HARBOR HISTORY MUSEUM

October 28, 2015

Mr. Panjini Balaraju
Toxics Cleanup Program
Southwest Regional Office
Department of Ecology

Dear Mr. Balaraju,

My name is Mirna Fritz and I am the Office Manager at Harbor History Museum. As you are aware, the Harbor History Museum have a desire to obtain a No Further Action (NFA) letter from the Department of Ecology in regards to the property located at 4121 Harborview Dr Gig Harbor, WA 98335. Our objective under the Voluntary Cleanup Program (VCP) is to obtain groundwater monitoring data for four consecutive quarters showing no detectable amounts of chemicals of concern. Listed below are the laboratory results from the latest sampling and analysis.

2015 QTR 3 Data analysis- Resample

Two groundwater monitoring wells (MW-05 and MW-07) were sampled on 9/08/2015 using the proper low flow sampling techniques with the samples being sent to Spectra Laboratories in Tacoma Washington for Volatile Organic Analysis (VOA). The results from reported for these samples showed **non-detects for all chemicals of concern** from well MW7 and vinyl chloride results of 0.22 ppb from well MW5.

Included in this letter are:

- Copy of the raw laboratory data and associated QA/QC.
- The field data showing the typical field reporting results.
- Copy of the chain of custody.

Field Data

Well number	MW-5	MW-7
Date	9/08/2015	9/08/2015
Time	1115 hrs	1200 hrs
Depth to top of water	4'7"	6'4"
Depth to bottom of well	15'5"	15'4"
Water depth	11'1"	9'6"
Purge volume	5 gallons	5 gallons
Beginning Conductivity	150	340
Beginning pH	6.9	6.8
Ending Conductivity	150	340
Ending pH	6.9	6.8

Mirna Fritz
Harbor History Museum
Email: mirnaf@harborhistorymuseum.org

SPECTRA Laboratories

2221 Ross Way • Tacoma, WA 98421 • (253) 272-4850 • Fax (253) 572-9838 • www.spectra-lab.com

October 8, 2015

Harbor History Museum
4121 Harborview Drive
Gig Harbor, WA 98335
Attn: Rick Fuller

Case Narrative
Client Project: Q-3
Spectra Project: 2015090201

Three water samples--two from monitoring wells and an accompanying trip blank-- were received at the laboratory on September 08, 2015 for Volatile Organic Compounds (VOC's) analysis by EPA method SW 846-8260. The sample assigned spectra lab #1 was identified on the chain of custody as MW-5. Spectra lab #2 had a client ID of MW-7. Spectra sample #3 was the trip blank.

With the exception of vinyl chloride, the VOC quantitation was performed using a traditional 5ml sparge. As site history indicates a potential presence of vinyl chloride, an additional analysis was performed specifically for vinyl chloride employing a 25ml sparge. The purge of a 25ml sample aliquot provides a quantitation limit of 0.2 ug/L, which is the published MTCA level for vinyl chloride in groundwater.

The samples MW-7 and the Trip Blank were each found to be non-detect for Vinyl Chloride. However, the sample MW-5 (Spectra sample #1) showed a small but measurable amount of vinyl chloride at 0.50 ug/L. In the sample sequence, this sample ran between the method blank and sample #2, both of which were found to be non-detect. Although below the reporting limit of 1.0 ug/L when run using the traditional 5ml sparge, the vinyl chloride was detectable in the 5ml sparge at an estimated concentration of 0.54 ug/L, providing confirmation of the reported result from the 25ml sparge.

As a donation to the Harbor History Museum, Spectra Laboratories will continue to offer the future VOC testing of these quarterly samples at no charge.

Please feel free to call with any questions regarding these samples.

