) ug/m3	APH: Aliphatic and/or Aromatic (please circle) ug/m3	Other: TO15-SIM for PCE, TCE	Matrix: Soilgas	Matrix: Indoor Air	Canister Pressure/ Vacuum: Initial	Canister Pressure/ Vacuum: Final
E211346-A7	4/25/14	15:23	7790-937												X		X	30	0
-A8	"	8:08	7787-934												X		X	26	0

	Date:	Time:	Received By:
Relinquished By:	4/28/14	14:17	
Relinquished By:			
Relinquished By:			

Temp (°C) : _____ Work Order #: _____
Condition: _____
Custody Seals Intact?: Yes _____ No _____ None _____
Shipped Via: _____

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Sample Receipt Checklist

Client Name: **Bonkowski & Associates**
Date and Time Received: **4/28/2014 4:10:26 PM**

Project Name: **#211346; Alameda**
LogIn Reviewed by: Jena Alfaro

WorkOrder N°: **1404A82** Matrix: Indoor 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 ☐	NA ☑
Sample labels checked for correct preservation?	Yes ☑	No ☐	
Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑
Samples Received on Ice?	Yes ☐	No ☑	

** NOTE: If the "No" box is checked, see comments below.*

Comments:

BONKOWSKI & ASSOCIATES, INC.

Appendix B

Appendix B. Incremental Cancer Risk and Hazard Quotient Assessment Site Specific
1532 Park Street, Alameda, California

Luque's Upholstry

Risk = EC_c * IUR

EC_c = ($C_{indoor\ air}$ x ET x EF x ED) / (AT_c x 365 days/year x 24 hours/day)

4/25/14 - 8-hour Sample	C	ET	EF	ED	AT_c	Conversion Factor	EC_c	IUR	**Incremental Cancer Risk**	**Acceptable Risk**
PCE	17	8	260	5	70	8760	0.29	2.60E-07	7.50E-08	1.00E-06
TCE	41	8	260	5	70	8760	0.70	1.70E-06	1.18E-06	1.00E-06
								Cumulative Cancer Risk	1.26E-06	1.00E-06

4/25/14 - 24-hour Sample	C	ET	EF	ED	AT_c	Conversion Factor	EC_c	IUR	**Incremental Cancer Risk**	**Acceptable Risk**
PCE	11	8	260	5	70	8760	0.19	2.60E-07	4.85E-08	1.00E-06
TCE	19	8	260	5	70	8760	0.32	1.70E-06	5.48E-07	1.00E-06
								Cumulative Cancer Risk	5.96E-07	1.00E-06

Hazard Quotient = EC_{nr} / RfC

EC_{nc} = ($C_{indoor\ air}$ x ET x EF x ED) / (AT_{nc} x 365 days/year x 24 hours/day x RfC)

4/25/14 - 8-hour Sample	C	ET	EF	ED	AT_{nc}	Conversion Factor	EC_{nc}	RfC	**Hazard Quotient**	**Acceptable Hazard**
PCE	17	8	260	5	30	8760	0.67	40	0.0168189	1
TCE	41	8	260	5	30	8760	1.62	2	0.8112633	1
								Hazard Index	8.28E-01	1

4/25/14 - 24-hour Sample	C	ET	EF	ED	AT_{nc}	Conversion Factor	EC_{nc}	RfC	**Hazard Quotient**	**Acceptable Hazard**
PCE	11	8	260	5	30	8760	0.44	40	0.0108828	1
TCE	19	8	260	5	30	8760	0.75	2	0.3759513	1
								Hazard Index	3.87E-01	1

	USEPA Values for Residential Use	USEPA Values for Site Worker Use	
C			Indoor Air Concentration
ET	24	8	Exposure time (hours per day)
EF	350	260	Exposure Frequency (days per year)
ED	30	25	Exposure duration
AT_c	70	70	Period of time over which exposure is averaged - carcinogens (years)
AT_{nc}	30	30	Period of time over which exposure is averaged - non-carcinogens (years)