

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: A1-CA
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603281
 CAS Sample ID: P2603281-001

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: #####
 Date Analyzed: 12/11-12/06
 Desorption Volume: 1.0 ml
 Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
64-19-7	Acetic Acid	< 0.97	ND	14	ND	5.6	
79-09-4	Propionic Acid (Propanoic)	< 0.25	ND	3.5	ND	1.2	
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.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: B1-CA
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603281
 CAS Sample ID: P2603281-002

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: #####
 Date Analyzed: 12/11-12/06
 Desorption Volume: 1.0 ml
 Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
64-19-7	Acetic Acid	< 0.97	ND	14	ND	5.6	
79-09-4	Propionic Acid (Propanoic)	< 0.25	ND	3.5	ND	1.2	
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	

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603281
 CAS Sample ID: P061211-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: 12/11/06
 Desorption Volume: 1.0 ml
 Volume Sampled: NA Liters

CAS #	Compound	Result µg/Tube	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
64-19-7	Acetic Acid	< 0.97	NA	NA	NA	NA	
79-09-4	Propionic Acid (Propanoic)	< 0.25	NA	NA	NA	NA	
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	

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

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COLUMBIA ANALYTICAL SERVICES, INC.

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Client: Service Engineering Group
Client Sample ID: A2-AM
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603281
 CAS Sample ID: P2603281-003

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: 11/30/2006
 Date Analyzed: 12/7/2006
 Desorption Volume: 2.0 ml
 Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
124-40-3	Dimethylamine	0.28	4.1	2.7	2.2	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	

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: B2-AM
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603281
 CAS Sample ID: P2603281-004

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: 11/30/2006
 Date Analyzed: 12/7/2006
 Desorption Volume: 2.0 ml
 Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
124-40-3	Dimethylamine	2.8	40	2.7	22	1.5	
75-04-7	Ethylamine	< 0.20	ND	2.8	ND	1.5	
75-50-3	Trimethylamine	39	550	2.9	230	1.2	
75-31-0	Isopropylamine	0.25	3.5	2.7	1.5	1.1	
75-64-9	t-Butylamine	0.28	4.0	2.7	1.3	0.90	
107-10-8	Propylamine	0.29	4.1	2.7	1.7	1.1	
109-89-7	Diethylamine	0.26	3.7	2.7	1.2	0.89	
13952-84-6	s-Butylamine	0.23	3.2	2.7	1.1	0.91	
78-81-9	Isobutylamine	0.23	3.3	2.7	1.1	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	

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603281
 CAS Sample ID: P061207-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: 12/07/06
 Desorption Volume: 2.0 ml
 Volume Sampled: NA Liters

CAS #	Compound	Result µg/Tube	Result µg/m ³	MRL µg/m ³	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	

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.

NA = Not applicable

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Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: A3-FA
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603281
 CAS Sample ID: P2603281-005

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: 11/30/2006
 Date Analyzed: 12/12/2006
 Desorption Volume: 1.0 ml
 Volume Sampled: 70.0 Liters

CAS #	Compound	Result ng/Sample	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
50-00-0	Formaldehyde	< 100	ND	1.4	ND	1.2	
75-07-0	Acetaldehyde	120	1.7	1.4	0.93	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	540	7.7	1.4	1.4	0.26	BH

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.

NA = Not applicable

BC = Results reported are not blank corrected

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

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: B3-FA
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603281
 CAS Sample ID: P2603281-006

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: 11/30/2006
 Date Analyzed: 12/12-13/06
 Desorption Volume: 1.0 ml
 Volume Sampled: 70.0 Liters

CAS #	Compound	Result	Result	MRL	Result	MRL	Data Qualifier
		ng/Sample	µg/m ³	µg/m ³	ppbV	ppbV	
50-00-0	Formaldehyde	< 100	ND	1.4	ND	1.2	
75-07-0	Acetaldehyde	13,000	180	1.4	100	0.79	BT
123-38-6	Propionaldehyde	330	4.7	1.4	2.0	0.60	
4170-30-3	Crotonaldehyde, Total	< 100	ND	1.4	ND	0.50	
123-72-8	Butyraldehyde	440	6.3	1.4	2.1	0.48	
100-52-7	Benzaldehyde	550	7.8	1.4	1.8	0.33	BT
590-86-3	Isovaleraldehyde	220	3.2	1.4	0.89	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	m,p-Tolualdehyde	< 200	ND	2.9	ND	0.58	
104-87-0							
66-25-1	n-Hexaldehyde	290	4.1	1.4	1.0	0.35	
5779-94-2	2,5-Dimethylbenzaldehyde	< 100	ND	1.4	ND	0.26	

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.

NA = Not applicable

BC = Results reported are not blank corrected

BT = Indicates possible breakthrough - result for back section > 10% of result from front section of tube.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: Reagent Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603281
 CAS Sample ID: P061212-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: 12/12/06
 Desorption Volume: 1.0 ml
 Volume Sampled: NA Liters

CAS #	Compound	Result ng/Sample	Result µg/m ³	MRL µg/m ³	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	

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.

NA = Not applicable

BC = Results reported are not blank corrected

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RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603281
 CAS Sample ID: P061212-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: 12/12/06
 Desorption Volume: 1.0 ml
 Volume Sampled: NA Liters

CAS #	Compound	Result ng/Sample	Result µg/m ³	MRL µg/m ³	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	

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.

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COLUMBIA ANALYTICAL SERVICES, INC.

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Client: Service Engineering Group
Client Sample ID: A30
Client Project ID: Dredge Sediment Head Space/06332

CAS Project ID: P2603272
 CAS Sample ID: P2603272-001

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

Date Collected: 11/29/2006
 Time Collected: NA
 Date Received: 11/30/2006
 Date Analyzed: 11/30/06
 Time Analyzed: 11:03
 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	140	12	58	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	6.8	13	2.7	5.0	J
75-15-0	Carbon Disulfide	39	7.8	13	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	13	17	3.7	5.0	J
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.

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: Service Engineering Group
Client Sample ID: B30
Client Project ID: Dredge Sediment Head Space/06332

CAS Project ID: P2603272
 CAS Sample ID: P2603272-002

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

Date Collected: 11/29/2006
 Time Collected: NA
 Date Received: 11/30/2006
 Date Analyzed: 11/30/06
 Time Analyzed: 11:28
 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	18	12	7.3	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	800	13	320	5.0	
75-15-0	Carbon Disulfide	290	7.8	92	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	34	16	11	5.0	
110-02-1	Thiophene	160	17	46	5.0	
513-44-0	Isobutyl Mercaptan	40	18	11	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	410	9.6	110	2.5	
616-44-4	3-Methylthiophene	87	20	22	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	88	23	19	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 1

Client: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Head Space/06332

CAS Project ID: P2603272
 CAS Sample ID: P061130-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: 11/30/06
 Time Analyzed: 09:23
 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: Service Engineering Group
Client Sample ID: A30
Client Project ID: Dredge Sediment Head Space/06332

CAS Project ID: P2603272
 CAS Sample ID: P2603272-001

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes:

Date Collected: 11/29/06
 Date Received: 11/30/06
 Date(s) Analyzed: 11/30/06
 Volume(s) Analyzed: 0.20 Liter(s)
 0.025 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	5.0	ND	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	160	25	67	11	
75-69-4	Trichlorofluoromethane	ND	5.0	ND	0.89	
67-63-0	2-Propanol (Isopropyl Alcohol)	19	5.0	7.7	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	8.5	5.0	2.5	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	25	5.0	8.1	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: Service Engineering Group
Client Sample ID: A30
Client Project ID: Dredge Sediment Head Space/06332

CAS Project ID: P2603272
 CAS Sample ID: P2603272-001

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 11/29/06
Date Received: 11/30/06
Date(s) Analyzed: 11/30/06
Volume(s) Analyzed: 0.20 Liter(s)
 0.025 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	28	5.0	9.4	1.7	
156-59-2	cis-1,2-Dichloroethene	ND	5.0	ND	1.3	
110-54-3	n-Hexane	12	5.0	3.4	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	410	5.0	130	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	470	5.0	130	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: Service Engineering Group
Client Sample ID: A30
Client Project ID: Dredge Sediment Head Space/06332

CAS Project ID: P2603272
 CAS Sample ID: P2603272-001

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes:

Date Collected: 11/29/06
 Date Received: 11/30/06
 Date(s) Analyzed: 11/30/06
 Volume(s) Analyzed: 0.20 Liter(s)
 0.025 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	1,500	5.0	320	1.1	
100-41-4	Ethylbenzene	300	5.0	69	1.2	
179601-23-1	<i>m,p</i> -Xylenes	2,500	5.0	580	1.2	
75-25-2	Bromoform	ND	5.0	ND	0.48	
100-42-5	Styrene	150	5.0	36	1.2	
95-47-6	<i>o</i> -Xylene	920	5.0	210	1.2	
111-84-2	<i>n</i> -Nonane	52	5.0	9.9	0.95	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	ND	0.73	
98-82-8	Cumene	350	5.0	72	1.0	
80-56-8	alpha-Pinene	9.7	5.0	1.7	0.90	
622-96-8	4-Ethyltoluene	270	5.0	55	1.0	
108-67-8	1,3,5-Trimethylbenzene	750	5.0	150	1.0	
95-63-6	1,2,4-Trimethylbenzene	1,100	5.0	230	1.0	
100-44-7	Benzyl Chloride	ND	5.0	ND	0.97	
541-73-1	1,3-Dichlorobenzene	61	5.0	10	0.83	
106-46-7	1,4-Dichlorobenzene	410	5.0	68	0.83	
95-50-1	1,2-Dichlorobenzene	97	5.0	16	0.83	
5989-27-5	<i>d</i> -Limonene	7.1	5.0	1.3	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	370	5.0	71	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: Service Engineering Group
Client Sample ID: A30
Client Project ID: Dredge Sediment Head Space/06332

CAS Project ID: P2603272
 CAS Sample ID: P2603272-001

Tentatively Identified Compounds

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes: T

Date Collected: 11/29/06
 Date Received: 11/30/06
 Date Analyzed: 11/30/06
 Volume(s) Analyzed: 0.20 Liter(s)
 0.025 Liter(s)

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m ³	Data Qualifier
18.20	3-Ethyltoluene	500	
19.16	sec-Butylbenzene	800	
19.34	p-Isopropyltoluene + 1,2,3-Trimethylbenzene	500	
19.59	Unidentified Aromatic Compound + Unidentified Compound	900	
19.71	C ₉ H ₈ Aromatic Compound	2,000	
19.93	C ₁₀ H ₁₂ Aromatic Compound	500	
20.34	C ₁₁ H ₁₆ Aromatic Compound	600	
20.38	C ₁₁ H ₁₆ Aromatic Compound	1,000	
20.51	C ₁₁ H ₁₆ Aromatic Compound	1,000	
20.62	Unidentified Aromatic Compound	800	
20.74	Unidentified Aromatic Compound	700	
21.45	C ₁₂ H ₁₈ Aromatic Compound	800	
21.82	Unidentified Aromatic Compound	500	
22.14	Phenylcyclopentane	900	
22.53	Unidentified Aromatic Compound	600	

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

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 4

Client: Service Engineering Group
Client Sample ID: B30
Client Project ID: Dredge Sediment Head Space/06332

CAS Project ID: P2603272
 CAS Sample ID: P2603272-002

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes:

Date Collected: 11/29/06
 Date Received: 11/30/06
 Date(s) Analyzed: 11/30/06
 Volume(s) Analyzed: 0.0030 Liter(s)
 0.0010 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	330	ND	67	
74-87-3	Chloromethane	ND	330	ND	160	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	330	ND	48	
75-01-4	Vinyl Chloride	ND	330	ND	130	
106-99-0	1,3-Butadiene	ND	330	ND	150	
74-83-9	Bromomethane	ND	330	ND	86	
75-00-3	Chloroethane	ND	330	ND	130	
64-17-5	Ethanol	ND	1,700	ND	880	
75-05-8	Acetonitrile	ND	330	ND	200	
107-02-8	Acrolein	ND	330	ND	150	
67-64-1	Acetone	ND	1,700	ND	700	
75-69-4	Trichlorofluoromethane	ND	330	ND	59	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	330	ND	140	
107-13-1	Acrylonitrile	ND	330	ND	150	
75-35-4	1,1-Dichloroethene	ND	330	ND	84	
75-09-2	Methylene chloride	ND	330	ND	96	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	330	ND	110	
76-13-1	Trichlorotrifluoroethane	ND	330	ND	44	
75-15-0	Carbon Disulfide	ND	330	ND	110	
156-60-5	trans-1,2-Dichloroethene	ND	330	ND	84	
75-34-3	1,1-Dichloroethane	ND	330	ND	82	
1634-04-4	Methyl tert-Butyl Ether	ND	330	ND	92	
108-05-4	Vinyl Acetate	ND	330	ND	95	

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: Service Engineering Group
Client Sample ID: B30
Client Project ID: Dredge Sediment Head Space/06332

CAS Project ID: P2603272
 CAS Sample ID: P2603272-002

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes:

Date Collected: 11/29/06
 Date Received: 11/30/06
 Date(s) Analyzed: 11/30/06
 Volume(s) Analyzed: 0.0030 Liter(s)
 0.0010 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	330	ND	110	
156-59-2	cis-1,2-Dichloroethene	ND	330	ND	84	
110-54-3	n-Hexane	1,000	330	290	95	
67-66-3	Chloroform	ND	330	ND	68	
107-06-2	1,2-Dichloroethane	ND	330	ND	82	
71-55-6	1,1,1-Trichloroethane	ND	330	ND	61	
71-43-2	Benzene	35,000	330	11,000	100	
56-23-5	Carbon Tetrachloride	ND	330	ND	53	
78-87-5	1,2-Dichloropropane	ND	330	ND	72	
75-27-4	Bromodichloromethane	ND	330	ND	50	
79-01-6	Trichloroethene	ND	330	ND	62	
123-91-1	1,4-Dioxane	ND	330	ND	93	
10061-01-5	cis-1,3-Dichloropropene	ND	330	ND	73	
108-10-1	4-Methyl-2-pentanone	ND	330	ND	81	
10061-02-6	trans-1,3-Dichloropropene	ND	330	ND	73	
79-00-5	1,1,2-Trichloroethane	ND	330	ND	61	
108-88-3	Toluene	70,000	330	19,000	88	
591-78-6	2-Hexanone	ND	330	ND	81	
124-48-1	Dibromochloromethane	ND	330	ND	39	
106-93-4	1,2-Dibromoethane	ND	330	ND	43	
123-86-4	n-Butyl Acetate	ND	330	ND	70	
127-18-4	Tetrachloroethene	ND	330	ND	49	

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: Service Engineering Group
Client Sample ID: B30
Client Project ID: Dredge Sediment Head Space/06332

CAS Project ID: P2603272
 CAS Sample ID: P2603272-002

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes:

