

Trestle Trail Bikeway

Coventry
Rhode Island

Prepared for **United International Corporation**
142 Putnam Avenue
Johnston, Rhode Island 02901

Prepared by **VHB/Vanasse Hangen Brustlin, Inc.**
10 Dorrance Street, Suite 400
Providence, Rhode Island 02903

December 2008

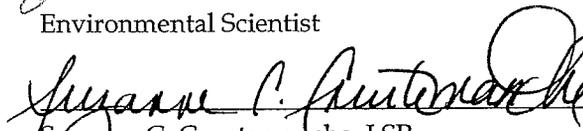
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December 2008

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1.0 Introduction

Vanasse Hangen Brustlin Inc. (VHB), on behalf of our client United International Corporation (UIC), presents the findings of the limited subsurface soil and groundwater investigation conducted along the railroad right-of-way in Coventry, Rhode Island (the Site). The work area for this subsurface investigation was focused on four areas along the former railroad that were identified for further assessment in our Phase I Environmental Report (PESA) dated July 2007. These areas included:

1. The right-of-way (ROW) behind Coventry Auto Body;
2. The ROW near Rhode Island Processing;
3. The ROW near the former Acid House in Greene, Rhode Island; and
4. The ROW to the south of RIConn Airport in western Coventry.
5. Areas of solid waste in the railroad ROW near RI Processing and near RI-102/ Victory Highway bridge.
6. An area of soil in the railroad ROW identified in a Phase I Environmental Site Assessment Report by ENSR Consulting and Engineering dated January 2002 that exceeded the Rhode Island Department of Environmental Management (RIDEM) Residential Direct Exposure Criteria (RDEC) for Total Petroleum Hydrocarbons (TPH).

VHB performed this investigation for UIC to support their efforts to construct a recreational facility along a 10-mile corridor of property to be used as a bikeway, walking and equestrian path beginning at the Connecticut-Rhode Island border and extending east approximately one mile beyond the Flat River Reservoir Bridge in Coventry, Rhode Island. A Site location map is included as **Figure 1**. Site figures showing soil boring/ temporary monitoring well locations are included as **Figures 2A, 2B, 2C, 2D, and 2E**. This report is subject to the Limitations included in **Appendix A** and the terms and conditions of the Agreement between VHB and UIC.

2.0 Site Description

The Site, hereinafter referred to as Trestle Trail, is located in rural Coventry, Rhode Island along the bed of a former railroad track. The Site was historically a railroad built in 1854 by the Hartford, Providence, and Fishkill Railroad, which operated until 1968. From 1968 to the present, the Site has been used by area residents as an unpaved path for walking, biking, and horseback riding. Evidence of motorized dirt bikes and all terrain vehicles being used at the Site was observed at the time of the Site visit on September 3, 2008. The groundwater within the site vicinity is classified by the Rhode Island Department of Environmental Management (RIDEM) as GA. Groundwater areas classified as GA are those water resources that have been designated as suitable for public or private drinking water uses without treatment.

3.0 Soil Boring Installation and Surficial Soil Sampling

On September 3, September 4, and September 5, 2008 a total of 11 soil borings were advanced by New England Geotech, Inc. and observed by VHB. The drilling was completed using a track mounted Geoprobe[®], which employs a direct push drilling method. Four borings were completed within the ROW behind Coventry Auto Body, four borings were completed near RI Processing, and three borings were completed to the south of RIConn Airport. Borings were not completed near the former Acid House due to the fact that additional research conducted in support of the subsurface investigation revealed that the Acid House in fact was not located near the railroad ROW but elsewhere nearby and, therefore, no borings in the study area were warranted. Two temporary monitoring wells were also installed at RI Processing. The locations of the soil borings and temporary monitoring wells are depicted on **Figures 2A, 2B, and 2C**. Descriptions of each sample location are provided below.

- ▶ **Coventry Auto Body:** Four soil borings (CAB-1, CAB-2, CAB-3, and CAB-4) were installed behind Coventry Auto Body in the railroad ROW. The maximum depth of Geoprobe exploration was approximately 15 feet below grade
- ▶ **RI Processing:** Four soil borings (RIP-1, RIP-2, RIP-3, and RIP-4) and two temporary monitoring wells (RIP-1 and RIP-3) were installed on either side of Hill Road in the railroad ROW. Soil borings were advanced to approximately 10 feet below grade, and the temporary monitoring well locations were installed to approximately 13 feet below grade. Temporary monitoring wells were constructed of one inch diameter, schedule 40 polyvinyl chloride (PVC) 0.010 slot well screen and solid riser
- ▶ **RIConn Airport:** Three soil borings (RIConn-1, RIConn-2, and RIConn-3) were installed to the south of RIConn Airport in the railroad ROW. The maximum depth of Geoprobe exploration was approximately 15 feet below grade

A VHB scientist observed the soil boring installations. Soil boring logs are included in **Appendix B**. Soil samples were collected, field classified, and field screened for total volatile organic compounds (VOCs) using a photoionization detector (PID) equipped with a 10.6 electron volt lamp. The soil field screening results are summarized in the attached **Table 1**.

3.1 Subsurface Investigation – September 3, 2008

Four soil borings, identified as CAB-1, CAB-2, CAB-3, and CAB-4, were installed on September 3, 2008. The locations of the soil borings are depicted on **Figure 2A**. Soil boring logs are included in **Appendix B**.

Continuous soil samples were collected using five foot acetate sleeves from each boring. VHB observed that the soil consisted primarily of light brown fine to medium sand. Refusal was not encountered in any of the soil borings. Groundwater was encountered approximately 10 ft. below grade.

Soil samples were field screened for total VOCs using a PID. PID readings ranged from 0 to 25 parts per million as vapor (ppmv). Soil field screening results are summarized in **Table 1**.

3.2 Subsurface Investigation – September 4, 2008

Four soil borings, identified as RIP-1, RIP-2, RIP-3, and RIP-4, were installed on September 4, 2008. RIP-1 and RIP-3 were also completed as temporary monitoring wells. The locations of the borings and wells are depicted on **Figure 2B**. Soil boring logs are included in **Appendix B**.

Continuous soil samples were collected from the soil borings using five foot acetate sleeves. VHB observed that the soil consisted primarily of light yellowish brown fine to medium sand. Refusal was not encountered in any of these borings.

PID field screening results for soil samples collected during boring at RI Processing were all non-detectable (ND). Soil field screening results are summarized in **Table 1**. Groundwater was encountered at approximately five feet below grade at locations RIP-1 and RIP-3. Temporary monitoring wells were installed at these locations.

3.3 Subsurface Investigation – September 5, 2008

Three soil borings, identified as RIConn-1, RIConn-2, and RIConn-3, were installed on September 5, 2008. The locations of the borings and wells are depicted on **Figure 2C**. Soil boring logs are included in **Appendix B**.

Continuous soil samples were collected from all soil borings using five foot acetate sleeves and field screened using a PID. All field screening results were ND (refer to Table 1). VHB observed that the soil consisted primarily of very dark brown fine to medium sand over white fine to medium sand. Refusal was not encountered in any of these borings.

3.4 Surficial Investigation – September 9, 2008

Three soils samples, identified as SS-1, SS-2, and SS-3, were collected with a hand auger by a VHB scientist on September 9, 2008. These samples were collected from:

- Areas of solid waste in the railroad ROW near RI Processing;
- In the railroad ROW near the RI-102/ Victory Highway bridge; and
- Near an area of soil in the railroad ROW east of Benefit Street identified in a Phase I Environmental Site Assessment Report by ENSR Consulting and Engineering dated January 2002 that exceeded the RIDEM RDEC for Total Petroleum Hydrocarbons.

The locations of the surficial soil samples are depicted on **Figure 2B**, **Figure 2D**, and **Figure 2E**. PID field screening of these samples were all ND (refer to **Table 1**).

4.0 Soil Sampling and Analytical Results

Seventeen soil samples were collected and submitted for confirmatory laboratory analysis. The samples were containerized in the appropriate glassware, stored on ice, and submitted under proper Chain of Custody to ESS Laboratory in Cranston, Rhode Island for analysis. All surficial soil samples (0-2 feet bgs) were analyzed for the following parameters:

- VOCs by U.S Environmental Protection Agency (EPA) Method 8260B;
- Total Petroleum Hydrocarbons (TPH) by EPA Method 8100M;
- Priority Pollutant 13 Metals (PP13) by EPA Methods 6010B/ 7471A/ 7841;
- Semivolatile Organic Compounds (SVOCs) by EPA Method 8270C; and
- Polychlorinated Biphenyls (PCBs) via EPA Method 8082.

Soil samples collected at greater than two feet below grade were not analyzed for SVOCs or PCBs. Soil analytical results are summarized in the attached **Table 2**. Soil analytical results were compared to the Reportable Concentrations for Soil in accordance with Rule 5.01(B) of the RIDEM Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases (the Remediation Regulations) (RIDEM 2004). Copies of the Certificates of Analysis and Chain of Custody Documentation are included in **Appendix C**.

The results of analysis from each location are summarized as follows:

- **Coventry Auto Body:** Sample CAB-2 (0-2) contained beryllium at 0.54 milligrams/ kilogram (mg/ kg) which exceeds the RIDEM Residential Direct Exposure Criteria (RDEC) of 0.4 mg/ kg. Sample CAB-3 (0-2) contained arsenic at 10.4 mg/ kg. This concentration exceeds the RIDEM RDEC and Industrial/ Commercial Direct Exposure Criteria (I/ C DEC) of 7.0 mg/ kg.
- **Rhode Island Processing:** Sample RIP-1(0 to 2) contained benzo(a)pyrene at 0.675 mg/ kg, benzo(b)fluoranthene at 1.13 mg/ kg, benzo(k)fluoranthene at 1.03 mg/ kg, and chrysene at 0.971 mg/ kg. These concentrations are above the RIDEM RDECs for these constituents. None of these constituents exceeded the RIDEM I/ C DEC. RIP-2 (0 to 2) contained beryllium at 0.43 mg/ kg which is in excess of the RIDEM RDEC for beryllium of 0.4 mg/ kg. All other sample analytes were below their respective RIDEM I/ C DEC and RIDEM RDECs.

- **RIConn Airport:** All three RIConn samples collected from 0-2 feet at RIP-1, RIP-2 and RIP-3 contained arsenic in excess of the RIDEM RDEC and I/ C DEC of 7 mg/ kg. Arsenic concentrations ranged from 8.5 mg/ kg to 54.5 mg/ kg. Sample RIConn-1 (0 to 2) also contained chrysene at 0.531 mg/ kg which is in excess of the RIDEM RDEC. RIConn-2 (0 to 2) contained benzo(a)anthracene at 1.88 mg/ kg, benzo(a)pyrene at 1.89 mg/ kg, benzo(b)fluoranthene at 3.18 mg/ kg, benzo(g,h,i)perylene at 0.913 mg/ kg, benzo(k)fluoranthene at 1.79 mg/ kg, chrysene at 2.35 mg/ kg, and indeno(1,2,3-cd)pyrene at 1.00 mg/ kg. These constituents were all present at concentrations in excess of the RDEC and benzo(a)pyrene was also in excess of the I/ C DEC. RIConn-3 (0 to 2) contained chrysene at 0.595 mg/ kg which is in excess the RDEC.

- **Surface Soil Near Rhode Island Processing (SS-1):** SS-1 contained arsenic at 51.8 mg/ kg which is in excess of both the RDEC and I/ C DEC. The sample also contained benzo(a)anthracene (1.49 mg/ kg), benzo(a)pyrene (1.32 mg/ kg), benzo(b)fluoranthene (2.30 mg/ kg), benzo(k)fluoranthene (1.83 mg/ kg), and chrysene (1.88 mg/ kg) in excess of the RIDEM RDEC.

- **Surface Soil Near the RT 102 Bridge (SS-2):** SS-2 contained beryllium at 0.46 mg/ kg which is in excess of the RIDEM RDEC of 0.4 mg/ kg. No other constituents were present above RIDEM RDEC or I/ C DEC.

- **Surface Soil in Railroad ROW East of Benefit Street (SS-3):** SS-3 contained arsenic at 16.9 mg/ kg, and benzo(a)pyrene 0.222 mg/ kg. This sample exceeds both the RIDEM I/ C DEC and the RIDEM RDEC for arsenic (7.0 mg/ kg for both criteria) and the RIDEM RDEC for benzo(a)pyrene (0.4 mg/ kg). No other constituents were present above RIDEM RDEC or I/ C DEC.

5.0 Groundwater Sampling

VHB collected groundwater samples from temporary monitoring wells RIP-1 and RIP-3 on September 4, 2008. Groundwater grab samples were collected using disposable polyethylene bailers. Samples were placed in appropriate glassware, stored on ice, and submitted to ESS Laboratory for analysis of:

- Total PP13 Metals by EPA Methods 6010B, 7041, 7060A, and 7470A;
- TPH by EPA Method 8100M;
- VOCs by EPA Method 8260B; and
- SVOCs by EPA Method 8270SIM.

The groundwater analytical results are summarized in **Table 3**. Copies of the groundwater Certificates of Analysis and Chain of Custody Documentation are included in **Appendix D**.

6.0 Groundwater Analytical Results

Groundwater sampled from RIP-1 and RIP-3 contained arsenic, beryllium, chromium and lead in excess of the RIDEM GA Groundwater Objectives. Groundwater sampled from RIP-1 also contained nickel in excess of the RIDEM GA Groundwater Objective. No VOCs, SVOCs, or TPH was present in the groundwater samples above the RIDEM GA Groundwater Objectives.

7.0 Findings

VHB completed a limited subsurface soil and groundwater investigation along 10 miles of former railroad ROW proposed to be developed as the Trestle Trail Bikeway in Coventry, Rhode Island. Based on the findings of a Phase I Environmental Site Assessment conducted by VHB, soil borings were installed at three areas along the 10-mile route. The areas further investigated were adjacent to Coventry Auto Body, in the vicinity of the former Rhode Island Processing, and adjacent to RIConn Airport. VHB also collected surface soil samples near the former RI Processing, near the Route 102 Bridge, and in the railroad right of way east of Benefit Street. In total, 17 soil samples were submitted for laboratory analysis for PP13 metals, TPH, VOCs, SVOCs, and PCBs. The findings from the soil analytical results are as follows:

- Metals analysis indicated that arsenic was detected in samples CAB-3 (0-2), RIConn-1 (0-2), RIConn-2 (10-12), RIConn-3 (0-2), SS-1, and SS-2 at concentrations greater than the RIDEM RDEC and I/ C DEC (7.0 mg/ kg for both criteria). Beryllium was also detected in CAB-2 (0-2), RIP-2 (0-2), and SS2 at concentrations exceeding the RIDEM RDEC (0.4 mg/ kg).
- SVOC analysis indicated the presence of benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, and chrysene in some or all of the following samples at concentrations above the RIDEM RDECs: RIP-1 (0-2), RIConn-1 (0-2), RIConn-2 (0-2), RIConn-3 (0-2), SS1, and SS3. Benzo(a)pyrene was also present above the RIDEM I/ C DEC at location RIConn-2 (0-2).

Two groundwater samples were collected from temporary motioning wells installed within the borings at RIP-1 and RIP-3. Samples were collected and analyzed for PP13 metals, TPH, VOCs, and SVOCs. The findings from the groundwater analytical results are as follows:

- Both groundwater samples contained arsenic, beryllium, chromium and lead in excess of the RIDEM GA Groundwater Objectives. Groundwater sampled from RIP-1 also contained nickel in excess of the RIDEM GA Groundwater Objective.

8.0 Conclusions and Recommendation

The concentrations of arsenic, beryllium, and certain SVOCs in soil samples in excess of the RIDEM RDEC (in addition to benzo(a)pyrene in excess of the I/ C DEC) in the locations sampled along the Trestle Trail railroad ROW as described in this report constitute a reporting obligation in accordance with Rule 5.02 of the Remediation Regulations.

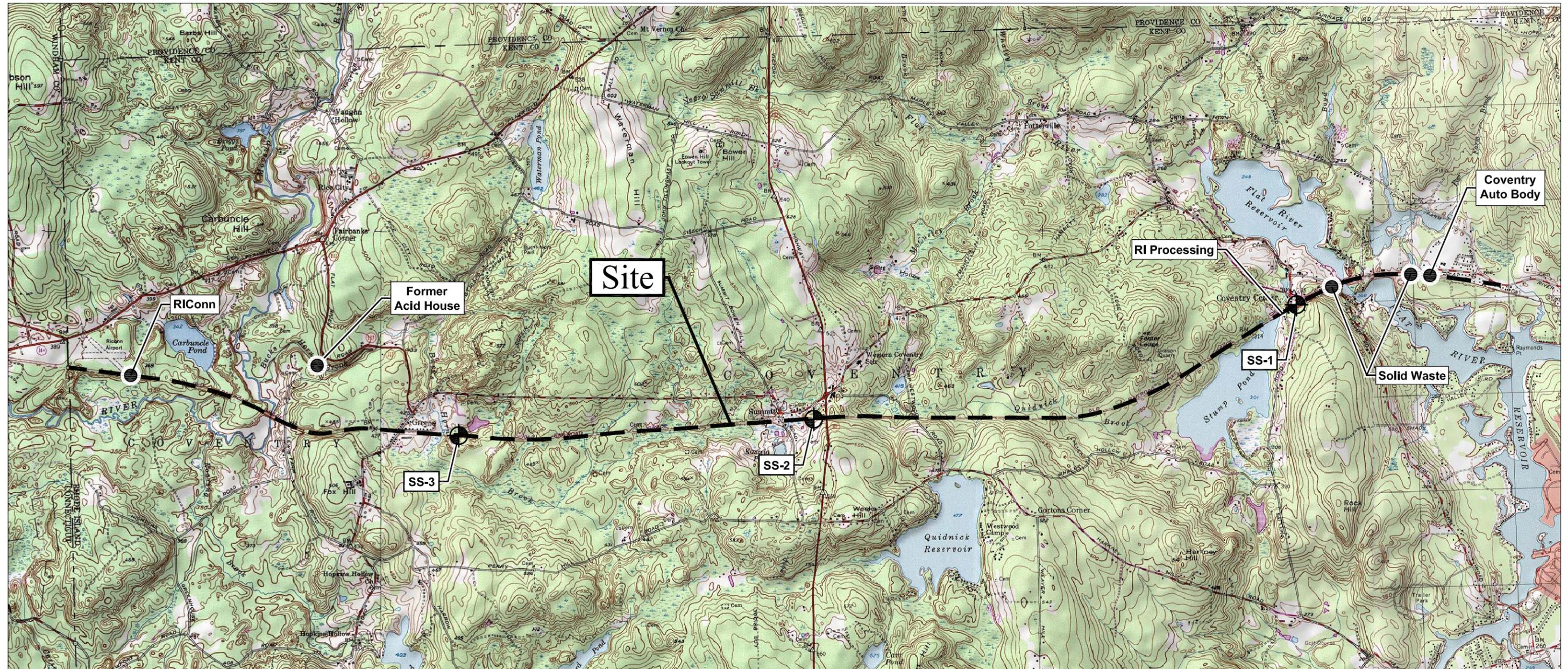
The concentrations of beryllium, chromium, lead, nickel, and zinc in excess of the RIDEM GA Groundwater Objectives at RIP-1 and RIP-3 also constitute a reporting obligation in accordance with Rule 5.02 of the Remediation Regulations.

VHB recommends that the design development for this project consider minimizing disturbing existing soils and groundwater in an effort to minimize construction related response actions and disposal/ management costs.

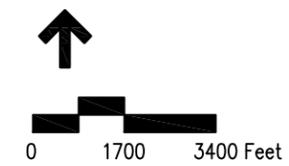
VHB also recommends that the construction documents for this project be amended to include specifications for the proper management of contaminated soil and groundwater that may be encountered during construction of the bike path.



Figures



Source: USGS Quadrangles



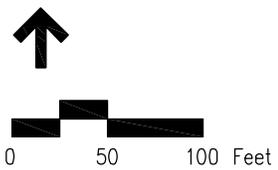
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Figure 1
Phase II Boring Locations
Trestle Trail
Coventry, Rhode Island



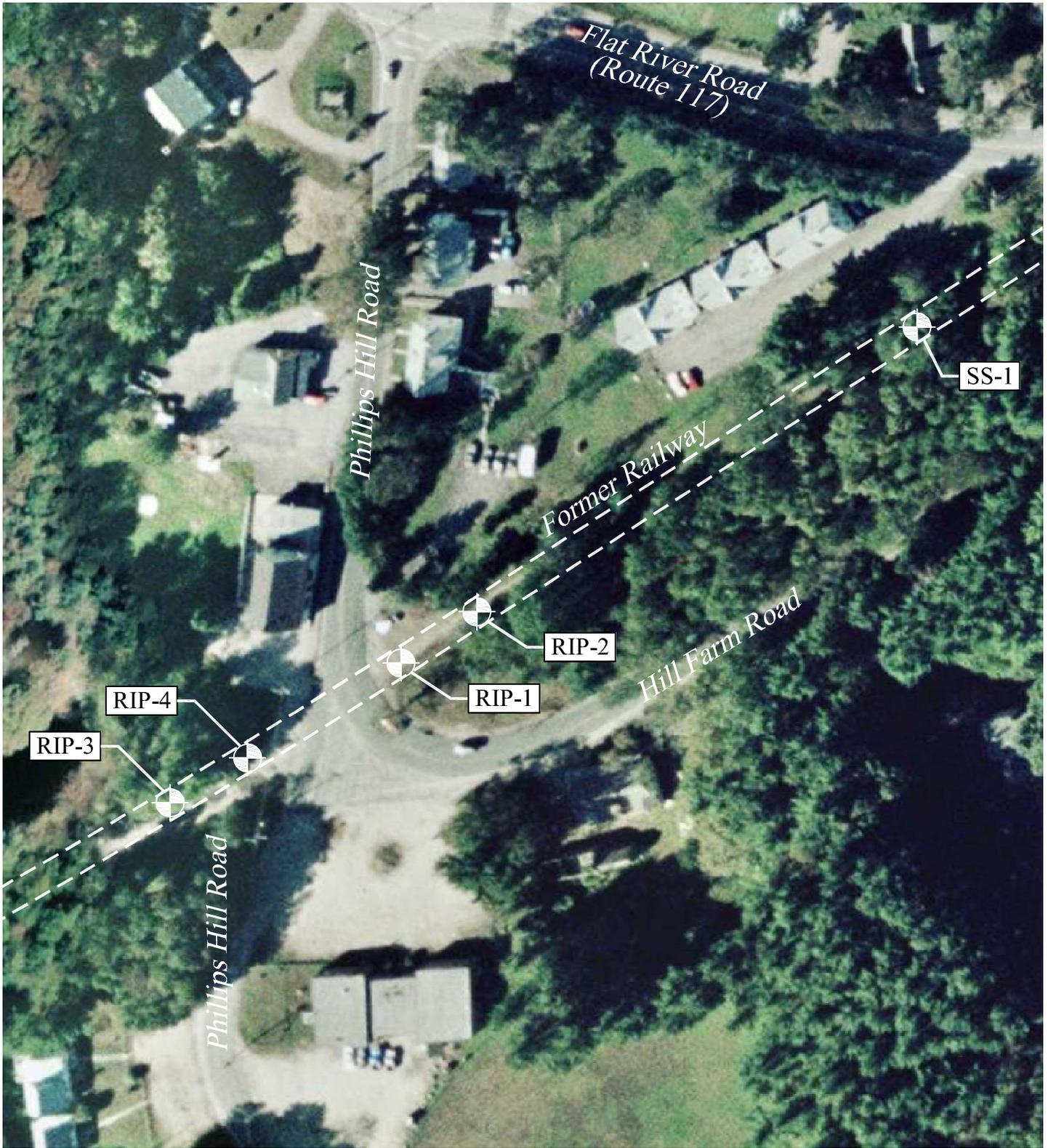
Source: PhotoMapper, 2006.

Vanasse Hangen Brustlin, Inc.



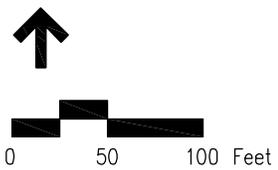
Site Plan
Coventry Auto Body
Coventry, Rhode Island

Figure 2A



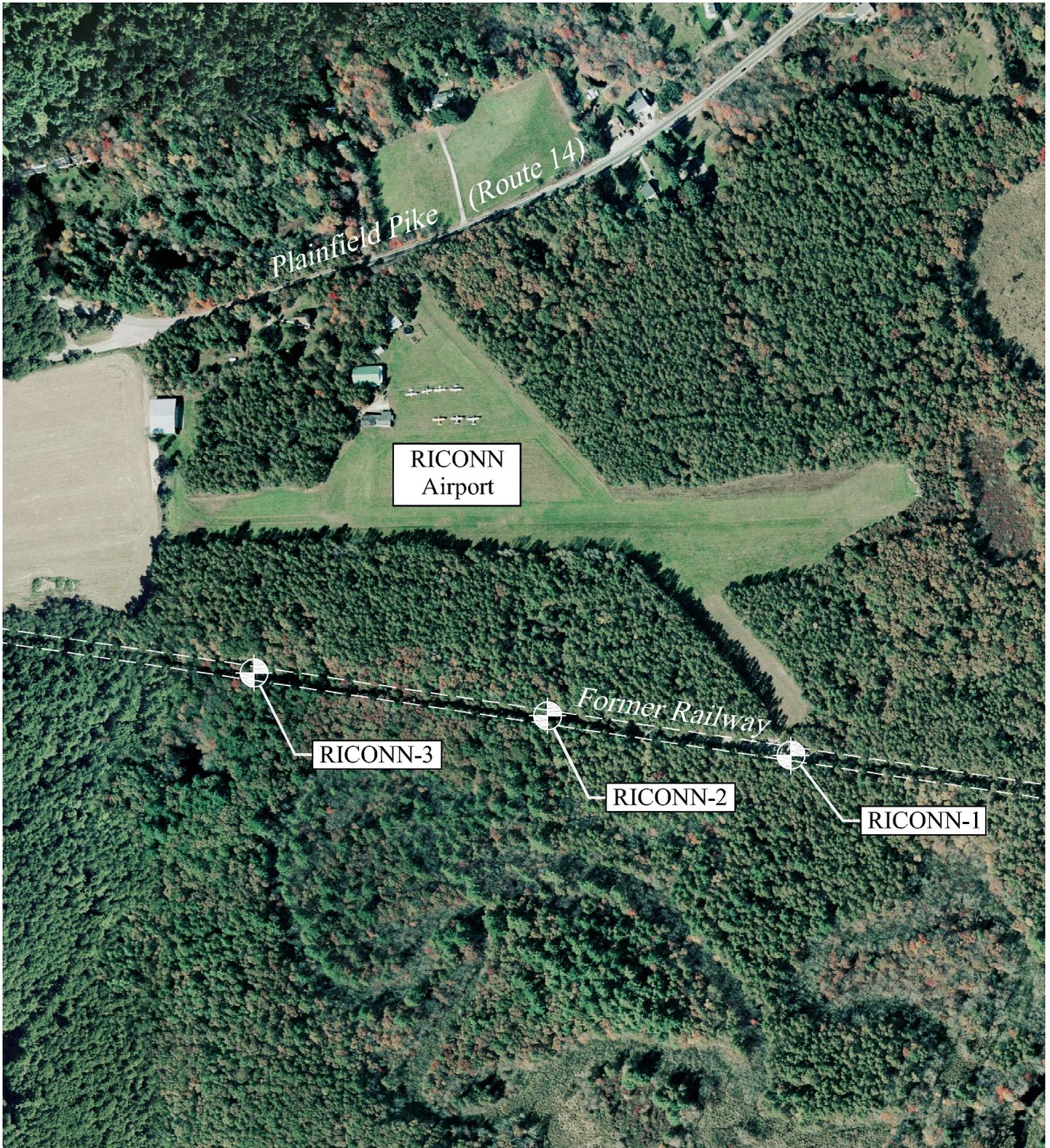
Source: PhotoMapper, 2006.

Vanasse Hangen Brustlin, Inc.



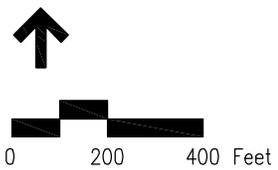
Site Plan
RI Processing
Coventry, Rhode Island

Figure 2B



Source: PhotoMapper, 2006.

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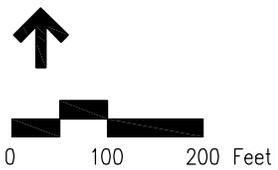
Site Plan
RICONN Airport
Coventry, Rhode Island

Figure 2C



Source: PhotoMapper, 2006.

Vanasse Hangen Brustlin, Inc.



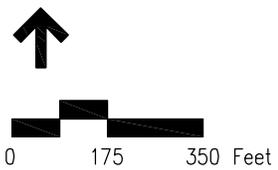
Site Plan
Location of SS2
Coventry, Rhode Island

Figure 2D



Source: PhotoMapper, 2006.

Vanasse Hangen Brustlin, Inc.



Site Plan
Location of SS3
Coventry, Rhode Island

Figure 2E



Tables

Table 1
 Summary of Soil Field Screening Results
 Trestle Trail
 Coventry, Rhode Island

Soil Sample	Date	Depth (feet)	Results (ppmv)
CAB-1*	9/3/2008	0 to 2	nd
CAB-1	9/3/2008	2 to 4	nd
CAB-2*	9/3/2008	0 to 2	nd
CAB-3*	9/3/2008	0 to 2	2.3
CAB-3	9/3/2008	2 to 4	2.3
CAB-3	9/3/2008	8 to 10	nd
CAB-4*	9/3/2008	0 to 2	25
CAB-4*	9/3/2008	2 to 4	nd
CAB-4*	9/3/2008	8 to 10	nd
RIP-1*	9/4/2008	0 to 2	nd
RIP-1	9/4/2008	2 to 4	nd
RIP-2*	9/4/2008	0 to 2	nd
RIP-2	9/4/2008	7.5 to 8.5	nd
RIP-3*	9/4/2008	0 to 2	nd
RIP-3	9/4/2008	2 to 4	nd
RIP-4*	9/4/2008	0 to 2	nd
RIP-4	9/4/2008	9 to 10	nd
RICONN-1*	9/5/2008	0 to 2	nd
RICONN-2*	9/5/2008	0 to 2	nd
RICONN-2	9/5/2008	8 to 10	nd
RICONN-2	9/5/2008	10 to 15	nd
RICONN-3*	9/5/2008	0 to 2	nd
RICONN-3*	9/5/2008	2 to 4	nd
SS1*	9/9/2008	0 to 6 in.	nd
SS2*	9/9/2008	0 to 6 in.	nd
SS3*	9/9/2008	0 to 6 in.	nd

Notes:

ppm - parts per million vapor

Field screening completed using a PID equipped with a 10.6 eV lamp

* soil samples submitted for laboratory analysis

nd = not detected

Table 2
 Summary of Soil Analytical Results
 Trestle Trail
 Coventry, RI

Sample ID:				RIDEM	CAB-1 0-2	CAB-2 0-2	CAB-3 0-2	CAB-4 0-2	CAB-4 2-3	CAB-4 8-10	Trip Blank	RIP-1 0-2	RIP-2 0-2	RIP-3 0-2	RIP-4 0-2	Trip Blank	RiConn-1 0-2	RiConn-2 0-2	RiConn-3 0-2	RiConn-3 2-4	Trip Blank	SS-1	SS-2	SS-3	Trip Blank		
Sample Date:				RIDEM	GA Leachability	09/03/2008	09/03/2008	09/03/2008	09/03/2008	09/03/2008	09/03/2008	09/04/2008	09/04/2008	09/04/2008	09/04/2008	09/04/2008	09/05/2008	09/05/2008	09/05/2008	09/05/2008	09/05/2008	09/09/2008	09/09/2008	09/09/2008	09/09/2008		
ANALYTE	EPA Method	UNITS	Residential DEC (mg/kg)	Commercial DEC (mg/kg)	Criteria																						
Priority Pollutant 13 Metals (9 of 13 detected)																											
Arsenic	6010B	mg/kg	7.0	7.0	NS	3.6	3.3	10.4	4.3	<2.9	<2.9	---	6.0	<2.9	<2.8	<2.8	---	11.8	54.5	8.5	<2.8	---	51.8	6.2	16.9	---	
Beryllium	6010B	mg/kg	0.4	1.3	NS	0.27	0.54	0.24	0.29	0.12	0.28	---	0.35	0.43	0.30	0.34	---	0.10	0.14	0.14	0.10	---	0.31	0.46	0.18	---	
Cadmium	6010B	mg/kg	39	1,000	NS	<0.57	<0.58	<0.58	<0.57	<0.59	<0.57	---	<0.59	<0.58	<0.57	<0.57	---	<0.57	<0.56	<0.56	<0.57	---	1.07	<0.69	<0.57	---	
Chromium	6010B	mg/kg	1,400	10,000	NS	3.1	5.7	2.4	1.6	<1.2	<1.1	---	6.6	1.4	2.1	2.6	---	1.7	2.6	2.2	1.5	---	3.2	1.9	<1.1	---	
Copper	6010B	mg/kg	3,100	10,000	NS	6.1	7.2	8.7	4.4	<1.2	<1.1	---	15.3	96.2	3.7	5.9	---	11.2	12.1	9.5	2.3	---	14.8	3.6	7.9	---	
Lead	6010B	mg/kg	150	500	NS	15.0	10.1	16.2	8.2	<5.8	<5.7	---	103	41.7	<5.7	9.3	---	22.8	22.6	13.2	<5.7	---	68.4	10.9	18.8	---	
Nickel	6010B	mg/kg	1,000	10,000	NS	<2.8	4.2	<2.9	<2.8	<2.9	<2.9	---	<2.9	<2.9	<2.8	<2.8	---	<2.8	<2.8	<2.8	<2.8	---	<3.0	<3.4	<2.8	---	
Zinc	6010B	mg/kg	6,000	10,000	NS	18.4	30.3	15.8	19.4	7.0	10.8	---	32.4	72.8	25.1	24.1	---	6.1	9.2	16.8	13.7	---	26.9	51.6	12.0	---	
Mercury	7471A	mg/kg	23	610	NS	<0.034	<0.033	<0.033	<0.033	<0.034	<0.034	---	0.117	0.110	<0.033	<0.034	---	<0.034	<0.033	0.785	<0.031	---	0.039	<0.039	<0.034	---	
Polychlorinated Binphenyls (1 of 9 detected)																											
Aroclor 1254	8082	mg/kg	10	10	10	<0.0505	<0.0518	<0.0526	<0.0515	---	---	---	<0.0527	<0.0513	<0.0510	<0.0529	---	<0.0503	<0.0526	<0.0491	---	---	<0.0553	0.173	0.253	---	
Total Petroleum Hydrocarbons																											
Total Petroleum Hydrocarbons	8100M	mg/kg	500	2,500	500	<37.9	<38.9	<39.5	<38.7	<40.1	<40.4	---	78.7	<37.2	<39.9	<37.5	---	77.4	161	65.3	<38.7	---	176	129	41.5	---	
Volatile Organic Compounds (1 of 73 Detected)																											
4-Isopropyltoluene	8260B Low	mg/kg			NS	<0.0035	<0.0041	0.0039	<0.0036	<0.0042	<0.0040	<0.0050	<0.0040	<0.0038	<0.0035	<0.0044	<0.0050	0.0087	<0.0053	<0.0039	<0.0036	<0.0050	<0.0044	<0.0042	<0.0037	<0.0050	
Semivolatile Organic Compounds (11 of 73 detected)																											
Benzo(a)anthracene	8270C	mg/kg	0.9	7.8	NS	<0.338	<0.342	<0.360	<0.346	---	---	---	<0.668	<0.359	<0.346	<0.324	---	<0.346	1.88	0.389	---	---	1.49	<0.427	<0.348	---	
Benzo(a)pyrene	8270C	mg/kg	0.4	0.8	240	<0.169	<0.172	<0.181	<0.173	---	---	---	0.675	<0.180	<0.173	<0.162	---	0.360	1.89	0.312	---	---	1.32	<0.214	0.222	---	
Benzo(b)fluoranthene	8270C	mg/kg	0.9	7.8	NS	<0.338	<0.342	<0.360	<0.346	---	---	---	1.13	<0.359	<0.346	<0.324	---	0.705	3.18	0.706	---	---	2.30	<0.427	0.444	---	
Benzo(g,h,i)perylene	8270C	mg/kg	0.8	10,000	NS	<0.338	<0.342	<0.360	<0.346	---	---	---	<0.668	<0.359	<0.346	<0.324	---	<0.346	0.913	<0.338	---	---	0.595	<0.427	<0.348	---	
Benzo(k)fluoranthene	8270C	mg/kg	0.9	7.8	NS	<0.338	<0.342	<0.360	<0.346	---	---	---	1.03	<0.359	<0.346	<0.324	---	0.514	1.79	0.389	---	---	1.83	<0.427	<0.348	---	
Chrysene	8270C	mg/kg	0.4	780	NS	<0.169	<0.172	<0.181	<0.173	---	---	---	0.971	<0.180	<0.173	<0.162	---	0.531	2.35	0.595	---	---	1.88	<0.214	0.393	---	
Dibenzo(a,h)Anthracene	8270C	mg/kg	0.4	0.8	NS	<0.169	<0.172	<0.181	<0.173	---	---	---	<0.335	<0.180	<0.173	<0.162	---	<0.173	0.395	<0.169	---	---	0.194	<0.214	<0.175	---	
Fluoranthene	8270C	mg/kg	20	10,000	NS	<0.338	<0.342	<0.360	<0.346	---	---	---	1.51	<0.359	<0.346	<0.324	---	0.959	4.88	0.896	---	---	3.61	<0.427	0.529	---	
Fluorene	8270C	mg/kg	28	10,000	NS	<0.338	<0.342	<0.360	<0.346	---	---	---	<0.668	<0.359	<0.346	<0.324	---	<0.346	<0.347	<0.338	---	---	<0.372	<0.427	<0.348	---	
Indeno(1,2,3-cd)Pyrene	8270C	mg/kg	0.9	7.8	NS	<0.338	<0.342	<0.360	<0.346	---	---	---	<0.668	<0.359	<0.346	<0.324	---	<0.346	1.00	<0.338	---	---	0.742	<0.427	<0.348	---	
Phenanthrene	8270C	mg/kg	40	10,000	NS	<0.338	<0.342	<0.360	<0.346	---	---	---	<0.668	<0.359	<0.346	<0.324	---	<0.346	1.51	<0.338	---	---	0.961	<0.427	<0.348	---	
Pyrene	8270C	mg/kg	13	10,000	NS	<0.338	<0.342	<0.360	<0.346	---	---	---	1.40	<0.359	<0.346	<0.324	---	0.575	3.92	0.667	---	---	2.68	<0.427	0.433	---	

Notes:
 All units in milligrams per kilogram (mg/Kg)
 RIDEM Method 1 Direct Exposure Criteria (DEC) February 2004
Bold = Detected above laboratory method detection limit
Bold = Exceeds Residential DEC
Bold = Exceeds Residential & Industrial / Commercial DEC
 NI = Sample below MRL, no identification.
 J = estimated value. Concentration below Method Reporting Limit
 * Laboratory Method Detection Limit exceeds GB Groundwater Objective
 NS - no published standard by RIDEM
 Note - GA Leachability Criteria for metals based on
 SPLP/TCLP Analysis. No SPLP/TCLP analysis
 performed as part of this assessment.

Table 3
 Summary of Groundwater Analytical Results
 Trestle Trail
 Coventry, RI

Sample ID:				RIP-1	RIP-3	Trip Blank
Sample Date:			RIDEM	09/04/2008	09/04/2008	09/04/2008
			GA Groundwater			
ANALYTE	EPA Method	UNITS	Objectives			
PP 13 Metals (9 of 13 detected)						
Beryllium	6010B	mg/L	0.004	0.0088	0.0374	---
Chromium	6010B	mg/L	0.1	0.640	0.590	---
Copper	6010B	mg/L		0.197	<0.200	---
Lead	6010B	mg/L	0.015	0.227	0.563	---
Nickel	6010B	mg/L	0.1	0.128	<0.500	---
Zinc	6010B	mg/L		0.589	1.48	---
Antimony	7041	mg/L	0.006	<0.0025	0.0040	---
Arsenic	7060A	mg/L	0.01	0.0163	0.0406	---
Mercury	7470A	mg/L	0.002	<0.00050	0.00087	---
Total Petroleum Hydrocarbons						
Total Petroleum Hydrocarbons	8100M	mg/L		<0.20	<0.20	---
Volatile Organic Carbons (none detected)						
Semivolatile Organic Compounds (9 of 73 detected)						
Benzo(a)anthracene	8270C SIM	mg/L		0.00022 (B)	0.00013	---
Benzo(a)pyrene	8270C SIM	mg/L	0.0002	0.00010	<0.00006	---
Benzo(b)fluoranthene	8270C SIM	mg/L		0.00018	<0.00006	---
Benzo(k)fluoranthene	8270C SIM	mg/L		0.00011	<0.00006	---
Chrysene	8270C SIM	mg/L		0.00016	<0.00006	---
Fluoranthene	8270C SIM	mg/L		0.00036	<0.00024	---
Indeno(1,2,3-cd)Pyrene	8270C SIM	mg/L		0.00008	<0.00006	---
Phenanthrene	8270C SIM	mg/L		0.00022	<0.00024	---
Pyrene	8270C SIM	mg/L		0.00023	<0.00024	---

Notes: Milligrams per liter (mg/L)
 1,2-Dibromoethane - listed as ethylene dibromide in RIDI
 1,2-Dichlorobenzene - listed as o-dichlorobenzene in RIDEM Regulations
 1,3-Dichlorobenzene - listed as m-dichlorobenzene in RIDEM Regulations
 1,4-Dichlorobenzene - listed as p-dichlorobenzene in RIDEM Regulations
 RIDEM GA & GB Groundwater Objectives - February 2004

Bold =	Detected above laboratory method detection limit
Bold =	Exceeds GA Groundwater Objectives

* Laboratory Method Detection Limit exceeds GB Groundwater Objective
 NS - no published RIDEM standard

GA Area



Appendix A – Limitations

Limitations



United International Corporation

- This report has been prepared for the sole and exclusive use of United International Corporation (Client), and is subject to and issued in connection with the Agreement and the provisions thereof. Any use or reliance upon information provided in this report, without the specific written authorization of Client and VHB, shall be at the User's sole risk.
- In conducting this investigation, VHB has obtained and relied upon information from multiple sources to form certain conclusions regarding potential environmental issues at and in the vicinity of the subject property. Except as otherwise noted, no attempt has been made to verify the accuracy or completeness of such information.
- No attempt has been made to assess the compliance status of any past or present Owner or Operator of the Site with any federal, state, or local laws or regulations.
- The findings, observations, and conclusions presented in this report are limited by the scope of services outlined in our Agreement, which reflects schedule and budgetary and testing constraints imposed by the Client for the environmental assessment. Furthermore, the assessment has been performed in accordance with generally accepted engineering practices. No other warranty, expressed or implied, is made.
- The assessment presented in this report is based solely upon information gathered to date. Should further environmental or other relevant information be developed at a later date or concept plans advance, finalized or changed, Client should bring the information to the attention of VHB as soon as possible. Based upon an evaluation, VHB may modify the report and its conclusions and any opinion of estimated cost.



Appendix B – Boring Logs

GROUND SURFACE ELEVATION AND DATUM: Not Surveyed

PROJECT: Trestle Trail	DATE STARTED: 3-Sep-08	DATE FINISHED: 3-Sep-08
DRILLING CONTRACTOR: New England Geotech	TOTAL DEPTH (ft.): 15	SCREEN INTERVAL (ft.): NA
DRILLING METHOD: Geoprobe	DEPTH TO WATER: NA	CASING: NA
SAMPLING METHOD: 5 Ft. Sleeve	LOGGED BY: JGK	
HAMMER WEIGHT: NA	DROP: NA	Project No.: 72016

DEPTH (feet)	Sample No.	Blows per 6 inches	PID Reading	DESCRIPTION: strata thickness,color, texture, moisture, observations	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS	
0				Ground Surface		
1	CAB-1 (0-2')		ND			
2				R=2.5/5' 7 in v. drk grayish br med-co sand w. so silt over 9 in. red-yel med sand w. so silt and gravel over 6 in. pinkish gray med-co sand w. so gravel over 8 in. pink sand and gravel		
3			ND			
4						
5						
6						
7					R=4.75/5' 6 in slough over 3 in. v pl br med sand w so silt over 2 in of brn-yel med sand w silt + grvl over 2 in v pl br med-co sand w li silt over 2 in of lt gray silt + f sand over 25 in. of v pl brn f sand over 11 in of pl yel silt and f sand	
8						
9						
10						
11						
12					R=4/5' 5 in slough over 9 in lt br gray f-med sand w so gravel over 10 in gray br SAA over 3 in lt olive br silt w li f sand over 5 in pl br f sand w li silt over 17 in alternating layers of fine and med-co sand	
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						



Log of Well No. CAB-2

GROUND SURFACE ELEVATION AND DATUM: Not Surveyed

PROJECT: Trestle Trail	DATE STARTED: 3-Sep-08	DATE FINISHED: 3-Sep-08
DRILLING CONTRACTOR: New England Geotech	TOTAL DEPTH (ft): 15	SCREEN INTERVAL (ft): NA
DRILLING METHOD: Geoprobe	DEPTH TO WATER: NA	CASING: NA
SAMPLING METHOD: 5 Ft. Sleeve	LOGGED BY: JGK	
HAMMER WEIGHT: NA	DROP: NA	Project No: 72016

DEPTH (feet)	Sample No.	Blows per 6 inches	PID Reading	DESCRIPTION: strata thickness, color, texture, moisture, observations	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0				Ground Surface	
1			ND		
2				R=3/5' 5 in br f sand w so silt + organic matter over 4 in yel br f-med sand w so gravel over 29 in lt yel br SAA	
3					
4					
5					
6					
7				R=4/5' 6 in slough over 6 in lt gray f sand + gravel over 5 in yel br f sand + ll gravel over 32 in v pl br f-med sand	
8					
9					
10					
11					
12			ND		
13				R=4/5' 8 in slough over 10 in pk gray silt and f sand over 7 5 in yel br f-med sand w so gravel over 21 5 in pl br med-f sand over 4 in br f sand	
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					



Log of Well No. CAB-3

GROUND SURFACE ELEVATION AND DATUM: Not Surveyed

PROJECT:	Trestle Trail	DATE STARTED:	3-Sep-08	DATE FINISHED:	3-Sep-08
DRILLING CONTRACTOR:	New England Geotech	TOTAL DEPTH (ft.):	15	SCREEN INTERVAL (ft.):	NA
DRILLING METHOD:	Geoprobe	DEPTH TO WATER:	-10 ft	CASING:	NA
SAMPLING METHOD:	5 Ft. Sleeve	LOGGED BY:	JGK		
HAMMER WEIGHT:	NA	DROP:	NA	Project No.:	72016

DEPTH (feet)	Sample No.	Blows per 5 inches	PID Reading	DESCRIPTION: strata thickness, color, texture, moisture, observations	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0	CAB-3 (0-2')			Ground Surface	
1			2.3		
2			2.3	R=2.75/5' 6 in v dk gray br f sand w li gravel over 5 in dk yel br f sand w so silt + gravel over 22 in alternating layers of pl br vf sand and f sand	
3					
4					
5					
6					
7				R=2 8/5' 8 in slough over 6 in lt br gray f sand w so gravel over 2 in v drk gray br f sand w so gravel over 12 in pl br f-med sand w so gravel over 18 in v pl br f-vf sand	
8					
9			ND		
10					
11					
12					
13				R=3/5' 38 in lt olive br f-vf sand with 2 in inclusion of med-co sand	
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					



Log of Well No. CAB-4

GROUND SURFACE ELEVATION AND DATUM: Not Surveyed

PROJECT:	Trestle Trail		DATE STARTED:	3-Sep-08	DATE FINISHED:	3-Sep-08
DRILLING CONTRACTOR:	New England Geotech		TOTAL DEPTH (ft.):	15	SCREEN INTERVAL (ft.):	NA
DRILLING METHOD:	Geoprobe		DEPTH TO WATER:	-10 ft	CASING:	NA
SAMPLING METHOD:	5 Ft. Sleeve		LOGGED BY:	JGK		
HAMMER WEIGHT:	NA	DROP:	NA	Project No.:	72016	

DEPTH (feet)	Sample No.	Blows per 6 inches	PID Reading	DESCRIPTION: strata thickness, color, texture, moisture, observations	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0				Ground Surface	
1			25		
2				R=2 5/5' 4 in v drk gray br med sand w gravel over 4 in drk yel br med sand and gravel over 10 in lt yel br f-med sand w so gravel over 10 in lt gray f sand	
3			ND		
4					
5					
6					
7				R=3 55/5' 4.5 in slough over 7 in lt yel br f-med sand w so gravel over 1.5 in drk br f-med sand w few gravel over 8 in pl br f-med sand w mostly gravel over 21 in lt gray f-med sand	
8					
9			ND		
10					
11					
12				R=2 5/5' 22 in slough over 10 in lt br gray med-co sand w tr gravel over 22 in lt br gray f-vf sand	
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					



Log of Well No. RICONN-1

GROUND SURFACE ELEVATION AND DATUM: Not Surveyed

PROJECT: Trestle Trail		DATE STARTED: 5-Sep-08	DATE FINISHED: 5-Sep-08
DRILLING CONTRACTOR: New England Geotech		TOTAL DEPTH (ft): 15	SCREEN INTERVAL (ft.): NA
DRILLING METHOD: Geoprobe		DEPTH TO WATER: Not Encountered	CASING: NA
SAMPLING METHOD: 5 Ft. Sleeve		LOGGED BY: JGK	
HAMMER WEIGHT: NA	DROP: NA	Project No.: 72016	

DEPTH (feet)	Sample No.	Blows per 5 inches	PID Reading	DESCRIPTION: strata thickness,color, texture, moisture, observations	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0				Ground Surface	
1	RICONN-1 (0-2')		ND		
2				R=3/5' 3 in v drk gray br f-med sand over 4.5 in v drk br f-med sand w few gravel over 7 in br med sand w few gravel over 22.5 in white f-med sand	
3					
4					
5					
6					
7				R=3/5' 31 in white f-med sand over 6 in lt gray SAA	
8					
9					
10					
11					
12				R=3.3/5' 22 in white f-med sand over 2 in gray br f-vf sand w mostly silt over 16 in white f-med sand	
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					



Log of Well No. RICONN-2

GROUND SURFACE ELEVATION AND DATUM: Not Surveyed

PROJECT: Trestle Trail	DATE STARTED: 5-Sep-08	DATE FINISHED: 5-Sep-08
DRILLING CONTRACTOR: New England Geotech	TOTAL DEPTH (ft): 15	SCREEN INTERVAL (ft): NA
DRILLING METHOD: Geoprobe	DEPTH TO WATER: Not Encountered	CASING: NA
SAMPLING METHOD: 5 Ft. Sleeve	LOGGED BY: JGK	
HAMMER WEIGHT: NA	DROP: NA	Project No.: 72016

DEPTH (feet)	Sample No.	Blows per 6 inches	PID Reading	DESCRIPTION: strata thickness,color, texture, moisture, observations	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0				Ground Surface	
1			ND	R=2.75/5 3 in v drk br f-med sand w few gravel over 3 in v drk gray br SAA over 1 in blk f-med sand w ll gravel over 3.5 in br SAA over 2.5 in drk br f-med sand w tr gravel over 1 in drk yel br SAA over 1 in v drk br SAA over 4 in drk yel br SAA over 9.5 in olive yel SAA over 8 in lt yel br SAA over 3 in yel br med sand w so gravel over 4 in yel red SAA	
2					
3					
4					
5					
6					
7					
8				R=2.75/5 8 in lt yel br w few gravel over 3.5 in white f-med sand w tr gravel over 1.5 in lt gray SAA over 11 in white f-med sand w so gravel over 9 in lt gray f-med sand w tr gravel	
9			ND		
10					
11					
12				R=4.75/5 9.5 in slough over 14.5 in lt gray med sand w tr gravel over 5 in gray med sand w tr gravel over 16 in lt gray SAA	
13			ND		
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					



Log of Well No. RICONN-3

GROUND SURFACE ELEVATION AND DATUM: Not Surveyed

PROJECT:	Trestle Trail	DATE STARTED:	5-Sep-08	DATE FINISHED:	5-Sep-08
DRILLING CONTRACTOR:	New England Geotech	TOTAL DEPTH (ft.):	15	SCREEN INTERVAL (ft.):	NA
DRILLING METHOD:	Geoprobe	DEPTH TO WATER:	Not Encountered	CASING:	NA
SAMPLING METHOD:	5 Ft. Sleeve	LOGGED BY:	JGK		
HAMMER WEIGHT:	NA	DROP:	NA	Project No.:	72016

DEPTH (feet)	Sample No.	Blows per 6 inches	PID Reading	DESCRIPTION: strata thickness,color, texture, moisture, observations	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0				Ground Surface	
1	RICONN-3 (0-2')		ND		
2				R=3/5' 4 in v drk br f-med sand w so gravel over 2 in v drk gray br f-med sand w li gravel over 31 in of white med sand w alternating layers of finer soil	
3	RICONN-3 (2-4')		ND		
4					
5					
6					
7					
8				R=2 8/5' 6 in lt gray med sand w li gravel over 28 in lt gray med-co sand w mostly gravel	
9					
10					
11					
12					
13				R=3 75/5' 5 in lt gray med-co sand w few gravel over 12 in lt gray f-med sand over 9 in gray SAA over 24 in lt br gray SAA	
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					



Log of Well No. RIP-1

GROUND SURFACE ELEVATION AND DATUM: Not Surveyed

PROJECT: Trestle Trail	DATE STARTED: 4-Sep-08	DATE FINISHED: 4-Sep-08
DRILLING CONTRACTOR: New England Geotech	TOTAL DEPTH (ft): 13	SCREEN INTERVAL (ft): NA
DRILLING METHOD: Geoprobe	DEPTH TO WATER: NA	CASING: NA
SAMPLING METHOD: 5 Ft. Sleeve	LOGGED BY: JGK	
HAMMER WEIGHT: NA	DROP: NA	Project No.: 72016

DEPTH (feet)	Sample No.	Blows per 6 inches	PID Reading	DESCRIPTION: strata thickness,color, texture, moisture, observations	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0				Ground Surface	
1	RIP-1 (0-2')		ND	R=2/5' 4.5 in v drk gray br f-med sand w li silt and roots over 3.5 in v drk br f-med sand w li silt, roots, and li gravel over 3.5 in drk yel br f-med sand w so silt + li gravel over 5.5 in yel br SAA over 8 in v pl br med-co sand + gravel and tr silt	
2					
3					
4					
5					
6					
7				R=2 8/5' 6 in slough over 3.5 in v pl br f sand w so gravel over 12.5 in v pl br med sand w so gravel over 6 in lt olive br f-med sand w so gravel over 6 in yel br f sand	
8					
9			ND		
10					
11				R=1 75/5' 18.5 in br f sand w so gravel over 2.5 in gray br f sand w li gravel	
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					



GROUND SURFACE ELEVATION AND DATUM: Not Surveyed

PROJECT:	Trestle Trail		DATE STARTED:	4-Sep-08	DATE FINISHED:	4-Sep-08
DRILLING CONTRACTOR:	New England Geotech		TOTAL DEPTH (ft.):	10	SCREEN INTERVAL (ft.):	NA
DRILLING METHOD:	Geoprobe		DEPTH TO WATER:	-8.5 ft	CASING:	NA
SAMPLING METHOD:	5 Ft. Sleeve		LOGGED BY:	JGK		
HAMMER WEIGHT:	NA	DROP:	NA	Project No.:	72016	

DEPTH (feet)	Sample No.	Blows per 6 inches	PID Reading	DESCRIPTION: strata thickness, color, texture, moisture, observations	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0				Ground Surface	
1			ND		
2				R=3/5' 4 in v drk br f sand w so silt + gravel over	
3				5 in drk yel br SAA over 2 in pl br f sand w so	
4				gravel over 7.5 in crushed stone or boulder over	
5				17.5 in lt gray f sand w mostly gravel	
6					
7				R=3 6/5' 12 in slough over 14.5 in lt yel br f-med	
8			ND	sand w mostly gravel over 11.5 in lt br gray f	
9				sand w few gravel over 5 in lt br gray f-med	
10				sand w so gravel	
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					



Log of Well No. RIP-3

GROUND SURFACE ELEVATION AND DATUM: Not Surveyed

PROJECT:	Trestle Trail	DATE STARTED:	4-Sep-08	DATE FINISHED:	4-Sep-08
DRILLING CONTRACTOR:	New England Geotech	TOTAL DEPTH (ft.):	10	SCREEN INTERVAL (ft.):	NA
DRILLING METHOD:	Geoprobe	DEPTH TO WATER:	-5 ft.	CASING:	NA
SAMPLING METHOD:	5 Ft. Sleeve	LOGGED BY:	JGK		
HAMMER WEIGHT:	NA	DROP:	NA	Project No.:	72016

DEPTH (feet)	Sample No.	Blows per 5 inches	PID Reading	DESCRIPTION: strata thickness, color, texture, moisture, observations	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0				Ground Surface	
1			ND		
2				R=2/5' 3 in v drk gray f sand w li gravel over 2 in crushed stone or boulder over 18.5 in yel br f-med sand	
3			ND		
4					
5					
6					
7				R=3 6/5' 24 in yel br vf sand w mostly silt over 13.5 in lt olive br f sand w li gravel over 4 in yel br f-med sand	
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					



Log of Well No. RIP-4

GROUND SURFACE ELEVATION AND DATUM: Not Surveyed

PROJECT:	Trestle Trail		DATE STARTED:	4-Sep-08	DATE FINISHED:	4-Sep-08
DRILLING CONTRACTOR:	New England Geotech		TOTAL DEPTH (ft.):	10	SCREEN INTERVAL (ft.):	NA
DRILLING METHOD:	Geoprobe		DEPTH TO WATER:	NA	CASING:	NA
SAMPLING METHOD:	5 Ft. Sleeve		LOGGED BY:	JGK		
HAMMER WEIGHT:	NA	DROP:	NA	Project No.:	72016	

DEPTH (feet)	Sample No.	Blows per 6 inches	PID Reading	DESCRIPTION: strata thickness,color, texture, moisture, observations	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0				Ground Surface	
1	RIP-4 (0-2')		ND	R=3/5' 3 in lt br gray f sand over 4.5 in yel br f sand w ll gravel over 1.5 in v drk br f sand w tr gravel over 3 in br f sand over 3.5 in lt br gray SAA over 5.5 in yel br f sand w few gravel over 5 in pl br f-med sand w few gravel over 1.5 in br SAA over 3 in pl br f sand w few gravel over 4 in yel br f sand w so gravel	
2					
3					
4					
5					
6					
7				R=2/5' 5 in lt yel br med sand w so gravel over 3 in lt br gray silt and f sand over 3.5 in yel br silt w f sand over 6.5 in drk yel br med sand w no gravel over 4 in drk gray silt and f sand w organic matter over 1 in br med sand w so gravel	
8					
9					
10			ND		
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					



Appendix C – Soil Analytical Report



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

PROJECT NARRATIVE

Sue Courtemanche
Vanasse Hangen Brustlin, Inc.
10 Dorrance Street, Suite 400
Providence, RI 02903

RE: Trestle Trail
ESS Laboratory Work Order Number: 0809032

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this Project Narrative, the entire report has been paginated. The ESS Laboratory Certifications sheet is the final report page. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been mailed. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

Date: September 10, 2008

Analytical Summary

The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration may be used instead of automated integration because it produces more accurate results. All ICP Metals were analyzed using the established linear dynamic range to determine acceptable analytical results.

ESS Laboratory certifies that the test results meet the requirements of NELAC, except where noted within this project narrative.

Sample Receipt

The following sample(s) were received on September 03, 2008 for the analyses specified on the enclosed Chain of Custody Record.

Laboratory ID	Matrix	Client SampleID
0809032-01	Soil	CAB-1 0-2
0809032-02	Soil	CAB-2 0-2
0809032-03	Soil	CAB-3 0-2
0809032-04	Soil	CAB-4 0-2
0809032-05	Soil	CAB-4 8-10
0809032-06	Solid	Trip Blank



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809032

PROJECT NARRATIVE

5035/8260B Volatile Organic Compounds / Low Level

- BI80415-BS1 **Blank Spike recovery is above upper control limit.**
Vinyl Chloride
- BI80415-BSD1 **Blank Spike recovery is above upper control limit.**
Vinyl Chloride
- BI80415-BSD1 **Blank Spike recovery is below lower control limit.**
Acetone, Diethyl Ether
- BI80415-BSD1 **Relative percent difference for duplicate is outside of criteria.**
Acetone, Diethyl Ether
- BRI0030-CCV1 **Continuing Calibration recovery is below lower control limit.**
Diethyl Ether

8270C Semi-Volatile Organic Compounds

- BI80327-MS1 **Matrix Spike recovery is below lower control limit.**
Aniline, Hexachlorocyclopentadiene, Pyridine
- BI80327-MSD1 **Matrix Spike recovery is below lower control limit.**
Hexachlorocyclopentadiene, Pyridine

No other observations noted.

End of Project Narrative.



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: CAB-1 0-2
Date Sampled: 09/03/08 09:20
Percent Solids: 98

ESS Laboratory Work Order: 0809032
ESS Laboratory Sample ID: 0809032-01
Sample Matrix: Soil

3050B/6000/7000 Total Metals

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Antimony	ND	mg/kg dry	5.6	6010B	10	1	SVD	09/03/08	1.81	100
Arsenic	3.6	mg/kg dry	2.8	6010B	7	1	SVD	09/03/08	1.81	100
Beryllium	0.27	mg/kg dry	0.06	6010B	0.4	1	SVD	09/03/08	1.81	100
Cadmium	ND	mg/kg dry	0.57	6010B	39	1	SVD	09/03/08	1.81	100
Chromium	3.1	mg/kg dry	1.1	6010B	1400	1	SVD	09/03/08	1.81	100
Copper	6.1	mg/kg dry	1.1	6010B	3100	1	SVD	09/03/08	1.81	100
Lead	15.0	mg/kg dry	5.6	6010B	150	1	SVD	09/03/08	1.81	100
Mercury	ND	mg/kg dry	0.034	7471A	23	1	JP	09/05/08	0.6	40
Nickel	ND	mg/kg dry	2.8	6010B	1000	1	SVD	09/03/08	1.81	100
Selenium	ND	mg/kg dry	5.6	6010B	390	1	SVD	09/03/08	1.81	100
Silver	ND	mg/kg dry	0.57	6010B	200	1	SVD	09/03/08	1.81	100
Thallium	ND	mg/kg dry	1.40	7841	5.5	5	JP	09/04/08	1.81	100
Zinc	18.4	mg/kg dry	2.8	6010B	6000	1	SVD	09/03/08	1.81	100



ESS Laboratory

Division of Thielsch Engineering, Inc.

