

**COLUMBIA ANALYTICAL SERVICES, INC.**

RESULTS OF ANALYSIS

Page 1 of 1

**Client:** St. Croix Sensory, Inc.  
**Client Sample ID:** P1-FA  
**Client Project ID:** Dredge Sediment Headspace

CAS Project ID: P2701921  
 CAS Sample ID: P2701921-001

Test Code: EPA Method TO-11A  
 Instrument ID: Waters LC Module I Plus/UV\_Vis 360/LC1  
 Analyst: Madeleine Dangazyan  
 Sampling Media: DNPH Silica Gel Tube  
 Test Notes: BC

Date Collected: 6/27/2007  
 Date Received: 6/28/2007  
 Date Analyzed: 7/2/2007  
 Desorption Volume: 1.0 ml  
 Volume Sampled: 70 Liters

CAS #	Compound	Result ng/Sample	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
50-00-0	Formaldehyde	< 100	ND	1.4	ND	1.2	
75-07-0	Acetaldehyde	< 100	ND	1.4	ND	0.79	
123-38-6	Propionaldehyde	< 100	ND	1.4	ND	0.60	
4170-30-3	Crotonaldehyde, Total	< 100	ND	1.4	ND	0.50	
123-72-8	Butyraldehyde	< 100	ND	1.4	ND	0.48	
100-52-7	Benzaldehyde	< 100	ND	1.4	ND	0.33	
590-86-3	Isovaleraldehyde	< 100	ND	1.4	ND	0.41	
110-62-3	Valeraldehyde	< 100	ND	1.4	ND	0.41	
529-20-4	o-Tolualdehyde	< 100	ND	1.4	ND	0.29	
620-23-5							
104-87-0	m,p-Tolualdehyde	< 200	ND	2.9	ND	0.58	
66-25-1	n-Hexaldehyde	< 100	ND	1.4	ND	0.35	
5779-94-2	2,5-Dimethylbenzaldehyde	<b>160</b>	<b>2.2</b>	1.4	<b>0.40</b>	0.26	<b>BH</b>

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

BC = Results reported are not blank corrected

BH = The back portion of the sampling tube yielded higher results than the front.

Verified By: \_\_\_\_\_ Date: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

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**Client:** St. Croix Sensory, Inc.  
**Client Sample ID:** Q1-FA  
**Client Project ID:** Dredge Sediment Headspace

CAS Project ID: P2701921  
 CAS Sample ID: P2701921-002

Test Code: EPA Method TO-11A  
 Instrument ID: Waters LC Module I Plus/UV\_Vis 360/LC1  
 Analyst: Madeleine Dangazyan  
 Sampling Media: DNPH Silica Gel Tube  
 Test Notes: BC

Date Collected: 6/27/2007  
 Date Received: 6/28/2007  
 Date Analyzed: 7/2/2007  
 Desorption Volume: 1.0 ml  
 Volume Sampled: 70 Liters

CAS #	Compound	Result ng/Sample	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
50-00-0	Formaldehyde	< 100	ND	1.4	ND	1.2	
75-07-0	Acetaldehyde	< 100	ND	1.4	ND	0.79	
123-38-6	Propionaldehyde	< 100	ND	1.4	ND	0.60	
4170-30-3	Crotonaldehyde, Total	< 100	ND	1.4	ND	0.50	
123-72-8	Butyraldehyde	< 100	ND	1.4	ND	0.48	
100-52-7	Benzaldehyde	< 100	ND	1.4	ND	0.33	
590-86-3	Isovaleraldehyde	< 100	ND	1.4	ND	0.41	
110-62-3	Valeraldehyde	< 100	ND	1.4	ND	0.41	
529-20-4	o-Tolualdehyde	< 100	ND	1.4	ND	0.29	
620-23-5							
104-87-0	m,p-Tolualdehyde	< 200	ND	2.9	ND	0.58	
66-25-1	n-Hexaldehyde	< 100	ND	1.4	ND	0.35	
5779-94-2	2,5-Dimethylbenzaldehyde	<b>250</b>	<b>3.6</b>	1.4	<b>0.66</b>	0.26	<b>BH</b>

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

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BC = Results reported are not blank corrected

BH = The back portion of the sampling tube yielded higher results than the front.

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**COLUMBIA ANALYTICAL SERVICES, INC.**

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**Client:** St. Croix Sensory, Inc.  
**Client Sample ID:** Reagent Blank  
**Client Project ID:** Dredge Sediment Headspace

CAS Project ID: P2701921  
 CAS Sample ID: P070702-RB

Test Code: EPA Method TO-11A  
 Instrument ID: Waters LC Module I Plus/UV\_Vis 360/LC1  
 Analyst: Madeleine Dangazyan  
 Sampling Media: Acetonitrile  
 Test Notes: BC

Date Collected: NA  
 Date Received: NA  
 Date Analyzed: 7/02/07  
 Desorption Volume: 1.0 ml  
 Volume Sampled: NA Liters

CAS #	Compound	Result	Result	MRL	Result	MRL	Data Qualifier
		ng/Sample	µg/m <sup>3</sup>	µg/m <sup>3</sup>	ppbV	ppbV	
50-00-0	Formaldehyde	< 100	NA	NA	NA	NA	
75-07-0	Acetaldehyde	< 100	NA	NA	NA	NA	
123-38-6	Propionaldehyde	< 100	NA	NA	NA	NA	
4170-30-3	Crotonaldehyde, Total	< 100	NA	NA	NA	NA	
123-72-8	Butyraldehyde	< 100	NA	NA	NA	NA	
100-52-7	Benzaldehyde	< 100	NA	NA	NA	NA	
590-86-3	Isovaleraldehyde	< 100	NA	NA	NA	NA	
110-62-3	Valeraldehyde	< 100	NA	NA	NA	NA	
529-20-4	o-Tolualdehyde	< 100	NA	NA	NA	NA	
620-23-5							
104-87-0	m,p-Tolualdehyde	< 200	NA	NA	NA	NA	
66-25-1	n-Hexaldehyde	< 100	NA	NA	NA	NA	
5779-94-2	2,5-Dimethylbenzaldehyde	< 100	NA	NA	NA	NA	