Date Collected: 11/29/06
 Date Received: 11/30/06
 Date(s) Analyzed: 11/30/06
 Volume(s) Analyzed: 0.0030 Liter(s)
 0.0010 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	17,000	330	3,600	72	
100-41-4	Ethylbenzene	15,000	330	3,500	77	
179601-23-1	<i>m,p</i> -Xylenes	220,000	330	50,000	77	
75-25-2	Bromoform	ND	330	ND	32	
100-42-5	Styrene	9,600	330	2,300	78	
95-47-6	<i>o</i> -Xylene	64,000	330	15,000	77	
111-84-2	<i>n</i> -Nonane	2,500	330	470	64	
79-34-5	1,1,2,2-Tetrachloroethane	ND	330	ND	49	
98-82-8	Cumene	9,700	330	2,000	68	
80-56-8	alpha-Pinene	ND	330	ND	60	
622-96-8	4-Ethyltoluene	8,900	330	1,800	68	
108-67-8	1,3,5-Trimethylbenzene	37,000	330	7,500	68	
95-63-6	1,2,4-Trimethylbenzene	47,000	330	9,700	68	
100-44-7	Benzyl Chloride	ND	330	ND	64	
541-73-1	1,3-Dichlorobenzene	ND	330	ND	55	
106-46-7	1,4-Dichlorobenzene	2,900	330	470	55	
95-50-1	1,2-Dichlorobenzene	2,400	330	400	55	
5989-27-5	<i>d</i> -Limonene	ND	330	ND	60	
96-12-8	1,2-Dibromo-3-chloropropane	ND	330	ND	34	
120-82-1	1,2,4-Trichlorobenzene	ND	330	ND	45	
91-20-3	Naphthalene	4,400	330	840	64	
87-68-3	Hexachlorobutadiene	ND	330	ND	31	

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: Service Engineering Group
Client Sample ID: B30
Client Project ID: Dredge Sediment Head Space/06332

CAS Project ID: P2603272
 CAS Sample ID: P2603272-002

Tentatively Identified Compounds

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes: T

Date Collected: 11/29/06
 Date Received: 11/30/06
 Date Analyzed: 11/30/06
 Volume(s) Analyzed: 0.0030 Liter(s)
 0.0010 Liter(s)

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m ³	Data Qualifier
11.11	C ₆ H ₁₀ Compound	8,000	
12.52	Methylcyclohexane	5,000	
18.06	n-Propylbenzene	3,000	
18.19	3-Ethyltoluene	20,000	
18.56	2-Ethyltoluene	4,000	
18.76	C ₉ H ₁₀ Aromatic Compound	9,000	
18.92	n-Decane	2,000	
19.15	sec-Butylbenzene	20,000	
19.33	p-Isopropyltoluene + 1,2,3-Trimethylbenzene	9,000	
19.57	Unidentified Aromatic Compound + Unidentified Compound	10,000	
19.69	C ₉ H ₈ Aromatic Compound	40,000	
19.92	C ₁₀ H ₁₂ Aromatic Compound	9,000	
20.36	C ₁₁ H ₁₆ Aromatic Compound	8,000	
20.50	C ₁₁ H ₁₆ Aromatic Compound	9,000	
20.61	Unidentified Aromatic Compound	5,000	

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

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 4

Client: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Head Space/06332

CAS Project ID: P2603272
 CAS Sample ID: P061130-MB

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date(s) Analyzed: 11/30/06
 Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	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: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Head Space/06332

CAS Project ID: P2603272
 CAS Sample ID: P061130-MB

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 11/30/06
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	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

Page 3 of 4

Client: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Head Space/06332

CAS Project ID: P2603272
 CAS Sample ID: P061130-MB

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date(s) Analyzed: 11/30/06
 Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	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.

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Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Head Space/06332

CAS Project ID: P2603272
CAS Sample ID: P061130-MB

Tentatively Identified Compounds

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 11/30/06
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

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

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: C1-CA
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603307
 CAS Sample ID: P2603307-001

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

Date Collected: #####
 Date Received: 12/4/2006
 Date Analyzed: 12/11-12/06
 Desorption Volume: 1.0 ml
 Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
64-19-7	Acetic Acid	< 0.97	ND	14	ND	5.6	
79-09-4	Propionic Acid (Propanoic)	< 0.25	ND	3.5	ND	1.2	
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**.

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.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: Service Engineering Group
Client Sample ID: D1-CA
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603307
 CAS Sample ID: P2603307-002

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

Date Collected: #####
 Date Received: 12/4/2006
 Date Analyzed: 12/11-12/06
 Desorption Volume: 1.0 ml
 Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
64-19-7	Acetic Acid	< 0.97	ND	14	ND	5.6	
79-09-4	Propionic Acid (Propanoic)	< 0.25	ND	3.5	ND	1.2	
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**.

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.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603307
 CAS Sample ID: P061211-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: 12/11/06
 Desorption Volume: 1.0 ml
 Volume Sampled: NA Liters

CAS #	Compound	Result µg/Tube	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
64-19-7	Acetic Acid	< 0.97	NA	NA	NA	NA	
79-09-4	Propionic Acid (Propanoic)	< 0.25	NA	NA	NA	NA	
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	

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.

NA = Not applicable

BC = Results reported are not blank corrected

DE = Results reported are corrected for desorption efficiency.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: C2-AM
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603307
 CAS Sample ID: P2603307-003

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

Date Collected: 11/30/2006
 Date Received: 12/4/2006
 Date Analyzed: 12/7/2006
 Desorption Volume: 2.0 ml
 Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
124-40-3	Dimethylamine	2.0	28	2.7	15	1.5	
75-04-7	Ethylamine	< 0.20	ND	2.8	ND	1.5	
75-50-3	Trimethylamine	33	470	2.9	190	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.

NA = Not applicable

BC = Results reported are not blank corrected

DE = Results reported are corrected for desorption efficiency.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: Service Engineering Group
Client Sample ID: D2-AM
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603307
 CAS Sample ID: P2603307-004

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

Date Collected: 11/30/2006
 Date Received: 12/4/2006
 Date Analyzed: 12/7/2006
 Desorption Volume: 2.0 ml
 Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
124-40-3	Dimethylamine	0.22	3.2	2.7	1.7	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.

NA = Not applicable

BC = Results reported are not blank corrected

DE = Results reported are corrected for desorption efficiency.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603307
 CAS Sample ID: P061207-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: 12/07/06
 Desorption Volume: 2.0 ml
 Volume Sampled: NA Liters

CAS #	Compound	Result µg/Tube	Result µg/m ³	MRL µg/m ³	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	

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.

NA = Not applicable

BC = Results reported are not blank corrected

DE = Results reported are corrected for desorption efficiency.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: Service Engineering Group
Client Sample ID: C3-FA
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603307
 CAS Sample ID: P2603307-005

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: 11/30/2006
 Date Received: 12/4/2006
 Date Analyzed: 12/12/2006
 Desorption Volume: 1.0 ml
 Volume Sampled: 70.0 Liters

CAS #	Compound	Result ng/Sample	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
50-00-0	Formaldehyde	< 100	ND	1.4	ND	1.2	
75-07-0	Acetaldehyde	7,400	110	1.4	59	0.79	BT
123-38-6	Propionaldehyde	290	4.2	1.4	1.8	0.60	
4170-30-3	Crotonaldehyde, Total	< 100	ND	1.4	ND	0.50	
123-72-8	Butyraldehyde	690	9.8	1.4	3.3	0.48	
100-52-7	Benzaldehyde	920	13	1.4	3.0	0.33	BT
590-86-3	Isovaleraldehyde	230	3.2	1.4	0.92	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	240	3.5	1.4	0.84	0.35	
5779-94-2	2,5-Dimethylbenzaldehyde	< 100	ND	1.4	ND	0.26	

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.

NA = Not applicable

BC = Results reported are not blank corrected

BT = Indicates possible breakthrough - result for back section > 10% of result from front section of tube.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: Service Engineering Group
Client Sample ID: D3-FA
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603307
 CAS Sample ID: P2603307-006

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: 11/30/2006
 Date Received: 12/4/2006
 Date Analyzed: 12/12/2006
 Desorption Volume: 1.0 ml
 Volume Sampled: 70.0 Liters

CAS #	Compound	Result ng/Sample	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
50-00-0	Formaldehyde	< 100	ND	1.4	ND	1.2	
75-07-0	Acetaldehyde	3,200	46	1.4	26	0.79	
123-38-6	Propionaldehyde	< 100	ND	1.4	ND	0.60	
# 4170-30-3	Crotonaldehyde, Total	130	1.9	1.4	0.66	0.50	BH
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	370	5.3	1.4	0.97	0.26	BH

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.

NA = Not applicable

BC = Results reported are not blank corrected

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

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: Service Engineering Group
Client Sample ID: Reagent Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603307
 CAS Sample ID: P061212-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: 12/12/06
 Desorption Volume: 1.0 ml
 Volume Sampled: NA Liters

CAS #	Compound	Result ng/Sample	Result µg/m ³	MRL µg/m ³	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	

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.

NA = Not applicable

BC = Results reported are not blank corrected

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603307
 CAS Sample ID: P061212-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: 12/12/06
 Desorption Volume: 1.0 ml
 Volume Sampled: NA Liters

CAS #	Compound	Result ng/Sample	Result µg/m ³	MRL µg/m ³	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	

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.

NA = Not applicable

BC = Results reported are not blank corrected

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: Service Engineering Group
Client Sample ID: C30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603308
 CAS Sample ID: P2603308-001

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

Date Collected: 11/30/2006
 Time Collected: 11:30
 Date Received: 12/4/2006
 Date Analyzed: 12/4/06
 Time Analyzed: 11:34
 Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result	MRL	Result	MRL	Data Qualifier
		µg/m ³	µg/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	64	13	25	5.0	
75-15-0	Carbon Disulfide	300	7.8	97	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	38	17	11	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	82	9.6	21	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	17	23	3.7	5.0	J
110-81-6	Diethyl Disulfide	26	12	5.1	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: Service Engineering Group
Client Sample ID: D30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603308
 CAS Sample ID: P2603308-002

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

Date Collected: 11/30/2006
 Time Collected: 11:35
 Date Received: 12/4/2006
 Date Analyzed: 12/4/06
 Time Analyzed: 12:03
 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	150	12	60	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	250	7.8	82	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	75	17	22	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.

RH = Sample received outside of holding time.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603308
 CAS Sample ID: P061204-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: 12/04/06
 Time Analyzed: 09:58
 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: Service Engineering Group
Client Sample ID: C30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603308
 CAS Sample ID: P2603308-001

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

Date Collected: 11/30/06
 Date Received: 12/4/06
 Date(s) Analyzed: 12/5/06
 Volume(s) Analyzed: 0.00225 Liter(s)
 0.00075 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	440	ND	90	
74-87-3	Chloromethane	ND	440	ND	220	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	440	ND	64	
75-01-4	Vinyl Chloride	ND	440	ND	170	
106-99-0	1,3-Butadiene	ND	440	ND	200	
74-83-9	Bromomethane	ND	440	ND	110	
75-00-3	Chloroethane	ND	440	ND	170	
64-17-5	Ethanol	ND	2,200	ND	1,200	
75-05-8	Acetonitrile	ND	440	ND	260	
107-02-8	Acrolein	ND	440	ND	190	
67-64-1	Acetone	ND	2,200	ND	940	
75-69-4	Trichlorofluoromethane	ND	440	ND	79	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	440	ND	180	
107-13-1	Acrylonitrile	ND	440	ND	200	
75-35-4	1,1-Dichloroethene	ND	440	ND	110	
75-09-2	Methylene chloride	ND	440	ND	130	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	440	ND	140	
76-13-1	Trichlorotrifluoroethane	ND	440	ND	58	
75-15-0	Carbon Disulfide	ND	440	ND	140	
156-60-5	trans-1,2-Dichloroethene	ND	440	ND	110	
75-34-3	1,1-Dichloroethane	ND	440	ND	110	
1634-04-4	Methyl tert-Butyl Ether	ND	440	ND	120	
108-05-4	Vinyl Acetate	ND	440	ND	130	

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.

RH = Sample received outside of holding time.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 2 of 4

Client: Service Engineering Group
Client Sample ID: C30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603308
 CAS Sample ID: P2603308-001

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

Date Collected: 11/30/06
Date Received: 12/4/06
Date(s) Analyzed: 12/5/06
Volume(s) Analyzed: 0.00225 Liter(s)
 0.00075 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	440	ND	150	
156-59-2	cis-1,2-Dichloroethene	ND	440	ND	110	
110-54-3	n-Hexane	1,500	440	430	130	
67-66-3	Chloroform	ND	440	ND	91	
107-06-2	1,2-Dichloroethane	ND	440	ND	110	
71-55-6	1,1,1-Trichloroethane	ND	440	ND	81	
71-43-2	Benzene	17,000	440	5,200	140	
56-23-5	Carbon Tetrachloride	ND	440	ND	71	
78-87-5	1,2-Dichloropropane	ND	440	ND	96	
75-27-4	Bromodichloromethane	ND	440	ND	66	
79-01-6	Trichloroethene	ND	440	ND	83	
123-91-1	1,4-Dioxane	ND	440	ND	120	
10061-01-5	cis-1,3-Dichloropropene	ND	440	ND	98	
108-10-1	4-Methyl-2-pentanone	ND	440	ND	110	
10061-02-6	trans-1,3-Dichloropropene	ND	440	ND	98	
79-00-5	1,1,2-Trichloroethane	ND	440	ND	81	
108-88-3	Toluene	11,000	440	2,900	120	
591-78-6	2-Hexanone	ND	440	ND	110	
124-48-1	Dibromochloromethane	ND	440	ND	52	
106-93-4	1,2-Dibromoethane	ND	440	ND	58	
123-86-4	n-Butyl Acetate	ND	440	ND	94	
127-18-4	Tetrachloroethene	ND	440	ND	66	

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.

RH = Sample received outside of holding time.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 3 of 4

Client: Service Engineering Group
Client Sample ID: C30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603308
 CAS Sample ID: P2603308-001

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

Date Collected: 11/30/06
 Date Received: 12/4/06
 Date(s) Analyzed: 12/5/06
 Volume(s) Analyzed: 0.00225 Liter(s)
 0.00075 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	130,000	440	27,000	97	
100-41-4	Ethylbenzene	3,500	440	810	100	
179601-23-1	<i>m,p</i> -Xylenes	50,000	440	11,000	100	
75-25-2	Bromoform	ND	440	ND	43	
100-42-5	Styrene	1,000	440	250	100	
95-47-6	<i>o</i> -Xylene	14,000	440	3,300	100	
111-84-2	<i>n</i> -Nonane	690	440	130	85	
79-34-5	1,1,2,2-Tetrachloroethane	ND	440	ND	65	
98-82-8	Cumene	3,700	440	760	90	
80-56-8	alpha-Pinene	ND	440	ND	80	
622-96-8	4-Ethyltoluene	810	440	170	90	
108-67-8	1,3,5-Trimethylbenzene	6,100	440	1,200	90	
95-63-6	1,2,4-Trimethylbenzene	7,100	440	1,500	90	
100-44-7	Benzyl Chloride	ND	440	ND	86	
541-73-1	1,3-Dichlorobenzene	ND	440	ND	74	
106-46-7	1,4-Dichlorobenzene	36,000	440	6,100	74	
95-50-1	1,2-Dichlorobenzene	23,000	440	3,900	74	
5989-27-5	<i>d</i> -Limonene	ND	440	ND	80	
96-12-8	1,2-Dibromo-3-chloropropane	ND	440	ND	46	
120-82-1	1,2,4-Trichlorobenzene	680	440	92	60	
91-20-3	Naphthalene	2,200	440	420	85	
87-68-3	Hexachlorobutadiene	ND	440	ND	42	

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.