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 Client Project ID: Trestle Trail
 Client Sample ID: CAB-1 0-2
 Date Sampled: 09/03/08 09:20
 Percent Solids: 98
 Initial Volume: 7.3
 Final Volume: 10
 Extraction Method: 5035

ESS Laboratory Work Order: 0809032
 ESS Laboratory Sample ID: 0809032-01
 Sample Matrix: Soil
 Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

RI - RES DEC

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1,1,2-Tetrachloroethane	ND	mg/kg dry	0.0035	2.2	1	09/04/08
1,1,1-Trichloroethane	ND	mg/kg dry	0.0035	540	1	09/04/08
1,1,2,2-Tetrachloroethane	ND	mg/kg dry	0.0035	1.3	1	09/04/08
1,1,2-Trichloroethane	ND	mg/kg dry	0.0035	3.6	1	09/04/08
1,1-Dichloroethane	ND	mg/kg dry	0.0035	920	1	09/04/08
1,1-Dichloroethene	ND	mg/kg dry	0.0035	0.2	1	09/04/08
1,1-Dichloropropene	ND	mg/kg dry	0.0035		1	09/04/08
1,2,3-Trichlorobenzene	ND	mg/kg dry	0.0035		1	09/04/08
1,2,3-Trichloropropane	ND	mg/kg dry	0.0035		1	09/04/08
1,2,4-Trichlorobenzene	ND	mg/kg dry	0.0035	96	1	09/04/08
1,2,4-Trimethylbenzene	ND	mg/kg dry	0.0035		1	09/04/08
1,2-Dibromo-3-Chloropropane	ND	mg/kg dry	0.0035	0.5	1	09/04/08
1,2-Dibromoethane	ND	mg/kg dry	0.0035	0.01	1	09/04/08
1,2-Dichlorobenzene	ND	mg/kg dry	0.0035	510	1	09/04/08
1,2-Dichloroethane	ND	mg/kg dry	0.0035	0.9	1	09/04/08
1,2-Dichloropropane	ND	mg/kg dry	0.0035	1.9	1	09/04/08
1,3,5-Trimethylbenzene	ND	mg/kg dry	0.0035		1	09/04/08
1,3-Dichlorobenzene	ND	mg/kg dry	0.0035	430	1	09/04/08
1,3-Dichloropropane	ND	mg/kg dry	0.0035		1	09/04/08
1,4-Dichlorobenzene	ND	mg/kg dry	0.0035	27	1	09/04/08
1,4-Dioxane	ND	mg/kg dry	0.0699		1	09/04/08
1-Chlorohexane	ND	mg/kg dry	0.0035		1	09/04/08
2,2-Dichloropropane	ND	mg/kg dry	0.0035		1	09/04/08
2-Butanone	ND	mg/kg dry	0.0349	10000	1	09/04/08
2-Chlorotoluene	ND	mg/kg dry	0.0035		1	09/04/08
2-Hexanone	ND	mg/kg dry	0.0349		1	09/04/08
4-Chlorotoluene	ND	mg/kg dry	0.0035		1	09/04/08
4-Isopropyltoluene	ND	mg/kg dry	0.0035		1	09/04/08
4-Methyl-2-Pentanone	ND	mg/kg dry	0.0349	1200	1	09/04/08
Acetone	ND	mg/kg dry	0.0349	7800	1	09/04/08
Benzene	ND	mg/kg dry	0.0035	2.5	1	09/04/08
Bromobenzene	ND	mg/kg dry	0.0035		1	09/04/08
Bromochloromethane	ND	mg/kg dry	0.0035		1	09/04/08
Bromodichloromethane	ND	mg/kg dry	0.0035	10	1	09/04/08
Bromoform	ND	mg/kg dry	0.0035	81	1	09/04/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

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Percent Solids: 98
Initial Volume: 7.3
Final Volume: 10
Extraction Method: 5035

ESS Laboratory Work Order: 0809032
ESS Laboratory Sample ID: 0809032-01
Sample Matrix: Soil
Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Bromomethane	ND	mg/kg dry	0.0070	0.8	1	09/04/08
Carbon Disulfide	ND	mg/kg dry	0.0035		1	09/04/08
Carbon Tetrachloride	ND	mg/kg dry	0.0035	1.5	1	09/04/08
Chlorobenzene	ND	mg/kg dry	0.0035	210	1	09/04/08
Chloroethane	ND	mg/kg dry	0.0070		1	09/04/08
Chloroform	ND	mg/kg dry	0.0035	1.2	1	09/04/08
Chloromethane	ND	mg/kg dry	0.0070		1	09/04/08
cis-1,2-Dichloroethene	ND	mg/kg dry	0.0035	630	1	09/04/08
cis-1,3-Dichloropropene	ND	mg/kg dry	0.0035		1	09/04/08
Dibromochloromethane	ND	mg/kg dry	0.0035	7.6	1	09/04/08
Dibromomethane	ND	mg/kg dry	0.0035		1	09/04/08
Dichlorodifluoromethane	ND	mg/kg dry	0.0070		1	09/04/08
Diethyl Ether	ND	mg/kg dry	0.0035		1	09/04/08
Di-isopropyl ether	ND	mg/kg dry	0.0035		1	09/04/08
Ethyl tertiary-butyl ether	ND	mg/kg dry	0.0035		1	09/04/08
Ethylbenzene	ND	mg/kg dry	0.0035	71	1	09/04/08
Hexachlorobutadiene	ND	mg/kg dry	0.0035	8.2	1	09/04/08
Isopropylbenzene	ND	mg/kg dry	0.0035	27	1	09/04/08
Methyl tert-Butyl Ether	ND	mg/kg dry	0.0035	390	1	09/04/08
Methylene Chloride	ND	mg/kg dry	0.0175	45	1	09/04/08
Naphthalene	ND	mg/kg dry	0.0035	54	1	09/04/08
n-Butylbenzene	ND	mg/kg dry	0.0035		1	09/04/08
n-Propylbenzene	ND	mg/kg dry	0.0035		1	09/04/08
sec-Butylbenzene	ND	mg/kg dry	0.0035		1	09/04/08
Styrene	ND	mg/kg dry	0.0035	13	1	09/04/08
tert-Butylbenzene	ND	mg/kg dry	0.0035		1	09/04/08
Tertiary-amyl methyl ether	ND	mg/kg dry	0.0035		1	09/04/08
Tetrachloroethene	ND	mg/kg dry	0.0035	12	1	09/04/08
Tetrahydrofuran	ND	mg/kg dry	0.0035		1	09/04/08
Toluene	ND	mg/kg dry	0.0035	190	1	09/04/08
trans-1,2-Dichloroethene	ND	mg/kg dry	0.0035	1100	1	09/04/08
trans-1,3-Dichloropropene	ND	mg/kg dry	0.0035		1	09/04/08
Trichloroethene	ND	mg/kg dry	0.0035	13	1	09/04/08
Trichlorofluoromethane	ND	mg/kg dry	0.0035		1	09/04/08
Vinyl Acetate	ND	mg/kg dry	0.0035		1	09/04/08
Vinyl Chloride	ND	mg/kg dry	0.0070	0.02	1	09/04/08



ESS Laboratory

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Date Sampled: 09/03/08 09:20
Percent Solids: 98
Initial Volume: 7.3
Final Volume: 10
Extraction Method: 5035

ESS Laboratory Work Order: 0809032
ESS Laboratory Sample ID: 0809032-01
Sample Matrix: Soil
Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Xylene O	ND	mg/kg dry	0.0035	110	1	09/04/08
Xylene P,M	ND	mg/kg dry	0.0070	110	1	09/04/08
Xylenes (Total)	ND	mg/kg dry	0.0105	110	0	09/04/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	123 %		70-130
Surrogate: 4-Bromofluorobenzene	88 %		70-130
Surrogate: Dibromofluoromethane	114 %		70-130
Surrogate: Toluene-d8	93 %		70-130



ESS Laboratory

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CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: CAB-1 0-2
 Date Sampled: 09/03/08 09:20
 Percent Solids: 98
 Initial Volume: 20.2
 Final Volume: 10
 Extraction Method: 3541

ESS Laboratory Work Order: 0809032
 ESS Laboratory Sample ID: 0809032-01
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 09/04/08

8082 Polychlorinated Biphenyls (PCB)

RI - RES DEC

Analyte	Results	Units	MRL	Limit	DF	Analyzed
Aroclor 1016	ND	mg/kg dry	0.0505	10	1	09/06/08
Aroclor 1221	ND	mg/kg dry	0.0505	10	1	09/06/08
Aroclor 1232	ND	mg/kg dry	0.0505	10	1	09/06/08
Aroclor 1242	ND	mg/kg dry	0.0505	10	1	09/06/08
Aroclor 1248	ND	mg/kg dry	0.0505	10	1	09/06/08
Aroclor 1254	ND	mg/kg dry	0.0505	10	1	09/06/08
Aroclor 1260	ND	mg/kg dry	0.0505	10	1	09/06/08
Aroclor 1262	ND	mg/kg dry	0.0505	10	1	09/06/08
Aroclor 1268	ND	mg/kg dry	0.0505	10	1	09/06/08

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	88 %		30-150
Surrogate: Decachlorobiphenyl [2C]	115 %		30-150
Surrogate: Tetrachloro-m-xylene	71 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	76 %		30-150



ESS Laboratory

Division of Thielsch Engineering, Inc.

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Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: CAB-1 0-2
 Date Sampled: 09/03/08 09:20
 Percent Solids: 98
 Initial Volume: 20.2
 Final Volume: 1
 Extraction Method: 3541

ESS Laboratory Work Order: 0809032
 ESS Laboratory Sample ID: 0809032-01
 Sample Matrix: Soil
 Analyst: SEP
 Prepared: 09/04/08

8100M Total Petroleum Hydrocarbons

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>
Total Petroleum Hydrocarbons	ND	mg/kg dry	37.9	500	1	09/04/08

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: O-Terphenyl	64 %		40-140



ESS Laboratory

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 Client Sample ID: CAB-1 0-2
 Date Sampled: 09/03/08 09:20
 Percent Solids: 98
 Initial Volume: 15.1
 Final Volume: 0.5
 Extraction Method: 3546

ESS Laboratory Work Order: 0809032
 ESS Laboratory Sample ID: 0809032-01
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 09/03/08

8270C Semi-Volatile Organic Compounds

RI - RES DEC

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1-Biphenyl	ND	mg/kg dry	0.338	0.8	1	09/04/08
1,2,4-Trichlorobenzene	ND	mg/kg dry	0.338	96	1	09/04/08
1,2-Dichlorobenzene	ND	mg/kg dry	0.338	510	1	09/04/08
1,3-Dichlorobenzene	ND	mg/kg dry	0.338	430	1	09/04/08
1,4-Dichlorobenzene	ND	mg/kg dry	0.338	27	1	09/04/08
2,3,4,6-Tetrachlorophenol	ND	mg/kg dry	1.69		1	09/04/08
2,4,5-Trichlorophenol	ND	mg/kg dry	0.338	330	1	09/04/08
2,4,6-Trichlorophenol	ND	mg/kg dry	0.338	58	1	09/04/08
2,4-Dichlorophenol	ND	mg/kg dry	0.338	30	1	09/04/08
2,4-Dimethylphenol	ND	mg/kg dry	0.338	1400	1	09/04/08
2,4-Dinitrophenol	ND	mg/kg dry	1.69	160	1	09/04/08
2,4-Dinitrotoluene	ND	mg/kg dry	0.338	0.9	1	09/04/08
2,6-Dinitrotoluene	ND	mg/kg dry	0.338		1	09/04/08
2-Chloronaphthalene	ND	mg/kg dry	0.338		1	09/04/08
2-Chlorophenol	ND	mg/kg dry	0.338	50	1	09/04/08
2-Methylnaphthalene	ND	mg/kg dry	0.338	123	1	09/04/08
2-Methylphenol	ND	mg/kg dry	0.338		1	09/04/08
2-Nitroaniline	ND	mg/kg dry	0.338		1	09/04/08
2-Nitrophenol	ND	mg/kg dry	0.338		1	09/04/08
3,3'-Dichlorobenzidine	ND	mg/kg dry	0.676	1.4	1	09/04/08
3+4-Methylphenol	ND	mg/kg dry	0.676		1	09/04/08
3-Nitroaniline	ND	mg/kg dry	0.338		1	09/04/08
4,6-Dinitro-2-Methylphenol	ND	mg/kg dry	1.69		1	09/04/08
4-Bromophenyl-phenylether	ND	mg/kg dry	0.338		1	09/04/08
4-Chloro-3-Methylphenol	ND	mg/kg dry	0.338		1	09/04/08
4-Chloroaniline	ND	mg/kg dry	0.676	310	1	09/04/08
4-Chloro-phenyl-phenyl ether	ND	mg/kg dry	0.338		1	09/04/08
4-Nitroaniline	ND	mg/kg dry	0.338		1	09/04/08
4-Nitrophenol	ND	mg/kg dry	1.69		1	09/04/08
Acenaphthene	ND	mg/kg dry	0.338	43	1	09/04/08
Acenaphthylene	ND	mg/kg dry	0.338	23	1	09/04/08
Acetophenone	ND	mg/kg dry	0.676		1	09/04/08
Aniline	ND	mg/kg dry	0.676		1	09/04/08
Anthracene	ND	mg/kg dry	0.338	35	1	09/04/08
Azobenzene	ND	mg/kg dry	0.338		1	09/04/08



ESS Laboratory

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 Date Sampled: 09/03/08 09:20
 Percent Solids: 98
 Initial Volume: 15.1
 Final Volume: 0.5
 Extraction Method: 3546

ESS Laboratory Work Order: 0809032
 ESS Laboratory Sample ID: 0809032-01
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 09/03/08

8270C Semi-Volatile Organic Compounds

Benzo(a)anthracene	ND	mg/kg dry	0.338	0.9	1	09/04/08
Benzo(a)pyrene	ND	mg/kg dry	0.169	0.4	1	09/04/08
Benzo(b)fluoranthene	ND	mg/kg dry	0.338	0.9	1	09/04/08
Benzo(g,h,i)perylene	ND	mg/kg dry	0.338	0.8	1	09/04/08
Benzo(k)fluoranthene	ND	mg/kg dry	0.338	0.9	1	09/04/08
Benzoic Acid	ND	mg/kg dry	1.69		1	09/04/08
Benzyl Alcohol	ND	mg/kg dry	0.338		1	09/04/08
bis(2-Chloroethoxy)methane	ND	mg/kg dry	0.338		1	09/04/08
bis(2-Chloroethyl)ether	ND	mg/kg dry	0.338	0.6	1	09/04/08
bis(2-chloroisopropyl)Ether	ND	mg/kg dry	0.338	9.1	1	09/04/08
bis(2-Ethylhexyl)phthalate	ND	mg/kg dry	0.338	46	1	09/04/08
Butylbenzylphthalate	ND	mg/kg dry	0.338		1	09/04/08
Carbazole	ND	mg/kg dry	0.338		1	09/04/08
Chrysene	ND	mg/kg dry	0.169	0.4	1	09/04/08
Dibenzo(a,h)Anthracene	ND	mg/kg dry	0.169	0.4	1	09/04/08
Dibenzofuran	ND	mg/kg dry	0.338		1	09/04/08
Diethylphthalate	ND	mg/kg dry	0.338	340	1	09/04/08
Dimethylphthalate	ND	mg/kg dry	0.338	1900	1	09/04/08
Di-n-butylphthalate	ND	mg/kg dry	0.338		1	09/04/08
Di-n-octylphthalate	ND	mg/kg dry	0.338		1	09/04/08
Fluoranthene	ND	mg/kg dry	0.338	20	1	09/04/08
Fluorene	ND	mg/kg dry	0.338	28	1	09/04/08
Hexachlorobenzene	ND	mg/kg dry	0.169	0.4	1	09/04/08
Hexachlorobutadiene	ND	mg/kg dry	0.338	8.2	1	09/04/08
Hexachlorocyclopentadiene	ND	mg/kg dry	1.69		1	09/04/08
Hexachloroethane	ND	mg/kg dry	0.338	46	1	09/04/08
Indeno(1,2,3-cd)Pyrene	ND	mg/kg dry	0.338	0.9	1	09/04/08
Isophorone	ND	mg/kg dry	0.338		1	09/04/08
Naphthalene	ND	mg/kg dry	0.338	54	1	09/04/08
Nitrobenzene	ND	mg/kg dry	0.338		1	09/04/08
N-Nitrosodimethylamine	ND	mg/kg dry	0.338		1	09/04/08
N-Nitroso-Di-n-Propylamine	ND	mg/kg dry	0.338		1	09/04/08
N-nitrosodiphenylamine	ND	mg/kg dry	0.338		1	09/04/08
Pentachlorophenol	ND	mg/kg dry	1.69	5.3	1	09/04/08
Phenanthrene	ND	mg/kg dry	0.338	40	1	09/04/08
Phenol	ND	mg/kg dry	0.338	6000	1	09/04/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: CAB-1 0-2
 Date Sampled: 09/03/08 09:20
 Percent Solids: 98
 Initial Volume: 15.1
 Final Volume: 0.5
 Extraction Method: 3546

ESS Laboratory Work Order: 0809032
 ESS Laboratory Sample ID: 0809032-01
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 09/03/08

8270C Semi-Volatile Organic Compounds

Pyrene	ND	mg/kg dry	0.338	13	1	09/04/08
Pyridine	ND	mg/kg dry	1.69		1	09/04/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	60 %		30-130
Surrogate: 2,4,6-Tribromophenol	78 %		30-130
Surrogate: 2-Chlorophenol-d4	58 %		30-130
Surrogate: 2-Fluorobiphenyl	64 %		30-130
Surrogate: 2-Fluorophenol	53 %		30-130
Surrogate: Nitrobenzene-d5	64 %		30-130
Surrogate: Phenol-d6	58 %		30-130
Surrogate: p-Terphenyl-d14	65 %		30-130



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: CAB-2 0-2
Date Sampled: 09/03/08 10:24
Percent Solids: 96

ESS Laboratory Work Order: 0809032
ESS Laboratory Sample ID: 0809032-02
Sample Matrix: Soil

3050B/6000/7000 Total Metals

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Antimony	ND	mg/kg dry	5.8	6010B	10	1	SVD	09/03/08	1.8	100
Arsenic	3.3	mg/kg dry	2.9	6010B	7	1	SVD	09/03/08	1.8	100
Beryllium	0.54	mg/kg dry	0.06	6010B	0.4	1	SVD	09/03/08	1.8	100
Cadmium	ND	mg/kg dry	0.58	6010B	39	1	SVD	09/03/08	1.8	100
Chromium	5.7	mg/kg dry	1.2	6010B	1400	1	SVD	09/03/08	1.8	100
Copper	7.2	mg/kg dry	1.2	6010B	3100	1	SVD	09/03/08	1.8	100
Lead	10.1	mg/kg dry	5.8	6010B	150	1	SVD	09/03/08	1.8	100
Mercury	ND	mg/kg dry	0.033	7471A	23	1	JP	09/05/08	0.63	40
Nickel	4.2	mg/kg dry	2.9	6010B	1000	1	SVD	09/03/08	1.8	100
Selenium	ND	mg/kg dry	5.8	6010B	390	1	SVD	09/03/08	1.8	100
Silver	ND	mg/kg dry	0.58	6010B	200	1	SVD	09/03/08	1.8	100
Thallium	ND	mg/kg dry	1.43	7841	5.5	5	JP	09/04/08	1.8	100
Zinc	30.3	mg/kg dry	2.9	6010B	6000	1	SVD	09/03/08	1.8	100



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: CAB-2 0-2
 Date Sampled: 09/03/08 10:24
 Percent Solids: 96
 Initial Volume: 6.4
 Final Volume: 10
 Extraction Method: 5035

ESS Laboratory Work Order: 0809032
 ESS Laboratory Sample ID: 0809032-02
 Sample Matrix: Soil
 Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

RI - RES DEC

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1,1,2-Tetrachloroethane	ND	mg/kg dry	0.0041	2.2	1	09/04/08
1,1,1-Trichloroethane	ND	mg/kg dry	0.0041	540	1	09/04/08
1,1,2,2-Tetrachloroethane	ND	mg/kg dry	0.0041	1.3	1	09/04/08
1,1,2-Trichloroethane	ND	mg/kg dry	0.0041	3.6	1	09/04/08
1,1-Dichloroethane	ND	mg/kg dry	0.0041	920	1	09/04/08
1,1-Dichloroethene	ND	mg/kg dry	0.0041	0.2	1	09/04/08
1,1-Dichloropropene	ND	mg/kg dry	0.0041		1	09/04/08
1,2,3-Trichlorobenzene	ND	mg/kg dry	0.0041		1	09/04/08
1,2,3-Trichloropropane	ND	mg/kg dry	0.0041		1	09/04/08
1,2,4-Trichlorobenzene	ND	mg/kg dry	0.0041	96	1	09/04/08
1,2,4-Trimethylbenzene	ND	mg/kg dry	0.0041		1	09/04/08
1,2-Dibromo-3-Chloropropane	ND	mg/kg dry	0.0041	0.5	1	09/04/08
1,2-Dibromoethane	ND	mg/kg dry	0.0041	0.01	1	09/04/08
1,2-Dichlorobenzene	ND	mg/kg dry	0.0041	510	1	09/04/08
1,2-Dichloroethane	ND	mg/kg dry	0.0041	0.9	1	09/04/08
1,2-Dichloropropane	ND	mg/kg dry	0.0041	1.9	1	09/04/08
1,3,5-Trimethylbenzene	ND	mg/kg dry	0.0041		1	09/04/08
1,3-Dichlorobenzene	ND	mg/kg dry	0.0041	430	1	09/04/08
1,3-Dichloropropane	ND	mg/kg dry	0.0041		1	09/04/08
1,4-Dichlorobenzene	ND	mg/kg dry	0.0041	27	1	09/04/08
1,4-Dioxane	ND	mg/kg dry	0.0814		1	09/04/08
1-Chlorohexane	ND	mg/kg dry	0.0041		1	09/04/08
2,2-Dichloropropane	ND	mg/kg dry	0.0041		1	09/04/08
2-Butanone	ND	mg/kg dry	0.0407	10000	1	09/04/08
2-Chlorotoluene	ND	mg/kg dry	0.0041		1	09/04/08
2-Hexanone	ND	mg/kg dry	0.0407		1	09/04/08
4-Chlorotoluene	ND	mg/kg dry	0.0041		1	09/04/08
4-Isopropyltoluene	ND	mg/kg dry	0.0041		1	09/04/08
4-Methyl-2-Pentanone	ND	mg/kg dry	0.0407	1200	1	09/04/08
Acetone	ND	mg/kg dry	0.0407	7800	1	09/04/08
Benzene	ND	mg/kg dry	0.0041	2.5	1	09/04/08
Bromobenzene	ND	mg/kg dry	0.0041		1	09/04/08
Bromochloromethane	ND	mg/kg dry	0.0041		1	09/04/08
Bromodichloromethane	ND	mg/kg dry	0.0041	10	1	09/04/08
Bromoform	ND	mg/kg dry	0.0041	81	1	09/04/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: CAB-2 0-2
Date Sampled: 09/03/08 10:24
Percent Solids: 96
Initial Volume: 6.4
Final Volume: 10
Extraction Method: 5035

ESS Laboratory Work Order: 0809032
ESS Laboratory Sample ID: 0809032-02
Sample Matrix: Soil
Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Bromomethane	ND	mg/kg dry	0.0081	0.8	1	09/04/08
Carbon Disulfide	ND	mg/kg dry	0.0041		1	09/04/08
Carbon Tetrachloride	ND	mg/kg dry	0.0041	1.5	1	09/04/08
Chlorobenzene	ND	mg/kg dry	0.0041	210	1	09/04/08
Chloroethane	ND	mg/kg dry	0.0081		1	09/04/08
Chloroform	ND	mg/kg dry	0.0041	1.2	1	09/04/08
Chloromethane	ND	mg/kg dry	0.0081		1	09/04/08
cis-1,2-Dichloroethene	ND	mg/kg dry	0.0041	630	1	09/04/08
cis-1,3-Dichloropropene	ND	mg/kg dry	0.0041		1	09/04/08
Dibromochloromethane	ND	mg/kg dry	0.0041	7.6	1	09/04/08
Dibromomethane	ND	mg/kg dry	0.0041		1	09/04/08
Dichlorodifluoromethane	ND	mg/kg dry	0.0081		1	09/04/08
Diethyl Ether	ND	mg/kg dry	0.0041		1	09/04/08
Di-isopropyl ether	ND	mg/kg dry	0.0041		1	09/04/08
Ethyl tertiary-butyl ether	ND	mg/kg dry	0.0041		1	09/04/08
Ethylbenzene	ND	mg/kg dry	0.0041	71	1	09/04/08
Hexachlorobutadiene	ND	mg/kg dry	0.0041	8.2	1	09/04/08
Isopropylbenzene	ND	mg/kg dry	0.0041	27	1	09/04/08
Methyl tert-Butyl Ether	ND	mg/kg dry	0.0041	390	1	09/04/08
Methylene Chloride	ND	mg/kg dry	0.0203	45	1	09/04/08
Naphthalene	ND	mg/kg dry	0.0041	54	1	09/04/08
n-Butylbenzene	ND	mg/kg dry	0.0041		1	09/04/08
n-Propylbenzene	ND	mg/kg dry	0.0041		1	09/04/08
sec-Butylbenzene	ND	mg/kg dry	0.0041		1	09/04/08
Styrene	ND	mg/kg dry	0.0041	13	1	09/04/08
tert-Butylbenzene	ND	mg/kg dry	0.0041		1	09/04/08
Tertiary-amyl methyl ether	ND	mg/kg dry	0.0041		1	09/04/08
Tetrachloroethene	ND	mg/kg dry	0.0041	12	1	09/04/08
Tetrahydrofuran	ND	mg/kg dry	0.0041		1	09/04/08
Toluene	ND	mg/kg dry	0.0041	190	1	09/04/08
trans-1,2-Dichloroethene	ND	mg/kg dry	0.0041	1100	1	09/04/08
trans-1,3-Dichloropropene	ND	mg/kg dry	0.0041		1	09/04/08
Trichloroethene	ND	mg/kg dry	0.0041	13	1	09/04/08
Trichlorofluoromethane	ND	mg/kg dry	0.0041		1	09/04/08
Vinyl Acetate	ND	mg/kg dry	0.0041		1	09/04/08
Vinyl Chloride	ND	mg/kg dry	0.0081	0.02	1	09/04/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: CAB-2 0-2
Date Sampled: 09/03/08 10:24
Percent Solids: 96
Initial Volume: 6.4
Final Volume: 10
Extraction Method: 5035

ESS Laboratory Work Order: 0809032
ESS Laboratory Sample ID: 0809032-02
Sample Matrix: Soil
Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Xylene O	ND	mg/kg dry	0.0041	110	1	09/04/08
Xylene P,M	ND	mg/kg dry	0.0081	110	1	09/04/08
Xylenes (Total)	ND	mg/kg dry	0.0122	110	0	09/04/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	122 %		70-130
Surrogate: 4-Bromofluorobenzene	86 %		70-130
Surrogate: Dibromofluoromethane	111 %		70-130
Surrogate: Toluene-d8	98 %		70-130



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: CAB-2 0-2
 Date Sampled: 09/03/08 10:24
 Percent Solids: 96
 Initial Volume: 20.1
 Final Volume: 10
 Extraction Method: 3541

ESS Laboratory Work Order: 0809032
 ESS Laboratory Sample ID: 0809032-02
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 09/04/08

8082 Polychlorinated Biphenyls (PCB)

RI - RES DEC

Analyte	Results	Units	MRL	Limit	DF	Analyzed
Aroclor 1016	ND	mg/kg dry	0.0518	10	1	09/06/08
Aroclor 1221	ND	mg/kg dry	0.0518	10	1	09/06/08
Aroclor 1232	ND	mg/kg dry	0.0518	10	1	09/06/08
Aroclor 1242	ND	mg/kg dry	0.0518	10	1	09/06/08
Aroclor 1248	ND	mg/kg dry	0.0518	10	1	09/06/08
Aroclor 1254	ND	mg/kg dry	0.0518	10	1	09/06/08
Aroclor 1260	ND	mg/kg dry	0.0518	10	1	09/06/08
Aroclor 1262	ND	mg/kg dry	0.0518	10	1	09/06/08
Aroclor 1268	ND	mg/kg dry	0.0518	10	1	09/06/08

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	86 %		30-150
Surrogate: Decachlorobiphenyl [2C]	92 %		30-150
Surrogate: Tetrachloro-m-xylene	78 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	85 %		30-150



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: CAB-2 0-2
Date Sampled: 09/03/08 10:24
Percent Solids: 96
Initial Volume: 20.1
Final Volume: 1
Extraction Method: 3541

ESS Laboratory Work Order: 0809032
ESS Laboratory Sample ID: 0809032-02
Sample Matrix: Soil
Analyst: SEP
Prepared: 09/04/08

8100M Total Petroleum Hydrocarbons

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>
Total Petroleum Hydrocarbons	ND	mg/kg dry	38.9	500	1	09/04/08

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: O-Terphenyl	65 %		40-140



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: CAB-2 0-2
 Date Sampled: 09/03/08 10:24
 Percent Solids: 96
 Initial Volume: 15.2
 Final Volume: 0.5
 Extraction Method: 3546

ESS Laboratory Work Order: 0809032
 ESS Laboratory Sample ID: 0809032-02
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 09/03/08

8270C Semi-Volatile Organic Compounds

RI - RES DEC

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1-Biphenyl	ND	mg/kg dry	0.342	0.8	1	09/04/08
1,2,4-Trichlorobenzene	ND	mg/kg dry	0.342	96	1	09/04/08
1,2-Dichlorobenzene	ND	mg/kg dry	0.342	510	1	09/04/08
1,3-Dichlorobenzene	ND	mg/kg dry	0.342	430	1	09/04/08
1,4-Dichlorobenzene	ND	mg/kg dry	0.342	27	1	09/04/08
2,3,4,6-Tetrachlorophenol	ND	mg/kg dry	1.72		1	09/04/08
2,4,5-Trichlorophenol	ND	mg/kg dry	0.342	330	1	09/04/08
2,4,6-Trichlorophenol	ND	mg/kg dry	0.342	58	1	09/04/08
2,4-Dichlorophenol	ND	mg/kg dry	0.342	30	1	09/04/08
2,4-Dimethylphenol	ND	mg/kg dry	0.342	1400	1	09/04/08
2,4-Dinitrophenol	ND	mg/kg dry	1.72	160	1	09/04/08
2,4-Dinitrotoluene	ND	mg/kg dry	0.342	0.9	1	09/04/08
2,6-Dinitrotoluene	ND	mg/kg dry	0.342		1	09/04/08
2-Chloronaphthalene	ND	mg/kg dry	0.342		1	09/04/08
2-Chlorophenol	ND	mg/kg dry	0.342	50	1	09/04/08
2-Methylnaphthalene	ND	mg/kg dry	0.342	123	1	09/04/08
2-Methylphenol	ND	mg/kg dry	0.342		1	09/04/08
2-Nitroaniline	ND	mg/kg dry	0.342		1	09/04/08
2-Nitrophenol	ND	mg/kg dry	0.342		1	09/04/08
3,3'-Dichlorobenzidine	ND	mg/kg dry	0.686	1.4	1	09/04/08
3+4-Methylphenol	ND	mg/kg dry	0.686		1	09/04/08
3-Nitroaniline	ND	mg/kg dry	0.342		1	09/04/08
4,6-Dinitro-2-Methylphenol	ND	mg/kg dry	1.72		1	09/04/08
4-Bromophenyl-phenylether	ND	mg/kg dry	0.342		1	09/04/08
4-Chloro-3-Methylphenol	ND	mg/kg dry	0.342		1	09/04/08
4-Chloroaniline	ND	mg/kg dry	0.686	310	1	09/04/08
4-Chloro-phenyl-phenyl ether	ND	mg/kg dry	0.342		1	09/04/08
4-Nitroaniline	ND	mg/kg dry	0.342		1	09/04/08
4-Nitrophenol	ND	mg/kg dry	1.72		1	09/04/08
Acenaphthene	ND	mg/kg dry	0.342	43	1	09/04/08
Acenaphthylene	ND	mg/kg dry	0.342	23	1	09/04/08
Acetophenone	ND	mg/kg dry	0.686		1	09/04/08
Aniline	ND	mg/kg dry	0.686		1	09/04/08
Anthracene	ND	mg/kg dry	0.342	35	1	09/04/08
Azobenzene	ND	mg/kg dry	0.342		1	09/04/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: CAB-2 0-2
Date Sampled: 09/03/08 10:24
Percent Solids: 96
Initial Volume: 15.2
Final Volume: 0.5
Extraction Method: 3546

ESS Laboratory Work Order: 0809032
ESS Laboratory Sample ID: 0809032-02
Sample Matrix: Soil
Analyst: VSC
Prepared: 09/03/08

8270C Semi-Volatile Organic Compounds

Benzo(a)anthracene	ND	mg/kg dry	0.342	0.9	1	09/04/08
Benzo(a)pyrene	ND	mg/kg dry	0.172	0.4	1	09/04/08
Benzo(b)fluoranthene	ND	mg/kg dry	0.342	0.9	1	09/04/08
Benzo(g,h,i)perylene	ND	mg/kg dry	0.342	0.8	1	09/04/08
Benzo(k)fluoranthene	ND	mg/kg dry	0.342	0.9	1	09/04/08
Benzoic Acid	ND	mg/kg dry	1.72		1	09/04/08
Benzyl Alcohol	ND	mg/kg dry	0.342		1	09/04/08
bis(2-Chloroethoxy)methane	ND	mg/kg dry	0.342		1	09/04/08
bis(2-Chloroethyl)ether	ND	mg/kg dry	0.342	0.6	1	09/04/08
bis(2-chloroisopropyl)Ether	ND	mg/kg dry	0.342	9.1	1	09/04/08
bis(2-Ethylhexyl)phthalate	ND	mg/kg dry	0.342	46	1	09/04/08
Butylbenzylphthalate	ND	mg/kg dry	0.342		1	09/04/08
Carbazole	ND	mg/kg dry	0.342		1	09/04/08
Chrysene	ND	mg/kg dry	0.172	0.4	1	09/04/08
Dibenzo(a,h)Anthracene	ND	mg/kg dry	0.172	0.4	1	09/04/08
Dibenzofuran	ND	mg/kg dry	0.342		1	09/04/08
Diethylphthalate	ND	mg/kg dry	0.342	340	1	09/04/08
Dimethylphthalate	ND	mg/kg dry	0.342	1900	1	09/04/08
Di-n-butylphthalate	ND	mg/kg dry	0.342		1	09/04/08
Di-n-octylphthalate	ND	mg/kg dry	0.342		1	09/04/08
Fluoranthene	ND	mg/kg dry	0.342	20	1	09/04/08
Fluorene	ND	mg/kg dry	0.342	28	1	09/04/08
Hexachlorobenzene	ND	mg/kg dry	0.172	0.4	1	09/04/08
Hexachlorobutadiene	ND	mg/kg dry	0.342	8.2	1	09/04/08
Hexachlorocyclopentadiene	ND	mg/kg dry	1.72		1	09/04/08
Hexachloroethane	ND	mg/kg dry	0.342	46	1	09/04/08
Indeno(1,2,3-cd)Pyrene	ND	mg/kg dry	0.342	0.9	1	09/04/08
Isophorone	ND	mg/kg dry	0.342		1	09/04/08
Naphthalene	ND	mg/kg dry	0.342	54	1	09/04/08
Nitrobenzene	ND	mg/kg dry	0.342		1	09/04/08
N-Nitrosodimethylamine	ND	mg/kg dry	0.342		1	09/04/08
N-Nitroso-Di-n-Propylamine	ND	mg/kg dry	0.342		1	09/04/08
N-nitrosodiphenylamine	ND	mg/kg dry	0.342		1	09/04/08
Pentachlorophenol	ND	mg/kg dry	1.72	5.3	1	09/04/08
Phenanthrene	ND	mg/kg dry	0.342	40	1	09/04/08
Phenol	ND	mg/kg dry	0.342	6000	1	09/04/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: CAB-2 0-2
 Date Sampled: 09/03/08 10:24
 Percent Solids: 96
 Initial Volume: 15.2
 Final Volume: 0.5
 Extraction Method: 3546

ESS Laboratory Work Order: 0809032
 ESS Laboratory Sample ID: 0809032-02
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 09/03/08

8270C Semi-Volatile Organic Compounds

Pyrene	ND	mg/kg dry	0.342	13	1	09/04/08
Pyridine	ND	mg/kg dry	1.72		1	09/04/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	65 %		30-130
Surrogate: 2,4,6-Tribromophenol	83 %		30-130
Surrogate: 2-Chlorophenol-d4	61 %		30-130
Surrogate: 2-Fluorobiphenyl	70 %		30-130
Surrogate: 2-Fluorophenol	60 %		30-130
Surrogate: Nitrobenzene-d5	73 %		30-130
Surrogate: Phenol-d6	67 %		30-130
Surrogate: p-Terphenyl-d14	68 %		30-130



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: CAB-3 0-2
Date Sampled: 09/03/08 11:30
Percent Solids: 95

ESS Laboratory Work Order: 0809032
ESS Laboratory Sample ID: 0809032-03
Sample Matrix: Soil

3050B/6000/7000 Total Metals

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Antimony	ND	mg/kg dry	5.8	6010B	10	1	SVD	09/03/08	1.83	100
Arsenic	10.4	mg/kg dry	2.9	6010B	7	1	SVD	09/03/08	1.83	100
Beryllium	0.24	mg/kg dry	0.06	6010B	0.4	1	SVD	09/03/08	1.83	100
Cadmium	ND	mg/kg dry	0.58	6010B	39	1	SVD	09/03/08	1.83	100
Chromium	2.4	mg/kg dry	1.1	6010B	1400	1	SVD	09/03/08	1.83	100
Copper	8.7	mg/kg dry	1.1	6010B	3100	1	SVD	09/03/08	1.83	100
Lead	16.2	mg/kg dry	5.8	6010B	150	1	SVD	09/03/08	1.83	100
Mercury	ND	mg/kg dry	0.033	7471A	23	1	JP	09/05/08	0.63	40
Nickel	ND	mg/kg dry	2.9	6010B	1000	1	SVD	09/03/08	1.83	100
Selenium	ND	mg/kg dry	5.8	6010B	390	1	SVD	09/03/08	1.83	100
Silver	ND	mg/kg dry	0.58	6010B	200	1	SVD	09/03/08	1.83	100
Thallium	ND	mg/kg dry	1.42	7841	5.5	5	JP	09/04/08	1.83	100
Zinc	15.8	mg/kg dry	2.9	6010B	6000	1	SVD	09/03/08	1.83	100



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: CAB-3 0-2
 Date Sampled: 09/03/08 11:30
 Percent Solids: 95
 Initial Volume: 7.3
 Final Volume: 10
 Extraction Method: 5035

ESS Laboratory Work Order: 0809032
 ESS Laboratory Sample ID: 0809032-03
 Sample Matrix: Soil
 Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

RI - RES DEC

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1,1,2-Tetrachloroethane	ND	mg/kg dry	0.0036	2.2	1	09/04/08
1,1,1-Trichloroethane	ND	mg/kg dry	0.0036	540	1	09/04/08
1,1,2,2-Tetrachloroethane	ND	mg/kg dry	0.0036	1.3	1	09/04/08
1,1,2-Trichloroethane	ND	mg/kg dry	0.0036	3.6	1	09/04/08
1,1-Dichloroethane	ND	mg/kg dry	0.0036	920	1	09/04/08
1,1-Dichloroethene	ND	mg/kg dry	0.0036	0.2	1	09/04/08
1,1-Dichloropropene	ND	mg/kg dry	0.0036		1	09/04/08
1,2,3-Trichlorobenzene	ND	mg/kg dry	0.0036		1	09/04/08
1,2,3-Trichloropropane	ND	mg/kg dry	0.0036		1	09/04/08
1,2,4-Trichlorobenzene	ND	mg/kg dry	0.0036	96	1	09/04/08
1,2,4-Trimethylbenzene	ND	mg/kg dry	0.0036		1	09/04/08
1,2-Dibromo-3-Chloropropane	ND	mg/kg dry	0.0036	0.5	1	09/04/08
1,2-Dibromoethane	ND	mg/kg dry	0.0036	0.01	1	09/04/08
1,2-Dichlorobenzene	ND	mg/kg dry	0.0036	510	1	09/04/08
1,2-Dichloroethane	ND	mg/kg dry	0.0036	0.9	1	09/04/08
1,2-Dichloropropane	ND	mg/kg dry	0.0036	1.9	1	09/04/08
1,3,5-Trimethylbenzene	ND	mg/kg dry	0.0036		1	09/04/08
1,3-Dichlorobenzene	ND	mg/kg dry	0.0036	430	1	09/04/08
1,3-Dichloropropane	ND	mg/kg dry	0.0036		1	09/04/08
1,4-Dichlorobenzene	ND	mg/kg dry	0.0036	27	1	09/04/08
1,4-Dioxane	ND	mg/kg dry	0.0721		1	09/04/08
1-Chlorohexane	ND	mg/kg dry	0.0036		1	09/04/08
2,2-Dichloropropane	ND	mg/kg dry	0.0036		1	09/04/08
2-Butanone	ND	mg/kg dry	0.0360	10000	1	09/04/08
2-Chlorotoluene	ND	mg/kg dry	0.0036		1	09/04/08
2-Hexanone	ND	mg/kg dry	0.0360		1	09/04/08
4-Chlorotoluene	ND	mg/kg dry	0.0036		1	09/04/08
4-Isopropyltoluene	0.0039	mg/kg dry	0.0036		1	09/04/08
4-Methyl-2-Pentanone	ND	mg/kg dry	0.0360	1200	1	09/04/08
Acetone	ND	mg/kg dry	0.0360	7800	1	09/04/08
Benzene	ND	mg/kg dry	0.0036	2.5	1	09/04/08
Bromobenzene	ND	mg/kg dry	0.0036		1	09/04/08
Bromochloromethane	ND	mg/kg dry	0.0036		1	09/04/08
Bromodichloromethane	ND	mg/kg dry	0.0036	10	1	09/04/08
Bromoform	ND	mg/kg dry	0.0036	81	1	09/04/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

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 Client Project ID: Trestle Trail
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 Date Sampled: 09/03/08 11:30
 Percent Solids: 95
 Initial Volume: 7.3
 Final Volume: 10
 Extraction Method: 5035

ESS Laboratory Work Order: 0809032
 ESS Laboratory Sample ID: 0809032-03
 Sample Matrix: Soil
 Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Bromomethane	ND	mg/kg dry	0.0072	0.8	1	09/04/08
Carbon Disulfide	ND	mg/kg dry	0.0036		1	09/04/08
Carbon Tetrachloride	ND	mg/kg dry	0.0036	1.5	1	09/04/08
Chlorobenzene	ND	mg/kg dry	0.0036	210	1	09/04/08
Chloroethane	ND	mg/kg dry	0.0072		1	09/04/08
Chloroform	ND	mg/kg dry	0.0036	1.2	1	09/04/08
Chloromethane	ND	mg/kg dry	0.0072		1	09/04/08
cis-1,2-Dichloroethene	ND	mg/kg dry	0.0036	630	1	09/04/08
cis-1,3-Dichloropropene	ND	mg/kg dry	0.0036		1	09/04/08
Dibromochloromethane	ND	mg/kg dry	0.0036	7.6	1	09/04/08
Dibromomethane	ND	mg/kg dry	0.0036		1	09/04/08
Dichlorodifluoromethane	ND	mg/kg dry	0.0072		1	09/04/08
Diethyl Ether	ND	mg/kg dry	0.0036		1	09/04/08
Di-isopropyl ether	ND	mg/kg dry	0.0036		1	09/04/08
Ethyl tertiary-butyl ether	ND	mg/kg dry	0.0036		1	09/04/08
Ethylbenzene	ND	mg/kg dry	0.0036	71	1	09/04/08
Hexachlorobutadiene	ND	mg/kg dry	0.0036	8.2	1	09/04/08
Isopropylbenzene	ND	mg/kg dry	0.0036	27	1	09/04/08
Methyl tert-Butyl Ether	ND	mg/kg dry	0.0036	390	1	09/04/08
Methylene Chloride	ND	mg/kg dry	0.0180	45	1	09/04/08
Naphthalene	ND	mg/kg dry	0.0036	54	1	09/04/08
n-Butylbenzene	ND	mg/kg dry	0.0036		1	09/04/08
n-Propylbenzene	ND	mg/kg dry	0.0036		1	09/04/08
sec-Butylbenzene	ND	mg/kg dry	0.0036		1	09/04/08
Styrene	ND	mg/kg dry	0.0036	13	1	09/04/08
tert-Butylbenzene	ND	mg/kg dry	0.0036		1	09/04/08
Tertiary-amyl methyl ether	ND	mg/kg dry	0.0036		1	09/04/08
Tetrachloroethene	ND	mg/kg dry	0.0036	12	1	09/04/08
Tetrahydrofuran	ND	mg/kg dry	0.0036		1	09/04/08
Toluene	ND	mg/kg dry	0.0036	190	1	09/04/08
trans-1,2-Dichloroethene	ND	mg/kg dry	0.0036	1100	1	09/04/08
trans-1,3-Dichloropropene	ND	mg/kg dry	0.0036		1	09/04/08
Trichloroethene	ND	mg/kg dry	0.0036	13	1	09/04/08
Trichlorofluoromethane	ND	mg/kg dry	0.0036		1	09/04/08
Vinyl Acetate	ND	mg/kg dry	0.0036		1	09/04/08
Vinyl Chloride	ND	mg/kg dry	0.0072	0.02	1	09/04/08



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 Initial Volume: 7.3
 Final Volume: 10
 Extraction Method: 5035

ESS Laboratory Work Order: 0809032
 ESS Laboratory Sample ID: 0809032-03
 Sample Matrix: Soil
 Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Xylene O	ND	mg/kg dry	0.0036	110	1	09/04/08
Xylene P,M	ND	mg/kg dry	0.0072	110	1	09/04/08
Xylenes (Total)	ND	mg/kg dry	0.0108	110	0	09/04/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	125 %		70-130
Surrogate: 4-Bromofluorobenzene	83 %		70-130
Surrogate: Dibromofluoromethane	115 %		70-130
Surrogate: Toluene-d8	98 %		70-130



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: CAB-3 0-2
 Date Sampled: 09/03/08 11:30
 Percent Solids: 95
 Initial Volume: 20
 Final Volume: 10
 Extraction Method: 3541

ESS Laboratory Work Order: 0809032
 ESS Laboratory Sample ID: 0809032-03
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 09/04/08

8082 Polychlorinated Biphenyls (PCB)

RI - RES DEC

Analyte	Results	Units	MRL	Limit	DF	Analyzed
Aroclor 1016	ND	mg/kg dry	0.0526	10	1	09/06/08
Aroclor 1221	ND	mg/kg dry	0.0526	10	1	09/06/08
Aroclor 1232	ND	mg/kg dry	0.0526	10	1	09/06/08
Aroclor 1242	ND	mg/kg dry	0.0526	10	1	09/06/08
Aroclor 1248	ND	mg/kg dry	0.0526	10	1	09/06/08
Aroclor 1254	ND	mg/kg dry	0.0526	10	1	09/06/08
Aroclor 1260	ND	mg/kg dry	0.0526	10	1	09/06/08
Aroclor 1262	ND	mg/kg dry	0.0526	10	1	09/06/08
Aroclor 1268	ND	mg/kg dry	0.0526	10	1	09/06/08

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	81 %		30-150
Surrogate: Decachlorobiphenyl [2C]	87 %		30-150
Surrogate: Tetrachloro-m-xylene	71 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	78 %		30-150



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: CAB-3 0-2
Date Sampled: 09/03/08 11:30
Percent Solids: 95
Initial Volume: 20
Final Volume: 1
Extraction Method: 3541

ESS Laboratory Work Order: 0809032
ESS Laboratory Sample ID: 0809032-03
Sample Matrix: Soil
Analyst: SEP
Prepared: 09/04/08

8100M Total Petroleum Hydrocarbons

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>
Total Petroleum Hydrocarbons	ND	mg/kg dry	39.5	500	1	09/04/08

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: O-Terphenyl	64 %		40-140



ESS Laboratory

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CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: CAB-3 0-2
 Date Sampled: 09/03/08 11:30
 Percent Solids: 95
 Initial Volume: 14.6
 Final Volume: 0.5
 Extraction Method: 3546

ESS Laboratory Work Order: 0809032
 ESS Laboratory Sample ID: 0809032-03
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 09/03/08

8270C Semi-Volatile Organic Compounds

RI - RES DEC

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1-Biphenyl	ND	mg/kg dry	0.360	0.8	1	09/04/08
1,2,4-Trichlorobenzene	ND	mg/kg dry	0.360	96	1	09/04/08
1,2-Dichlorobenzene	ND	mg/kg dry	0.360	510	1	09/04/08
1,3-Dichlorobenzene	ND	mg/kg dry	0.360	430	1	09/04/08
1,4-Dichlorobenzene	ND	mg/kg dry	0.360	27	1	09/04/08
2,3,4,6-Tetrachlorophenol	ND	mg/kg dry	1.81		1	09/04/08
2,4,5-Trichlorophenol	ND	mg/kg dry	0.360	330	1	09/04/08
2,4,6-Trichlorophenol	ND	mg/kg dry	0.360	58	1	09/04/08
2,4-Dichlorophenol	ND	mg/kg dry	0.360	30	1	09/04/08
2,4-Dimethylphenol	ND	mg/kg dry	0.360	1400	1	09/04/08
2,4-Dinitrophenol	ND	mg/kg dry	1.81	160	1	09/04/08
2,4-Dinitrotoluene	ND	mg/kg dry	0.360	0.9	1	09/04/08
2,6-Dinitrotoluene	ND	mg/kg dry	0.360		1	09/04/08
2-Chloronaphthalene	ND	mg/kg dry	0.360		1	09/04/08
2-Chlorophenol	ND	mg/kg dry	0.360	50	1	09/04/08
2-Methylnaphthalene	ND	mg/kg dry	0.360	123	1	09/04/08
2-Methylphenol	ND	mg/kg dry	0.360		1	09/04/08
2-Nitroaniline	ND	mg/kg dry	0.360		1	09/04/08
2-Nitrophenol	ND	mg/kg dry	0.360		1	09/04/08
3,3'-Dichlorobenzidine	ND	mg/kg dry	0.721	1.4	1	09/04/08
3+4-Methylphenol	ND	mg/kg dry	0.721		1	09/04/08
3-Nitroaniline	ND	mg/kg dry	0.360		1	09/04/08
4,6-Dinitro-2-Methylphenol	ND	mg/kg dry	1.81		1	09/04/08
4-Bromophenyl-phenylether	ND	mg/kg dry	0.360		1	09/04/08
4-Chloro-3-Methylphenol	ND	mg/kg dry	0.360		1	09/04/08
4-Chloroaniline	ND	mg/kg dry	0.721	310	1	09/04/08
4-Chloro-phenyl-phenyl ether	ND	mg/kg dry	0.360		1	09/04/08
4-Nitroaniline	ND	mg/kg dry	0.360		1	09/04/08
4-Nitrophenol	ND	mg/kg dry	1.81		1	09/04/08
Acenaphthene	ND	mg/kg dry	0.360	43	1	09/04/08
Acenaphthylene	ND	mg/kg dry	0.360	23	1	09/04/08
Acetophenone	ND	mg/kg dry	0.721		1	09/04/08
Aniline	ND	mg/kg dry	0.721		1	09/04/08
Anthracene	ND	mg/kg dry	0.360	35	1	09/04/08
Azobenzene	ND	mg/kg dry	0.360		1	09/04/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: CAB-3 0-2
Date Sampled: 09/03/08 11:30
Percent Solids: 95
Initial Volume: 14.6
Final Volume: 0.5
Extraction Method: 3546

ESS Laboratory Work Order: 0809032
ESS Laboratory Sample ID: 0809032-03
Sample Matrix: Soil
Analyst: VSC
Prepared: 09/03/08

8270C Semi-Volatile Organic Compounds

Benzo(a)anthracene	ND	mg/kg dry	0.360	0.9	1	09/04/08
Benzo(a)pyrene	ND	mg/kg dry	0.181	0.4	1	09/04/08
Benzo(b)fluoranthene	ND	mg/kg dry	0.360	0.9	1	09/04/08
Benzo(g,h,i)perylene	ND	mg/kg dry	0.360	0.8	1	09/04/08
Benzo(k)fluoranthene	ND	mg/kg dry	0.360	0.9	1	09/04/08
Benzoic Acid	ND	mg/kg dry	1.81		1	09/04/08
Benzyl Alcohol	ND	mg/kg dry	0.360		1	09/04/08
bis(2-Chloroethoxy)methane	ND	mg/kg dry	0.360		1	09/04/08
bis(2-Chloroethyl)ether	ND	mg/kg dry	0.360	0.6	1	09/04/08
bis(2-chloroisopropyl)Ether	ND	mg/kg dry	0.360	9.1	1	09/04/08
bis(2-Ethylhexyl)phthalate	ND	mg/kg dry	0.360	46	1	09/04/08
Butylbenzylphthalate	ND	mg/kg dry	0.360		1	09/04/08
Carbazole	ND	mg/kg dry	0.360		1	09/04/08
Chrysene	ND	mg/kg dry	0.181	0.4	1	09/04/08
Dibenzo(a,h)Anthracene	ND	mg/kg dry	0.181	0.4	1	09/04/08
Dibenzofuran	ND	mg/kg dry	0.360		1	09/04/08
Diethylphthalate	ND	mg/kg dry	0.360	340	1	09/04/08
Dimethylphthalate	ND	mg/kg dry	0.360	1900	1	09/04/08
Di-n-butylphthalate	ND	mg/kg dry	0.360		1	09/04/08
Di-n-octylphthalate	ND	mg/kg dry	0.360		1	09/04/08
Fluoranthene	ND	mg/kg dry	0.360	20	1	09/04/08
Fluorene	ND	mg/kg dry	0.360	28	1	09/04/08
Hexachlorobenzene	ND	mg/kg dry	0.181	0.4	1	09/04/08
Hexachlorobutadiene	ND	mg/kg dry	0.360	8.2	1	09/04/08
Hexachlorocyclopentadiene	ND	mg/kg dry	1.81		1	09/04/08
Hexachloroethane	ND	mg/kg dry	0.360	46	1	09/04/08
Indeno(1,2,3-cd)Pyrene	ND	mg/kg dry	0.360	0.9	1	09/04/08
Isophorone	ND	mg/kg dry	0.360		1	09/04/08
Naphthalene	ND	mg/kg dry	0.360	54	1	09/04/08
Nitrobenzene	ND	mg/kg dry	0.360		1	09/04/08
N-Nitrosodimethylamine	ND	mg/kg dry	0.360		1	09/04/08
N-Nitroso-Di-n-Propylamine	ND	mg/kg dry	0.360		1	09/04/08
N-nitrosodiphenylamine	ND	mg/kg dry	0.360		1	09/04/08
Pentachlorophenol	ND	mg/kg dry	1.81	5.3	1	09/04/08
Phenanthrene	ND	mg/kg dry	0.360	40	1	09/04/08
Phenol	ND	mg/kg dry	0.360	6000	1	09/04/08



ESS Laboratory

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Client Project ID: Trestle Trail
Client Sample ID: CAB-3 0-2
Date Sampled: 09/03/08 11:30
Percent Solids: 95
Initial Volume: 14.6
Final Volume: 0.5
Extraction Method: 3546

ESS Laboratory Work Order: 0809032
ESS Laboratory Sample ID: 0809032-03
Sample Matrix: Soil
Analyst: VSC
Prepared: 09/03/08

8270C Semi-Volatile Organic Compounds

Pyrene	ND	mg/kg dry	0.360	13	1	09/04/08
Pyridine	ND	mg/kg dry	1.81		1	09/04/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	62 %		30-130
Surrogate: 2,4,6-Tribromophenol	85 %		30-130
Surrogate: 2-Chlorophenol-d4	64 %		30-130
Surrogate: 2-Fluorobiphenyl	64 %		30-130
Surrogate: 2-Fluorophenol	58 %		30-130
Surrogate: Nitrobenzene-d5	67 %		30-130
Surrogate: Phenol-d6	64 %		30-130
Surrogate: p-Terphenyl-d14	67 %		30-130



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: CAB-4 0-2
Date Sampled: 09/03/08 13:40
Percent Solids: 97

ESS Laboratory Work Order: 0809032
ESS Laboratory Sample ID: 0809032-04
Sample Matrix: Soil

3050B/6000/7000 Total Metals

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Antimony	ND	mg/kg dry	5.7	6010B	10	1	SVD	09/03/08	1.82	100
Arsenic	4.3	mg/kg dry	2.8	6010B	7	1	SVD	09/03/08	1.82	100
Beryllium	0.29	mg/kg dry	0.06	6010B	0.4	1	SVD	09/03/08	1.82	100
Cadmium	ND	mg/kg dry	0.57	6010B	39	1	SVD	09/03/08	1.82	100
Chromium	1.6	mg/kg dry	1.1	6010B	1400	1	SVD	09/03/08	1.82	100
Copper	4.4	mg/kg dry	1.1	6010B	3100	1	SVD	09/03/08	1.82	100
Lead	8.2	mg/kg dry	5.7	6010B	150	1	SVD	09/03/08	1.82	100
Mercury	ND	mg/kg dry	0.033	7471A	23	1	JP	09/05/08	0.61	40
Nickel	ND	mg/kg dry	2.8	6010B	1000	1	SVD	09/03/08	1.82	100
Selenium	ND	mg/kg dry	5.7	6010B	390	1	SVD	09/03/08	1.82	100
Silver	ND	mg/kg dry	0.57	6010B	200	1	SVD	09/03/08	1.82	100
Thallium	ND	mg/kg dry	1.40	7841	5.5	5	JP	09/04/08	1.82	100
Zinc	19.4	mg/kg dry	2.8	6010B	6000	1	SVD	09/03/08	1.82	100



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: CAB-4 0-2
 Date Sampled: 09/03/08 13:40
 Percent Solids: 97
 Initial Volume: 7.1
 Final Volume: 10
 Extraction Method: 5035

ESS Laboratory Work Order: 0809032
 ESS Laboratory Sample ID: 0809032-04
 Sample Matrix: Soil
 Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

RI - RES DEC

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1,1,2-Tetrachloroethane	ND	mg/kg dry	0.0036	2.2	1	09/04/08
1,1,1-Trichloroethane	ND	mg/kg dry	0.0036	540	1	09/04/08
1,1,2,2-Tetrachloroethane	ND	mg/kg dry	0.0036	1.3	1	09/04/08
1,1,2-Trichloroethane	ND	mg/kg dry	0.0036	3.6	1	09/04/08
1,1-Dichloroethane	ND	mg/kg dry	0.0036	920	1	09/04/08
1,1-Dichloroethene	ND	mg/kg dry	0.0036	0.2	1	09/04/08
1,1-Dichloropropene	ND	mg/kg dry	0.0036		1	09/04/08
1,2,3-Trichlorobenzene	ND	mg/kg dry	0.0036		1	09/04/08
1,2,3-Trichloropropane	ND	mg/kg dry	0.0036		1	09/04/08
1,2,4-Trichlorobenzene	ND	mg/kg dry	0.0036	96	1	09/04/08
1,2,4-Trimethylbenzene	ND	mg/kg dry	0.0036		1	09/04/08
1,2-Dibromo-3-Chloropropane	ND	mg/kg dry	0.0036	0.5	1	09/04/08
1,2-Dibromoethane	ND	mg/kg dry	0.0036	0.01	1	09/04/08
1,2-Dichlorobenzene	ND	mg/kg dry	0.0036	510	1	09/04/08
1,2-Dichloroethane	ND	mg/kg dry	0.0036	0.9	1	09/04/08
1,2-Dichloropropane	ND	mg/kg dry	0.0036	1.9	1	09/04/08
1,3,5-Trimethylbenzene	ND	mg/kg dry	0.0036		1	09/04/08
1,3-Dichlorobenzene	ND	mg/kg dry	0.0036	430	1	09/04/08
1,3-Dichloropropane	ND	mg/kg dry	0.0036		1	09/04/08
1,4-Dichlorobenzene	ND	mg/kg dry	0.0036	27	1	09/04/08
1,4-Dioxane	ND	mg/kg dry	0.0726		1	09/04/08
1-Chlorohexane	ND	mg/kg dry	0.0036		1	09/04/08
2,2-Dichloropropane	ND	mg/kg dry	0.0036		1	09/04/08
2-Butanone	ND	mg/kg dry	0.0363	10000	1	09/04/08
2-Chlorotoluene	ND	mg/kg dry	0.0036		1	09/04/08
2-Hexanone	ND	mg/kg dry	0.0363		1	09/04/08
4-Chlorotoluene	ND	mg/kg dry	0.0036		1	09/04/08
4-Isopropyltoluene	ND	mg/kg dry	0.0036		1	09/04/08
4-Methyl-2-Pentanone	ND	mg/kg dry	0.0363	1200	1	09/04/08
Acetone	ND	mg/kg dry	0.0363	7800	1	09/04/08
Benzene	ND	mg/kg dry	0.0036	2.5	1	09/04/08
Bromobenzene	ND	mg/kg dry	0.0036		1	09/04/08
Bromochloromethane	ND	mg/kg dry	0.0036		1	09/04/08
Bromodichloromethane	ND	mg/kg dry	0.0036	10	1	09/04/08
Bromoform	ND	mg/kg dry	0.0036	81	1	09/04/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: CAB-4 0-2
Date Sampled: 09/03/08 13:40
Percent Solids: 97
Initial Volume: 7.1
Final Volume: 10
Extraction Method: 5035