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

NA = Not applicable

BC = Results reported are not blank corrected

Verified By: \_\_\_\_\_ Date: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

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**Client:** St. Croix Sensory, Inc.  
**Client Sample ID:** Method Blank  
**Client Project ID:** Dredge Sediment Headspace

CAS Project ID: P2701921  
 CAS Sample ID: P070702-MB

Test Code: EPA Method TO-11A  
 Instrument ID: Waters LC Module I Plus/UV\_Vis 360/LC1  
 Analyst: Madeleine Dangazyan  
 Sampling Media: DNPH Silica Gel Tube  
 Test Notes: BC

Date Collected: NA  
 Date Received: NA  
 Date Analyzed: 7/02/07  
 Desorption Volume: 1.0 ml  
 Volume Sampled: NA Liters

CAS #	Compound	Result ng/Sample	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
50-00-0	Formaldehyde	< 100	NA	NA	NA	NA	
75-07-0	Acetaldehyde	< 100	NA	NA	NA	NA	
123-38-6	Propionaldehyde	< 100	NA	NA	NA	NA	
4170-30-3	Crotonaldehyde, Total	< 100	NA	NA	NA	NA	
123-72-8	Butyraldehyde	< 100	NA	NA	NA	NA	
100-52-7	Benzaldehyde	< 100	NA	NA	NA	NA	
590-86-3	Isovaleraldehyde	< 100	NA	NA	NA	NA	
110-62-3	Valeraldehyde	< 100	NA	NA	NA	NA	
529-20-4	o-Tolualdehyde	< 100	NA	NA	NA	NA	
620-23-5							
104-87-0	m,p-Tolualdehyde	< 200	NA	NA	NA	NA	
66-25-1	n-Hexaldehyde	< 100	NA	NA	NA	NA	
5779-94-2	2,5-Dimethylbenzaldehyde	< 100	NA	NA	NA	NA	

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

NA = Not applicable

BC = Results reported are not blank corrected

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**Client:** St. Croix Sensory, Inc.  
**Client Sample ID:** P2-CA  
**Client Project ID:** Dredge Sediment Headspace

CAS Project ID: P2701921  
 CAS Sample ID: P2701921-003

Test Code: GC/MS  
 Instrument ID: HP5970/HP5890II+/MS4  
 Analyst: Madeleine Dangazyan  
 Sampling Media: Silica Gel Tube  
 Test Notes: **BC, DE**

Date Collected: 6/27/2007  
 Date Received: 6/28/2007  
 Date Analyzed: 7/10/2007  
 Desorption Volume: 1.0 ml  
 Volume Sampled: 70 Liters

CAS #	Compound	Result µg/Tube	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
64-19-7	Acetic Acid	<b>1.4</b>	<b>20</b>	14	<b>8.3</b>	5.6	<b>L</b>
79-09-4	Propionic Acid (Propanoic)	< 0.25	ND	3.5	ND	1.2	<b>L</b>
79-31-2	2-Methylpropanoic Acid (Isobutyric)	< 0.25	ND	3.6	ND	0.99	
107-92-6	Butanoic Acid (Butyric)	< 0.25	ND	3.5	ND	0.97	
116-53-0	2-Methylbutanoic Acid	< 0.25	ND	3.5	ND	0.85	
503-74-2	3-Methylbutanoic Acid (Isovaleric)	< 0.25	ND	3.5	ND	0.85	
109-52-4	Pentanoic Acid (Valeric)	< 0.25	ND	3.6	ND	0.86	
97-61-0	2-Methylpentanoic Acid	< 0.25	ND	3.6	ND	0.76	
105-43-1	3-Methylpentanoic Acid	< 0.25	ND	3.6	ND	0.76	
646-07-1	4-Methylpentanoic Acid (Isocaproic)	< 0.25	ND	3.6	ND	0.76	
142-62-1	Hexanoic Acid (Caproic)	<b>0.27</b>	<b>3.9</b>	3.6	<b>0.81</b>	0.76	
149-57-5	2-Ethylhexanoic Acid	< 0.28	ND	4.0	ND	0.69	
111-14-8	Heptanoic Acid (Enanthoic)	< 0.25	ND	3.6	ND	0.68	
124-07-2	Octanoic Acid (Caprylic)	< 0.26	ND	3.7	ND	0.62	
98-89-5	Cyclohexanecarboxylic Acid	< 0.25	ND	3.6	ND	0.69	
112-05-0	Nonanoic Acid (Pelargonic)	< 0.26	ND	3.7	ND	0.58	
65-85-0	Benzoic Acid	< 0.30	ND	4.3	ND	0.86	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

BC = Results reported are not blank corrected

DE = Results reported are corrected for desorption efficiency.

L = Laboratory control sample recovery outside specified limits; results may be biased high.

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**COLUMBIA ANALYTICAL SERVICES, INC.**

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**Client:** St. Croix Sensory, Inc.  
**Client Sample ID:** Q2-CA  
**Client Project ID:** Dredge Sediment Headspace

CAS Project ID: P2701921  
 CAS Sample ID: P2701921-004

Test Code: GC/MS  
 Instrument ID: HP5970/HP5890II+/MS4  
 Analyst: Madeleine Dangazyan  
 Sampling Media: Silica Gel Tube  
 Test Notes: BC, DE

Date Collected: 6/27/2007  
 Date Received: 6/28/2007  
 Date Analyzed: 7/10/2007  
 Desorption Volume: 1.0 ml  
 Volume Sampled: 70 Liters