RH = Sample received outside of holding time.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: C30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603308
 CAS Sample ID: P2603308-001

Tentatively Identified Compounds

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

Date Collected: 11/30/06
Date Received: 12/4/06
Date Analyzed: 12/5/06
Volume(s) Analyzed: 0.00225 Liter(s)
 0.00075 Liter(s)

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m ³	Data Qualifier
10.24	Methylcyclopentane	2,000	
11.29	Cyclohexane	3,000	
12.35	n-Heptane	5,000	
13.17	Methylcyclohexane	5,000	
18.74	3-Ethyltoluene	2,000	
19.67	sec-Butylbenzene	6,000	
19.86	1,2,3-Trimethylbenzene	1,000	
20.10	Indane + Unidentified Compound	1,000	
20.21	C ₉ H ₈ Compound	2,000	
20.42	C ₁₀ H ₁₂ Compound	2,000	
20.86	C ₁₁ H ₁₆ Aromatic Compound	2,000	
20.99	C ₁₁ H ₁₆ Aromatic Compound	2,000	

T = Analyte is a tentatively identified compound, result is estimated.
 RH = Sample received outside of holding time.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 4

Client: Service Engineering Group
Client Sample ID: D30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603308
 CAS Sample ID: P2603308-002

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

Date Collected: 11/30/06
 Date Received: 12/4/06
 Date(s) Analyzed: 12/5/06
 Volume(s) Analyzed: 0.040 Liter(s)
 0.010 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	25	ND	5.1	
74-87-3	Chloromethane	ND	25	ND	12	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	25	ND	3.6	
75-01-4	Vinyl Chloride	ND	25	ND	9.8	
106-99-0	1,3-Butadiene	ND	25	ND	11	
74-83-9	Bromomethane	ND	25	ND	6.4	
75-00-3	Chloroethane	ND	25	ND	9.5	
64-17-5	Ethanol	ND	130	ND	66	
75-05-8	Acetonitrile	ND	25	ND	15	
107-02-8	Acrolein	ND	25	ND	11	
67-64-1	Acetone	190	130	78	53	
75-69-4	Trichlorofluoromethane	ND	25	ND	4.5	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	25	ND	10	
107-13-1	Acrylonitrile	ND	25	ND	12	
75-35-4	1,1-Dichloroethene	ND	25	ND	6.3	
75-09-2	Methylene chloride	ND	25	ND	7.2	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	25	ND	8.0	
76-13-1	Trichlorotrifluoroethane	ND	25	ND	3.3	
75-15-0	Carbon Disulfide	130	25	41	8.0	
156-60-5	trans-1,2-Dichloroethene	ND	25	ND	6.3	
75-34-3	1,1-Dichloroethane	ND	25	ND	6.2	
1634-04-4	Methyl tert-Butyl Ether	ND	25	ND	6.9	
108-05-4	Vinyl Acetate	ND	25	ND	7.1	

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.

RH = Sample received outside of holding time.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 2 of 4

Client: Service Engineering Group
Client Sample ID: D30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603308
 CAS Sample ID: P2603308-002

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

Date Collected: 11/30/06
Date Received: 12/4/06
Date(s) Analyzed: 12/5/06
Volume(s) Analyzed: 0.040 Liter(s)
 0.010 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	50	25	17	8.5	
156-59-2	cis-1,2-Dichloroethene	25	25	6.3	6.3	
110-54-3	n-Hexane	53	25	15	7.1	
67-66-3	Chloroform	ND	25	ND	5.1	
107-06-2	1,2-Dichloroethane	ND	25	ND	6.2	
71-55-6	1,1,1-Trichloroethane	ND	25	ND	4.6	
71-43-2	Benzene	1,500	25	480	7.8	
56-23-5	Carbon Tetrachloride	ND	25	ND	4.0	
78-87-5	1,2-Dichloropropane	ND	25	ND	5.4	
75-27-4	Bromodichloromethane	ND	25	ND	3.7	
79-01-6	Trichloroethene	ND	25	ND	4.7	
123-91-1	1,4-Dioxane	ND	25	ND	6.9	
10061-01-5	cis-1,3-Dichloropropene	ND	25	ND	5.5	
108-10-1	4-Methyl-2-pentanone	ND	25	ND	6.1	
10061-02-6	trans-1,3-Dichloropropene	ND	25	ND	5.5	
79-00-5	1,1,2-Trichloroethane	ND	25	ND	4.6	
108-88-3	Toluene	1,100	25	300	6.6	
591-78-6	2-Hexanone	ND	25	ND	6.1	
124-48-1	Dibromochloromethane	ND	25	ND	2.9	
106-93-4	1,2-Dibromoethane	ND	25	ND	3.3	
123-86-4	n-Butyl Acetate	ND	25	ND	5.3	
127-18-4	Tetrachloroethene	ND	25	ND	3.7	

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.

RH = Sample received outside of holding time.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: D30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603308
 CAS Sample ID: P2603308-002

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

Date Collected: 11/30/06
 Date Received: 12/4/06
 Date(s) Analyzed: 12/5/06
 Volume(s) Analyzed: 0.040 Liter(s)
 0.010 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	4,800	25	1,000	5.4	
100-41-4	Ethylbenzene	960	25	220	5.8	
179601-23-1	<i>m,p</i> -Xylenes	4,100	25	940	5.8	
75-25-2	Bromoform	ND	25	ND	2.4	
100-42-5	Styrene	ND	25	ND	5.9	
95-47-6	<i>o</i> -Xylene	1,500	25	350	5.8	
111-84-2	<i>n</i> -Nonane	170	25	32	4.8	
79-34-5	1,1,2,2-Tetrachloroethane	ND	25	ND	3.6	
98-82-8	Cumene	1,100	25	230	5.1	
80-56-8	alpha-Pinene	98	25	18	4.5	
622-96-8	4-Ethyltoluene	330	25	68	5.1	
108-67-8	1,3,5-Trimethylbenzene	1,500	25	300	5.1	
95-63-6	1,2,4-Trimethylbenzene	1,500	25	300	5.1	
100-44-7	Benzyl Chloride	ND	25	ND	4.8	
541-73-1	1,3-Dichlorobenzene	150	25	25	4.2	
106-46-7	1,4-Dichlorobenzene	1,300	25	220	4.2	
95-50-1	1,2-Dichlorobenzene	460	25	77	4.2	
5989-27-5	<i>d</i> -Limonene	ND	25	ND	4.5	
96-12-8	1,2-Dibromo-3-chloropropane	ND	25	ND	2.6	
120-82-1	1,2,4-Trichlorobenzene	ND	25	ND	3.4	
91-20-3	Naphthalene	220	25	42	4.8	
87-68-3	Hexachlorobutadiene	ND	25	ND	2.3	

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.

RH = Sample received outside of holding time.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 4 of 4

Client: Service Engineering Group
Client Sample ID: D30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603308
 CAS Sample ID: P2603308-002

Tentatively Identified Compounds

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

Date Collected: 11/30/06
Date Received: 12/4/06
Date Analyzed: 12/5/06
Volume(s) Analyzed: 0.040 Liter(s)
 0.010 Liter(s)

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m ³	Data Qualifier
18.31	C ₁₀ H ₂₂ Branched Alkane	800	
18.39	Propyl Cyclohexane	1,000	
18.74	3-Ethyltoluene	700	
19.03	C ₁₀ H ₂₀ Compound	800	
19.68	sec-Butylbenzene	3,000	
20.08	C ₁₀ H ₁₄ Aromatic Compound	900	
20.10	Indane + Unidentified Compound	1,000	
20.15	Butyl-Cyclohexane	900	
20.84	(1-ethyl propyl)-Benzene	1,000	
20.86	C ₁₁ H ₁₆ Aromatic Compound	2,000	
20.96	C ₁₁ H ₁₆ Aromatic Compound	800	
21.00	C ₁₁ H ₁₆ Aromatic Compound	2,000	
21.10	C ₁₁ H ₁₆ Aromatic Compound	1,000	
21.23	C ₁₁ H ₁₆ Aromatic Compound	1,000	
21.94	(1-ethyl Butyl)-Benzene	1,000	

T = Analyte is a tentatively identified compound, result is estimated.
 RH = Sample received outside of holding time.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603308
 CAS Sample ID: P061205-MB

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

Date Collected: NA
 Date Received: NA
 Date(s) Analyzed: 12/5/06
 Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	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: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603308
 CAS Sample ID: P061205-MB

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

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 12/5/06
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	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: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603308
 CAS Sample ID: P061205-MB

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

Date Collected: NA
 Date Received: NA
 Date(s) Analyzed: 12/5/06
 Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	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

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Client: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603308
CAS Sample ID: P061205-MB

Tentatively Identified Compounds

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

Date Collected: NA
Date Received: NA
Date Analyzed: 12/5/06
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

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

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: E1-CA
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603329
 CAS Sample ID: P2603329-001

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

Date Collected: 12/1/2006
 Date Received: 12/6/2006
 Date Analyzed: 12/11/2006
 Desorption Volume: 1.0 ml
 Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
64-19-7	Acetic Acid	< 0.97	ND	14	ND	5.6	
79-09-4	Propionic Acid (Propanoic)	< 0.25	ND	3.5	ND	1.2	
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**.

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.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: Service Engineering Group
Client Sample ID: F1-CA
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603329
 CAS Sample ID: P2603329-002

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

Date Collected: 12/1/2006
 Date Received: 12/6/2006
 Date Analyzed: 12/11/2006
 Desorption Volume: 1.0 ml
 Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
64-19-7	Acetic Acid	< 0.97	ND	14	ND	5.6	
79-09-4	Propionic Acid (Propanoic)	< 0.25	ND	3.5	ND	1.2	
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**.
 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.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603329
 CAS Sample ID: P061211-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: 12/11/06
 Desorption Volume: 1.0 ml
 Volume Sampled: NA Liters

CAS #	Compound	Result µg/Tube	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
64-19-7	Acetic Acid	< 0.97	NA	NA	NA	NA	
79-09-4	Propionic Acid (Propanoic)	< 0.25	NA	NA	NA	NA	
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	

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.

NA = Not applicable

BC = Results reported are not blank corrected

DE = Results reported are corrected for desorption efficiency.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: E2-AM
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603329
 CAS Sample ID: P2603329-003

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

Date Collected: 12/1/2006
 Date Received: 12/6/2006
 Date Analyzed: 12/7/2006
 Desorption Volume: 2.0 ml
 Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
124-40-3	Dimethylamine	2.1	29	2.7	16	1.5	
75-04-7	Ethylamine	< 0.20	ND	2.8	ND	1.5	
75-50-3	Trimethylamine	21	310	2.9	130	1.2	
75-31-0	Isopropylamine	< 0.19	ND	2.7	ND	1.1	
75-64-9	t-Butylamine	0.23	3.3	2.7	1.1	0.90	
107-10-8	Propylamine	0.20	2.9	2.7	1.2	1.1	
109-89-7	Diethylamine	0.29	4.1	2.7	1.4	0.89	
13952-84-6	s-Butylamine	0.20	2.8	2.7	0.94	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.

NA = Not applicable

BC = Results reported are not blank corrected

DE = Results reported are corrected for desorption efficiency.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: F2-AM
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603329
 CAS Sample ID: P2603329-004

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

Date Collected: 12/1/2006
 Date Received: 12/6/2006
 Date Analyzed: 12/7/2006
 Desorption Volume: 2.0 ml
 Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
124-40-3	Dimethylamine	0.50	7.1	2.7	3.9	1.5	
75-04-7	Ethylamine	< 0.20	ND	2.8	ND	1.5	
75-50-3	Trimethylamine	0.23	3.4	2.9	1.4	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.

NA = Not applicable

BC = Results reported are not blank corrected

DE = Results reported are corrected for desorption efficiency.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603329
 CAS Sample ID: P061207-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: 12/07/06
 Desorption Volume: 2.0 ml
 Volume Sampled: NA Liters

CAS #	Compound	Result µg/Tube	Result µg/m ³	MRL µg/m ³	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	

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.

NA = Not applicable

BC = Results reported are not blank corrected

DE = Results reported are corrected for desorption efficiency.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: E3-FA
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603329
 CAS Sample ID: P2603329-005

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: 12/1/2006
 Date Received: 12/6/2006
 Date Analyzed: 12/12/2006
 Desorption Volume: 1.0 ml
 Volume Sampled: 70.0 Liters

CAS #	Compound	Result ng/Sample	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
50-00-0	Formaldehyde	< 100	ND	1.4	ND	1.2	
75-07-0	Acetaldehyde	8,100	120	1.4	64	0.79	BT
123-38-6	Propionaldehyde	410	5.8	1.4	2.5	0.60	BT
4170-30-3	Crotonaldehyde, Total	< 100	ND	1.4	ND	0.50	
123-72-8	Butyraldehyde	530	7.6	1.4	2.6	0.48	BT
100-52-7	Benzaldehyde	1,500	21	1.4	5.0	0.33	BT
590-86-3	Isovaleraldehyde	360	5.2	1.4	1.5	0.41	BT
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	370	5.2	1.4	1.3	0.35	
5779-94-2	2,5-Dimethylbenzaldehyde	< 100	ND	1.4	ND	0.26	

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.

NA = Not applicable

BC = Results reported are not blank corrected

BT = Indicates possible breakthrough - result for back section > 10% of result from front section of tube.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: F3-FA
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603329
 CAS Sample ID: P2603329-006

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: 12/6/2006
 Date Analyzed: 12/12/2006
 Desorption Volume: 1.0 ml
 Volume Sampled: 70.0 Liters

CAS #	Compound	Result ng/Sample	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
50-00-0	Formaldehyde	< 100	ND	1.4	ND	1.2	
75-07-0	Acetaldehyde	3,000	43	1.4	24	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	340	4.9	1.4	0.89	0.26	BH

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.

NA = Not applicable

BC = Results reported are not blank corrected

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

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: Reagent Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603329
 CAS Sample ID: P061212-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: 12/12/06
 Desorption Volume: 1.0 ml
 Volume Sampled: NA Liters

CAS #	Compound	Result	Result	MRL	Result	MRL	Data Qualifier
		ng/Sample	µg/m ³	µg/m ³	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	

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.

NA = Not applicable

BC = Results reported are not blank corrected

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603329
 CAS Sample ID: P061212-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: 12/12/06
 Desorption Volume: 1.0 ml
 Volume Sampled: NA Liters

CAS #	Compound	Result ng/Sample	Result µg/m ³	MRL µg/m ³	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	

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.