ESS Laboratory Work Order: 0809032
ESS Laboratory Sample ID: 0809032-04
Sample Matrix: Soil
Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Bromomethane	ND	mg/kg dry	0.0073	0.8	1	09/04/08
Carbon Disulfide	ND	mg/kg dry	0.0036		1	09/04/08
Carbon Tetrachloride	ND	mg/kg dry	0.0036	1.5	1	09/04/08
Chlorobenzene	ND	mg/kg dry	0.0036	210	1	09/04/08
Chloroethane	ND	mg/kg dry	0.0073		1	09/04/08
Chloroform	ND	mg/kg dry	0.0036	1.2	1	09/04/08
Chloromethane	ND	mg/kg dry	0.0073		1	09/04/08
cis-1,2-Dichloroethene	ND	mg/kg dry	0.0036	630	1	09/04/08
cis-1,3-Dichloropropene	ND	mg/kg dry	0.0036		1	09/04/08
Dibromochloromethane	ND	mg/kg dry	0.0036	7.6	1	09/04/08
Dibromomethane	ND	mg/kg dry	0.0036		1	09/04/08
Dichlorodifluoromethane	ND	mg/kg dry	0.0073		1	09/04/08
Diethyl Ether	ND	mg/kg dry	0.0036		1	09/04/08
Di-isopropyl ether	ND	mg/kg dry	0.0036		1	09/04/08
Ethyl tertiary-butyl ether	ND	mg/kg dry	0.0036		1	09/04/08
Ethylbenzene	ND	mg/kg dry	0.0036	71	1	09/04/08
Hexachlorobutadiene	ND	mg/kg dry	0.0036	8.2	1	09/04/08
Isopropylbenzene	ND	mg/kg dry	0.0036	27	1	09/04/08
Methyl tert-Butyl Ether	ND	mg/kg dry	0.0036	390	1	09/04/08
Methylene Chloride	ND	mg/kg dry	0.0182	45	1	09/04/08
Naphthalene	ND	mg/kg dry	0.0036	54	1	09/04/08
n-Butylbenzene	ND	mg/kg dry	0.0036		1	09/04/08
n-Propylbenzene	ND	mg/kg dry	0.0036		1	09/04/08
sec-Butylbenzene	ND	mg/kg dry	0.0036		1	09/04/08
Styrene	ND	mg/kg dry	0.0036	13	1	09/04/08
tert-Butylbenzene	ND	mg/kg dry	0.0036		1	09/04/08
Tertiary-amyl methyl ether	ND	mg/kg dry	0.0036		1	09/04/08
Tetrachloroethene	ND	mg/kg dry	0.0036	12	1	09/04/08
Tetrahydrofuran	ND	mg/kg dry	0.0036		1	09/04/08
Toluene	ND	mg/kg dry	0.0036	190	1	09/04/08
trans-1,2-Dichloroethene	ND	mg/kg dry	0.0036	1100	1	09/04/08
trans-1,3-Dichloropropene	ND	mg/kg dry	0.0036		1	09/04/08
Trichloroethene	ND	mg/kg dry	0.0036	13	1	09/04/08
Trichlorofluoromethane	ND	mg/kg dry	0.0036		1	09/04/08
Vinyl Acetate	ND	mg/kg dry	0.0036		1	09/04/08
Vinyl Chloride	ND	mg/kg dry	0.0073	0.02	1	09/04/08



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 Extraction Method: 5035

ESS Laboratory Work Order: 0809032
 ESS Laboratory Sample ID: 0809032-04
 Sample Matrix: Soil
 Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Xylene O	ND	mg/kg dry	0.0036	110	1	09/04/08
Xylene P,M	ND	mg/kg dry	0.0073	110	1	09/04/08
Xylenes (Total)	ND	mg/kg dry	0.0109	110	0	09/04/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	126 %		70-130
Surrogate: 4-Bromofluorobenzene	90 %		70-130
Surrogate: Dibromofluoromethane	114 %		70-130
Surrogate: Toluene-d8	96 %		70-130



ESS Laboratory

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Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: CAB-4 0-2
 Date Sampled: 09/03/08 13:40
 Percent Solids: 97
 Initial Volume: 20
 Final Volume: 10
 Extraction Method: 3541

ESS Laboratory Work Order: 0809032
 ESS Laboratory Sample ID: 0809032-04
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 09/04/08

8082 Polychlorinated Biphenyls (PCB)

RI - RES DEC

Analyte	Results	Units	MRL	Limit	DF	Analyzed
Aroclor 1016	ND	mg/kg dry	0.0515	10	1	09/06/08
Aroclor 1221	ND	mg/kg dry	0.0515	10	1	09/06/08
Aroclor 1232	ND	mg/kg dry	0.0515	10	1	09/06/08
Aroclor 1242	ND	mg/kg dry	0.0515	10	1	09/06/08
Aroclor 1248	ND	mg/kg dry	0.0515	10	1	09/06/08
Aroclor 1254	ND	mg/kg dry	0.0515	10	1	09/06/08
Aroclor 1260	ND	mg/kg dry	0.0515	10	1	09/06/08
Aroclor 1262	ND	mg/kg dry	0.0515	10	1	09/06/08
Aroclor 1268	ND	mg/kg dry	0.0515	10	1	09/06/08

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	92 %		30-150
Surrogate: Decachlorobiphenyl [2C]	94 %		30-150
Surrogate: Tetrachloro-m-xylene	81 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	88 %		30-150



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 Client Project ID: Trestle Trail
 Client Sample ID: CAB-4 0-2
 Date Sampled: 09/03/08 13:40
 Percent Solids: 97
 Initial Volume: 20
 Final Volume: 1
 Extraction Method: 3541

ESS Laboratory Work Order: 0809032
 ESS Laboratory Sample ID: 0809032-04
 Sample Matrix: Soil
 Analyst: SEP
 Prepared: 09/04/08

8100M Total Petroleum Hydrocarbons

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>
Total Petroleum Hydrocarbons	ND	mg/kg dry	38.7	500	1	09/04/08

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: O-Terphenyl	61 %		40-140



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: CAB-4 0-2
 Date Sampled: 09/03/08 13:40
 Percent Solids: 97
 Initial Volume: 14.9
 Final Volume: 0.5
 Extraction Method: 3546

ESS Laboratory Work Order: 0809032
 ESS Laboratory Sample ID: 0809032-04
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 09/03/08

8270C Semi-Volatile Organic Compounds

RI - RES DEC

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1-Biphenyl	ND	mg/kg dry	0.346	0.8	1	09/04/08
1,2,4-Trichlorobenzene	ND	mg/kg dry	0.346	96	1	09/04/08
1,2-Dichlorobenzene	ND	mg/kg dry	0.346	510	1	09/04/08
1,3-Dichlorobenzene	ND	mg/kg dry	0.346	430	1	09/04/08
1,4-Dichlorobenzene	ND	mg/kg dry	0.346	27	1	09/04/08
2,3,4,6-Tetrachlorophenol	ND	mg/kg dry	1.73		1	09/04/08
2,4,5-Trichlorophenol	ND	mg/kg dry	0.346	330	1	09/04/08
2,4,6-Trichlorophenol	ND	mg/kg dry	0.346	58	1	09/04/08
2,4-Dichlorophenol	ND	mg/kg dry	0.346	30	1	09/04/08
2,4-Dimethylphenol	ND	mg/kg dry	0.346	1400	1	09/04/08
2,4-Dinitrophenol	ND	mg/kg dry	1.73	160	1	09/04/08
2,4-Dinitrotoluene	ND	mg/kg dry	0.346	0.9	1	09/04/08
2,6-Dinitrotoluene	ND	mg/kg dry	0.346		1	09/04/08
2-Chloronaphthalene	ND	mg/kg dry	0.346		1	09/04/08
2-Chlorophenol	ND	mg/kg dry	0.346	50	1	09/04/08
2-Methylnaphthalene	ND	mg/kg dry	0.346	123	1	09/04/08
2-Methylphenol	ND	mg/kg dry	0.346		1	09/04/08
2-Nitroaniline	ND	mg/kg dry	0.346		1	09/04/08
2-Nitrophenol	ND	mg/kg dry	0.346		1	09/04/08
3,3'-Dichlorobenzidine	ND	mg/kg dry	0.692	1.4	1	09/04/08
3+4-Methylphenol	ND	mg/kg dry	0.692		1	09/04/08
3-Nitroaniline	ND	mg/kg dry	0.346		1	09/04/08
4,6-Dinitro-2-Methylphenol	ND	mg/kg dry	1.73		1	09/04/08
4-Bromophenyl-phenylether	ND	mg/kg dry	0.346		1	09/04/08
4-Chloro-3-Methylphenol	ND	mg/kg dry	0.346		1	09/04/08
4-Chloroaniline	ND	mg/kg dry	0.692	310	1	09/04/08
4-Chloro-phenyl-phenyl ether	ND	mg/kg dry	0.346		1	09/04/08
4-Nitroaniline	ND	mg/kg dry	0.346		1	09/04/08
4-Nitrophenol	ND	mg/kg dry	1.73		1	09/04/08
Acenaphthene	ND	mg/kg dry	0.346	43	1	09/04/08
Acenaphthylene	ND	mg/kg dry	0.346	23	1	09/04/08
Acetophenone	ND	mg/kg dry	0.692		1	09/04/08
Aniline	ND	mg/kg dry	0.692		1	09/04/08
Anthracene	ND	mg/kg dry	0.346	35	1	09/04/08
Azobenzene	ND	mg/kg dry	0.346		1	09/04/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

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 Client Project ID: Trestle Trail
 Client Sample ID: CAB-4 0-2
 Date Sampled: 09/03/08 13:40
 Percent Solids: 97
 Initial Volume: 14.9
 Final Volume: 0.5
 Extraction Method: 3546

ESS Laboratory Work Order: 0809032
 ESS Laboratory Sample ID: 0809032-04
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 09/03/08

8270C Semi-Volatile Organic Compounds

Benzo(a)anthracene	ND	mg/kg dry	0.346	0.9	1	09/04/08
Benzo(a)pyrene	ND	mg/kg dry	0.173	0.4	1	09/04/08
Benzo(b)fluoranthene	ND	mg/kg dry	0.346	0.9	1	09/04/08
Benzo(g,h,i)perylene	ND	mg/kg dry	0.346	0.8	1	09/04/08
Benzo(k)fluoranthene	ND	mg/kg dry	0.346	0.9	1	09/04/08
Benzoic Acid	ND	mg/kg dry	1.73		1	09/04/08
Benzyl Alcohol	ND	mg/kg dry	0.346		1	09/04/08
bis(2-Chloroethoxy)methane	ND	mg/kg dry	0.346		1	09/04/08
bis(2-Chloroethyl)ether	ND	mg/kg dry	0.346	0.6	1	09/04/08
bis(2-chloroisopropyl)Ether	ND	mg/kg dry	0.346	9.1	1	09/04/08
bis(2-Ethylhexyl)phthalate	ND	mg/kg dry	0.346	46	1	09/04/08
Butylbenzylphthalate	ND	mg/kg dry	0.346		1	09/04/08
Carbazole	ND	mg/kg dry	0.346		1	09/04/08
Chrysene	ND	mg/kg dry	0.173	0.4	1	09/04/08
Dibenzo(a,h)Anthracene	ND	mg/kg dry	0.173	0.4	1	09/04/08
Dibenzofuran	ND	mg/kg dry	0.346		1	09/04/08
Diethylphthalate	ND	mg/kg dry	0.346	340	1	09/04/08
Dimethylphthalate	ND	mg/kg dry	0.346	1900	1	09/04/08
Di-n-butylphthalate	ND	mg/kg dry	0.346		1	09/04/08
Di-n-octylphthalate	ND	mg/kg dry	0.346		1	09/04/08
Fluoranthene	ND	mg/kg dry	0.346	20	1	09/04/08
Fluorene	ND	mg/kg dry	0.346	28	1	09/04/08
Hexachlorobenzene	ND	mg/kg dry	0.173	0.4	1	09/04/08
Hexachlorobutadiene	ND	mg/kg dry	0.346	8.2	1	09/04/08
Hexachlorocyclopentadiene	ND	mg/kg dry	1.73		1	09/04/08
Hexachloroethane	ND	mg/kg dry	0.346	46	1	09/04/08
Indeno(1,2,3-cd)Pyrene	ND	mg/kg dry	0.346	0.9	1	09/04/08
Isophorone	ND	mg/kg dry	0.346		1	09/04/08
Naphthalene	ND	mg/kg dry	0.346	54	1	09/04/08
Nitrobenzene	ND	mg/kg dry	0.346		1	09/04/08
N-Nitrosodimethylamine	ND	mg/kg dry	0.346		1	09/04/08
N-Nitroso-Di-n-Propylamine	ND	mg/kg dry	0.346		1	09/04/08
N-nitrosodiphenylamine	ND	mg/kg dry	0.346		1	09/04/08
Pentachlorophenol	ND	mg/kg dry	1.73	5.3	1	09/04/08
Phenanthrene	ND	mg/kg dry	0.346	40	1	09/04/08
Phenol	ND	mg/kg dry	0.346	6000	1	09/04/08



ESS Laboratory

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Client Project ID: Trestle Trail
Client Sample ID: CAB-4 0-2
Date Sampled: 09/03/08 13:40
Percent Solids: 97
Initial Volume: 14.9
Final Volume: 0.5
Extraction Method: 3546

ESS Laboratory Work Order: 0809032
ESS Laboratory Sample ID: 0809032-04
Sample Matrix: Soil
Analyst: VSC
Prepared: 09/03/08

8270C Semi-Volatile Organic Compounds

Pyrene	ND	mg/kg dry	0.346	13	1	09/04/08
Pyridine	ND	mg/kg dry	1.73		1	09/04/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	61 %		30-130
Surrogate: 2,4,6-Tribromophenol	83 %		30-130
Surrogate: 2-Chlorophenol-d4	57 %		30-130
Surrogate: 2-Fluorobiphenyl	61 %		30-130
Surrogate: 2-Fluorophenol	54 %		30-130
Surrogate: Nitrobenzene-d5	68 %		30-130
Surrogate: Phenol-d6	59 %		30-130
Surrogate: p-Terphenyl-d14	61 %		30-130



ESS Laboratory

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CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: CAB-4 8-10
Date Sampled: 09/03/08 14:45
Percent Solids: 92

ESS Laboratory Work Order: 0809032
ESS Laboratory Sample ID: 0809032-05
Sample Matrix: Soil

3050B/6000/7000 Total Metals

RI - RES DEC

Analyte	Results	Units	MRL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V
Antimony	ND	mg/kg dry	5.7	6010B	10	1	SVD	09/03/08	1.9	100
Arsenic	ND	mg/kg dry	2.9	6010B	7	1	SVD	09/03/08	1.9	100
Beryllium	0.28	mg/kg dry	0.06	6010B	0.4	1	SVD	09/03/08	1.9	100
Cadmium	ND	mg/kg dry	0.57	6010B	39	1	SVD	09/03/08	1.9	100
Chromium	ND	mg/kg dry	1.1	6010B	1400	1	SVD	09/03/08	1.9	100
Copper	ND	mg/kg dry	1.1	6010B	3100	1	SVD	09/03/08	1.9	100
Lead	ND	mg/kg dry	5.7	6010B	150	1	SVD	09/03/08	1.9	100
Mercury	ND	mg/kg dry	0.034	7471A	23	1	JP	09/05/08	0.63	40
Nickel	ND	mg/kg dry	2.9	6010B	1000	1	SVD	09/03/08	1.9	100
Selenium	ND	mg/kg dry	5.7	6010B	390	1	SVD	09/03/08	1.9	100
Silver	ND	mg/kg dry	0.57	6010B	200	1	SVD	09/03/08	1.9	100
Thallium	ND	mg/kg dry	1.42	7841	5.5	5	JP	09/04/08	1.9	100
Zinc	10.8	mg/kg dry	2.9	6010B	6000	1	SVD	09/03/08	1.9	100



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: CAB-4 8-10
 Date Sampled: 09/03/08 14:45
 Percent Solids: 92
 Initial Volume: 6.8
 Final Volume: 10
 Extraction Method: 5035

ESS Laboratory Work Order: 0809032
 ESS Laboratory Sample ID: 0809032-05
 Sample Matrix: Soil
 Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

RI - RES DEC

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1,1,2-Tetrachloroethane	ND	mg/kg dry	0.0040	2.2	1	09/04/08
1,1,1-Trichloroethane	ND	mg/kg dry	0.0040	540	1	09/04/08
1,1,2,2-Tetrachloroethane	ND	mg/kg dry	0.0040	1.3	1	09/04/08
1,1,2-Trichloroethane	ND	mg/kg dry	0.0040	3.6	1	09/04/08
1,1-Dichloroethane	ND	mg/kg dry	0.0040	920	1	09/04/08
1,1-Dichloroethene	ND	mg/kg dry	0.0040	0.2	1	09/04/08
1,1-Dichloropropene	ND	mg/kg dry	0.0040		1	09/04/08
1,2,3-Trichlorobenzene	ND	mg/kg dry	0.0040		1	09/04/08
1,2,3-Trichloropropane	ND	mg/kg dry	0.0040		1	09/04/08
1,2,4-Trichlorobenzene	ND	mg/kg dry	0.0040	96	1	09/04/08
1,2,4-Trimethylbenzene	ND	mg/kg dry	0.0040		1	09/04/08
1,2-Dibromo-3-Chloropropane	ND	mg/kg dry	0.0040	0.5	1	09/04/08
1,2-Dibromoethane	ND	mg/kg dry	0.0040	0.01	1	09/04/08
1,2-Dichlorobenzene	ND	mg/kg dry	0.0040	510	1	09/04/08
1,2-Dichloroethane	ND	mg/kg dry	0.0040	0.9	1	09/04/08
1,2-Dichloropropane	ND	mg/kg dry	0.0040	1.9	1	09/04/08
1,3,5-Trimethylbenzene	ND	mg/kg dry	0.0040		1	09/04/08
1,3-Dichlorobenzene	ND	mg/kg dry	0.0040	430	1	09/04/08
1,3-Dichloropropane	ND	mg/kg dry	0.0040		1	09/04/08
1,4-Dichlorobenzene	ND	mg/kg dry	0.0040	27	1	09/04/08
1,4-Dioxane	ND	mg/kg dry	0.0799		1	09/04/08
1-Chlorohexane	ND	mg/kg dry	0.0040		1	09/04/08
2,2-Dichloropropane	ND	mg/kg dry	0.0040		1	09/04/08
2-Butanone	ND	mg/kg dry	0.0400	10000	1	09/04/08
2-Chlorotoluene	ND	mg/kg dry	0.0040		1	09/04/08
2-Hexanone	ND	mg/kg dry	0.0400		1	09/04/08
4-Chlorotoluene	ND	mg/kg dry	0.0040		1	09/04/08
4-Isopropyltoluene	ND	mg/kg dry	0.0040		1	09/04/08
4-Methyl-2-Pentanone	ND	mg/kg dry	0.0400	1200	1	09/04/08
Acetone	ND	mg/kg dry	0.0400	7800	1	09/04/08
Benzene	ND	mg/kg dry	0.0040	2.5	1	09/04/08
Bromobenzene	ND	mg/kg dry	0.0040		1	09/04/08
Bromochloromethane	ND	mg/kg dry	0.0040		1	09/04/08
Bromodichloromethane	ND	mg/kg dry	0.0040	10	1	09/04/08
Bromoform	ND	mg/kg dry	0.0040	81	1	09/04/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: CAB-4 8-10
Date Sampled: 09/03/08 14:45
Percent Solids: 92
Initial Volume: 6.8
Final Volume: 10
Extraction Method: 5035

ESS Laboratory Work Order: 0809032
ESS Laboratory Sample ID: 0809032-05
Sample Matrix: Soil
Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Bromomethane	ND	mg/kg dry	0.0080	0.8	1	09/04/08
Carbon Disulfide	ND	mg/kg dry	0.0040		1	09/04/08
Carbon Tetrachloride	ND	mg/kg dry	0.0040	1.5	1	09/04/08
Chlorobenzene	ND	mg/kg dry	0.0040	210	1	09/04/08
Chloroethane	ND	mg/kg dry	0.0080		1	09/04/08
Chloroform	ND	mg/kg dry	0.0040	1.2	1	09/04/08
Chloromethane	ND	mg/kg dry	0.0080		1	09/04/08
cis-1,2-Dichloroethene	ND	mg/kg dry	0.0040	630	1	09/04/08
cis-1,3-Dichloropropene	ND	mg/kg dry	0.0040		1	09/04/08
Dibromochloromethane	ND	mg/kg dry	0.0040	7.6	1	09/04/08
Dibromomethane	ND	mg/kg dry	0.0040		1	09/04/08
Dichlorodifluoromethane	ND	mg/kg dry	0.0080		1	09/04/08
Diethyl Ether	ND	mg/kg dry	0.0040		1	09/04/08
Di-isopropyl ether	ND	mg/kg dry	0.0040		1	09/04/08
Ethyl tertiary-butyl ether	ND	mg/kg dry	0.0040		1	09/04/08
Ethylbenzene	ND	mg/kg dry	0.0040	71	1	09/04/08
Hexachlorobutadiene	ND	mg/kg dry	0.0040	8.2	1	09/04/08
Isopropylbenzene	ND	mg/kg dry	0.0040	27	1	09/04/08
Methyl tert-Butyl Ether	ND	mg/kg dry	0.0040	390	1	09/04/08
Methylene Chloride	ND	mg/kg dry	0.0200	45	1	09/04/08
Naphthalene	ND	mg/kg dry	0.0040	54	1	09/04/08
n-Butylbenzene	ND	mg/kg dry	0.0040		1	09/04/08
n-Propylbenzene	ND	mg/kg dry	0.0040		1	09/04/08
sec-Butylbenzene	ND	mg/kg dry	0.0040		1	09/04/08
Styrene	ND	mg/kg dry	0.0040	13	1	09/04/08
tert-Butylbenzene	ND	mg/kg dry	0.0040		1	09/04/08
Tertiary-amyl methyl ether	ND	mg/kg dry	0.0040		1	09/04/08
Tetrachloroethene	ND	mg/kg dry	0.0040	12	1	09/04/08
Tetrahydrofuran	ND	mg/kg dry	0.0040		1	09/04/08
Toluene	ND	mg/kg dry	0.0040	190	1	09/04/08
trans-1,2-Dichloroethene	ND	mg/kg dry	0.0040	1100	1	09/04/08
trans-1,3-Dichloropropene	ND	mg/kg dry	0.0040		1	09/04/08
Trichloroethene	ND	mg/kg dry	0.0040	13	1	09/04/08
Trichlorofluoromethane	ND	mg/kg dry	0.0040		1	09/04/08
Vinyl Acetate	ND	mg/kg dry	0.0040		1	09/04/08
Vinyl Chloride	ND	mg/kg dry	0.0080	0.02	1	09/04/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.

Client Project ID: Trestle Trail

Client Sample ID: CAB-4 8-10

Date Sampled: 09/03/08 14:45

Percent Solids: 92

Initial Volume: 6.8

Final Volume: 10

Extraction Method: 5035

ESS Laboratory Work Order: 0809032

ESS Laboratory Sample ID: 0809032-05

Sample Matrix: Soil

Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Xylene O	ND	mg/kg dry	0.0040	110	1	09/04/08
Xylene P,M	ND	mg/kg dry	0.0080	110	1	09/04/08
Xylenes (Total)	ND	mg/kg dry	0.0120	110	0	09/04/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	124 %		70-130
Surrogate: 4-Bromofluorobenzene	93 %		70-130
Surrogate: Dibromofluoromethane	112 %		70-130
Surrogate: Toluene-d8	93 %		70-130



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: CAB-4 8-10
Date Sampled: 09/03/08 14:45
Percent Solids: 92
Initial Volume: 20.2
Final Volume: 1
Extraction Method: 3541

ESS Laboratory Work Order: 0809032
ESS Laboratory Sample ID: 0809032-05
Sample Matrix: Soil
Analyst: SEP
Prepared: 09/04/08

8100M Total Petroleum Hydrocarbons

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>
Total Petroleum Hydrocarbons	ND	mg/kg dry	40.4	500	1	09/04/08

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: O-Terphenyl	64 %		40-140



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: Trip Blank
 Date Sampled: 09/03/08 00:00
 Percent Solids: N/A
 Initial Volume: 5
 Final Volume: 10
 Extraction Method: 5035

ESS Laboratory Work Order: 0809032
 ESS Laboratory Sample ID: 0809032-06
 Sample Matrix: Solid
 Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

RI - RES DEC

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0050	2.2	1	09/04/08
1,1,1-Trichloroethane	ND	mg/kg	0.0050	540	1	09/04/08
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0050	1.3	1	09/04/08
1,1,2-Trichloroethane	ND	mg/kg	0.0050	3.6	1	09/04/08
1,1-Dichloroethane	ND	mg/kg	0.0050	920	1	09/04/08
1,1-Dichloroethene	ND	mg/kg	0.0050	0.2	1	09/04/08
1,1-Dichloropropene	ND	mg/kg	0.0050		1	09/04/08
1,2,3-Trichlorobenzene	ND	mg/kg	0.0050		1	09/04/08
1,2,3-Trichloropropane	ND	mg/kg	0.0050		1	09/04/08
1,2,4-Trichlorobenzene	ND	mg/kg	0.0050		1	09/04/08
1,2,4-Trimethylbenzene	ND	mg/kg	0.0050		1	09/04/08
1,2-Dibromo-3-Chloropropane	ND	mg/kg	0.0050	0.5	1	09/04/08
1,2-Dibromoethane	ND	mg/kg	0.0050	0.01	1	09/04/08
1,2-Dichlorobenzene	ND	mg/kg	0.0050		1	09/04/08
1,2-Dichloroethane	ND	mg/kg	0.0050	0.9	1	09/04/08
1,2-Dichloropropane	ND	mg/kg	0.0050	1.9	1	09/04/08
1,3,5-Trimethylbenzene	ND	mg/kg	0.0050		1	09/04/08
1,3-Dichlorobenzene	ND	mg/kg	0.0050		1	09/04/08
1,3-Dichloropropane	ND	mg/kg	0.0050		1	09/04/08
1,4-Dichlorobenzene	ND	mg/kg	0.0050		1	09/04/08
1,4-Dioxane	ND	mg/kg	0.100		1	09/04/08
1-Chlorohexane	ND	mg/kg	0.0050		1	09/04/08
2,2-Dichloropropane	ND	mg/kg	0.0050		1	09/04/08
2-Butanone	ND	mg/kg	0.0500	10000	1	09/04/08
2-Chlorotoluene	ND	mg/kg	0.0050		1	09/04/08
2-Hexanone	ND	mg/kg	0.0500		1	09/04/08
4-Chlorotoluene	ND	mg/kg	0.0050		1	09/04/08
4-Isopropyltoluene	ND	mg/kg	0.0050		1	09/04/08
4-Methyl-2-Pentanone	ND	mg/kg	0.0500	1200	1	09/04/08
Acetone	ND	mg/kg	0.0500	7800	1	09/04/08
Benzene	ND	mg/kg	0.0050	2.5	1	09/04/08
Bromobenzene	ND	mg/kg	0.0050		1	09/04/08
Bromochloromethane	ND	mg/kg	0.0050		1	09/04/08
Bromodichloromethane	ND	mg/kg	0.0050	10	1	09/04/08
Bromoform	ND	mg/kg	0.0050	81	1	09/04/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: Trip Blank
Date Sampled: 09/03/08 00:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 10
Extraction Method: 5035

ESS Laboratory Work Order: 0809032
ESS Laboratory Sample ID: 0809032-06
Sample Matrix: Solid
Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Bromomethane	ND	mg/kg	0.0100	0.8	1	09/04/08
Carbon Disulfide	ND	mg/kg	0.0050		1	09/04/08
Carbon Tetrachloride	ND	mg/kg	0.0050	1.5	1	09/04/08
Chlorobenzene	ND	mg/kg	0.0050	210	1	09/04/08
Chloroethane	ND	mg/kg	0.0100		1	09/04/08
Chloroform	ND	mg/kg	0.0050	1.2	1	09/04/08
Chloromethane	ND	mg/kg	0.0100		1	09/04/08
cis-1,2-Dichloroethene	ND	mg/kg	0.0050	630	1	09/04/08
cis-1,3-Dichloropropene	ND	mg/kg	0.0050		1	09/04/08
Dibromochloromethane	ND	mg/kg	0.0050	7.6	1	09/04/08
Dibromomethane	ND	mg/kg	0.0050		1	09/04/08
Dichlorodifluoromethane	ND	mg/kg	0.0100		1	09/04/08
Diethyl Ether	ND	mg/kg	0.0050		1	09/04/08
Di-isopropyl ether	ND	mg/kg	0.0050		1	09/04/08
Ethyl tertiary-butyl ether	ND	mg/kg	0.0050		1	09/04/08
Ethylbenzene	ND	mg/kg	0.0050	71	1	09/04/08
Hexachlorobutadiene	ND	mg/kg	0.0050		1	09/04/08
Isopropylbenzene	ND	mg/kg	0.0050	27	1	09/04/08
Methyl tert-Butyl Ether	ND	mg/kg	0.0050	390	1	09/04/08
Methylene Chloride	ND	mg/kg	0.0250	45	1	09/04/08
Naphthalene	ND	mg/kg	0.0050		1	09/04/08
n-Butylbenzene	ND	mg/kg	0.0050		1	09/04/08
n-Propylbenzene	ND	mg/kg	0.0050		1	09/04/08
sec-Butylbenzene	ND	mg/kg	0.0050		1	09/04/08
Styrene	ND	mg/kg	0.0050	13	1	09/04/08
tert-Butylbenzene	ND	mg/kg	0.0050		1	09/04/08
Tertiary-amyl methyl ether	ND	mg/kg	0.0050		1	09/04/08
Tetrachloroethene	ND	mg/kg	0.0050	12	1	09/04/08
Tetrahydrofuran	ND	mg/kg	0.0050		1	09/04/08
Toluene	ND	mg/kg	0.0050	190	1	09/04/08
trans-1,2-Dichloroethene	ND	mg/kg	0.0050	1100	1	09/04/08
trans-1,3-Dichloropropene	ND	mg/kg	0.0050		1	09/04/08
Trichloroethene	ND	mg/kg	0.0050	13	1	09/04/08
Trichlorofluoromethane	ND	mg/kg	0.0050		1	09/04/08
Vinyl Acetate	ND	mg/kg	0.0050		1	09/04/08
Vinyl Chloride	ND	mg/kg	0.0100	0.02	1	09/04/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: Trip Blank
Date Sampled: 09/03/08 00:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 10
Extraction Method: 5035

ESS Laboratory Work Order: 0809032
ESS Laboratory Sample ID: 0809032-06
Sample Matrix: Solid
Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Xylene O	ND	mg/kg	0.0050	110	1	09/04/08
Xylene P,M	ND	mg/kg	0.0100	110	1	09/04/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	114 %		70-130
Surrogate: 4-Bromofluorobenzene	90 %		70-130
Surrogate: Dibromofluoromethane	107 %		70-130
Surrogate: Toluene-d8	93 %		70-130



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809032

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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3050B/6000/7000 Total Metals

Batch BI80310 - 3050B

Blank

Antimony	ND	6.7	mg/kg wet							
Arsenic	ND	3.3	mg/kg wet							
Beryllium	ND	0.07	mg/kg wet							
Cadmium	ND	0.67	mg/kg wet							
Chromium	ND	1.3	mg/kg wet							
Copper	ND	1.3	mg/kg wet							
Lead	ND	6.7	mg/kg wet							
Nickel	ND	3.3	mg/kg wet							
Selenium	ND	6.7	mg/kg wet							
Silver	ND	0.67	mg/kg wet							
Thallium	ND	0.33	mg/kg wet							
Zinc	ND	3.3	mg/kg wet							

LCS

Antimony	34.8	6.7	mg/kg wet	33.33		104	80-120			
Arsenic	32.3	3.3	mg/kg wet	33.33		97	80-120			
Beryllium	3.32	0.07	mg/kg wet	3.333		100	80-120			
Cadmium	16.1	0.67	mg/kg wet	16.67		96	80-120			
Chromium	33.6	1.3	mg/kg wet	33.33		101	80-120			
Copper	33.5	1.3	mg/kg wet	33.33		101	80-120			
Lead	33.7	6.7	mg/kg wet	33.33		101	80-120			
Nickel	33.7	3.3	mg/kg wet	33.33		101	80-120			
Selenium	64.8	6.7	mg/kg wet	66.67		97	80-120			
Silver	16.7	0.67	mg/kg wet	16.67		100	80-120			
Thallium	35.3	6.60	mg/kg wet	33.33		106	80-120			
Zinc	32.9	3.3	mg/kg wet	33.33		99	80-120			

LCS Dup

Antimony	35.2	6.7	mg/kg wet	33.33		106	80-120	1	20	
Arsenic	32.2	3.3	mg/kg wet	33.33		97	80-120	0.2	20	
Beryllium	3.32	0.07	mg/kg wet	3.333		100	80-120	0.08	20	
Cadmium	16.2	0.67	mg/kg wet	16.67		97	80-120	0.9	20	
Chromium	33.8	1.3	mg/kg wet	33.33		101	80-120	0.6	20	
Copper	33.8	1.3	mg/kg wet	33.33		102	80-120	0.9	20	
Lead	34.1	6.7	mg/kg wet	33.33		102	80-120	1	20	
Nickel	33.9	3.3	mg/kg wet	33.33		102	80-120	0.6	20	
Selenium	65.4	6.7	mg/kg wet	66.67		98	80-120	0.9	20	
Silver	16.8	0.67	mg/kg wet	16.67		101	80-120	0.7	20	
Thallium	35.8	6.60	mg/kg wet	33.33		107	80-120	1	20	
Zinc	32.9	3.3	mg/kg wet	33.33		99	80-120	0.06	20	

Reference

Antimony	106	10.0	mg/kg wet	127.0		83	0-210			
Arsenic	267	5.0	mg/kg wet	280.0		95	81-119			
Beryllium	50.3	0.10	mg/kg wet	51.00		99	83-117			
Cadmium	172	1.00	mg/kg wet	182.0		94	82-118			
Chromium	134	2.0	mg/kg wet	142.0		94	81-120			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809032

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
3050B/6000/7000 Total Metals										
Batch B180310 - 3050B										
Copper	128	2.0	mg/kg wet	132.0		97	83-117			
Lead	72.2	10.0	mg/kg wet	72.20		100	82-118			
Nickel	152	5.0	mg/kg wet	155.0		98	82-117			
Selenium	160	10.0	mg/kg wet	165.0		97	78-123			
Silver	129	1.00	mg/kg wet	126.0		102	66-134			
Thallium	217	24.8	mg/kg wet	184.0		118	77-122			
Zinc	330	5.0	mg/kg wet	346.0		95	79-121			
Batch B180311 - 7471A										
Blank										
Mercury	ND	0.033	mg/kg wet							
LCS										
Mercury	0.213	0.033	mg/kg wet	0.2000		107	80-120			
LCS Dup										
Mercury	0.211	0.033	mg/kg wet	0.2000		105	80-120	1	20	
Duplicate Source: 0809032-05										
Mercury	ND	0.032	mg/kg dry		ND				35	
Matrix Spike Source: 0809032-05										
Mercury	0.244	0.035	mg/kg dry	0.2104	ND	116	75-125			
Matrix Spike Dup Source: 0809032-05										
Mercury	0.253	0.035	mg/kg dry	0.2138	ND	118	75-125	3	35	
Reference										
Mercury	10.7	0.649	mg/kg wet	8.480		126	66-132			

5035/8260B Volatile Organic Compounds / Low Level

Batch B180415 - 5035										
Blank										
1,1,1,2-Tetrachloroethane	ND	0.0050	mg/kg wet							
1,1,1-Trichloroethane	ND	0.0050	mg/kg wet							
1,1,2,2-Tetrachloroethane	ND	0.0050	mg/kg wet							
1,1,2-Trichloroethane	ND	0.0050	mg/kg wet							
1,1-Dichloroethane	ND	0.0050	mg/kg wet							
1,1-Dichloroethene	ND	0.0050	mg/kg wet							
1,1-Dichloropropene	ND	0.0050	mg/kg wet							
1,2,3-Trichlorobenzene	ND	0.0050	mg/kg wet							
1,2,3-Trichloropropane	ND	0.0050	mg/kg wet							
1,2,4-Trichlorobenzene	ND	0.0050	mg/kg wet							
1,2,4-Trimethylbenzene	ND	0.0050	mg/kg wet							
1,2-Dibromo-3-Chloropropane	ND	0.0050	mg/kg wet							
1,2-Dibromoethane	ND	0.0050	mg/kg wet							
1,2-Dichlorobenzene	ND	0.0050	mg/kg wet							
1,2-Dichloroethane	ND	0.0050	mg/kg wet							
1,2-Dichloropropane	ND	0.0050	mg/kg wet							
1,3,5-Trimethylbenzene	ND	0.0050	mg/kg wet							



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809032

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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5035/8260B Volatile Organic Compounds / Low Level

Batch B180415 - 5035

1,3-Dichlorobenzene	ND	0.0050	mg/kg wet							
1,3-Dichloropropane	ND	0.0050	mg/kg wet							
1,4-Dichlorobenzene	ND	0.0050	mg/kg wet							
1,4-Dioxane	ND	0.100	mg/kg wet							
1-Chlorohexane	ND	0.0050	mg/kg wet							
2,2-Dichloropropane	ND	0.0050	mg/kg wet							
2-Butanone	ND	0.0500	mg/kg wet							
2-Chlorotoluene	ND	0.0050	mg/kg wet							
2-Hexanone	ND	0.0500	mg/kg wet							
4-Chlorotoluene	ND	0.0050	mg/kg wet							
4-Isopropyltoluene	ND	0.0050	mg/kg wet							
4-Methyl-2-Pentanone	ND	0.0500	mg/kg wet							
Acetone	ND	0.0500	mg/kg wet							
Benzene	ND	0.0050	mg/kg wet							
Bromobenzene	ND	0.0050	mg/kg wet							
Bromochloromethane	ND	0.0050	mg/kg wet							
Bromodichloromethane	ND	0.0050	mg/kg wet							
Bromoform	ND	0.0050	mg/kg wet							
Bromomethane	ND	0.0100	mg/kg wet							
Carbon Disulfide	ND	0.0050	mg/kg wet							
Carbon Tetrachloride	ND	0.0050	mg/kg wet							
Chlorobenzene	ND	0.0050	mg/kg wet							
Chloroethane	ND	0.0100	mg/kg wet							
Chloroform	ND	0.0050	mg/kg wet							
Chloromethane	ND	0.0100	mg/kg wet							
cis-1,2-Dichloroethene	ND	0.0050	mg/kg wet							
cis-1,3-Dichloropropene	ND	0.0050	mg/kg wet							
Dibromochloromethane	ND	0.0050	mg/kg wet							
Dibromomethane	ND	0.0050	mg/kg wet							
Dichlorodifluoromethane	ND	0.0100	mg/kg wet							
Diethyl Ether	ND	0.0050	mg/kg wet							
Di-isopropyl ether	ND	0.0050	mg/kg wet							
Ethyl tertiary-butyl ether	ND	0.0050	mg/kg wet							
Ethylbenzene	ND	0.0050	mg/kg wet							
Hexachlorobutadiene	ND	0.0050	mg/kg wet							
Isopropylbenzene	ND	0.0050	mg/kg wet							
Methyl tert-Butyl Ether	ND	0.0050	mg/kg wet							
Methylene Chloride	ND	0.0250	mg/kg wet							
Naphthalene	ND	0.0050	mg/kg wet							
n-Butylbenzene	ND	0.0050	mg/kg wet							
n-Propylbenzene	ND	0.0050	mg/kg wet							
sec-Butylbenzene	ND	0.0050	mg/kg wet							
Styrene	ND	0.0050	mg/kg wet							
tert-Butylbenzene	ND	0.0050	mg/kg wet							
Tertiary-amyl methyl ether	ND	0.0050	mg/kg wet							
Tetrachloroethene	ND	0.0050	mg/kg wet							



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809032

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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5035/8260B Volatile Organic Compounds / Low Level

Batch B180415 - 5035

Tetrahydrofuran	ND	0.0050	mg/kg wet							
Toluene	ND	0.0050	mg/kg wet							
trans-1,2-Dichloroethene	ND	0.0050	mg/kg wet							
trans-1,3-Dichloropropene	ND	0.0050	mg/kg wet							
Trichloroethene	ND	0.0050	mg/kg wet							
Vinyl Acetate	ND	0.0050	mg/kg wet							
Vinyl Chloride	ND	0.0100	mg/kg wet							
Xylene O	ND	0.0050	mg/kg wet							
Xylene P,M	ND	0.0100	mg/kg wet							
Surrogate: 1,2-Dichloroethane-d4	27.9		ug/L	25.00		112	70-130			
Surrogate: 4-Bromofluorobenzene	22.8		ug/L	25.00		91	70-130			
Surrogate: Dibromofluoromethane	27.6		ug/L	25.00		110	70-130			
Surrogate: Toluene-d8	23.4		ug/L	25.00		94	70-130			

LCS

1,1,1,2-Tetrachloroethane	0.0479	0.0050	mg/kg wet	0.05000		96	70-130			
1,1,1-Trichloroethane	0.0477	0.0050	mg/kg wet	0.05000		95	70-130			
1,1,2,2-Tetrachloroethane	0.0525	0.0050	mg/kg wet	0.05000		105	70-130			
1,1,2-Trichloroethane	0.0493	0.0050	mg/kg wet	0.05000		99	70-130			
1,1-Dichloroethane	0.0518	0.0050	mg/kg wet	0.05000		104	70-130			
1,1-Dichloroethene	0.0522	0.0050	mg/kg wet	0.05000		104	70-130			
1,1-Dichloropropene	0.0460	0.0050	mg/kg wet	0.05000		92	70-130			
1,2,3-Trichlorobenzene	0.0527	0.0050	mg/kg wet	0.05000		105	70-130			
1,2,3-Trichloropropane	0.0501	0.0050	mg/kg wet	0.05000		100	70-130			
1,2,4-Trichlorobenzene	0.0530	0.0050	mg/kg wet	0.05000		106	70-130			
1,2,4-Trimethylbenzene	0.0531	0.0050	mg/kg wet	0.05000		106	70-130			
1,2-Dibromo-3-Chloropropane	0.0477	0.0050	mg/kg wet	0.05000		95	70-130			
1,2-Dibromoethane	0.0521	0.0050	mg/kg wet	0.05000		104	70-130			
1,2-Dichlorobenzene	0.0511	0.0050	mg/kg wet	0.05000		102	70-130			
1,2-Dichloroethane	0.0537	0.0050	mg/kg wet	0.05000		107	70-130			
1,2-Dichloropropane	0.0470	0.0050	mg/kg wet	0.05000		94	70-130			
1,3,5-Trimethylbenzene	0.0513	0.0050	mg/kg wet	0.05000		103	70-130			
1,3-Dichlorobenzene	0.0491	0.0050	mg/kg wet	0.05000		98	70-130			
1,3-Dichloropropane	0.0469	0.0050	mg/kg wet	0.05000		94	70-130			
1,4-Dichlorobenzene	0.0485	0.0050	mg/kg wet	0.05000		97	70-130			
1,4-Dioxane	1.03	0.100	mg/kg wet	1.000		103	70-130			
1-Chlorohexane	0.0457	0.0050	mg/kg wet	0.05000		91	70-130			
2,2-Dichloropropane	0.0454	0.0050	mg/kg wet	0.05000		91	70-130			
2-Butanone	0.245	0.0500	mg/kg wet	0.2500		98	70-130			
2-Chlorotoluene	0.0504	0.0050	mg/kg wet	0.05000		101	70-130			
2-Hexanone	0.252	0.0500	mg/kg wet	0.2500		101	70-130			
4-Chlorotoluene	0.0499	0.0050	mg/kg wet	0.05000		100	70-130			
4-Isopropyltoluene	0.0498	0.0050	mg/kg wet	0.05000		100	70-130			
4-Methyl-2-Pentanone	0.265	0.0500	mg/kg wet	0.2500		106	70-130			
Acetone	0.180	0.0500	mg/kg wet	0.2500		72	70-130			
Benzene	0.0452	0.0050	mg/kg wet	0.05000		90	70-130			
Bromobenzene	0.0491	0.0050	mg/kg wet	0.05000		98	70-130			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.

Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809032

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
5035/8260B Volatile Organic Compounds / Low Level										
Batch B180415 - 5035										
Bromochloromethane	0.0539	0.0050	mg/kg wet	0.05000		108	70-130			
Bromodichloromethane	0.0479	0.0050	mg/kg wet	0.05000		96	70-130			
Bromoform	0.0465	0.0050	mg/kg wet	0.05000		93	70-130			
Bromomethane	0.0559	0.0100	mg/kg wet	0.05000		112	70-130			
Carbon Disulfide	0.0539	0.0050	mg/kg wet	0.05000		108	70-130			
Carbon Tetrachloride	0.0468	0.0050	mg/kg wet	0.05000		94	70-130			
Chlorobenzene	0.0495	0.0050	mg/kg wet	0.05000		99	70-130			
Chloroethane	0.0567	0.0100	mg/kg wet	0.05000		113	70-130			
Chloroform	0.0496	0.0050	mg/kg wet	0.05000		99	70-130			
Chloromethane	0.0563	0.0100	mg/kg wet	0.05000		113	70-130			
cis-1,2-Dichloroethene	0.0510	0.0050	mg/kg wet	0.05000		102	70-130			
cis-1,3-Dichloropropene	0.0461	0.0050	mg/kg wet	0.05000		92	70-130			
Dibromochloromethane	0.0486	0.0050	mg/kg wet	0.05000		97	70-130			
Dibromomethane	0.0504	0.0050	mg/kg wet	0.05000		101	70-130			
Dichlorodifluoromethane	0.0641	0.0100	mg/kg wet	0.05000		128	70-130			
Diethyl Ether	0.0388	0.0050	mg/kg wet	0.05000		78	70-130			
Di-isopropyl ether	0.0461	0.0050	mg/kg wet	0.05000		92	70-130			
Ethyl tertiary-butyl ether	0.0491	0.0050	mg/kg wet	0.05000		98	70-130			
Ethylbenzene	0.0477	0.0050	mg/kg wet	0.05000		95	70-130			
Hexachlorobutadiene	0.0512	0.0050	mg/kg wet	0.05000		102	70-130			
Isopropylbenzene	0.0457	0.0050	mg/kg wet	0.05000		91	70-130			
Methyl tert-Butyl Ether	0.0471	0.0050	mg/kg wet	0.05000		94	70-130			
Methylene Chloride	0.0509	0.0250	mg/kg wet	0.05000		102	70-130			
Naphthalene	0.0549	0.0050	mg/kg wet	0.05000		110	70-130			
n-Butylbenzene	0.0518	0.0050	mg/kg wet	0.05000		104	70-130			
n-Propylbenzene	0.0482	0.0050	mg/kg wet	0.05000		96	70-130			
sec-Butylbenzene	0.0499	0.0050	mg/kg wet	0.05000		100	70-130			
Styrene	0.0496	0.0050	mg/kg wet	0.05000		99	70-130			
tert-Butylbenzene	0.0508	0.0050	mg/kg wet	0.05000		102	70-130			
Tertiary-amyl methyl ether	0.0486	0.0050	mg/kg wet	0.05000		97	70-130			
Tetrachloroethene	0.0457	0.0050	mg/kg wet	0.05000		91	70-130			
Tetrahydrofuran	0.0459	0.0050	mg/kg wet	0.05000		92	70-130			
Toluene	0.0493	0.0050	mg/kg wet	0.05000		99	70-130			
trans-1,2-Dichloroethene	0.0513	0.0050	mg/kg wet	0.05000		103	70-130			
trans-1,3-Dichloropropene	0.0433	0.0050	mg/kg wet	0.05000		87	70-130			
Trichloroethene	0.0498	0.0050	mg/kg wet	0.05000		100	70-130			
Vinyl Acetate	0.0412	0.0050	mg/kg wet	0.05000		82	70-130			
Vinyl Chloride	0.0672	0.0100	mg/kg wet	0.05000		134	70-130			B+
Xylene O	0.0493	0.0050	mg/kg wet	0.05000		99	70-130			
Xylene P,M	0.0968	0.0100	mg/kg wet	0.1000		97	70-130			
Surrogate: 1,2-Dichloroethane-d4	24.4		ug/L	25.00		98	70-130			
Surrogate: 4-Bromofluorobenzene	22.9		ug/L	25.00		91	70-130			
Surrogate: Dibromofluoromethane	25.7		ug/L	25.00		103	70-130			
Surrogate: Toluene-d8	21.8		ug/L	25.00		87	70-130			
LCS Dup										
1,1,1,2-Tetrachloroethane	0.0479	0.0050	mg/kg wet	0.05000		96	70-130	0.08	20	



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809032

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
5035/8260B Volatile Organic Compounds / Low Level										
Batch B180415 - 5035										
1,1,1-Trichloroethane	0.0479	0.0050	mg/kg wet	0.05000		96	70-130	0.5	20	
1,1,2,2-Tetrachloroethane	0.0501	0.0050	mg/kg wet	0.05000		100	70-130	5	20	
1,1,2-Trichloroethane	0.0481	0.0050	mg/kg wet	0.05000		96	70-130	3	20	
1,1-Dichloroethane	0.0520	0.0050	mg/kg wet	0.05000		104	70-130	0.5	20	
1,1-Dichloroethene	0.0502	0.0050	mg/kg wet	0.05000		100	70-130	4	20	
1,1-Dichloropropene	0.0461	0.0050	mg/kg wet	0.05000		92	70-130	0.4	20	
1,2,3-Trichlorobenzene	0.0507	0.0050	mg/kg wet	0.05000		101	70-130	4	20	
1,2,3-Trichloropropane	0.0459	0.0050	mg/kg wet	0.05000		92	70-130	9	20	
1,2,4-Trichlorobenzene	0.0501	0.0050	mg/kg wet	0.05000		100	70-130	6	20	
1,2,4-Trimethylbenzene	0.0529	0.0050	mg/kg wet	0.05000		106	70-130	0.3	20	
1,2-Dibromo-3-Chloropropane	0.0458	0.0050	mg/kg wet	0.05000		92	70-130	4	20	
1,2-Dibromoethane	0.0498	0.0050	mg/kg wet	0.05000		100	70-130	4	20	
1,2-Dichlorobenzene	0.0492	0.0050	mg/kg wet	0.05000		98	70-130	4	20	
1,2-Dichloroethane	0.0542	0.0050	mg/kg wet	0.05000		108	70-130	1	20	
1,2-Dichloropropane	0.0478	0.0050	mg/kg wet	0.05000		96	70-130	2	20	
1,3,5-Trimethylbenzene	0.0518	0.0050	mg/kg wet	0.05000		104	70-130	1	20	
1,3-Dichlorobenzene	0.0493	0.0050	mg/kg wet	0.05000		99	70-130	0.3	20	
1,3-Dichloropropane	0.0454	0.0050	mg/kg wet	0.05000		91	70-130	3	20	
1,4-Dichlorobenzene	0.0480	0.0050	mg/kg wet	0.05000		96	70-130	0.9	20	
1,4-Dioxane	0.897	0.100	mg/kg wet	1.000		90	70-130	14	20	
1-Chlorohexane	0.0463	0.0050	mg/kg wet	0.05000		93	70-130	1	20	
2,2-Dichloropropane	0.0454	0.0050	mg/kg wet	0.05000		91	70-130	0.09	20	
2-Butanone	0.225	0.0500	mg/kg wet	0.2500		90	70-130	9	20	
2-Chlorotoluene	0.0503	0.0050	mg/kg wet	0.05000		101	70-130	0.1	20	
2-Hexanone	0.216	0.0500	mg/kg wet	0.2500		87	70-130	15	20	
4-Chlorotoluene	0.0498	0.0050	mg/kg wet	0.05000		100	70-130	0.2	20	
4-Isopropyltoluene	0.0498	0.0050	mg/kg wet	0.05000		100	70-130	0.04	20	
4-Methyl-2-Pentanone	0.235	0.0500	mg/kg wet	0.2500		94	70-130	12	20	
Acetone	0.136	0.0500	mg/kg wet	0.2500		54	70-130	28	20	B-, D+
Benzene	0.0455	0.0050	mg/kg wet	0.05000		91	70-130	0.7	20	
Bromobenzene	0.0493	0.0050	mg/kg wet	0.05000		99	70-130	0.4	20	
Bromochloromethane	0.0520	0.0050	mg/kg wet	0.05000		104	70-130	4	20	
Bromodichloromethane	0.0479	0.0050	mg/kg wet	0.05000		96	70-130	0	20	
Bromoform	0.0444	0.0050	mg/kg wet	0.05000		89	70-130	5	20	
Bromomethane	0.0545	0.0100	mg/kg wet	0.05000		109	70-130	3	20	
Carbon Disulfide	0.0530	0.0050	mg/kg wet	0.05000		106	70-130	2	20	
Carbon Tetrachloride	0.0487	0.0050	mg/kg wet	0.05000		97	70-130	4	20	
Chlorobenzene	0.0502	0.0050	mg/kg wet	0.05000		100	70-130	1	20	
Chloroethane	0.0535	0.0100	mg/kg wet	0.05000		107	70-130	6	20	
Chloroform	0.0497	0.0050	mg/kg wet	0.05000		99	70-130	0.2	20	
Chloromethane	0.0545	0.0100	mg/kg wet	0.05000		109	70-130	3	20	
cis-1,2-Dichloroethene	0.0515	0.0050	mg/kg wet	0.05000		103	70-130	0.9	20	
cis-1,3-Dichloropropene	0.0445	0.0050	mg/kg wet	0.05000		89	70-130	4	20	
Dibromochloromethane	0.0476	0.0050	mg/kg wet	0.05000		95	70-130	2	20	
Dibromomethane	0.0503	0.0050	mg/kg wet	0.05000		101	70-130	0.08	20	
Dichlorodifluoromethane	0.0611	0.0100	mg/kg wet	0.05000		122	70-130	5	20	



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809032

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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5035/8260B Volatile Organic Compounds / Low Level

Batch BI80415 - 5035

Diethyl Ether	0.0304	0.0050	mg/kg wet	0.05000		61	70-130	24	20	B-, D+
DI-isopropyl ether	0.0458	0.0050	mg/kg wet	0.05000		92	70-130	0.7	20	
Ethyl tertiary-butyl ether	0.0478	0.0050	mg/kg wet	0.05000		96	70-130	3	20	
Ethylbenzene	0.0477	0.0050	mg/kg wet	0.05000		95	70-130	0.04	20	
Hexachlorobutadiene	0.0510	0.0050	mg/kg wet	0.05000		102	70-130	0.4	20	
Isopropylbenzene	0.0457	0.0050	mg/kg wet	0.05000		91	70-130	0.09	20	
Methyl tert-Butyl Ether	0.0451	0.0050	mg/kg wet	0.05000		90	70-130	4	20	
Methylene Chloride	0.0500	0.0250	mg/kg wet	0.05000		100	70-130	2	20	
Naphthalene	0.0509	0.0050	mg/kg wet	0.05000		102	70-130	8	20	
n-Butylbenzene	0.0509	0.0050	mg/kg wet	0.05000		102	70-130	2	20	
n-Propylbenzene	0.0489	0.0050	mg/kg wet	0.05000		98	70-130	1	20	
sec-Butylbenzene	0.0505	0.0050	mg/kg wet	0.05000		101	70-130	1	20	
Styrene	0.0488	0.0050	mg/kg wet	0.05000		98	70-130	2	20	
tert-Butylbenzene	0.0505	0.0050	mg/kg wet	0.05000		101	70-130	0.6	20	
Tertiary-amyl methyl ether	0.0458	0.0050	mg/kg wet	0.05000		92	70-130	6	20	
Tetrachloroethene	0.0460	0.0050	mg/kg wet	0.05000		92	70-130	0.7	20	
Tetrahydrofuran	0.0389	0.0050	mg/kg wet	0.05000		78	70-130	17	20	
Toluene	0.0487	0.0050	mg/kg wet	0.05000		97	70-130	1	20	
trans-1,2-Dichloroethene	0.0516	0.0050	mg/kg wet	0.05000		103	70-130	0.5	20	
trans-1,3-Dichloropropene	0.0409	0.0050	mg/kg wet	0.05000		82	70-130	6	20	
Trichloroethene	0.0485	0.0050	mg/kg wet	0.05000		97	70-130	3	20	
Vinyl Acetate	0.0401	0.0050	mg/kg wet	0.05000		80	70-130	3	20	
Vinyl Chloride	0.0654	0.0100	mg/kg wet	0.05000		131	70-130	3	20	B+
Xylene O	0.0485	0.0050	mg/kg wet	0.05000		97	70-130	1	20	
Xylene P,M	0.0970	0.0100	mg/kg wet	0.1000		97	70-130	0.2	20	
Surrogate: 1,2-Dichloroethane-d4	24.8		ug/L	25.00		99	70-130			
Surrogate: 4-Bromofluorobenzene	22.5		ug/L	25.00		90	70-130			
Surrogate: Dibromofluoromethane	25.5		ug/L	25.00		102	70-130			
Surrogate: Toluene-d8	22.4		ug/L	25.00		90	70-130			

8082 Polychlorinated Biphenyls (PCB)

Batch BI80433 - 3541

Blank

Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	0.0247		mg/kg wet	0.02500		99	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.0258		mg/kg wet	0.02500		103	30-150			
Surrogate: Tetrachloro-m-xylene	0.0205		mg/kg wet	0.02500		82	30-150			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809032

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8082 Polychlorinated Biphenyls (PCB)

Batch BI80433 - 3541

<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	0.0226		mg/kg wet	0.02500		91	30-150			
LCS										
Aroclor 1016	0.514	0.0500	mg/kg wet	0.5000		103	40-140			
Aroclor 1260	0.461	0.0500	mg/kg wet	0.5000		92	40-140			
<i>Surrogate: Decachlorobiphenyl</i>	0.0254		mg/kg wet	0.02500		102	30-150			
<i>Surrogate: Decachlorobiphenyl [2C]</i>	0.0262		mg/kg wet	0.02500		105	30-150			
<i>Surrogate: Tetrachloro-m-xylene</i>	0.0218		mg/kg wet	0.02500		87	30-150			
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	0.0225		mg/kg wet	0.02500		90	30-150			
LCS Dup										
Aroclor 1016	0.527	0.0500	mg/kg wet	0.5000		105	40-140	3	50	
Aroclor 1260	0.471	0.0500	mg/kg wet	0.5000		94	40-140	2	50	
<i>Surrogate: Decachlorobiphenyl</i>	0.0257		mg/kg wet	0.02500		103	30-150			
<i>Surrogate: Decachlorobiphenyl [2C]</i>	0.0264		mg/kg wet	0.02500		106	30-150			
<i>Surrogate: Tetrachloro-m-xylene</i>	0.0222		mg/kg wet	0.02500		89	30-150			
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	0.0229		mg/kg wet	0.02500		92	30-150			

8100M Total Petroleum Hydrocarbons

Batch BI80426 - 3541

Blank										
Decane (C10)	ND	0.25	mg/kg wet							
Docosane (C22)	ND	0.25	mg/kg wet							
Dodecane (C12)	ND	0.25	mg/kg wet							
Eicosane (C20)	ND	0.25	mg/kg wet							
Hexacosane (C26)	ND	0.25	mg/kg wet							
Hexadecane (C16)	ND	0.25	mg/kg wet							
Nonadecane (C19)	ND	0.25	mg/kg wet							
Nonane (C9)	ND	0.25	mg/kg wet							
Octacosane (C28)	ND	0.25	mg/kg wet							
Octadecane (C18)	ND	0.25	mg/kg wet							
Tetracosane (C24)	ND	0.25	mg/kg wet							
Tetradecane (C14)	ND	0.25	mg/kg wet							
Total Petroleum Hydrocarbons	ND	37.5	mg/kg wet							
Triacontane (C30)	ND	0.25	mg/kg wet							

<i>Surrogate: O-Terphenyl</i>	3.26		mg/kg wet	5.000		65	40-140			
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LCS										
Decane (C10)	1.67	0.25	mg/kg wet	2.500		67	40-140			
Docosane (C22)	1.99	0.25	mg/kg wet	2.500		79	40-140			
Dodecane (C12)	1.78	0.25	mg/kg wet	2.500		71	40-140			
Eicosane (C20)	2.01	0.25	mg/kg wet	2.500		80	40-140			
Hexacosane (C26)	1.97	0.25	mg/kg wet	2.500		79	40-140			
Hexadecane (C16)	1.89	0.25	mg/kg wet	2.500		75	40-140			
Hexatriacontane (C36)	1.96	0.25	mg/kg wet	2.500		79	40-140			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809032

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8100M Total Petroleum Hydrocarbons

Batch B180426 - 3541

Nonadecane (C19)	1.93	0.25	mg/kg wet	2.500		77	40-140			
Nonane (C9)	1.44	0.25	mg/kg wet	2.500		58	30-140			
Octacosane (C28)	2.01	0.25	mg/kg wet	2.500		80	40-140			
Octadecane (C18)	1.95	0.25	mg/kg wet	2.500		78	40-140			
Tetracosane (C24)	2.02	0.25	mg/kg wet	2.500		81	40-140			
Tetradecane (C14)	1.84	0.25	mg/kg wet	2.500		74	40-140			
Triacontane (C30)	1.86	0.25	mg/kg wet	2.500		74	40-140			

Surrogate: O-Terphenyl

3.79 mg/kg wet 5.000 76 40-140

LCS Dup

Decane (C10)	1.76	0.25	mg/kg wet	2.500		70	40-140	5	50	
Docosane (C22)	1.90	0.25	mg/kg wet	2.500		76	40-140	5	50	
Dodecane (C12)	1.82	0.25	mg/kg wet	2.500		73	40-140	2	50	
Eicosane (C20)	1.93	0.25	mg/kg wet	2.500		77	40-140	4	50	
Hexacosane (C26)	1.88	0.25	mg/kg wet	2.500		75	40-140	4	50	
Hexadecane (C16)	1.87	0.25	mg/kg wet	2.500		75	40-140	0.9	50	
Nonadecane (C19)	1.92	0.25	mg/kg wet	2.500		77	40-140	0.7	50	
Nonane (C9)	1.44	0.25	mg/kg wet	2.500		58	30-140	0.07	50	
Octacosane (C28)	1.93	0.25	mg/kg wet	2.500		77	40-140	4	50	
Octadecane (C18)	1.89	0.25	mg/kg wet	2.500		76	40-140	3	50	
Tetracosane (C24)	1.93	0.25	mg/kg wet	2.500		77	40-140	4	50	
Tetradecane (C14)	1.86	0.25	mg/kg wet	2.500		75	40-140	1	50	
Triacontane (C30)	1.77	0.25	mg/kg wet	2.500		71	40-140	5	50	

Surrogate: O-Terphenyl

3.70 mg/kg wet 5.000 74 40-140

8270C Semi-Volatile Organic Compounds

Batch B180327 - 3546

Blank

1,1-Biphenyl	ND	0.333	mg/kg wet							
1,2,4-Trichlorobenzene	ND	0.333	mg/kg wet							
1,2-Dichlorobenzene	ND	0.333	mg/kg wet							
1,3-Dichlorobenzene	ND	0.333	mg/kg wet							
1,4-Dichlorobenzene	ND	0.333	mg/kg wet							
2,3,4,6-Tetrachlorophenol	ND	1.67	mg/kg wet							
2,4,5-Trichlorophenol	ND	0.333	mg/kg wet							
2,4,6-Trichlorophenol	ND	0.333	mg/kg wet							
2,4-Dichlorophenol	ND	0.333	mg/kg wet							
2,4-Dimethylphenol	ND	0.333	mg/kg wet							
2,4-Dinitrophenol	ND	1.67	mg/kg wet							
2,4-Dinitrotoluene	ND	0.333	mg/kg wet							
2,6-Dinitrotoluene	ND	0.333	mg/kg wet							
2-Chloronaphthalene	ND	0.333	mg/kg wet							
2-Chlorophenol	ND	0.333	mg/kg wet							
2-Methylnaphthalene	ND	0.333	mg/kg wet							
2-Methylphenol	ND	0.333	mg/kg wet							