CAS #	Compound	Result µg/Tube	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
64-19-7	Acetic Acid	0.97	14	14	5.6	5.6	L
79-09-4	Propionic Acid (Propanoic)	< 0.25	ND	3.5	ND	1.2	L
79-31-2	2-Methylpropanoic Acid (Isobutyric)	< 0.25	ND	3.6	ND	0.99	
107-92-6	Butanoic Acid (Butyric)	< 0.25	ND	3.5	ND	0.97	
116-53-0	2-Methylbutanoic Acid	< 0.25	ND	3.5	ND	0.85	
503-74-2	3-Methylbutanoic Acid (Isovaleric)	< 0.25	ND	3.5	ND	0.85	
109-52-4	Pentanoic Acid (Valeric)	< 0.25	ND	3.6	ND	0.86	
97-61-0	2-Methylpentanoic Acid	< 0.25	ND	3.6	ND	0.76	
105-43-1	3-Methylpentanoic Acid	< 0.25	ND	3.6	ND	0.76	
646-07-1	4-Methylpentanoic Acid (Isocaproic)	< 0.25	ND	3.6	ND	0.76	
142-62-1	Hexanoic Acid (Caproic)	< 0.25	ND	3.6	ND	0.76	
149-57-5	2-Ethylhexanoic Acid	< 0.28	ND	4.0	ND	0.69	
111-14-8	Heptanoic Acid (Enanthoic)	< 0.25	ND	3.6	ND	0.68	
124-07-2	Octanoic Acid (Caprylic)	< 0.26	ND	3.7	ND	0.62	
98-89-5	Cyclohexanecarboxylic Acid	< 0.25	ND	3.6	ND	0.69	
112-05-0	Nonanoic Acid (Pelargonic)	< 0.26	ND	3.7	ND	0.58	
65-85-0	Benzoic Acid	< 0.30	ND	4.3	ND	0.86	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.  
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 DE = Results reported are corrected for desorption efficiency.  
 L = Laboratory control sample recovery outside specified limits; results may be biased high.

Verified By: \_\_\_\_\_ Date: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

RESULTS OF ANALYSIS

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**Client:** St. Croix Sensory, Inc.  
**Client Sample ID:** Method Blank  
**Client Project ID:** Dredge Sediment Headspace

CAS Project ID: P2701921  
 CAS Sample ID: P070710-MB

**Test Code:** GC/MS  
**Instrument ID:** HP5970/HP5890II+/MS4  
**Analyst:** Madeleine Dangazyan  
**Sampling Media:** Silica Gel Tube  
**Test Notes:** BC, DE

**Date Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 7/10/07  
**Desorption Volume:** 1.0 ml  
**Volume Sampled:** NA Liters

CAS #	Compound	Result µg/Tube	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
64-19-7	Acetic Acid	< 0.97	NA	NA	NA	NA	L
79-09-4	Propionic Acid (Propanoic)	< 0.25	NA	NA	NA	NA	L
79-31-2	2-Methylpropanoic Acid (Isobutyric)	< 0.25	NA	NA	NA	NA	
107-92-6	Butanoic Acid (Butyric)	< 0.25	NA	NA	NA	NA	
116-53-0	2-Methylbutanoic Acid	< 0.25	NA	NA	NA	NA	
503-74-2	3-Methylbutanoic Acid (Isovaleric)	< 0.25	NA	NA	NA	NA	
109-52-4	Pentanoic Acid (Valeric)	< 0.25	NA	NA	NA	NA	
97-61-0	2-Methylpentanoic Acid	< 0.25	NA	NA	NA	NA	
105-43-1	3-Methylpentanoic Acid	< 0.25	NA	NA	NA	NA	
646-07-1	4-Methylpentanoic Acid (Isocaproic)	< 0.25	NA	NA	NA	NA	
142-62-1	Hexanoic Acid (Caproic)	< 0.25	NA	NA	NA	NA	
149-57-5	2-Ethylhexanoic Acid	< 0.28	NA	NA	NA	NA	
111-14-8	Heptanoic Acid (Enanthoic)	< 0.25	NA	NA	NA	NA	
124-07-2	Octanoic Acid (Caprylic)	< 0.26	NA	NA	NA	NA	
98-89-5	Cyclohexanecarboxylic Acid	< 0.25	NA	NA	NA	NA	
112-05-0	Nonanoic Acid (Pelargonic)	< 0.26	NA	NA	NA	NA	
65-85-0	Benzoic Acid	< 0.30	NA	NA	NA	NA	

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

NA = Not applicable

BC = Results reported are not blank corrected

DE = Results reported are corrected for desorption efficiency.

L = Laboratory control sample recovery outside specified limits; results may be biased high.

Verified By: \_\_\_\_\_ Date: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

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**Client:** St. Croix Sensory, Inc.  
**Client Sample ID:** P3-AM  
**Client Project ID:** Dredge Sediment Headspace

CAS Project ID: P2701921  
CAS Sample ID: P2701921-005

Test Code: GC/NPD  
Instrument ID: Agilent 6890N/GC14/NPD  
Analyst: Madeleine Dangazyan  
Sampling Media: Treated Alumina Tube  
Test Notes: **BC, DE**

Date Collected: 6/27/2007  
Date Received: 6/28/2007  
Date Analyzed: 7/5/2007  
Desorption Volume: 2.0 ml  
Volume Sampled: 70 Liters

CAS #	Compound	Result µg/Tube	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
124-40-3	Dimethylamine	<b>0.27</b>	<b>3.8</b>	2.7	<b>2.1</b>	1.5	
75-04-7	Ethylamine	< 0.20	ND	2.8	ND	1.5	
75-50-3	Trimethylamine	< 0.20	ND	2.9	ND	1.2	
75-31-0	Isopropylamine	< 0.19	ND	2.7	ND	1.1	
75-64-9	t-Butylamine	< 0.19	ND	2.7	ND	0.90	
107-10-8	Propylamine	< 0.19	ND	2.7	ND	1.1	
109-89-7	Diethylamine	< 0.19	ND	2.7	ND	0.89	
13952-84-6	s-Butylamine	< 0.19	ND	2.7	ND	0.91	
78-81-9	Isobutylamine	< 0.19	ND	2.7	ND	0.91	
109-73-9	Butylamine	< 0.19	ND	2.7	ND	0.92	
108-18-9	Diisopropylamine	< 0.19	ND	2.7	ND	0.65	
121-44-8	Triethylamine	< 0.19	ND	2.8	ND	0.67	
142-84-7	Dipropylamine	< 0.38	ND	5.4	ND	1.3	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

BC = Results reported are not blank corrected

DE = Results reported are corrected for desorption efficiency.