Sincerely

Steven G. Hibbs
Laboratory Manager

SPECTRA Laboratories

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10/08/2015

P.O.#: *

Client ID: MW-5
Sample Matrix: Water
Date Sampled: 09/08/2015
Date Received: 09/08/2015
Spectra Project: 2015090201
Spectra Number: 1
Rush

Harbor History Museum
4121 Harborview Dr.
Gig Harbor, WA 98332

Analyte	Result	Units	Method	Analyte	Result	Units	Method
1,1,1,2-Tetrachloroethane	<1.0	µg/L	SW846 8260C	2-Butanone (MEK)	<10	µg/L	SW846 8260C
1,1,1-Trichloroethane	<1.0	µg/L	SW846 8260C	2-Chloroethylvinyl Ether	<10	µg/L	SW846 8260C
1,1,2,2-Tetrachloroethane	<1.0	µg/L	SW846 8260C	2-Chlorotoluene	<1.0	µg/L	SW846 8260C
1,1,2-Trichloroethane	<1.0	µg/L	SW846 8260C	2-Hexanone (MBK)	<10	µg/L	SW846 8260C
1,1-Dichloroethane	<1.0	µg/L	SW846 8260C	4-Chlorotoluene	<1.0	µg/L	SW846 8260C
1,1-Dichloroethene	<1.0	µg/L	SW846 8260C	4-Isopropyltoluene	<1.0	µg/L	SW846 8260C
1,1-Dichloropropene	<1.0	µg/L	SW846 8260C	4-methyl-2-pentanone	<10	µg/L	SW846 8260C
1,2,3-Trichlorobenzene	<1.0	µg/L	SW846 8260C	Acetone	<10	µg/L	SW846 8260C
1,2,3-Trichloropropane	<1.0	µg/L	SW846 8260C	Acetonitrile	<10	µg/L	SW846 8260C
1,2,4-Trichlorobenzene	<1.0	µg/L	SW846 8260C	Acrolein	<10	µg/L	SW846 8260C
1,2,4-Trimethylbenzene	<1.0	µg/L	SW846 8260C	Acrylonitrile	<10	µg/L	SW846 8260C
1,2-Dibromo3Chloropropane	<10	µg/L	SW846 8260C	Benzene	<1.0	µg/L	SW846 8260C
1,2-Dibromoethane (EDB)	<1.0	µg/L	SW846 8260C	Bromobenzene	<1.0	µg/L	SW846 8260C
1,2-Dichlorobenzene	<1.0	µg/L	SW846 8260C	Bromochloromethane	<1.0	µg/L	SW846 8260C
1,2-Dichloroethane	<1.0	µg/L	SW846 8260C	Bromodichloromethane	<1.0	µg/L	SW846 8260C
1,2-Dichloropropane	<1.0	µg/L	SW846 8260C	Bromoform	<1.0	µg/L	SW846 8260C
1,3,5-Trimethylbenzene	<1.0	µg/L	SW846 8260C	Bromomethane	<1.0	µg/L	SW846 8260C
1,3-Dichlorobenzene	<1.0	µg/L	SW846 8260C	Carbon Disulfide	<10	µg/L	SW846 8260C
1,3-Dichloropropane	<1.0	µg/L	SW846 8260C	Carbon Tetrachloride	<1.0	µg/L	SW846 8260C
1,4-Dichlorobenzene	<1.0	µg/L	SW846 8260C	Chlorobenzene	<1.0	µg/L	SW846 8260C
2,2-Dichloropropane	<1.0	µg/L	SW846 8260C	Chlorodibromomethane	<1.0	µg/L	SW846 8260C

Vinyl Chloride analysis performed using a 25ml sparge in order to achieve a quantitation limit of 0.20 ug/L.

Surrogate	Recovery	Method
Dibromofluoromethane	134	SW846 8260C
1,2-Dichloroethane-d4	86	SW846 8260C
Toluene-d8	78	SW846 8260C
4-Bromofluorobenzene	99	SW846 8260C

SPECTRA LABORATORIES

Steve Hibbs, Laboratory Manager
a14/sgh

SPECTRA Laboratories

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10/08/2015

P.O.#: *

Client ID: MW-5
Sample Matrix: Water
Date Sampled: 09/08/2015
Date Received: 09/08/2015
Spectra Project: 2015090201
Spectra Number: 1
Rush