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809032

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

Batch BI80327 - 3546

2-Nitroaniline	ND	0.333	mg/kg wet							
2-Nitrophenol	ND	0.333	mg/kg wet							
3,3'-Dichlorobenzidine	ND	0.667	mg/kg wet							
3+4-Methylphenol	ND	0.667	mg/kg wet							
3-Nitroaniline	ND	0.333	mg/kg wet							
4,6-Dinitro-2-Methylphenol	ND	1.67	mg/kg wet							
4-Bromophenyl-phenylether	ND	0.333	mg/kg wet							
4-Chloro-3-Methylphenol	ND	0.333	mg/kg wet							
4-Chloroaniline	ND	0.667	mg/kg wet							
4-Chloro-phenyl-phenyl ether	ND	0.333	mg/kg wet							
4-Nitroaniline	ND	0.333	mg/kg wet							
4-Nitrophenol	ND	1.67	mg/kg wet							
Acenaphthene	ND	0.333	mg/kg wet							
Acenaphthylene	ND	0.333	mg/kg wet							
Acetophenone	ND	0.667	mg/kg wet							
Aniline	ND	0.667	mg/kg wet							
Anthracene	ND	0.333	mg/kg wet							
Azobenzene	ND	0.333	mg/kg wet							
Benzo(a)anthracene	ND	0.333	mg/kg wet							
Benzo(a)pyrene	ND	0.167	mg/kg wet							
Benzo(b)fluoranthene	ND	0.333	mg/kg wet							
Benzo(g,h,i)perylene	ND	0.333	mg/kg wet							
Benzo(k)fluoranthene	ND	0.333	mg/kg wet							
Benzoic Acid	ND	1.67	mg/kg wet							
Benzyl Alcohol	ND	0.333	mg/kg wet							
bis(2-Chloroethoxy)methane	ND	0.333	mg/kg wet							
bis(2-Chloroethyl)ether	ND	0.333	mg/kg wet							
bis(2-chloroisopropyl)Ether	ND	0.333	mg/kg wet							
bis(2-Ethylhexyl)phthalate	ND	0.333	mg/kg wet							
Butylbenzylphthalate	ND	0.333	mg/kg wet							
Carbazole	ND	0.333	mg/kg wet							
Chrysene	ND	0.167	mg/kg wet							
Dibenzo(a,h)Anthracene	ND	0.167	mg/kg wet							
Dibenzofuran	ND	0.333	mg/kg wet							
Diethylphthalate	ND	0.333	mg/kg wet							
Dimethylphthalate	ND	0.333	mg/kg wet							
Di-n-butylphthalate	ND	0.333	mg/kg wet							
Di-n-octylphthalate	ND	0.333	mg/kg wet							
Fluoranthene	ND	0.333	mg/kg wet							
Fluorene	ND	0.333	mg/kg wet							
Hexachlorobenzene	ND	0.167	mg/kg wet							
Hexachlorobutadiene	ND	0.333	mg/kg wet							
Hexachlorocyclopentadiene	ND	1.67	mg/kg wet							
Hexachloroethane	ND	0.333	mg/kg wet							
Indeno(1,2,3-cd)Pyrene	ND	0.333	mg/kg wet							
Isophorone	ND	0.333	mg/kg wet							



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

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 Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809032

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

Batch B180327 - 3546

Naphthalene	ND	0.333	mg/kg wet							
Nitrobenzene	ND	0.333	mg/kg wet							
N-Nitrosodimethylamine	ND	0.333	mg/kg wet							
N-Nitroso-Di-n-Propylamine	ND	0.333	mg/kg wet							
N-nitrosodiphenylamine	ND	0.333	mg/kg wet							
Pentachlorophenol	ND	1.67	mg/kg wet							
Phenanthrene	ND	0.333	mg/kg wet							
Phenol	ND	0.333	mg/kg wet							
Pyrene	ND	0.333	mg/kg wet							
Pyridine	ND	1.67	mg/kg wet							
Surrogate: 1,2-Dichlorobenzene-d4	2.14		mg/kg wet	3.333		64	30-130			
Surrogate: 2,4,6-Tribromophenol	3.89		mg/kg wet	5.000		78	30-130			
Surrogate: 2-Chlorophenol-d4	3.24		mg/kg wet	5.000		65	30-130			
Surrogate: 2-Fluorobiphenyl	2.17		mg/kg wet	3.333		65	30-130			
Surrogate: 2-Fluorophenol	3.02		mg/kg wet	5.000		60	30-130			
Surrogate: Nitrobenzene-d5	2.43		mg/kg wet	3.333		73	30-130			
Surrogate: Phenol-d6	3.40		mg/kg wet	5.000		68	30-130			
Surrogate: p-Terphenyl-d14	2.52		mg/kg wet	3.333		76	30-130			

LCS

1,1-Biphenyl	2.97	0.333	mg/kg wet	3.333		89	40-140			
1,2,4-Trichlorobenzene	2.52	0.333	mg/kg wet	3.333		76	40-140			
1,2-Dichlorobenzene	2.30	0.333	mg/kg wet	3.333		69	40-140			
1,3-Dichlorobenzene	2.49	0.333	mg/kg wet	3.333		75	40-140			
1,4-Dichlorobenzene	2.20	0.333	mg/kg wet	3.333		66	40-140			
2,3,4,6-Tetrachlorophenol	2.88	1.67	mg/kg wet	3.333		86	30-130			
2,4,5-Trichlorophenol	2.80	0.333	mg/kg wet	3.333		84	30-130			
2,4,6-Trichlorophenol	2.74	0.333	mg/kg wet	3.333		82	30-130			
2,4-Dichlorophenol	2.87	0.333	mg/kg wet	3.333		86	30-130			
2,4-Dimethylphenol	2.47	0.333	mg/kg wet	3.333		74	30-130			
2,4-Dinitrophenol	2.54	1.67	mg/kg wet	3.333		76	30-130			
2,4-Dinitrotoluene	2.99	0.333	mg/kg wet	3.333		90	40-140			
2,6-Dinitrotoluene	2.71	0.333	mg/kg wet	3.333		81	40-140			
2-Chloronaphthalene	2.08	0.333	mg/kg wet	3.333		62	40-140			
2-Chlorophenol	2.32	0.333	mg/kg wet	3.333		69	30-130			
2-Methylnaphthalene	2.52	0.333	mg/kg wet	3.333		76	40-140			
2-Methylphenol	2.45	0.333	mg/kg wet	3.333		74	30-130			
2-Nitroaniline	2.86	0.333	mg/kg wet	3.333		86	40-140			
2-Nitrophenol	2.67	0.333	mg/kg wet	3.333		80	30-130			
3,3'-Dichlorobenzidine	2.24	0.667	mg/kg wet	3.333		67	40-140			
3+4-Methylphenol	4.40	0.667	mg/kg wet	6.667		66	30-130			
3-Nitroaniline	2.59	0.333	mg/kg wet	3.333		78	40-140			
4,6-Dinitro-2-Methylphenol	3.12	1.67	mg/kg wet	3.333		94	30-130			
4-Bromophenyl-phenylether	2.73	0.333	mg/kg wet	3.333		82	40-140			
4-Chloro-3-Methylphenol	2.69	0.333	mg/kg wet	3.333		81	30-130			
4-Chloroaniline	2.17	0.667	mg/kg wet	3.333		65	40-140			
4-Chloro-phenyl-phenyl ether	2.63	0.333	mg/kg wet	3.333		79	40-140			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809032

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

Batch B180327 - 3546

4-Nitroaniline	2.93	0.333	mg/kg wet	3.333		88	40-140			
4-Nitrophenol	3.48	1.67	mg/kg wet	3.333		104	30-130			
Acenaphthene	2.48	0.333	mg/kg wet	3.333		75	40-140			
Acenaphthylene	2.56	0.333	mg/kg wet	3.333		77	40-140			
Acetophenone	2.53	0.667	mg/kg wet	3.333		76	40-140			
Aniline	1.68	0.667	mg/kg wet	3.333		50	40-140			
Anthracene	2.50	0.333	mg/kg wet	3.333		75	40-140			
Azobenzene	2.72	0.333	mg/kg wet	3.333		82	40-140			
Benzo(a)anthracene	2.24	0.333	mg/kg wet	3.333		67	40-140			
Benzo(a)pyrene	2.89	0.167	mg/kg wet	3.333		87	40-140			
Benzo(b)fluoranthene	2.99	0.333	mg/kg wet	3.333		90	40-140			
Benzo(g,h,i)perylene	2.92	0.333	mg/kg wet	3.333		88	40-140			
Benzo(k)fluoranthene	3.17	0.333	mg/kg wet	3.333		95	40-140			
Benzoic Acid	2.10	1.67	mg/kg wet	3.333		63	40-140			
Benzyl Alcohol	2.56	0.333	mg/kg wet	3.333		77	40-140			
bis(2-Chloroethoxy)methane	2.49	0.333	mg/kg wet	3.333		75	40-140			
bis(2-Chloroethyl)ether	2.48	0.333	mg/kg wet	3.333		74	40-140			
bis(2-chloroisopropyl)Ether	2.22	0.333	mg/kg wet	3.333		66	40-140			
bis(2-Ethylhexyl)phthalate	2.37	0.333	mg/kg wet	3.333		71	40-140			
Butylbenzylphthalate	2.25	0.333	mg/kg wet	3.333		68	40-140			
Carbazole	2.68	0.333	mg/kg wet	3.333		80	40-140			
Chrysene	2.31	0.167	mg/kg wet	3.333		69	40-140			
Dibenzo(a,h)Anthracene	2.78	0.167	mg/kg wet	3.333		84	40-140			
Dibenzofuran	2.50	0.333	mg/kg wet	3.333		75	40-140			
Diethylphthalate	2.68	0.333	mg/kg wet	3.333		80	40-140			
Dimethylphthalate	2.69	0.333	mg/kg wet	3.333		81	40-140			
Di-n-butylphthalate	2.63	0.333	mg/kg wet	3.333		79	40-140			
Di-n-octylphthalate	2.91	0.333	mg/kg wet	3.333		87	40-140			
Fluoranthene	2.72	0.333	mg/kg wet	3.333		82	40-140			
Fluorene	2.50	0.333	mg/kg wet	3.333		75	40-140			
Hexachlorobenzene	2.72	0.167	mg/kg wet	3.333		82	40-140			
Hexachlorobutadiene	2.62	0.333	mg/kg wet	3.333		79	40-140			
Hexachlorocyclopentadiene	2.96	1.67	mg/kg wet	3.333		89	40-140			
Hexachloroethane	2.45	0.333	mg/kg wet	3.333		73	40-140			
Indeno(1,2,3-cd)Pyrene	2.94	0.333	mg/kg wet	3.333		88	40-140			
Isophorone	2.55	0.333	mg/kg wet	3.333		76	40-140			
Naphthalene	2.77	0.333	mg/kg wet	3.333		83	40-140			
Nitrobenzene	2.43	0.333	mg/kg wet	3.333		73	40-140			
N-Nitrosodimethylamine	2.29	0.333	mg/kg wet	3.333		69	40-140			
N-Nitroso-Di-n-Propylamine	2.06	0.333	mg/kg wet	3.333		62	40-140			
N-nitrosodiphenylamine	2.92	0.333	mg/kg wet	3.333		88	40-140			
Pentachlorophenol	3.00	1.67	mg/kg wet	3.333		90	30-130			
Phenanthrene	2.47	0.333	mg/kg wet	3.333		74	40-140			
Phenol	2.50	0.333	mg/kg wet	3.333		75	30-130			
Pyrene	2.25	0.333	mg/kg wet	3.333		67	40-140			
Pyridine	1.92	1.67	mg/kg wet	3.333		58	40-140			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809032

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

Batch B180327 - 3546

Surrogate: 1,2-Dichlorobenzene-d4	2.37		mg/kg wet	3.333		71	30-130			
Surrogate: 2,4,6-Tribromophenol	4.62		mg/kg wet	5.000		92	30-130			
Surrogate: 2-Chlorophenol-d4	3.62		mg/kg wet	5.000		72	30-130			
Surrogate: 2-Fluorobiphenyl	2.64		mg/kg wet	3.333		79	30-130			
Surrogate: 2-Fluorophenol	3.49		mg/kg wet	5.000		70	30-130			
Surrogate: Nitrobenzene-d5	2.62		mg/kg wet	3.333		79	30-130			
Surrogate: Phenol-d6	3.27		mg/kg wet	5.000		65	30-130			
Surrogate: p-Terphenyl-d14	2.45		mg/kg wet	3.333		74	30-130			

LCS Dup

1,1-Biphenyl	2.75	0.333	mg/kg wet	3.333		82	40-140	8	30	
1,2,4-Trichlorobenzene	2.31	0.333	mg/kg wet	3.333		69	40-140	9	30	
1,2-Dichlorobenzene	2.11	0.333	mg/kg wet	3.333		63	40-140	8	30	
1,3-Dichlorobenzene	2.22	0.333	mg/kg wet	3.333		67	40-140	11	30	
1,4-Dichlorobenzene	2.22	0.333	mg/kg wet	3.333		67	40-140	1	30	
2,3,4,6-Tetrachlorophenol	2.78	1.67	mg/kg wet	3.333		83	30-130	4	30	
2,4,5-Trichlorophenol	2.63	0.333	mg/kg wet	3.333		79	30-130	6	30	
2,4,6-Trichlorophenol	2.54	0.333	mg/kg wet	3.333		76	30-130	7	30	
2,4-Dichlorophenol	2.46	0.333	mg/kg wet	3.333		74	30-130	15	30	
2,4-Dimethylphenol	2.32	0.333	mg/kg wet	3.333		70	30-130	6	30	
2,4-Dinitrophenol	2.53	1.67	mg/kg wet	3.333		76	30-130	0.4	30	
2,4-Dinitrotoluene	2.71	0.333	mg/kg wet	3.333		81	40-140	10	30	
2,6-Dinitrotoluene	2.51	0.333	mg/kg wet	3.333		75	40-140	8	30	
2-Chloronaphthalene	1.99	0.333	mg/kg wet	3.333		60	40-140	5	30	
2-Chlorophenol	2.25	0.333	mg/kg wet	3.333		68	30-130	3	30	
2-Methylnaphthalene	2.23	0.333	mg/kg wet	3.333		67	40-140	12	30	
2-Methylphenol	2.27	0.333	mg/kg wet	3.333		68	30-130	8	30	
2-Nitroaniline	2.71	0.333	mg/kg wet	3.333		81	40-140	5	30	
2-Nitrophenol	2.38	0.333	mg/kg wet	3.333		72	30-130	11	30	
3,3'-Dichlorobenzidine	2.20	0.667	mg/kg wet	3.333		66	40-140	1	30	
3+4-Methylphenol	4.02	0.667	mg/kg wet	6.667		60	30-130	9	30	
3-Nitroaniline	2.65	0.333	mg/kg wet	3.333		80	40-140	2	30	
4,6-Dinitro-2-Methylphenol	2.97	1.67	mg/kg wet	3.333		89	30-130	5	30	
4-Bromophenyl-phenylether	2.55	0.333	mg/kg wet	3.333		77	40-140	7	30	
4-Chloro-3-Methylphenol	2.52	0.333	mg/kg wet	3.333		75	30-130	7	30	
4-Chloroaniline	1.89	0.667	mg/kg wet	3.333		57	40-140	14	30	
4-Chloro-phenyl-phenyl ether	2.50	0.333	mg/kg wet	3.333		75	40-140	5	30	
4-Nitroaniline	2.94	0.333	mg/kg wet	3.333		88	40-140	0.4	30	
4-Nitrophenol	3.28	1.67	mg/kg wet	3.333		98	30-130	6	30	
Acenaphthene	2.28	0.333	mg/kg wet	3.333		68	40-140	9	30	
Acenaphthylene	2.23	0.333	mg/kg wet	3.333		67	40-140	14	30	
Acetophenone	2.32	0.667	mg/kg wet	3.333		70	40-140	8	30	
Aniline	1.77	0.667	mg/kg wet	3.333		53	40-140	5	30	
Anthracene	2.36	0.333	mg/kg wet	3.333		71	40-140	5	30	
Azobenzene	2.50	0.333	mg/kg wet	3.333		75	40-140	8	30	
Benzo(a)anthracene	2.27	0.333	mg/kg wet	3.333		68	40-140	1	30	



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809032

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8270C Semi-Volatile Organic Compounds										
Batch B180327 - 3546										
Benzo(a)pyrene	2.72	0.167	mg/kg wet	3.333		82	40-140	6	30	
Benzo(b)fluoranthene	3.05	0.333	mg/kg wet	3.333		92	40-140	2	30	
Benzo(g,h,i)perylene	2.73	0.333	mg/kg wet	3.333		82	40-140	7	30	
Benzo(k)fluoranthene	2.71	0.333	mg/kg wet	3.333		81	40-140	15	30	
Benzoic Acid	1.95	1.67	mg/kg wet	3.333		58	40-140	7	30	
Benzyl Alcohol	2.38	0.333	mg/kg wet	3.333		71	40-140	7	30	
bis(2-Chloroethoxy)methane	2.35	0.333	mg/kg wet	3.333		70	40-140	6	30	
bis(2-Chloroethyl)ether	2.32	0.333	mg/kg wet	3.333		70	40-140	7	30	
bis(2-chloroisopropyl)Ether	2.03	0.333	mg/kg wet	3.333		61	40-140	9	30	
bis(2-Ethylhexyl)phthalate	2.27	0.333	mg/kg wet	3.333		68	40-140	4	30	
Butylbenzylphthalate	2.22	0.333	mg/kg wet	3.333		67	40-140	2	30	
Carbazole	2.72	0.333	mg/kg wet	3.333		81	40-140	1	30	
Chrysene	2.16	0.167	mg/kg wet	3.333		65	40-140	7	30	
Dibenzo(a,h)Anthracene	2.74	0.167	mg/kg wet	3.333		82	40-140	2	30	
Dibenzofuran	2.25	0.333	mg/kg wet	3.333		68	40-140	10	30	
Diethylphthalate	2.58	0.333	mg/kg wet	3.333		77	40-140	4	30	
Dimethylphthalate	2.57	0.333	mg/kg wet	3.333		77	40-140	5	30	
Di-n-butylphthalate	2.40	0.333	mg/kg wet	3.333		72	40-140	9	30	
Di-n-octylphthalate	2.79	0.333	mg/kg wet	3.333		84	40-140	4	30	
Fluoranthene	2.58	0.333	mg/kg wet	3.333		77	40-140	5	30	
Fluorene	2.31	0.333	mg/kg wet	3.333		69	40-140	8	30	
Hexachlorobenzene	2.61	0.167	mg/kg wet	3.333		78	40-140	4	30	
Hexachlorobutadiene	2.32	0.333	mg/kg wet	3.333		70	40-140	12	30	
Hexachlorocyclopentadiene	2.76	1.67	mg/kg wet	3.333		83	40-140	7	30	
Hexachloroethane	2.30	0.333	mg/kg wet	3.333		69	40-140	6	30	
Indeno(1,2,3-cd)Pyrene	2.85	0.333	mg/kg wet	3.333		85	40-140	3	30	
Isophorone	2.28	0.333	mg/kg wet	3.333		68	40-140	11	30	
Naphthalene	2.62	0.333	mg/kg wet	3.333		79	40-140	5	30	
Nitrobenzene	2.14	0.333	mg/kg wet	3.333		64	40-140	13	30	
N-Nitrosodimethylamine	2.02	0.333	mg/kg wet	3.333		61	40-140	13	30	
N-Nitroso-DI-n-Propylamine	2.00	0.333	mg/kg wet	3.333		60	40-140	3	30	
N-nitrosodiphenylamine	2.92	0.333	mg/kg wet	3.333		88	40-140	0.09	30	
Pentachlorophenol	2.84	1.67	mg/kg wet	3.333		85	30-130	5	30	
Phenanthrene	2.35	0.333	mg/kg wet	3.333		70	40-140	5	30	
Phenol	2.22	0.333	mg/kg wet	3.333		67	30-130	12	30	
Pyrene	2.31	0.333	mg/kg wet	3.333		69	40-140	2	30	
Pyridine	1.68	1.67	mg/kg wet	3.333		51	40-140	13	30	
Surrogate: 1,2-Dichlorobenzene-d4	2.26		mg/kg wet	3.333		68	30-130			
Surrogate: 2,4,6-Tribromophenol	4.38		mg/kg wet	5.000		88	30-130			
Surrogate: 2-Chlorophenol-d4	3.50		mg/kg wet	5.000		70	30-130			
Surrogate: 2-Fluorobiphenyl	2.44		mg/kg wet	3.333		73	30-130			
Surrogate: 2-Fluorophenol	3.51		mg/kg wet	5.000		70	30-130			
Surrogate: Nitrobenzene-d5	2.47		mg/kg wet	3.333		74	30-130			
Surrogate: Phenol-d6	3.22		mg/kg wet	5.000		64	30-130			
Surrogate: p-Terphenyl-d14	2.49		mg/kg wet	3.333		75	30-130			

Matrix Spike Source: 0809032-04



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809032

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

Batch B180327 - 3546

1,1-Biphenyl	2.53	0.332	mg/kg dry	3.326	ND	76	40-140			
1,2,4-Trichlorobenzene	1.87	0.332	mg/kg dry	3.326	ND	56	40-140			
1,2-Dichlorobenzene	1.79	0.332	mg/kg dry	3.326	ND	54	40-140			
1,3-Dichlorobenzene	1.71	0.332	mg/kg dry	3.326	ND	52	40-140			
1,4-Dichlorobenzene	1.73	0.332	mg/kg dry	3.326	ND	52	40-140			
2,3,4,6-Tetrachlorophenol	2.74	1.67	mg/kg dry	3.326	ND	82	30-130			
2,4,5-Trichlorophenol	2.33	0.332	mg/kg dry	3.326	ND	70	30-130			
2,4,6-Trichlorophenol	2.51	0.332	mg/kg dry	3.326	ND	75	30-130			
2,4-Dichlorophenol	2.13	0.332	mg/kg dry	3.326	ND	64	30-130			
2,4-Dimethylphenol	2.03	0.332	mg/kg dry	3.326	ND	61	30-130			
2,4-Dinitrophenol	2.19	1.67	mg/kg dry	3.326	ND	66	30-130			
2,4-Dinitrotoluene	2.49	0.332	mg/kg dry	3.326	ND	75	40-140			
2,6-Dinitrotoluene	2.40	0.332	mg/kg dry	3.326	ND	72	40-140			
2-Chloronaphthalene	1.82	0.332	mg/kg dry	3.326	ND	55	40-140			
2-Chlorophenol	1.84	0.332	mg/kg dry	3.326	ND	55	30-130			
2-Methylnaphthalene	2.04	0.332	mg/kg dry	3.326	ND	61	40-140			
2-Methylphenol	1.95	0.332	mg/kg dry	3.326	ND	59	30-130			
2-Nitroaniline	2.57	0.332	mg/kg dry	3.326	ND	77	40-140			
2-Nitrophenol	1.97	0.332	mg/kg dry	3.326	ND	59	30-130			
3,3'-Dichlorobenzidine	1.35	0.665	mg/kg dry	3.326	ND	41	40-140			
3+4-Methylphenol	3.57	0.665	mg/kg dry	6.651	ND	54	30-130			
3-Nitroaniline	2.36	0.332	mg/kg dry	3.326	ND	71	40-140			
4,6-Dinitro-2-Methylphenol	2.74	1.67	mg/kg dry	3.326	ND	82	30-130			
4-Bromophenyl-phenylether	2.44	0.332	mg/kg dry	3.326	ND	73	40-140			
4-Chloro-3-Methylphenol	2.39	0.332	mg/kg dry	3.326	ND	72	30-130			
4-Chloroaniline	1.50	0.665	mg/kg dry	3.326	ND	45	40-140			
4-Chloro-phenyl-phenyl ether	2.28	0.332	mg/kg dry	3.326	ND	69	40-140			
4-Nitroaniline	2.48	0.332	mg/kg dry	3.326	ND	75	40-140			
4-Nitrophenol	2.99	1.67	mg/kg dry	3.326	ND	90	30-130			
Acenaphthene	2.21	0.332	mg/kg dry	3.326	ND	66	40-140			
Acenaphthylene	2.17	0.332	mg/kg dry	3.326	ND	65	40-140			
Acetophenone	1.88	0.665	mg/kg dry	3.326	ND	57	40-140			
Aniline	1.24	0.665	mg/kg dry	3.326	ND	37	40-140			M-
Anthracene	2.31	0.332	mg/kg dry	3.326	ND	69	40-140			
Azobenzene	2.46	0.332	mg/kg dry	3.326	ND	74	40-140			
Benzo(a)anthracene	2.20	0.332	mg/kg dry	3.326	ND	66	40-140			
Benzo(a)pyrene	2.59	0.167	mg/kg dry	3.326	ND	78	40-140			
Benzo(b)fluoranthene	2.81	0.332	mg/kg dry	3.326	ND	84	40-140			
Benzo(g,h,i)perylene	2.61	0.332	mg/kg dry	3.326	ND	79	40-140			
Benzo(k)fluoranthene	2.64	0.332	mg/kg dry	3.326	ND	79	40-140			
Benzoic Acid	1.83	1.67	mg/kg dry	3.326	ND	55	40-140			
Benzyl Alcohol	2.01	0.332	mg/kg dry	3.326	ND	60	40-140			
bis(2-Chloroethoxy)methane	1.99	0.332	mg/kg dry	3.326	ND	60	40-140			
bis(2-Chloroethyl)ether	1.99	0.332	mg/kg dry	3.326	ND	60	40-140			
bis(2-chloroisopropyl)Ether	1.69	0.332	mg/kg dry	3.326	ND	51	40-140			
bis(2-Ethylhexyl)phtthalate	2.20	0.332	mg/kg dry	3.326	ND	66	40-140			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809032

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

Batch BI80327 - 3546

Butylbenzylphthalate	2.16	0.332	mg/kg dry	3.326	ND	65	40-140			
Carbazole	2.47	0.332	mg/kg dry	3.326	ND	74	40-140			
Chrysene	2.13	0.167	mg/kg dry	3.326	ND	64	40-140			
Dibenzo(a,h)Anthracene	2.52	0.167	mg/kg dry	3.326	ND	76	40-140			
Dibenzofuran	2.17	0.332	mg/kg dry	3.326	ND	65	40-140			
Diethylphthalate	2.30	0.332	mg/kg dry	3.326	ND	69	40-140			
Dimethylphthalate	2.31	0.332	mg/kg dry	3.326	ND	69	40-140			
Di-n-butylphthalate	2.42	0.332	mg/kg dry	3.326	ND	73	40-140			
Di-n-octylphthalate	2.60	0.332	mg/kg dry	3.326	ND	78	40-140			
Fluoranthene	2.64	0.332	mg/kg dry	3.326	ND	79	40-140			
Fluorene	2.22	0.332	mg/kg dry	3.326	ND	67	40-140			
Hexachlorobenzene	2.52	0.167	mg/kg dry	3.326	ND	76	40-140			
Hexachlorobutadiene	1.88	0.332	mg/kg dry	3.326	ND	56	40-140			
Hexachlorocyclopentadiene	1.22	1.67	mg/kg dry	3.326	ND	37	40-140			M-
Hexachloroethane	1.75	0.332	mg/kg dry	3.326	ND	53	40-140			
Indeno(1,2,3-cd)Pyrene	2.67	0.332	mg/kg dry	3.326	ND	80	40-140			
Isophorone	1.92	0.332	mg/kg dry	3.326	ND	58	40-140			
Naphthalene	2.16	0.332	mg/kg dry	3.326	ND	65	40-140			
Nitrobenzene	1.85	0.332	mg/kg dry	3.326	ND	56	40-140			
N-Nitrosodimethylamine	1.54	0.332	mg/kg dry	3.326	ND	46	40-140			
N-Nitroso-Di-n-Propylamine	1.71	0.332	mg/kg dry	3.326	ND	51	40-140			
N-nitrosodiphenylamine	2.68	0.332	mg/kg dry	3.326	ND	81	40-140			
Pentachlorophenol	2.78	1.67	mg/kg dry	3.326	ND	84	30-130			
Phenanthrene	2.29	0.332	mg/kg dry	3.326	ND	69	40-140			
Phenol	2.01	0.332	mg/kg dry	3.326	ND	60	30-130			
Pyrene	2.13	0.332	mg/kg dry	3.326	ND	64	40-140			
Pyridine	0.988	1.67	mg/kg dry	3.326	ND	30	40-140			M-
Surrogate: 1,2-Dichlorobenzene-d4	1.83		mg/kg dry	3.326		55	30-130			
Surrogate: 2,4,6-Tribromophenol	4.18		mg/kg dry	4.988		84	30-130			
Surrogate: 2-Chlorophenol-d4	2.70		mg/kg dry	4.988		54	30-130			
Surrogate: 2-Fluorobiphenyl	2.02		mg/kg dry	3.326		61	30-130			
Surrogate: 2-Fluorophenol	2.58		mg/kg dry	4.988		52	30-130			
Surrogate: Nitrobenzene-d5	2.00		mg/kg dry	3.326		60	30-130			
Surrogate: Phenol-d6	2.75		mg/kg dry	4.988		55	30-130			
Surrogate: p-Terphenyl-d14	2.21		mg/kg dry	3.326		66	30-130			

Matrix Spike Dup Source: 0809032-04

1,1-Biphenyl	2.67	0.332	mg/kg dry	3.326	ND	80	40-140	5	30	
1,2,4-Trichlorobenzene	2.12	0.332	mg/kg dry	3.326	ND	64	40-140	13	30	
1,2-Dichlorobenzene	1.99	0.332	mg/kg dry	3.326	ND	60	40-140	10	30	
1,3-Dichlorobenzene	1.99	0.332	mg/kg dry	3.326	ND	60	40-140	15	30	
1,4-Dichlorobenzene	1.99	0.332	mg/kg dry	3.326	ND	60	40-140	14	30	
2,3,4,6-Tetrachlorophenol	2.68	1.67	mg/kg dry	3.326	ND	81	30-130	2	30	
2,4,5-Trichlorophenol	2.37	0.332	mg/kg dry	3.326	ND	71	30-130	2	30	
2,4,6-Trichlorophenol	2.64	0.332	mg/kg dry	3.326	ND	79	30-130	5	30	
2,4-Dichlorophenol	2.36	0.332	mg/kg dry	3.326	ND	71	30-130	10	30	
2,4-Dimethylphenol	2.19	0.332	mg/kg dry	3.326	ND	66	30-130	8	30	



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809032

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

Batch B180327 - 3546

2,4-Dinitrophenol	2.20	1.67	mg/kg dry	3.326	ND	66	30-130	0.7	30	
2,4-Dinitrotoluene	2.64	0.332	mg/kg dry	3.326	ND	79	40-140	6	30	
2,6-Dinitrotoluene	2.38	0.332	mg/kg dry	3.326	ND	72	40-140	0.6	30	
2-Chloronaphthalene	1.86	0.332	mg/kg dry	3.326	ND	56	40-140	2	30	
2-Chlorophenol	2.01	0.332	mg/kg dry	3.326	ND	60	30-130	9	30	
2-Methylnaphthalene	2.24	0.332	mg/kg dry	3.326	ND	67	40-140	9	30	
2-Methylphenol	2.18	0.332	mg/kg dry	3.326	ND	66	30-130	11	30	
2-Nitroaniline	2.57	0.332	mg/kg dry	3.326	ND	77	40-140	0.05	30	
2-Nitrophenol	2.21	0.332	mg/kg dry	3.326	ND	67	30-130	12	30	
3,3'-Dichlorobenzidine	1.42	0.665	mg/kg dry	3.326	ND	43	40-140	5	30	
3+4-Methylphenol	3.86	0.665	mg/kg dry	6.651	ND	58	30-130	8	30	
3-Nitroaniline	2.30	0.332	mg/kg dry	3.326	ND	69	40-140	2	30	
4,6-Dinitro-2-Methylphenol	2.76	1.67	mg/kg dry	3.326	ND	83	30-130	0.7	30	
4-Bromophenyl-phenylether	2.42	0.332	mg/kg dry	3.326	ND	73	40-140	0.9	30	
4-Chloro-3-Methylphenol	2.41	0.332	mg/kg dry	3.326	ND	73	30-130	0.9	30	
4-Chloroaniline	1.67	0.665	mg/kg dry	3.326	ND	50	40-140	10	30	
4-Chloro-phenyl-phenyl ether	2.35	0.332	mg/kg dry	3.326	ND	71	40-140	3	30	
4-Nitroaniline	2.45	0.332	mg/kg dry	3.326	ND	74	40-140	1	30	
4-Nitrophenol	2.99	1.67	mg/kg dry	3.326	ND	90	30-130	0.08	30	
Acenaphthene	2.26	0.332	mg/kg dry	3.326	ND	68	40-140	2	30	
Acenaphthylene	2.23	0.332	mg/kg dry	3.326	ND	67	40-140	2	30	
Acetophenone	2.26	0.665	mg/kg dry	3.326	ND	68	40-140	18	30	
Aniline	1.56	0.665	mg/kg dry	3.326	ND	47	40-140	23	30	
Anthracene	2.32	0.332	mg/kg dry	3.326	ND	70	40-140	0.5	30	
Azobenzene	2.39	0.332	mg/kg dry	3.326	ND	72	40-140	3	30	
Benzo(a)anthracene	2.21	0.332	mg/kg dry	3.326	ND	66	40-140	0.4	30	
Benzo(a)pyrene	2.72	0.167	mg/kg dry	3.326	ND	82	40-140	5	30	
Benzo(b)fluoranthene	3.00	0.332	mg/kg dry	3.326	ND	90	40-140	7	30	
Benzo(g,h,i)perylene	2.69	0.332	mg/kg dry	3.326	ND	81	40-140	3	30	
Benzo(k)fluoranthene	2.67	0.332	mg/kg dry	3.326	ND	80	40-140	1	30	
Benzoic Acid	1.66	1.67	mg/kg dry	3.326	ND	50	40-140	10	30	
Benzyl Alcohol	2.29	0.332	mg/kg dry	3.326	ND	69	40-140	13	30	
bis(2-Chloroethoxy)methane	2.26	0.332	mg/kg dry	3.326	ND	68	40-140	12	30	
bis(2-Chloroethyl)ether	2.36	0.332	mg/kg dry	3.326	ND	71	40-140	17	30	
bis(2-chloroisopropyl)Ether	1.93	0.332	mg/kg dry	3.326	ND	58	40-140	13	30	
bis(2-Ethylhexyl)phthalate	2.15	0.332	mg/kg dry	3.326	ND	65	40-140	2	30	
Butylbenzylphthalate	2.15	0.332	mg/kg dry	3.326	ND	65	40-140	0.4	30	
Carbazole	2.49	0.332	mg/kg dry	3.326	ND	75	40-140	1	30	
Chrysene	2.09	0.167	mg/kg dry	3.326	ND	63	40-140	2	30	
Dibenzo(a,h)Anthracene	2.64	0.167	mg/kg dry	3.326	ND	79	40-140	5	30	
Dibenzofuran	2.13	0.332	mg/kg dry	3.326	ND	64	40-140	1	30	
Diethylphthalate	2.32	0.332	mg/kg dry	3.326	ND	70	40-140	0.9	30	
Dimethylphthalate	2.37	0.332	mg/kg dry	3.326	ND	71	40-140	2	30	
DI-n-butylphthalate	2.39	0.332	mg/kg dry	3.326	ND	72	40-140	1	30	
DI-n-octylphthalate	2.65	0.332	mg/kg dry	3.326	ND	80	40-140	2	30	
Fluoranthene	2.64	0.332	mg/kg dry	3.326	ND	79	40-140	0.3	30	



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809032

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

Batch BI80327 - 3546

Fluorene	2.22	0.332	mg/kg dry	3.326	ND	67	40-140	0.3	30	
Hexachlorobenzene	2.48	0.167	mg/kg dry	3.326	ND	74	40-140	2	30	
Hexachlorobutadiene	2.10	0.332	mg/kg dry	3.326	ND	63	40-140	11	30	
Hexachlorocyclopentadiene	1.10	1.67	mg/kg dry	3.326	ND	33	40-140	10	30	M-
Hexachloroethane	1.91	0.332	mg/kg dry	3.326	ND	58	40-140	9	30	
Indeno(1,2,3-cd)Pyrene	2.79	0.332	mg/kg dry	3.326	ND	84	40-140	4	30	
Isophorone	2.11	0.332	mg/kg dry	3.326	ND	63	40-140	9	30	
Naphthalene	2.43	0.332	mg/kg dry	3.326	ND	73	40-140	12	30	
Nitrobenzene	1.98	0.332	mg/kg dry	3.326	ND	60	40-140	7	30	
N-Nitrosodimethylamine	1.74	0.332	mg/kg dry	3.326	ND	52	40-140	13	30	
N-Nitroso-Di-n-Propylamine	1.82	0.332	mg/kg dry	3.326	ND	55	40-140	6	30	
N-nitrosodiphenylamine	2.71	0.332	mg/kg dry	3.326	ND	82	40-140	1	30	
Pentachlorophenol	2.78	1.67	mg/kg dry	3.326	ND	83	30-130	0.1	30	
Phenanthrene	2.33	0.332	mg/kg dry	3.326	ND	70	40-140	2	30	
Phenol	2.31	0.332	mg/kg dry	3.326	ND	69	30-130	14	30	
Pyrene	2.22	0.332	mg/kg dry	3.326	ND	67	40-140	4	30	
Pyridine	1.07	1.67	mg/kg dry	3.326	ND	32	40-140	8	30	M-
Surrogate: 1,2-Dichlorobenzene-d4	2.09		mg/kg dry	3.326		63	30-130			
Surrogate: 2,4,6-Tribromophenol	4.06		mg/kg dry	4.988		81	30-130			
Surrogate: 2-Chlorophenol-d4	3.16		mg/kg dry	4.988		63	30-130			
Surrogate: 2-Fluorobiphenyl	2.26		mg/kg dry	3.326		68	30-130			
Surrogate: 2-Fluorophenol	2.97		mg/kg dry	4.988		59	30-130			
Surrogate: Nitrobenzene-d5	2.19		mg/kg dry	3.326		66	30-130			
Surrogate: Phenol-d6	3.13		mg/kg dry	4.988		63	30-130			
Surrogate: p-Terphenyl-d14	2.20		mg/kg dry	3.326		66	30-130			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809032

Notes and Definitions

U	Analyte included in the analysis, but not detected
M-	Matrix Spike recovery is below lower control limit.
D+	Relative percent difference for duplicate is outside of criteria.
D	Diluted.
C-	Continuing Calibration recovery is below lower control limit.
B+	Blank Spike recovery is above upper control limit.
B-	Blank Spike recovery is below lower control limit.
ND	Analyte NOT DETECTED above the detection limit
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809032

ESS LABORATORY CERTIFICATIONS

U.S. Army Corps of Engineers
Soil and Water

Navy Installation Restoration QA Program
Soil and Water

Rhode Island: A-179

Connecticut: PH-0750

Maine: RI002

Massachusetts: M-RI002

New Hampshire (NELAP accredited): 242405
Potable Water
Non Potable Water

New York (NELAP accredited): 11313
Potable Water
Non Potable Water
Solid and Hazardous Waste

United States Department of Agriculture
Soil Permit: S-54210

New Jersey (NELAP accredited): RI002
Potable Water
Non Potable Water
Soil and Hazardous Waste

Maryland: 301
Potable Water

ESS Laboratory
 Division of Thielsch Engineering, Inc.
 185 Frances Avenue, Cranston, RI 02910-2211
 Tel. (401) 461-7181 Fax (401) 461-4486
 www.esslaboratory.com

CHAIN OF CUSTODY

Turn Time: Standard Other _____
 If faster than 5 days, prior approval by laboratory is required # _____
 State where samples were collected from: _____
 MA CT NH NJ NY ME Other _____
 Is this project for any of the following: USACE Other Navy _____
 MA-MCP _____

Reporting Limits: **GA**
 Electronic Deliverable: Yes No
 Format: Excel Access PDF Other _____

ESS LAB PROJECT ID: **0809032**

Co. Name	Project #	Project Name (20 Char. or less)	Type of Containers	Number of Containers	Type of Containers	ESS LAB Sample#	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Email Address	Pres Code
VHB	72016	Trestle Trail	6 5/4 ✓	6	5/4 ✓	1	9/3/08	0920	✓	S	S	CAB-1 0-2	JKlement@VHB.com	826 VOA
Sue Courtemanche	10 Dorrance St, Suite 400	PO# 07903	6 5/4 ✓	6	5/4 ✓	2	9/3/08	10:24	✓	S	S	CAB-2 0-2	JKlement@VHB.com	826 VOA
Providence	RI	07903	6 5/4 ✓	6	5/4 ✓	3	9/3/08	11:30	✓	S	S	CAB-3 0-2	JKlement@VHB.com	826 VOA
			- 26	-	26	4	9/3/08	11:50	✓	S	S	CAB-3 2-4	JKlement@VHB.com	826 VOA
			6 5/4 ✓	6	5/4 ✓	5	9/3/08	12:15	✓	S	S	CAB-3 8-10	JKlement@VHB.com	826 VOA
			6 5/4 ✓	6	5/4 ✓	6	9/3/08	13:40	✓	S	S	CAB-4 0-2	JKlement@VHB.com	826 VOA
			6 4/4 ✓	6	4/4 ✓	7	9/3/08	14:18	✓	S	S	CAB-4 2-3	JKlement@VHB.com	826 VOA
			6 5/4 ✓	6	5/4 ✓	8	9/3/08	14:45	✓	S	S	CAB-4 8-10	JKlement@VHB.com	826 VOA
						9	9/3/08					Trip Blank	JKlement@VHB.com	826 VOA

Container Type: P-Poly G-Glass S-Sterile V-VOA Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present: Yes No Internal Use Only: Yes No NA: Pickup Technicians

Seals Intact: Yes No

Cooler Temp: **5.5**

Preservation Code: 1- NP, 2- HCl, 3- H₂SO₄, 4- HNO₃, 5- NaOH, 6- MeOH, 7- Asorbic Acid, 8- ZnAct, 9- _____

Sampled by: **Joshua Rlement**
 Comments: **Hold samples 4,5,7; Sample #6 = 25ppm on PID; all others ≤ 2.3ppm**

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
<i>Joshua Rlement</i>	9/3/08 16:36	<i>David</i>	9/30/08 16:36
_____	_____	_____	_____



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

PROJECT NARRATIVE

Sue Courtemanche
Vanasse Hangen Brustlin, Inc.
10 Dorrance Street, Suite 400
Providence, RI 02903

RE: Trestle Trail
ESS Laboratory Work Order Number: 0809062

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this Project Narrative, the entire report has been paginated. The ESS Laboratory Certifications sheet is the final report page. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been mailed. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

Date: September 11, 2008

Analytical Summary

The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration may be used instead of automated integration because it produces more accurate results. All ICP Metals were analyzed using the established linear dynamic range to determine acceptable analytical results.

ESS Laboratory certifies that the test results meet the requirements of NELAC, except where noted within this project narrative.

Sample Receipt

The following sample(s) were received on September 04, 2008 for the analyses specified on the enclosed Chain of Custody Record.

Laboratory ID	Matrix	Client SampleID
0809062-01	Soil	RIP-1 0-2
0809062-02	Soil	RIP-2 0-2
0809062-03	Soil	RIP-3 0-2
0809062-04	Soil	RIP-4 0-2
0809062-05	Solid	Trip Blank



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809062

PROJECT NARRATIVE

3050B/6000/7000 Total Metals

BI80416-MS2 **Matrix Spike recovery is below lower control limit.**
Antimony, Lead, Selenium, Zinc

5035/8260B Volatile Organic Compounds / Low Level

BI80902-BSD1 **Blank Spike recovery is above upper control limit.**
Acetone

BI80902-BSD1 **Relative percent difference for duplicate is outside of criteria.**
Acetone

8270C Semi-Volatile Organic Compounds

0809062-01 **Internal Standard(s) outside of criteria. Sample was reanalyzed to confirm.**

BI80521-MS1 **Matrix Spike recovery is below lower control limit.**
Aniline, Benzoic Acid, Pyridine

BI80521-MSD1 **Matrix Spike recovery is below lower control limit.**
Aniline, Benzoic Acid

BI80521-MSD1 **Relative percent difference for duplicate is outside of criteria.**
Benzoic Acid

BRI0038-CCV1 **Calibration required quadratic regression.**

1,1-Biphenyl, Benzo(k)fluoranthene, Hexachlorobutadiene, Pentachlorophenol, Phenol

BRI0069-CCV1 **Calibration required quadratic regression.**

2-Methylnaphthalene, Di-n-octylphthalate, Fluorene

No other observations noted.

End of Project Narrative.



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: RIP-1 0-2
Date Sampled: 09/04/08 08:58
Percent Solids: 94

ESS Laboratory Work Order: 0809062
ESS Laboratory Sample ID: 0809062-01
Sample Matrix: Soil

3050B/6000/7000 Total Metals

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Antimony	ND	mg/kg dry	5.9	6010B	10	1	SVD	09/04/08	1.81	100
Arsenic	6.0	mg/kg dry	2.9	6010B	7	1	SVD	09/04/08	1.81	100
Beryllium	0.35	mg/kg dry	0.06	6010B	0.4	1	SVD	09/04/08	1.81	100
Cadmium	ND	mg/kg dry	0.59	6010B	39	1	SVD	09/04/08	1.81	100
Chromium	6.6	mg/kg dry	1.2	6010B	1400	1	SVD	09/04/08	1.81	100
Copper	15.3	mg/kg dry	1.2	6010B	3100	1	SVD	09/04/08	1.81	100
Lead	103	mg/kg dry	5.9	6010B	150	1	SVD	09/04/08	1.81	100
Mercury	0.117	mg/kg dry	0.033	7471A	23	1	JP	09/05/08	0.64	40
Nickel	ND	mg/kg dry	2.9	6010B	1000	1	SVD	09/04/08	1.81	100
Selenium	ND	mg/kg dry	5.9	6010B	390	1	SVD	09/04/08	1.81	100
Silver	ND	mg/kg dry	0.59	6010B	200	1	SVD	09/04/08	1.81	100
Thallium	ND	mg/kg dry	1.45	7841	5.5	5	JP	09/06/08	1.81	100
Zinc	32.4	mg/kg dry	2.9	6010B	6000	1	SVD	09/04/08	1.81	100



ESS Laboratory

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 Client Project ID: Trestle Trail
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 Date Sampled: 09/04/08 08:58
 Percent Solids: 94
 Initial Volume: 6.7
 Final Volume: 10
 Extraction Method: 5035

ESS Laboratory Work Order: 0809062
 ESS Laboratory Sample ID: 0809062-01
 Sample Matrix: Soil
 Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

RI - RES DEC

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1,1,2-Tetrachloroethane	ND	mg/kg dry	0.0040	2.2	1	09/09/08
1,1,1-Trichloroethane	ND	mg/kg dry	0.0040	540	1	09/09/08
1,1,2,2-Tetrachloroethane	ND	mg/kg dry	0.0040	1.3	1	09/09/08
1,1,2-Trichloroethane	ND	mg/kg dry	0.0040	3.6	1	09/09/08
1,1-Dichloroethane	ND	mg/kg dry	0.0040	920	1	09/09/08
1,1-Dichloroethene	ND	mg/kg dry	0.0040	0.2	1	09/09/08
1,1-Dichloropropene	ND	mg/kg dry	0.0040		1	09/09/08
1,2,3-Trichlorobenzene	ND	mg/kg dry	0.0040		1	09/09/08
1,2,3-Trichloropropane	ND	mg/kg dry	0.0040		1	09/09/08
1,2,4-Trichlorobenzene	ND	mg/kg dry	0.0040	96	1	09/09/08
1,2,4-Trimethylbenzene	ND	mg/kg dry	0.0040		1	09/09/08
1,2-Dibromo-3-Chloropropane	ND	mg/kg dry	0.0040	0.5	1	09/09/08
1,2-Dibromoethane	ND	mg/kg dry	0.0040	0.01	1	09/09/08
1,2-Dichlorobenzene	ND	mg/kg dry	0.0040	510	1	09/09/08
1,2-Dichloroethane	ND	mg/kg dry	0.0040	0.9	1	09/09/08
1,2-Dichloropropane	ND	mg/kg dry	0.0040	1.9	1	09/09/08
1,3,5-Trimethylbenzene	ND	mg/kg dry	0.0040		1	09/09/08
1,3-Dichlorobenzene	ND	mg/kg dry	0.0040	430	1	09/09/08
1,3-Dichloropropane	ND	mg/kg dry	0.0040		1	09/09/08
1,4-Dichlorobenzene	ND	mg/kg dry	0.0040	27	1	09/09/08
1,4-Dioxane	ND	mg/kg dry	0.0794		1	09/09/08
1-Chlorohexane	ND	mg/kg dry	0.0040		1	09/09/08
2,2-Dichloropropane	ND	mg/kg dry	0.0040		1	09/09/08
2-Butanone	ND	mg/kg dry	0.0397	10000	1	09/09/08
2-Chlorotoluene	ND	mg/kg dry	0.0040		1	09/09/08
2-Hexanone	ND	mg/kg dry	0.0397		1	09/09/08
4-Chlorotoluene	ND	mg/kg dry	0.0040		1	09/09/08
4-Isopropyltoluene	ND	mg/kg dry	0.0040		1	09/09/08
4-Methyl-2-Pentanone	ND	mg/kg dry	0.0397	1200	1	09/09/08
Acetone	ND	mg/kg dry	0.0397	7800	1	09/09/08
Benzene	ND	mg/kg dry	0.0040	2.5	1	09/09/08
Bromobenzene	ND	mg/kg dry	0.0040		1	09/09/08
Bromochloromethane	ND	mg/kg dry	0.0040		1	09/09/08
Bromodichloromethane	ND	mg/kg dry	0.0040	10	1	09/09/08
Bromoform	ND	mg/kg dry	0.0040	81	1	09/09/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
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Date Sampled: 09/04/08 08:58
Percent Solids: 94
Initial Volume: 6.7
Final Volume: 10
Extraction Method: 5035

ESS Laboratory Work Order: 0809062
ESS Laboratory Sample ID: 0809062-01
Sample Matrix: Soil
Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Bromomethane	ND	mg/kg dry	0.0079	0.8	1	09/09/08
Carbon Disulfide	ND	mg/kg dry	0.0040		1	09/09/08
Carbon Tetrachloride	ND	mg/kg dry	0.0040	1.5	1	09/09/08
Chlorobenzene	ND	mg/kg dry	0.0040	210	1	09/09/08
Chloroethane	ND	mg/kg dry	0.0079		1	09/09/08
Chloroform	ND	mg/kg dry	0.0040	1.2	1	09/09/08
Chloromethane	ND	mg/kg dry	0.0079		1	09/09/08
cis-1,2-Dichloroethene	ND	mg/kg dry	0.0040	630	1	09/09/08
cis-1,3-Dichloropropene	ND	mg/kg dry	0.0040		1	09/09/08
Dibromochloromethane	ND	mg/kg dry	0.0040	7.6	1	09/09/08
Dibromomethane	ND	mg/kg dry	0.0040		1	09/09/08
Dichlorodifluoromethane	ND	mg/kg dry	0.0079		1	09/09/08
Diethyl Ether	ND	mg/kg dry	0.0040		1	09/09/08
Di-isopropyl ether	ND	mg/kg dry	0.0040		1	09/09/08
Ethyl tertiary-butyl ether	ND	mg/kg dry	0.0040		1	09/09/08
Ethylbenzene	ND	mg/kg dry	0.0040	71	1	09/09/08
Hexachlorobutadiene	ND	mg/kg dry	0.0040	8.2	1	09/09/08
Isopropylbenzene	ND	mg/kg dry	0.0040	27	1	09/09/08
Methyl tert-Butyl Ether	ND	mg/kg dry	0.0040	390	1	09/09/08
Methylene Chloride	ND	mg/kg dry	0.0198	45	1	09/09/08
Naphthalene	ND	mg/kg dry	0.0040	54	1	09/09/08
n-Butylbenzene	ND	mg/kg dry	0.0040		1	09/09/08
n-Propylbenzene	ND	mg/kg dry	0.0040		1	09/09/08
sec-Butylbenzene	ND	mg/kg dry	0.0040		1	09/09/08
Styrene	ND	mg/kg dry	0.0040	13	1	09/09/08
tert-Butylbenzene	ND	mg/kg dry	0.0040		1	09/09/08
Tertiary-amyl methyl ether	ND	mg/kg dry	0.0040		1	09/09/08
Tetrachloroethene	ND	mg/kg dry	0.0040	12	1	09/09/08
Tetrahydrofuran	ND	mg/kg dry	0.0040		1	09/09/08
Toluene	ND	mg/kg dry	0.0040	190	1	09/09/08
trans-1,2-Dichloroethene	ND	mg/kg dry	0.0040	1100	1	09/09/08
trans-1,3-Dichloropropene	ND	mg/kg dry	0.0040		1	09/09/08
Trichloroethene	ND	mg/kg dry	0.0040	13	1	09/09/08
Trichlorofluoromethane	ND	mg/kg dry	0.0040		1	09/09/08
Vinyl Acetate	ND	mg/kg dry	0.0040		1	09/09/08
Vinyl Chloride	ND	mg/kg dry	0.0079	0.02	1	09/09/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

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Date Sampled: 09/04/08 08:58
Percent Solids: 94
Initial Volume: 6.7
Final Volume: 10
Extraction Method: 5035

ESS Laboratory Work Order: 0809062
ESS Laboratory Sample ID: 0809062-01
Sample Matrix: Soil
Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Xylene O	ND	mg/kg dry	0.0040	110	1	09/09/08
Xylene P,M	ND	mg/kg dry	0.0079	110	1	09/09/08
Xylenes (Total)	ND	mg/kg dry	0.0119	110	0	09/09/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	107 %		70-130
Surrogate: 4-Bromofluorobenzene	88 %		70-130
Surrogate: Dibromofluoromethane	106 %		70-130
Surrogate: Toluene-d8	102 %		70-130



ESS Laboratory

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CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-1 0-2
 Date Sampled: 09/04/08 08:58
 Percent Solids: 94
 Initial Volume: 20.2
 Final Volume: 10
 Extraction Method: 3541

ESS Laboratory Work Order: 0809062
 ESS Laboratory Sample ID: 0809062-01
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 09/05/08

8082 Polychlorinated Biphenyls (PCB)

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>
Aroclor 1016	ND	mg/kg dry	0.0527	10	1	09/06/08
Aroclor 1221	ND	mg/kg dry	0.0527	10	1	09/06/08
Aroclor 1232	ND	mg/kg dry	0.0527	10	1	09/06/08
Aroclor 1242	ND	mg/kg dry	0.0527	10	1	09/06/08
Aroclor 1248	ND	mg/kg dry	0.0527	10	1	09/06/08
Aroclor 1254	ND	mg/kg dry	0.0527	10	1	09/06/08
Aroclor 1260	ND	mg/kg dry	0.0527	10	1	09/06/08
Aroclor 1262	ND	mg/kg dry	0.0527	10	1	09/06/08
Aroclor 1268	ND	mg/kg dry	0.0527	10	1	09/06/08

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	86 %		30-150
Surrogate: Decachlorobiphenyl [2C]	121 %		30-150
Surrogate: Tetrachloro-m-xylene	74 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	82 %		30-150



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-1 0-2
 Date Sampled: 09/04/08 08:58
 Percent Solids: 94
 Initial Volume: 20.9
 Final Volume: 1
 Extraction Method: 3546

ESS Laboratory Work Order: 0809062
 ESS Laboratory Sample ID: 0809062-01
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 09/05/08

8100M Total Petroleum Hydrocarbons

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>
Total Petroleum Hydrocarbons	78.7	mg/kg dry	38.2	500	1	09/06/08

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: O-Terphenyl	85 %		40-140



ESS Laboratory

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CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-1 0-2
 Date Sampled: 09/04/08 08:58
 Percent Solids: 94
 Initial Volume: 15.9
 Final Volume: 0.5
 Extraction Method: 3546

ESS Laboratory Work Order: 0809062
 ESS Laboratory Sample ID: 0809062-01
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 09/05/08

8270C Semi-Volatile Organic Compounds

RI - RES DEC

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1-Biphenyl	ND	mg/kg dry	0.668	0.8	2	09/11/08
1,2,4-Trichlorobenzene	ND	mg/kg dry	0.668	96	2	09/11/08
1,2-Dichlorobenzene	ND	mg/kg dry	0.668	510	2	09/11/08
1,3-Dichlorobenzene	ND	mg/kg dry	0.668	430	2	09/11/08
1,4-Dichlorobenzene	ND	mg/kg dry	0.668	27	2	09/11/08
2,3,4,6-Tetrachlorophenol	ND	mg/kg dry	3.35		2	09/11/08
2,4,5-Trichlorophenol	ND	mg/kg dry	0.668	330	2	09/11/08
2,4,6-Trichlorophenol	ND	mg/kg dry	0.668	58	2	09/11/08
2,4-Dichlorophenol	ND	mg/kg dry	0.668	30	2	09/11/08
2,4-Dimethylphenol	ND	mg/kg dry	0.668	1400	2	09/11/08
2,4-Dinitrophenol	ND	mg/kg dry	3.35	160	2	09/11/08
2,4-Dinitrotoluene	ND	mg/kg dry	0.668	0.9	2	09/11/08
2,6-Dinitrotoluene	ND	mg/kg dry	0.668		2	09/11/08
2-Chloronaphthalene	ND	mg/kg dry	0.668		2	09/11/08
2-Chlorophenol	ND	mg/kg dry	0.668	50	2	09/11/08
2-Methylnaphthalene	ND	mg/kg dry	0.668	123	2	09/11/08
2-Methylphenol	ND	mg/kg dry	0.668		2	09/11/08
2-Nitroaniline	ND	mg/kg dry	0.668		2	09/11/08
2-Nitrophenol	ND	mg/kg dry	0.668		2	09/11/08
3,3'-Dichlorobenzidine	ND	mg/kg dry	1.34	1.4	2	09/11/08
3+4-Methylphenol	ND	mg/kg dry	1.34		2	09/11/08
3-Nitroaniline	ND	mg/kg dry	0.668		2	09/11/08
4,6-Dinitro-2-Methylphenol	ND	mg/kg dry	3.35		2	09/11/08
4-Bromophenyl-phenylether	ND	mg/kg dry	0.668		2	09/11/08
4-Chloro-3-Methylphenol	ND	mg/kg dry	0.668		2	09/11/08
4-Chloroaniline	ND	mg/kg dry	1.34	310	2	09/11/08
4-Chloro-phenyl-phenyl ether	ND	mg/kg dry	0.668		2	09/11/08
4-Nitroaniline	ND	mg/kg dry	0.668		2	09/11/08
4-Nitrophenol	ND	mg/kg dry	3.35		2	09/11/08
Acenaphthene	ND	mg/kg dry	0.668	43	2	09/11/08
Acenaphthylene	ND	mg/kg dry	0.668	23	2	09/11/08
Acetophenone	ND	mg/kg dry	1.34		2	09/11/08
Aniline	ND	mg/kg dry	1.34		2	09/11/08
Anthracene	ND	mg/kg dry	0.668	35	2	09/11/08
Azobenzene	ND	mg/kg dry	0.668		2	09/11/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: RIP-1 0-2
Date Sampled: 09/04/08 08:58
Percent Solids: 94
Initial Volume: 15.9
Final Volume: 0.5
Extraction Method: 3546

ESS Laboratory Work Order: 0809062
ESS Laboratory Sample ID: 0809062-01
Sample Matrix: Soil
Analyst: VSC
Prepared: 09/05/08

8270C Semi-Volatile Organic Compounds

Benzo(a)anthracene	ND	mg/kg dry	0.668	0.9	2	09/11/08
Benzo(a)pyrene	0.675	mg/kg dry	0.335	0.4	2	09/11/08
Benzo(b)fluoranthene	1.13	mg/kg dry	0.668	0.9	2	09/11/08
Benzo(g,h,i)perylene	ND	mg/kg dry	0.668	0.8	2	09/11/08
Benzo(k)fluoranthene	1.03	mg/kg dry	0.668	0.9	2	09/11/08
Benzoic Acid	ND	mg/kg dry	3.35		2	09/11/08
Benzyl Alcohol	ND	mg/kg dry	0.668		2	09/11/08
bis(2-Chloroethoxy)methane	ND	mg/kg dry	0.668		2	09/11/08
bis(2-Chloroethyl)ether	ND	mg/kg dry	0.668	0.6	2	09/11/08
bis(2-chloroisopropyl)Ether	ND	mg/kg dry	0.668	9.1	2	09/11/08
bis(2-Ethylhexyl)phthalate	ND	mg/kg dry	0.668	46	2	09/11/08
Butylbenzylphthalate	ND	mg/kg dry	0.668		2	09/11/08
Carbazole	ND	mg/kg dry	0.668		2	09/11/08
Chrysene	0.971	mg/kg dry	0.335	0.4	2	09/11/08
Dibenzo(a,h)Anthracene	ND	mg/kg dry	0.335	0.4	2	09/11/08
Dibenzofuran	ND	mg/kg dry	0.668		2	09/11/08
Diethylphthalate	ND	mg/kg dry	0.668	340	2	09/11/08
Dimethylphthalate	ND	mg/kg dry	0.668	1900	2	09/11/08
Di-n-butylphthalate	ND	mg/kg dry	0.668		2	09/11/08
Di-n-octylphthalate	ND	mg/kg dry	0.668		2	09/11/08
Fluoranthene	1.51	mg/kg dry	0.668	20	2	09/11/08
Fluorene	ND	mg/kg dry	0.668	28	2	09/11/08
Hexachlorobenzene	ND	mg/kg dry	0.335	0.4	2	09/11/08
Hexachlorobutadiene	ND	mg/kg dry	0.668	8.2	2	09/11/08
Hexachlorocyclopentadiene	ND	mg/kg dry	3.35		2	09/11/08
Hexachloroethane	ND	mg/kg dry	0.668	46	2	09/11/08
Indeno(1,2,3-cd)Pyrene	ND	mg/kg dry	0.668	0.9	2	09/11/08
Isophorone	ND	mg/kg dry	0.668		2	09/11/08
Naphthalene	ND	mg/kg dry	0.668	54	2	09/11/08
Nitrobenzene	ND	mg/kg dry	0.668		2	09/11/08
N-Nitrosodimethylamine	ND	mg/kg dry	0.668		2	09/11/08
N-Nitroso-Di-n-Propylamine	ND	mg/kg dry	0.668		2	09/11/08
N-nitrosodiphenylamine	ND	mg/kg dry	0.668		2	09/11/08
Pentachlorophenol	ND	mg/kg dry	3.35	5.3	2	09/11/08
Phenanthrene	ND	mg/kg dry	0.668	40	2	09/11/08
Phenol	ND	mg/kg dry	0.668	6000	2	09/11/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-1 0-2
 Date Sampled: 09/04/08 08:58
 Percent Solids: 94
 Initial Volume: 15.9
 Final Volume: 0.5
 Extraction Method: 3546

ESS Laboratory Work Order: 0809062
 ESS Laboratory Sample ID: 0809062-01
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 09/05/08