NA = Not applicable

BC = Results reported are not blank corrected

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: E30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603304
 CAS Sample ID: P2603304-001

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

Date Collected: 12/1/2006
 Time Collected: 11:00
 Date Received: 12/2/2006
 Date Analyzed: 12/2/06
 Time Analyzed: 09:56
 Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result	MRL	Result	MRL	Data Qualifier
		µg/m ³	µg/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	190	13	74	5.0	
75-15-0	Carbon Disulfide	140	7.8	45	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	140	17	40	5.0	
513-44-0	Isobutyl Mercaptan	20	18	5.4	5.0	W
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	380	9.6	100	2.5	
616-44-4	3-Methylthiophene	88	20	22	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	80	23	17	5.0	
872-55-9	2-Ethylthiophene	71	23	16	5.0	
110-81-6	Diethyl Disulfide	48	12	9.5	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.

W = Result quantified but corresponding peak was detected outside of generated retention time window.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: F30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603304
 CAS Sample ID: P2603304-002

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

Date Collected: 12/1/2006
 Time Collected: 11:05
 Date Received: 12/2/2006
 Date Analyzed: 12/2/06
 Time Analyzed: 10:21
 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	200	12	81	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	9.4	13	3.7	5.0	J
75-15-0	Carbon Disulfide	240	7.8	77	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	80	17	23	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.

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

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Client: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603304
 CAS Sample ID: P061202-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: 12/02/06
 Time Analyzed: 09:16
 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

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Client: Service Engineering Group
Client Sample ID: E30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603304
 CAS Sample ID: P2603304-001

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes:

Date Collected: 12/1/06
 Date Received: 12/2/06
 Date(s) Analyzed: 12/2/06
 Volume(s) Analyzed: 0.00070 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	1,400	ND	290	
74-87-3	Chloromethane	ND	1,400	ND	690	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	1,400	ND	200	
75-01-4	Vinyl Chloride	ND	1,400	ND	560	
106-99-0	1,3-Butadiene	ND	1,400	ND	650	
74-83-9	Bromomethane	ND	1,400	ND	370	
75-00-3	Chloroethane	ND	1,400	ND	540	
64-17-5	Ethanol	ND	7,100	ND	3,800	
75-05-8	Acetonitrile	ND	1,400	ND	850	
107-02-8	Acrolein	ND	1,400	ND	620	
67-64-1	Acetone	ND	7,100	ND	3,000	
75-69-4	Trichlorofluoromethane	ND	1,400	ND	250	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	1,400	ND	580	
107-13-1	Acrylonitrile	ND	1,400	ND	660	
75-35-4	1,1-Dichloroethene	ND	1,400	ND	360	
75-09-2	Methylene chloride	ND	1,400	ND	410	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	1,400	ND	460	
76-13-1	Trichlorotrifluoroethane	ND	1,400	ND	190	
75-15-0	Carbon Disulfide	ND	1,400	ND	460	
156-60-5	trans-1,2-Dichloroethene	ND	1,400	ND	360	
75-34-3	1,1-Dichloroethane	ND	1,400	ND	350	
1634-04-4	Methyl tert-Butyl Ether	ND	1,400	ND	400	
108-05-4	Vinyl Acetate	ND	1,400	ND	410	

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: Service Engineering Group
Client Sample ID: E30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603304
 CAS Sample ID: P2603304-001

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 12/1/06
Date Received: 12/2/06
Date(s) Analyzed: 12/2/06
Volume(s) Analyzed: 0.00070 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	1,400	ND	480	
156-59-2	cis-1,2-Dichloroethene	ND	1,400	ND	360	
110-54-3	n-Hexane	13,000	1,400	3,800	410	
67-66-3	Chloroform	ND	1,400	ND	290	
107-06-2	1,2-Dichloroethane	ND	1,400	ND	350	
71-55-6	1,1,1-Trichloroethane	ND	1,400	ND	260	
71-43-2	Benzene	65,000	1,400	20,000	450	
56-23-5	Carbon Tetrachloride	ND	1,400	ND	230	
78-87-5	1,2-Dichloropropane	ND	1,400	ND	310	
75-27-4	Bromodichloromethane	ND	1,400	ND	210	
79-01-6	Trichloroethene	ND	1,400	ND	270	
123-91-1	1,4-Dioxane	ND	1,400	ND	400	
10061-01-5	cis-1,3-Dichloropropene	ND	1,400	ND	310	
108-10-1	4-Methyl-2-pentanone	ND	1,400	ND	350	
10061-02-6	trans-1,3-Dichloropropene	ND	1,400	ND	310	
79-00-5	1,1,2-Trichloroethane	ND	1,400	ND	260	
108-88-3	Toluene	110,000	1,400	28,000	380	
591-78-6	2-Hexanone	ND	1,400	ND	350	
124-48-1	Dibromochloromethane	ND	1,400	ND	170	
106-93-4	1,2-Dibromoethane	ND	1,400	ND	190	
123-86-4	n-Butyl Acetate	ND	1,400	ND	300	
127-18-4	Tetrachloroethene	ND	1,400	ND	210	

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: Service Engineering Group
Client Sample ID: E30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603304
 CAS Sample ID: P2603304-001

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes:

Date Collected: 12/1/06
 Date Received: 12/2/06
 Date(s) Analyzed: 12/2/06
 Volume(s) Analyzed: 0.00070 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	7,600	1,400	1,700	310	
100-41-4	Ethylbenzene	13,000	1,400	3,100	330	
179601-23-1	<i>m,p</i> -Xylenes	240,000	1,400	56,000	330	
75-25-2	Bromoform	ND	1,400	ND	140	
100-42-5	Styrene	5,900	1,400	1,400	340	
95-47-6	<i>o</i> -Xylene	69,000	1,400	16,000	330	
111-84-2	<i>n</i> -Nonane	2,600	1,400	490	270	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1,400	ND	210	
98-82-8	Cumene	14,000	1,400	2,900	290	
80-56-8	alpha-Pinene	ND	1,400	ND	260	
622-96-8	4-Ethyltoluene	5,700	1,400	1,200	290	
108-67-8	1,3,5-Trimethylbenzene	29,000	1,400	5,900	290	
95-63-6	1,2,4-Trimethylbenzene	35,000	1,400	7,100	290	
100-44-7	Benzyl Chloride	ND	1,400	ND	280	
541-73-1	1,3-Dichlorobenzene	ND	1,400	ND	240	
106-46-7	1,4-Dichlorobenzene	2,400	1,400	390	240	
95-50-1	1,2-Dichlorobenzene	2,000	1,400	330	240	
5989-27-5	<i>d</i> -Limonene	ND	1,400	ND	260	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1,400	ND	150	
120-82-1	1,2,4-Trichlorobenzene	ND	1,400	ND	190	
91-20-3	Naphthalene	3,800	1,400	730	270	
87-68-3	Hexachlorobutadiene	ND	1,400	ND	130	

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: Service Engineering Group
Client Sample ID: E30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603304
 CAS Sample ID: P2603304-001

Tentatively Identified Compounds

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes: T

Date Collected: 12/1/06
 Date Received: 12/2/06
 Date Analyzed: 12/2/06
 Volume(s) Analyzed: 0.00070 Liter(s)

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m ³	Data Qualifier
7.89	2-Methylpentane	5,000	
8.28	3-Methylpentane	4,000	
9.61	Methylcyclopentane	6,000	
18.18	3-Ethyltoluene	10,000	
18.75	C ₉ H ₁₀ Aromatic Compound	4,000	
19.14	sec-Butylbenzene	20,000	
19.33	p-Isopropyltoluene + 1,2,3-Trimethylbenzene	7,000	
19.57	Indane + C ₁₀ H ₁₄ Aromatic Compound	7,000	
19.68	C ₉ H ₈ Aromatic Compound	20,000	
19.92	C ₁₀ H ₁₂ Aromatic Compound	9,000	
20.33	C ₁₁ H ₁₆ Aromatic Compound	4,000	
20.36	C ₁₁ H ₁₆ Aromatic Compound	6,000	
20.50	C ₁₁ H ₁₆ Aromatic Compound	9,000	
20.61	Unidentified Aromatic Compound	4,000	
20.73	Unidentified Aromatic Compound	4,000	

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

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 4

Client: Service Engineering Group
Client Sample ID: F30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603304
 CAS Sample ID: P2603304-002

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes:

Date Collected: 12/1/06
 Date Received: 12/2/06
 Date(s) Analyzed: 12/2/06
 Volume(s) Analyzed: 0.040 Liter(s)
 0.010 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	25	ND	5.1	
74-87-3	Chloromethane	ND	25	ND	12	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	25	ND	3.6	
75-01-4	Vinyl Chloride	ND	25	ND	9.8	
106-99-0	1,3-Butadiene	ND	25	ND	11	
74-83-9	Bromomethane	ND	25	ND	6.4	
75-00-3	Chloroethane	ND	25	ND	9.5	
64-17-5	Ethanol	ND	130	ND	66	
75-05-8	Acetonitrile	ND	25	ND	15	
107-02-8	Acrolein	ND	25	ND	11	
67-64-1	Acetone	270	130	110	53	
75-69-4	Trichlorofluoromethane	ND	25	ND	4.5	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	25	ND	10	
107-13-1	Acrylonitrile	ND	25	ND	12	
75-35-4	1,1-Dichloroethene	ND	25	ND	6.3	
75-09-2	Methylene chloride	ND	25	ND	7.2	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	25	ND	8.0	
76-13-1	Trichlorotrifluoroethane	ND	25	ND	3.3	
75-15-0	Carbon Disulfide	140	25	44	8.0	
156-60-5	trans-1,2-Dichloroethene	ND	25	ND	6.3	
75-34-3	1,1-Dichloroethane	ND	25	ND	6.2	
1634-04-4	Methyl tert-Butyl Ether	ND	25	ND	6.9	
108-05-4	Vinyl Acetate	ND	25	ND	7.1	

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: Service Engineering Group
Client Sample ID: F30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603304
 CAS Sample ID: P2603304-002

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes:

Date Collected: 12/1/06
 Date Received: 12/2/06
 Date(s) Analyzed: 12/2/06
 Volume(s) Analyzed: 0.040 Liter(s)
 0.010 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	92	25	31	8.5	
156-59-2	cis-1,2-Dichloroethene	ND	25	ND	6.3	
110-54-3	n-Hexane	28	25	7.9	7.1	
67-66-3	Chloroform	ND	25	ND	5.1	
107-06-2	1,2-Dichloroethane	ND	25	ND	6.2	
71-55-6	1,1,1-Trichloroethane	ND	25	ND	4.6	
71-43-2	Benzene	1,400	25	440	7.8	
56-23-5	Carbon Tetrachloride	ND	25	ND	4.0	
78-87-5	1,2-Dichloropropane	ND	25	ND	5.4	
75-27-4	Bromodichloromethane	ND	25	ND	3.7	
79-01-6	Trichloroethene	ND	25	ND	4.7	
123-91-1	1,4-Dioxane	ND	25	ND	6.9	
10061-01-5	cis-1,3-Dichloropropene	ND	25	ND	5.5	
108-10-1	4-Methyl-2-pentanone	ND	25	ND	6.1	
10061-02-6	trans-1,3-Dichloropropene	ND	25	ND	5.5	
79-00-5	1,1,2-Trichloroethane	ND	25	ND	4.6	
108-88-3	Toluene	690	25	180	6.6	
591-78-6	2-Hexanone	ND	25	ND	6.1	
124-48-1	Dibromochloromethane	ND	25	ND	2.9	
106-93-4	1,2-Dibromoethane	ND	25	ND	3.3	
123-86-4	n-Butyl Acetate	ND	25	ND	5.3	
127-18-4	Tetrachloroethene	ND	25	ND	3.7	

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: Service Engineering Group
Client Sample ID: F30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603304
 CAS Sample ID: P2603304-002

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes:

Date Collected: 12/1/06
 Date Received: 12/2/06
 Date(s) Analyzed: 12/2/06
 Volume(s) Analyzed: 0.040 Liter(s)
 0.010 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	3,900	25	850	5.4	
100-41-4	Ethylbenzene	1,600	25	370	5.8	
179601-23-1	<i>m,p</i> -Xylenes	5,700	25	1,300	5.8	
75-25-2	Bromoform	ND	25	ND	2.4	
100-42-5	Styrene	ND	25	ND	5.9	
95-47-6	<i>o</i> -Xylene	1,900	25	450	5.8	
111-84-2	<i>n</i> -Nonane	69	25	13	4.8	M
79-34-5	1,1,2,2-Tetrachloroethane	ND	25	ND	3.6	
98-82-8	Cumene	670	25	140	5.1	
80-56-8	alpha-Pinene	40	25	7.3	4.5	
622-96-8	4-Ethyltoluene	480	25	99	5.1	
108-67-8	1,3,5-Trimethylbenzene	1,500	25	300	5.1	
95-63-6	1,2,4-Trimethylbenzene	1,900	25	400	5.1	
100-44-7	Benzyl Chloride	ND	25	ND	4.8	
541-73-1	1,3-Dichlorobenzene	91	25	15	4.2	
106-46-7	1,4-Dichlorobenzene	780	25	130	4.2	
95-50-1	1,2-Dichlorobenzene	270	25	45	4.2	
5989-27-5	<i>d</i> -Limonene	ND	25	ND	4.5	
96-12-8	1,2-Dibromo-3-chloropropane	ND	25	ND	2.6	
120-82-1	1,2,4-Trichlorobenzene	ND	25	ND	3.4	
91-20-3	Naphthalene	660	25	130	4.8	
87-68-3	Hexachlorobutadiene	ND	25	ND	2.3	

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.

M = Matrix interference; results may be biased .

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 4 of 4

Client: Service Engineering Group
Client Sample ID: F30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603304
 CAS Sample ID: P2603304-002

Tentatively Identified Compounds

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes: T

Date Collected: 12/1/06
 Date Received: 12/2/06
 Date Analyzed: 12/2/06
 Volume(s) Analyzed: 0.040 Liter(s)
 0.010 Liter(s)

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m ³	Data Qualifier
17.82	Unidentified Compound	1,000	
18.19	3-Ethyltoluene	1,000	
18.48	C ₉ H ₁₈ + C ₁₀ H ₂₀ Compound	900	
19.15	sec-Butylbenzene	2,000	
19.33	p-Isopropyltoluene + 1,2,3,-Trimethylbenzene	600	
19.59	Indane	5,000	
19.63	C ₁₀ H ₂₀ Compound	1,000	
19.70	C ₉ H ₈ Aromatic Compound	1,000	
20.16	C ₁₀ H ₁₈ Compound + C ₁₀ H ₁₄ Aromatic Compound	900	
20.34	C ₁₁ H ₁₆ Aromatic Compound	1,000	
20.36	C ₁₁ H ₁₆ Aromatic Compound	2,000	
20.51	C ₁₁ H ₁₆ Aromatic Compound	2,000	
20.61	Unidentified Aromatic Compound	1,000	
20.73	Unidentified Aromatic Compound	800	
21.44	C ₁₂ H ₁₈ Aromatic Compound	1,000	

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

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 4

Client: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603304
 CAS Sample ID: P061202-MB

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date(s) Analyzed: 12/2/06
 Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	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: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603304
 CAS Sample ID: P061202-MB

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 12/2/06
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	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: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603304
 CAS Sample ID: P061202-MB

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date(s) Analyzed: 12/2/06
 Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	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

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Client: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603304
CAS Sample ID: P061202-MB

Tentatively Identified Compounds

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 12/2/06
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

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

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: G1-CA
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603330
 CAS Sample ID: P2603330-001

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

Date Collected: 12/5/2006
 Date Received: 12/6/2006
 Date Analyzed: #####
 Desorption Volume: 1.0 ml
 Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
64-19-7	Acetic Acid	< 0.97	ND	14	ND	5.6	
79-09-4	Propionic Acid (Propanoic)	< 0.25	ND	3.5	ND	1.2	
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**.