Verified By: \_\_\_\_\_ Date: \_\_\_\_\_



**COLUMBIA ANALYTICAL SERVICES, INC.**

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**Client:** St. Croix Sensory, Inc.  
**Client Sample ID:** Q3-AM  
**Client Project ID:** Dredge Sediment Headspace

CAS Project ID: P2701921  
 CAS Sample ID: P2701921-006

Test Code: GC/NPD  
 Instrument ID: Agilent 6890N/GC14/NPD  
 Analyst: Madeleine Dangazyan  
 Sampling Media: Treated Alumina Tube  
 Test Notes: **BC, DE**

Date Collected: 6/27/2007  
 Date Received: 6/28/2007  
 Date Analyzed: 7/5/2007  
 Desorption Volume: 2.0 ml  
 Volume Sampled: 70 Liters

CAS #	Compound	Result µg/Tube	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
124-40-3	Dimethylamine	< 0.19	ND	2.7	ND	1.5	
75-04-7	Ethylamine	< 0.20	ND	2.8	ND	1.5	
75-50-3	Trimethylamine	< 0.20	ND	2.9	ND	1.2	
75-31-0	Isopropylamine	< 0.19	ND	2.7	ND	1.1	
75-64-9	t-Butylamine	< 0.19	ND	2.7	ND	0.90	
107-10-8	Propylamine	< 0.19	ND	2.7	ND	1.1	
109-89-7	Diethylamine	< 0.19	ND	2.7	ND	0.89	
13952-84-6	s-Butylamine	< 0.19	ND	2.7	ND	0.91	
78-81-9	Isobutylamine	< 0.19	ND	2.7	ND	0.91	
109-73-9	Butylamine	< 0.19	ND	2.7	ND	0.92	
108-18-9	Diisopropylamine	< 0.19	ND	2.7	ND	0.65	
121-44-8	Triethylamine	< 0.19	ND	2.8	ND	0.67	
142-84-7	Dipropylamine	< 0.38	ND	5.4	ND	1.3	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

BC = Results reported are not blank corrected

DE = Results reported are corrected for desorption efficiency.

Verified By: \_\_\_\_\_ Date: \_\_\_\_\_

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**Client:** St. Croix Sensory, Inc.  
**Client Sample ID:** Method Blank  
**Client Project ID:** Dredge Sediment Headspace

CAS Project ID: P2701921  
 CAS Sample ID: P070705-MB

Test Code: GC/NPD  
 Instrument ID: Agilent 6890N/GC14/NPD  
 Analyst: Madeleine Dangazyan  
 Sampling Media: Treated Alumina Tube  
 Test Notes: **BC, DE**

Date Collected: NA  
 Date Received: NA  
 Date Analyzed: 7/05/07  
 Desorption Volume: 2.0 ml  
 Volume Sampled: NA Liters

CAS #	Compound	Result µg/Tube	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
124-40-3	Dimethylamine	< 0.19	NA	NA	NA	NA	
75-04-7	Ethylamine	< 0.20	NA	NA	NA	NA	
75-50-3	Trimethylamine	< 0.20	NA	NA	NA	NA	
75-31-0	Isopropylamine	< 0.19	NA	NA	NA	NA	
75-64-9	t-Butylamine	< 0.19	NA	NA	NA	NA	
107-10-8	Propylamine	< 0.19	NA	NA	NA	NA	
109-89-7	Diethylamine	< 0.19	NA	NA	NA	NA	
13952-84-6	s-Butylamine	< 0.19	NA	NA	NA	NA	
78-81-9	Isobutylamine	< 0.19	NA	NA	NA	NA	
109-73-9	Butylamine	< 0.19	NA	NA	NA	NA	
108-18-9	Diisopropylamine	< 0.19	NA	NA	NA	NA	
121-44-8	Triethylamine	< 0.19	NA	NA	NA	NA	
142-84-7	Dipropylamine	< 0.38	NA	NA	NA	NA	

NA = Not applicable

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

BC = Results reported are not blank corrected

DE = Results reported are corrected for desorption efficiency.

Verified By: \_\_\_\_\_ Date: \_\_\_\_\_

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**Client:** St. Croix Sensory, Inc.  
**Client Sample ID:** P30  
**Client Project ID:** Dredge Sediment Headspace

CAS Project ID: P2701914  
 CAS Sample ID: P2701914-001

Test Code: ASTM D 5504-01  
 Instrument ID: Agilent 6890A/GC13/SCD  
 Analyst: Zheng Wang  
 Sampling Media: Tedlar Bag  
 Test Notes: **RH**

Date Collected: 6/27/2007  
 Time Collected: 10:15  
 Date Received: 6/28/2007  
 Date Analyzed: 6/28/07  
 Time Analyzed: 14:45  
 Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result	MRL	Result	MRL	Data Qualifier
		$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	ppbV	ppbV	
7783-06-4	Hydrogen Sulfide	5.5	7.0	3.9	5.0	J
463-58-1	Carbonyl Sulfide	16	12	6.3	5.0	
74-93-1	Methyl Mercaptan	7.4	9.8	3.8	5.0	J
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	45	13	18	5.0	
75-15-0	Carbon Disulfide	25	7.8	8.2	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	ND	17	ND	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	94	9.6	25	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RH = Sample received outside of holding time.

J = The analyte was positively identified below the laboratory method reporting limit; the associated numerical value is considered estimated.