8270C Semi-Volatile Organic Compounds

Pyrene	1.40	mg/kg dry	0.668	13	2	09/11/08
Pyridine	ND	mg/kg dry	3.35		2	09/11/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	57 %		30-130
Surrogate: 2,4,6-Tribromophenol	68 %		30-130
Surrogate: 2-Chlorophenol-d4	60 %		30-130
Surrogate: 2-Fluorobiphenyl	73 %		30-130
Surrogate: 2-Fluorophenol	41 %		30-130
Surrogate: Nitrobenzene-d5	55 %		30-130
Surrogate: Phenol-d6	58 %		30-130
Surrogate: p-Terphenyl-d14	80 %		30-130



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: RIP-2 0-2
Date Sampled: 09/04/08 10:40
Percent Solids: 96

ESS Laboratory Work Order: 0809062
ESS Laboratory Sample ID: 0809062-02
Sample Matrix: Soil

3050B/6000/7000 Total Metals

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Antimony	ND	mg/kg dry	5.7	6010B	10	1	SVD	09/04/08	1.82	100
Arsenic	ND	mg/kg dry	2.9	6010B	7	1	SVD	09/04/08	1.82	100
Beryllium	0.43	mg/kg dry	0.06	6010B	0.4	1	SVD	09/04/08	1.82	100
Cadmium	ND	mg/kg dry	0.58	6010B	39	1	SVD	09/04/08	1.82	100
Chromium	1.4	mg/kg dry	1.1	6010B	1400	1	SVD	09/04/08	1.82	100
Copper	96.2	mg/kg dry	1.1	6010B	3100	1	SVD	09/04/08	1.82	100
Lead	41.7	mg/kg dry	5.7	6010B	150	1	SVD	09/04/08	1.82	100
Mercury	0.110	mg/kg dry	0.031	7471A	23	1	JP	09/05/08	0.66	40
Nickel	ND	mg/kg dry	2.9	6010B	1000	1	SVD	09/04/08	1.82	100
Selenium	ND	mg/kg dry	5.7	6010B	390	1	SVD	09/04/08	1.82	100
Silver	ND	mg/kg dry	0.58	6010B	200	1	SVD	09/04/08	1.82	100
Thallium	ND	mg/kg dry	1.42	7841	5.5	5	JP	09/06/08	1.82	100
Zinc	72.8	mg/kg dry	2.9	6010B	6000	1	SVD	09/04/08	1.82	100



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-2 0-2
 Date Sampled: 09/04/08 10:40
 Percent Solids: 96
 Initial Volume: 6.8
 Final Volume: 10
 Extraction Method: 5035

ESS Laboratory Work Order: 0809062
 ESS Laboratory Sample ID: 0809062-02
 Sample Matrix: Soil
 Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

RI - RES DEC

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1,1,2-Tetrachloroethane	ND	mg/kg dry	0.0038	2.2	1	09/09/08
1,1,1-Trichloroethane	ND	mg/kg dry	0.0038	540	1	09/09/08
1,1,2,2-Tetrachloroethane	ND	mg/kg dry	0.0038	1.3	1	09/09/08
1,1,2-Trichloroethane	ND	mg/kg dry	0.0038	3.6	1	09/09/08
1,1-Dichloroethane	ND	mg/kg dry	0.0038	920	1	09/09/08
1,1-Dichloroethene	ND	mg/kg dry	0.0038	0.2	1	09/09/08
1,1-Dichloropropene	ND	mg/kg dry	0.0038		1	09/09/08
1,2,3-Trichlorobenzene	ND	mg/kg dry	0.0038		1	09/09/08
1,2,3-Trichloropropane	ND	mg/kg dry	0.0038		1	09/09/08
1,2,4-Trichlorobenzene	ND	mg/kg dry	0.0038	96	1	09/09/08
1,2,4-Trimethylbenzene	ND	mg/kg dry	0.0038		1	09/09/08
1,2-Dibromo-3-Chloropropane	ND	mg/kg dry	0.0038	0.5	1	09/09/08
1,2-Dibromoethane	ND	mg/kg dry	0.0038	0.01	1	09/09/08
1,2-Dichlorobenzene	ND	mg/kg dry	0.0038	510	1	09/09/08
1,2-Dichloroethane	ND	mg/kg dry	0.0038	0.9	1	09/09/08
1,2-Dichloropropane	ND	mg/kg dry	0.0038	1.9	1	09/09/08
1,3,5-Trimethylbenzene	ND	mg/kg dry	0.0038		1	09/09/08
1,3-Dichlorobenzene	ND	mg/kg dry	0.0038	430	1	09/09/08
1,3-Dichloropropane	ND	mg/kg dry	0.0038		1	09/09/08
1,4-Dichlorobenzene	ND	mg/kg dry	0.0038	27	1	09/09/08
1,4-Dioxane	ND	mg/kg dry	0.0766		1	09/09/08
1-Chlorohexane	ND	mg/kg dry	0.0038		1	09/09/08
2,2-Dichloropropane	ND	mg/kg dry	0.0038		1	09/09/08
2-Butanone	ND	mg/kg dry	0.0383	10000	1	09/09/08
2-Chlorotoluene	ND	mg/kg dry	0.0038		1	09/09/08
2-Hexanone	ND	mg/kg dry	0.0383		1	09/09/08
4-Chlorotoluene	ND	mg/kg dry	0.0038		1	09/09/08
4-Isopropyltoluene	ND	mg/kg dry	0.0038		1	09/09/08
4-Methyl-2-Pentanone	ND	mg/kg dry	0.0383	1200	1	09/09/08
Acetone	ND	mg/kg dry	0.0383	7800	1	09/09/08
Benzene	ND	mg/kg dry	0.0038	2.5	1	09/09/08
Bromobenzene	ND	mg/kg dry	0.0038		1	09/09/08
Bromochloromethane	ND	mg/kg dry	0.0038		1	09/09/08
Bromodichloromethane	ND	mg/kg dry	0.0038	10	1	09/09/08
Bromoform	ND	mg/kg dry	0.0038	81	1	09/09/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-2 0-2
 Date Sampled: 09/04/08 10:40
 Percent Solids: 96
 Initial Volume: 6.8
 Final Volume: 10
 Extraction Method: 5035

ESS Laboratory Work Order: 0809062
 ESS Laboratory Sample ID: 0809062-02
 Sample Matrix: Soil
 Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Bromomethane	ND	mg/kg dry	0.0077	0.8	1	09/09/08
Carbon Disulfide	ND	mg/kg dry	0.0038		1	09/09/08
Carbon Tetrachloride	ND	mg/kg dry	0.0038	1.5	1	09/09/08
Chlorobenzene	ND	mg/kg dry	0.0038	210	1	09/09/08
Chloroethane	ND	mg/kg dry	0.0077		1	09/09/08
Chloroform	ND	mg/kg dry	0.0038	1.2	1	09/09/08
Chloromethane	ND	mg/kg dry	0.0077		1	09/09/08
cis-1,2-Dichloroethene	ND	mg/kg dry	0.0038	630	1	09/09/08
cis-1,3-Dichloropropene	ND	mg/kg dry	0.0038		1	09/09/08
Dibromochloromethane	ND	mg/kg dry	0.0038	7.6	1	09/09/08
Dibromomethane	ND	mg/kg dry	0.0038		1	09/09/08
Dichlorodifluoromethane	ND	mg/kg dry	0.0077		1	09/09/08
Diethyl Ether	ND	mg/kg dry	0.0038		1	09/09/08
Di-isopropyl ether	ND	mg/kg dry	0.0038		1	09/09/08
Ethyl tertiary-butyl ether	ND	mg/kg dry	0.0038		1	09/09/08
Ethylbenzene	ND	mg/kg dry	0.0038	71	1	09/09/08
Hexachlorobutadiene	ND	mg/kg dry	0.0038	8.2	1	09/09/08
Isopropylbenzene	ND	mg/kg dry	0.0038	27	1	09/09/08
Methyl tert-Butyl Ether	ND	mg/kg dry	0.0038	390	1	09/09/08
Methylene Chloride	ND	mg/kg dry	0.0191	45	1	09/09/08
Naphthalene	ND	mg/kg dry	0.0038	54	1	09/09/08
n-Butylbenzene	ND	mg/kg dry	0.0038		1	09/09/08
n-Propylbenzene	ND	mg/kg dry	0.0038		1	09/09/08
sec-Butylbenzene	ND	mg/kg dry	0.0038		1	09/09/08
Styrene	ND	mg/kg dry	0.0038	13	1	09/09/08
tert-Butylbenzene	ND	mg/kg dry	0.0038		1	09/09/08
Tertiary-amyl methyl ether	ND	mg/kg dry	0.0038		1	09/09/08
Tetrachloroethene	ND	mg/kg dry	0.0038	12	1	09/09/08
Tetrahydrofuran	ND	mg/kg dry	0.0038		1	09/09/08
Toluene	ND	mg/kg dry	0.0038	190	1	09/09/08
trans-1,2-Dichloroethene	ND	mg/kg dry	0.0038	1100	1	09/09/08
trans-1,3-Dichloropropene	ND	mg/kg dry	0.0038		1	09/09/08
Trichloroethene	ND	mg/kg dry	0.0038	13	1	09/09/08
Trichlorofluoromethane	ND	mg/kg dry	0.0038		1	09/09/08
Vinyl Acetate	ND	mg/kg dry	0.0038		1	09/09/08
Vinyl Chloride	ND	mg/kg dry	0.0077	0.02	1	09/09/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-2 0-2
 Date Sampled: 09/04/08 10:40
 Percent Solids: 96
 Initial Volume: 6.8
 Final Volume: 10
 Extraction Method: 5035

ESS Laboratory Work Order: 0809062
 ESS Laboratory Sample ID: 0809062-02
 Sample Matrix: Soil
 Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Xylene O	ND	mg/kg dry	0.0038	110	1	09/09/08
Xylene P,M	ND	mg/kg dry	0.0077	110	1	09/09/08
Xylenes (Total)	ND	mg/kg dry	0.0115	110	0	09/09/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	109 %		70-130
Surrogate: 4-Bromofluorobenzene	90 %		70-130
Surrogate: Dibromofluoromethane	107 %		70-130
Surrogate: Toluene-d8	104 %		70-130



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-2 0-2
 Date Sampled: 09/04/08 10:40
 Percent Solids: 96
 Initial Volume: 20.3
 Final Volume: 10
 Extraction Method: 3541

ESS Laboratory Work Order: 0809062
 ESS Laboratory Sample ID: 0809062-02
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 09/05/08

8082 Polychlorinated Biphenyls (PCB)

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>
Aroclor 1016	ND	mg/kg dry	0.0513	10	1	09/06/08
Aroclor 1221	ND	mg/kg dry	0.0513	10	1	09/06/08
Aroclor 1232	ND	mg/kg dry	0.0513	10	1	09/06/08
Aroclor 1242	ND	mg/kg dry	0.0513	10	1	09/06/08
Aroclor 1248	ND	mg/kg dry	0.0513	10	1	09/06/08
Aroclor 1254	ND	mg/kg dry	0.0513	10	1	09/06/08
Aroclor 1260	ND	mg/kg dry	0.0513	10	1	09/06/08
Aroclor 1262	ND	mg/kg dry	0.0513	10	1	09/06/08
Aroclor 1268	ND	mg/kg dry	0.0513	10	1	09/06/08

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	89 %		30-150
Surrogate: Decachlorobiphenyl [2C]	99 %		30-150
Surrogate: Tetrachloro-m-xylene	76 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	83 %		30-150



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-2 0-2
 Date Sampled: 09/04/08 10:40
 Percent Solids: 96
 Initial Volume: 21
 Final Volume: 1
 Extraction Method: 3546

ESS Laboratory Work Order: 0809062
 ESS Laboratory Sample ID: 0809062-02
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 09/05/08

8100M Total Petroleum Hydrocarbons

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>
Total Petroleum Hydrocarbons	ND	mg/kg dry	37.2	500	1	09/06/08

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: O-Terphenyl	87 %		40-140



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-2 0-2
 Date Sampled: 09/04/08 10:40
 Percent Solids: 96
 Initial Volume: 14.5
 Final Volume: 0.5
 Extraction Method: 3546

ESS Laboratory Work Order: 0809062
 ESS Laboratory Sample ID: 0809062-02
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 09/05/08

8270C Semi-Volatile Organic Compounds

RI - RES DEC

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1-Biphenyl	ND	mg/kg dry	0.359	0.8	1	09/06/08
1,2,4-Trichlorobenzene	ND	mg/kg dry	0.359	96	1	09/06/08
1,2-Dichlorobenzene	ND	mg/kg dry	0.359	510	1	09/06/08
1,3-Dichlorobenzene	ND	mg/kg dry	0.359	430	1	09/06/08
1,4-Dichlorobenzene	ND	mg/kg dry	0.359	27	1	09/06/08
2,3,4,6-Tetrachlorophenol	ND	mg/kg dry	1.80		1	09/06/08
2,4,5-Trichlorophenol	ND	mg/kg dry	0.359	330	1	09/06/08
2,4,6-Trichlorophenol	ND	mg/kg dry	0.359	58	1	09/06/08
2,4-Dichlorophenol	ND	mg/kg dry	0.359	30	1	09/06/08
2,4-Dimethylphenol	ND	mg/kg dry	0.359	1400	1	09/06/08
2,4-Dinitrophenol	ND	mg/kg dry	1.80	160	1	09/06/08
2,4-Dinitrotoluene	ND	mg/kg dry	0.359	0.9	1	09/06/08
2,6-Dinitrotoluene	ND	mg/kg dry	0.359		1	09/06/08
2-Chloronaphthalene	ND	mg/kg dry	0.359		1	09/06/08
2-Chlorophenol	ND	mg/kg dry	0.359	50	1	09/06/08
2-Methylnaphthalene	ND	mg/kg dry	0.359	123	1	09/06/08
2-Methylphenol	ND	mg/kg dry	0.359		1	09/06/08
2-Nitroaniline	ND	mg/kg dry	0.359		1	09/06/08
2-Nitrophenol	ND	mg/kg dry	0.359		1	09/06/08
3,3'-Dichlorobenzidine	ND	mg/kg dry	0.719	1.4	1	09/06/08
3+4-Methylphenol	ND	mg/kg dry	0.719		1	09/06/08
3-Nitroaniline	ND	mg/kg dry	0.359		1	09/06/08
4,6-Dinitro-2-Methylphenol	ND	mg/kg dry	1.80		1	09/06/08
4-Bromophenyl-phenylether	ND	mg/kg dry	0.359		1	09/06/08
4-Chloro-3-Methylphenol	ND	mg/kg dry	0.359		1	09/06/08
4-Chloroaniline	ND	mg/kg dry	0.719	310	1	09/06/08
4-Chloro-phenyl-phenyl ether	ND	mg/kg dry	0.359		1	09/06/08
4-Nitroaniline	ND	mg/kg dry	0.359		1	09/06/08
4-Nitrophenol	ND	mg/kg dry	1.80		1	09/06/08
Acenaphthene	ND	mg/kg dry	0.359	43	1	09/06/08
Acenaphthylene	ND	mg/kg dry	0.359	23	1	09/06/08
Acetophenone	ND	mg/kg dry	0.719		1	09/06/08
Aniline	ND	mg/kg dry	0.719		1	09/06/08
Anthracene	ND	mg/kg dry	0.359	35	1	09/06/08
Azobenzene	ND	mg/kg dry	0.359		1	09/06/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-2 0-2
 Date Sampled: 09/04/08 10:40
 Percent Solids: 96
 Initial Volume: 14.5
 Final Volume: 0.5
 Extraction Method: 3546

ESS Laboratory Work Order: 0809062
 ESS Laboratory Sample ID: 0809062-02
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 09/05/08

8270C Semi-Volatile Organic Compounds

Benzo(a)anthracene	ND	mg/kg dry	0.359	0.9	1	09/06/08
Benzo(a)pyrene	ND	mg/kg dry	0.180	0.4	1	09/06/08
Benzo(b)fluoranthene	ND	mg/kg dry	0.359	0.9	1	09/06/08
Benzo(g,h,i)perylene	ND	mg/kg dry	0.359	0.8	1	09/06/08
Benzo(k)fluoranthene	ND	mg/kg dry	0.359	0.9	1	09/06/08
Benzoic Acid	ND	mg/kg dry	1.80		1	09/06/08
Benzyl Alcohol	ND	mg/kg dry	0.359		1	09/06/08
bis(2-Chloroethoxy)methane	ND	mg/kg dry	0.359		1	09/06/08
bis(2-Chloroethyl)ether	ND	mg/kg dry	0.359	0.6	1	09/06/08
bis(2-chloroisopropyl)Ether	ND	mg/kg dry	0.359	9.1	1	09/06/08
bis(2-Ethylhexyl)phthalate	ND	mg/kg dry	0.359	46	1	09/06/08
Butylbenzylphthalate	ND	mg/kg dry	0.359		1	09/06/08
Carbazole	ND	mg/kg dry	0.359		1	09/06/08
Chrysene	ND	mg/kg dry	0.180	0.4	1	09/06/08
Dibenzo(a,h)Anthracene	ND	mg/kg dry	0.180	0.4	1	09/06/08
Dibenzofuran	ND	mg/kg dry	0.359		1	09/06/08
Diethylphthalate	ND	mg/kg dry	0.359	340	1	09/06/08
Dimethylphthalate	ND	mg/kg dry	0.359	1900	1	09/06/08
Di-n-butylphthalate	ND	mg/kg dry	0.359		1	09/06/08
Di-n-octylphthalate	ND	mg/kg dry	0.359		1	09/06/08
Fluoranthene	ND	mg/kg dry	0.359	20	1	09/06/08
Fluorene	ND	mg/kg dry	0.359	28	1	09/06/08
Hexachlorobenzene	ND	mg/kg dry	0.180	0.4	1	09/06/08
Hexachlorobutadiene	ND	mg/kg dry	0.359	8.2	1	09/06/08
Hexachlorocyclopentadiene	ND	mg/kg dry	1.80		1	09/06/08
Hexachloroethane	ND	mg/kg dry	0.359	46	1	09/06/08
Indeno(1,2,3-cd)Pyrene	ND	mg/kg dry	0.359	0.9	1	09/06/08
Isophorone	ND	mg/kg dry	0.359		1	09/06/08
Naphthalene	ND	mg/kg dry	0.359	54	1	09/06/08
Nitrobenzene	ND	mg/kg dry	0.359		1	09/06/08
N-Nitrosodimethylamine	ND	mg/kg dry	0.359		1	09/06/08
N-Nitroso-Di-n-Propylamine	ND	mg/kg dry	0.359		1	09/06/08
N-nitrosodiphenylamine	ND	mg/kg dry	0.359		1	09/06/08
Pentachlorophenol	ND	mg/kg dry	1.80	5.3	1	09/06/08
Phenanthrene	ND	mg/kg dry	0.359	40	1	09/06/08
Phenol	ND	mg/kg dry	0.359	6000	1	09/06/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-2 0-2
 Date Sampled: 09/04/08 10:40
 Percent Solids: 96
 Initial Volume: 14.5
 Final Volume: 0.5
 Extraction Method: 3546

ESS Laboratory Work Order: 0809062
 ESS Laboratory Sample ID: 0809062-02
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 09/05/08

8270C Semi-Volatile Organic Compounds

Pyrene	ND	mg/kg dry	0.359	13	1	09/06/08
Pyridine	ND	mg/kg dry	1.80		1	09/06/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	56 %		30-130
Surrogate: 2,4,6-Tribromophenol	83 %		30-130
Surrogate: 2-Chlorophenol-d4	55 %		30-130
Surrogate: 2-Fluorobiphenyl	59 %		30-130
Surrogate: 2-Fluorophenol	52 %		30-130
Surrogate: Nitrobenzene-d5	60 %		30-130
Surrogate: Phenol-d6	58 %		30-130
Surrogate: p-Terphenyl-d14	68 %		30-130



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: RIP-3 0-2
Date Sampled: 09/04/08 11:48
Percent Solids: 97

ESS Laboratory Work Order: 0809062
ESS Laboratory Sample ID: 0809062-03
Sample Matrix: Soil

3050B/6000/7000 Total Metals

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Antimony	ND	mg/kg dry	5.7	6010B	10	1	SVD	09/04/08	1.82	100
Arsenic	ND	mg/kg dry	2.8	6010B	7	1	SVD	09/04/08	1.82	100
Beryllium	0.30	mg/kg dry	0.06	6010B	0.4	1	SVD	09/04/08	1.82	100
Cadmium	ND	mg/kg dry	0.57	6010B	39	1	SVD	09/04/08	1.82	100
Chromium	2.1	mg/kg dry	1.1	6010B	1400	1	SVD	09/04/08	1.82	100
Copper	3.7	mg/kg dry	1.1	6010B	3100	1	SVD	09/04/08	1.82	100
Lead	ND	mg/kg dry	5.7	6010B	150	1	SVD	09/04/08	1.82	100
Mercury	ND	mg/kg dry	0.033	7471A	23	1	JP	09/05/08	0.61	40
Nickel	ND	mg/kg dry	2.8	6010B	1000	1	SVD	09/04/08	1.82	100
Selenium	ND	mg/kg dry	5.7	6010B	390	1	SVD	09/04/08	1.82	100
Silver	ND	mg/kg dry	0.57	6010B	200	1	SVD	09/04/08	1.82	100
Thallium	ND	mg/kg dry	1.40	7841	5.5	5	JP	09/06/08	1.82	100
Zinc	25.1	mg/kg dry	2.8	6010B	6000	1	SVD	09/04/08	1.82	100



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-3 0-2
 Date Sampled: 09/04/08 11:48
 Percent Solids: 97
 Initial Volume: 7.3
 Final Volume: 10
 Extraction Method: 5035

ESS Laboratory Work Order: 0809062
 ESS Laboratory Sample ID: 0809062-03
 Sample Matrix: Soil
 Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

RI - RES DEC

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1,1,2-Tetrachloroethane	ND	mg/kg dry	0.0035	2.2	1	09/09/08
1,1,1-Trichloroethane	ND	mg/kg dry	0.0035	540	1	09/09/08
1,1,2,2-Tetrachloroethane	ND	mg/kg dry	0.0035	1.3	1	09/09/08
1,1,2-Trichloroethane	ND	mg/kg dry	0.0035	3.6	1	09/09/08
1,1-Dichloroethane	ND	mg/kg dry	0.0035	920	1	09/09/08
1,1-Dichloroethene	ND	mg/kg dry	0.0035	0.2	1	09/09/08
1,1-Dichloropropene	ND	mg/kg dry	0.0035		1	09/09/08
1,2,3-Trichlorobenzene	ND	mg/kg dry	0.0035		1	09/09/08
1,2,3-Trichloropropane	ND	mg/kg dry	0.0035		1	09/09/08
1,2,4-Trichlorobenzene	ND	mg/kg dry	0.0035	96	1	09/09/08
1,2,4-Trimethylbenzene	ND	mg/kg dry	0.0035		1	09/09/08
1,2-Dibromo-3-Chloropropane	ND	mg/kg dry	0.0035	0.5	1	09/09/08
1,2-Dibromoethane	ND	mg/kg dry	0.0035	0.01	1	09/09/08
1,2-Dichlorobenzene	ND	mg/kg dry	0.0035	510	1	09/09/08
1,2-Dichloroethane	ND	mg/kg dry	0.0035	0.9	1	09/09/08
1,2-Dichloropropane	ND	mg/kg dry	0.0035	1.9	1	09/09/08
1,3,5-Trimethylbenzene	ND	mg/kg dry	0.0035		1	09/09/08
1,3-Dichlorobenzene	ND	mg/kg dry	0.0035	430	1	09/09/08
1,3-Dichloropropane	ND	mg/kg dry	0.0035		1	09/09/08
1,4-Dichlorobenzene	ND	mg/kg dry	0.0035	27	1	09/09/08
1,4-Dioxane	ND	mg/kg dry	0.0706		1	09/09/08
1-Chlorohexane	ND	mg/kg dry	0.0035		1	09/09/08
2,2-Dichloropropane	ND	mg/kg dry	0.0035		1	09/09/08
2-Butanone	ND	mg/kg dry	0.0353	10000	1	09/09/08
2-Chlorotoluene	ND	mg/kg dry	0.0035		1	09/09/08
2-Hexanone	ND	mg/kg dry	0.0353		1	09/09/08
4-Chlorotoluene	ND	mg/kg dry	0.0035		1	09/09/08
4-Isopropyltoluene	ND	mg/kg dry	0.0035		1	09/09/08
4-Methyl-2-Pentanone	ND	mg/kg dry	0.0353	1200	1	09/09/08
Acetone	ND	mg/kg dry	0.0353	7800	1	09/09/08
Benzene	ND	mg/kg dry	0.0035	2.5	1	09/09/08
Bromobenzene	ND	mg/kg dry	0.0035		1	09/09/08
Bromochloromethane	ND	mg/kg dry	0.0035		1	09/09/08
Bromodichloromethane	ND	mg/kg dry	0.0035	10	1	09/09/08
Bromoform	ND	mg/kg dry	0.0035	81	1	09/09/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-3 0-2
 Date Sampled: 09/04/08 11:48
 Percent Solids: 97
 Initial Volume: 7.3
 Final Volume: 10
 Extraction Method: 5035

ESS Laboratory Work Order: 0809062
 ESS Laboratory Sample ID: 0809062-03
 Sample Matrix: Soil
 Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Bromomethane	ND	mg/kg dry	0.0071	0.8	1	09/09/08
Carbon Disulfide	ND	mg/kg dry	0.0035		1	09/09/08
Carbon Tetrachloride	ND	mg/kg dry	0.0035	1.5	1	09/09/08
Chlorobenzene	ND	mg/kg dry	0.0035	210	1	09/09/08
Chloroethane	ND	mg/kg dry	0.0071		1	09/09/08
Chloroform	ND	mg/kg dry	0.0035	1.2	1	09/09/08
Chloromethane	ND	mg/kg dry	0.0071		1	09/09/08
cis-1,2-Dichloroethene	ND	mg/kg dry	0.0035	630	1	09/09/08
cis-1,3-Dichloropropene	ND	mg/kg dry	0.0035		1	09/09/08
Dibromochloromethane	ND	mg/kg dry	0.0035	7.6	1	09/09/08
Dibromomethane	ND	mg/kg dry	0.0035		1	09/09/08
Dichlorodifluoromethane	ND	mg/kg dry	0.0071		1	09/09/08
Diethyl Ether	ND	mg/kg dry	0.0035		1	09/09/08
Di-isopropyl ether	ND	mg/kg dry	0.0035		1	09/09/08
Ethyl tertiary-butyl ether	ND	mg/kg dry	0.0035		1	09/09/08
Ethylbenzene	ND	mg/kg dry	0.0035	71	1	09/09/08
Hexachlorobutadiene	ND	mg/kg dry	0.0035	8.2	1	09/09/08
Isopropylbenzene	ND	mg/kg dry	0.0035	27	1	09/09/08
Methyl tert-Butyl Ether	ND	mg/kg dry	0.0035	390	1	09/09/08
Methylene Chloride	ND	mg/kg dry	0.0177	45	1	09/09/08
Naphthalene	ND	mg/kg dry	0.0035	54	1	09/09/08
n-Butylbenzene	ND	mg/kg dry	0.0035		1	09/09/08
n-Propylbenzene	ND	mg/kg dry	0.0035		1	09/09/08
sec-Butylbenzene	ND	mg/kg dry	0.0035		1	09/09/08
Styrene	ND	mg/kg dry	0.0035	13	1	09/09/08
tert-Butylbenzene	ND	mg/kg dry	0.0035		1	09/09/08
Tertiary-amyl methyl ether	ND	mg/kg dry	0.0035		1	09/09/08
Tetrachloroethene	ND	mg/kg dry	0.0035	12	1	09/09/08
Tetrahydrofuran	ND	mg/kg dry	0.0035		1	09/09/08
Toluene	ND	mg/kg dry	0.0035	190	1	09/09/08
trans-1,2-Dichloroethene	ND	mg/kg dry	0.0035	1100	1	09/09/08
trans-1,3-Dichloropropene	ND	mg/kg dry	0.0035		1	09/09/08
Trichloroethene	ND	mg/kg dry	0.0035	13	1	09/09/08
Trichlorofluoromethane	ND	mg/kg dry	0.0035		1	09/09/08
Vinyl Acetate	ND	mg/kg dry	0.0035		1	09/09/08
Vinyl Chloride	ND	mg/kg dry	0.0071	0.02	1	09/09/08



ESS Laboratory

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CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-3 0-2
 Date Sampled: 09/04/08 11:48
 Percent Solids: 97
 Initial Volume: 7.3
 Final Volume: 10
 Extraction Method: 5035

ESS Laboratory Work Order: 0809062
 ESS Laboratory Sample ID: 0809062-03
 Sample Matrix: Soil
 Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Xylene O	ND	mg/kg dry	0.0035	110	1	09/09/08
Xylene P,M	ND	mg/kg dry	0.0071	110	1	09/09/08
Xylenes (Total)	ND	mg/kg dry	0.0106	110	0	09/09/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	113 %		70-130
Surrogate: 4-Bromofluorobenzene	94 %		70-130
Surrogate: Dibromofluoromethane	103 %		70-130
Surrogate: Toluene-d8	102 %		70-130



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-3 0-2
 Date Sampled: 09/04/08 11:48
 Percent Solids: 97
 Initial Volume: 20.2
 Final Volume: 10
 Extraction Method: 3541

ESS Laboratory Work Order: 0809062
 ESS Laboratory Sample ID: 0809062-03
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 09/05/08

8082 Polychlorinated Biphenyls (PCB)

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>
Aroclor 1016	ND	mg/kg dry	0.0510	10	1	09/06/08
Aroclor 1221	ND	mg/kg dry	0.0510	10	1	09/06/08
Aroclor 1232	ND	mg/kg dry	0.0510	10	1	09/06/08
Aroclor 1242	ND	mg/kg dry	0.0510	10	1	09/06/08
Aroclor 1248	ND	mg/kg dry	0.0510	10	1	09/06/08
Aroclor 1254	ND	mg/kg dry	0.0510	10	1	09/06/08
Aroclor 1260	ND	mg/kg dry	0.0510	10	1	09/06/08
Aroclor 1262	ND	mg/kg dry	0.0510	10	1	09/06/08
Aroclor 1268	ND	mg/kg dry	0.0510	10	1	09/06/08

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	94 %		30-150
Surrogate: Decachlorobiphenyl [2C]	96 %		30-150
Surrogate: Tetrachloro-m-xylene	79 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	87 %		30-150



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-3 0-2
 Date Sampled: 09/04/08 11:48
 Percent Solids: 97
 Initial Volume: 19.4
 Final Volume: 1
 Extraction Method: 3546

ESS Laboratory Work Order: 0809062
 ESS Laboratory Sample ID: 0809062-03
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 09/05/08

8100M Total Petroleum Hydrocarbons

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>
Total Petroleum Hydrocarbons	ND	mg/kg dry	39.9	500	1	09/06/08

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: O-Terphenyl	85 %		40-140



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-3 0-2
 Date Sampled: 09/04/08 11:48
 Percent Solids: 97
 Initial Volume: 14.9
 Final Volume: 0.5
 Extraction Method: 3546

ESS Laboratory Work Order: 0809062
 ESS Laboratory Sample ID: 0809062-03
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 09/05/08

8270C Semi-Volatile Organic Compounds

RI - RES DEC

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1-Biphenyl	ND	mg/kg dry	0.346	0.8	1	09/06/08
1,2,4-Trichlorobenzene	ND	mg/kg dry	0.346	96	1	09/06/08
1,2-Dichlorobenzene	ND	mg/kg dry	0.346	510	1	09/06/08
1,3-Dichlorobenzene	ND	mg/kg dry	0.346	430	1	09/06/08
1,4-Dichlorobenzene	ND	mg/kg dry	0.346	27	1	09/06/08
2,3,4,6-Tetrachlorophenol	ND	mg/kg dry	1.73		1	09/06/08
2,4,5-Trichlorophenol	ND	mg/kg dry	0.346	330	1	09/06/08
2,4,6-Trichlorophenol	ND	mg/kg dry	0.346	58	1	09/06/08
2,4-Dichlorophenol	ND	mg/kg dry	0.346	30	1	09/06/08
2,4-Dimethylphenol	ND	mg/kg dry	0.346	1400	1	09/06/08
2,4-Dinitrophenol	ND	mg/kg dry	1.73	160	1	09/06/08
2,4-Dinitrotoluene	ND	mg/kg dry	0.346	0.9	1	09/06/08
2,6-Dinitrotoluene	ND	mg/kg dry	0.346		1	09/06/08
2-Chloronaphthalene	ND	mg/kg dry	0.346		1	09/06/08
2-Chlorophenol	ND	mg/kg dry	0.346	50	1	09/06/08
2-Methylnaphthalene	ND	mg/kg dry	0.346	123	1	09/06/08
2-Methylphenol	ND	mg/kg dry	0.346		1	09/06/08
2-Nitroaniline	ND	mg/kg dry	0.346		1	09/06/08
2-Nitrophenol	ND	mg/kg dry	0.346		1	09/06/08
3,3'-Dichlorobenzidine	ND	mg/kg dry	0.692	1.4	1	09/06/08
3+4-Methylphenol	ND	mg/kg dry	0.692		1	09/06/08
3-Nitroaniline	ND	mg/kg dry	0.346		1	09/06/08
4,6-Dinitro-2-Methylphenol	ND	mg/kg dry	1.73		1	09/06/08
4-Bromophenyl-phenylether	ND	mg/kg dry	0.346		1	09/06/08
4-Chloro-3-Methylphenol	ND	mg/kg dry	0.346		1	09/06/08
4-Chloroaniline	ND	mg/kg dry	0.692	310	1	09/06/08
4-Chloro-phenyl-phenyl ether	ND	mg/kg dry	0.346		1	09/06/08
4-Nitroaniline	ND	mg/kg dry	0.346		1	09/06/08
4-Nitrophenol	ND	mg/kg dry	1.73		1	09/06/08
Acenaphthene	ND	mg/kg dry	0.346	43	1	09/06/08
Acenaphthylene	ND	mg/kg dry	0.346	23	1	09/06/08
Acetophenone	ND	mg/kg dry	0.692		1	09/06/08
Aniline	ND	mg/kg dry	0.692		1	09/06/08
Anthracene	ND	mg/kg dry	0.346	35	1	09/06/08
Azobenzene	ND	mg/kg dry	0.346		1	09/06/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-3 0-2
 Date Sampled: 09/04/08 11:48
 Percent Solids: 97
 Initial Volume: 14.9
 Final Volume: 0.5
 Extraction Method: 3546

ESS Laboratory Work Order: 0809062
 ESS Laboratory Sample ID: 0809062-03
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 09/05/08

8270C Semi-Volatile Organic Compounds

Benzo(a)anthracene	ND	mg/kg dry	0.346	0.9	1	09/06/08
Benzo(a)pyrene	ND	mg/kg dry	0.173	0.4	1	09/06/08
Benzo(b)fluoranthene	ND	mg/kg dry	0.346	0.9	1	09/06/08
Benzo(g,h,i)perylene	ND	mg/kg dry	0.346	0.8	1	09/06/08
Benzo(k)fluoranthene	ND	mg/kg dry	0.346	0.9	1	09/06/08
Benzoic Acid	ND	mg/kg dry	1.73		1	09/06/08
Benzyl Alcohol	ND	mg/kg dry	0.346		1	09/06/08
bis(2-Chloroethoxy)methane	ND	mg/kg dry	0.346		1	09/06/08
bis(2-Chloroethyl)ether	ND	mg/kg dry	0.346	0.6	1	09/06/08
bis(2-chloroisopropyl)Ether	ND	mg/kg dry	0.346	9.1	1	09/06/08
bis(2-Ethylhexyl)phthalate	ND	mg/kg dry	0.346	46	1	09/06/08
Butylbenzylphthalate	ND	mg/kg dry	0.346		1	09/06/08
Carbazole	ND	mg/kg dry	0.346		1	09/06/08
Chrysene	ND	mg/kg dry	0.173	0.4	1	09/06/08
Dibenzo(a,h)Anthracene	ND	mg/kg dry	0.173	0.4	1	09/06/08
Dibenzofuran	ND	mg/kg dry	0.346		1	09/06/08
Diethylphthalate	ND	mg/kg dry	0.346	340	1	09/06/08
Dimethylphthalate	ND	mg/kg dry	0.346	1900	1	09/06/08
Di-n-butylphthalate	ND	mg/kg dry	0.346		1	09/06/08
Di-n-octylphthalate	ND	mg/kg dry	0.346		1	09/06/08
Fluoranthene	ND	mg/kg dry	0.346	20	1	09/06/08
Fluorene	ND	mg/kg dry	0.346	28	1	09/06/08
Hexachlorobenzene	ND	mg/kg dry	0.173	0.4	1	09/06/08
Hexachlorobutadiene	ND	mg/kg dry	0.346	8.2	1	09/06/08
Hexachlorocyclopentadiene	ND	mg/kg dry	1.73		1	09/06/08
Hexachloroethane	ND	mg/kg dry	0.346	46	1	09/06/08
Indeno(1,2,3-cd)Pyrene	ND	mg/kg dry	0.346	0.9	1	09/06/08
Isophorone	ND	mg/kg dry	0.346		1	09/06/08
Naphthalene	ND	mg/kg dry	0.346	54	1	09/06/08
Nitrobenzene	ND	mg/kg dry	0.346		1	09/06/08
N-Nitrosodimethylamine	ND	mg/kg dry	0.346		1	09/06/08
N-Nitroso-Di-n-Propylamine	ND	mg/kg dry	0.346		1	09/06/08
N-nitrosodiphenylamine	ND	mg/kg dry	0.346		1	09/06/08
Pentachlorophenol	ND	mg/kg dry	1.73	5.3	1	09/06/08
Phenanthrene	ND	mg/kg dry	0.346	40	1	09/06/08
Phenol	ND	mg/kg dry	0.346	6000	1	09/06/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-3 0-2
 Date Sampled: 09/04/08 11:48
 Percent Solids: 97
 Initial Volume: 14.9
 Final Volume: 0.5
 Extraction Method: 3546

ESS Laboratory Work Order: 0809062
 ESS Laboratory Sample ID: 0809062-03
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 09/05/08

8270C Semi-Volatile Organic Compounds

Pyrene	ND	mg/kg dry	0.346	13	1	09/06/08
Pyridine	ND	mg/kg dry	1.73		1	09/06/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	46 %		30-130
Surrogate: 2,4,6-Tribromophenol	83 %		30-130
Surrogate: 2-Chlorophenol-d4	47 %		30-130
Surrogate: 2-Fluorobiphenyl	50 %		30-130
Surrogate: 2-Fluorophenol	42 %		30-130
Surrogate: Nitrobenzene-d5	50 %		30-130
Surrogate: Phenol-d6	46 %		30-130
Surrogate: p-Terphenyl-d14	68 %		30-130



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: RIP-4 0-2
Date Sampled: 09/04/08 14:06
Percent Solids: 97

ESS Laboratory Work Order: 0809062
ESS Laboratory Sample ID: 0809062-04
Sample Matrix: Soil

3050B/6000/7000 Total Metals

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Antimony	ND	mg/kg dry	5.7	6010B	10	1	SVD	09/04/08	1.81	100
Arsenic	ND	mg/kg dry	2.8	6010B	7	1	SVD	09/04/08	1.81	100
Beryllium	0.34	mg/kg dry	0.06	6010B	0.4	1	SVD	09/04/08	1.81	100
Cadmium	ND	mg/kg dry	0.57	6010B	39	1	SVD	09/04/08	1.81	100
Chromium	2.6	mg/kg dry	1.1	6010B	1400	1	SVD	09/04/08	1.81	100
Copper	5.9	mg/kg dry	1.1	6010B	3100	1	SVD	09/04/08	1.81	100
Lead	9.3	mg/kg dry	5.7	6010B	150	1	SVD	09/04/08	1.81	100
Mercury	ND	mg/kg dry	0.034	7471A	23	1	JP	09/05/08	0.6	40
Nickel	ND	mg/kg dry	2.8	6010B	1000	1	SVD	09/04/08	1.81	100
Selenium	ND	mg/kg dry	5.7	6010B	390	1	SVD	09/04/08	1.81	100
Silver	ND	mg/kg dry	0.57	6010B	200	1	SVD	09/04/08	1.81	100
Thallium	ND	mg/kg dry	1.41	7841	5.5	5	JP	09/06/08	1.81	100
Zinc	24.1	mg/kg dry	2.8	6010B	6000	1	SVD	09/04/08	1.81	100



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-4 0-2
 Date Sampled: 09/04/08 14:06
 Percent Solids: 97
 Initial Volume: 5.9
 Final Volume: 10
 Extraction Method: 5035

ESS Laboratory Work Order: 0809062
 ESS Laboratory Sample ID: 0809062-04
 Sample Matrix: Soil
 Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

RI - RES DEC

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1,1,2-Tetrachloroethane	ND	mg/kg dry	0.0044	2.2	1	09/09/08
1,1,1-Trichloroethane	ND	mg/kg dry	0.0044	540	1	09/09/08
1,1,2,2-Tetrachloroethane	ND	mg/kg dry	0.0044	1.3	1	09/09/08
1,1,2-Trichloroethane	ND	mg/kg dry	0.0044	3.6	1	09/09/08
1,1-Dichloroethane	ND	mg/kg dry	0.0044	920	1	09/09/08
1,1-Dichloroethene	ND	mg/kg dry	0.0044	0.2	1	09/09/08
1,1-Dichloropropene	ND	mg/kg dry	0.0044		1	09/09/08
1,2,3-Trichlorobenzene	ND	mg/kg dry	0.0044		1	09/09/08
1,2,3-Trichloropropane	ND	mg/kg dry	0.0044		1	09/09/08
1,2,4-Trichlorobenzene	ND	mg/kg dry	0.0044	96	1	09/09/08
1,2,4-Trimethylbenzene	ND	mg/kg dry	0.0044		1	09/09/08
1,2-Dibromo-3-Chloropropane	ND	mg/kg dry	0.0044	0.5	1	09/09/08
1,2-Dibromoethane	ND	mg/kg dry	0.0044	0.01	1	09/09/08
1,2-Dichlorobenzene	ND	mg/kg dry	0.0044	510	1	09/09/08
1,2-Dichloroethane	ND	mg/kg dry	0.0044	0.9	1	09/09/08
1,2-Dichloropropane	ND	mg/kg dry	0.0044	1.9	1	09/09/08
1,3,5-Trimethylbenzene	ND	mg/kg dry	0.0044		1	09/09/08
1,3-Dichlorobenzene	ND	mg/kg dry	0.0044	430	1	09/09/08
1,3-Dichloropropane	ND	mg/kg dry	0.0044		1	09/09/08
1,4-Dichlorobenzene	ND	mg/kg dry	0.0044	27	1	09/09/08
1,4-Dioxane	ND	mg/kg dry	0.0874		1	09/09/08
1-Chlorohexane	ND	mg/kg dry	0.0044		1	09/09/08
2,2-Dichloropropane	ND	mg/kg dry	0.0044		1	09/09/08
2-Butanone	ND	mg/kg dry	0.0437	10000	1	09/09/08
2-Chlorotoluene	ND	mg/kg dry	0.0044		1	09/09/08
2-Hexanone	ND	mg/kg dry	0.0437		1	09/09/08
4-Chlorotoluene	ND	mg/kg dry	0.0044		1	09/09/08
4-Isopropyltoluene	ND	mg/kg dry	0.0044		1	09/09/08
4-Methyl-2-Pentanone	ND	mg/kg dry	0.0437	1200	1	09/09/08
Acetone	ND	mg/kg dry	0.0437	7800	1	09/09/08
Benzene	ND	mg/kg dry	0.0044	2.5	1	09/09/08
Bromobenzene	ND	mg/kg dry	0.0044		1	09/09/08
Bromochloromethane	ND	mg/kg dry	0.0044		1	09/09/08
Bromodichloromethane	ND	mg/kg dry	0.0044	10	1	09/09/08
Bromoform	ND	mg/kg dry	0.0044	81	1	09/09/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-4 0-2
 Date Sampled: 09/04/08 14:06
 Percent Solids: 97
 Initial Volume: 5.9
 Final Volume: 10
 Extraction Method: 5035

ESS Laboratory Work Order: 0809062
 ESS Laboratory Sample ID: 0809062-04
 Sample Matrix: Soil
 Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Bromomethane	ND	mg/kg dry	0.0087	0.8	1	09/09/08
Carbon Disulfide	ND	mg/kg dry	0.0044		1	09/09/08
Carbon Tetrachloride	ND	mg/kg dry	0.0044	1.5	1	09/09/08
Chlorobenzene	ND	mg/kg dry	0.0044	210	1	09/09/08
Chloroethane	ND	mg/kg dry	0.0087		1	09/09/08
Chloroform	ND	mg/kg dry	0.0044	1.2	1	09/09/08
Chloromethane	ND	mg/kg dry	0.0087		1	09/09/08
cis-1,2-Dichloroethene	ND	mg/kg dry	0.0044	630	1	09/09/08
cis-1,3-Dichloropropene	ND	mg/kg dry	0.0044		1	09/09/08
Dibromochloromethane	ND	mg/kg dry	0.0044	7.6	1	09/09/08
Dibromomethane	ND	mg/kg dry	0.0044		1	09/09/08
Dichlorodifluoromethane	ND	mg/kg dry	0.0087		1	09/09/08
Diethyl Ether	ND	mg/kg dry	0.0044		1	09/09/08
Di-isopropyl ether	ND	mg/kg dry	0.0044		1	09/09/08
Ethyl tertiary-butyl ether	ND	mg/kg dry	0.0044		1	09/09/08
Ethylbenzene	ND	mg/kg dry	0.0044	71	1	09/09/08
Hexachlorobutadiene	ND	mg/kg dry	0.0044	8.2	1	09/09/08
Isopropylbenzene	ND	mg/kg dry	0.0044	27	1	09/09/08
Methyl tert-Butyl Ether	ND	mg/kg dry	0.0044	390	1	09/09/08
Methylene Chloride	ND	mg/kg dry	0.0218	45	1	09/09/08
Naphthalene	ND	mg/kg dry	0.0044	54	1	09/09/08
n-Butylbenzene	ND	mg/kg dry	0.0044		1	09/09/08
n-Propylbenzene	ND	mg/kg dry	0.0044		1	09/09/08
sec-Butylbenzene	ND	mg/kg dry	0.0044		1	09/09/08
Styrene	ND	mg/kg dry	0.0044	13	1	09/09/08
tert-Butylbenzene	ND	mg/kg dry	0.0044		1	09/09/08
Tertiary-amyl methyl ether	ND	mg/kg dry	0.0044		1	09/09/08
Tetrachloroethene	ND	mg/kg dry	0.0044	12	1	09/09/08
Tetrahydrofuran	ND	mg/kg dry	0.0044		1	09/09/08
Toluene	ND	mg/kg dry	0.0044	190	1	09/09/08
trans-1,2-Dichloroethene	ND	mg/kg dry	0.0044	1100	1	09/09/08
trans-1,3-Dichloropropene	ND	mg/kg dry	0.0044		1	09/09/08
Trichloroethene	ND	mg/kg dry	0.0044	13	1	09/09/08
Trichlorofluoromethane	ND	mg/kg dry	0.0044		1	09/09/08
Vinyl Acetate	ND	mg/kg dry	0.0044		1	09/09/08
Vinyl Chloride	ND	mg/kg dry	0.0087	0.02	1	09/09/08



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Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-4 0-2
 Date Sampled: 09/04/08 14:06
 Percent Solids: 97
 Initial Volume: 5.9
 Final Volume: 10
 Extraction Method: 5035

ESS Laboratory Work Order: 0809062
 ESS Laboratory Sample ID: 0809062-04
 Sample Matrix: Soil
 Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Xylene O	ND	mg/kg dry	0.0044	110	1	09/09/08
Xylene P,M	ND	mg/kg dry	0.0087	110	1	09/09/08
Xylenes (Total)	ND	mg/kg dry	0.0131	110	0	09/09/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	115 %		70-130
Surrogate: 4-Bromofluorobenzene	92 %		70-130
Surrogate: Dibromofluoromethane	105 %		70-130
Surrogate: Toluene-d8	101 %		70-130



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Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-4 0-2
 Date Sampled: 09/04/08 14:06
 Percent Solids: 97
 Initial Volume: 19.5
 Final Volume: 10
 Extraction Method: 3541

ESS Laboratory Work Order: 0809062
 ESS Laboratory Sample ID: 0809062-04
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 09/05/08

8082 Polychlorinated Biphenyls (PCB)

RI - RES DEC

Analyte	Results	Units	MRL	Limit	DF	Analyzed
Aroclor 1016	ND	mg/kg dry	0.0529	10	1	09/06/08
Aroclor 1221	ND	mg/kg dry	0.0529	10	1	09/06/08
Aroclor 1232	ND	mg/kg dry	0.0529	10	1	09/06/08
Aroclor 1242	ND	mg/kg dry	0.0529	10	1	09/06/08
Aroclor 1248	ND	mg/kg dry	0.0529	10	1	09/06/08
Aroclor 1254	ND	mg/kg dry	0.0529	10	1	09/06/08
Aroclor 1260	ND	mg/kg dry	0.0529	10	1	09/06/08
Aroclor 1262	ND	mg/kg dry	0.0529	10	1	09/06/08
Aroclor 1268	ND	mg/kg dry	0.0529	10	1	09/06/08

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	87 %		30-150
Surrogate: Decachlorobiphenyl [2C]	92 %		30-150
Surrogate: Tetrachloro-m-xylene	73 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	81 %		30-150



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-4 0-2
 Date Sampled: 09/04/08 14:06
 Percent Solids: 97
 Initial Volume: 20.6
 Final Volume: 1
 Extraction Method: 3546

ESS Laboratory Work Order: 0809062
 ESS Laboratory Sample ID: 0809062-04
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 09/05/08

8100M Total Petroleum Hydrocarbons

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>
Total Petroleum Hydrocarbons	ND	mg/kg dry	37.5	500	1	09/06/08

<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
88 %		40-140

Surrogate: O-Terphenyl



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-4 0-2
 Date Sampled: 09/04/08 14:06
 Percent Solids: 97
 Initial Volume: 15.9
 Final Volume: 0.5
 Extraction Method: 3546

ESS Laboratory Work Order: 0809062
 ESS Laboratory Sample ID: 0809062-04
 Sample Matrix: Soil
 Analyst: IBM
 Prepared: 09/05/08

8270C Semi-Volatile Organic Compounds

RI - RES DEC

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1-Biphenyl	ND	mg/kg dry	0.324	0.8	1	09/09/08
1,2,4-Trichlorobenzene	ND	mg/kg dry	0.324	96	1	09/09/08
1,2-Dichlorobenzene	ND	mg/kg dry	0.324	510	1	09/09/08
1,3-Dichlorobenzene	ND	mg/kg dry	0.324	430	1	09/09/08
1,4-Dichlorobenzene	ND	mg/kg dry	0.324	27	1	09/09/08
2,3,4,6-Tetrachlorophenol	ND	mg/kg dry	1.62		1	09/09/08
2,4,5-Trichlorophenol	ND	mg/kg dry	0.324	330	1	09/09/08
2,4,6-Trichlorophenol	ND	mg/kg dry	0.324	58	1	09/09/08
2,4-Dichlorophenol	ND	mg/kg dry	0.324	30	1	09/09/08
2,4-Dimethylphenol	ND	mg/kg dry	0.324	1400	1	09/09/08
2,4-Dinitrophenol	ND	mg/kg dry	1.62	160	1	09/09/08
2,4-Dinitrotoluene	ND	mg/kg dry	0.324	0.9	1	09/09/08
2,6-Dinitrotoluene	ND	mg/kg dry	0.324		1	09/09/08
2-Chloronaphthalene	ND	mg/kg dry	0.324		1	09/09/08
2-Chlorophenol	ND	mg/kg dry	0.324	50	1	09/09/08
2-Methylnaphthalene	ND	mg/kg dry	0.324	123	1	09/09/08
2-Methylphenol	ND	mg/kg dry	0.324		1	09/09/08
2-Nitroaniline	ND	mg/kg dry	0.324		1	09/09/08
2-Nitrophenol	ND	mg/kg dry	0.324		1	09/09/08
3,3'-Dichlorobenzidine	ND	mg/kg dry	0.649	1.4	1	09/09/08
3+4-Methylphenol	ND	mg/kg dry	0.649		1	09/09/08
3-Nitroaniline	ND	mg/kg dry	0.324		1	09/09/08
4,6-Dinitro-2-Methylphenol	ND	mg/kg dry	1.62		1	09/09/08
4-Bromophenyl-phenylether	ND	mg/kg dry	0.324		1	09/09/08
4-Chloro-3-Methylphenol	ND	mg/kg dry	0.324		1	09/09/08
4-Chloroaniline	ND	mg/kg dry	0.649	310	1	09/09/08
4-Chloro-phenyl-phenyl ether	ND	mg/kg dry	0.324		1	09/09/08
4-Nitroaniline	ND	mg/kg dry	0.324		1	09/09/08
4-Nitrophenol	ND	mg/kg dry	1.62		1	09/09/08
Acenaphthene	ND	mg/kg dry	0.324	43	1	09/09/08
Acenaphthylene	ND	mg/kg dry	0.324	23	1	09/09/08
Acetophenone	ND	mg/kg dry	0.649		1	09/09/08
Aniline	ND	mg/kg dry	0.649		1	09/09/08
Anthracene	ND	mg/kg dry	0.324	35	1	09/09/08
Azobenzene	ND	mg/kg dry	0.324		1	09/09/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-4 0-2
 Date Sampled: 09/04/08 14:06
 Percent Solids: 97
 Initial Volume: 15.9
 Final Volume: 0.5
 Extraction Method: 3546

ESS Laboratory Work Order: 0809062
 ESS Laboratory Sample ID: 0809062-04
 Sample Matrix: Soil
 Analyst: IBM
 Prepared: 09/05/08

8270C Semi-Volatile Organic Compounds

Benzo(a)anthracene	ND	mg/kg dry	0.324	0.9	1	09/09/08
Benzo(a)pyrene	ND	mg/kg dry	0.162	0.4	1	09/09/08
Benzo(b)fluoranthene	ND	mg/kg dry	0.324	0.9	1	09/09/08
Benzo(g,h,i)perylene	ND	mg/kg dry	0.324	0.8	1	09/09/08
Benzo(k)fluoranthene	ND	mg/kg dry	0.324	0.9	1	09/09/08
Benzoic Acid	ND	mg/kg dry	1.62		1	09/09/08
Benzyl Alcohol	ND	mg/kg dry	0.324		1	09/09/08
bis(2-Chloroethoxy)methane	ND	mg/kg dry	0.324		1	09/09/08
bis(2-Chloroethyl)ether	ND	mg/kg dry	0.324	0.6	1	09/09/08
bis(2-chloroisopropyl)Ether	ND	mg/kg dry	0.324	9.1	1	09/09/08
bis(2-Ethylhexyl)phthalate	ND	mg/kg dry	0.324	46	1	09/09/08
Butylbenzylphthalate	ND	mg/kg dry	0.324		1	09/09/08
Carbazole	ND	mg/kg dry	0.324		1	09/09/08
Chrysene	ND	mg/kg dry	0.162	0.4	1	09/09/08
Dibenzo(a,h)Anthracene	ND	mg/kg dry	0.162	0.4	1	09/09/08
Dibenzofuran	ND	mg/kg dry	0.324		1	09/09/08
Diethylphthalate	ND	mg/kg dry	0.324	340	1	09/09/08
Dimethylphthalate	ND	mg/kg dry	0.324	1900	1	09/09/08
Di-n-butylphthalate	ND	mg/kg dry	0.324		1	09/09/08
Di-n-octylphthalate	ND	mg/kg dry	0.324		1	09/09/08
Fluoranthene	ND	mg/kg dry	0.324	20	1	09/09/08
Fluorene	ND	mg/kg dry	0.324	28	1	09/09/08
Hexachlorobenzene	ND	mg/kg dry	0.162	0.4	1	09/09/08
Hexachlorobutadiene	ND	mg/kg dry	0.324	8.2	1	09/09/08
Hexachlorocyclopentadiene	ND	mg/kg dry	1.62		1	09/09/08
Hexachloroethane	ND	mg/kg dry	0.324	46	1	09/09/08
Indeno(1,2,3-cd)Pyrene	ND	mg/kg dry	0.324	0.9	1	09/09/08
Isophorone	ND	mg/kg dry	0.324		1	09/09/08
Naphthalene	ND	mg/kg dry	0.324	54	1	09/09/08
Nitrobenzene	ND	mg/kg dry	0.324		1	09/09/08
N-Nitrosodimethylamine	ND	mg/kg dry	0.324		1	09/09/08
N-Nitroso-Di-n-Propylamine	ND	mg/kg dry	0.324		1	09/09/08
N-nitrosodiphenylamine	ND	mg/kg dry	0.324		1	09/09/08
Pentachlorophenol	ND	mg/kg dry	1.62	5.3	1	09/09/08
Phenanthrene	ND	mg/kg dry	0.324	40	1	09/09/08
Phenol	ND	mg/kg dry	0.324	6000	1	09/09/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-4 0-2
 Date Sampled: 09/04/08 14:06
 Percent Solids: 97
 Initial Volume: 15.9
 Final Volume: 0.5
 Extraction Method: 3546

ESS Laboratory Work Order: 0809062
 ESS Laboratory Sample ID: 0809062-04
 Sample Matrix: Soil
 Analyst: IBM
 Prepared: 09/05/08

8270C Semi-Volatile Organic Compounds

Pyrene	ND	mg/kg dry	0.324	13	1	09/09/08
Pyridine	ND	mg/kg dry	1.62		1	09/09/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	58 %		30-130
Surrogate: 2,4,6-Tribromophenol	77 %		30-130
Surrogate: 2-Chlorophenol-d4	56 %		30-130
Surrogate: 2-Fluorobiphenyl	60 %		30-130
Surrogate: 2-Fluorophenol	53 %		30-130
Surrogate: Nitrobenzene-d5	64 %		30-130
Surrogate: Phenol-d6	57 %		30-130
Surrogate: p-Terphenyl-d14	78 %		30-130



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: Trip Blank
 Date Sampled: 09/04/08 00:00
 Percent Solids: N/A
 Initial Volume: 5
 Final Volume: 10
 Extraction Method: 5035

ESS Laboratory Work Order: 0809062
 ESS Laboratory Sample ID: 0809062-05
 Sample Matrix: Solid
 Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

RI - RES DEC

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0050	2.2	1	09/09/08
1,1,1-Trichloroethane	ND	mg/kg	0.0050	540	1	09/09/08
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0050	1.3	1	09/09/08
1,1,2-Trichloroethane	ND	mg/kg	0.0050	3.6	1	09/09/08
1,1-Dichloroethane	ND	mg/kg	0.0050	920	1	09/09/08
1,1-Dichloroethene	ND	mg/kg	0.0050	0.2	1	09/09/08
1,1-Dichloropropene	ND	mg/kg	0.0050		1	09/09/08
1,2,3-Trichlorobenzene	ND	mg/kg	0.0050		1	09/09/08
1,2,3-Trichloropropane	ND	mg/kg	0.0050		1	09/09/08
1,2,4-Trichlorobenzene	ND	mg/kg	0.0050		1	09/09/08
1,2,4-Trimethylbenzene	ND	mg/kg	0.0050		1	09/09/08
1,2-Dibromo-3-Chloropropane	ND	mg/kg	0.0050	0.5	1	09/09/08
1,2-Dibromoethane	ND	mg/kg	0.0050	0.01	1	09/09/08
1,2-Dichlorobenzene	ND	mg/kg	0.0050		1	09/09/08
1,2-Dichloroethane	ND	mg/kg	0.0050	0.9	1	09/09/08
1,2-Dichloropropane	ND	mg/kg	0.0050	1.9	1	09/09/08
1,3,5-Trimethylbenzene	ND	mg/kg	0.0050		1	09/09/08
1,3-Dichlorobenzene	ND	mg/kg	0.0050		1	09/09/08
1,3-Dichloropropane	ND	mg/kg	0.0050		1	09/09/08
1,4-Dichlorobenzene	ND	mg/kg	0.0050		1	09/09/08
1,4-Dioxane	ND	mg/kg	0.100		1	09/09/08
1-Chlorohexane	ND	mg/kg	0.0050		1	09/09/08
2,2-Dichloropropane	ND	mg/kg	0.0050		1	09/09/08
2-Butanone	ND	mg/kg	0.0500	10000	1	09/09/08
2-Chlorotoluene	ND	mg/kg	0.0050		1	09/09/08
2-Hexanone	ND	mg/kg	0.0500		1	09/09/08
4-Chlorotoluene	ND	mg/kg	0.0050		1	09/09/08
4-Isopropyltoluene	ND	mg/kg	0.0050		1	09/09/08
4-Methyl-2-Pentanone	ND	mg/kg	0.0500	1200	1	09/09/08
Acetone	ND	mg/kg	0.0500	7800	1	09/09/08
Benzene	ND	mg/kg	0.0050	2.5	1	09/09/08
Bromobenzene	ND	mg/kg	0.0050		1	09/09/08
Bromochloromethane	ND	mg/kg	0.0050		1	09/09/08
Bromodichloromethane	ND	mg/kg	0.0050	10	1	09/09/08
Bromoform	ND	mg/kg	0.0050	81	1	09/09/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: Trip Blank
 Date Sampled: 09/04/08 00:00
 Percent Solids: N/A
 Initial Volume: 5
 Final Volume: 10
 Extraction Method: 5035

ESS Laboratory Work Order: 0809062
 ESS Laboratory Sample ID: 0809062-05
 Sample Matrix: Solid
 Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Bromomethane	ND	mg/kg	0.0100	0.8	1	09/09/08
Carbon Disulfide	ND	mg/kg	0.0050		1	09/09/08
Carbon Tetrachloride	ND	mg/kg	0.0050	1.5	1	09/09/08
Chlorobenzene	ND	mg/kg	0.0050	210	1	09/09/08
Chloroethane	ND	mg/kg	0.0100		1	09/09/08
Chloroform	ND	mg/kg	0.0050	1.2	1	09/09/08
Chloromethane	ND	mg/kg	0.0100		1	09/09/08
cis-1,2-Dichloroethene	ND	mg/kg	0.0050	630	1	09/09/08
cis-1,3-Dichloropropene	ND	mg/kg	0.0050		1	09/09/08
Dibromochloromethane	ND	mg/kg	0.0050	7.6	1	09/09/08
Dibromomethane	ND	mg/kg	0.0050		1	09/09/08
Dichlorodifluoromethane	ND	mg/kg	0.0100		1	09/09/08
Diethyl Ether	ND	mg/kg	0.0050		1	09/09/08
Di-isopropyl ether	ND	mg/kg	0.0050		1	09/09/08
Ethyl tertiary-butyl ether	ND	mg/kg	0.0050		1	09/09/08
Ethylbenzene	ND	mg/kg	0.0050	71	1	09/09/08
Hexachlorobutadiene	ND	mg/kg	0.0050		1	09/09/08
Isopropylbenzene	ND	mg/kg	0.0050	27	1	09/09/08
Methyl tert-Butyl Ether	ND	mg/kg	0.0050	390	1	09/09/08
Methylene Chloride	ND	mg/kg	0.0250	45	1	09/09/08
Naphthalene	ND	mg/kg	0.0050		1	09/09/08
n-Butylbenzene	ND	mg/kg	0.0050		1	09/09/08
n-Propylbenzene	ND	mg/kg	0.0050		1	09/09/08
sec-Butylbenzene	ND	mg/kg	0.0050		1	09/09/08
Styrene	ND	mg/kg	0.0050	13	1	09/09/08
tert-Butylbenzene	ND	mg/kg	0.0050		1	09/09/08
Tertiary-amyl methyl ether	ND	mg/kg	0.0050		1	09/09/08
Tetrachloroethene	ND	mg/kg	0.0050	12	1	09/09/08
Tetrahydrofuran	ND	mg/kg	0.0050		1	09/09/08
Toluene	ND	mg/kg	0.0050	190	1	09/09/08
trans-1,2-Dichloroethene	ND	mg/kg	0.0050	1100	1	09/09/08
trans-1,3-Dichloropropene	ND	mg/kg	0.0050		1	09/09/08
Trichloroethene	ND	mg/kg	0.0050	13	1	09/09/08
Trichlorofluoromethane	ND	mg/kg	0.0050		1	09/09/08
Vinyl Acetate	ND	mg/kg	0.0050		1	09/09/08
Vinyl Chloride	ND	mg/kg	0.0100	0.02	1	09/09/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: Trip Blank
 Date Sampled: 09/04/08 00:00
 Percent Solids: N/A
 Initial Volume: 5
 Final Volume: 10
 Extraction Method: 5035

ESS Laboratory Work Order: 0809062
 ESS Laboratory Sample ID: 0809062-05
 Sample Matrix: Solid
 Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Xylene O	ND	mg/kg	0.0050	110	1	09/09/08
Xylene P,M	ND	mg/kg	0.0100	110	1	09/09/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	105 %		70-130
Surrogate: 4-Bromofluorobenzene	97 %		70-130
Surrogate: Dibromofluoromethane	101 %		70-130
Surrogate: Toluene-d8	101 %		70-130



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809062

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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3050B/6000/7000 Total Metals

Batch B180416 - 3050B

Blank

Antimony	ND	6.7	mg/kg wet
Arsenic	ND	3.3	mg/kg wet
Beryllium	ND	0.07	mg/kg wet
Cadmium	ND	0.67	mg/kg wet
Chromium	ND	1.3	mg/kg wet
Copper	ND	1.3	mg/kg wet
Lead	ND	6.7	mg/kg wet
Nickel	ND	3.3	mg/kg wet
Selenium	ND	6.7	mg/kg wet
Silver	ND	0.67	mg/kg wet
Thallium	ND	0.33	mg/kg wet
Zinc	ND	3.3	mg/kg wet

LCS

Antimony	34.3	6.7	mg/kg wet	33.33	103	80-120
Arsenic	31.2	3.3	mg/kg wet	33.33	94	80-120
Beryllium	3.22	0.07	mg/kg wet	3.333	96	80-120
Cadmium	15.6	0.67	mg/kg wet	16.67	94	80-120
Chromium	33.4	1.3	mg/kg wet	33.33	100	80-120
Copper	33.2	1.3	mg/kg wet	33.33	100	80-120
Lead	33.5	6.7	mg/kg wet	33.33	101	80-120
Nickel	33.3	3.3	mg/kg wet	33.33	100	80-120
Selenium	61.3	6.7	mg/kg wet	66.67	92	80-120
Silver	16.5	0.67	mg/kg wet	16.67	99	80-120
Thallium	34.4	6.60	mg/kg wet	33.33	103	80-120
Zinc	32.0	3.3	mg/kg wet	33.33	96	80-120

LCS Dup

Antimony	34.3	6.7	mg/kg wet	33.33	103	80-120	0.06	20
Arsenic	31.2	3.3	mg/kg wet	33.33	94	80-120	0.002	20
Beryllium	3.21	0.07	mg/kg wet	3.333	96	80-120	0.09	20
Cadmium	15.4	0.67	mg/kg wet	16.67	93	80-120	1	20
Chromium	33.2	1.3	mg/kg wet	33.33	100	80-120	0.6	20
Copper	32.8	1.3	mg/kg wet	33.33	98	80-120	1	20
Lead	33.3	6.7	mg/kg wet	33.33	100	80-120	0.6	20
Nickel	33.1	3.3	mg/kg wet	33.33	99	80-120	0.5	20
Selenium	60.7	6.7	mg/kg wet	66.67	91	80-120	0.9	20
Silver	16.2	0.67	mg/kg wet	16.67	97	80-120	1	20
Thallium	34.8	6.60	mg/kg wet	33.33	104	80-120	1	20
Zinc	31.7	3.3	mg/kg wet	33.33	95	80-120	0.9	20

Duplicate Source: 0809062-01

Antimony	1.32	5.9	mg/kg dry	ND				35	
Arsenic	7.23	3.0	mg/kg dry		5.96			19	35
Beryllium	0.385	0.06	mg/kg dry		0.354			9	35
Cadmium	0.221	0.59	mg/kg dry		0.193			13	35
Chromium	8.19	1.2	mg/kg dry		6.62			21	35



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809062

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
3050B/6000/7000 Total Metals										
Batch BI80416 - 3050B										
Copper	18.4	1.2	mg/kg dry		15.3			18	35	
Lead	139	5.9	mg/kg dry		103			30	35	
Nickel	2.58	3.0	mg/kg dry		2.41			7	35	
Selenium	ND	5.9	mg/kg dry		ND				35	
Silver	ND	0.59	mg/kg dry		ND				35	
Thallium	ND	1.46	mg/kg dry		ND				35	
Zinc	35.1	3.0	mg/kg dry		32.4			8	35	
Matrix Spike Source: 0809062-01										
Antimony	20.4	5.9	mg/kg dry	29.39	ND	69	75-125			M-
Arsenic	28.1	2.9	mg/kg dry	29.39	5.96	75	75-125			
Beryllium	2.74	0.06	mg/kg dry	2.939	0.354	81	75-125			
Cadmium	11.5	0.59	mg/kg dry	14.69	0.193	77	75-125			
Chromium	30.4	1.2	mg/kg dry	29.39	6.62	81	75-125			
Copper	37.6	1.2	mg/kg dry	29.39	15.3	76	75-125			
Lead	118	5.9	mg/kg dry	29.39	103	51	75-125			M-
Nickel	26.5	2.9	mg/kg dry	29.39	2.41	82	75-125			
Selenium	43.7	5.9	mg/kg dry	58.78	ND	74	75-125			M-
Silver	12.0	0.59	mg/kg dry	14.69	ND	82	75-125			
Thallium	27.0	5.82	mg/kg dry	29.39	ND	92	75-125			
Zinc	51.4	2.9	mg/kg dry	29.39	32.4	65	75-125			M-
Reference										
Antimony	87.4	10.0	mg/kg wet	127.0		69	0-210			
Arsenic	263	5.0	mg/kg wet	280.0		94	81-119			
Beryllium	49.9	0.10	mg/kg wet	51.00		98	83-117			
Cadmium	169	1.00	mg/kg wet	182.0		93	82-118			
Chromium	135	2.0	mg/kg wet	142.0		95	81-120			
Copper	121	2.0	mg/kg wet	132.0		92	83-117			
Lead	70.6	10.0	mg/kg wet	72.20		98	82-118			
Nickel	151	5.0	mg/kg wet	155.0		97	82-117			
Selenium	152	10.0	mg/kg wet	165.0		92	78-123			
Silver	125	1.00	mg/kg wet	126.0		99	66-134			
Thallium	196	24.8	mg/kg wet	184.0		106	77-122			
Zinc	317	5.0	mg/kg wet	346.0		92	79-121			
Batch BI80417 - 7471A										
Blank										
Mercury	ND	0.033	mg/kg wet							
LCS										
Mercury	0.224	0.033	mg/kg wet	0.2000		112	80-120			
LCS Dup										
Mercury	0.219	0.033	mg/kg wet	0.2000		110	80-120	2	20	
Duplicate Source: 0809062-01										
Mercury	0.0987	0.035	mg/kg dry		0.117			17	35	
Matrix Spike Source: 0809062-01										
Mercury	0.362	0.033	mg/kg dry	0.2026	0.117	121	75-125			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.

Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809062

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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3050B/6000/7000 Total Metals

Batch BI80417 - 7471A

Matrix Spike Dup Source: 0809062-01

Mercury	0.341	0.035	mg/kg dry	0.2128	0.117	106	75-125	6	35	
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Reference

Mercury	11.0	0.649	mg/kg wet	8.480		129	66-132			
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5035/8260B Volatile Organic Compounds / Low Level

Batch BI80902 - 5035

Blank

1,1,1,2-Tetrachloroethane	ND	0.0050	mg/kg wet							
1,1,1-Trichloroethane	ND	0.0050	mg/kg wet							
1,1,2,2-Tetrachloroethane	ND	0.0050	mg/kg wet							
1,1,2-Trichloroethane	ND	0.0050	mg/kg wet							
1,1-Dichloroethane	ND	0.0050	mg/kg wet							
1,1-Dichloroethene	ND	0.0050	mg/kg wet							
1,1-Dichloropropene	ND	0.0050	mg/kg wet							
1,2,3-Trichlorobenzene	ND	0.0050	mg/kg wet							
1,2,3-Trichloropropane	ND	0.0050	mg/kg wet							
1,2,4-Trichlorobenzene	ND	0.0050	mg/kg wet							
1,2,4-Trimethylbenzene	ND	0.0050	mg/kg wet							
1,2-Dibromo-3-Chloropropane	ND	0.0050	mg/kg wet							
1,2-Dibromoethane	ND	0.0050	mg/kg wet							
1,2-Dichlorobenzene	ND	0.0050	mg/kg wet							
1,2-Dichloroethane	ND	0.0050	mg/kg wet							
1,2-Dichloropropane	ND	0.0050	mg/kg wet							
1,3,5-Trimethylbenzene	ND	0.0050	mg/kg wet							
1,3-Dichlorobenzene	ND	0.0050	mg/kg wet							
1,3-Dichloropropane	ND	0.0050	mg/kg wet							
1,4-Dichlorobenzene	ND	0.0050	mg/kg wet							
1,4-Dioxane	ND	0.100	mg/kg wet							
1-Chlorohexane	ND	0.0050	mg/kg wet							
2,2-Dichloropropane	ND	0.0050	mg/kg wet							
2-Butanone	ND	0.0500	mg/kg wet							
2-Chlorotoluene	ND	0.0050	mg/kg wet							
2-Hexanone	ND	0.0500	mg/kg wet							
4-Chlorotoluene	ND	0.0050	mg/kg wet							
4-Isopropyltoluene	ND	0.0050	mg/kg wet							
4-Methyl-2-Pentanone	ND	0.0500	mg/kg wet							
Acetone	ND	0.0500	mg/kg wet							
Benzene	ND	0.0050	mg/kg wet							
Bromobenzene	ND	0.0050	mg/kg wet							
Bromochloromethane	ND	0.0050	mg/kg wet							
Bromodichloromethane	ND	0.0050	mg/kg wet							
Bromoform	ND	0.0050	mg/kg wet							
Bromomethane	ND	0.0100	mg/kg wet							
Carbon Disulfide	ND	0.0050	mg/kg wet							



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809062

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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5035/8260B Volatile Organic Compounds / Low Level

Batch B180902 - 5035

Carbon Tetrachloride	ND	0.0050	mg/kg wet							
Chlorobenzene	ND	0.0050	mg/kg wet							
Chloroethane	ND	0.0100	mg/kg wet							
Chloroform	ND	0.0050	mg/kg wet							
Chloromethane	ND	0.0100	mg/kg wet							
cis-1,2-Dichloroethene	ND	0.0050	mg/kg wet							
cis-1,3-Dichloropropene	ND	0.0050	mg/kg wet							
Dibromochloromethane	ND	0.0050	mg/kg wet							
Dibromomethane	ND	0.0050	mg/kg wet							
Dichlorodifluoromethane	ND	0.0100	mg/kg wet							
Diethyl Ether	ND	0.0050	mg/kg wet							
Di-isopropyl ether	ND	0.0050	mg/kg wet							
Ethyl tertiary-butyl ether	ND	0.0050	mg/kg wet							
Ethylbenzene	ND	0.0050	mg/kg wet							
Hexachlorobutadiene	ND	0.0050	mg/kg wet							
Isopropylbenzene	ND	0.0050	mg/kg wet							
Methyl tert-Butyl Ether	ND	0.0050	mg/kg wet							
Methylene Chloride	ND	0.0250	mg/kg wet							
Naphthalene	ND	0.0050	mg/kg wet							
n-Butylbenzene	ND	0.0050	mg/kg wet							
n-Propylbenzene	ND	0.0050	mg/kg wet							
sec-Butylbenzene	ND	0.0050	mg/kg wet							
Styrene	ND	0.0050	mg/kg wet							
tert-Butylbenzene	ND	0.0050	mg/kg wet							
Tertiary-amyl methyl ether	ND	0.0050	mg/kg wet							
Tetrachloroethene	ND	0.0050	mg/kg wet							
Tetrahydrofuran	ND	0.0050	mg/kg wet							
Toluene	ND	0.0050	mg/kg wet							
trans-1,2-Dichloroethene	ND	0.0050	mg/kg wet							
trans-1,3-Dichloropropene	ND	0.0050	mg/kg wet							
Trichloroethene	ND	0.0050	mg/kg wet							
Vinyl Acetate	ND	0.0050	mg/kg wet							
Vinyl Chloride	ND	0.0100	mg/kg wet							
Xylene O	ND	0.0050	mg/kg wet							
Xylene P,M	ND	0.0100	mg/kg wet							
Surrogate: 1,2-Dichloroethane-d4	0.0515		mg/kg wet	0.05000		103	70-130			
Surrogate: 4-Bromofluorobenzene	0.0480		mg/kg wet	0.05000		96	70-130			
Surrogate: Dibromofluoromethane	0.0503		mg/kg wet	0.05000		101	70-130			
Surrogate: Toluene-d8	0.0499		mg/kg wet	0.05000		100	70-130			

LCS

1,1,1,2-Tetrachloroethane	0.0479	0.0050	mg/kg wet	0.05000		96	70-130			
1,1,1-Trichloroethane	0.0444	0.0050	mg/kg wet	0.05000		89	70-130			
1,1,2,2-Tetrachloroethane	0.0480	0.0050	mg/kg wet	0.05000		96	70-130			
1,1,2-Trichloroethane	0.0499	0.0050	mg/kg wet	0.05000		100	70-130			
1,1-Dichloroethane	0.0505	0.0050	mg/kg wet	0.05000		101	70-130			
1,1-Dichloroethene	0.0514	0.0050	mg/kg wet	0.05000		103	70-130			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809062

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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5035/8260B Volatile Organic Compounds / Low Level

Batch B180902 - 5035

1,1-Dichloropropene	0.0485	0.0050	mg/kg wet	0.05000		97	70-130			
1,2,3-Trichlorobenzene	0.0478	0.0050	mg/kg wet	0.05000		96	70-130			
1,2,3-Trichloropropane	0.0501	0.0050	mg/kg wet	0.05000		100	70-130			
1,2,4-Trichlorobenzene	0.0456	0.0050	mg/kg wet	0.05000		91	70-130			
1,2,4-Trimethylbenzene	0.0489	0.0050	mg/kg wet	0.05000		98	70-130			
1,2-Dibromo-3-Chloropropane	0.0512	0.0050	mg/kg wet	0.05000		102	70-130			
1,2-Dibromoethane	0.0484	0.0050	mg/kg wet	0.05000		97	70-130			
1,2-Dichlorobenzene	0.0460	0.0050	mg/kg wet	0.05000		92	70-130			
1,2-Dichloroethane	0.0456	0.0050	mg/kg wet	0.05000		91	70-130			
1,2-Dichloropropane	0.0491	0.0050	mg/kg wet	0.05000		98	70-130			
1,3,5-Trimethylbenzene	0.0466	0.0050	mg/kg wet	0.05000		93	70-130			
1,3-Dichlorobenzene	0.0454	0.0050	mg/kg wet	0.05000		91	70-130			
1,3-Dichloropropane	0.0492	0.0050	mg/kg wet	0.05000		98	70-130			
1,4-Dichlorobenzene	0.0444	0.0050	mg/kg wet	0.05000		89	70-130			
1,4-Dioxane	1.00	0.100	mg/kg wet	1.000		100	70-130			
1-Chlorohexane	0.0498	0.0050	mg/kg wet	0.05000		100	70-130			
2,2-Dichloropropane	0.0456	0.0050	mg/kg wet	0.05000		91	70-130			
2-Butanone	0.310	0.0500	mg/kg wet	0.2500		124	70-130			
2-Chlorotoluene	0.0466	0.0050	mg/kg wet	0.05000		93	70-130			
2-Hexanone	0.317	0.0500	mg/kg wet	0.2500		127	70-130			
4-Chlorotoluene	0.0457	0.0050	mg/kg wet	0.05000		91	70-130			
4-Isopropyltoluene	0.0450	0.0050	mg/kg wet	0.05000		90	70-130			
4-Methyl-2-Pentanone	0.266	0.0500	mg/kg wet	0.2500		107	70-130			
Acetone	0.311	0.0500	mg/kg wet	0.2500		124	70-130			
Benzene	0.0478	0.0050	mg/kg wet	0.05000		96	70-130			
Bromobenzene	0.0458	0.0050	mg/kg wet	0.05000		92	70-130			
Bromochloromethane	0.0493	0.0050	mg/kg wet	0.05000		99	70-130			
Bromodichloromethane	0.0468	0.0050	mg/kg wet	0.05000		94	70-130			
Bromoform	0.0485	0.0050	mg/kg wet	0.05000		97	70-130			
Bromomethane	0.0516	0.0100	mg/kg wet	0.05000		103	70-130			
Carbon Disulfide	0.0603	0.0050	mg/kg wet	0.05000		121	70-130			
Carbon Tetrachloride	0.0450	0.0050	mg/kg wet	0.05000		90	70-130			
Chlorobenzene	0.0446	0.0050	mg/kg wet	0.05000		89	70-130			
Chloroethane	0.0447	0.0100	mg/kg wet	0.05000		89	70-130			
Chloroform	0.0473	0.0050	mg/kg wet	0.05000		95	70-130			
Chloromethane	0.0460	0.0100	mg/kg wet	0.05000		92	70-130			
cis-1,2-Dichloroethene	0.0497	0.0050	mg/kg wet	0.05000		99	70-130			
cis-1,3-Dichloropropene	0.0478	0.0050	mg/kg wet	0.05000		96	70-130			
Dibromochloromethane	0.0490	0.0050	mg/kg wet	0.05000		98	70-130			
Dibromomethane	0.0495	0.0050	mg/kg wet	0.05000		99	70-130			
Dichlorodifluoromethane	0.0540	0.0100	mg/kg wet	0.05000		108	70-130			
Diethyl Ether	0.0561	0.0050	mg/kg wet	0.05000		112	70-130			
Di-isopropyl ether	0.0543	0.0050	mg/kg wet	0.05000		109	70-130			
Ethyl tertiary-butyl ether	0.0496	0.0050	mg/kg wet	0.05000		99	70-130			
Ethylbenzene	0.0467	0.0050	mg/kg wet	0.05000		93	70-130			
Hexachlorobutadiene	0.0445	0.0050	mg/kg wet	0.05000		89	70-130			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809062

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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5035/8260B Volatile Organic Compounds / Low Level

Batch B180902 - 5035

Isopropylbenzene	0.0423	0.0050	mg/kg wet	0.05000		85	70-130			
Methyl tert-Butyl Ether	0.0497	0.0050	mg/kg wet	0.05000		99	70-130			
Methylene Chloride	0.0509	0.0250	mg/kg wet	0.05000		102	70-130			
Naphthalene	0.0514	0.0050	mg/kg wet	0.05000		103	70-130			
n-Butylbenzene	0.0477	0.0050	mg/kg wet	0.05000		95	70-130			
n-Propylbenzene	0.0486	0.0050	mg/kg wet	0.05000		97	70-130			
sec-Butylbenzene	0.0466	0.0050	mg/kg wet	0.05000		93	70-130			
Styrene	0.0467	0.0050	mg/kg wet	0.05000		93	70-130			
tert-Butylbenzene	0.0466	0.0050	mg/kg wet	0.05000		93	70-130			
Tertiary-amyl methyl ether	0.0534	0.0050	mg/kg wet	0.05000		107	70-130			
Tetrachloroethene	0.0453	0.0050	mg/kg wet	0.05000		91	70-130			
Tetrahydrofuran	0.0531	0.0050	mg/kg wet	0.05000		106	70-130			
Toluene	0.0460	0.0050	mg/kg wet	0.05000		92	70-130			
trans-1,2-Dichloroethene	0.0525	0.0050	mg/kg wet	0.05000		105	70-130			
trans-1,3-Dichloropropene	0.0434	0.0050	mg/kg wet	0.05000		87	70-130			
Trichloroethene	0.0458	0.0050	mg/kg wet	0.05000		92	70-130			
Vinyl Acetate	0.0523	0.0050	mg/kg wet	0.05000		105	70-130			
Vinyl Chloride	0.0550	0.0100	mg/kg wet	0.05000		110	70-130			
Xylene O	0.0464	0.0050	mg/kg wet	0.05000		93	70-130			
Xylene P,M	0.0910	0.0100	mg/kg wet	0.1000		91	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0475		mg/kg wet	0.05000		95	70-130			
Surrogate: 4-Bromofluorobenzene	0.0489		mg/kg wet	0.05000		98	70-130			
Surrogate: Dibromofluoromethane	0.0500		mg/kg wet	0.05000		100	70-130			
Surrogate: Toluene-d8	0.0483		mg/kg wet	0.05000		97	70-130			

LCS Dup

1,1,1,2-Tetrachloroethane	0.0450	0.0050	mg/kg wet	0.05000		90	70-130	6	20	
1,1,1-Trichloroethane	0.0411	0.0050	mg/kg wet	0.05000		82	70-130	8	20	
1,1,1,2-Tetrachloroethane	0.0440	0.0050	mg/kg wet	0.05000		88	70-130	9	20	
1,1,2-Trichloroethane	0.0466	0.0050	mg/kg wet	0.05000		93	70-130	7	20	
1,1-Dichloroethane	0.0481	0.0050	mg/kg wet	0.05000		96	70-130	5	20	
1,1-Dichloroethene	0.0487	0.0050	mg/kg wet	0.05000		97	70-130	6	20	
1,1-Dichloropropene	0.0451	0.0050	mg/kg wet	0.05000		90	70-130	7	20	
1,2,3-Trichlorobenzene	0.0465	0.0050	mg/kg wet	0.05000		93	70-130	3	20	
1,2,3-Trichloropropane	0.0449	0.0050	mg/kg wet	0.05000		90	70-130	11	20	
1,2,4-Trichlorobenzene	0.0441	0.0050	mg/kg wet	0.05000		88	70-130	3	20	
1,2,4-Trimethylbenzene	0.0470	0.0050	mg/kg wet	0.05000		94	70-130	4	20	
1,2-Dibromo-3-Chloropropane	0.0421	0.0050	mg/kg wet	0.05000		84	70-130	19	20	
1,2-Dibromoethane	0.0449	0.0050	mg/kg wet	0.05000		90	70-130	8	20	
1,2-Dichlorobenzene	0.0445	0.0050	mg/kg wet	0.05000		89	70-130	3	20	
1,2-Dichloroethane	0.0443	0.0050	mg/kg wet	0.05000		89	70-130	3	20	
1,2-Dichloropropane	0.0475	0.0050	mg/kg wet	0.05000		95	70-130	3	20	
1,3,5-Trimethylbenzene	0.0448	0.0050	mg/kg wet	0.05000		90	70-130	4	20	
1,3-Dichlorobenzene	0.0441	0.0050	mg/kg wet	0.05000		88	70-130	3	20	
1,3-Dichloropropane	0.0451	0.0050	mg/kg wet	0.05000		90	70-130	9	20	
1,4-Dichlorobenzene	0.0434	0.0050	mg/kg wet	0.05000		87	70-130	2	20	
1,4-Dioxane	0.917	0.100	mg/kg wet	1.000		92	70-130	9	20	



ESS Laboratory

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CERTIFICATE OF ANALYSIS

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Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809062

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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5035/8260B Volatile Organic Compounds / Low Level

Batch B180902 - 5035

1-Chlorohexane	0.0487	0.0050	mg/kg wet	0.05000		97	70-130	2	20	
2,2-Dichloropropane	0.0412	0.0050	mg/kg wet	0.05000		82	70-130	10	20	
2-Butanone	0.264	0.0500	mg/kg wet	0.2500		106	70-130	16	20	
2-Chlorotoluene	0.0453	0.0050	mg/kg wet	0.05000		91	70-130	3	20	
2-Hexanone	0.282	0.0500	mg/kg wet	0.2500		113	70-130	11	20	
4-Chlorotoluene	0.0447	0.0050	mg/kg wet	0.05000		89	70-130	2	20	
4-Isopropyltoluene	0.0436	0.0050	mg/kg wet	0.05000		87	70-130	3	20	
4-Methyl-2-Pentanone	0.258	0.0500	mg/kg wet	0.2500		103	70-130	3	20	
Acetone	0.382	0.0500	mg/kg wet	0.2500		153	70-130	21	20	B+, D+
Benzene	0.0464	0.0050	mg/kg wet	0.05000		93	70-130	3	20	
Bromobenzene	0.0435	0.0050	mg/kg wet	0.05000		87	70-130	5	20	
Bromochloromethane	0.0458	0.0050	mg/kg wet	0.05000		92	70-130	7	20	
Bromodichloromethane	0.0444	0.0050	mg/kg wet	0.05000		89	70-130	5	20	
Bromoform	0.0460	0.0050	mg/kg wet	0.05000		92	70-130	5	20	
Bromomethane	0.0468	0.0100	mg/kg wet	0.05000		94	70-130	10	20	
Carbon Disulfide	0.0583	0.0050	mg/kg wet	0.05000		117	70-130	3	20	
Carbon Tetrachloride	0.0402	0.0050	mg/kg wet	0.05000		80	70-130	11	20	
Chlorobenzene	0.0436	0.0050	mg/kg wet	0.05000		87	70-130	2	20	
Chloroethane	0.0438	0.0100	mg/kg wet	0.05000		88	70-130	2	20	
Chloroform	0.0445	0.0050	mg/kg wet	0.05000		89	70-130	6	20	
Chloromethane	0.0488	0.0100	mg/kg wet	0.05000		98	70-130	6	20	
cis-1,2-Dichloroethene	0.0470	0.0050	mg/kg wet	0.05000		94	70-130	5	20	
cis-1,3-Dichloropropene	0.0466	0.0050	mg/kg wet	0.05000		93	70-130	2	20	
Dibromochloromethane	0.0446	0.0050	mg/kg wet	0.05000		89	70-130	10	20	
Dibromomethane	0.0456	0.0050	mg/kg wet	0.05000		91	70-130	8	20	
Dichlorodifluoromethane	0.0523	0.0100	mg/kg wet	0.05000		105	70-130	3	20	
Diethyl Ether	0.0532	0.0050	mg/kg wet	0.05000		106	70-130	5	20	
Di-Isopropyl ether	0.0513	0.0050	mg/kg wet	0.05000		103	70-130	6	20	
Ethyl tertiary-butyl ether	0.0474	0.0050	mg/kg wet	0.05000		95	70-130	4	20	
Ethylbenzene	0.0458	0.0050	mg/kg wet	0.05000		92	70-130	2	20	
Hexachlorobutadiene	0.0432	0.0050	mg/kg wet	0.05000		86	70-130	3	20	
Isopropylbenzene	0.0403	0.0050	mg/kg wet	0.05000		81	70-130	5	20	
Methyl tert-Butyl Ether	0.0446	0.0050	mg/kg wet	0.05000		89	70-130	11	20	
Methylene Chloride	0.0500	0.0250	mg/kg wet	0.05000		100	70-130	2	20	
Naphthalene	0.0469	0.0050	mg/kg wet	0.05000		94	70-130	9	20	
n-Butylbenzene	0.0458	0.0050	mg/kg wet	0.05000		92	70-130	4	20	
n-Propylbenzene	0.0468	0.0050	mg/kg wet	0.05000		94	70-130	4	20	
sec-Butylbenzene	0.0446	0.0050	mg/kg wet	0.05000		89	70-130	4	20	
Styrene	0.0453	0.0050	mg/kg wet	0.05000		91	70-130	3	20	
tert-Butylbenzene	0.0437	0.0050	mg/kg wet	0.05000		87	70-130	6	20	
Tertiary-amyl methyl ether	0.0485	0.0050	mg/kg wet	0.05000		97	70-130	10	20	
Tetrachloroethene	0.0430	0.0050	mg/kg wet	0.05000		86	70-130	5	20	
Tetrahydrofuran	0.0488	0.0050	mg/kg wet	0.05000		98	70-130	8	20	
Toluene	0.0477	0.0050	mg/kg wet	0.05000		95	70-130	3	20	
trans-1,2-Dichloroethene	0.0497	0.0050	mg/kg wet	0.05000		99	70-130	6	20	
trans-1,3-Dichloropropene	0.0421	0.0050	mg/kg wet	0.05000		84	70-130	3	20	



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

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Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809062

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
5035/8260B Volatile Organic Compounds / Low Level										
Batch BI80902 - 5035										
Trichloroethene	0.0445	0.0050	mg/kg wet	0.05000		89	70-130	3	20	
Vinyl Acetate	0.0489	0.0050	mg/kg wet	0.05000		98	70-130	7	20	
Vinyl Chloride	0.0528	0.0100	mg/kg wet	0.05000		106	70-130	4	20	
Xylene O	0.0450	0.0050	mg/kg wet	0.05000		90	70-130	3	20	
Xylene P,M	0.0893	0.0100	mg/kg wet	0.1000		89	70-130	2	20	
Surrogate: 1,2-Dichloroethane-d4	0.0448		mg/kg wet	0.05000		90	70-130			
Surrogate: 4-Bromofluorobenzene	0.0491		mg/kg wet	0.05000		98	70-130			
Surrogate: Dibromofluoromethane	0.0480		mg/kg wet	0.05000		96	70-130			
Surrogate: Toluene-d8	0.0482		mg/kg wet	0.05000		96	70-130			
8082 Polychlorinated Biphenyls (PCB)										
Batch BI80507 - 3541										
Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	0.0254		mg/kg wet	0.02500		102	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.0259		mg/kg wet	0.02500		104	30-150			
Surrogate: Tetrachloro-m-xylene	0.0210		mg/kg wet	0.02500		84	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.0233		mg/kg wet	0.02500		93	30-150			
LCS										
Aroclor 1016	0.522	0.0500	mg/kg wet	0.5000		104	40-140			
Aroclor 1260	0.470	0.0500	mg/kg wet	0.5000		94	40-140			
Surrogate: Decachlorobiphenyl	0.0259		mg/kg wet	0.02500		104	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.0263		mg/kg wet	0.02500		105	30-150			
Surrogate: Tetrachloro-m-xylene	0.0219		mg/kg wet	0.02500		87	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.0227		mg/kg wet	0.02500		91	30-150			
LCS Dup										
Aroclor 1016	0.497	0.0500	mg/kg wet	0.5000		99	40-140	5	50	
Aroclor 1260	0.450	0.0500	mg/kg wet	0.5000		90	40-140	4	50	
Surrogate: Decachlorobiphenyl	0.0248		mg/kg wet	0.02500		99	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.0253		mg/kg wet	0.02500		101	30-150			
Surrogate: Tetrachloro-m-xylene	0.0208		mg/kg wet	0.02500		83	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.0216		mg/kg wet	0.02500		86	30-150			
Matrix Spike Source: 0809062-04										
Aroclor 1016	0.427	0.0523	mg/kg dry	0.5233	ND	82	40-140			
Aroclor 1260	0.413	0.0523	mg/kg dry	0.5233	ND	79	40-140			



ESS Laboratory

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Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8082 Polychlorinated Biphenyls (PCB)

Batch B180507 - 3541

Surrogate: Decachlorobiphenyl	0.0218		mg/kg dry	0.02617		83	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.0231		mg/kg dry	0.02617		88	30-150			
Surrogate: Tetrachloro-m-xylene	0.0183		mg/kg dry	0.02617		70	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.0195		mg/kg dry	0.02617		75	30-150			

Matrix Spike Dup Source: 0809062-04

Aroclor 1016	0.397	0.0503	mg/kg dry	0.5029	ND	79	40-140	7	50	
Aroclor 1260	0.381	0.0503	mg/kg dry	0.5029	ND	76	40-140	8	50	

Surrogate: Decachlorobiphenyl	0.0198		mg/kg dry	0.02514		79	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.0211		mg/kg dry	0.02514		84	30-150			
Surrogate: Tetrachloro-m-xylene	0.0166		mg/kg dry	0.02514		66	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.0178		mg/kg dry	0.02514		71	30-150			

8100M Total Petroleum Hydrocarbons

Batch B180522 - 3546

Blank

Decane (C10)	ND	0.25	mg/kg wet							
Docosane (C22)	ND	0.25	mg/kg wet							
Dodecane (C12)	ND	0.25	mg/kg wet							
Eicosane (C20)	ND	0.25	mg/kg wet							
Hexacosane (C26)	ND	0.25	mg/kg wet							
Hexadecane (C16)	ND	0.25	mg/kg wet							
Nonadecane (C19)	ND	0.25	mg/kg wet							
Nonane (C9)	ND	0.25	mg/kg wet							
Octacosane (C28)	ND	0.25	mg/kg wet							
Octadecane (C18)	ND	0.25	mg/kg wet							
Tetracosane (C24)	ND	0.25	mg/kg wet							
Tetradecane (C14)	ND	0.25	mg/kg wet							
Total Petroleum Hydrocarbons	ND	37.5	mg/kg wet							
Triacontane (C30)	ND	0.25	mg/kg wet							

Surrogate: O-Terphenyl	4.39		mg/kg wet	5.000		88	40-140			
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LCS

Decane (C10)	1.75	0.25	mg/kg wet	2.500		70	40-140			
Docosane (C22)	1.95	0.25	mg/kg wet	2.500		78	40-140			
Dodecane (C12)	1.84	0.25	mg/kg wet	2.500		74	40-140			
Eicosane (C20)	1.97	0.25	mg/kg wet	2.500		79	40-140			
Hexacosane (C26)	1.94	0.25	mg/kg wet	2.500		78	40-140			
Hexadecane (C16)	1.92	0.25	mg/kg wet	2.500		77	40-140			
Hexatriacontane (C36)	1.81	0.25	mg/kg wet	2.500		72	40-140			
Nonadecane (C19)	1.98	0.25	mg/kg wet	2.500		79	40-140			
Nonane (C9)	1.52	0.25	mg/kg wet	2.500		61	30-140			
Octacosane (C28)	1.99	0.25	mg/kg wet	2.500		79	40-140			
Octadecane (C18)	1.95	0.25	mg/kg wet	2.500		78	40-140			
Tetracosane (C24)	1.99	0.25	mg/kg wet	2.500		80	40-140			



ESS Laboratory

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Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8100M Total Petroleum Hydrocarbons										
Batch B180522 - 3546										
Tetradecane (C14)	1.90	0.25	mg/kg wet	2.500		76	40-140			
Triacontane (C30)	1.83	0.25	mg/kg wet	2.500		73	40-140			
<i>Surrogate: O-Terphenyl</i>	<i>3.95</i>		mg/kg wet	<i>5.000</i>		<i>79</i>	<i>40-140</i>			
LCS Dup										
Decane (C10)	1.69	0.25	mg/kg wet	2.500		68	40-140	3	50	
Docosane (C22)	1.88	0.25	mg/kg wet	2.500		75	40-140	4	50	
Dodecane (C12)	1.77	0.25	mg/kg wet	2.500		71	40-140	4	50	
Eicosane (C20)	1.90	0.25	mg/kg wet	2.500		76	40-140	4	50	
Hexacosane (C26)	1.86	0.25	mg/kg wet	2.500		74	40-140	4	50	
Hexadecane (C16)	1.84	0.25	mg/kg wet	2.500		74	40-140	4	50	
Nonadecane (C19)	1.90	0.25	mg/kg wet	2.500		76	40-140	4	50	
Nonane (C9)	1.44	0.25	mg/kg wet	2.500		58	30-140	5	50	
Octacosane (C28)	1.90	0.25	mg/kg wet	2.500		76	40-140	4	50	
Octadecane (C18)	1.88	0.25	mg/kg wet	2.500		75	40-140	4	50	
Tetracosane (C24)	1.91	0.25	mg/kg wet	2.500		76	40-140	4	50	
Tetradecane (C14)	1.82	0.25	mg/kg wet	2.500		73	40-140	4	50	
Triacontane (C30)	1.74	0.25	mg/kg wet	2.500		70	40-140	5	50	
<i>Surrogate: O-Terphenyl</i>	<i>3.66</i>		mg/kg wet	<i>5.000</i>		<i>73</i>	<i>40-140</i>			
Matrix Spike Source: 0809062-03										
Decane (C10)	1.48	0.26	mg/kg dry	2.564	ND	58	40-140			
Docosane (C22)	1.71	0.26	mg/kg dry	2.564	ND	67	40-140			
Dodecane (C12)	1.52	0.26	mg/kg dry	2.564	ND	59	40-140			
Eicosane (C20)	1.70	0.26	mg/kg dry	2.564	ND	66	40-140			
Hexacosane (C26)	1.63	0.26	mg/kg dry	2.564	ND	64	40-140			
Hexadecane (C16)	1.69	0.26	mg/kg dry	2.564	ND	66	40-140			
Hexatriacontane (C36)	1.52	0.26	mg/kg dry	2.564	ND	59	40-140			
Nonadecane (C19)	1.71	0.26	mg/kg dry	2.564	ND	67	40-140			
Nonane (C9)	1.24	0.26	mg/kg dry	2.564	ND	48	30-140			
Octacosane (C28)	1.78	0.26	mg/kg dry	2.564	ND	69	40-140			
Octadecane (C18)	1.73	0.26	mg/kg dry	2.564	ND	68	40-140			
Tetracosane (C24)	1.72	0.26	mg/kg dry	2.564	ND	67	40-140			
Tetradecane (C14)	1.58	0.26	mg/kg dry	2.564	ND	61	40-140			
Triacontane (C30)	1.57	0.26	mg/kg dry	2.564	ND	61	40-140			
<i>Surrogate: O-Terphenyl</i>	<i>3.30</i>		mg/kg dry	<i>5.129</i>		<i>64</i>	<i>40-140</i>			
Matrix Spike Dup Source: 0809062-03										
Decane (C10)	1.35	0.25	mg/kg dry	2.514	ND	54	40-140	9	50	
Docosane (C22)	1.66	0.25	mg/kg dry	2.514	ND	66	40-140	3	50	
Dodecane (C12)	1.45	0.25	mg/kg dry	2.514	ND	58	40-140	5	50	
Eicosane (C20)	1.64	0.25	mg/kg dry	2.514	ND	65	40-140	4	50	
Hexacosane (C26)	1.60	0.25	mg/kg dry	2.514	ND	64	40-140	2	50	
Hexadecane (C16)	1.56	0.25	mg/kg dry	2.514	ND	62	40-140	8	50	
Nonadecane (C19)	1.63	0.25	mg/kg dry	2.514	ND	65	40-140	5	50	
Nonane (C9)	1.13	0.25	mg/kg dry	2.514	ND	45	30-140	9	50	



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809062

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8100M Total Petroleum Hydrocarbons

Batch BI80522 - 3546

Octacosane (C28)	1.71	0.25	mg/kg dry	2.514	ND	68	40-140	4	50	
Octadecane (C18)	1.62	0.25	mg/kg dry	2.514	ND	65	40-140	7	50	
Tetracosane (C24)	1.67	0.25	mg/kg dry	2.514	ND	67	40-140	3	50	
Tetradecane (C14)	1.48	0.25	mg/kg dry	2.514	ND	59	40-140	6	50	
Triacontane (C30)	1.53	0.25	mg/kg dry	2.514	ND	61	40-140	3	50	

Surrogate: O-Terphenyl 3.16 mg/kg dry 5.029 63 40-140

8270C Semi-Volatile Organic Compounds

Batch BI80521 - 3546

Blank										
1,1-Biphenyl	ND	0.333	mg/kg wet							
1,2,4-Trichlorobenzene	ND	0.333	mg/kg wet							
1,2-Dichlorobenzene	ND	0.333	mg/kg wet							
1,3-Dichlorobenzene	ND	0.333	mg/kg wet							
1,4-Dichlorobenzene	ND	0.333	mg/kg wet							
2,3,4,6-Tetrachlorophenol	ND	1.67	mg/kg wet							
2,4,5-Trichlorophenol	ND	0.333	mg/kg wet							
2,4,6-Trichlorophenol	ND	0.333	mg/kg wet							
2,4-Dichlorophenol	ND	0.333	mg/kg wet							
2,4-Dimethylphenol	ND	0.333	mg/kg wet							
2,4-Dinitrophenol	ND	1.67	mg/kg wet							
2,4-Dinitrotoluene	ND	0.333	mg/kg wet							
2,6-Dinitrotoluene	ND	0.333	mg/kg wet							
2-Chloronaphthalene	ND	0.333	mg/kg wet							
2-Chlorophenol	ND	0.333	mg/kg wet							
2-Methylnaphthalene	ND	0.333	mg/kg wet							
2-Methylphenol	ND	0.333	mg/kg wet							
2-Nitroaniline	ND	0.333	mg/kg wet							
2-Nitrophenol	ND	0.333	mg/kg wet							
3,3'-Dichlorobenzidine	ND	0.667	mg/kg wet							
3+4-Methylphenol	ND	0.667	mg/kg wet							
3-Nitroaniline	ND	0.333	mg/kg wet							
4,6-Dinitro-2-Methylphenol	ND	1.67	mg/kg wet							
4-Bromophenyl-phenylether	ND	0.333	mg/kg wet							
4-Chloro-3-Methylphenol	ND	0.333	mg/kg wet							
4-Chloroaniline	ND	0.667	mg/kg wet							
4-Chloro-phenyl-phenyl ether	ND	0.333	mg/kg wet							
4-Nitroaniline	ND	0.333	mg/kg wet							
4-Nitrophenol	ND	1.67	mg/kg wet							
Acenaphthene	ND	0.333	mg/kg wet							
Acenaphthylene	ND	0.333	mg/kg wet							
Acetophenone	ND	0.667	mg/kg wet							
Aniline	ND	0.667	mg/kg wet							
Anthracene	ND	0.333	mg/kg wet							
Azobenzene	ND	0.333	mg/kg wet							



ESS Laboratory

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Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809062

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

Batch BI80521 - 3546

Benzo(a)anthracene	ND	0.333	mg/kg wet							
Benzo(a)pyrene	ND	0.167	mg/kg wet							
Benzo(b)fluoranthene	ND	0.333	mg/kg wet							
Benzo(g,h,i)perylene	ND	0.333	mg/kg wet							
Benzo(k)fluoranthene	ND	0.333	mg/kg wet							
Benzoic Acid	ND	1.67	mg/kg wet							
Benzyl Alcohol	ND	0.333	mg/kg wet							
bis(2-Chloroethoxy)methane	ND	0.333	mg/kg wet							
bis(2-Chloroethyl)ether	ND	0.333	mg/kg wet							
bis(2-chloroisopropyl)Ether	ND	0.333	mg/kg wet							
bis(2-Ethylhexyl)phthalate	ND	0.333	mg/kg wet							
Butylbenzylphthalate	ND	0.333	mg/kg wet							
Carbazole	ND	0.333	mg/kg wet							
Chrysene	ND	0.167	mg/kg wet							
Dibenzo(a,h)Anthracene	ND	0.167	mg/kg wet							
Dibenzofuran	ND	0.333	mg/kg wet							
Diethylphthalate	ND	0.333	mg/kg wet							
Dimethylphthalate	ND	0.333	mg/kg wet							
Di-n-butylphthalate	ND	0.333	mg/kg wet							
Di-n-octylphthalate	ND	0.333	mg/kg wet							
Fluoranthene	ND	0.333	mg/kg wet							
Fluorene	ND	0.333	mg/kg wet							
Hexachlorobenzene	ND	0.167	mg/kg wet							
Hexachlorobutadiene	ND	0.333	mg/kg wet							
Hexachlorocyclopentadiene	ND	1.67	mg/kg wet							
Hexachloroethane	ND	0.333	mg/kg wet							
Indeno(1,2,3-cd)Pyrene	ND	0.333	mg/kg wet							
Isophorone	ND	0.333	mg/kg wet							
Naphthalene	ND	0.333	mg/kg wet							
Nitrobenzene	ND	0.333	mg/kg wet							
N-Nitrosodimethylamine	ND	0.333	mg/kg wet							
N-Nitroso-Di-n-Propylamine	ND	0.333	mg/kg wet							
N-nitrosodiphenylamine	ND	0.333	mg/kg wet							
Pentachlorophenol	ND	1.67	mg/kg wet							
Phenanthrene	ND	0.333	mg/kg wet							
Phenol	ND	0.333	mg/kg wet							
Pyrene	ND	0.333	mg/kg wet							
Pyridine	ND	1.67	mg/kg wet							
Surrogate: 1,2-Dichlorobenzene-d4	2.35		mg/kg wet	3.333		70	30-130			
Surrogate: 2,4,6-Tribromophenol	4.36		mg/kg wet	5.000		87	30-130			
Surrogate: 2-Chlorophenol-d4	3.40		mg/kg wet	5.000		68	30-130			
Surrogate: 2-Fluorobiphenyl	2.36		mg/kg wet	3.333		71	30-130			
Surrogate: 2-Fluorophenol	3.26		mg/kg wet	5.000		65	30-130			
Surrogate: Nitrobenzene-d5	2.68		mg/kg wet	3.333		80	30-130			
Surrogate: Phenol-d6	3.65		mg/kg wet	5.000		73	30-130			
Surrogate: p-Terphenyl-d14	2.47		mg/kg wet	3.333		74	30-130			



ESS Laboratory

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Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

Batch BI80521 - 3546

LCS

1,1-Biphenyl	2.68	0.333	mg/kg wet	3.333		80	40-140			
1,2,4-Trichlorobenzene	2.19	0.333	mg/kg wet	3.333		66	40-140			
1,2-Dichlorobenzene	2.11	0.333	mg/kg wet	3.333		63	40-140			
1,3-Dichlorobenzene	2.15	0.333	mg/kg wet	3.333		65	40-140			
1,4-Dichlorobenzene	2.18	0.333	mg/kg wet	3.333		65	40-140			
2,3,4,6-Tetrachlorophenol	2.80	1.67	mg/kg wet	3.333		84	30-130			
2,4,5-Trichlorophenol	2.58	0.333	mg/kg wet	3.333		77	30-130			
2,4,6-Trichlorophenol	2.51	0.333	mg/kg wet	3.333		75	30-130			
2,4-Dichlorophenol	2.32	0.333	mg/kg wet	3.333		70	30-130			
2,4-Dimethylphenol	2.15	0.333	mg/kg wet	3.333		65	30-130			
2,4-Dinitrophenol	2.58	1.67	mg/kg wet	3.333		77	30-130			
2,4-Dinitrotoluene	2.77	0.333	mg/kg wet	3.333		83	40-140			
2,6-Dinitrotoluene	2.61	0.333	mg/kg wet	3.333		78	40-140			
2-Chloronaphthalene	1.91	0.333	mg/kg wet	3.333		57	40-140			
2-Chlorophenol	2.10	0.333	mg/kg wet	3.333		63	30-130			
2-Methylnaphthalene	2.22	0.333	mg/kg wet	3.333		67	40-140			
2-Methylphenol	2.27	0.333	mg/kg wet	3.333		68	30-130			
2-Nitroaniline	2.64	0.333	mg/kg wet	3.333		79	40-140			
2-Nitrophenol	2.25	0.333	mg/kg wet	3.333		67	30-130			
3,3'-Dichlorobenzidine	2.22	0.667	mg/kg wet	3.333		67	40-140			
3+4-Methylphenol	3.82	0.667	mg/kg wet	6.667		57	30-130			
3-Nitroaniline	2.57	0.333	mg/kg wet	3.333		77	40-140			
4,6-Dinitro-2-Methylphenol	3.10	1.67	mg/kg wet	3.333		93	30-130			
4-Bromophenyl-phenylether	2.45	0.333	mg/kg wet	3.333		73	40-140			
4-Chloro-3-Methylphenol	2.48	0.333	mg/kg wet	3.333		74	30-130			
4-Chloroaniline	1.81	0.667	mg/kg wet	3.333		54	40-140			
4-Chloro-phenyl-phenyl ether	2.49	0.333	mg/kg wet	3.333		75	40-140			
4-Nitroaniline	2.84	0.333	mg/kg wet	3.333		85	40-140			
4-Nitrophenol	3.30	1.67	mg/kg wet	3.333		99	30-130			
Acenaphthene	2.30	0.333	mg/kg wet	3.333		69	40-140			
Acenaphthylene	2.27	0.333	mg/kg wet	3.333		68	40-140			
Acetophenone	2.40	0.667	mg/kg wet	3.333		72	40-140			
Aniline	1.69	0.667	mg/kg wet	3.333		51	40-140			
Anthracene	2.43	0.333	mg/kg wet	3.333		73	40-140			
Azobenzene	2.42	0.333	mg/kg wet	3.333		73	40-140			
Benzo(a)anthracene	2.23	0.333	mg/kg wet	3.333		67	40-140			
Benzo(a)pyrene	2.79	0.167	mg/kg wet	3.333		84	40-140			
Benzo(b)fluoranthene	3.02	0.333	mg/kg wet	3.333		90	40-140			
Benzo(g,h,i)perylene	2.76	0.333	mg/kg wet	3.333		83	40-140			
Benzo(k)fluoranthene	2.69	0.333	mg/kg wet	3.333		81	40-140			
Benzoic Acid	1.77	1.67	mg/kg wet	3.333		53	40-140			
Benzyl Alcohol	2.32	0.333	mg/kg wet	3.333		69	40-140			
bis(2-Chloroethoxy)methane	2.15	0.333	mg/kg wet	3.333		65	40-140			
bis(2-Chloroethyl)ether	2.50	0.333	mg/kg wet	3.333		75	40-140			
bis(2-chloroisopropyl)Ether	1.99	0.333	mg/kg wet	3.333		60	40-140			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809062

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8270C Semi-Volatile Organic Compounds										
Batch BI80521 - 3546										
bis(2-Ethylhexyl)phthalate	2.27	0.333	mg/kg wet	3.333		68	40-140			
Butylbenzylphthalate	2.15	0.333	mg/kg wet	3.333		65	40-140			
Carbazole	2.52	0.333	mg/kg wet	3.333		76	40-140			
Chrysene	2.18	0.167	mg/kg wet	3.333		65	40-140			
Dibenzo(a,h)Anthracene	2.57	0.167	mg/kg wet	3.333		77	40-140			
Dibenzofuran	2.22	0.333	mg/kg wet	3.333		67	40-140			
Diethylphthalate	2.50	0.333	mg/kg wet	3.333		75	40-140			
Dimethylphthalate	2.47	0.333	mg/kg wet	3.333		74	40-140			
Di-n-butylphthalate	2.41	0.333	mg/kg wet	3.333		72	40-140			
Di-n-octylphthalate	2.68	0.333	mg/kg wet	3.333		80	40-140			
Fluoranthene	2.53	0.333	mg/kg wet	3.333		76	40-140			
Fluorene	2.26	0.333	mg/kg wet	3.333		68	40-140			
Hexachlorobenzene	2.48	0.167	mg/kg wet	3.333		74	40-140			
Hexachlorobutadiene	2.24	0.333	mg/kg wet	3.333		67	40-140			
Hexachlorocyclopentadiene	2.61	1.67	mg/kg wet	3.333		78	40-140			
Hexachloroethane	2.32	0.333	mg/kg wet	3.333		69	40-140			
Indeno(1,2,3-cd)Pyrene	2.79	0.333	mg/kg wet	3.333		84	40-140			
Isophorone	2.20	0.333	mg/kg wet	3.333		66	40-140			
Naphthalene	2.43	0.333	mg/kg wet	3.333		73	40-140			
Nitrobenzene	2.06	0.333	mg/kg wet	3.333		62	40-140			
N-Nitrosodimethylamine	2.20	0.333	mg/kg wet	3.333		66	40-140			
N-Nitroso-Di-n-Propylamine	1.91	0.333	mg/kg wet	3.333		57	40-140			
N-nitrosodiphenylamine	2.87	0.333	mg/kg wet	3.333		86	40-140			
Pentachlorophenol	2.84	1.67	mg/kg wet	3.333		85	30-130			
Phenanthrene	2.24	0.333	mg/kg wet	3.333		67	40-140			
Phenol	2.00	0.333	mg/kg wet	3.333		60	30-130			
Pyrene	2.23	0.333	mg/kg wet	3.333		67	40-140			
Pyridine	1.86	1.67	mg/kg wet	3.333		56	40-140			
Surrogate: 1,2-Dichlorobenzene-d4	2.20		mg/kg wet	3.333		66	30-130			
Surrogate: 2,4,6-Tribromophenol	4.19		mg/kg wet	5.000		84	30-130			
Surrogate: 2-Chlorophenol-d4	3.26		mg/kg wet	5.000		65	30-130			
Surrogate: 2-Fluorobiphenyl	2.23		mg/kg wet	3.333		67	30-130			
Surrogate: 2-Fluorophenol	3.14		mg/kg wet	5.000		63	30-130			
Surrogate: Nitrobenzene-d5	2.28		mg/kg wet	3.333		68	30-130			
Surrogate: Phenol-d6	2.94		mg/kg wet	5.000		59	30-130			
Surrogate: p-Terphenyl-d14	2.26		mg/kg wet	3.333		68	30-130			
LCS Dup										
1,1-Biphenyl	2.73	0.333	mg/kg wet	3.333		82	40-140	2	30	
1,2,4-Trichlorobenzene	2.46	0.333	mg/kg wet	3.333		74	40-140	12	30	
1,2-Dichlorobenzene	2.45	0.333	mg/kg wet	3.333		73	40-140	15	30	
1,3-Dichlorobenzene	2.37	0.333	mg/kg wet	3.333		71	40-140	10	30	
1,4-Dichlorobenzene	2.45	0.333	mg/kg wet	3.333		73	40-140	12	30	
2,3,4,6-Tetrachlorophenol	2.79	1.67	mg/kg wet	3.333		84	30-130	0.5	30	
2,4,5-Trichlorophenol	2.66	0.333	mg/kg wet	3.333		80	30-130	3	30	
2,4,6-Trichlorophenol	2.63	0.333	mg/kg wet	3.333		79	30-130	5	30	
2,4-Dichlorophenol	2.64	0.333	mg/kg wet	3.333		79	30-130	13	30	



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809062

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

Batch B180521 - 3546

2,4-Dimethylphenol	2.42	0.333	mg/kg wet	3.333		73	30-130	12	30	
2,4-Dinitrophenol	2.57	1.67	mg/kg wet	3.333		77	30-130	0.5	30	
2,4-Dinitrotoluene	2.70	0.333	mg/kg wet	3.333		81	40-140	2	30	
2,6-Dinitrotoluene	2.66	0.333	mg/kg wet	3.333		80	40-140	2	30	
2-Chloronaphthalene	1.95	0.333	mg/kg wet	3.333		58	40-140	2	30	
2-Chlorophenol	2.39	0.333	mg/kg wet	3.333		72	30-130	13	30	
2-Methylnaphthalene	2.53	0.333	mg/kg wet	3.333		76	40-140	13	30	
2-Methylphenol	2.49	0.333	mg/kg wet	3.333		75	30-130	9	30	
2-Nitroaniline	2.78	0.333	mg/kg wet	3.333		83	40-140	5	30	
2-Nitrophenol	2.67	0.333	mg/kg wet	3.333		80	30-130	17	30	
3,3'-Dichlorobenzidine	2.27	0.667	mg/kg wet	3.333		68	40-140	2	30	
3+4-Methylphenol	4.21	0.667	mg/kg wet	6.667		63	30-130	10	30	
3-Nitroaniline	2.65	0.333	mg/kg wet	3.333		79	40-140	3	30	
4,6-Dinitro-2-Methylphenol	3.02	1.67	mg/kg wet	3.333		91	30-130	3	30	
4-Bromophenyl-phenylether	2.62	0.333	mg/kg wet	3.333		79	40-140	7	30	
4-Chloro-3-Methylphenol	2.69	0.333	mg/kg wet	3.333		81	30-130	8	30	
4-Chloroaniline	2.05	0.667	mg/kg wet	3.333		61	40-140	12	30	
4-Chloro-phenyl-phenyl ether	2.54	0.333	mg/kg wet	3.333		76	40-140	2	30	
4-Nitroaniline	2.84	0.333	mg/kg wet	3.333		85	40-140	0.2	30	
4-Nitrophenol	2.86	1.67	mg/kg wet	3.333		86	30-130	14	30	
Acenaphthene	2.46	0.333	mg/kg wet	3.333		74	40-140	7	30	
Acenaphthylene	2.40	0.333	mg/kg wet	3.333		72	40-140	6	30	
Acetophenone	2.68	0.667	mg/kg wet	3.333		80	40-140	11	30	
Aniline	1.68	0.667	mg/kg wet	3.333		50	40-140	0.6	30	
Anthracene	2.41	0.333	mg/kg wet	3.333		72	40-140	0.6	30	
Azobenzene	2.44	0.333	mg/kg wet	3.333		73	40-140	0.8	30	
Benzo(a)anthracene	2.23	0.333	mg/kg wet	3.333		67	40-140	0.3	30	
Benzo(a)pyrene	2.76	0.167	mg/kg wet	3.333		83	40-140	1	30	
Benzo(b)fluoranthene	2.96	0.333	mg/kg wet	3.333		89	40-140	2	30	
Benzo(g,h,i)perylene	2.62	0.333	mg/kg wet	3.333		79	40-140	5	30	
Benzo(k)fluoranthene	2.48	0.333	mg/kg wet	3.333		74	40-140	8	30	
Benzoic Acid	1.94	1.67	mg/kg wet	3.333		58	40-140	9	30	
Benzyl Alcohol	2.58	0.333	mg/kg wet	3.333		77	40-140	11	30	
bis(2-Chloroethoxy)methane	2.49	0.333	mg/kg wet	3.333		75	40-140	15	30	
bis(2-Chloroethyl)ether	2.84	0.333	mg/kg wet	3.333		85	40-140	13	30	
bis(2-chloroisopropyl)Ether	2.12	0.333	mg/kg wet	3.333		64	40-140	6	30	
bis(2-Ethylhexyl)phthalate	2.19	0.333	mg/kg wet	3.333		66	40-140	4	30	
Butylbenzylphthalate	2.13	0.333	mg/kg wet	3.333		64	40-140	0.8	30	
Carbazole	2.57	0.333	mg/kg wet	3.333		77	40-140	2	30	
Chrysene	2.18	0.167	mg/kg wet	3.333		65	40-140	0.2	30	
Dibenzo(a,h)Anthracene	2.56	0.167	mg/kg wet	3.333		77	40-140	0.6	30	
Dibenzofuran	2.28	0.333	mg/kg wet	3.333		68	40-140	3	30	
Diethylphthalate	2.45	0.333	mg/kg wet	3.333		74	40-140	2	30	
Dimethylphthalate	2.55	0.333	mg/kg wet	3.333		76	40-140	3	30	
Di-n-butylphthalate	2.39	0.333	mg/kg wet	3.333		72	40-140	0.8	30	
Di-n-octylphthalate	2.62	0.333	mg/kg wet	3.333		79	40-140	2	30	



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809062

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

Batch B180521 - 3546

Fluoranthene	2.52	0.333	mg/kg wet	3.333		76	40-140	0.4	30	
Fluorene	2.33	0.333	mg/kg wet	3.333		70	40-140	3	30	
Hexachlorobenzene	2.60	0.167	mg/kg wet	3.333		78	40-140	5	30	
Hexachlorobutadiene	2.50	0.333	mg/kg wet	3.333		75	40-140	11	30	
Hexachlorocyclopentadiene	2.84	1.67	mg/kg wet	3.333		85	40-140	8	30	
Hexachloroethane	2.51	0.333	mg/kg wet	3.333		75	40-140	8	30	
Indeno(1,2,3-cd)Pyrene	2.69	0.333	mg/kg wet	3.333		81	40-140	3	30	
Isophorone	2.45	0.333	mg/kg wet	3.333		74	40-140	11	30	
Naphthalene	2.58	0.333	mg/kg wet	3.333		77	40-140	6	30	
Nitrobenzene	2.33	0.333	mg/kg wet	3.333		70	40-140	12	30	
N-Nitrosodimethylamine	2.42	0.333	mg/kg wet	3.333		73	40-140	9	30	
N-Nitroso-Di-n-Propylamine	2.05	0.333	mg/kg wet	3.333		61	40-140	7	30	
N-nitrosodiphenylamine	2.83	0.333	mg/kg wet	3.333		85	40-140	1	30	
Pentachlorophenol	2.88	1.67	mg/kg wet	3.333		86	30-130	1	30	
Phenanthrene	2.30	0.333	mg/kg wet	3.333		69	40-140	3	30	
Phenol	2.23	0.333	mg/kg wet	3.333		67	30-130	11	30	
Pyrene	2.14	0.333	mg/kg wet	3.333		64	40-140	4	30	
Pyridine	2.09	1.67	mg/kg wet	3.333		63	40-140	11	30	
Surrogate: 1,2-Dichlorobenzene-d4	2.57		mg/kg wet	3.333		77	30-130			
Surrogate: 2,4,6-Tribromophenol	4.62		mg/kg wet	5.000		92	30-130			
Surrogate: 2-Chlorophenol-d4	3.86		mg/kg wet	5.000		77	30-130			
Surrogate: 2-Fluorobiphenyl	2.53		mg/kg wet	3.333		76	30-130			
Surrogate: 2-Fluorophenol	3.91		mg/kg wet	5.000		78	30-130			
Surrogate: Nitrobenzene-d5	2.72		mg/kg wet	3.333		82	30-130			
Surrogate: Phenol-d6	3.26		mg/kg wet	5.000		65	30-130			
Surrogate: p-Terphenyl-d14	2.41		mg/kg wet	3.333		72	30-130			