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.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: H1-CA
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603330
 CAS Sample ID: P2603330-002

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

Date Collected: 12/5/2006
 Date Received: 12/6/2006
 Date Analyzed: #####
 Desorption Volume: 1.0 ml
 Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
64-19-7	Acetic Acid	< 0.97	ND	14	ND	5.6	
79-09-4	Propionic Acid (Propanoic)	< 0.25	ND	3.5	ND	1.2	
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**.

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.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603330
 CAS Sample ID: P061211-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: 12/11/06
 Desorption Volume: 1.0 ml
 Volume Sampled: NA Liters

CAS #	Compound	Result µg/Tube	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
64-19-7	Acetic Acid	< 0.97	NA	NA	NA	NA	
79-09-4	Propionic Acid (Propanoic)	< 0.25	NA	NA	NA	NA	
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	

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.

NA = Not applicable

BC = Results reported are not blank corrected

DE = Results reported are corrected for desorption efficiency.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: G2-AM
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603330
 CAS Sample ID: P2603330-003

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

Date Collected: 12/5/2006
 Date Received: 12/6/2006
 Date Analyzed: 12/7/2006
 Desorption Volume: 2.0 ml
 Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
124-40-3	Dimethylamine	0.20	2.9	2.7	1.6	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.

NA = Not applicable

BC = Results reported are not blank corrected

DE = Results reported are corrected for desorption efficiency.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: H2-AM
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603330
 CAS Sample ID: P2603330-004

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

Date Collected: 12/5/2006
 Date Received: 12/6/2006
 Date Analyzed: 12/7/2006
 Desorption Volume: 2.0 ml
 Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
124-40-3	Dimethylamine	3.2	45	2.7	25	1.5	
75-04-7	Ethylamine	< 0.20	ND	2.8	ND	1.5	
75-50-3	Trimethylamine	31	440	2.9	180	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	0.32	4.5	2.7	1.5	0.89	
13952-84-6	s-Butylamine	< 0.19	ND	2.7	ND	0.91	
78-81-9	Isobutylamine	0.23	3.3	2.7	1.1	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.

NA = Not applicable

BC = Results reported are not blank corrected

DE = Results reported are corrected for desorption efficiency.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603330
 CAS Sample ID: P061207-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: 12/07/06
 Desorption Volume: 2.0 ml
 Volume Sampled: NA Liters

CAS #	Compound	Result µg/Tube	Result µg/m ³	MRL µg/m ³	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	

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.

NA = Not applicable

BC = Results reported are not blank corrected

DE = Results reported are corrected for desorption efficiency.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: G3-FA
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603330
 CAS Sample ID: P2603330-005

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: 12/5/2006
 Date Received: 12/6/2006
 Date Analyzed: 12/12/2006
 Desorption Volume: 1.0 ml
 Volume Sampled: 70.0 Liters

CAS #	Compound	Result ng/Sample	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
50-00-0	Formaldehyde	< 100	ND	1.4	ND	1.2	
75-07-0	Acetaldehyde	120	1.8	1.4	0.98	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	570	8.1	1.4	1.5	0.26	BH

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.

NA = Not applicable

BC = Results reported are not blank corrected

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

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: H3-FA
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603330
 CAS Sample ID: P2603330-006

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: 12/5/2006
 Date Received: 12/6/2006
 Date Analyzed: 12/12/2006
 Desorption Volume: 1.0 ml
 Volume Sampled: 70.0 Liters

CAS #	Compound	Result ng/Sample	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
50-00-0	Formaldehyde	< 100	ND	1.4	ND	1.2	
75-07-0	Acetaldehyde	8,800	130	1.4	70	0.79	BT
123-38-6	Propionaldehyde	480	6.9	1.4	2.9	0.60	
4170-30-3	Crotonaldehyde, Total	< 100	ND	1.4	ND	0.50	
123-72-8	Butyraldehyde	390	5.5	1.4	1.9	0.48	
100-52-7	Benzaldehyde	1,200	18	1.4	4.1	0.33	BT
590-86-3	Isovaleraldehyde	230	3.2	1.4	0.92	0.41	
110-62-3	Valeraldehyde	300	4.3	1.4	1.2	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	330	4.7	1.4	1.1	0.35	
5779-94-2	2,5-Dimethylbenzaldehyde	< 100	ND	1.4	ND	0.26	

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.

NA = Not applicable

BC = Results reported are not blank corrected

BT = Indicates possible breakthrough - result for back section > 10% of result from front section of tube.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: Reagent Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603330
 CAS Sample ID: P061212-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: 12/12/06
 Desorption Volume: 1.0 ml
 Volume Sampled: NA Liters

CAS #	Compound	Result ng/Sample	Result µg/m ³	MRL µg/m ³	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	

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.

NA = Not applicable

BC = Results reported are not blank corrected

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603330
 CAS Sample ID: P061212-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: 12/12/06
 Desorption Volume: 1.0 ml
 Volume Sampled: NA Liters

CAS #	Compound	Result ng/Sample	Result µg/m ³	MRL µg/m ³	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	

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.

NA = Not applicable

BC = Results reported are not blank corrected

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: Service Engineering Group
Client Sample ID: G30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603322
 CAS Sample ID: P2603322-001

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

Date Collected: 12/5/2006
 Time Collected: 10:30
 Date Received: 12/6/2006
 Date Analyzed: 12/6/06
 Time Analyzed: 11:41
 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	72	12	29	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	45	7.8	14	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: Service Engineering Group
Client Sample ID: H30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603322
 CAS Sample ID: P2603322-002

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

Date Collected: 12/5/2006
 Time Collected: 10:35
 Date Received: 12/6/2006
 Date Analyzed: 12/6/06
 Time Analyzed: 12:06
 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	210	13	81	5.0	
75-15-0	Carbon Disulfide	71	7.8	23	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	45	17	13	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	690	9.6	180	2.5	
616-44-4	3-Methylthiophene	18	20	4.4	5.0	J
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	23	23	5.1	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.

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: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603322
 CAS Sample ID: P061206-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: 12/06/06
 Time Analyzed: 09:28
 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: Service Engineering Group
Client Sample ID: G30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603322
 CAS Sample ID: P2603322-001

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes:

Date Collected: 12/5/06
 Date Received: 12/6/06
 Date(s) Analyzed: 12/6/06
 Volume(s) Analyzed: 0.20 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	5.0	ND	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	110	25	46	11	
75-69-4	Trichlorofluoromethane	ND	5.0	ND	0.89	
67-63-0	2-Propanol (Isopropyl Alcohol)	6.3	5.0	2.6	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	31	5.0	10	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: Service Engineering Group
Client Sample ID: G30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603322
 CAS Sample ID: P2603322-001

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 12/5/06
Date Received: 12/6/06
Date(s) Analyzed: 12/6/06
Volume(s) Analyzed: 0.20 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	12	5.0	3.9	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	9.4	5.0	2.9	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	23	5.0	6.1	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: Service Engineering Group
Client Sample ID: G30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603322
 CAS Sample ID: P2603322-001

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes:

Date Collected: 12/5/06
 Date Received: 12/6/06
 Date(s) Analyzed: 12/6/06
 Volume(s) Analyzed: 0.20 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	12	5.0	2.6	1.1	M
100-41-4	Ethylbenzene	5.6	5.0	1.3	1.2	
179601-23-1	<i>m,p</i> -Xylenes	38	5.0	8.7	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	37	5.0	8.5	1.2	
111-84-2	n-Nonane	8.0	5.0	1.5	0.95	M
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	ND	0.73	
98-82-8	Cumene	46	5.0	9.3	1.0	
80-56-8	alpha-Pinene	6.0	5.0	1.1	0.90	M
622-96-8	4-Ethyltoluene	96	5.0	19	1.0	
108-67-8	1,3,5-Trimethylbenzene	56	5.0	11	1.0	
95-63-6	1,2,4-Trimethylbenzene	130	5.0	27	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	7.2	5.0	1.2	0.83	
95-50-1	1,2-Dichlorobenzene	5.7	5.0	0.95	0.83	
5989-27-5	d-Limonene	12	5.0	2.2	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	16	5.0	3.0	0.95	M
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.

M = Matrix interference; results may be biased high.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: G30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603322
 CAS Sample ID: P2603322-001

Tentatively Identified Compounds

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes: T

Date Collected: 12/5/06
 Date Received: 12/6/06
 Date Analyzed: 12/6/06
 Volume(s) Analyzed: 0.20 Liter(s)

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m ³	Data Qualifier
19.33	C ₁₁ H ₂₄ Branched Alkane + p-Isopropyltoluene + 1,2,3-Trimethylbenzene	600	
19.69	C ₁₀ H ₁₄ Aromatic Compound	200	
19.81	C ₁₀ H ₁₄ Aromatic Compound	400	
20.16	C ₁₀ H ₁₄ Aromatic Compound	300	
20.25	C ₁₀ H ₁₄ Aromatic Compound	400	
20.35	C ₁₀ H ₁₂ Aromatic Compound	300	
20.59	C ₁₁ H ₁₆ Aromatic Compound + Unidentified Compound	300	
20.94	C ₁₁ H ₁₆ Aromatic Compound + Unidentified Compound	300	
21.06	C ₁₀ H ₂₂ Aromatic Compound + Unidentified Compound	200	
21.18	Unidentified Compound	300	
21.23	C ₁₁ H ₁₆ Aromatic Compound	200	
21.64	C ₁₁ H ₁₄ Aromatic Compound	300	
21.83	C ₁₃ H ₂₈ Branched Alkane	400	
22.28	Unidentified Compound	200	
22.51	C ₁₄ H ₃₀ Branched Alkane	200	

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

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 4

Client: Service Engineering Group
Client Sample ID: H30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603322
 CAS Sample ID: P2603322-002

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes:

Date Collected: 12/5/06
 Date Received: 12/6/06
 Date(s) Analyzed: 12/6/06
 Volume(s) Analyzed: 0.0080 Liter(s)
 0.00020 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	130	ND	25	
74-87-3	Chloromethane	ND	130	ND	61	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	130	ND	18	
75-01-4	Vinyl Chloride	ND	130	ND	49	
106-99-0	1,3-Butadiene	ND	130	ND	57	
74-83-9	Bromomethane	ND	130	ND	32	
75-00-3	Chloroethane	ND	130	ND	47	
64-17-5	Ethanol	1,100	630	570	330	
75-05-8	Acetonitrile	ND	130	ND	74	
107-02-8	Acrolein	ND	130	ND	55	
67-64-1	Acetone	ND	630	ND	260	
75-69-4	Trichlorofluoromethane	ND	130	ND	22	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	130	ND	51	
107-13-1	Acrylonitrile	ND	130	ND	58	
75-35-4	1,1-Dichloroethene	ND	130	ND	32	
75-09-2	Methylene chloride	ND	130	ND	36	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	130	ND	40	
76-13-1	Trichlorotrifluoroethane	ND	130	ND	16	
75-15-0	Carbon Disulfide	ND	130	ND	40	
156-60-5	trans-1,2-Dichloroethene	ND	130	ND	32	
75-34-3	1,1-Dichloroethane	ND	130	ND	31	
1634-04-4	Methyl tert-Butyl Ether	ND	130	ND	35	
108-05-4	Vinyl Acetate	ND	130	ND	36	

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: Service Engineering Group
Client Sample ID: H30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603322
 CAS Sample ID: P2603322-002

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes:

Date Collected: 12/5/06
 Date Received: 12/6/06
 Date(s) Analyzed: 12/6/06
 Volume(s) Analyzed: 0.0080 Liter(s)
 0.00020 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	160	130	56	42	
156-59-2	cis-1,2-Dichloroethene	ND	130	ND	32	
110-54-3	n-Hexane	1,200	130	340	35	
67-66-3	Chloroform	ND	130	ND	26	
107-06-2	1,2-Dichloroethane	ND	130	ND	31	
71-55-6	1,1,1-Trichloroethane	ND	130	ND	23	
71-43-2	Benzene	17,000	130	5,300	39	
56-23-5	Carbon Tetrachloride	ND	130	ND	20	
78-87-5	1,2-Dichloropropane	ND	130	ND	27	
75-27-4	Bromodichloromethane	ND	130	ND	19	
79-01-6	Trichloroethene	ND	130	ND	23	
123-91-1	1,4-Dioxane	ND	130	ND	35	
10061-01-5	cis-1,3-Dichloropropene	ND	130	ND	28	
108-10-1	4-Methyl-2-pentanone	ND	130	ND	31	
10061-02-6	trans-1,3-Dichloropropene	ND	130	ND	28	
79-00-5	1,1,2-Trichloroethane	ND	130	ND	23	
108-88-3	Toluene	18,000	130	4,700	33	
591-78-6	2-Hexanone	ND	130	ND	31	
124-48-1	Dibromochloromethane	ND	130	ND	15	
106-93-4	1,2-Dibromoethane	ND	130	ND	16	
123-86-4	n-Butyl Acetate	ND	130	ND	26	
127-18-4	Tetrachloroethene	ND	130	ND	18	

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: Service Engineering Group
Client Sample ID: H30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603322
 CAS Sample ID: P2603322-002

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes:

Date Collected: 12/5/06
 Date Received: 12/6/06
 Date(s) Analyzed: 12/6/06
 Volume(s) Analyzed: 0.0080 Liter(s)
 0.00020 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	97,000	130	21,000	27	
100-41-4	Ethylbenzene	2,700	130	620	29	
179601-23-1	<i>m,p</i> -Xylenes	45,000	130	10,000	29	
75-25-2	Bromoform	ND	130	ND	12	
100-42-5	Styrene	3,600	130	840	29	
95-47-6	<i>o</i> -Xylene	14,000	130	3,100	29	
111-84-2	<i>n</i> -Nonane	420	130	79	24	
79-34-5	1,1,2,2-Tetrachloroethane	ND	130	ND	18	
98-82-8	Cumene	2,700	130	560	25	
80-56-8	alpha-Pinene	ND	130	ND	22	
622-96-8	4-Ethyltoluene	880	130	180	25	
108-67-8	1,3,5-Trimethylbenzene	6,200	130	1,300	25	
95-63-6	1,2,4-Trimethylbenzene	7,300	130	1,500	25	
100-44-7	Benzyl Chloride	ND	130	ND	24	
541-73-1	1,3-Dichlorobenzene	230	130	38	21	
106-46-7	1,4-Dichlorobenzene	28,000	130	4,700	21	
95-50-1	1,2-Dichlorobenzene	34,000	130	5,700	21	
5989-27-5	<i>d</i> -Limonene	ND	130	ND	22	
96-12-8	1,2-Dibromo-3-chloropropane	ND	130	ND	13	
120-82-1	1,2,4-Trichlorobenzene	140	130	18	17	
91-20-3	Naphthalene	2,900	130	540	24	
87-68-3	Hexachlorobutadiene	ND	130	ND	12	

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.