Harbor History Museum
4121 Harborview Dr.
Gig Harbor, WA 98332

Analyte	Result	Units	Method	Analyte	Result	Units	Method
Chloroethane	<1.0	µg/L	SW846 8260C	cis-1,3-Dichloropropene	<1.0	µg/L	SW846 8260C
Chloroform	<1.0	µg/L	SW846 8260C	n-Butylbenzene	<1.0	µg/L	SW846 8260C
Chloromethane	<1.0	µg/L	SW846 8260C	n-Propylbenzene	<1.0	µg/L	SW846 8260C
Dibromomethane	<1.0	µg/L	SW846 8260C	sec-Butylbenzene	<1.0	µg/L	SW846 8260C
Dichlorodifluoromethane	<1.0	µg/L	SW846 8260C	tert-Butylbenzene	<1.0	µg/L	SW846 8260C
Ethylbenzene	<1.0	µg/L	SW846 8260C	trans-1,2-Dichloroethene	<1.0	µg/L	SW846 8260C
Hexachlorobutadiene	<1.0	µg/L	SW846 8260C	trans-1,3-Dichloropropene	<1.0	µg/L	SW846 8260C
Iodomethane	<10	µg/L	SW846 8260C				
Isopropylbenzene	<1.0	µg/L	SW846 8260C				
Methyl-tert-Butyl Ether	<1.0	µg/L	SW846 8260C				
Methylene chloride	<1.0	µg/L	SW846 8260C				
Naphthalene	<1.0	µg/L	SW846 8260C				
Styrene	<1.0	µg/L	SW846 8260C				
Tetrachloroethene	<1.0	µg/L	SW846 8260C				
Toluene	<1.0	µg/L	SW846 8260C				
Total Xylenes	<2.0	µg/L	SW846 8260C				
Trichloroethene	<1.0	µg/L	SW846 8260C				
Trichlorofluoromethane	<1.0	µg/L	SW846 8260C				
Vinyl Acetate	<10	µg/L	SW846 8260C				
Vinyl chloride	0.50	µg/L	SW846 8260C				
cis-1,2-Dichloroethene	<1.0	µg/L	SW846 8260C				

Vinyl Chloride analysis performed using a 25ml sparge in order to achieve a quantitation limit of 0.20 ug/L.

Surrogate	Recovery	Method
Dibromofluoromethane	134	SW846 8260C
1,2-Dichloroethane-d4	86	SW846 8260C
Toluene-d8	78	SW846 8260C
4-Bromofluorobenzene	99	SW846 8260C

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Steve Hibbs, Laboratory Manager
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10/08/2015

P.O.#: *

Harbor History Museum
4121 Harborview Dr.
Gig Harbor, WA 98332

Client ID: MW-7
Sample Matrix: Water
Date Sampled: 09/08/2015
Date Received: 09/08/2015
Spectra Project: 2015090201
Spectra Number:2
Rush