Verified By: \_\_\_\_\_ Date: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

RESULTS OF ANALYSIS

Page 1 of 1

**Client:** St. Croix Sensory, Inc.  
**Client Sample ID:** Q30  
**Client Project ID:** Dredge Sediment Headspace

CAS Project ID: P2701914  
 CAS Sample ID: P2701914-002

Test Code: ASTM D 5504-01  
 Instrument ID: Agilent 6890A/GC13/SCD  
 Analyst: Zheng Wang  
 Sampling Media: Tedlar Bag  
 Test Notes: **H**

Date Collected: 6/27/2007  
 Time Collected: 10:35  
 Date Received: 6/28/2007  
 Date Analyzed: 6/28/07  
 Time Analyzed: 15:53  
 Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result	MRL	Result	MRL	Data Qualifier
		$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	ppbV	ppbV	
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	<b>150</b>	12	<b>61</b>	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	ND	13	ND	5.0	
75-15-0	Carbon Disulfide	<b>130</b>	7.8	<b>41</b>	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	ND	17	ND	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	ND	9.6	ND	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

H = Sample analyzed outside of holding time.

Verified By: \_\_\_\_\_ Date: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

RESULTS OF ANALYSIS

Page 1 of 1

**Client:** St. Croix Sensory, Inc.  
**Client Sample ID:** Method Blank  
**Client Project ID:** Dredge Sediment Headspace

CAS Project ID: P2701914  
 CAS Sample ID: P070628-MB

Test Code: ASTM D 5504-01  
 Instrument ID: Agilent 6890A/GC13/SCD  
 Analyst: Zheng Wang  
 Sampling Media: Tedlar Bag  
 Test Notes:

Date Collected: NA  
 Time Collected: NA  
 Date Received: NA  
 Date Analyzed: 6/28/07  
 Time Analyzed: 09:24  
 Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result	MRL	Result	MRL	Data Qualifier
		$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	ppbV	ppbV	
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	ND	12	ND	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	ND	13	ND	5.0	
75-15-0	Carbon Disulfide	ND	7.8	ND	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	ND	17	ND	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	ND	9.6	ND	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the **laboratory detection limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: \_\_\_\_\_ Date: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

RESULTS OF ANALYSIS

Page 1 of 4

**Client:** St. Croix Sensory, Inc.  
**Client Sample ID:** P30  
**Client Project ID:** Dredge Sediment Headspace

CAS Project ID: P2701914  
 CAS Sample ID: P2701914-001

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/HP5972/HP5890 II+/MS2  
**Analyst:** Chaney Humphrey  
**Sampling Media:** Tedlar Bag  
**Test Notes:**

**Date Collected:** 6/27/07  
**Date Received:** 6/28/07  
**Date(s) Analyzed:** 6/28/07  
**Volume(s) Analyzed:** 0.20 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	7.8	5.0	1.6	1.0	
74-87-3	Chloromethane	ND	5.0	ND	2.4	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	5.0	ND	0.72	
75-01-4	Vinyl Chloride	ND	5.0	ND	2.0	
106-99-0	1,3-Butadiene	ND	5.0	ND	2.3	
74-83-9	Bromomethane	ND	5.0	ND	1.3	
75-00-3	Chloroethane	ND	5.0	ND	1.9	
64-17-5	Ethanol	ND	25	ND	13	
75-05-8	Acetonitrile	ND	5.0	ND	3.0	
107-02-8	Acrolein	ND	5.0	ND	2.2	
67-64-1	Acetone	29	25	12	11	
75-69-4	Trichlorofluoromethane	9.1	5.0	1.6	0.89	
67-63-0	2-Propanol (Isopropyl Alcohol)	7.1	5.0	2.9	2.0	
107-13-1	Acrylonitrile	ND	5.0	ND	2.3	
75-35-4	1,1-Dichloroethene	ND	5.0	ND	1.3	
75-09-2	Methylene chloride	ND	5.0	ND	1.4	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	5.0	ND	1.6	
76-13-1	Trichlorotrifluoroethane	ND	5.0	ND	0.65	
75-15-0	Carbon Disulfide	17	5.0	5.4	1.6	
156-60-5	trans-1,2-Dichloroethene	ND	5.0	ND	1.3	
75-34-3	1,1-Dichloroethane	ND	5.0	ND	1.2	
1634-04-4	Methyl tert-Butyl Ether	ND	5.0	ND	1.4	
108-05-4	Vinyl Acetate	ND	5.0	ND	1.4	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: \_\_\_\_\_ Date: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

RESULTS OF ANALYSIS

Page 2 of 4

**Client:** St. Croix Sensory, Inc.  
**Client Sample ID:** P30  
**Client Project ID:** Dredge Sediment Headspace

CAS Project ID: P2701914  
 CAS Sample ID: P2701914-001

Test Code: EPA TO-15 Modified  
 Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2  
 Analyst: Chaney Humphrey  
 Sampling Media: Tedlar Bag  
 Test Notes:

Date Collected: 6/27/07  
 Date Received: 6/28/07  
 Date(s) Analyzed: 6/28/07  
 Volume(s) Analyzed: 0.20 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	5.6	5.0	1.9	1.7	
156-59-2	cis-1,2-Dichloroethene	ND	5.0	ND	1.3	
110-54-3	n-Hexane	ND	5.0	ND	1.4	
67-66-3	Chloroform	ND	5.0	ND	1.0	
107-06-2	1,2-Dichloroethane	ND	5.0	ND	1.2	
71-55-6	1,1,1-Trichloroethane	ND	5.0	ND	0.92	
71-43-2	Benzene	ND	5.0	ND	1.6	
56-23-5	Carbon Tetrachloride	ND	5.0	ND	0.80	
78-87-5	1,2-Dichloropropane	ND	5.0	ND	1.1	
75-27-4	Bromodichloromethane	ND	5.0	ND	0.75	
79-01-6	Trichloroethene	ND	5.0	ND	0.93	
123-91-1	1,4-Dioxane	ND	5.0	ND	1.4	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	ND	1.1	
108-10-1	4-Methyl-2-pentanone	ND	5.0	ND	1.2	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	ND	1.1	
79-00-5	1,1,2-Trichloroethane	ND	5.0	ND	0.92	
108-88-3	Toluene	21	5.0	5.5	1.3	
591-78-6	2-Hexanone	ND	5.0	ND	1.2	
124-48-1	Dibromochloromethane	ND	5.0	ND	0.59	
106-93-4	1,2-Dibromoethane	ND	5.0	ND	0.65	
123-86-4	n-Butyl Acetate	ND	5.0	ND	1.1	
127-18-4	Tetrachloroethene	ND	5.0	ND	0.74	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: \_\_\_\_\_ Date: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