Matrix Spike Source: 0809062-03

1,1-Biphenyl	2.40	0.341	mg/kg dry	3.414	ND	70	40-140			
1,2,4-Trichlorobenzene	1.83	0.341	mg/kg dry	3.414	ND	54	40-140			
1,2-Dichlorobenzene	1.82	0.341	mg/kg dry	3.414	ND	53	40-140			
1,3-Dichlorobenzene	1.78	0.341	mg/kg dry	3.414	ND	52	40-140			
1,4-Dichlorobenzene	1.72	0.341	mg/kg dry	3.414	ND	50	40-140			
2,3,4,6-Tetrachlorophenol	2.68	1.71	mg/kg dry	3.414	ND	78	30-130			
2,4,5-Trichlorophenol	2.37	0.341	mg/kg dry	3.414	ND	69	30-130			
2,4,6-Trichlorophenol	2.39	0.341	mg/kg dry	3.414	ND	70	30-130			
2,4-Dichlorophenol	2.08	0.341	mg/kg dry	3.414	ND	61	30-130			
2,4-Dimethylphenol	1.95	0.341	mg/kg dry	3.414	ND	57	30-130			
2,4-Dinitrophenol	1.96	1.71	mg/kg dry	3.414	ND	57	30-130			
2,4-Dinitrotoluene	2.67	0.341	mg/kg dry	3.414	ND	78	40-140			
2,6-Dinitrotoluene	2.37	0.341	mg/kg dry	3.414	ND	69	40-140			
2-Chloronaphthalene	1.74	0.341	mg/kg dry	3.414	ND	51	40-140			
2-Chlorophenol	1.72	0.341	mg/kg dry	3.414	ND	50	30-130			
2-Methylnaphthalene	1.93	0.341	mg/kg dry	3.414	ND	57	40-140			
2-Methylphenol	2.00	0.341	mg/kg dry	3.414	ND	59	30-130			
2-Nitroaniline	2.47	0.341	mg/kg dry	3.414	ND	72	40-140			
2-Nitrophenol	1.94	0.341	mg/kg dry	3.414	ND	57	30-130			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809062

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8270C Semi-Volatile Organic Compounds										
Batch B180521 - 3546										
3,3'-Dichlorobenzidine	2.28	0.683	mg/kg dry	3.414	ND	67	40-140			
3+4-Methylphenol	3.29	0.683	mg/kg dry	6.827	ND	48	30-130			
3-Nitroaniline	2.49	0.341	mg/kg dry	3.414	ND	73	40-140			
4,6-Dinitro-2-Methylphenol	2.82	1.71	mg/kg dry	3.414	ND	83	30-130			
4-Bromophenyl-phenylether	2.40	0.341	mg/kg dry	3.414	ND	70	40-140			
4-Chloro-3-Methylphenol	2.37	0.341	mg/kg dry	3.414	ND	70	30-130			
4-Chloroaniline	1.66	0.683	mg/kg dry	3.414	ND	49	40-140			
4-Chloro-phenyl-phenyl ether	2.27	0.341	mg/kg dry	3.414	ND	66	40-140			
4-Nitroaniline	2.70	0.341	mg/kg dry	3.414	ND	79	40-140			
4-Nitrophenol	3.09	1.71	mg/kg dry	3.414	ND	90	30-130			
Acenaphthene	2.19	0.341	mg/kg dry	3.414	ND	64	40-140			
Acenaphthylene	2.07	0.341	mg/kg dry	3.414	ND	61	40-140			
Acetophenone	1.82	0.683	mg/kg dry	3.414	ND	53	40-140			
Aniline	1.32	0.683	mg/kg dry	3.414	ND	39	40-140			M-
Anthracene	2.32	0.341	mg/kg dry	3.414	ND	68	40-140			
Azobenzene	2.28	0.341	mg/kg dry	3.414	ND	67	40-140			
Benzo(a)anthracene	2.20	0.341	mg/kg dry	3.414	ND	64	40-140			
Benzo(a)pyrene	2.66	0.171	mg/kg dry	3.414	ND	78	40-140			
Benzo(b)fluoranthene	2.74	0.341	mg/kg dry	3.414	ND	80	40-140			
Benzo(g,h,i)perylene	2.62	0.341	mg/kg dry	3.414	ND	77	40-140			
Benzo(k)fluoranthene	2.77	0.341	mg/kg dry	3.414	ND	81	40-140			
Benzoic Acid	0.360	1.71	mg/kg dry	3.414	ND	11	40-140			M-
Benzyl Alcohol	1.99	0.341	mg/kg dry	3.414	ND	58	40-140			
bis(2-Chloroethoxy)methane	1.93	0.341	mg/kg dry	3.414	ND	57	40-140			
bis(2-Chloroethyl)ether	2.04	0.341	mg/kg dry	3.414	ND	60	40-140			
bis(2-chloroisopropyl)Ether	1.70	0.341	mg/kg dry	3.414	ND	50	40-140			
bis(2-Ethylhexyl)phthalate	2.24	0.341	mg/kg dry	3.414	ND	66	40-140			
Butylbenzylphthalate	2.13	0.341	mg/kg dry	3.414	ND	62	40-140			
Carbazole	2.45	0.341	mg/kg dry	3.414	ND	72	40-140			
Chrysene	2.18	0.171	mg/kg dry	3.414	ND	64	40-140			
Dibenzo(a,h)Anthracene	2.50	0.171	mg/kg dry	3.414	ND	73	40-140			
Dibenzofuran	2.12	0.341	mg/kg dry	3.414	ND	62	40-140			
Diethylphthalate	2.34	0.341	mg/kg dry	3.414	ND	69	40-140			
Dimethylphthalate	2.27	0.341	mg/kg dry	3.414	ND	66	40-140			
Di-n-butylphthalate	2.29	0.341	mg/kg dry	3.414	ND	67	40-140			
Di-n-octylphthalate	2.51	0.341	mg/kg dry	3.414	ND	74	40-140			
Fluoranthene	2.50	0.341	mg/kg dry	3.414	ND	73	40-140			
Fluorene	2.17	0.341	mg/kg dry	3.414	ND	63	40-140			
Hexachlorobenzene	2.41	0.171	mg/kg dry	3.414	ND	71	40-140			
Hexachlorobutadiene	1.89	0.341	mg/kg dry	3.414	ND	55	40-140			
Hexachlorocyclopentadiene	2.10	1.71	mg/kg dry	3.414	ND	61	40-140			
Hexachloroethane	1.82	0.341	mg/kg dry	3.414	ND	53	40-140			
Indeno(1,2,3-cd)Pyrene	2.66	0.341	mg/kg dry	3.414	ND	78	40-140			
Isophorone	1.95	0.341	mg/kg dry	3.414	ND	57	40-140			
Naphthalene	2.09	0.341	mg/kg dry	3.414	ND	61	40-140			
Nitrobenzene	1.83	0.341	mg/kg dry	3.414	ND	54	40-140			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809062

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8270C Semi-Volatile Organic Compounds										
Batch BI80521 - 3546										
N-Nitrosodimethylamine	1.62	0.341	mg/kg dry	3.414	ND	47	40-140			
N-Nitroso-Di-n-Propylamine	1.59	0.341	mg/kg dry	3.414	ND	47	40-140			
N-nitrosodiphenylamine	2.66	0.341	mg/kg dry	3.414	ND	78	40-140			
Pentachlorophenol	2.56	1.71	mg/kg dry	3.414	ND	75	30-130			
Phenanthrene	2.16	0.341	mg/kg dry	3.414	ND	63	40-140			
Phenol	2.03	0.341	mg/kg dry	3.414	ND	60	30-130			
Pyrene	2.14	0.341	mg/kg dry	3.414	ND	63	40-140			
Pyridine	1.30	1.71	mg/kg dry	3.414	ND	38	40-140			M-
Surrogate: 1,2-Dichlorobenzene-d4	1.82		mg/kg dry	3.414		53	30-130			
Surrogate: 2,4,6-Tribromophenol	4.19		mg/kg dry	5.121		82	30-130			
Surrogate: 2-Chlorophenol-d4	2.68		mg/kg dry	5.121		52	30-130			
Surrogate: 2-Fluorobiphenyl	2.07		mg/kg dry	3.414		61	30-130			
Surrogate: 2-Fluorophenol	2.56		mg/kg dry	5.121		50	30-130			
Surrogate: Nitrobenzene-d5	2.01		mg/kg dry	3.414		59	30-130			
Surrogate: Phenol-d6	2.73		mg/kg dry	5.121		53	30-130			
Surrogate: p-Terphenyl-d14	2.27		mg/kg dry	3.414		66	30-130			
Matrix Spike Dup Source: 0809062-03										
1,1-Biphenyl	2.35	0.337	mg/kg dry	3.369	ND	70	40-140	2	30	
1,2,4-Trichlorobenzene	1.91	0.337	mg/kg dry	3.369	ND	57	40-140	4	30	
1,2-Dichlorobenzene	1.77	0.337	mg/kg dry	3.369	ND	53	40-140	3	30	
1,3-Dichlorobenzene	1.71	0.337	mg/kg dry	3.369	ND	51	40-140	4	30	
1,4-Dichlorobenzene	1.78	0.337	mg/kg dry	3.369	ND	53	40-140	3	30	
2,3,4,6-Tetrachlorophenol	2.61	1.69	mg/kg dry	3.369	ND	77	30-130	3	30	
2,4,5-Trichlorophenol	2.25	0.337	mg/kg dry	3.369	ND	67	30-130	5	30	
2,4,6-Trichlorophenol	2.31	0.337	mg/kg dry	3.369	ND	68	30-130	4	30	
2,4-Dichlorophenol	2.21	0.337	mg/kg dry	3.369	ND	65	30-130	6	30	
2,4-Dimethylphenol	1.96	0.337	mg/kg dry	3.369	ND	58	30-130	0.7	30	
2,4-Dinitrophenol	2.01	1.69	mg/kg dry	3.369	ND	60	30-130	3	30	
2,4-Dinitrotoluene	2.62	0.337	mg/kg dry	3.369	ND	78	40-140	2	30	
2,6-Dinitrotoluene	2.27	0.337	mg/kg dry	3.369	ND	67	40-140	4	30	
2-Chloronaphthalene	1.69	0.337	mg/kg dry	3.369	ND	50	40-140	3	30	
2-Chlorophenol	1.68	0.337	mg/kg dry	3.369	ND	50	30-130	2	30	
2-Methylnaphthalene	2.00	0.337	mg/kg dry	3.369	ND	59	40-140	4	30	
2-Methylphenol	1.96	0.337	mg/kg dry	3.369	ND	58	30-130	2	30	
2-Nitroaniline	2.39	0.337	mg/kg dry	3.369	ND	71	40-140	3	30	
2-Nitrophenol	2.05	0.337	mg/kg dry	3.369	ND	61	30-130	5	30	
3,3'-Dichlorobenzidine	2.25	0.674	mg/kg dry	3.369	ND	67	40-140	1	30	
3+4-Methylphenol	3.46	0.674	mg/kg dry	6.738	ND	51	30-130	5	30	
3-Nitroaniline	2.53	0.337	mg/kg dry	3.369	ND	75	40-140	2	30	
4,6-Dinitro-2-Methylphenol	2.82	1.69	mg/kg dry	3.369	ND	84	30-130	0.09	30	
4-Bromophenyl-phenylether	2.44	0.337	mg/kg dry	3.369	ND	72	40-140	2	30	
4-Chloro-3-Methylphenol	2.35	0.337	mg/kg dry	3.369	ND	70	30-130	1	30	
4-Chloroaniline	1.71	0.674	mg/kg dry	3.369	ND	51	40-140	3	30	
4-Chloro-phenyl-phenyl ether	2.21	0.337	mg/kg dry	3.369	ND	66	40-140	2	30	
4-Nitroaniline	2.79	0.337	mg/kg dry	3.369	ND	83	40-140	3	30	
4-Nitrophenol	3.05	1.69	mg/kg dry	3.369	ND	91	30-130	1	30	



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809062

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8270C Semi-Volatile Organic Compounds										
Batch B180521 - 3546										
Acenaphthene	2.06	0.337	mg/kg dry	3.369	ND	61	40-140	6	30	
Acenaphthylene	1.95	0.337	mg/kg dry	3.369	ND	58	40-140	6	30	
Acetophenone	1.94	0.674	mg/kg dry	3.369	ND	58	40-140	7	30	
Aniline	1.26	0.674	mg/kg dry	3.369	ND	37	40-140	5	30	M-
Anthracene	2.34	0.337	mg/kg dry	3.369	ND	69	40-140	0.7	30	
Azobenzene	2.22	0.337	mg/kg dry	3.369	ND	66	40-140	3	30	
Benzo(a)anthracene	2.24	0.337	mg/kg dry	3.369	ND	66	40-140	2	30	
Benzo(a)pyrene	2.70	0.169	mg/kg dry	3.369	ND	80	40-140	2	30	
Benzo(b)fluoranthene	2.86	0.337	mg/kg dry	3.369	ND	85	40-140	4	30	
Benzo(g,h,i)perylene	2.73	0.337	mg/kg dry	3.369	ND	81	40-140	4	30	
Benzo(k)fluoranthene	2.88	0.337	mg/kg dry	3.369	ND	86	40-140	4	30	
Benzoic Acid	0.542	1.69	mg/kg dry	3.369	ND	16	40-140	40	30	D+, M-
Benzyl Alcohol	2.00	0.337	mg/kg dry	3.369	ND	59	40-140	0.6	30	
bis(2-Chloroethoxy)methane	1.94	0.337	mg/kg dry	3.369	ND	57	40-140	0.09	30	
bis(2-Chloroethyl)ether	2.02	0.337	mg/kg dry	3.369	ND	60	40-140	0.9	30	
bis(2-chloroisopropyl)Ether	1.63	0.337	mg/kg dry	3.369	ND	48	40-140	4	30	
bis(2-Ethylhexyl)phthalate	2.30	0.337	mg/kg dry	3.369	ND	68	40-140	2	30	
Butylbenzylphthalate	2.17	0.337	mg/kg dry	3.369	ND	64	40-140	2	30	
Carbazole	2.49	0.337	mg/kg dry	3.369	ND	74	40-140	2	30	
Chrysene	2.22	0.169	mg/kg dry	3.369	ND	66	40-140	2	30	
Dibenzo(a,h)Anthracene	2.53	0.169	mg/kg dry	3.369	ND	75	40-140	1	30	
Dibenzofuran	1.99	0.337	mg/kg dry	3.369	ND	59	40-140	7	30	
Diethylphthalate	2.30	0.337	mg/kg dry	3.369	ND	68	40-140	2	30	
Dimethylphthalate	2.32	0.337	mg/kg dry	3.369	ND	69	40-140	2	30	
Di-n-butylphthalate	2.39	0.337	mg/kg dry	3.369	ND	71	40-140	4	30	
Di-n-octylphthalate	2.63	0.337	mg/kg dry	3.369	ND	78	40-140	5	30	
Fluoranthene	2.59	0.337	mg/kg dry	3.369	ND	77	40-140	4	30	
Fluorene	2.00	0.337	mg/kg dry	3.369	ND	59	40-140	8	30	
Hexachlorobenzene	2.44	0.169	mg/kg dry	3.369	ND	72	40-140	1	30	
Hexachlorobutadiene	1.99	0.337	mg/kg dry	3.369	ND	59	40-140	5	30	
Hexachlorocyclopentadiene	1.94	1.69	mg/kg dry	3.369	ND	57	40-140	8	30	
Hexachloroethane	1.81	0.337	mg/kg dry	3.369	ND	54	40-140	0.5	30	
Indeno(1,2,3-cd)Pyrene	2.69	0.337	mg/kg dry	3.369	ND	80	40-140	1	30	
Isophorone	2.03	0.337	mg/kg dry	3.369	ND	60	40-140	4	30	
Naphthalene	2.03	0.337	mg/kg dry	3.369	ND	60	40-140	3	30	
Nitrobenzene	1.87	0.337	mg/kg dry	3.369	ND	56	40-140	2	30	
N-Nitrosodimethylamine	1.60	0.337	mg/kg dry	3.369	ND	47	40-140	1	30	
N-Nitroso-Di-n-Propylamine	1.61	0.337	mg/kg dry	3.369	ND	48	40-140	1	30	
N-nitrosodiphenylamine	2.63	0.337	mg/kg dry	3.369	ND	78	40-140	1	30	
Pentachlorophenol	2.83	1.69	mg/kg dry	3.369	ND	84	30-130	10	30	
Phenanthrene	2.29	0.337	mg/kg dry	3.369	ND	68	40-140	6	30	
Phenol	1.90	0.337	mg/kg dry	3.369	ND	56	30-130	7	30	
Pyrene	2.21	0.337	mg/kg dry	3.369	ND	66	40-140	3	30	
Pyridine	1.33	1.69	mg/kg dry	3.369	ND	40	40-140	3	30	
Surrogate: 1,2-Dichlorobenzene-d4	1.88		mg/kg dry	3.369		56	30-130			
Surrogate: 2,4,6-Tribromophenol	4.30		mg/kg dry	5.054		85	30-130			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.

Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809062

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

Batch BI80521 - 3546

Surrogate: 2-Chlorophenol-d4	2.66		mg/kg dry	5.054		53	30-130			
Surrogate: 2-Fluorobiphenyl	2.05		mg/kg dry	3.369		61	30-130			
Surrogate: 2-Fluorophenol	2.61		mg/kg dry	5.054		52	30-130			
Surrogate: Nitrobenzene-d5	2.09		mg/kg dry	3.369		62	30-130			
Surrogate: Phenol-d6	2.62		mg/kg dry	5.054		52	30-130			
Surrogate: p-Terphenyl-d14	2.39		mg/kg dry	3.369		71	30-130			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809062

Notes and Definitions

U	Analyte included in the analysis, but not detected
Q	Calibration required quadratic regression.
M-	Matrix Spike recovery is below lower control limit.
IC	Internal Standard(s) outside of criteria. Sample was reanalyzed to confirm.
D+	Relative percent difference for duplicate is outside of criteria.
D	Diluted.
B+	Blank Spike recovery is above upper control limit.
ND	Analyte NOT DETECTED above the detection limit
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809062

ESS LABORATORY CERTIFICATIONS

U.S. Army Corps of Engineers
Soil and Water

Navy Installation Restoration QA Program
Soil and Water

Rhode Island: A-179

Connecticut: PH-0750

Maine: RI002

Massachusetts: M-RI002

New Hampshire (NELAP accredited): 242405
Potable Water
Non Potable Water

New York (NELAP accredited): 11313
Potable Water
Non Potable Water
Solid and Hazardous Waste

United States Department of Agriculture
Soil Permit: S-54210

New Jersey (NELAP accredited): RI002
Potable Water
Non Potable Water
Soil and Hazardous Waste

Maryland: 301
Potable Water

ESS Laboratory

Division of Thielsch Engineering, Inc.
 185 Frances Avenue, Cranston, RI 02910-2211
 Tel. (401) 461-7181 Fax (401) 461-4486
 www.esslaboratory.com

CHAIN OF CUSTODY

Turn Time: Standard Other
 If faster than 5 days, prior approval by laboratory is required #
 State where samples were collected from:
 MA RI CT NH NJ NY ME Other
 Is this project for any of the following:
 MA-MCP Navy USACE Other 16

Reporting Limits: 6-A 25 0.05
 Electronic Deliverable: Yes 0809062 No
 Format: Excel Access PDF Other

ESS LAB Sample#	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Pres Code	Type of Containers	Number of Containers	Type of Containers	Circle and/or Write Required Analysis
1	9/4/08	10:00	✓	✓	GW	RIP-1 RIP-1	2,4	9	1	✓	8015 DRO 8081 EPH w/PAHs 8082 EPH w/PAHs 608 PCB Pesticides 625 PAH 8270 RCR45 RCR48 RCR45 RCR48 TCLP-RCR48 MCP-METALS (13) MCP-METALS (13) w/Hg PCBE
2	9/4/08	12:50	✓	✓	GW	RIP-3	2,4	8	1	✓	
3	9/4/08	08:58	✓	✓	S	RIP-1 0-2	6	5	1	✓	
4	9/4/08	10:40	✓	✓	S	RIP-2 0-2	6	4	1	✓	
5	9/4/08	11:48	✓	✓	S	RIP-3 0-2	6	4	1	✓	
6	9/4/08	14:06	✓	✓	S	RIP-4 0-2	6	5	1	✓	
7						Trip Blank		3			

Container Type: P-Poly G-Glass S-Sterile V-VOA Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present: Yes No Internal Use Only

Seals Intact: Yes No NA: [] Pickup

Cooler Temp: 5

Sampled by: Joshua Klement

Comments: All PID measurements were Non-detect

Relinquished by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
<u>[Signature]</u>	<u>9/4/08 17:00</u>	<u>[Signature]</u>	<u>9/4/08 17:06</u>		



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

PROJECT NARRATIVE

Sue Courtemanche
Vanasse Hangen Brustlin, Inc.
10 Dorrance Street, Suite 400
Providence, RI 02903

RE: Trestle Trail
ESS Laboratory Work Order Number: 0809074

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this Project Narrative, the entire report has been paginated. The ESS Laboratory Certifications sheet is the final report page. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been mailed. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

Date: September 12, 2008

Analytical Summary

The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration may be used instead of automated integration because it produces more accurate results. All ICP Metals were analyzed using the established linear dynamic range to determine acceptable analytical results.

ESS Laboratory certifies that the test results meet the requirements of NELAC, except where noted within this project narrative.

Sample Receipt

The following sample(s) were received on September 05, 2008 for the analyses specified on the enclosed Chain of Custody Record.

Laboratory ID	Matrix	Client SampleID
0809074-01	Soil	RiConn-1 0-2
0809074-02	Soil	RiConn-2 0-2
0809074-03	Soil	RiConn-3 0-2
0809074-04	Soil	RiConn-3 2-4
0809074-05	Solid	Trip Blank



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809074

PROJECT NARRATIVE

3050B/6000/7000 Total Metals

BI80509-MS2 **Matrix Spike recovery is below lower control limit.**
Antimony

5035/8260B Volatile Organic Compounds / Low Level

BI80902-BSD1 **Blank Spike recovery is above upper control limit.**
Acetone

BI80902-BSD1 **Relative percent difference for duplicate is outside of criteria.**
Acetone

8082 Polychlorinated Biphenyls (PCB)

0809074-01 **Surrogate recovery(ies) above upper control limit.**

0809074-02 **Surrogate recovery(ies) above upper control limit.**

0809074-03 **Surrogate recovery(ies) above upper control limit.**

8270C Semi-Volatile Organic Compounds

0809074-02 **Internal Standard(s) outside of criteria. Sample was reanalyzed to confirm.**

BRI0038-CCV1 **Calibration required quadratic regression.**
1,1-Biphenyl, Benzo(k)fluoranthene, Hexachlorobutadiene, Pentachlorophenol, Phenol

BRI0069-CCV1 **Calibration required quadratic regression.**
2-Methylnaphthalene, Di-n-octylphthalate, Fluorene

No other observations noted.

End of Project Narrative.



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: RiConn-1 0-2
Date Sampled: 09/05/08 09:12
Percent Solids: 97

ESS Laboratory Work Order: 0809074
ESS Laboratory Sample ID: 0809074-01
Sample Matrix: Soil

3050B/6000/7000 Total Metals

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Antimony	ND	mg/kg dry	5.7	6010B	10	1	JP	09/05/08	1.81	100
Arsenic	11.8	mg/kg dry	2.8	6010B	7	1	JP	09/05/08	1.81	100
Beryllium	0.10	mg/kg dry	0.06	6010B	0.4	1	JP	09/05/08	1.81	100
Cadmium	ND	mg/kg dry	0.57	6010B	39	1	JP	09/05/08	1.81	100
Chromium	1.7	mg/kg dry	1.1	6010B	1400	1	JP	09/05/08	1.81	100
Copper	11.2	mg/kg dry	1.1	6010B	3100	1	JP	09/05/08	1.81	100
Lead	22.8	mg/kg dry	5.7	6010B	150	1	JP	09/05/08	1.81	100
Mercury	ND	mg/kg dry	0.034	7471A	23	1	SVD	09/06/08	0.6	40
Nickel	ND	mg/kg dry	2.8	6010B	1000	1	JP	09/05/08	1.81	100
Selenium	ND	mg/kg dry	5.7	6010B	390	1	JP	09/05/08	1.81	100
Silver	ND	mg/kg dry	0.57	6010B	200	1	JP	09/05/08	1.81	100
Thallium	ND	mg/kg dry	1.41	7841	5.5	5	JP	09/06/08	1.81	100
Zinc	6.1	mg/kg dry	2.8	6010B	6000	1	JP	09/05/08	1.81	100



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RiConn-1 0-2
 Date Sampled: 09/05/08 09:12
 Percent Solids: 97
 Initial Volume: 6.1
 Final Volume: 10
 Extraction Method: 5035

ESS Laboratory Work Order: 0809074
 ESS Laboratory Sample ID: 0809074-01
 Sample Matrix: Soil
 Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

RI - RES DEC

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1,1,2-Tetrachloroethane	ND	mg/kg dry	0.0042	2.2	1	09/09/08
1,1,1-Trichloroethane	ND	mg/kg dry	0.0042	540	1	09/09/08
1,1,2,2-Tetrachloroethane	ND	mg/kg dry	0.0042	1.3	1	09/09/08
1,1,2-Trichloroethane	ND	mg/kg dry	0.0042	3.6	1	09/09/08
1,1-Dichloroethane	ND	mg/kg dry	0.0042	920	1	09/09/08
1,1-Dichloroethene	ND	mg/kg dry	0.0042	0.2	1	09/09/08
1,1-Dichloropropene	ND	mg/kg dry	0.0042		1	09/09/08
1,2,3-Trichlorobenzene	ND	mg/kg dry	0.0042		1	09/09/08
1,2,3-Trichloropropane	ND	mg/kg dry	0.0042		1	09/09/08
1,2,4-Trichlorobenzene	ND	mg/kg dry	0.0042	96	1	09/09/08
1,2,4-Trimethylbenzene	ND	mg/kg dry	0.0042		1	09/09/08
1,2-Dibromo-3-Chloropropane	ND	mg/kg dry	0.0042	0.5	1	09/09/08
1,2-Dibromoethane	ND	mg/kg dry	0.0042	0.01	1	09/09/08
1,2-Dichlorobenzene	ND	mg/kg dry	0.0042	510	1	09/09/08
1,2-Dichloroethane	ND	mg/kg dry	0.0042	0.9	1	09/09/08
1,2-Dichloropropane	ND	mg/kg dry	0.0042	1.9	1	09/09/08
1,3,5-Trimethylbenzene	ND	mg/kg dry	0.0042		1	09/09/08
1,3-Dichlorobenzene	ND	mg/kg dry	0.0042	430	1	09/09/08
1,3-Dichloropropane	ND	mg/kg dry	0.0042		1	09/09/08
1,4-Dichlorobenzene	ND	mg/kg dry	0.0042	27	1	09/09/08
1,4-Dioxane	ND	mg/kg dry	0.0845		1	09/09/08
1-Chlorohexane	ND	mg/kg dry	0.0042		1	09/09/08
2,2-Dichloropropane	ND	mg/kg dry	0.0042		1	09/09/08
2-Butanone	ND	mg/kg dry	0.0423	10000	1	09/09/08
2-Chlorotoluene	ND	mg/kg dry	0.0042		1	09/09/08
2-Hexanone	ND	mg/kg dry	0.0423		1	09/09/08
4-Chlorotoluene	ND	mg/kg dry	0.0042		1	09/09/08
4-Isopropyltoluene	0.0087	mg/kg dry	0.0042		1	09/09/08
4-Methyl-2-Pentanone	ND	mg/kg dry	0.0423	1200	1	09/09/08
Acetone	ND	mg/kg dry	0.0423	7800	1	09/09/08
Benzene	ND	mg/kg dry	0.0042	2.5	1	09/09/08
Bromobenzene	ND	mg/kg dry	0.0042		1	09/09/08
Bromochloromethane	ND	mg/kg dry	0.0042		1	09/09/08
Bromodichloromethane	ND	mg/kg dry	0.0042	10	1	09/09/08
Bromoform	ND	mg/kg dry	0.0042	81	1	09/09/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RiConn-1 0-2
 Date Sampled: 09/05/08 09:12
 Percent Solids: 97
 Initial Volume: 6.1
 Final Volume: 10
 Extraction Method: 5035

ESS Laboratory Work Order: 0809074
 ESS Laboratory Sample ID: 0809074-01
 Sample Matrix: Soil
 Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Bromomethane	ND	mg/kg dry	0.0085	0.8	1	09/09/08
Carbon Disulfide	ND	mg/kg dry	0.0042		1	09/09/08
Carbon Tetrachloride	ND	mg/kg dry	0.0042	1.5	1	09/09/08
Chlorobenzene	ND	mg/kg dry	0.0042	210	1	09/09/08
Chloroethane	ND	mg/kg dry	0.0085		1	09/09/08
Chloroform	ND	mg/kg dry	0.0042	1.2	1	09/09/08
Chloromethane	ND	mg/kg dry	0.0085		1	09/09/08
cis-1,2-Dichloroethene	ND	mg/kg dry	0.0042	630	1	09/09/08
cis-1,3-Dichloropropene	ND	mg/kg dry	0.0042		1	09/09/08
Dibromochloromethane	ND	mg/kg dry	0.0042	7.6	1	09/09/08
Dibromomethane	ND	mg/kg dry	0.0042		1	09/09/08
Dichlorodifluoromethane	ND	mg/kg dry	0.0085		1	09/09/08
Diethyl Ether	ND	mg/kg dry	0.0042		1	09/09/08
Di-isopropyl ether	ND	mg/kg dry	0.0042		1	09/09/08
Ethyl tertiary-butyl ether	ND	mg/kg dry	0.0042		1	09/09/08
Ethylbenzene	ND	mg/kg dry	0.0042	71	1	09/09/08
Hexachlorobutadiene	ND	mg/kg dry	0.0042	8.2	1	09/09/08
Isopropylbenzene	ND	mg/kg dry	0.0042	27	1	09/09/08
Methyl tert-Butyl Ether	ND	mg/kg dry	0.0042	390	1	09/09/08
Methylene Chloride	ND	mg/kg dry	0.0211	45	1	09/09/08
Naphthalene	ND	mg/kg dry	0.0042	54	1	09/09/08
n-Butylbenzene	ND	mg/kg dry	0.0042		1	09/09/08
n-Propylbenzene	ND	mg/kg dry	0.0042		1	09/09/08
sec-Butylbenzene	ND	mg/kg dry	0.0042		1	09/09/08
Styrene	ND	mg/kg dry	0.0042	13	1	09/09/08
tert-Butylbenzene	ND	mg/kg dry	0.0042		1	09/09/08
Tertiary-amyl methyl ether	ND	mg/kg dry	0.0042		1	09/09/08
Tetrachloroethene	ND	mg/kg dry	0.0042	12	1	09/09/08
Tetrahydrofuran	ND	mg/kg dry	0.0042		1	09/09/08
Toluene	ND	mg/kg dry	0.0042	190	1	09/09/08
trans-1,2-Dichloroethene	ND	mg/kg dry	0.0042	1100	1	09/09/08
trans-1,3-Dichloropropene	ND	mg/kg dry	0.0042		1	09/09/08
Trichloroethene	ND	mg/kg dry	0.0042	13	1	09/09/08
Trichlorofluoromethane	ND	mg/kg dry	0.0042		1	09/09/08
Vinyl Acetate	ND	mg/kg dry	0.0042		1	09/09/08
Vinyl Chloride	ND	mg/kg dry	0.0085	0.02	1	09/09/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: RiConn-1 0-2
Date Sampled: 09/05/08 09:12
Percent Solids: 97
Initial Volume: 6.1
Final Volume: 10
Extraction Method: 5035

ESS Laboratory Work Order: 0809074
ESS Laboratory Sample ID: 0809074-01
Sample Matrix: Soil
Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Xylene O	ND	mg/kg dry	0.0042	110	1	09/09/08
Xylene P,M	ND	mg/kg dry	0.0085	110	1	09/09/08
Xylenes (Total)	ND	mg/kg dry	0.0127	110	0	09/09/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	109 %		70-130
Surrogate: 4-Bromofluorobenzene	87 %		70-130
Surrogate: Dibromofluoromethane	106 %		70-130
Surrogate: Toluene-d8	104 %		70-130



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RiConn-1 0-2
 Date Sampled: 09/05/08 09:12
 Percent Solids: 97
 Initial Volume: 20.5
 Final Volume: 10
 Extraction Method: 3541

ESS Laboratory Work Order: 0809074
 ESS Laboratory Sample ID: 0809074-01
 Sample Matrix: Soil
 Analyst: SEP
 Prepared: 09/09/08

8082 Polychlorinated Biphenyls (PCB)

RI - RES DEC

Analyte	Results	Units	MRL	Limit	DF	Analyzed
Aroclor 1016	ND	mg/kg dry	0.0503	10	1	09/10/08
Aroclor 1221	ND	mg/kg dry	0.0503	10	1	09/10/08
Aroclor 1232	ND	mg/kg dry	0.0503	10	1	09/10/08
Aroclor 1242	ND	mg/kg dry	0.0503	10	1	09/10/08
Aroclor 1248	ND	mg/kg dry	0.0503	10	1	09/10/08
Aroclor 1254	ND	mg/kg dry	0.0503	10	1	09/10/08
Aroclor 1260	ND	mg/kg dry	0.0503	10	1	09/10/08
Aroclor 1262	ND	mg/kg dry	0.0503	10	1	09/10/08
Aroclor 1268	ND	mg/kg dry	0.0503	10	1	09/10/08

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	131 %		30-150
Surrogate: Decachlorobiphenyl [2C]	160 %	S+	30-150
Surrogate: Tetrachloro-m-xylene	96 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	104 %		30-150



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RiConn-1 0-2
 Date Sampled: 09/05/08 09:12
 Percent Solids: 97
 Initial Volume: 20
 Final Volume: 1
 Extraction Method: 3546

ESS Laboratory Work Order: 0809074
 ESS Laboratory Sample ID: 0809074-01
 Sample Matrix: Soil
 Analyst: SEP
 Prepared: 09/05/08

8100M Total Petroleum Hydrocarbons

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>
Total Petroleum Hydrocarbons	77.4	mg/kg dry	38.7	500	1	09/08/08

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: O-Terphenyl	94 %		40-140



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RiConn-1 0-2
 Date Sampled: 09/05/08 09:12
 Percent Solids: 97
 Initial Volume: 14.9
 Final Volume: 0.5
 Extraction Method: 3546

ESS Laboratory Work Order: 0809074
 ESS Laboratory Sample ID: 0809074-01
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 09/05/08

8270C Semi-Volatile Organic Compounds

RI - RES DEC

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1-Biphenyl	ND	mg/kg dry	0.346	0.8	1	09/06/08
1,2,4-Trichlorobenzene	ND	mg/kg dry	0.346	96	1	09/06/08
1,2-Dichlorobenzene	ND	mg/kg dry	0.346	510	1	09/06/08
1,3-Dichlorobenzene	ND	mg/kg dry	0.346	430	1	09/06/08
1,4-Dichlorobenzene	ND	mg/kg dry	0.346	27	1	09/06/08
2,3,4,6-Tetrachlorophenol	ND	mg/kg dry	1.73		1	09/06/08
2,4,5-Trichlorophenol	ND	mg/kg dry	0.346	330	1	09/06/08
2,4,6-Trichlorophenol	ND	mg/kg dry	0.346	58	1	09/06/08
2,4-Dichlorophenol	ND	mg/kg dry	0.346	30	1	09/06/08
2,4-Dimethylphenol	ND	mg/kg dry	0.346	1400	1	09/06/08
2,4-Dinitrophenol	ND	mg/kg dry	1.73	160	1	09/06/08
2,4-Dinitrotoluene	ND	mg/kg dry	0.346	0.9	1	09/06/08
2,6-Dinitrotoluene	ND	mg/kg dry	0.346		1	09/06/08
2-Chloronaphthalene	ND	mg/kg dry	0.346		1	09/06/08
2-Chlorophenol	ND	mg/kg dry	0.346	50	1	09/06/08
2-Methylnaphthalene	ND	mg/kg dry	0.346	123	1	09/06/08
2-Methylphenol	ND	mg/kg dry	0.346		1	09/06/08
2-Nitroaniline	ND	mg/kg dry	0.346		1	09/06/08
2-Nitrophenol	ND	mg/kg dry	0.346		1	09/06/08
3,3'-Dichlorobenzidine	ND	mg/kg dry	0.692	1.4	1	09/06/08
3+4-Methylphenol	ND	mg/kg dry	0.692		1	09/06/08
3-Nitroaniline	ND	mg/kg dry	0.346		1	09/06/08
4,6-Dinitro-2-Methylphenol	ND	mg/kg dry	1.73		1	09/06/08
4-Bromophenyl-phenylether	ND	mg/kg dry	0.346		1	09/06/08
4-Chloro-3-Methylphenol	ND	mg/kg dry	0.346		1	09/06/08
4-Chloroaniline	ND	mg/kg dry	0.692	310	1	09/06/08
4-Chloro-phenyl-phenyl ether	ND	mg/kg dry	0.346		1	09/06/08
4-Nitroaniline	ND	mg/kg dry	0.346		1	09/06/08
4-Nitrophenol	ND	mg/kg dry	1.73		1	09/06/08
Acenaphthene	ND	mg/kg dry	0.346	43	1	09/06/08
Acenaphthylene	ND	mg/kg dry	0.346	23	1	09/06/08
Acetophenone	ND	mg/kg dry	0.692		1	09/06/08
Aniline	ND	mg/kg dry	0.692		1	09/06/08
Anthracene	ND	mg/kg dry	0.346	35	1	09/06/08
Azobenzene	ND	mg/kg dry	0.346		1	09/06/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RiConn-1 0-2
 Date Sampled: 09/05/08 09:12
 Percent Solids: 97
 Initial Volume: 14.9
 Final Volume: 0.5
 Extraction Method: 3546

ESS Laboratory Work Order: 0809074
 ESS Laboratory Sample ID: 0809074-01
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 09/05/08

8270C Semi-Volatile Organic Compounds

Benzo(a)anthracene	ND	mg/kg dry	0.346	0.9	1	09/06/08
Benzo(a)pyrene	0.360	mg/kg dry	0.173	0.4	1	09/06/08
Benzo(b)fluoranthene	0.705	mg/kg dry	0.346	0.9	1	09/06/08
Benzo(g,h,i)perylene	ND	mg/kg dry	0.346	0.8	1	09/06/08
Benzo(k)fluoranthene	0.514	mg/kg dry	0.346	0.9	1	09/06/08
Benzoic Acid	ND	mg/kg dry	1.73		1	09/06/08
Benzyl Alcohol	ND	mg/kg dry	0.346		1	09/06/08
bis(2-Chloroethoxy)methane	ND	mg/kg dry	0.346		1	09/06/08
bis(2-Chloroethyl)ether	ND	mg/kg dry	0.346	0.6	1	09/06/08
bis(2-chloroisopropyl)Ether	ND	mg/kg dry	0.346	9.1	1	09/06/08
bis(2-Ethylhexyl)phthalate	ND	mg/kg dry	0.346	46	1	09/06/08
Butylbenzylphthalate	ND	mg/kg dry	0.346		1	09/06/08
Carbazole	ND	mg/kg dry	0.346		1	09/06/08
Chrysene	0.531	mg/kg dry	0.173	0.4	1	09/06/08
Dibenzo(a,h)Anthracene	ND	mg/kg dry	0.173	0.4	1	09/06/08
Dibenzofuran	ND	mg/kg dry	0.346		1	09/06/08
Diethylphthalate	ND	mg/kg dry	0.346	340	1	09/06/08
Dimethylphthalate	ND	mg/kg dry	0.346	1900	1	09/06/08
Di-n-butylphthalate	ND	mg/kg dry	0.346		1	09/06/08
Di-n-octylphthalate	ND	mg/kg dry	0.346		1	09/06/08
Fluoranthene	0.959	mg/kg dry	0.346	20	1	09/06/08
Fluorene	ND	mg/kg dry	0.346	28	1	09/06/08
Hexachlorobenzene	ND	mg/kg dry	0.173	0.4	1	09/06/08
Hexachlorobutadiene	ND	mg/kg dry	0.346	8.2	1	09/06/08
Hexachlorocyclopentadiene	ND	mg/kg dry	1.73		1	09/06/08
Hexachloroethane	ND	mg/kg dry	0.346	46	1	09/06/08
Indeno(1,2,3-cd)Pyrene	ND	mg/kg dry	0.346	0.9	1	09/06/08
Isophorone	ND	mg/kg dry	0.346		1	09/06/08
Naphthalene	ND	mg/kg dry	0.346	54	1	09/06/08
Nitrobenzene	ND	mg/kg dry	0.346		1	09/06/08
N-Nitrosodimethylamine	ND	mg/kg dry	0.346		1	09/06/08
N-Nitroso-Di-n-Propylamine	ND	mg/kg dry	0.346		1	09/06/08
N-nitrosodiphenylamine	ND	mg/kg dry	0.346		1	09/06/08
Pentachlorophenol	ND	mg/kg dry	1.73	5.3	1	09/06/08
Phenanthrene	ND	mg/kg dry	0.346	40	1	09/06/08
Phenol	ND	mg/kg dry	0.346	6000	1	09/06/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: RiConn-1 0-2
Date Sampled: 09/05/08 09:12
Percent Solids: 97
Initial Volume: 14.9
Final Volume: 0.5
Extraction Method: 3546

ESS Laboratory Work Order: 0809074
ESS Laboratory Sample ID: 0809074-01
Sample Matrix: Soil
Analyst: VSC
Prepared: 09/05/08

8270C Semi-Volatile Organic Compounds

Pyrene	0.575	mg/kg dry	0.346	13	1	09/06/08
Pyridine	ND	mg/kg dry	1.73		1	09/06/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	56 %		30-130
Surrogate: 2,4,6-Tribromophenol	91 %		30-130
Surrogate: 2-Chlorophenol-d4	55 %		30-130
Surrogate: 2-Fluorobiphenyl	60 %		30-130
Surrogate: 2-Fluorophenol	50 %		30-130
Surrogate: Nitrobenzene-d5	66 %		30-130
Surrogate: Phenol-d6	57 %		30-130
Surrogate: p-Terphenyl-d14	68 %		30-130



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: RiConn-2 0-2
Date Sampled: 09/05/08 10:49
Percent Solids: 96

ESS Laboratory Work Order: 0809074
ESS Laboratory Sample ID: 0809074-02
Sample Matrix: Soil

3050B/6000/7000 Total Metals

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Antimony	ND	mg/kg dry	5.6	6010B	10	1	JP	09/05/08	1.86	100
Arsenic	54.5	mg/kg dry	2.8	6010B	7	1	JP	09/05/08	1.86	100
Beryllium	0.14	mg/kg dry	0.06	6010B	0.4	1	JP	09/05/08	1.86	100
Cadmium	ND	mg/kg dry	0.56	6010B	39	1	JP	09/05/08	1.86	100
Chromium	2.6	mg/kg dry	1.1	6010B	1400	1	JP	09/05/08	1.86	100
Copper	12.1	mg/kg dry	1.1	6010B	3100	1	JP	09/05/08	1.86	100
Lead	22.6	mg/kg dry	5.6	6010B	150	1	JP	09/05/08	1.86	100
Mercury	ND	mg/kg dry	0.033	7471A	23	1	SVD	09/06/08	0.62	40
Nickel	ND	mg/kg dry	2.8	6010B	1000	1	JP	09/05/08	1.86	100
Selenium	ND	mg/kg dry	5.6	6010B	390	1	JP	09/05/08	1.86	100
Silver	ND	mg/kg dry	0.56	6010B	200	1	JP	09/05/08	1.86	100
Thallium	ND	mg/kg dry	1.39	7841	5.5	5	JP	09/06/08	1.86	100
Zinc	9.2	mg/kg dry	2.8	6010B	6000	1	JP	09/05/08	1.86	100



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RiConn-2 0-2
 Date Sampled: 09/05/08 10:49
 Percent Solids: 96
 Initial Volume: 4.9
 Final Volume: 10
 Extraction Method: 5035

ESS Laboratory Work Order: 0809074
 ESS Laboratory Sample ID: 0809074-02
 Sample Matrix: Soil
 Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

RI - RES DEC

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1,1,2-Tetrachloroethane	ND	mg/kg dry	0.0053	2.2	1	09/09/08
1,1,1-Trichloroethane	ND	mg/kg dry	0.0053	540	1	09/09/08
1,1,2,2-Tetrachloroethane	ND	mg/kg dry	0.0053	1.3	1	09/09/08
1,1,2-Trichloroethane	ND	mg/kg dry	0.0053	3.6	1	09/09/08
1,1-Dichloroethane	ND	mg/kg dry	0.0053	920	1	09/09/08
1,1-Dichloroethene	ND	mg/kg dry	0.0053	0.2	1	09/09/08
1,1-Dichloropropene	ND	mg/kg dry	0.0053		1	09/09/08
1,2,3-Trichlorobenzene	ND	mg/kg dry	0.0053		1	09/09/08
1,2,3-Trichloropropane	ND	mg/kg dry	0.0053		1	09/09/08
1,2,4-Trichlorobenzene	ND	mg/kg dry	0.0053	96	1	09/09/08
1,2,4-Trimethylbenzene	ND	mg/kg dry	0.0053		1	09/09/08
1,2-Dibromo-3-Chloropropane	ND	mg/kg dry	0.0053	0.5	1	09/09/08
1,2-Dibromoethane	ND	mg/kg dry	0.0053	0.01	1	09/09/08
1,2-Dichlorobenzene	ND	mg/kg dry	0.0053	510	1	09/09/08
1,2-Dichloroethane	ND	mg/kg dry	0.0053	0.9	1	09/09/08
1,2-Dichloropropane	ND	mg/kg dry	0.0053	1.9	1	09/09/08
1,3,5-Trimethylbenzene	ND	mg/kg dry	0.0053		1	09/09/08
1,3-Dichlorobenzene	ND	mg/kg dry	0.0053	430	1	09/09/08
1,3-Dichloropropane	ND	mg/kg dry	0.0053		1	09/09/08
1,4-Dichlorobenzene	ND	mg/kg dry	0.0053	27	1	09/09/08
1,4-Dioxane	ND	mg/kg dry	0.106		1	09/09/08
1-Chlorohexane	ND	mg/kg dry	0.0053		1	09/09/08
2,2-Dichloropropane	ND	mg/kg dry	0.0053		1	09/09/08
2-Butanone	ND	mg/kg dry	0.0531	10000	1	09/09/08
2-Chlorotoluene	ND	mg/kg dry	0.0053		1	09/09/08
2-Hexanone	ND	mg/kg dry	0.0531		1	09/09/08
4-Chlorotoluene	ND	mg/kg dry	0.0053		1	09/09/08
4-Isopropyltoluene	ND	mg/kg dry	0.0053		1	09/09/08
4-Methyl-2-Pentanone	ND	mg/kg dry	0.0531	1200	1	09/09/08
Acetone	ND	mg/kg dry	0.0531	7800	1	09/09/08
Benzene	ND	mg/kg dry	0.0053	2.5	1	09/09/08
Bromobenzene	ND	mg/kg dry	0.0053		1	09/09/08
Bromochloromethane	ND	mg/kg dry	0.0053		1	09/09/08
Bromodichloromethane	ND	mg/kg dry	0.0053	10	1	09/09/08
Bromoform	ND	mg/kg dry	0.0053	81	1	09/09/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: RiConn-2 0-2
Date Sampled: 09/05/08 10:49
Percent Solids: 96
Initial Volume: 4.9
Final Volume: 10
Extraction Method: 5035

ESS Laboratory Work Order: 0809074
ESS Laboratory Sample ID: 0809074-02
Sample Matrix: Soil
Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Bromomethane	ND	mg/kg dry	0.0106	0.8	1	09/09/08
Carbon Disulfide	ND	mg/kg dry	0.0053		1	09/09/08
Carbon Tetrachloride	ND	mg/kg dry	0.0053	1.5	1	09/09/08
Chlorobenzene	ND	mg/kg dry	0.0053	210	1	09/09/08
Chloroethane	ND	mg/kg dry	0.0106		1	09/09/08
Chloroform	ND	mg/kg dry	0.0053	1.2	1	09/09/08
Chloromethane	ND	mg/kg dry	0.0106		1	09/09/08
cis-1,2-Dichloroethene	ND	mg/kg dry	0.0053	630	1	09/09/08
cis-1,3-Dichloropropene	ND	mg/kg dry	0.0053		1	09/09/08
Dibromochloromethane	ND	mg/kg dry	0.0053	7.6	1	09/09/08
Dibromomethane	ND	mg/kg dry	0.0053		1	09/09/08
Dichlorodifluoromethane	ND	mg/kg dry	0.0106		1	09/09/08
Diethyl Ether	ND	mg/kg dry	0.0053		1	09/09/08
Di-isopropyl ether	ND	mg/kg dry	0.0053		1	09/09/08
Ethyl tertiary-butyl ether	ND	mg/kg dry	0.0053		1	09/09/08
Ethylbenzene	ND	mg/kg dry	0.0053	71	1	09/09/08
Hexachlorobutadiene	ND	mg/kg dry	0.0053	8.2	1	09/09/08
Isopropylbenzene	ND	mg/kg dry	0.0053	27	1	09/09/08
Methyl tert-Butyl Ether	ND	mg/kg dry	0.0053	390	1	09/09/08
Methylene Chloride	ND	mg/kg dry	0.0266	45	1	09/09/08
Naphthalene	ND	mg/kg dry	0.0053	54	1	09/09/08
n-Butylbenzene	ND	mg/kg dry	0.0053		1	09/09/08
n-Propylbenzene	ND	mg/kg dry	0.0053		1	09/09/08
sec-Butylbenzene	ND	mg/kg dry	0.0053		1	09/09/08
Styrene	ND	mg/kg dry	0.0053	13	1	09/09/08
tert-Butylbenzene	ND	mg/kg dry	0.0053		1	09/09/08
Tertiary-amyl methyl ether	ND	mg/kg dry	0.0053		1	09/09/08
Tetrachloroethene	ND	mg/kg dry	0.0053	12	1	09/09/08
Tetrahydrofuran	ND	mg/kg dry	0.0053		1	09/09/08
Toluene	ND	mg/kg dry	0.0053	190	1	09/09/08
trans-1,2-Dichloroethene	ND	mg/kg dry	0.0053	1100	1	09/09/08
trans-1,3-Dichloropropene	ND	mg/kg dry	0.0053		1	09/09/08
Trichloroethene	ND	mg/kg dry	0.0053	13	1	09/09/08
Trichlorofluoromethane	ND	mg/kg dry	0.0053		1	09/09/08
Vinyl Acetate	ND	mg/kg dry	0.0053		1	09/09/08
Vinyl Chloride	ND	mg/kg dry	0.0106	0.02	1	09/09/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RiConn-2 0-2
 Date Sampled: 09/05/08 10:49
 Percent Solids: 96
 Initial Volume: 4.9
 Final Volume: 10
 Extraction Method: 5035

ESS Laboratory Work Order: 0809074
 ESS Laboratory Sample ID: 0809074-02
 Sample Matrix: Soil
 Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Xylene O	ND	mg/kg dry	0.0053	110	1	09/09/08
Xylene P,M	ND	mg/kg dry	0.0106	110	1	09/09/08
Xylenes (Total)	ND	mg/kg dry	0.0159	110	0	09/09/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	112 %		70-130
Surrogate: 4-Bromofluorobenzene	90 %		70-130
Surrogate: Dibromofluoromethane	103 %		70-130
Surrogate: Toluene-d8	101 %		70-130



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RiConn-2 0-2
 Date Sampled: 09/05/08 10:49
 Percent Solids: 96
 Initial Volume: 19.8
 Final Volume: 10
 Extraction Method: 3541

ESS Laboratory Work Order: 0809074
 ESS Laboratory Sample ID: 0809074-02
 Sample Matrix: Soil
 Analyst: SEP
 Prepared: 09/09/08

8082 Polychlorinated Biphenyls (PCB)

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>
Aroclor 1016	ND	mg/kg dry	0.0526	10	1	09/10/08
Aroclor 1221	ND	mg/kg dry	0.0526	10	1	09/10/08
Aroclor 1232	ND	mg/kg dry	0.0526	10	1	09/10/08
Aroclor 1242	ND	mg/kg dry	0.0526	10	1	09/10/08
Aroclor 1248	ND	mg/kg dry	0.0526	10	1	09/10/08
Aroclor 1254	ND	mg/kg dry	0.0526	10	1	09/10/08
Aroclor 1260	ND	mg/kg dry	0.0526	10	1	09/10/08
Aroclor 1262	ND	mg/kg dry	0.0526	10	1	09/10/08
Aroclor 1268	ND	mg/kg dry	0.0526	10	1	09/10/08

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	110 %		30-150
Surrogate: Decachlorobiphenyl [2C]	222 %	S+	30-150
Surrogate: Tetrachloro-m-xylene	95 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	105 %		30-150



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RiConn-2 0-2
 Date Sampled: 09/05/08 10:49
 Percent Solids: 96
 Initial Volume: 20
 Final Volume: 1
 Extraction Method: 3546

ESS Laboratory Work Order: 0809074
 ESS Laboratory Sample ID: 0809074-02
 Sample Matrix: Soil
 Analyst: SEP
 Prepared: 09/05/08

8100M Total Petroleum Hydrocarbons

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>
Total Petroleum Hydrocarbons	161	mg/kg dry	39.1	500	1	09/08/08

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: O-Terphenyl	97 %		40-140



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RiConn-2 0-2
 Date Sampled: 09/05/08 10:49
 Percent Solids: 96
 Initial Volume: 15
 Final Volume: 0.5
 Extraction Method: 3546

ESS Laboratory Work Order: 0809074
 ESS Laboratory Sample ID: 0809074-02
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 09/05/08

8270C Semi-Volatile Organic Compounds

RI - RES DEC

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1-Biphenyl	ND	mg/kg dry	0.347	0.8	1	09/11/08
1,2,4-Trichlorobenzene	ND	mg/kg dry	0.347	96	1	09/11/08
1,2-Dichlorobenzene	ND	mg/kg dry	0.347	510	1	09/11/08
1,3-Dichlorobenzene	ND	mg/kg dry	0.347	430	1	09/11/08
1,4-Dichlorobenzene	ND	mg/kg dry	0.347	27	1	09/11/08
2,3,4,6-Tetrachlorophenol	ND	mg/kg dry	1.74		1	09/11/08
2,4,5-Trichlorophenol	ND	mg/kg dry	0.347	330	1	09/11/08
2,4,6-Trichlorophenol	ND	mg/kg dry	0.347	58	1	09/11/08
2,4-Dichlorophenol	ND	mg/kg dry	0.347	30	1	09/11/08
2,4-Dimethylphenol	ND	mg/kg dry	0.347	1400	1	09/11/08
2,4-Dinitrophenol	ND	mg/kg dry	1.74	160	1	09/11/08
2,4-Dinitrotoluene	ND	mg/kg dry	0.347	0.9	1	09/11/08
2,6-Dinitrotoluene	ND	mg/kg dry	0.347		1	09/11/08
2-Chloronaphthalene	ND	mg/kg dry	0.347		1	09/11/08
2-Chlorophenol	ND	mg/kg dry	0.347	50	1	09/11/08
2-Methylnaphthalene	ND	mg/kg dry	0.347	123	1	09/11/08
2-Methylphenol	ND	mg/kg dry	0.347		1	09/11/08
2-Nitroaniline	ND	mg/kg dry	0.347		1	09/11/08
2-Nitrophenol	ND	mg/kg dry	0.347		1	09/11/08
3,3'-Dichlorobenzidine	ND	mg/kg dry	0.695	1.4	1	09/11/08
3+4-Methylphenol	ND	mg/kg dry	0.695		1	09/11/08
3-Nitroaniline	ND	mg/kg dry	0.347		1	09/11/08
4,6-Dinitro-2-Methylphenol	ND	mg/kg dry	1.74		1	09/11/08
4-Bromophenyl-phenylether	ND	mg/kg dry	0.347		1	09/11/08
4-Chloro-3-Methylphenol	ND	mg/kg dry	0.347		1	09/11/08
4-Chloroaniline	ND	mg/kg dry	0.695	310	1	09/11/08
4-Chloro-phenyl-phenyl ether	ND	mg/kg dry	0.347		1	09/11/08
4-Nitroaniline	ND	mg/kg dry	0.347		1	09/11/08
4-Nitrophenol	ND	mg/kg dry	1.74		1	09/11/08
Acenaphthene	ND	mg/kg dry	0.347	43	1	09/11/08
Acenaphthylene	ND	mg/kg dry	0.347	23	1	09/11/08
Acetophenone	ND	mg/kg dry	0.695		1	09/11/08
Aniline	ND	mg/kg dry	0.695		1	09/11/08
Anthracene	ND	mg/kg dry	0.347	35	1	09/11/08
Azobenzene	ND	mg/kg dry	0.347		1	09/11/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RiConn-2 0-2
 Date Sampled: 09/05/08 10:49
 Percent Solids: 96
 Initial Volume: 15
 Final Volume: 0.5
 Extraction Method: 3546

ESS Laboratory Work Order: 0809074
 ESS Laboratory Sample ID: 0809074-02
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 09/05/08

8270C Semi-Volatile Organic Compounds

Benzo(a)anthracene	1.88	mg/kg dry	0.347	0.9	1	09/11/08
Benzo(a)pyrene	1.89	mg/kg dry	0.174	0.4	1	09/11/08
Benzo(b)fluoranthene	3.18	mg/kg dry	0.347	0.9	1	09/11/08
Benzo(g,h,i)perylene	0.913	mg/kg dry	0.347	0.8	1	09/11/08
Benzo(k)fluoranthene	1.79	mg/kg dry	0.347	0.9	1	09/11/08
Benzoic Acid	ND	mg/kg dry	1.74		1	09/11/08
Benzyl Alcohol	ND	mg/kg dry	0.347		1	09/11/08
bis(2-Chloroethoxy)methane	ND	mg/kg dry	0.347		1	09/11/08
bis(2-Chloroethyl)ether	ND	mg/kg dry	0.347	0.6	1	09/11/08
bis(2-chloroisopropyl)Ether	ND	mg/kg dry	0.347	9.1	1	09/11/08
bis(2-Ethylhexyl)phthalate	ND	mg/kg dry	0.347	46	1	09/11/08
Butylbenzylphthalate	ND	mg/kg dry	0.347		1	09/11/08
Carbazole	ND	mg/kg dry	0.347		1	09/11/08
Chrysene	2.35	mg/kg dry	0.174	0.4	1	09/11/08
Dibenzo(a,h)Anthracene	0.395	mg/kg dry	0.174	0.4	1	09/11/08
Dibenzofuran	ND	mg/kg dry	0.347		1	09/11/08
Diethylphthalate	ND	mg/kg dry	0.347	340	1	09/11/08
Dimethylphthalate	ND	mg/kg dry	0.347	1900	1	09/11/08
Di-n-butylphthalate	ND	mg/kg dry	0.347		1	09/11/08
Di-n-octylphthalate	ND	mg/kg dry	0.347		1	09/11/08
Fluoranthene	4.88	mg/kg dry	0.347	20	1	09/11/08
Fluorene	ND	mg/kg dry	0.347	28	1	09/11/08
Hexachlorobenzene	ND	mg/kg dry	0.174	0.4	1	09/11/08
Hexachlorobutadiene	ND	mg/kg dry	0.347	8.2	1	09/11/08
Hexachlorocyclopentadiene	ND	mg/kg dry	1.74		1	09/11/08
Hexachloroethane	ND	mg/kg dry	0.347	46	1	09/11/08
Indeno(1,2,3-cd)Pyrene	1.00	mg/kg dry	0.347	0.9	1	09/11/08
Isophorone	ND	mg/kg dry	0.347		1	09/11/08
Naphthalene	ND	mg/kg dry	0.347	54	1	09/11/08
Nitrobenzene	ND	mg/kg dry	0.347		1	09/11/08
N-Nitrosodimethylamine	ND	mg/kg dry	0.347		1	09/11/08
N-Nitroso-Di-n-Propylamine	ND	mg/kg dry	0.347		1	09/11/08
N-nitrosodiphenylamine	ND	mg/kg dry	0.347		1	09/11/08
Pentachlorophenol	ND	mg/kg dry	1.74	5.3	1	09/11/08
Phenanthrene	1.51	mg/kg dry	0.347	40	1	09/11/08
Phenol	ND	mg/kg dry	0.347	6000	1	09/11/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RiConn-2 0-2
 Date Sampled: 09/05/08 10:49
 Percent Solids: 96
 Initial Volume: 15
 Final Volume: 0.5
 Extraction Method: 3546

ESS Laboratory Work Order: 0809074
 ESS Laboratory Sample ID: 0809074-02
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 09/05/08

8270C Semi-Volatile Organic Compounds

Pyrene	3.92	mg/kg dry	0.347	13	1	09/11/08
Pyridine	ND	mg/kg dry	1.74		1	09/11/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	69 %		30-130
Surrogate: 2,4,6-Tribromophenol	83 %		30-130
Surrogate: 2-Chlorophenol-d4	60 %		30-130
Surrogate: 2-Fluorobiphenyl	71 %		30-130
Surrogate: 2-Fluorophenol	45 %		30-130
Surrogate: Nitrobenzene-d5	61 %		30-130
Surrogate: Phenol-d6	62 %		30-130
Surrogate: p-Terphenyl-d14	94 %		30-130



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: RiConn-3 0-2
Date Sampled: 09/05/08 12:43
Percent Solids: 98

ESS Laboratory Work Order: 0809074
ESS Laboratory Sample ID: 0809074-03
Sample Matrix: Soil

3050B/6000/7000 Total Metals

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Antimony	ND	mg/kg dry	5.5	6010B	10	1	JP	09/05/08	1.84	100
Arsenic	8.5	mg/kg dry	2.8	6010B	7	1	JP	09/05/08	1.84	100
Beryllium	0.14	mg/kg dry	0.06	6010B	0.4	1	JP	09/05/08	1.84	100
Cadmium	ND	mg/kg dry	0.56	6010B	39	1	JP	09/05/08	1.84	100
Chromium	2.2	mg/kg dry	1.1	6010B	1400	1	JP	09/05/08	1.84	100
Copper	9.5	mg/kg dry	1.1	6010B	3100	1	JP	09/05/08	1.84	100
Lead	13.2	mg/kg dry	5.5	6010B	150	1	JP	09/05/08	1.84	100
Mercury	0.785	mg/kg dry	0.168	7471A	23	5	SVD	09/06/08	0.6	40
Nickel	ND	mg/kg dry	2.8	6010B	1000	1	JP	09/05/08	1.84	100
Selenium	ND	mg/kg dry	5.5	6010B	390	1	JP	09/05/08	1.84	100
Silver	ND	mg/kg dry	0.56	6010B	200	1	JP	09/05/08	1.84	100
Thallium	ND	mg/kg dry	1.37	7841	5.5	5	JP	09/06/08	1.84	100
Zinc	16.8	mg/kg dry	2.8	6010B	6000	1	JP	09/05/08	1.84	100



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RiConn-3 0-2
 Date Sampled: 09/05/08 12:43
 Percent Solids: 98
 Initial Volume: 6.5
 Final Volume: 10
 Extraction Method: 5035

ESS Laboratory Work Order: 0809074
 ESS Laboratory Sample ID: 0809074-03
 Sample Matrix: Soil
 Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