Analyte	Result	Units	Method	Analyte	Result	Units	Method
1,1,1,2-Tetrachloroethane	<1.0	µg/L	SW846 8260C	2-Butanone (MEK)	<10	µg/L	SW846 8260C
1,1,1-Trichloroethane	<1.0	µg/L	SW846 8260C	2-Chloroethylvinyl Ether	<10	µg/L	SW846 8260C
1,1,2,2-Tetrachloroethane	<1.0	µg/L	SW846 8260C	2-Chlorotoluene	<1.0	µg/L	SW846 8260C
1,1,2-Trichloroethane	<1.0	µg/L	SW846 8260C	2-Hexanone (MBK)	<10	µg/L	SW846 8260C
1,1-Dichloroethane	<1.0	µg/L	SW846 8260C	4-Chlorotoluene	<1.0	µg/L	SW846 8260C
1,1-Dichloroethene	<1.0	µg/L	SW846 8260C	4-Isopropyltoluene	<1.0	µg/L	SW846 8260C
1,1-Dichloropropene	<1.0	µg/L	SW846 8260C	4-methyl-2-pentanone	<10	µg/L	SW846 8260C
1,2,3-Trichlorobenzene	<1.0	µg/L	SW846 8260C	Acetone	<10	µg/L	SW846 8260C
1,2,3-Trichloropropane	<1.0	µg/L	SW846 8260C	Acetonitrile	<10	µg/L	SW846 8260C
1,2,4-Trichlorobenzene	<1.0	µg/L	SW846 8260C	Acrolein	<10	µg/L	SW846 8260C
1,2,4-Trimethylbenzene	<1.0	µg/L	SW846 8260C	Acrylonitrile	<10	µg/L	SW846 8260C
1,2-Dibromo3Chloropropane	<10	µg/L	SW846 8260C	Benzene	<1.0	µg/L	SW846 8260C
1,2-Dibromoethane (EDB)	<1.0	µg/L	SW846 8260C	Bromobenzene	<1.0	µg/L	SW846 8260C
1,2-Dichlorobenzene	<1.0	µg/L	SW846 8260C	Bromochloromethane	<1.0	µg/L	SW846 8260C
1,2-Dichloroethane	<1.0	µg/L	SW846 8260C	Bromodichloromethane	<1.0	µg/L	SW846 8260C
1,2-Dichloropropane	<1.0	µg/L	SW846 8260C	Bromoform	<1.0	µg/L	SW846 8260C
1,3,5-Trimethylbenzene	<1.0	µg/L	SW846 8260C	Bromomethane	<1.0	µg/L	SW846 8260C
1,3-Dichlorobenzene	<1.0	µg/L	SW846 8260C	Carbon Disulfide	<10	µg/L	SW846 8260C
1,3-Dichloropropane	<1.0	µg/L	SW846 8260C	Carbon Tetrachloride	<1.0	µg/L	SW846 8260C
1,4-Dichlorobenzene	<1.0	µg/L	SW846 8260C	Chlorobenzene	<1.0	µg/L	SW846 8260C
2,2-Dichloropropane	<1.0	µg/L	SW846 8260C	Chlorodibromomethane	<1.0	µg/L	SW846 8260C

Vinyl Chloride analysis performed using a 25ml sparge in order to achieve a quantitation limit of 0.20 ug/L.

Surrogate	Recovery	Method
1,2-Dichloroethane-d4	96	SW846 8260C
4-Bromofluorobenzene	91	SW846 8260C
Dibromofluoromethane	138	SW846 8260C
Toluene-d8	79	SW846 8260C

SPECTRA LABORATORIES

Steve Hibbs, Laboratory Manager
al4/sgh

SPECTRA Laboratories

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10/08/2015

P.O.#: *

Client ID: MW-7
Sample Matrix: Water
Date Sampled: 09/08/2015
Date Received: 09/08/2015
Spectra Project: 2015090201
Spectra Number: 2
Rush

Harbor History Museum
4121 Harborview Dr.
Gig Harbor, WA 98332

Analyte	Result	Units	Method	Analyte	Result	Units	Method
Chloroethane	<1.0	µg/L	SW846 8260C	cis-1,3-Dichloropropene	<1.0	µg/L	SW846 8260C
Chloroform	<1.0	µg/L	SW846 8260C	n-Butylbenzene	<1.0	µg/L	SW846 8260C
Chloromethane	<1.0	µg/L	SW846 8260C	n-Propylbenzene	<1.0	µg/L	SW846 8260C
Dibromomethane	<1.0	µg/L	SW846 8260C	sec-Butylbenzene	<1.0	µg/L	SW846 8260C
Dichlorodifluoromethane	<1.0	µg/L	SW846 8260C	tert-Butylbenzene	<1.0	µg/L	SW846 8260C
Ethylbenzene	<1.0	µg/L	SW846 8260C	trans-1,2-Dichloroethene	<1.0	µg/L	SW846 8260C
Hexachlorobutadiene	<1.0	µg/L	SW846 8260C	trans-1,3-Dichloropropene	<1.0	µg/L	SW846 8260C
Iodomethane	<10	µg/L	SW846 8260C				
Isopropylbenzene	<1.0	µg/L	SW846 8260C				
Methyl-tert-Butyl Ether	<1.0	µg/L	SW846 8260C				
Methylene chloride	<1.0	µg/L	SW846 8260C				
Naphthalene	<1.0	µg/L	SW846 8260C				
Styrene	<1.0	µg/L	SW846 8260C				
Tetrachloroethene	<1.0	µg/L	SW846 8260C				
Toluene	<1.0	µg/L	SW846 8260C				
Total Xylenes	<2.0	µg/L	SW846 8260C				
Trichloroethene	<1.0	µg/L	SW846 8260C				
Trichlorofluoromethane	<1.0	µg/L	SW846 8260C				
Vinyl Acetate	<10	µg/L	SW846 8260C				
Vinyl chloride	<0.20	µg/L	SW846 8260C				
cis-1,2-Dichloroethene	<1.0	µg/L	SW846 8260C				