RESULTS OF ANALYSIS

Page 3 of 4

**Client:** St. Croix Sensory, Inc.  
**Client Sample ID:** P30  
**Client Project ID:** Dredge Sediment Headspace

CAS Project ID: P2701914  
 CAS Sample ID: P2701914-001

Test Code: EPA TO-15 Modified  
 Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2  
 Analyst: Chaney Humphrey  
 Sampling Media: Tedlar Bag  
 Test Notes:

Date Collected: 6/27/07  
 Date Received: 6/28/07  
 Date(s) Analyzed: 6/28/07  
 Volume(s) Analyzed: 0.20 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	15	5.0	3.2	1.1	
100-41-4	Ethylbenzene	ND	5.0	ND	1.2	
179601-23-1	<i>m,p</i> -Xylenes	12	5.0	2.8	1.2	
75-25-2	Bromoform	ND	5.0	ND	0.48	
100-42-5	Styrene	6.2	5.0	1.5	1.2	
95-47-6	<i>o</i> -Xylene	8.1	5.0	1.9	1.2	
111-84-2	n-Nonane	ND	5.0	ND	0.95	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	ND	0.73	
98-82-8	Cumene	ND	5.0	ND	1.0	
80-56-8	alpha-Pinene	ND	5.0	ND	0.90	
622-96-8	4-Ethyltoluene	ND	5.0	ND	1.0	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ND	1.0	
95-63-6	1,2,4-Trimethylbenzene	5.1	5.0	1.0	1.0	
100-44-7	Benzyl Chloride	ND	5.0	ND	0.97	
541-73-1	1,3-Dichlorobenzene	ND	5.0	ND	0.83	
106-46-7	1,4-Dichlorobenzene	ND	5.0	ND	0.83	
95-50-1	1,2-Dichlorobenzene	ND	5.0	ND	0.83	
5989-27-5	d-Limonene	ND	5.0	ND	0.90	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ND	0.52	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ND	0.67	
91-20-3	Naphthalene	ND	5.0	ND	0.95	
87-68-3	Hexachlorobutadiene	ND	5.0	ND	0.47	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: \_\_\_\_\_ Date: \_\_\_\_\_



**COLUMBIA ANALYTICAL SERVICES, INC.**

RESULTS OF ANALYSIS

Page 4 of 4

**Client:** St. Croix Sensory, Inc.  
**Client Sample ID:** P30  
**Client Project ID:** Dredge Sediment Headspace

CAS Project ID: P2701914  
 CAS Sample ID: P2701914-001

**Tentatively Identified Compounds**

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/HP5972/HP5890 II+/MS2  
**Analyst:** Chaney Humphrey  
**Sampling Media:** Tedlar Bag  
**Test Notes:** T

**Date Collected:** 6/27/07  
**Date Received:** 6/28/07  
**Date Analyzed:** 6/28/07  
**Volume(s) Analyzed:** 0.20 Liter(s)

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m <sup>3</sup>	Data Qualifier
4.62	Propane + Propene + Chlorodifluoromethane + Carbonyl sulfide	20	
5.03	Isobutane	10	
6.98	Dimethyl Sulfide	20	
7.03	tert-Butanol	20	
9.12	Ethyl Acetate	20	
10.60	1-Butanol	50	
13.17	Dimethyl Disulfide	70	
15.44	Hexamethylcyclotrisiloxane	50	*
18.38	C <sub>10</sub> H <sub>22</sub> Branched Alkane	20	
19.43	Unidentified Compound	30	
19.74	C <sub>11</sub> H <sub>24</sub> Branched Alkane + C <sub>9</sub> H <sub>12</sub> Aromatic Compound + C <sub>10</sub> H <sub>14</sub> Aromatic Compound	30	
20.11	C <sub>10</sub> H <sub>14</sub> Aromatic Compound + Unidentified Compound	30	
20.39	C <sub>11</sub> H <sub>24</sub> Branched Alkane + C <sub>11</sub> H <sub>22</sub> Compound	30	
20.63	C <sub>10</sub> H <sub>14</sub> Aromatic Compound + C <sub>11</sub> H <sub>22</sub> Compound + n-Nonanal	30	
25.56	C <sub>11</sub> H <sub>20</sub> Compound	20	

T = Analyte is a tentatively identified compound, result is estimated.

\* = Possible Artifact.

Verified By: \_\_\_\_\_ Date: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

RESULTS OF ANALYSIS

Page 1 of 4

**Client:** St. Croix Sensory, Inc.  
**Client Sample ID:** Q30  
**Client Project ID:** Dredge Sediment Headspace

CAS Project ID: P2701914  
 CAS Sample ID: P2701914-002

Test Code: EPA TO-15 Modified  
 Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2  
 Analyst: Chaney Humphrey  
 Sampling Media: Tedlar Bag  
 Test Notes:

Date Collected: 6/27/07  
 Date Received: 6/28/07  
 Date(s) Analyzed: 6/28/07  
 Volume(s) Analyzed: 0.20 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	<b>7.3</b>	5.0	<b>1.5</b>	1.0	
74-87-3	Chloromethane	ND	5.0	ND	2.4	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	5.0	ND	0.72	
75-01-4	Vinyl Chloride	ND	5.0	ND	2.0	
106-99-0	1,3-Butadiene	ND	5.0	ND	2.3	
74-83-9	Bromomethane	ND	5.0	ND	1.3	
75-00-3	Chloroethane	ND	5.0	ND	1.9	
64-17-5	Ethanol	ND	25	ND	13	
75-05-8	Acetonitrile	ND	5.0	ND	3.0	
107-02-8	Acrolein	ND	5.0	ND	2.2	
67-64-1	Acetone	ND	25	ND	11	
75-69-4	Trichlorofluoromethane	<b>6.2</b>	5.0	<b>1.1</b>	0.89	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	5.0	ND	2.0	
107-13-1	Acrylonitrile	ND	5.0	ND	2.3	
75-35-4	1,1-Dichloroethene	ND	5.0	ND	1.3	
75-09-2	Methylene chloride	ND	5.0	ND	1.4	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	5.0	ND	1.6	
76-13-1	Trichlorotrifluoroethane	ND	5.0	ND	0.65	
75-15-0	Carbon Disulfide	<b>82</b>	5.0	<b>26</b>	1.6	
156-60-5	trans-1,2-Dichloroethene	ND	5.0	ND	1.3	
75-34-3	1,1-Dichloroethane	ND	5.0	ND	1.2	
1634-04-4	Methyl tert-Butyl Ether	ND	5.0	ND	1.4	
108-05-4	Vinyl Acetate	ND	5.0	ND	1.4	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: \_\_\_\_\_ Date: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