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Client: Service Engineering Group
Client Sample ID: H30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603322
 CAS Sample ID: P2603322-002

Tentatively Identified Compounds

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes: **T**

Date Collected: 12/5/06
 Date Received: 12/6/06
 Date Analyzed: 12/6/06
 Volume(s) Analyzed: 0.0080 Liter(s)
 0.00020 Liter(s)

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m ³	Data Qualifier
11.71	n-Heptane	2,000	
12.52	Methylcyclohexane	3,000	
17.46	C ₉ H ₁₂ Aromatic Compound	5,000	
18.18	3-Ethyltoluene	2,000	
18.76	C ₉ H ₁₀ Aromatic Compound	1,000	
19.15	sec-Butylbenzene	5,000	
19.34	p-Isopropyltoluene + 1,2,3-Trimethylbenzene	2,000	
19.58	C ₉ H ₁₀ Aromatic Compound	2,000	
19.69	C ₉ H ₈ Aromatic Compound	7,000	
19.92	C ₁₀ H ₁₂ Aromatic Compound	2,000	
20.36	C ₁₁ H ₁₆ Aromatic Compound	2,000	
20.50	C ₁₁ H ₁₆ Aromatic Compound	3,000	
20.61	C ₁₁ H ₁₆ Aromatic Compound	1,000	
20.73	C ₁₁ H ₁₆ Aromatic Compound	2,000	
22.13	Cyclopentylbenzene	2,000	

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

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603322
 CAS Sample ID: P061206-MB

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date(s) Analyzed: 12/6/06
 Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	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

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Client: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603322
 CAS Sample ID: P061206-MB

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 12/6/06
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	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

Page 3 of 4

Client: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603322
 CAS Sample ID: P061206-MB

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date(s) Analyzed: 12/6/06
 Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	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

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Client: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603322
CAS Sample ID: P061206-MB

Tentatively Identified Compounds

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 12/6/06
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

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

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: I1-CA
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603356
 CAS Sample ID: P2603356-001

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

Date Collected: 12/6/2006
 Date Received: 12/7/2006
 Date Analyzed: #####
 Desorption Volume: 1.0 ml
 Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
64-19-7	Acetic Acid	< 0.97	ND	14	ND	5.6	
79-09-4	Propionic Acid (Propanoic)	< 0.25	ND	3.5	ND	1.2	
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**.

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.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: Service Engineering Group
Client Sample ID: J1-CA
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603356
 CAS Sample ID: P2603356-002

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

Date Collected: 12/6/2006
 Date Received: 12/7/2006
 Date Analyzed: #####
 Desorption Volume: 1.0 ml
 Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
64-19-7	Acetic Acid	< 0.97	ND	14	ND	5.6	
79-09-4	Propionic Acid (Propanoic)	< 0.25	ND	3.5	ND	1.2	
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**.

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.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603356
 CAS Sample ID: P061211-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: 12/11/06
 Desorption Volume: 1.0 ml
 Volume Sampled: NA Liters

CAS #	Compound	Result µg/Tube	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
64-19-7	Acetic Acid	< 0.97	NA	NA	NA	NA	
79-09-4	Propionic Acid (Propanoic)	< 0.25	NA	NA	NA	NA	
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	

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.

NA = Not applicable

BC = Results reported are not blank corrected

DE = Results reported are corrected for desorption efficiency.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: I2-AM
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603356
 CAS Sample ID: P2603356-003

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

Date Collected: 12/6/2006
 Date Received: 12/7/2006
 Date Analyzed: 12/18/2006
 Desorption Volume: 2.0 ml
 Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
124-40-3	Dimethylamine	2.5	36	2.7	19	1.5	
75-04-7	Ethylamine	< 0.20	ND	2.8	ND	1.5	
75-50-3	Trimethylamine	7.4	110	2.9	44	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.

NA = Not applicable

BC = Results reported are not blank corrected

DE = Results reported are corrected for desorption efficiency.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: J2-AM
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603356
 CAS Sample ID: P2603356-004

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

Date Collected: 12/6/2006
 Date Received: 12/7/2006
 Date Analyzed: 12/18/2006
 Desorption Volume: 2.0 ml
 Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
124-40-3	Dimethylamine	2.1	29	2.7	16	1.5	
75-04-7	Ethylamine	< 0.20	ND	2.8	ND	1.5	
75-50-3	Trimethylamine	22	310	2.9	130	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	0.26	3.7	2.7	1.2	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.

NA = Not applicable

BC = Results reported are not blank corrected

DE = Results reported are corrected for desorption efficiency.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603356
 CAS Sample ID: P061218-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: 12/18/06
 Desorption Volume: 2.0 ml
 Volume Sampled: NA Liters

CAS #	Compound	Result µg/Tube	Result µg/m ³	MRL µg/m ³	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	

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.

NA = Not applicable

BC = Results reported are not blank corrected

DE = Results reported are corrected for desorption efficiency.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: I3-FA
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603356
 CAS Sample ID: P2603356-005

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: 12/6/2006
 Date Received: 12/7/2006
 Date Analyzed: 12/12-13/06
 Desorption Volume: 1.0 ml
 Volume Sampled: 70.0 Liters

CAS #	Compound	Result	Result	MRL	Result	MRL	Data Qualifier
		ng/Sample	µg/m ³	µg/m ³	ppbV	ppbV	
50-00-0	Formaldehyde	< 100	ND	1.4	ND	1.2	
75-07-0	Acetaldehyde	5,200	75	1.4	42	0.79	BH
123-38-6	Propionaldehyde	340	4.8	1.4	2.0	0.60	BT
4170-30-3	Crotonaldehyde, Total	< 100	ND	1.4	ND	0.50	
123-72-8	Butyraldehyde	540	7.7	1.4	2.6	0.48	BT
100-52-7	Benzaldehyde	510	7.3	1.4	1.7	0.33	BT
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	160	2.3	1.4	0.57	0.35	
5779-94-2	2,5-Dimethylbenzaldehyde	< 100	ND	1.4	ND	0.26	

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.

NA = Not applicable

BC = Results reported are not blank corrected

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

BT = Indicates possible breakthrough - result for back section > 10% of result from front section of tube.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: J3-FA
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603356
 CAS Sample ID: P2603356-006

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: 12/6/2006
 Date Received: 12/7/2006
 Date Analyzed: 12/12-13/06
 Desorption Volume: 1.0 ml
 Volume Sampled: 70.0 Liters

CAS #	Compound	Result	Result	MRL	Result	MRL	Data Qualifier
		ng/Sample	µg/m ³	µg/m ³	ppbV	ppbV	
50-00-0	Formaldehyde	< 100	ND	1.4	ND	1.2	
75-07-0	Acetaldehyde	8,800	130	1.4	70	0.79	BT
123-38-6	Propionaldehyde	640	9.2	1.4	3.9	0.60	BT
4170-30-3	Crotonaldehyde, Total	< 100	ND	1.4	ND	0.50	
123-72-8	Butyraldehyde	580	8.2	1.4	2.8	0.48	BT
100-52-7	Benzaldehyde	780	11	1.4	2.6	0.33	BT
590-86-3	Isovaleraldehyde	130	1.8	1.4	0.52	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	m,p-Tolualdehyde	< 200	ND	2.9	ND	0.58	
104-87-0							
66-25-1	n-Hexaldehyde	550	7.8	1.4	1.9	0.35	BT
5779-94-2	2,5-Dimethylbenzaldehyde	370	5.3	1.4	0.97	0.26	BH

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.

NA = Not applicable

BC = Results reported are not blank corrected

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

BT = Indicates possible breakthrough - result for back section > 10% of result from front section of tube.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: Reagent Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603356
 CAS Sample ID: P061212-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: 12/12/06
 Desorption Volume: 1.0 ml
 Volume Sampled: NA Liters

CAS #	Compound	Result ng/Sample	Result µg/m ³	MRL µg/m ³	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	

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.

NA = Not applicable

BC = Results reported are not blank corrected

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603356
 CAS Sample ID: P061212-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: 12/12/06
 Desorption Volume: 1.0 ml
 Volume Sampled: NA Liters

CAS #	Compound	Result ng/Sample	Result µg/m ³	MRL µg/m ³	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	

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.

NA = Not applicable

BC = Results reported are not blank corrected

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

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Client: Service Engineering Group
Client Sample ID: I30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603338
 CAS Sample ID: P2603338-001

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

Date Collected: 12/6/2006
 Time Collected: 10:25
 Date Received: 12/7/2006
 Date Analyzed: 12/7/06
 Time Analyzed: 10:12
 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	26	12	11	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	1,600	13	650	5.0	
75-15-0	Carbon Disulfide	190	7.8	60	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	31	16	10.0	5.0	
110-02-1	Thiophene	25	17	7.3	5.0	
513-44-0	Isobutyl Mercaptan	20	18	5.5	5.0	W
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	570	9.6	150	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	18	18	5.0	5.0	J
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	37	12	7.5	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.

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

W = Result quantified but corresponding peak was detected outside of generated retention time window.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: J30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603338
 CAS Sample ID: P2603338-002

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

Date Collected: 12/6/2006
 Time Collected: 10:55
 Date Received: 12/7/2006
 Date Analyzed: 12/7/06
 Time Analyzed: 10:37
 Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result	MRL	Result	MRL	Data Qualifier
		µg/m ³	µg/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	1,000	13	410	5.0	
75-15-0	Carbon Disulfide	290	7.8	94	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	6.6	16	2.1	5.0	J
624-89-5	Ethyl Methyl Sulfide	9.1	16	2.9	5.0	J
110-02-1	Thiophene	150	17	43	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	540	9.6	140	2.5	
616-44-4	3-Methylthiophene	32	20	8.1	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	49	23	11	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.

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

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Client: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603338
 CAS Sample ID: P061207-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: 12/07/06
 Time Analyzed: 09:50
 Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result	MRL	Result	MRL	Data Qualifier
		µg/m ³	µg/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

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Client: Service Engineering Group
Client Sample ID: I30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603338
 CAS Sample ID: P2603338-001

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes:

Date Collected: 12/6/06
 Date Received: 12/7/06
 Date(s) Analyzed: 12/7/06
 Volume(s) Analyzed: 0.0025 Liter(s)
 0.00010 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	400	ND	81	
74-87-3	Chloromethane	ND	400	ND	190	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	400	ND	57	
75-01-4	Vinyl Chloride	ND	400	ND	160	
106-99-0	1,3-Butadiene	ND	400	ND	180	
74-83-9	Bromomethane	ND	400	ND	100	
75-00-3	Chloroethane	ND	400	ND	150	
64-17-5	Ethanol	ND	2,000	ND	1,100	
75-05-8	Acetonitrile	ND	400	ND	240	
107-02-8	Acrolein	ND	400	ND	170	
67-64-1	Acetone	ND	2,000	ND	840	
75-69-4	Trichlorofluoromethane	ND	400	ND	71	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	400	ND	160	
107-13-1	Acrylonitrile	ND	400	ND	180	
75-35-4	1,1-Dichloroethene	ND	400	ND	100	
75-09-2	Methylene chloride	ND	400	ND	120	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	400	ND	130	
76-13-1	Trichlorotrifluoroethane	ND	400	ND	52	
75-15-0	Carbon Disulfide	ND	400	ND	130	
156-60-5	trans-1,2-Dichloroethene	ND	400	ND	100	
75-34-3	1,1-Dichloroethane	ND	400	ND	99	
1634-04-4	Methyl tert-Butyl Ether	ND	400	ND	110	
108-05-4	Vinyl Acetate	ND	400	ND	110	

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: Service Engineering Group
Client Sample ID: I30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603338
 CAS Sample ID: P2603338-001

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes:

Date Collected: 12/6/06
 Date Received: 12/7/06
 Date(s) Analyzed: 12/7/06
 Volume(s) Analyzed: 0.0025 Liter(s)
 0.00010 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	400	ND	140	
156-59-2	cis-1,2-Dichloroethene	ND	400	ND	100	
110-54-3	n-Hexane	480	400	140	110	
67-66-3	Chloroform	ND	400	ND	82	
107-06-2	1,2-Dichloroethane	ND	400	ND	99	
71-55-6	1,1,1-Trichloroethane	ND	400	ND	73	
71-43-2	Benzene	10,000	400	3,200	130	
56-23-5	Carbon Tetrachloride	ND	400	ND	64	
78-87-5	1,2-Dichloropropane	ND	400	ND	87	
75-27-4	Bromodichloromethane	ND	400	ND	60	
79-01-6	Trichloroethene	ND	400	ND	74	
123-91-1	1,4-Dioxane	ND	400	ND	110	
10061-01-5	cis-1,3-Dichloropropene	ND	400	ND	88	
108-10-1	4-Methyl-2-pentanone	ND	400	ND	98	
10061-02-6	trans-1,3-Dichloropropene	ND	400	ND	88	
79-00-5	1,1,2-Trichloroethane	ND	400	ND	73	
108-88-3	Toluene	19,000	400	5,100	110	
591-78-6	2-Hexanone	ND	400	ND	98	
124-48-1	Dibromochloromethane	ND	400	ND	47	
106-93-4	1,2-Dibromoethane	ND	400	ND	52	
123-86-4	n-Butyl Acetate	ND	400	ND	84	
127-18-4	Tetrachloroethene	ND	400	ND	59	

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: Service Engineering Group
Client Sample ID: I30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603338
 CAS Sample ID: P2603338-001

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes:

Date Collected: 12/6/06
 Date Received: 12/7/06
 Date(s) Analyzed: 12/7/06
 Volume(s) Analyzed: 0.0025 Liter(s)
 0.00010 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	160,000	400	36,000	87	
100-41-4	Ethylbenzene	5,200	400	1,200	92	
179601-23-1	<i>m,p</i> -Xylenes	95,000	400	22,000	92	
75-25-2	Bromoform	ND	400	ND	39	
100-42-5	Styrene	2,700	400	630	94	
95-47-6	<i>o</i> -Xylene	29,000	400	6,800	92	
111-84-2	<i>n</i> -Nonane	1,500	400	280	76	
79-34-5	1,1,2,2-Tetrachloroethane	ND	400	ND	58	
98-82-8	Cumene	4,700	400	960	81	
80-56-8	alpha-Pinene	ND	400	ND	72	
622-96-8	4-Ethyltoluene	3,400	400	690	81	
108-67-8	1,3,5-Trimethylbenzene	18,000	400	3,600	81	
95-63-6	1,2,4-Trimethylbenzene	21,000	400	4,300	81	
100-44-7	Benzyl Chloride	ND	400	ND	77	
541-73-1	1,3-Dichlorobenzene	1,400	400	230	67	
106-46-7	1,4-Dichlorobenzene	96,000	400	16,000	67	
95-50-1	1,2-Dichlorobenzene	180,000	400	29,000	67	
5989-27-5	<i>d</i> -Limonene	ND	400	ND	72	
96-12-8	1,2-Dibromo-3-chloropropane	ND	400	ND	41	
120-82-1	1,2,4-Trichlorobenzene	510	400	69	54	
91-20-3	Naphthalene	3,700	400	720	76	
87-68-3	Hexachlorobutadiene	ND	400	ND	38	