Vinyl Chloride analysis performed using a 25ml sparge in order to achieve a quantitation limit of 0.20 ug/L.

Surrogate	Recovery	Method
1,2-Dichloroethane-d4	96	SW846 8260C
4-Bromofluorobenzene	91	SW846 8260C
Dibromofluoromethane	138	SW846 8260C
Toluene-d8	79	SW846 8260C

SPECTRA LABORATORIES

Steve Hibbs, Laboratory Manager
a14/sgh

SPECTRA Laboratories

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10/08/2015

P.O.#: *

Client ID: Trip Blank
Sample Matrix: Water
Date Sampled: 09/08/2015
Date Received: 09/08/2015
Spectra Project: 2015090201
Spectra Number: 3
Rush

Harbor History Museum
4121 Harborview Dr.
Gig Harbor, WA 98332

Analyte	Result	Units	Method	Analyte	Result	Units	Method
1,1,1,2-Tetrachloroethane	<1.0	µg/L	SW846 8260C	2-Butanone (MEK)	<10	µg/L	SW846 8260C
1,1,1-Trichloroethane	<1.0	µg/L	SW846 8260C	2-Chloroethylvinyl Ether	<10	µg/L	SW846 8260C
1,1,2,2-Tetrachloroethane	<1.0	µg/L	SW846 8260C	2-Chlorotoluene	<1.0	µg/L	SW846 8260C
1,1,2-Trichloroethane	<1.0	µg/L	SW846 8260C	2-Hexanone (MBK)	<10	µg/L	SW846 8260C
1,1-Dichloroethane	<1.0	µg/L	SW846 8260C	4-Chlorotoluene	<1.0	µg/L	SW846 8260C
1,1-Dichloroethene	<1.0	µg/L	SW846 8260C	4-Isopropyltoluene	<1.0	µg/L	SW846 8260C
1,1-Dichloropropene	<1.0	µg/L	SW846 8260C	4-methyl-2-pentanone	<10	µg/L	SW846 8260C
1,2,3-Trichlorobenzene	<1.0	µg/L	SW846 8260C	Acetone	<10	µg/L	SW846 8260C
1,2,3-Trichloropropane	<1.0	µg/L	SW846 8260C	Acetonitrile	<10	µg/L	SW846 8260C
1,2,4-Trichlorobenzene	<1.0	µg/L	SW846 8260C	Acrolein	<10	µg/L	SW846 8260C
1,2,4-Trimethylbenzene	<1.0	µg/L	SW846 8260C	Acrylonitrile	<10	µg/L	SW846 8260C
1,2-Dibromo3Chloropropane	<10	µg/L	SW846 8260C	Benzene	<1.0	µg/L	SW846 8260C
1,2-Dibromoethane (EDB)	<1.0	µg/L	SW846 8260C	Bromobenzene	<1.0	µg/L	SW846 8260C
1,2-Dichlorobenzene	<1.0	µg/L	SW846 8260C	Bromochloromethane	<1.0	µg/L	SW846 8260C
1,2-Dichloroethane	<1.0	µg/L	SW846 8260C	Bromodichloromethane	<1.0	µg/L	SW846 8260C
1,2-Dichloropropane	<1.0	µg/L	SW846 8260C	Bromoform	<1.0	µg/L	SW846 8260C
1,3,5-Trimethylbenzene	<1.0	µg/L	SW846 8260C	Bromomethane	<1.0	µg/L	SW846 8260C
1,3-Dichlorobenzene	<1.0	µg/L	SW846 8260C	Carbon Disulfide	<10	µg/L	SW846 8260C
1,3-Dichloropropane	<1.0	µg/L	SW846 8260C	Carbon Tetrachloride	<1.0	µg/L	SW846 8260C
1,4-Dichlorobenzene	<1.0	µg/L	SW846 8260C	Chlorobenzene	<1.0	µg/L	SW846 8260C
2,2-Dichloropropane	<1.0	µg/L	SW846 8260C	Chlorodibromomethane	<1.0	µg/L	SW846 8260C