RESULTS OF ANALYSIS

Page 2 of 4

**Client:** St. Croix Sensory, Inc.  
**Client Sample ID:** Q30  
**Client Project ID:** Dredge Sediment Headspace

CAS Project ID: P2701914  
 CAS Sample ID: P2701914-002

Test Code: EPA TO-15 Modified  
 Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2  
 Analyst: Chaney Humphrey  
 Sampling Media: Tedlar Bag  
 Test Notes:

Date Collected: 6/27/07  
 Date Received: 6/28/07  
 Date(s) Analyzed: 6/28/07  
 Volume(s) Analyzed: 0.20 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	5.4	5.0	1.8	1.7	
156-59-2	cis-1,2-Dichloroethene	ND	5.0	ND	1.3	
110-54-3	n-Hexane	ND	5.0	ND	1.4	
67-66-3	Chloroform	ND	5.0	ND	1.0	
107-06-2	1,2-Dichloroethane	ND	5.0	ND	1.2	
71-55-6	1,1,1-Trichloroethane	ND	5.0	ND	0.92	
71-43-2	Benzene	ND	5.0	ND	1.6	
56-23-5	Carbon Tetrachloride	ND	5.0	ND	0.80	
78-87-5	1,2-Dichloropropane	ND	5.0	ND	1.1	
75-27-4	Bromodichloromethane	ND	5.0	ND	0.75	
79-01-6	Trichloroethene	ND	5.0	ND	0.93	
123-91-1	1,4-Dioxane	ND	5.0	ND	1.4	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	ND	1.1	
108-10-1	4-Methyl-2-pentanone	ND	5.0	ND	1.2	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	ND	1.1	
79-00-5	1,1,2-Trichloroethane	ND	5.0	ND	0.92	
108-88-3	Toluene	12	5.0	3.1	1.3	
591-78-6	2-Hexanone	ND	5.0	ND	1.2	
124-48-1	Dibromochloromethane	ND	5.0	ND	0.59	
106-93-4	1,2-Dibromoethane	ND	5.0	ND	0.65	
123-86-4	n-Butyl Acetate	ND	5.0	ND	1.1	
127-18-4	Tetrachloroethene	ND	5.0	ND	0.74	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: \_\_\_\_\_ Date: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

RESULTS OF ANALYSIS

Page 3 of 4

**Client:** St. Croix Sensory, Inc.  
**Client Sample ID:** Q30  
**Client Project ID:** Dredge Sediment Headspace

CAS Project ID: P2701914  
 CAS Sample ID: P2701914-002

Test Code: EPA TO-15 Modified  
 Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2  
 Analyst: Chaney Humphrey  
 Sampling Media: Tedlar Bag  
 Test Notes:

Date Collected: 6/27/07  
 Date Received: 6/28/07  
 Date(s) Analyzed: 6/28/07  
 Volume(s) Analyzed: 0.20 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	5.0	ND	1.1	
100-41-4	Ethylbenzene	ND	5.0	ND	1.2	
179601-23-1	<i>m,p</i> -Xylenes	<b>6.4</b>	5.0	<b>1.5</b>	1.2	
75-25-2	Bromoform	ND	5.0	ND	0.48	
100-42-5	Styrene	ND	5.0	ND	1.2	
95-47-6	<i>o</i> -Xylene	ND	5.0	ND	1.2	
111-84-2	n-Nonane	ND	5.0	ND	0.95	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	ND	0.73	
98-82-8	Cumene	ND	5.0	ND	1.0	
80-56-8	alpha-Pinene	ND	5.0	ND	0.90	
622-96-8	4-Ethyltoluene	ND	5.0	ND	1.0	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ND	1.0	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ND	1.0	
100-44-7	Benzyl Chloride	ND	5.0	ND	0.97	
541-73-1	1,3-Dichlorobenzene	ND	5.0	ND	0.83	
106-46-7	1,4-Dichlorobenzene	ND	5.0	ND	0.83	
95-50-1	1,2-Dichlorobenzene	ND	5.0	ND	0.83	
5989-27-5	d-Limonene	ND	5.0	ND	0.90	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ND	0.52	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ND	0.67	
91-20-3	Naphthalene	ND	5.0	ND	0.95	
87-68-3	Hexachlorobutadiene	ND	5.0	ND	0.47	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: \_\_\_\_\_ Date: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

RESULTS OF ANALYSIS

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**Client:** St. Croix Sensory, Inc.  
**Client Sample ID:** Q30  
**Client Project ID:** Dredge Sediment Headspace

CAS Project ID: P2701914  
 CAS Sample ID: P2701914-002

**Tentatively Identified Compounds**

Test Code: EPA TO-15 Modified  
 Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2  
 Analyst: Chaney Humphrey  
 Sampling Media: Tedlar Bag  
 Test Notes: T

Date Collected: 6/27/07  
 Date Received: 6/28/07  
 Date Analyzed: 6/28/07  
 Volume(s) Analyzed: 0.20 Liter(s)

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m <sup>3</sup>	Data Qualifier
4.62	Carbonyl Sulfide	<b>60</b>	
5.03	Isobutane	<b>10</b>	
10.61	1-Butanol	<b>10</b>	
15.44	Hexamethylcyclotrisiloxane	<b>30</b>	*
19.99	Indane	<b>10</b>	
20.63	n-Nonanal + C <sub>10</sub> H <sub>14</sub> Aromatic Compound	<b>20</b>	

T = Analyte is a tentatively identified compound, result is estimated.  
 \* = Possible Artifact.