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: Service Engineering Group
Client Sample ID: I30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603338
 CAS Sample ID: P2603338-001

Tentatively Identified Compounds

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes: **T**

Date Collected: 12/6/06
 Date Received: 12/7/06
 Date Analyzed: 12/7/06
 Volume(s) Analyzed: 0.0025 Liter(s)
 0.00010 Liter(s)

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m ³	Data Qualifier
11.72	n-Heptane	3,000	
12.52	Methylcyclohexane	8,000	
18.18	3-Ethyltoluene	7,000	
18.76	C ₉ H ₁₀ Aromatic Compound	4,000	
19.14	sec-Butylbenzene	8,000	
19.34	p-Isopropyltoluene + 1,2,3-Trimethylbenzene	4,000	
19.58	C ₉ H ₁₀ + C ₁₀ H ₁₂ Aromatic Compound	4,000	
19.69	C ₉ H ₈ Aromatic Compound	20,000	
19.92	C ₁₀ H ₁₂ Aromatic Compound	3,000	
20.33	C ₁₁ H ₁₆ Aromatic Compound	2,000	
20.36	C ₁₁ H ₁₆ Aromatic Compound	3,000	
20.50	C ₁₁ H ₁₆ Aromatic Compound	5,000	
20.61	C ₁₁ H ₁₆ Aromatic Compound	2,000	
20.73	C ₁₁ H ₁₆ Aromatic Compound	2,000	
22.12	Cyclopentylbenzene	2,000	

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

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 4

Client: Service Engineering Group
Client Sample ID: J30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603338
 CAS Sample ID: P2603338-002

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes:

Date Collected: 12/6/06
 Date Received: 12/7/06
 Date(s) Analyzed: 12/7/06
 Volume(s) Analyzed: 0.0025 Liter(s)
 0.000050 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	400	ND	81	
74-87-3	Chloromethane	ND	400	ND	190	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	400	ND	57	
75-01-4	Vinyl Chloride	ND	400	ND	160	
106-99-0	1,3-Butadiene	ND	400	ND	180	
74-83-9	Bromomethane	ND	400	ND	100	
75-00-3	Chloroethane	ND	400	ND	150	
64-17-5	Ethanol	ND	2,000	ND	1,100	
75-05-8	Acetonitrile	ND	400	ND	240	
107-02-8	Acrolein	ND	400	ND	170	
67-64-1	Acetone	ND	2,000	ND	840	
75-69-4	Trichlorofluoromethane	ND	400	ND	71	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	400	ND	160	
107-13-1	Acrylonitrile	ND	400	ND	180	
75-35-4	1,1-Dichloroethene	ND	400	ND	100	
75-09-2	Methylene chloride	ND	400	ND	120	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	400	ND	130	
76-13-1	Trichlorotrifluoroethane	ND	400	ND	52	
75-15-0	Carbon Disulfide	ND	400	ND	130	
156-60-5	trans-1,2-Dichloroethene	ND	400	ND	100	
75-34-3	1,1-Dichloroethane	ND	400	ND	99	
1634-04-4	Methyl tert-Butyl Ether	ND	400	ND	110	
108-05-4	Vinyl Acetate	ND	400	ND	110	

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: Service Engineering Group
Client Sample ID: J30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603338
 CAS Sample ID: P2603338-002

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes:

Date Collected: 12/6/06
 Date Received: 12/7/06
 Date(s) Analyzed: 12/7/06
 Volume(s) Analyzed: 0.0025 Liter(s)
 0.000050 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	400	ND	140	
156-59-2	cis-1,2-Dichloroethene	ND	400	ND	100	
110-54-3	n-Hexane	2,300	400	660	110	
67-66-3	Chloroform	ND	400	ND	82	
107-06-2	1,2-Dichloroethane	ND	400	ND	99	
71-55-6	1,1,1-Trichloroethane	ND	400	ND	73	
71-43-2	Benzene	94,000	400	30,000	130	
56-23-5	Carbon Tetrachloride	ND	400	ND	64	
78-87-5	1,2-Dichloropropane	ND	400	ND	87	
75-27-4	Bromodichloromethane	ND	400	ND	60	
79-01-6	Trichloroethene	ND	400	ND	74	
123-91-1	1,4-Dioxane	ND	400	ND	110	
10061-01-5	cis-1,3-Dichloropropene	ND	400	ND	88	
108-10-1	4-Methyl-2-pentanone	ND	400	ND	98	
10061-02-6	trans-1,3-Dichloropropene	ND	400	ND	88	
79-00-5	1,1,2-Trichloroethane	ND	400	ND	73	
108-88-3	Toluene	23,000	400	6,100	110	
591-78-6	2-Hexanone	ND	400	ND	98	
124-48-1	Dibromochloromethane	ND	400	ND	47	
106-93-4	1,2-Dibromoethane	ND	400	ND	52	
123-86-4	n-Butyl Acetate	ND	400	ND	84	
127-18-4	Tetrachloroethene	ND	400	ND	59	

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: Service Engineering Group
Client Sample ID: J30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603338
 CAS Sample ID: P2603338-002

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes:

Date Collected: 12/6/06
 Date Received: 12/7/06
 Date(s) Analyzed: 12/7/06
 Volume(s) Analyzed: 0.0025 Liter(s)
 0.000050 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	290,000	400	63,000	87	
100-41-4	Ethylbenzene	11,000	400	2,500	92	
179601-23-1	<i>m,p</i> -Xylenes	98,000	400	23,000	92	
75-25-2	Bromoform	ND	400	ND	39	
100-42-5	Styrene	4,900	400	1,100	94	
95-47-6	<i>o</i> -Xylene	37,000	400	8,500	92	
111-84-2	<i>n</i> -Nonane	1,600	400	300	76	
79-34-5	1,1,2,2-Tetrachloroethane	ND	400	ND	58	
98-82-8	Cumene	4,900	400	990	81	
80-56-8	alpha-Pinene	ND	400	ND	72	
622-96-8	4-Ethyltoluene	2,200	400	440	81	
108-67-8	1,3,5-Trimethylbenzene	13,000	400	2,700	81	
95-63-6	1,2,4-Trimethylbenzene	16,000	400	3,200	81	
100-44-7	Benzyl Chloride	ND	400	ND	77	
541-73-1	1,3-Dichlorobenzene	600	400	100	67	
106-46-7	1,4-Dichlorobenzene	63,000	400	10,000	67	
95-50-1	1,2-Dichlorobenzene	33,000	400	5,400	67	
5989-27-5	<i>d</i> -Limonene	ND	400	ND	72	
96-12-8	1,2-Dibromo-3-chloropropane	ND	400	ND	41	
120-82-1	1,2,4-Trichlorobenzene	ND	400	ND	54	
91-20-3	Naphthalene	4,200	400	800	76	
87-68-3	Hexachlorobutadiene	ND	400	ND	38	

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: Service Engineering Group
Client Sample ID: J30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603338
 CAS Sample ID: P2603338-002

Tentatively Identified Compounds

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes: **T**

Date Collected: 12/6/06
 Date Received: 12/7/06
 Date Analyzed: 12/7/06
 Volume(s) Analyzed: 0.0025 Liter(s)
 0.000050 Liter(s)

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m ³	Data Qualifier
9.62	Methylcyclopentane	3,000	
10.66	Cyclohexane	4,000	
11.72	n-Heptane	5,000	
12.53	Methylcyclohexane	8,000	
18.18	3-Ethyltoluene	5,000	
18.76	C ₉ H ₁₀ Aromatic Compound	4,000	
19.14	sec-Butylbenzene	7,000	
19.33	p-Isopropyltoluene + 1,2,3-Trimethylbenzene	3,000	
19.58	C ₉ H ₁₀ + C ₁₀ H ₁₂ Aromatic Compound	5,000	
19.69	C ₉ H ₈ Aromatic Compound	10,000	
19.92	C ₁₀ H ₁₂ Aromatic Compound	3,000	
20.33	C ₁₁ H ₁₆ Aromatic Compound	2,000	
20.36	C ₁₁ H ₁₆ Aromatic Compound	3,000	
20.50	C ₁₁ H ₁₆ Aromatic Compound	4,000	
20.61	C ₁₁ H ₁₆ Aromatic Compound	2,000	

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

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 4

Client: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603338
 CAS Sample ID: P061207-MB

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date(s) Analyzed: 12/7/06
 Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	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: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603338
 CAS Sample ID: P061207-MB

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 12/7/06
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	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

Page 3 of 4

Client: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603338
 CAS Sample ID: P061207-MB

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date(s) Analyzed: 12/7/06
 Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	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: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603338
CAS Sample ID: P061207-MB

Tentatively Identified Compounds

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 12/7/06
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

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

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: Service Engineering Group
Client Sample ID: K1-CA
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603372
 CAS Sample ID: P2603372-001

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

Date Collected: 12/7/2006
 Date Received: 12/8/2006
 Date Analyzed: 12/11-12/06
 Desorption Volume: 1.0 ml
 Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
64-19-7	Acetic Acid	< 0.97	ND	14	ND	5.6	
79-09-4	Propionic Acid (Propanoic)	< 0.25	ND	3.5	ND	1.2	
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**.

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.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: Service Engineering Group
Client Sample ID: L1-CA
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603372
 CAS Sample ID: P2603372-002

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

Date Collected: 12/7/2006
Date Received: 12/8/2006
Date Analyzed: 12/11-12/06
Desorption Volume: 1.0 ml
Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
64-19-7	Acetic Acid	< 0.97	ND	14	ND	5.6	
79-09-4	Propionic Acid (Propanoic)	< 0.25	ND	3.5	ND	1.2	
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**.

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.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603372
 CAS Sample ID: P061211-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: 12/11/06
 Desorption Volume: 1.0 ml
 Volume Sampled: NA Liters

CAS #	Compound	Result µg/Tube	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
64-19-7	Acetic Acid	< 0.97	NA	NA	NA	NA	
79-09-4	Propionic Acid (Propanoic)	< 0.25	NA	NA	NA	NA	
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	

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.

NA = Not applicable

BC = Results reported are not blank corrected

DE = Results reported are corrected for desorption efficiency.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: K2-AM
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603372
 CAS Sample ID: P2603372-003

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

Date Collected: 12/7/2006
 Date Received: 12/8/2006
 Date Analyzed: 12/18/2006
 Desorption Volume: 2.0 ml
 Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
124-40-3	Dimethylamine	0.24	3.4	2.7	1.9	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.

NA = Not applicable

BC = Results reported are not blank corrected

DE = Results reported are corrected for desorption efficiency.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: L2-AM
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603372
 CAS Sample ID: P2603372-004

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

Date Collected: 12/7/2006
 Date Received: 12/8/2006
 Date Analyzed: 12/18/2006
 Desorption Volume: 2.0 ml
 Volume Sampled: 70.0 Liters

CAS #	Compound	Result µg/Tube	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
124-40-3	Dimethylamine	0.39	5.6	2.7	3.1	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.

NA = Not applicable

BC = Results reported are not blank corrected

DE = Results reported are corrected for desorption efficiency.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603372
 CAS Sample ID: P061218-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: 12/18/06
 Desorption Volume: 2.0 ml
 Volume Sampled: NA Liters

CAS #	Compound	Result µg/Tube	Result µg/m ³	MRL µg/m ³	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	

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.

NA = Not applicable

BC = Results reported are not blank corrected

DE = Results reported are corrected for desorption efficiency.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: K3-FA
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603372
 CAS Sample ID: P2603372-005

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: 12/7/2006
 Date Received: 12/8/2006
 Date Analyzed: 12/12-13/06
 Desorption Volume: 1.0 ml
 Volume Sampled: 70.0 Liters

CAS #	Compound	Result	Result	MRL	Result	MRL	Data Qualifier
		ng/Sample	µg/m ³	µg/m ³	ppbV	ppbV	
50-00-0	Formaldehyde	120	1.7	1.4	1.4	1.2	
75-07-0	Acetaldehyde	400	5.7	1.4	3.2	0.79	
123-38-6	Propionaldehyde	110	1.5	1.4	0.64	0.60	
4170-30-3	Crotonaldehyde, Total	< 100	ND	1.4	ND	0.50	
123-72-8	Butyraldehyde	290	4.1	1.4	1.4	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	520	7.4	1.4	1.4	0.26	BH

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.

NA = Not applicable

BC = Results reported are not blank corrected

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

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: L3-FA
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603372
 CAS Sample ID: P2603372-006

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: 12/7/2006
 Date Received: 12/8/2006
 Date Analyzed: 12/12-13/06
 Desorption Volume: 1.0 ml
 Volume Sampled: 70.0 Liters

CAS #	Compound	Result ng/Sample	Result µg/m ³	MRL µg/m ³	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	390	5.6	1.4	1.0	0.26	BH

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.

NA = Not applicable

BC = Results reported are not blank corrected

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

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: Reagent Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603372
 CAS Sample ID: P061212-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: 12/12/06
 Desorption Volume: 1.0 ml
 Volume Sampled: NA Liters

CAS #	Compound	Result ng/Sample	Result µg/m ³	MRL µg/m ³	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	

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.

NA = Not applicable

BC = Results reported are not blank corrected

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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Client: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603372
 CAS Sample ID: P061212-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: 12/12/06
 Desorption Volume: 1.0 ml
 Volume Sampled: NA Liters

CAS #	Compound	Result ng/Sample	Result µg/m ³	MRL µg/m ³	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	

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.

NA = Not applicable

BC = Results reported are not blank corrected

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

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Client: Service Engineering Group
Client Sample ID: K30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603361
 CAS Sample ID: P2603361-001

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

Date Collected: 12/7/2006
 Time Collected: 10:50
 Date Received: 12/8/2006
 Date Analyzed: 12/8/06
 Time Analyzed: 11:17
 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	250	12	100	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	6.6	13	2.6	5.0	J
75-15-0	Carbon Disulfide	200	7.8	64	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	39	17	11	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.

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

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Client: Service Engineering Group
Client Sample ID: L30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603361
 CAS Sample ID: P2603361-002

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

Date Collected: 12/7/2006
 Time Collected: 10:55
 Date Received: 12/8/2006
 Date Analyzed: 12/8/06
 Time Analyzed: 10:52
 Volume(s) Analyzed: 1.0 ml(s)

D.F.= 1.00

CAS #	Compound	Result	MRL	Result	MRL	Data Qualifier
		µg/m ³	µg/m ³	ppbV	ppbV	
7783-06-4	Hydrogen Sulfide	3.4	7.0	2.5	5.0	J
463-58-1	Carbonyl Sulfide	110	12	44	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	97	7.8	31	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.