Vinyl Chloride analysis performed using a 25ml sparge in order to achieve a quantitation limit of 0.20 ug/L.

Surrogate	Recovery	Method
1,2-Dichloroethane-d4	94	SW846 8260C
4-Bromofluorobenzene	91	SW846 8260C
Dibromofluoromethane	139	SW846 8260C
Toluene-d8	74	SW846 8260C

SPECTRA LABORATORIES

Steve Hibbs, Laboratory Manager
a14/sgh

SPECTRA Laboratories

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10/08/2015

P.O.#: *

Client ID: Trip Blank
Sample Matrix: Water
Date Sampled: 09/08/2015
Date Received: 09/08/2015
Spectra Project: 2015090201
Spectra Number: 3
Rush

Harbor History Museum
4121 Harborview Dr.
Gig Harbor, WA 98332

Analyte	Result	Units	Method	Analyte	Result	Units	Method
Chloroethane	<1.0	µg/L	SW846 8260C	cis-1,3-Dichloropropene	<1.0	µg/L	SW846 8260C
Chloroform	<1.0	µg/L	SW846 8260C	n-Butylbenzene	<1.0	µg/L	SW846 8260C
Chloromethane	<1.0	µg/L	SW846 8260C	n-Propylbenzene	<1.0	µg/L	SW846 8260C
Dibromomethane	<1.0	µg/L	SW846 8260C	sec-Butylbenzene	<1.0	µg/L	SW846 8260C
Dichlorodifluoromethane	<1.0	µg/L	SW846 8260C	tert-Butylbenzene	<1.0	µg/L	SW846 8260C
Ethylbenzene	<1.0	µg/L	SW846 8260C	trans-1,2-Dichloroethene	<1.0	µg/L	SW846 8260C
Hexachlorobutadiene	<1.0	µg/L	SW846 8260C	trans-1,3-Dichloropropene	<1.0	µg/L	SW846 8260C
Iodomethane	<10	µg/L	SW846 8260C				
Isopropylbenzene	<1.0	µg/L	SW846 8260C				
Methyl-tert-Butyl Ether	<1.0	µg/L	SW846 8260C				
Methylene chloride	4.2	µg/L	SW846 8260C				
Naphthalene	<1.0	µg/L	SW846 8260C				
Styrene	<1.0	µg/L	SW846 8260C				
Tetrachloroethene	<1.0	µg/L	SW846 8260C				
Toluene	<1.0	µg/L	SW846 8260C				
Total Xylenes	<2.0	µg/L	SW846 8260C				
Trichloroethene	<1.0	µg/L	SW846 8260C				
Trichlorofluoromethane	<1.0	µg/L	SW846 8260C				
Vinyl Acetate	<10	µg/L	SW846 8260C				
Vinyl chloride	<0.20	µg/L	SW846 8260C				
cis-1,2-Dichloroethene	<1.0	µg/L	SW846 8260C				

Vinyl Chloride analysis performed using a 25ml sparge in order to achieve a quantitation limit of 0.20 ug/L.