Verified By: \_\_\_\_\_ Date: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

RESULTS OF ANALYSIS

Page 1 of 4

**Client:** St. Croix Sensory, Inc.  
**Client Sample ID:** Method Blank  
**Client Project ID:** Dredge Sediment Headspace

CAS Project ID: P2701914  
 CAS Sample ID: P070628-MB

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/HP5972/HP5890 II+/MS2  
**Analyst:** Chaney Humphrey  
**Sampling Media:** Tedlar Bag  
**Test Notes:**

**Date Collected:** NA  
**Date Received:** NA  
**Date(s) Analyzed:** 6/28/07  
**Volume(s) Analyzed:** 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	1.0	ND	0.20	
74-87-3	Chloromethane	ND	1.0	ND	0.48	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	1.0	ND	0.14	
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39	
106-99-0	1,3-Butadiene	ND	1.0	ND	0.45	
74-83-9	Bromomethane	ND	1.0	ND	0.26	
75-00-3	Chloroethane	ND	1.0	ND	0.38	
64-17-5	Ethanol	ND	5.0	ND	2.7	
75-05-8	Acetonitrile	ND	1.0	ND	0.60	
107-02-8	Acrolein	ND	1.0	ND	0.44	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	1.0	ND	0.18	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	1.0	ND	0.41	
107-13-1	Acrylonitrile	ND	1.0	ND	0.46	
75-35-4	1,1-Dichloroethene	ND	1.0	ND	0.25	
75-09-2	Methylene chloride	ND	1.0	ND	0.29	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	1.0	ND	0.32	
76-13-1	Trichlorotrifluoroethane	ND	1.0	ND	0.13	
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25	
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25	
1634-04-4	Methyl tert-Butyl Ether	ND	1.0	ND	0.28	
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: \_\_\_\_\_ Date: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

RESULTS OF ANALYSIS

Page 2 of 4

**Client:** St. Croix Sensory, Inc.  
**Client Sample ID:** Method Blank  
**Client Project ID:** Dredge Sediment Headspace

CAS Project ID: P2701914  
 CAS Sample ID: P070628-MB

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/HP5972/HP5890 II+/MS2  
**Analyst:** Chaney Humphrey  
**Sampling Media:** Tedlar Bag  
**Test Notes:**

**Date Collected:** NA  
**Date Received:** NA  
**Date(s) Analyzed:** 6/28/07  
**Volume(s) Analyzed:** 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	1.0	ND	0.34	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ND	0.25	
110-54-3	n-Hexane	ND	1.0	ND	0.28	
67-66-3	Chloroform	ND	1.0	ND	0.20	
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.18	
71-43-2	Benzene	ND	1.0	ND	0.31	
56-23-5	Carbon Tetrachloride	ND	1.0	ND	0.16	
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22	
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15	
79-01-6	Trichloroethene	ND	1.0	ND	0.19	
123-91-1	1,4-Dioxane	ND	1.0	ND	0.28	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22	
108-10-1	4-Methyl-2-pentanone	ND	1.0	ND	0.24	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.18	
108-88-3	Toluene	ND	1.0	ND	0.27	
591-78-6	2-Hexanone	ND	1.0	ND	0.24	
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12	
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13	
123-86-4	n-Butyl Acetate	ND	1.0	ND	0.21	
127-18-4	Tetrachloroethene	ND	1.0	ND	0.15	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: \_\_\_\_\_ Date: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

RESULTS OF ANALYSIS

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**Client:** St. Croix Sensory, Inc.  
**Client Sample ID:** Method Blank  
**Client Project ID:** Dredge Sediment Headspace

CAS Project ID: P2701914  
 CAS Sample ID: P070628-MB

Test Code: EPA TO-15 Modified  
 Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2  
 Analyst: Chaney Humphrey  
 Sampling Media: Tedlar Bag  
 Test Notes:

Date Collected: NA  
 Date Received: NA  
 Date(s) Analyzed: 6/28/07  
 Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	ND	1.0	ND	0.22	
100-41-4	Ethylbenzene	ND	1.0	ND	0.23	
179601-23-1	<i>m,p</i> -Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	1.0	ND	0.097	
100-42-5	Styrene	ND	1.0	ND	0.23	
95-47-6	<i>o</i> -Xylene	ND	1.0	ND	0.23	
111-84-2	n-Nonane	ND	1.0	ND	0.19	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15	
98-82-8	Cumene	ND	1.0	ND	0.20	
80-56-8	alpha-Pinene	ND	1.0	ND	0.18	
622-96-8	4-Ethyltoluene	ND	1.0	ND	0.20	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	ND	0.20	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	ND	0.20	
100-44-7	Benzyl Chloride	ND	1.0	ND	0.19	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ND	0.17	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17	
5989-27-5	d-Limonene	ND	1.0	ND	0.18	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.0	ND	0.10	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ND	0.13	
91-20-3	Naphthalene	ND	1.0	ND	0.19	
87-68-3	Hexachlorobutadiene	ND	1.0	ND	0.094	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: \_\_\_\_\_ Date: \_\_\_\_\_



**COLUMBIA ANALYTICAL SERVICES, INC.**

RESULTS OF ANALYSIS

Page 4 of 4

**Client:** St. Croix Sensory, Inc.  
**Client Sample ID:** Method Blank  
**Client Project ID:** Dredge Sediment Headspace

CAS Project ID: P2701914  
CAS Sample ID: P070628-MB

**Tentatively Identified Compounds**

Test Code: EPA TO-15 Modified  
Instrument ID: Tekmar AUTOCAN/HP5972/HP5890 II+/MS2  
Analyst: Chaney Humphrey  
Sampling Media: Tedlar Bag  
Test Notes:

Date Collected: NA  
Date Received: NA  
Date Analyzed: 6/28/07  
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m <sup>3</sup>	Data Qualifier
	No Compounds Detected		