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: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603361
 CAS Sample ID: P061208-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: 12/08/06
 Time Analyzed: 09:29
 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: Service Engineering Group
Client Sample ID: K30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603361
 CAS Sample ID: P2603361-001

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes:

Date Collected: 12/7/06
 Date Received: 12/8/06
 Date(s) Analyzed: 12/8/06
 Volume(s) Analyzed: 0.015 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	67	ND	13	
74-87-3	Chloromethane	ND	67	ND	32	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	67	ND	9.5	
75-01-4	Vinyl Chloride	ND	67	ND	26	
106-99-0	1,3-Butadiene	ND	67	ND	30	
74-83-9	Bromomethane	ND	67	ND	17	
75-00-3	Chloroethane	ND	67	ND	25	
64-17-5	Ethanol	ND	330	ND	180	
75-05-8	Acetonitrile	ND	67	ND	40	
107-02-8	Acrolein	ND	67	ND	29	
67-64-1	Acetone	ND	330	ND	140	
75-69-4	Trichlorofluoromethane	ND	67	ND	12	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	67	ND	27	
107-13-1	Acrylonitrile	ND	67	ND	31	
75-35-4	1,1-Dichloroethene	ND	67	ND	17	
75-09-2	Methylene chloride	ND	67	ND	19	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	67	ND	21	
76-13-1	Trichlorotrifluoroethane	ND	67	ND	8.7	
75-15-0	Carbon Disulfide	120	67	37	21	
156-60-5	trans-1,2-Dichloroethene	ND	67	ND	17	
75-34-3	1,1-Dichloroethane	ND	67	ND	16	
1634-04-4	Methyl tert-Butyl Ether	ND	67	ND	18	
108-05-4	Vinyl Acetate	ND	67	ND	19	

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: Service Engineering Group
Client Sample ID: K30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603361
 CAS Sample ID: P2603361-001

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes:

Date Collected: 12/7/06
 Date Received: 12/8/06
 Date(s) Analyzed: 12/8/06
 Volume(s) Analyzed: 0.015 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	100	67	34	23	
156-59-2	cis-1,2-Dichloroethene	ND	67	ND	17	
110-54-3	n-Hexane	ND	67	ND	19	
67-66-3	Chloroform	ND	67	ND	14	
107-06-2	1,2-Dichloroethane	ND	67	ND	16	
71-55-6	1,1,1-Trichloroethane	ND	67	ND	12	
71-43-2	Benzene	500	67	160	21	
56-23-5	Carbon Tetrachloride	ND	67	ND	11	
78-87-5	1,2-Dichloropropane	ND	67	ND	14	
75-27-4	Bromodichloromethane	ND	67	ND	10	
79-01-6	Trichloroethene	ND	67	ND	12	
123-91-1	1,4-Dioxane	ND	67	ND	19	
10061-01-5	cis-1,3-Dichloropropene	ND	67	ND	15	
108-10-1	4-Methyl-2-pentanone	ND	67	ND	16	
10061-02-6	trans-1,3-Dichloropropene	ND	67	ND	15	
79-00-5	1,1,2-Trichloroethane	ND	67	ND	12	
108-88-3	Toluene	80	67	21	18	
591-78-6	2-Hexanone	ND	67	ND	16	
124-48-1	Dibromochloromethane	ND	67	ND	7.8	
106-93-4	1,2-Dibromoethane	ND	67	ND	8.7	
123-86-4	n-Butyl Acetate	ND	67	ND	14	
127-18-4	Tetrachloroethene	ND	67	ND	9.8	

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: Service Engineering Group
Client Sample ID: K30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603361
 CAS Sample ID: P2603361-001

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes:

Date Collected: 12/7/06
 Date Received: 12/8/06
 Date(s) Analyzed: 12/8/06
 Volume(s) Analyzed: 0.015 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	1,600	67	350	14	
100-41-4	Ethylbenzene	ND	67	ND	15	
179601-23-1	<i>m,p</i> -Xylenes	410	67	95	15	
75-25-2	Bromoform	ND	67	ND	6.5	
100-42-5	Styrene	ND	67	ND	16	
95-47-6	<i>o</i> -Xylene	330	67	76	15	
111-84-2	<i>n</i> -Nonane	ND	67	ND	13	
79-34-5	1,1,2,2-Tetrachloroethane	ND	67	ND	9.7	
98-82-8	Cumene	260	67	52	14	
80-56-8	alpha-Pinene	ND	67	ND	12	
622-96-8	4-Ethyltoluene	180	67	36	14	
108-67-8	1,3,5-Trimethylbenzene	500	67	100	14	
95-63-6	1,2,4-Trimethylbenzene	550	67	110	14	
100-44-7	Benzyl Chloride	ND	67	ND	13	
541-73-1	1,3-Dichlorobenzene	ND	67	ND	11	
106-46-7	1,4-Dichlorobenzene	280	67	46	11	
95-50-1	1,2-Dichlorobenzene	95	67	16	11	
5989-27-5	<i>d</i> -Limonene	ND	67	ND	12	
96-12-8	1,2-Dibromo-3-chloropropane	ND	67	ND	6.9	
120-82-1	1,2,4-Trichlorobenzene	ND	67	ND	9.0	
91-20-3	Naphthalene	ND	67	ND	13	
87-68-3	Hexachlorobutadiene	ND	67	ND	6.3	

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.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 4 of 4

Client: Service Engineering Group
Client Sample ID: K30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603361
 CAS Sample ID: P2603361-001

Tentatively Identified Compounds

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes: T

Date Collected: 12/7/06
 Date Received: 12/8/06
 Date Analyzed: 12/8/06
 Volume(s) Analyzed: 0.015 Liter(s)

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m ³	Data Qualifier
17.75	C ₁₀ H ₂₂ Branched Alkane	1,000	
17.82	C ₉ H ₁₈ Compound	2,000	
17.94	C ₁₀ H ₂₂ Branched Alkane	900	
18.17	C ₁₀ H ₂₂ Branched Alkane + 3-Ethyltoluene	1,000	
18.26	C ₁₀ H ₂₂ Branched Alkane	1,000	
18.47	C ₁₀ H ₂₀ Compound	1,000	
19.32	C ₁₁ H ₂₄ Branched Alkane + p-Isopropyltoluene + 1,2,3-Trimethylbenzene	2,000	
19.63	C ₁₀ H ₂₀ Compound	1,000	
20.16	C ₁₀ H ₁₈ Compound + C ₁₀ H ₁₄ Aromatic Compound	1,000	
20.36	C ₁₁ H ₁₆ Aromatic Compound	1,000	
20.46	C ₁₁ H ₁₆ Aromatic Compound	700	
20.50	C ₁₁ H ₁₆ Aromatic Compound	1,000	
20.60	C ₁₁ H ₁₆ Aromatic Compound	700	
21.44	C ₁₂ H ₁₈ Aromatic Compound	700	
21.71	C ₁₂ H ₁₈ Aromatic Compound	1,000	

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

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 4

Client: Service Engineering Group
Client Sample ID: L30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603361
 CAS Sample ID: P2603361-002

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes:

Date Collected: 12/7/06
 Date Received: 12/8/06
 Date(s) Analyzed: 12/8/06
 Volume(s) Analyzed: 0.030 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	33	ND	6.7	
74-87-3	Chloromethane	ND	33	ND	16	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	33	ND	4.8	
75-01-4	Vinyl Chloride	ND	33	ND	13	
106-99-0	1,3-Butadiene	ND	33	ND	15	
74-83-9	Bromomethane	ND	33	ND	8.6	
75-00-3	Chloroethane	ND	33	ND	13	
64-17-5	Ethanol	ND	170	ND	88	
75-05-8	Acetonitrile	ND	33	ND	20	
107-02-8	Acrolein	ND	33	ND	15	
67-64-1	Acetone	ND	170	ND	70	
75-69-4	Trichlorofluoromethane	ND	33	ND	5.9	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	33	ND	14	
107-13-1	Acrylonitrile	ND	33	ND	15	
75-35-4	1,1-Dichloroethene	ND	33	ND	8.4	
75-09-2	Methylene chloride	ND	33	ND	9.6	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	33	ND	11	
76-13-1	Trichlorotrifluoroethane	ND	33	ND	4.4	
75-15-0	Carbon Disulfide	56	33	18	11	
156-60-5	trans-1,2-Dichloroethene	ND	33	ND	8.4	
75-34-3	1,1-Dichloroethane	ND	33	ND	8.2	
1634-04-4	Methyl tert-Butyl Ether	ND	33	ND	9.2	
108-05-4	Vinyl Acetate	ND	33	ND	9.5	

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: Service Engineering Group
Client Sample ID: L30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603361
 CAS Sample ID: P2603361-002

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: 12/7/06
Date Received: 12/8/06
Date(s) Analyzed: 12/8/06
Volume(s) Analyzed: 0.030 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
78-93-3	2-Butanone (MEK)	ND	33	ND	11	
156-59-2	cis-1,2-Dichloroethene	ND	33	ND	8.4	
110-54-3	n-Hexane	ND	33	ND	9.5	
67-66-3	Chloroform	ND	33	ND	6.8	
107-06-2	1,2-Dichloroethane	ND	33	ND	8.2	
71-55-6	1,1,1-Trichloroethane	ND	33	ND	6.1	
71-43-2	Benzene	59	33	19	10	
56-23-5	Carbon Tetrachloride	ND	33	ND	5.3	
78-87-5	1,2-Dichloropropane	ND	33	ND	7.2	
75-27-4	Bromodichloromethane	ND	33	ND	5.0	
79-01-6	Trichloroethene	ND	33	ND	6.2	
123-91-1	1,4-Dioxane	ND	33	ND	9.3	
10061-01-5	cis-1,3-Dichloropropene	ND	33	ND	7.3	
108-10-1	4-Methyl-2-pentanone	ND	33	ND	8.1	
10061-02-6	trans-1,3-Dichloropropene	ND	33	ND	7.3	
79-00-5	1,1,2-Trichloroethane	ND	33	ND	6.1	
108-88-3	Toluene	170	33	46	8.8	
591-78-6	2-Hexanone	ND	33	ND	8.1	
124-48-1	Dibromochloromethane	ND	33	ND	3.9	
106-93-4	1,2-Dibromoethane	ND	33	ND	4.3	
123-86-4	n-Butyl Acetate	ND	33	ND	7.0	
127-18-4	Tetrachloroethene	ND	33	ND	4.9	

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: Service Engineering Group
Client Sample ID: L30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603361
 CAS Sample ID: P2603361-002

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes:

Date Collected: 12/7/06
 Date Received: 12/8/06
 Date(s) Analyzed: 12/8/06
 Volume(s) Analyzed: 0.030 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
108-90-7	Chlorobenzene	150	33	32	7.2	
100-41-4	Ethylbenzene	87	33	20	7.7	
179601-23-1	<i>m,p</i> -Xylenes	820	33	190	7.7	
75-25-2	Bromoform	ND	33	ND	3.2	
100-42-5	Styrene	ND	33	ND	7.8	
95-47-6	<i>o</i> -Xylene	420	33	98	7.7	
111-84-2	<i>n</i> -Nonane	ND	33	ND	6.4	
79-34-5	1,1,2,2-Tetrachloroethane	ND	33	ND	4.9	
98-82-8	Cumene	110	33	22	6.8	
80-56-8	alpha-Pinene	ND	33	ND	6.0	
622-96-8	4-Ethyltoluene	83	33	17	6.8	
108-67-8	1,3,5-Trimethylbenzene	420	33	85	6.8	
95-63-6	1,2,4-Trimethylbenzene	350	33	71	6.8	
100-44-7	Benzyl Chloride	ND	33	ND	6.4	
541-73-1	1,3-Dichlorobenzene	ND	33	ND	5.5	
106-46-7	1,4-Dichlorobenzene	96	33	16	5.5	
95-50-1	1,2-Dichlorobenzene	76	33	13	5.5	
5989-27-5	<i>d</i> -Limonene	ND	33	ND	6.0	
96-12-8	1,2-Dibromo-3-chloropropane	ND	33	ND	3.4	
120-82-1	1,2,4-Trichlorobenzene	ND	33	ND	4.5	
91-20-3	Naphthalene	ND	33	ND	6.4	
87-68-3	Hexachlorobutadiene	ND	33	ND	3.1	

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: Service Engineering Group
Client Sample ID: L30
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603361
 CAS Sample ID: P2603361-002

Tentatively Identified Compounds

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes: T

Date Collected: 12/7/06
 Date Received: 12/8/06
 Date Analyzed: 12/8/06
 Volume(s) Analyzed: 0.030 Liter(s)

D.F. = 1.00

GC / MS Ret. Time	Compound Identification	Concentration µg/m ³	Data Qualifier
18.18	3-Ethyltoluene	200	
19.14	sec-Butylbenzene	300	
19.33	C ₁₁ H ₂₄ Branched Alkane + p-Isopropyltoluene + 1,2,3-Trimethylbenzene	300	
19.56	C ₉ H ₂₀ Compound + C ₁₀ H ₁₄ Aromatic Compound	200	
19.80	C ₁₀ H ₁₄ Aromatic Compound	90	
19.92	C ₁₀ H ₁₄ Aromatic Compound	100	
20.36	C ₁₁ H ₁₆ Aromatic Compound	300	
20.46	C ₁₁ H ₁₆ Aromatic Compound	80	
20.50	C ₁₁ H ₁₆ Aromatic Compound	300	
20.61	C ₁₁ H ₁₆ Aromatic Compound	200	
20.73	C ₁₁ H ₁₄ Aromatic Compound	200	
21.34	C ₁₂ H ₁₈ Aromatic Compound	80	
21.44	C ₁₂ H ₁₈ Aromatic Compound	80	
21.68	C ₁₁ H ₁₆ Aromatic Compound	200	
22.13	C ₁₁ H ₁₄ Aromatic Compound	200	

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

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 4

Client: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603361
 CAS Sample ID: P061208-MB

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date(s) Analyzed: 12/8/06
 Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	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

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Client: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603361
 CAS Sample ID: P061208-MB

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 12/8/06
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	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

Page 3 of 4

Client: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603361
 CAS Sample ID: P061208-MB

Test Code: EPA TO-15 Modified
 Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
 Analyst: Rusty Bravo
 Sampling Media: Tedlar Bag
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date(s) Analyzed: 12/8/06
 Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	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: Service Engineering Group
Client Sample ID: Method Blank
Client Project ID: Dredge Sediment Headspace/06332

CAS Project ID: P2603361
CAS Sample ID: P061208-MB

Tentatively Identified Compounds

Test Code: EPA TO-15 Modified
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3
Analyst: Rusty Bravo
Sampling Media: Tedlar Bag
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 12/8/06
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

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