Surrogate	Recovery	Method
1,2-Dichloroethane-d4	94	SW846 8260C
4-Bromofluorobenzene	91	SW846 8260C
Dibromofluoromethane	139	SW846 8260C
Toluene-d8	74	SW846 8260C

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Steve Hibbs, Laboratory Manager
a14/sgh

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October 8, 2015

Harbor History Museum
4121 Harborview Drive
Gig Harbor, WA 98332

Sample Matrix: Water
EPA Method: 624/8260C
Spectra Project: 2015090201
Date Analyzed: 9/12/2015
Units: mg/L
Applies to Spectra #'s: #1-3
Spiked Sample 2015090322-1

GCMS VOLATILE ORGANIC ANALYSIS
Matrix Spike/ Matrix Spike Duplicate Results

COMPOUND	SAMPLE RESULT	SPIKE AMOUNT	MS RESULT	MS %REC	MSD RESULT	MSD %REC	RPD
1,1-Dichloroethene	<1	10.0	7.29	73	7.93	79	8.4
Benzene	<1	10.0	9.83	98	9.88	99	0.5
Trichloroethene	<1	10.0	8.57	86	8.56	86	0.1
Toluene	<1	10.0	8.77	88	8.84	88	0.8
Chlorobenzene	<1	10.0	10.28	103	10.22	102	0.6
(Results after dilution)							

Surrogates	MS	MSD
Dibromofluoromethane	139	139
1,2-Dichloroethane-d4	89	91
Toluene-d8	77	74
4-Bromofluorobenzene	97	92

Steven G. Hibbs
Laboratory Manager

SPECTRA Laboratories

2221 Ross Way • Tacoma, WA 98421 • (253) 272-4850 • Fax (253) 572-9838 • www.spectra-lab.com

October 8, 2015

Harbor History Museum
4121 Harborview Drive
Gig Harbor, WA 98332

Sample matrix: Water

Spectra Project:
Spectra #
Applies to Sample #1-3

Date Received: 9/8/2015
Date Analyzed: 9/12/2015
Dilution: 1
< = less than
2015090201
Method Blank

VOLATILE ORGANIC ANALYSIS — METHOD 624/8260

Compound	ug/L	Compound	ug/L
Acetone	< 10.00	1,2-Dichloropropane	< 1.00
Acrolein	< 10.00	1,3-Dichloropropane	< 1.00
Acrylonitrile	< 10.00	cis-1,3-Dichloropropene	< 1.00
Benzene	< 1.00	trans-1,3-Dichloropropene	< 1.00
Bromobenzene	< 1.00	2,2-Dichloropropane	< 1.00
Bromochloromethane	< 1.00	1,1-Dichloropropene	< 1.00
Bromodichloromethane	< 1.00	Ethylbenzene	< 1.00
Bromoform	< 1.00	2-Hexanone (MBK)	< 10.00
Bromomethane	< 1.00	Hexachlorobutadiene	< 1.00
2-Butanone (MEK)	< 10.00	Iodomethane	< 10.00
n-Butylbenzene	< 1.00	Isopropylbenzene	< 1.00
sec-Butylbenzene	< 1.00	p-Isopropyltoluene	< 1.00
tert-Butylbenzene	< 1.00	Methylene chloride	2.52
Carbon Disulfide	< 10.00	4-Methyl-2-pentanone (MIBK)	< 10.00
Carbon tetrachloride	< 1.00	MTBE	< 1.00
Chlorobenzene	< 1.00	Naphthalene	< 1.00
Chlorodibromomethane	< 1.00	n-Propylbenzene	< 1.00
Chloroethane	< 1.00	Styrene	< 1.00
2-Chloroethyl Vinyl ether	< 10.00	1,1,1,2-Tetrachloroethane	< 1.00
Chloroform	< 1.00	1,1,2,2-Tetrachloroethane	< 1.00
Chloromethane	< 1.00	Tetrachloroethene	< 1.00
2-Chlorotoluene	< 1.00	Toluene	< 1.00
4-Chlorotoluene	< 1.00	Total Xylenes	< 2.00
1,2-Dibromo-3-Chloropropane (DBCP)	< 10.00	1,2,3-Trichlorobenzene	< 1.00
1,2-Dibromoethane (EDB)	< 1.00	1,2,4-Trichlorobenzene	< 1.00
Dibromomethane	< 1.00	1,1,1-Trichloroethane	< 1.00
1,2-Dichlorobenzene	< 1.00	1,1,2-Trichloroethane	< 1.00
1,3-Dichlorobenzene	< 1.00	Trichloroethene	< 1.00
1,4-Dichlorobenzene	< 1.00	Trichlorofluoromethane	< 1.00
Dichlorodifluoromethane	< 1.00	1,2,3-Trichloropropane	< 1.00
1,1-Dichloroethane	< 1.00	1,2,4-Trimethylbenzene	< 1.00
1,2-Dichloroethane	< 1.00	1,3,5-Trimethylbenzene	< 1.00
1,1-Dichloroethene	< 1.00	Vinyl Acetate	< 10.00
cis-1,2-Dichloroethene	< 1.00	Vinyl chloride	< 0.20
trans-1,2,-Dichloroethene	< 1.00		

SURROGATE RECOVERIES

Dibromofluoromethane	139	%
1,2-Dichloroethane-d4	89	%
Toluene-d8	74	%
4-Bromofluorobenzene	94	%

Steven G. Hibbs
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SPECIAL INSTRUCTIONS/COMMENTS:
→ 25ml injection for VC only

CHAIN OF CUSTODY

SPECTRA PROJECT #: 20150902D1

Return Samples: Y (N) Page 1 of 1 STANDARD [X] RUSH [ ]

CLIENT: Harbor History M ADDRESS: ADDRESS CHANGE [ ]

PROJECT:

CONTACT: Rick@ Trendline Environmental

SAMPLED BY: Rick Fuller

PHONE: 2557188 FAX:

e-MAIL: rfchemist@gmail.com Prefer FAX [ ] or e-MAIL [ ]

PURCHASE ORDER #

	SAMPLE ID	DATE SAMPLED	TIME SAMPLED	MATRIX	NUMBER OF CONTAINERS	HYDROCARBONS: NWTPH-HCID	BTEX	BTEX/NWTPH-G	NWTPH-G	NWTPH-Dx	1664 SGT-HEM (TPH)	1664 HEM (FOG)	ORGANICS: 8260/624 VOA	8260 CHLOR SOLVENTS	8270-625 SEMI VOA	8270 PAH/PNA	8082/608 PCB	METALS: TOTAL METALS RCRA 8	TOTAL METALS (SPECIFY)	TCLP METALS RCRA 8	TCLP METALS (SPECIFY)	OTHER: PH 9040/9045	TX/TOX/EOX	TURBIDITY	FLASH POINT	BOD	SOLIDS (SPECIFY)
1	MW-5	9-8-15	1115	water	3								X														
2	MW-7	9-8-15	1200	water	3								X														
3	Trip Blank	9-8-15		water	2								X														
4																											
5																											
6																											
7																											
8																											
9																											
10																											

use 25 mL for VC to obtain 0.2 ppm MDL

LAB USE ONLY

Shipped Via: US Mail UPS Fed Ex Courier Client

Shipping Container: Cooler Box Envelope None

Tracking # _____

Custody Seals: Y N Intact: Y N

Cooler Temp. _____ Sample Temp. _____

	SIGNATURE	PRINTED NAME	COMPANY	DATE	TIME
RELINQUISHED BY	Rick Fuller	Rick Fuller	Trendline	9/8/15	5:05
RECEIVED BY	Kara Kinder	Kara Kinder	Spectra	9/8	5:08
RELINQUISHED BY					
RECEIVED BY					

Payment Terms: Net 30 days. Past due accounts subject to 1 1/2% per month interest. Customer agrees to pay all costs of collection including reasonable attorney's fees and all other costs of collection regardless of whether suit is filed in Pierce Co., WA venue. *Spectra Laboratories, LLC*