RI - RES DEC

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1,1,2-Tetrachloroethane	ND	mg/kg dry	0.0039	2.2	1	09/09/08
1,1,1-Trichloroethane	ND	mg/kg dry	0.0039	540	1	09/09/08
1,1,2,2-Tetrachloroethane	ND	mg/kg dry	0.0039	1.3	1	09/09/08
1,1,2-Trichloroethane	ND	mg/kg dry	0.0039	3.6	1	09/09/08
1,1-Dichloroethane	ND	mg/kg dry	0.0039	920	1	09/09/08
1,1-Dichloroethene	ND	mg/kg dry	0.0039	0.2	1	09/09/08
1,1-Dichloropropene	ND	mg/kg dry	0.0039		1	09/09/08
1,2,3-Trichlorobenzene	ND	mg/kg dry	0.0039		1	09/09/08
1,2,3-Trichloropropane	ND	mg/kg dry	0.0039		1	09/09/08
1,2,4-Trichlorobenzene	ND	mg/kg dry	0.0039	96	1	09/09/08
1,2,4-Trimethylbenzene	ND	mg/kg dry	0.0039		1	09/09/08
1,2-Dibromo-3-Chloropropane	ND	mg/kg dry	0.0039	0.5	1	09/09/08
1,2-Dibromoethane	ND	mg/kg dry	0.0039	0.01	1	09/09/08
1,2-Dichlorobenzene	ND	mg/kg dry	0.0039	510	1	09/09/08
1,2-Dichloroethane	ND	mg/kg dry	0.0039	0.9	1	09/09/08
1,2-Dichloropropane	ND	mg/kg dry	0.0039	1.9	1	09/09/08
1,3,5-Trimethylbenzene	ND	mg/kg dry	0.0039		1	09/09/08
1,3-Dichlorobenzene	ND	mg/kg dry	0.0039	430	1	09/09/08
1,3-Dichloropropane	ND	mg/kg dry	0.0039		1	09/09/08
1,4-Dichlorobenzene	ND	mg/kg dry	0.0039	27	1	09/09/08
1,4-Dioxane	ND	mg/kg dry	0.0785		1	09/09/08
1-Chlorohexane	ND	mg/kg dry	0.0039		1	09/09/08
2,2-Dichloropropane	ND	mg/kg dry	0.0039		1	09/09/08
2-Butanone	ND	mg/kg dry	0.0392	10000	1	09/09/08
2-Chlorotoluene	ND	mg/kg dry	0.0039		1	09/09/08
2-Hexanone	ND	mg/kg dry	0.0392		1	09/09/08
4-Chlorotoluene	ND	mg/kg dry	0.0039		1	09/09/08
4-Isopropyltoluene	ND	mg/kg dry	0.0039		1	09/09/08
4-Methyl-2-Pentanone	ND	mg/kg dry	0.0392	1200	1	09/09/08
Acetone	ND	mg/kg dry	0.0392	7800	1	09/09/08
Benzene	ND	mg/kg dry	0.0039	2.5	1	09/09/08
Bromobenzene	ND	mg/kg dry	0.0039		1	09/09/08
Bromochloromethane	ND	mg/kg dry	0.0039		1	09/09/08
Bromodichloromethane	ND	mg/kg dry	0.0039	10	1	09/09/08
Bromoform	ND	mg/kg dry	0.0039	81	1	09/09/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: RiConn-3 0-2
Date Sampled: 09/05/08 12:43
Percent Solids: 98
Initial Volume: 6.5
Final Volume: 10
Extraction Method: 5035

ESS Laboratory Work Order: 0809074
ESS Laboratory Sample ID: 0809074-03
Sample Matrix: Soil
Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Bromomethane	ND	mg/kg dry	0.0078	0.8	1	09/09/08
Carbon Disulfide	ND	mg/kg dry	0.0039		1	09/09/08
Carbon Tetrachloride	ND	mg/kg dry	0.0039	1.5	1	09/09/08
Chlorobenzene	ND	mg/kg dry	0.0039	210	1	09/09/08
Chloroethane	ND	mg/kg dry	0.0078		1	09/09/08
Chloroform	ND	mg/kg dry	0.0039	1.2	1	09/09/08
Chloromethane	ND	mg/kg dry	0.0078		1	09/09/08
cis-1,2-Dichloroethene	ND	mg/kg dry	0.0039	630	1	09/09/08
cis-1,3-Dichloropropene	ND	mg/kg dry	0.0039		1	09/09/08
Dibromochloromethane	ND	mg/kg dry	0.0039	7.6	1	09/09/08
Dibromomethane	ND	mg/kg dry	0.0039		1	09/09/08
Dichlorodifluoromethane	ND	mg/kg dry	0.0078		1	09/09/08
Diethyl Ether	ND	mg/kg dry	0.0039		1	09/09/08
Di-isopropyl ether	ND	mg/kg dry	0.0039		1	09/09/08
Ethyl tertiary-butyl ether	ND	mg/kg dry	0.0039		1	09/09/08
Ethylbenzene	ND	mg/kg dry	0.0039	71	1	09/09/08
Hexachlorobutadiene	ND	mg/kg dry	0.0039	8.2	1	09/09/08
Isopropylbenzene	ND	mg/kg dry	0.0039	27	1	09/09/08
Methyl tert-Butyl Ether	ND	mg/kg dry	0.0039	390	1	09/09/08
Methylene Chloride	ND	mg/kg dry	0.0196	45	1	09/09/08
Naphthalene	ND	mg/kg dry	0.0039	54	1	09/09/08
n-Butylbenzene	ND	mg/kg dry	0.0039		1	09/09/08
n-Propylbenzene	ND	mg/kg dry	0.0039		1	09/09/08
sec-Butylbenzene	ND	mg/kg dry	0.0039		1	09/09/08
Styrene	ND	mg/kg dry	0.0039	13	1	09/09/08
tert-Butylbenzene	ND	mg/kg dry	0.0039		1	09/09/08
Tertiary-amyl methyl ether	ND	mg/kg dry	0.0039		1	09/09/08
Tetrachloroethene	ND	mg/kg dry	0.0039	12	1	09/09/08
Tetrahydrofuran	ND	mg/kg dry	0.0039		1	09/09/08
Toluene	ND	mg/kg dry	0.0039	190	1	09/09/08
trans-1,2-Dichloroethene	ND	mg/kg dry	0.0039	1100	1	09/09/08
trans-1,3-Dichloropropene	ND	mg/kg dry	0.0039		1	09/09/08
Trichloroethene	ND	mg/kg dry	0.0039	13	1	09/09/08
Trichlorofluoromethane	ND	mg/kg dry	0.0039		1	09/09/08
Vinyl Acetate	ND	mg/kg dry	0.0039		1	09/09/08
Vinyl Chloride	ND	mg/kg dry	0.0078	0.02	1	09/09/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: RiConn-3 0-2
Date Sampled: 09/05/08 12:43
Percent Solids: 98
Initial Volume: 6.5
Final Volume: 10
Extraction Method: 5035

ESS Laboratory Work Order: 0809074
ESS Laboratory Sample ID: 0809074-03
Sample Matrix: Soil
Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Xylene O	ND	mg/kg dry	0.0039	110	1	09/09/08
Xylene P,M	ND	mg/kg dry	0.0078	110	1	09/09/08
Xylenes (Total)	ND	mg/kg dry	0.0118	110	0	09/09/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	113 %		70-130
Surrogate: 4-Bromofluorobenzene	89 %		70-130
Surrogate: Dibromofluoromethane	103 %		70-130
Surrogate: Toluene-d8	107 %		70-130



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RiConn-3 0-2
 Date Sampled: 09/05/08 12:43
 Percent Solids: 98
 Initial Volume: 20.8
 Final Volume: 10
 Extraction Method: 3541

ESS Laboratory Work Order: 0809074
 ESS Laboratory Sample ID: 0809074-03
 Sample Matrix: Soil
 Analyst: SEP
 Prepared: 09/09/08

8082 Polychlorinated Biphenyls (PCB)

RI - RES DEC

Analyte	Results	Units	MRL	Limit	DF	Analyzed
Aroclor 1016	ND	mg/kg dry	0.0491	10	1	09/10/08
Aroclor 1221	ND	mg/kg dry	0.0491	10	1	09/10/08
Aroclor 1232	ND	mg/kg dry	0.0491	10	1	09/10/08
Aroclor 1242	ND	mg/kg dry	0.0491	10	1	09/10/08
Aroclor 1248	ND	mg/kg dry	0.0491	10	1	09/10/08
Aroclor 1254	ND	mg/kg dry	0.0491	10	1	09/10/08
Aroclor 1260	ND	mg/kg dry	0.0491	10	1	09/10/08
Aroclor 1262	ND	mg/kg dry	0.0491	10	1	09/10/08
Aroclor 1268	ND	mg/kg dry	0.0491	10	1	09/10/08

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	117 %		30-150
Surrogate: Decachlorobiphenyl [2C]	166 %	S+	30-150
Surrogate: Tetrachloro-m-xylene	98 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	107 %		30-150



ESS Laboratory

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CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RiConn-3 0-2
 Date Sampled: 09/05/08 12:43
 Percent Solids: 98
 Initial Volume: 20
 Final Volume: 1
 Extraction Method: 3546

ESS Laboratory Work Order: 0809074
 ESS Laboratory Sample ID: 0809074-03
 Sample Matrix: Soil
 Analyst: SEP
 Prepared: 09/05/08

8100M Total Petroleum Hydrocarbons

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>
Total Petroleum Hydrocarbons	65.3	mg/kg dry	38.3	500	1	09/08/08

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: O-Terphenyl	102 %		40-140



ESS Laboratory

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CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: RiConn-3 0-2
Date Sampled: 09/05/08 12:43
Percent Solids: 98
Initial Volume: 15.1
Final Volume: 0.5
Extraction Method: 3546

ESS Laboratory Work Order: 0809074
ESS Laboratory Sample ID: 0809074-03
Sample Matrix: Soil
Analyst: VSC
Prepared: 09/05/08

8270C Semi-Volatile Organic Compounds

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>
1,1-Biphenyl	ND	mg/kg dry	0.338	0.8	1	09/10/08
1,2,4-Trichlorobenzene	ND	mg/kg dry	0.338	96	1	09/10/08
1,2-Dichlorobenzene	ND	mg/kg dry	0.338	510	1	09/10/08
1,3-Dichlorobenzene	ND	mg/kg dry	0.338	430	1	09/10/08
1,4-Dichlorobenzene	ND	mg/kg dry	0.338	27	1	09/10/08
2,3,4,6-Tetrachlorophenol	ND	mg/kg dry	1.69		1	09/10/08
2,4,5-Trichlorophenol	ND	mg/kg dry	0.338	330	1	09/10/08
2,4,6-Trichlorophenol	ND	mg/kg dry	0.338	58	1	09/10/08
2,4-Dichlorophenol	ND	mg/kg dry	0.338	30	1	09/10/08
2,4-Dimethylphenol	ND	mg/kg dry	0.338	1400	1	09/10/08
2,4-Dinitrophenol	ND	mg/kg dry	1.69	160	1	09/10/08
2,4-Dinitrotoluene	ND	mg/kg dry	0.338	0.9	1	09/10/08
2,6-Dinitrotoluene	ND	mg/kg dry	0.338		1	09/10/08
2-Chloronaphthalene	ND	mg/kg dry	0.338		1	09/10/08
2-Chlorophenol	ND	mg/kg dry	0.338	50	1	09/10/08
2-Methylnaphthalene	ND	mg/kg dry	0.338	123	1	09/10/08
2-Methylphenol	ND	mg/kg dry	0.338		1	09/10/08
2-Nitroaniline	ND	mg/kg dry	0.338		1	09/10/08
2-Nitrophenol	ND	mg/kg dry	0.338		1	09/10/08
3,3'-Dichlorobenzidine	ND	mg/kg dry	0.676	1.4	1	09/10/08
3+4-Methylphenol	ND	mg/kg dry	0.676		1	09/10/08
3-Nitroaniline	ND	mg/kg dry	0.338		1	09/10/08
4,6-Dinitro-2-Methylphenol	ND	mg/kg dry	1.69		1	09/10/08
4-Bromophenyl-phenylether	ND	mg/kg dry	0.338		1	09/10/08
4-Chloro-3-Methylphenol	ND	mg/kg dry	0.338		1	09/10/08
4-Chloroaniline	ND	mg/kg dry	0.676	310	1	09/10/08
4-Chloro-phenyl-phenyl ether	ND	mg/kg dry	0.338		1	09/10/08
4-Nitroaniline	ND	mg/kg dry	0.338		1	09/10/08
4-Nitrophenol	ND	mg/kg dry	1.69		1	09/10/08
Acenaphthene	ND	mg/kg dry	0.338	43	1	09/10/08
Acenaphthylene	ND	mg/kg dry	0.338	23	1	09/10/08
Acetophenone	ND	mg/kg dry	0.676		1	09/10/08
Aniline	ND	mg/kg dry	0.676		1	09/10/08
Anthracene	ND	mg/kg dry	0.338	35	1	09/10/08
Azobenzene	ND	mg/kg dry	0.338		1	09/10/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RiConn-3 0-2
 Date Sampled: 09/05/08 12:43
 Percent Solids: 98
 Initial Volume: 15.1
 Final Volume: 0.5
 Extraction Method: 3546

ESS Laboratory Work Order: 0809074
 ESS Laboratory Sample ID: 0809074-03
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 09/05/08

8270C Semi-Volatile Organic Compounds

Benzo(a)anthracene	0.389	mg/kg dry	0.338	0.9	1	09/10/08
Benzo(a)pyrene	0.312	mg/kg dry	0.169	0.4	1	09/10/08
Benzo(b)fluoranthene	0.706	mg/kg dry	0.338	0.9	1	09/10/08
Benzo(g,h,i)perylene	ND	mg/kg dry	0.338	0.8	1	09/10/08
Benzo(k)fluoranthene	0.389	mg/kg dry	0.338	0.9	1	09/10/08
Benzoic Acid	ND	mg/kg dry	1.69		1	09/10/08
Benzyl Alcohol	ND	mg/kg dry	0.338		1	09/10/08
bis(2-Chloroethoxy)methane	ND	mg/kg dry	0.338		1	09/10/08
bis(2-Chloroethyl)ether	ND	mg/kg dry	0.338	0.6	1	09/10/08
bis(2-chloroisopropyl)Ether	ND	mg/kg dry	0.338	9.1	1	09/10/08
bis(2-Ethylhexyl)phthalate	ND	mg/kg dry	0.338	46	1	09/10/08
Butylbenzylphthalate	ND	mg/kg dry	0.338		1	09/10/08
Carbazole	ND	mg/kg dry	0.338		1	09/10/08
Chrysene	0.595	mg/kg dry	0.169	0.4	1	09/10/08
Dibenzo(a,h)Anthracene	ND	mg/kg dry	0.169	0.4	1	09/10/08
Dibenzofuran	ND	mg/kg dry	0.338		1	09/10/08
Diethylphthalate	ND	mg/kg dry	0.338	340	1	09/10/08
Dimethylphthalate	ND	mg/kg dry	0.338	1900	1	09/10/08
Di-n-butylphthalate	ND	mg/kg dry	0.338		1	09/10/08
Di-n-octylphthalate	ND	mg/kg dry	0.338		1	09/10/08
Fluoranthene	0.896	mg/kg dry	0.338	20	1	09/10/08
Fluorene	ND	mg/kg dry	0.338	28	1	09/10/08
Hexachlorobenzene	ND	mg/kg dry	0.169	0.4	1	09/10/08
Hexachlorobutadiene	ND	mg/kg dry	0.338	8.2	1	09/10/08
Hexachlorocyclopentadiene	ND	mg/kg dry	1.69		1	09/10/08
Hexachloroethane	ND	mg/kg dry	0.338	46	1	09/10/08
Indeno(1,2,3-cd)Pyrene	ND	mg/kg dry	0.338	0.9	1	09/10/08
Isophorone	ND	mg/kg dry	0.338		1	09/10/08
Naphthalene	ND	mg/kg dry	0.338	54	1	09/10/08
Nitrobenzene	ND	mg/kg dry	0.338		1	09/10/08
N-Nitrosodimethylamine	ND	mg/kg dry	0.338		1	09/10/08
N-Nitroso-Di-n-Propylamine	ND	mg/kg dry	0.338		1	09/10/08
N-nitrosodiphenylamine	ND	mg/kg dry	0.338		1	09/10/08
Pentachlorophenol	ND	mg/kg dry	1.69	5.3	1	09/10/08
Phenanthrene	ND	mg/kg dry	0.338	40	1	09/10/08
Phenol	ND	mg/kg dry	0.338	6000	1	09/10/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RiConn-3 0-2
 Date Sampled: 09/05/08 12:43
 Percent Solids: 98
 Initial Volume: 15.1
 Final Volume: 0.5
 Extraction Method: 3546

ESS Laboratory Work Order: 0809074
 ESS Laboratory Sample ID: 0809074-03
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 09/05/08

8270C Semi-Volatile Organic Compounds

Pyrene	0.667	mg/kg dry	0.338	13	1	09/10/08
Pyridine	ND	mg/kg dry	1.69		1	09/10/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	71 %		30-130
Surrogate: 2,4,6-Tribromophenol	87 %		30-130
Surrogate: 2-Chlorophenol-d4	63 %		30-130
Surrogate: 2-Fluorobiphenyl	69 %		30-130
Surrogate: 2-Fluorophenol	50 %		30-130
Surrogate: Nitrobenzene-d5	65 %		30-130
Surrogate: Phenol-d6	68 %		30-130
Surrogate: p-Terphenyl-d14	90 %		30-130



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: RiConn-3 2-4
Date Sampled: 09/05/08 13:00
Percent Solids: 97

ESS Laboratory Work Order: 0809074
ESS Laboratory Sample ID: 0809074-04
Sample Matrix: Soil

3050B/6000/7000 Total Metals

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Antimony	ND	mg/kg dry	5.7	6010B	10	1	JP	09/05/08	1.81	100
Arsenic	ND	mg/kg dry	2.8	6010B	7	1	JP	09/05/08	1.81	100
Beryllium	0.10	mg/kg dry	0.06	6010B	0.4	1	JP	09/05/08	1.81	100
Cadmium	ND	mg/kg dry	0.57	6010B	39	1	JP	09/05/08	1.81	100
Chromium	1.5	mg/kg dry	1.1	6010B	1400	1	JP	09/05/08	1.81	100
Copper	2.3	mg/kg dry	1.1	6010B	3100	1	JP	09/05/08	1.81	100
Lead	ND	mg/kg dry	5.7	6010B	150	1	JP	09/05/08	1.81	100
Mercury	ND	mg/kg dry	0.031	7471A	23	1	SVD	09/06/08	0.65	40
Nickel	ND	mg/kg dry	2.8	6010B	1000	1	JP	09/05/08	1.81	100
Selenium	ND	mg/kg dry	5.7	6010B	390	1	JP	09/05/08	1.81	100
Silver	ND	mg/kg dry	0.57	6010B	200	1	JP	09/05/08	1.81	100
Thallium	ND	mg/kg dry	1.41	7841	5.5	5	JP	09/06/08	1.81	100
Zinc	13.7	mg/kg dry	2.8	6010B	6000	1	JP	09/05/08	1.81	100



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RiConn-3 2-4
 Date Sampled: 09/05/08 13:00
 Percent Solids: 97
 Initial Volume: 7.2
 Final Volume: 10
 Extraction Method: 5035

ESS Laboratory Work Order: 0809074
 ESS Laboratory Sample ID: 0809074-04
 Sample Matrix: Soil
 Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

RI - RES DEC

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1,1,2-Tetrachloroethane	ND	mg/kg dry	0.0036	2.2	1	09/09/08
1,1,1-Trichloroethane	ND	mg/kg dry	0.0036	540	1	09/09/08
1,1,2,2-Tetrachloroethane	ND	mg/kg dry	0.0036	1.3	1	09/09/08
1,1,2-Trichloroethane	ND	mg/kg dry	0.0036	3.6	1	09/09/08
1,1-Dichloroethane	ND	mg/kg dry	0.0036	920	1	09/09/08
1,1-Dichloroethene	ND	mg/kg dry	0.0036	0.2	1	09/09/08
1,1-Dichloropropene	ND	mg/kg dry	0.0036		1	09/09/08
1,2,3-Trichlorobenzene	ND	mg/kg dry	0.0036		1	09/09/08
1,2,3-Trichloropropane	ND	mg/kg dry	0.0036		1	09/09/08
1,2,4-Trichlorobenzene	ND	mg/kg dry	0.0036	96	1	09/09/08
1,2,4-Trimethylbenzene	ND	mg/kg dry	0.0036		1	09/09/08
1,2-Dibromo-3-Chloropropane	ND	mg/kg dry	0.0036	0.5	1	09/09/08
1,2-Dibromoethane	ND	mg/kg dry	0.0036	0.01	1	09/09/08
1,2-Dichlorobenzene	ND	mg/kg dry	0.0036	510	1	09/09/08
1,2-Dichloroethane	ND	mg/kg dry	0.0036	0.9	1	09/09/08
1,2-Dichloropropane	ND	mg/kg dry	0.0036	1.9	1	09/09/08
1,3,5-Trimethylbenzene	ND	mg/kg dry	0.0036		1	09/09/08
1,3-Dichlorobenzene	ND	mg/kg dry	0.0036	430	1	09/09/08
1,3-Dichloropropane	ND	mg/kg dry	0.0036		1	09/09/08
1,4-Dichlorobenzene	ND	mg/kg dry	0.0036	27	1	09/09/08
1,4-Dioxane	ND	mg/kg dry	0.0716		1	09/09/08
1-Chlorohexane	ND	mg/kg dry	0.0036		1	09/09/08
2,2-Dichloropropane	ND	mg/kg dry	0.0036		1	09/09/08
2-Butanone	ND	mg/kg dry	0.0358	10000	1	09/09/08
2-Chlorotoluene	ND	mg/kg dry	0.0036		1	09/09/08
2-Hexanone	ND	mg/kg dry	0.0358		1	09/09/08
4-Chlorotoluene	ND	mg/kg dry	0.0036		1	09/09/08
4-Isopropyltoluene	ND	mg/kg dry	0.0036		1	09/09/08
4-Methyl-2-Pentanone	ND	mg/kg dry	0.0358	1200	1	09/09/08
Acetone	ND	mg/kg dry	0.0358	7800	1	09/09/08
Benzene	ND	mg/kg dry	0.0036	2.5	1	09/09/08
Bromobenzene	ND	mg/kg dry	0.0036		1	09/09/08
Bromochloromethane	ND	mg/kg dry	0.0036		1	09/09/08
Bromodichloromethane	ND	mg/kg dry	0.0036	10	1	09/09/08
Bromoform	ND	mg/kg dry	0.0036	81	1	09/09/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: RiConn-3 2-4
Date Sampled: 09/05/08 13:00
Percent Solids: 97
Initial Volume: 7.2
Final Volume: 10
Extraction Method: 5035

ESS Laboratory Work Order: 0809074
ESS Laboratory Sample ID: 0809074-04
Sample Matrix: Soil
Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Bromomethane	ND	mg/kg dry	0.0072	0.8	1	09/09/08
Carbon Disulfide	ND	mg/kg dry	0.0036		1	09/09/08
Carbon Tetrachloride	ND	mg/kg dry	0.0036	1.5	1	09/09/08
Chlorobenzene	ND	mg/kg dry	0.0036	210	1	09/09/08
Chloroethane	ND	mg/kg dry	0.0072		1	09/09/08
Chloroform	ND	mg/kg dry	0.0036	1.2	1	09/09/08
Chloromethane	ND	mg/kg dry	0.0072		1	09/09/08
cis-1,2-Dichloroethene	ND	mg/kg dry	0.0036	630	1	09/09/08
cis-1,3-Dichloropropene	ND	mg/kg dry	0.0036		1	09/09/08
Dibromochloromethane	ND	mg/kg dry	0.0036	7.6	1	09/09/08
Dibromomethane	ND	mg/kg dry	0.0036		1	09/09/08
Dichlorodifluoromethane	ND	mg/kg dry	0.0072		1	09/09/08
Diethyl Ether	ND	mg/kg dry	0.0036		1	09/09/08
Di-isopropyl ether	ND	mg/kg dry	0.0036		1	09/09/08
Ethyl tertiary-butyl ether	ND	mg/kg dry	0.0036		1	09/09/08
Ethylbenzene	ND	mg/kg dry	0.0036	71	1	09/09/08
Hexachlorobutadiene	ND	mg/kg dry	0.0036	8.2	1	09/09/08
Isopropylbenzene	ND	mg/kg dry	0.0036	27	1	09/09/08
Methyl tert-Butyl Ether	ND	mg/kg dry	0.0036	390	1	09/09/08
Methylene Chloride	ND	mg/kg dry	0.0179	45	1	09/09/08
Naphthalene	ND	mg/kg dry	0.0036	54	1	09/09/08
n-Butylbenzene	ND	mg/kg dry	0.0036		1	09/09/08
n-Propylbenzene	ND	mg/kg dry	0.0036		1	09/09/08
sec-Butylbenzene	ND	mg/kg dry	0.0036		1	09/09/08
Styrene	ND	mg/kg dry	0.0036	13	1	09/09/08
tert-Butylbenzene	ND	mg/kg dry	0.0036		1	09/09/08
Tertiary-amyl methyl ether	ND	mg/kg dry	0.0036		1	09/09/08
Tetrachloroethene	ND	mg/kg dry	0.0036	12	1	09/09/08
Tetrahydrofuran	ND	mg/kg dry	0.0036		1	09/09/08
Toluene	ND	mg/kg dry	0.0036	190	1	09/09/08
trans-1,2-Dichloroethene	ND	mg/kg dry	0.0036	1100	1	09/09/08
trans-1,3-Dichloropropene	ND	mg/kg dry	0.0036		1	09/09/08
Trichloroethene	ND	mg/kg dry	0.0036	13	1	09/09/08
Trichlorofluoromethane	ND	mg/kg dry	0.0036		1	09/09/08
Vinyl Acetate	ND	mg/kg dry	0.0036		1	09/09/08
Vinyl Chloride	ND	mg/kg dry	0.0072	0.02	1	09/09/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.

Client Project ID: Trestle Trail

Client Sample ID: RiConn-3 2-4

Date Sampled: 09/05/08 13:00

Percent Solids: 97

Initial Volume: 7.2

Final Volume: 10

Extraction Method: 5035

ESS Laboratory Work Order: 0809074

ESS Laboratory Sample ID: 0809074-04

Sample Matrix: Soil

Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Xylene O	ND	mg/kg dry	0.0036	110	1	09/09/08
Xylene P,M	ND	mg/kg dry	0.0072	110	1	09/09/08
Xylenes (Total)	ND	mg/kg dry	0.0107	110	0	09/09/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	112 %		70-130
Surrogate: 4-Bromofluorobenzene	96 %		70-130
Surrogate: Dibromofluoromethane	101 %		70-130
Surrogate: Toluene-d8	97 %		70-130



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RiConn-3 2-4
 Date Sampled: 09/05/08 13:00
 Percent Solids: 97
 Initial Volume: 20
 Final Volume: 1
 Extraction Method: 3546

ESS Laboratory Work Order: 0809074
 ESS Laboratory Sample ID: 0809074-04
 Sample Matrix: Soil
 Analyst: SEP
 Prepared: 09/05/08

8100M Total Petroleum Hydrocarbons

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>
Total Petroleum Hydrocarbons	ND	mg/kg dry	38.7	500	1	09/08/08

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: O-Terphenyl	104 %		40-140



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: Trip Blank
Date Sampled: 09/05/08 00:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 10
Extraction Method: 5035

ESS Laboratory Work Order: 0809074
ESS Laboratory Sample ID: 0809074-05
Sample Matrix: Solid
Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0050	2.2	1	09/09/08
1,1,1-Trichloroethane	ND	mg/kg	0.0050	540	1	09/09/08
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0050	1.3	1	09/09/08
1,1,2-Trichloroethane	ND	mg/kg	0.0050	3.6	1	09/09/08
1,1-Dichloroethane	ND	mg/kg	0.0050	920	1	09/09/08
1,1-Dichloroethene	ND	mg/kg	0.0050	0.2	1	09/09/08
1,1-Dichloropropene	ND	mg/kg	0.0050		1	09/09/08
1,2,3-Trichlorobenzene	ND	mg/kg	0.0050		1	09/09/08
1,2,3-Trichloropropane	ND	mg/kg	0.0050		1	09/09/08
1,2,4-Trichlorobenzene	ND	mg/kg	0.0050		1	09/09/08
1,2,4-Trimethylbenzene	ND	mg/kg	0.0050		1	09/09/08
1,2-Dibromo-3-Chloropropane	ND	mg/kg	0.0050	0.5	1	09/09/08
1,2-Dibromoethane	ND	mg/kg	0.0050	0.01	1	09/09/08
1,2-Dichlorobenzene	ND	mg/kg	0.0050		1	09/09/08
1,2-Dichloroethane	ND	mg/kg	0.0050	0.9	1	09/09/08
1,2-Dichloropropane	ND	mg/kg	0.0050	1.9	1	09/09/08
1,3,5-Trimethylbenzene	ND	mg/kg	0.0050		1	09/09/08
1,3-Dichlorobenzene	ND	mg/kg	0.0050		1	09/09/08
1,3-Dichloropropane	ND	mg/kg	0.0050		1	09/09/08
1,4-Dichlorobenzene	ND	mg/kg	0.0050		1	09/09/08
1,4-Dioxane	ND	mg/kg	0.100		1	09/09/08
1-Chlorohexane	ND	mg/kg	0.0050		1	09/09/08
2,2-Dichloropropane	ND	mg/kg	0.0050		1	09/09/08
2-Butanone	ND	mg/kg	0.0500	10000	1	09/09/08
2-Chlorotoluene	ND	mg/kg	0.0050		1	09/09/08
2-Hexanone	ND	mg/kg	0.0500		1	09/09/08
4-Chlorotoluene	ND	mg/kg	0.0050		1	09/09/08
4-Isopropyltoluene	ND	mg/kg	0.0050		1	09/09/08
4-Methyl-2-Pentanone	ND	mg/kg	0.0500	1200	1	09/09/08
Acetone	ND	mg/kg	0.0500	7800	1	09/09/08
Benzene	ND	mg/kg	0.0050	2.5	1	09/09/08
Bromobenzene	ND	mg/kg	0.0050		1	09/09/08
Bromochloromethane	ND	mg/kg	0.0050		1	09/09/08
Bromodichloromethane	ND	mg/kg	0.0050	10	1	09/09/08
Bromoform	ND	mg/kg	0.0050	81	1	09/09/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: Trip Blank
Date Sampled: 09/05/08 00:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 10
Extraction Method: 5035

ESS Laboratory Work Order: 0809074
ESS Laboratory Sample ID: 0809074-05
Sample Matrix: Solid
Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Bromomethane	ND	mg/kg	0.0100	0.8	1	09/09/08
Carbon Disulfide	ND	mg/kg	0.0050		1	09/09/08
Carbon Tetrachloride	ND	mg/kg	0.0050	1.5	1	09/09/08
Chlorobenzene	ND	mg/kg	0.0050	210	1	09/09/08
Chloroethane	ND	mg/kg	0.0100		1	09/09/08
Chloroform	ND	mg/kg	0.0050	1.2	1	09/09/08
Chloromethane	ND	mg/kg	0.0100		1	09/09/08
cis-1,2-Dichloroethene	ND	mg/kg	0.0050	630	1	09/09/08
cis-1,3-Dichloropropene	ND	mg/kg	0.0050		1	09/09/08
Dibromochloromethane	ND	mg/kg	0.0050	7.6	1	09/09/08
Dibromomethane	ND	mg/kg	0.0050		1	09/09/08
Dichlorodifluoromethane	ND	mg/kg	0.0100		1	09/09/08
Diethyl Ether	ND	mg/kg	0.0050		1	09/09/08
Di-isopropyl ether	ND	mg/kg	0.0050		1	09/09/08
Ethyl tertiary-butyl ether	ND	mg/kg	0.0050		1	09/09/08
Ethylbenzene	ND	mg/kg	0.0050	71	1	09/09/08
Hexachlorobutadiene	ND	mg/kg	0.0050		1	09/09/08
Isopropylbenzene	ND	mg/kg	0.0050	27	1	09/09/08
Methyl tert-Butyl Ether	ND	mg/kg	0.0050	390	1	09/09/08
Methylene Chloride	ND	mg/kg	0.0250	45	1	09/09/08
Naphthalene	ND	mg/kg	0.0050		1	09/09/08
n-Butylbenzene	ND	mg/kg	0.0050		1	09/09/08
n-Propylbenzene	ND	mg/kg	0.0050		1	09/09/08
sec-Butylbenzene	ND	mg/kg	0.0050		1	09/09/08
Styrene	ND	mg/kg	0.0050	13	1	09/09/08
tert-Butylbenzene	ND	mg/kg	0.0050		1	09/09/08
Tertiary-amyl methyl ether	ND	mg/kg	0.0050		1	09/09/08
Tetrachloroethene	ND	mg/kg	0.0050	12	1	09/09/08
Tetrahydrofuran	ND	mg/kg	0.0050		1	09/09/08
Toluene	ND	mg/kg	0.0050	190	1	09/09/08
trans-1,2-Dichloroethene	ND	mg/kg	0.0050	1100	1	09/09/08
trans-1,3-Dichloropropene	ND	mg/kg	0.0050		1	09/09/08
Trichloroethene	ND	mg/kg	0.0050	13	1	09/09/08
Trichlorofluoromethane	ND	mg/kg	0.0050		1	09/09/08
Vinyl Acetate	ND	mg/kg	0.0050		1	09/09/08
Vinyl Chloride	ND	mg/kg	0.0100	0.02	1	09/09/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: Trip Blank
Date Sampled: 09/05/08 00:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 10
Extraction Method: 5035

ESS Laboratory Work Order: 0809074
ESS Laboratory Sample ID: 0809074-05
Sample Matrix: Solid
Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Xylene O	ND	mg/kg	0.0050	110	1	09/09/08
Xylene P,M	ND	mg/kg	0.0100	110	1	09/09/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	104 %		70-130
Surrogate: 4-Bromofluorobenzene	94 %		70-130
Surrogate: Dibromofluoromethane	105 %		70-130
Surrogate: Toluene-d8	101 %		70-130



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809074

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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3050B/6000/7000 Total Metals

Batch B180509 - 3050B

Blank

Antimony	ND	6.7	mg/kg wet							
Arsenic	ND	3.3	mg/kg wet							
Beryllium	ND	0.07	mg/kg wet							
Cadmium	ND	0.67	mg/kg wet							
Chromium	ND	1.3	mg/kg wet							
Copper	ND	1.3	mg/kg wet							
Lead	ND	6.7	mg/kg wet							
Nickel	ND	3.3	mg/kg wet							
Selenium	ND	6.7	mg/kg wet							
Silver	ND	0.67	mg/kg wet							
Thallium	ND	0.33	mg/kg wet							
Zinc	ND	3.3	mg/kg wet							

LCS

Antimony	32.1	6.7	mg/kg wet	33.33		96	80-120			
Arsenic	29.7	3.3	mg/kg wet	33.33		89	80-120			
Beryllium	3.07	0.07	mg/kg wet	3.333		92	80-120			
Cadmium	14.9	0.67	mg/kg wet	16.67		89	80-120			
Chromium	32.1	1.3	mg/kg wet	33.33		96	80-120			
Copper	32.0	1.3	mg/kg wet	33.33		96	80-120			
Lead	31.8	6.7	mg/kg wet	33.33		95	80-120			
Nickel	31.7	3.3	mg/kg wet	33.33		95	80-120			
Selenium	57.3	6.7	mg/kg wet	66.67		86	80-120			
Silver	15.8	0.67	mg/kg wet	16.67		95	80-120			
Thallium	34.7	6.60	mg/kg wet	33.33		104	80-120			
Zinc	29.6	3.3	mg/kg wet	33.33		89	80-120			

LCS Dup

Antimony	31.8	6.7	mg/kg wet	33.33		95	80-120	1	20	
Arsenic	29.0	3.3	mg/kg wet	33.33		87	80-120	2	20	
Beryllium	3.11	0.07	mg/kg wet	3.333		93	80-120	1	20	
Cadmium	14.8	0.67	mg/kg wet	16.67		89	80-120	0.7	20	
Chromium	31.6	1.3	mg/kg wet	33.33		95	80-120	1	20	
Copper	31.6	1.3	mg/kg wet	33.33		95	80-120	1	20	
Lead	31.6	6.7	mg/kg wet	33.33		95	80-120	0.6	20	
Nickel	31.2	3.3	mg/kg wet	33.33		94	80-120	1	20	
Selenium	57.2	6.7	mg/kg wet	66.67		86	80-120	0.3	20	
Silver	15.6	0.67	mg/kg wet	16.67		93	80-120	1	20	
Thallium	35.5	6.60	mg/kg wet	33.33		106	80-120	2	20	
Zinc	29.2	3.3	mg/kg wet	33.33		87	80-120	2	20	

Duplicate Source: 0809074-04

Antimony	ND	5.7	mg/kg dry		ND				35	
Arsenic	ND	2.8	mg/kg dry		ND				35	
Beryllium	0.097	0.06	mg/kg dry		0.097			0.1	35	
Cadmium	0.129	0.57	mg/kg dry		0.140			8	35	
Chromium	1.60	1.1	mg/kg dry		1.54			4	35	



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809074

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
3050B/6000/7000 Total Metals										
Batch BI80509 - 3050B										
Copper	2.34	1.1	mg/kg dry		2.27			3	35	
Lead	0.774	5.7	mg/kg dry		1.33			53	35	
Nickel	1.16	2.8	mg/kg dry		1.23			6	35	
Selenium	ND	5.7	mg/kg dry		ND				35	
Silver	ND	0.57	mg/kg dry		ND				35	
Thallium	ND	0.28	mg/kg dry		ND				35	
Zinc	14.5	2.8	mg/kg dry		13.7			6	35	
Matrix Spike Source: 0809074-04										
Antimony	19.5	5.7	mg/kg dry	28.48	ND	69	75-125			M-
Arsenic	22.0	2.8	mg/kg dry	28.48	ND	77	75-125			
Beryllium	2.43	0.06	mg/kg dry	2.848	0.097	82	75-125			
Cadmium	11.4	0.57	mg/kg dry	14.24	0.140	79	75-125			
Chromium	25.5	1.1	mg/kg dry	28.48	1.54	84	75-125			
Copper	25.7	1.1	mg/kg dry	28.48	2.27	82	75-125			
Lead	24.2	5.7	mg/kg dry	28.48	1.33	80	75-125			
Nickel	24.3	2.8	mg/kg dry	28.48	1.23	81	75-125			
Selenium	43.7	5.7	mg/kg dry	56.96	ND	77	75-125			
Silver	12.0	0.57	mg/kg dry	14.24	ND	84	75-125			
Thallium	26.5	5.64	mg/kg dry	28.48	ND	93	75-125			
Zinc	36.5	2.8	mg/kg dry	28.48	13.7	80	75-125			
Reference										
Antimony	81.5	10.0	mg/kg wet	127.0		64	0-210			
Arsenic	242	5.0	mg/kg wet	280.0		87	81-119			
Beryllium	47.2	0.10	mg/kg wet	51.00		93	83-117			
Cadmium	161	1.00	mg/kg wet	182.0		88	82-118			
Chromium	127	2.0	mg/kg wet	142.0		89	81-120			
Copper	117	2.0	mg/kg wet	132.0		88	83-117			
Lead	67.6	10.0	mg/kg wet	72.20		94	82-118			
Nickel	141	5.0	mg/kg wet	155.0		91	82-117			
Selenium	143	10.0	mg/kg wet	165.0		87	78-123			
Silver	120	1.00	mg/kg wet	126.0		95	66-134			
Thallium	207	24.8	mg/kg wet	184.0		113	77-122			
Zinc	290	5.0	mg/kg wet	346.0		84	79-121			
Batch BI80510 - 7471A										
Blank										
Mercury	ND	0.033	mg/kg wet							
LCS										
Mercury	0.223	0.033	mg/kg wet	0.2000		112	80-120			
LCS Dup										
Mercury	0.218	0.033	mg/kg wet	0.2000		109	80-120	2	20	
Duplicate Source: 0809074-04										
Mercury	ND	0.033	mg/kg dry		ND				35	
Matrix Spike Source: 0809074-04										
Mercury	0.237	0.033	mg/kg dry	0.2028	ND	117	75-125			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809074

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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3050B/6000/7000 Total Metals

Batch B180510 - 7471A

Matrix Spike Dup Source: 0809074-04

Mercury	0.240	0.034	mg/kg dry	0.2062	ND	116	75-125	1	35	
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Reference

Mercury	7.35	0.649	mg/kg wet	8.480		87	66-132			
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5035/8260B Volatile Organic Compounds / Low Level

Batch B180902 - 5035

Blank

1,1,1,2-Tetrachloroethane	ND	0.0050	mg/kg wet
1,1,1-Trichloroethane	ND	0.0050	mg/kg wet
1,1,2,2-Tetrachloroethane	ND	0.0050	mg/kg wet
1,1,2-Trichloroethane	ND	0.0050	mg/kg wet
1,1-Dichloroethane	ND	0.0050	mg/kg wet
1,1-Dichloroethene	ND	0.0050	mg/kg wet
1,1-Dichloropropene	ND	0.0050	mg/kg wet
1,2,3-Trichlorobenzene	ND	0.0050	mg/kg wet
1,2,3-Trichloropropane	ND	0.0050	mg/kg wet
1,2,4-Trichlorobenzene	ND	0.0050	mg/kg wet
1,2,4-Trimethylbenzene	ND	0.0050	mg/kg wet
1,2-Dibromo-3-Chloropropane	ND	0.0050	mg/kg wet
1,2-Dibromoethane	ND	0.0050	mg/kg wet
1,2-Dichlorobenzene	ND	0.0050	mg/kg wet
1,2-Dichloroethane	ND	0.0050	mg/kg wet
1,2-Dichloropropane	ND	0.0050	mg/kg wet
1,3,5-Trimethylbenzene	ND	0.0050	mg/kg wet
1,3-Dichlorobenzene	ND	0.0050	mg/kg wet
1,3-Dichloropropane	ND	0.0050	mg/kg wet
1,4-Dichlorobenzene	ND	0.0050	mg/kg wet
1,4-Dioxane	ND	0.100	mg/kg wet
1-Chlorohexane	ND	0.0050	mg/kg wet
2,2-Dichloropropane	ND	0.0050	mg/kg wet
2-Butanone	ND	0.0500	mg/kg wet
2-Chlorotoluene	ND	0.0050	mg/kg wet
2-Hexanone	ND	0.0500	mg/kg wet
4-Chlorotoluene	ND	0.0050	mg/kg wet
4-Isopropyltoluene	ND	0.0050	mg/kg wet
4-Methyl-2-Pentanone	ND	0.0500	mg/kg wet
Acetone	ND	0.0500	mg/kg wet
Benzene	ND	0.0050	mg/kg wet
Bromobenzene	ND	0.0050	mg/kg wet
Bromochloromethane	ND	0.0050	mg/kg wet
Bromodichloromethane	ND	0.0050	mg/kg wet
Bromoform	ND	0.0050	mg/kg wet
Bromomethane	ND	0.0100	mg/kg wet
Carbon Disulfide	ND	0.0050	mg/kg wet



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809074

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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5035/8260B Volatile Organic Compounds / Low Level

Batch B180902 - 5035

Carbon Tetrachloride	ND	0.0050	mg/kg wet							
Chlorobenzene	ND	0.0050	mg/kg wet							
Chloroethane	ND	0.0100	mg/kg wet							
Chloroform	ND	0.0050	mg/kg wet							
Chloromethane	ND	0.0100	mg/kg wet							
cis-1,2-Dichloroethene	ND	0.0050	mg/kg wet							
cis-1,3-Dichloropropene	ND	0.0050	mg/kg wet							
Dibromochloromethane	ND	0.0050	mg/kg wet							
Dibromomethane	ND	0.0050	mg/kg wet							
Dichlorodifluoromethane	ND	0.0100	mg/kg wet							
Diethyl Ether	ND	0.0050	mg/kg wet							
Di-isopropyl ether	ND	0.0050	mg/kg wet							
Ethyl tertiary-butyl ether	ND	0.0050	mg/kg wet							
Ethylbenzene	ND	0.0050	mg/kg wet							
Hexachlorobutadiene	ND	0.0050	mg/kg wet							
Isopropylbenzene	ND	0.0050	mg/kg wet							
Methyl tert-Butyl Ether	ND	0.0050	mg/kg wet							
Methylene Chloride	ND	0.0250	mg/kg wet							
Naphthalene	ND	0.0050	mg/kg wet							
n-Butylbenzene	ND	0.0050	mg/kg wet							
n-Propylbenzene	ND	0.0050	mg/kg wet							
sec-Butylbenzene	ND	0.0050	mg/kg wet							
Styrene	ND	0.0050	mg/kg wet							
tert-Butylbenzene	ND	0.0050	mg/kg wet							
Tertiary-amyl methyl ether	ND	0.0050	mg/kg wet							
Tetrachloroethene	ND	0.0050	mg/kg wet							
Tetrahydrofuran	ND	0.0050	mg/kg wet							
Toluene	ND	0.0050	mg/kg wet							
trans-1,2-Dichloroethene	ND	0.0050	mg/kg wet							
trans-1,3-Dichloropropene	ND	0.0050	mg/kg wet							
Trichloroethene	ND	0.0050	mg/kg wet							
Vinyl Acetate	ND	0.0050	mg/kg wet							
Vinyl Chloride	ND	0.0100	mg/kg wet							
Xylene O	ND	0.0050	mg/kg wet							
Xylene P,M	ND	0.0100	mg/kg wet							
Surrogate: 1,2-Dichloroethane-d4	0.0515		mg/kg wet	0.05000		103	70-130			
Surrogate: 4-Bromofluorobenzene	0.0480		mg/kg wet	0.05000		96	70-130			
Surrogate: Dibromofluoromethane	0.0503		mg/kg wet	0.05000		101	70-130			
Surrogate: Toluene-d8	0.0499		mg/kg wet	0.05000		100	70-130			

LCS

1,1,1,2-Tetrachloroethane	0.0479	0.0050	mg/kg wet	0.05000		96	70-130			
1,1,1-Trichloroethane	0.0444	0.0050	mg/kg wet	0.05000		89	70-130			
1,1,2,2-Tetrachloroethane	0.0480	0.0050	mg/kg wet	0.05000		96	70-130			
1,1,2-Trichloroethane	0.0499	0.0050	mg/kg wet	0.05000		100	70-130			
1,1-Dichloroethane	0.0505	0.0050	mg/kg wet	0.05000		101	70-130			
1,1-Dichloroethene	0.0514	0.0050	mg/kg wet	0.05000		103	70-130			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.

Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809074

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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5035/8260B Volatile Organic Compounds / Low Level

Batch B180902 - 5035

1,1-Dichloropropene	0.0485	0.0050	mg/kg wet	0.05000		97	70-130			
1,2,3-Trichlorobenzene	0.0478	0.0050	mg/kg wet	0.05000		96	70-130			
1,2,3-Trichloropropane	0.0501	0.0050	mg/kg wet	0.05000		100	70-130			
1,2,4-Trichlorobenzene	0.0456	0.0050	mg/kg wet	0.05000		91	70-130			
1,2,4-Trimethylbenzene	0.0489	0.0050	mg/kg wet	0.05000		98	70-130			
1,2-Dibromo-3-Chloropropane	0.0512	0.0050	mg/kg wet	0.05000		102	70-130			
1,2-Dibromoethane	0.0484	0.0050	mg/kg wet	0.05000		97	70-130			
1,2-Dichlorobenzene	0.0460	0.0050	mg/kg wet	0.05000		92	70-130			
1,2-Dichloroethane	0.0456	0.0050	mg/kg wet	0.05000		91	70-130			
1,2-Dichloropropane	0.0491	0.0050	mg/kg wet	0.05000		98	70-130			
1,3,5-Trimethylbenzene	0.0466	0.0050	mg/kg wet	0.05000		93	70-130			
1,3-Dichlorobenzene	0.0454	0.0050	mg/kg wet	0.05000		91	70-130			
1,3-Dichloropropane	0.0492	0.0050	mg/kg wet	0.05000		98	70-130			
1,4-Dichlorobenzene	0.0444	0.0050	mg/kg wet	0.05000		89	70-130			
1,4-Dioxane	1.00	0.100	mg/kg wet	1.000		100	70-130			
1-Chlorohexane	0.0498	0.0050	mg/kg wet	0.05000		100	70-130			
2,2-Dichloropropane	0.0456	0.0050	mg/kg wet	0.05000		91	70-130			
2-Butanone	0.310	0.0500	mg/kg wet	0.2500		124	70-130			
2-Chlorotoluene	0.0466	0.0050	mg/kg wet	0.05000		93	70-130			
2-Hexanone	0.317	0.0500	mg/kg wet	0.2500		127	70-130			
4-Chlorotoluene	0.0457	0.0050	mg/kg wet	0.05000		91	70-130			
4-Isopropyltoluene	0.0450	0.0050	mg/kg wet	0.05000		90	70-130			
4-Methyl-2-Pentanone	0.266	0.0500	mg/kg wet	0.2500		107	70-130			
Acetone	0.311	0.0500	mg/kg wet	0.2500		124	70-130			
Benzene	0.0478	0.0050	mg/kg wet	0.05000		96	70-130			
Bromobenzene	0.0458	0.0050	mg/kg wet	0.05000		92	70-130			
Bromochloromethane	0.0493	0.0050	mg/kg wet	0.05000		99	70-130			
Bromodichloromethane	0.0468	0.0050	mg/kg wet	0.05000		94	70-130			
Bromoform	0.0485	0.0050	mg/kg wet	0.05000		97	70-130			
Bromomethane	0.0516	0.0100	mg/kg wet	0.05000		103	70-130			
Carbon Disulfide	0.0603	0.0050	mg/kg wet	0.05000		121	70-130			
Carbon Tetrachloride	0.0450	0.0050	mg/kg wet	0.05000		90	70-130			
Chlorobenzene	0.0446	0.0050	mg/kg wet	0.05000		89	70-130			
Chloroethane	0.0447	0.0100	mg/kg wet	0.05000		89	70-130			
Chloroform	0.0473	0.0050	mg/kg wet	0.05000		95	70-130			
Chloromethane	0.0460	0.0100	mg/kg wet	0.05000		92	70-130			
cis-1,2-Dichloroethene	0.0497	0.0050	mg/kg wet	0.05000		99	70-130			
cis-1,3-Dichloropropene	0.0478	0.0050	mg/kg wet	0.05000		96	70-130			
Dibromochloromethane	0.0490	0.0050	mg/kg wet	0.05000		98	70-130			
Dibromomethane	0.0495	0.0050	mg/kg wet	0.05000		99	70-130			
Dichlorodifluoromethane	0.0540	0.0100	mg/kg wet	0.05000		108	70-130			
Diethyl Ether	0.0561	0.0050	mg/kg wet	0.05000		112	70-130			
DI-isopropyl ether	0.0543	0.0050	mg/kg wet	0.05000		109	70-130			
Ethyl tertiary-butyl ether	0.0496	0.0050	mg/kg wet	0.05000		99	70-130			
Ethylbenzene	0.0467	0.0050	mg/kg wet	0.05000		93	70-130			
Hexachlorobutadiene	0.0445	0.0050	mg/kg wet	0.05000		89	70-130			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809074

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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5035/8260B Volatile Organic Compounds / Low Level

Batch B180902 - 5035

Isopropylbenzene	0.0423	0.0050	mg/kg wet	0.05000		85	70-130			
Methyl tert-Butyl Ether	0.0497	0.0050	mg/kg wet	0.05000		99	70-130			
Methylene Chloride	0.0509	0.0250	mg/kg wet	0.05000		102	70-130			
Naphthalene	0.0514	0.0050	mg/kg wet	0.05000		103	70-130			
n-Butylbenzene	0.0477	0.0050	mg/kg wet	0.05000		95	70-130			
n-Propylbenzene	0.0486	0.0050	mg/kg wet	0.05000		97	70-130			
sec-Butylbenzene	0.0466	0.0050	mg/kg wet	0.05000		93	70-130			
Styrene	0.0467	0.0050	mg/kg wet	0.05000		93	70-130			
tert-Butylbenzene	0.0466	0.0050	mg/kg wet	0.05000		93	70-130			
Tertiary-amyl methyl ether	0.0534	0.0050	mg/kg wet	0.05000		107	70-130			
Tetrachloroethene	0.0453	0.0050	mg/kg wet	0.05000		91	70-130			
Tetrahydrofuran	0.0531	0.0050	mg/kg wet	0.05000		106	70-130			
Toluene	0.0460	0.0050	mg/kg wet	0.05000		92	70-130			
trans-1,2-Dichloroethene	0.0525	0.0050	mg/kg wet	0.05000		105	70-130			
trans-1,3-Dichloropropene	0.0434	0.0050	mg/kg wet	0.05000		87	70-130			
Trichloroethene	0.0458	0.0050	mg/kg wet	0.05000		92	70-130			
Vinyl Acetate	0.0523	0.0050	mg/kg wet	0.05000		105	70-130			
Vinyl Chloride	0.0550	0.0100	mg/kg wet	0.05000		110	70-130			
Xylene O	0.0464	0.0050	mg/kg wet	0.05000		93	70-130			
Xylene P,M	0.0910	0.0100	mg/kg wet	0.1000		91	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0475		mg/kg wet	0.05000		95	70-130			
Surrogate: 4-Bromofluorobenzene	0.0489		mg/kg wet	0.05000		98	70-130			
Surrogate: Dibromofluoromethane	0.0500		mg/kg wet	0.05000		100	70-130			
Surrogate: Toluene-d8	0.0483		mg/kg wet	0.05000		97	70-130			

LCS Dup

1,1,1,2-Tetrachloroethane	0.0450	0.0050	mg/kg wet	0.05000		90	70-130	6	20	
1,1,1-Trichloroethane	0.0411	0.0050	mg/kg wet	0.05000		82	70-130	8	20	
1,1,2,2-Tetrachloroethane	0.0440	0.0050	mg/kg wet	0.05000		88	70-130	9	20	
1,1,2-Trichloroethane	0.0466	0.0050	mg/kg wet	0.05000		93	70-130	7	20	
1,1-Dichloroethane	0.0481	0.0050	mg/kg wet	0.05000		96	70-130	5	20	
1,1-Dichloroethene	0.0487	0.0050	mg/kg wet	0.05000		97	70-130	6	20	
1,1-Dichloropropene	0.0451	0.0050	mg/kg wet	0.05000		90	70-130	7	20	
1,2,3-Trichlorobenzene	0.0465	0.0050	mg/kg wet	0.05000		93	70-130	3	20	
1,2,3-Trichloropropane	0.0449	0.0050	mg/kg wet	0.05000		90	70-130	11	20	
1,2,4-Trichlorobenzene	0.0441	0.0050	mg/kg wet	0.05000		88	70-130	3	20	
1,2,4-Trimethylbenzene	0.0470	0.0050	mg/kg wet	0.05000		94	70-130	4	20	
1,2-Dibromo-3-Chloropropane	0.0421	0.0050	mg/kg wet	0.05000		84	70-130	19	20	
1,2-Dibromoethane	0.0449	0.0050	mg/kg wet	0.05000		90	70-130	8	20	
1,2-Dichlorobenzene	0.0445	0.0050	mg/kg wet	0.05000		89	70-130	3	20	
1,2-Dichloroethane	0.0443	0.0050	mg/kg wet	0.05000		89	70-130	3	20	
1,2-Dichloropropane	0.0475	0.0050	mg/kg wet	0.05000		95	70-130	3	20	
1,3,5-Trimethylbenzene	0.0448	0.0050	mg/kg wet	0.05000		90	70-130	4	20	
1,3-Dichlorobenzene	0.0441	0.0050	mg/kg wet	0.05000		88	70-130	3	20	
1,3-Dichloropropane	0.0451	0.0050	mg/kg wet	0.05000		90	70-130	9	20	
1,4-Dichlorobenzene	0.0434	0.0050	mg/kg wet	0.05000		87	70-130	2	20	
1,4-Dioxane	0.917	0.100	mg/kg wet	1.000		92	70-130	9	20	



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.

Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809074

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
5035/8260B Volatile Organic Compounds / Low Level										
Batch BI80902 - 5035										
1-Chlorohexane	0.0487	0.0050	mg/kg wet	0.05000		97	70-130	2	20	
2,2-Dichloropropane	0.0412	0.0050	mg/kg wet	0.05000		82	70-130	10	20	
2-Butanone	0.264	0.0500	mg/kg wet	0.2500		106	70-130	16	20	
2-Chlorotoluene	0.0453	0.0050	mg/kg wet	0.05000		91	70-130	3	20	
2-Hexanone	0.282	0.0500	mg/kg wet	0.2500		113	70-130	11	20	
4-Chlorotoluene	0.0447	0.0050	mg/kg wet	0.05000		89	70-130	2	20	
4-Isopropyltoluene	0.0436	0.0050	mg/kg wet	0.05000		87	70-130	3	20	
4-Methyl-2-Pentanone	0.258	0.0500	mg/kg wet	0.2500		103	70-130	3	20	
Acetone	0.382	0.0500	mg/kg wet	0.2500		153	70-130	21	20	B+, D+
Benzene	0.0464	0.0050	mg/kg wet	0.05000		93	70-130	3	20	
Bromobenzene	0.0435	0.0050	mg/kg wet	0.05000		87	70-130	5	20	
Bromochloromethane	0.0458	0.0050	mg/kg wet	0.05000		92	70-130	7	20	
Bromodichloromethane	0.0444	0.0050	mg/kg wet	0.05000		89	70-130	5	20	
Bromoform	0.0460	0.0050	mg/kg wet	0.05000		92	70-130	5	20	
Bromomethane	0.0468	0.0100	mg/kg wet	0.05000		94	70-130	10	20	
Carbon Disulfide	0.0583	0.0050	mg/kg wet	0.05000		117	70-130	3	20	
Carbon Tetrachloride	0.0402	0.0050	mg/kg wet	0.05000		80	70-130	11	20	
Chlorobenzene	0.0436	0.0050	mg/kg wet	0.05000		87	70-130	2	20	
Chloroethane	0.0438	0.0100	mg/kg wet	0.05000		88	70-130	2	20	
Chloroform	0.0445	0.0050	mg/kg wet	0.05000		89	70-130	6	20	
Chloromethane	0.0488	0.0100	mg/kg wet	0.05000		98	70-130	6	20	
cis-1,2-Dichloroethene	0.0470	0.0050	mg/kg wet	0.05000		94	70-130	5	20	
cis-1,3-Dichloropropene	0.0466	0.0050	mg/kg wet	0.05000		93	70-130	2	20	
Dibromochloromethane	0.0446	0.0050	mg/kg wet	0.05000		89	70-130	10	20	
Dibromomethane	0.0456	0.0050	mg/kg wet	0.05000		91	70-130	8	20	
Dichlorodifluoromethane	0.0523	0.0100	mg/kg wet	0.05000		105	70-130	3	20	
Diethyl Ether	0.0532	0.0050	mg/kg wet	0.05000		106	70-130	5	20	
Di-Isopropyl ether	0.0513	0.0050	mg/kg wet	0.05000		103	70-130	6	20	
Ethyl tertiary-butyl ether	0.0474	0.0050	mg/kg wet	0.05000		95	70-130	4	20	
Ethylbenzene	0.0458	0.0050	mg/kg wet	0.05000		92	70-130	2	20	
Hexachlorobutadiene	0.0432	0.0050	mg/kg wet	0.05000		86	70-130	3	20	
Isopropylbenzene	0.0403	0.0050	mg/kg wet	0.05000		81	70-130	5	20	
Methyl tert-Butyl Ether	0.0446	0.0050	mg/kg wet	0.05000		89	70-130	11	20	
Methylene Chloride	0.0500	0.0250	mg/kg wet	0.05000		100	70-130	2	20	
Naphthalene	0.0469	0.0050	mg/kg wet	0.05000		94	70-130	9	20	
n-Butylbenzene	0.0458	0.0050	mg/kg wet	0.05000		92	70-130	4	20	
n-Propylbenzene	0.0468	0.0050	mg/kg wet	0.05000		94	70-130	4	20	
sec-Butylbenzene	0.0446	0.0050	mg/kg wet	0.05000		89	70-130	4	20	
Styrene	0.0453	0.0050	mg/kg wet	0.05000		91	70-130	3	20	
tert-Butylbenzene	0.0437	0.0050	mg/kg wet	0.05000		87	70-130	6	20	
Tertiary-amyl methyl ether	0.0485	0.0050	mg/kg wet	0.05000		97	70-130	10	20	
Tetrachloroethene	0.0430	0.0050	mg/kg wet	0.05000		86	70-130	5	20	
Tetrahydrofuran	0.0488	0.0050	mg/kg wet	0.05000		98	70-130	8	20	
Toluene	0.0477	0.0050	mg/kg wet	0.05000		95	70-130	3	20	
trans-1,2-Dichloroethene	0.0497	0.0050	mg/kg wet	0.05000		99	70-130	6	20	
trans-1,3-Dichloropropene	0.0421	0.0050	mg/kg wet	0.05000		84	70-130	3	20	



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

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Client Project ID: Trestle Trail

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Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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5035/8260B Volatile Organic Compounds / Low Level

Batch BI80902 - 5035

Trichloroethene	0.0445	0.0050	mg/kg wet	0.05000		89	70-130	3	20	
Vinyl Acetate	0.0489	0.0050	mg/kg wet	0.05000		98	70-130	7	20	
Vinyl Chloride	0.0528	0.0100	mg/kg wet	0.05000		106	70-130	4	20	
Xylene O	0.0450	0.0050	mg/kg wet	0.05000		90	70-130	3	20	
Xylene P,M	0.0893	0.0100	mg/kg wet	0.1000		89	70-130	2	20	
Surrogate: 1,2-Dichloroethane-d4	0.0448		mg/kg wet	0.05000		90	70-130			
Surrogate: 4-Bromofluorobenzene	0.0491		mg/kg wet	0.05000		98	70-130			
Surrogate: Dibromofluoromethane	0.0480		mg/kg wet	0.05000		96	70-130			
Surrogate: Toluene-d8	0.0482		mg/kg wet	0.05000		96	70-130			

8082 Polychlorinated Biphenyls (PCB)

Batch BI80909 - 3541

Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							
Surrogate: Decachlorobiphenyl	0.0290		mg/kg wet	0.02500		116	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.0293		mg/kg wet	0.02500		117	30-150			
Surrogate: Tetrachloro-m-xylene	0.0229		mg/kg wet	0.02500		91	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.0248		mg/kg wet	0.02500		99	30-150			

LCS

Aroclor 1016	0.565	0.0500	mg/kg wet	0.5000		113	40-140			
Aroclor 1260	0.544	0.0500	mg/kg wet	0.5000		109	40-140			
Surrogate: Decachlorobiphenyl	0.0300		mg/kg wet	0.02500		120	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.0301		mg/kg wet	0.02500		120	30-150			
Surrogate: Tetrachloro-m-xylene	0.0241		mg/kg wet	0.02500		96	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.0248		mg/kg wet	0.02500		99	30-150			

LCS Dup

Aroclor 1016	0.578	0.0500	mg/kg wet	0.5000		116	40-140	2	50	
Aroclor 1260	0.569	0.0500	mg/kg wet	0.5000		114	40-140	5	50	
Surrogate: Decachlorobiphenyl	0.0303		mg/kg wet	0.02500		121	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.0302		mg/kg wet	0.02500		121	30-150			
Surrogate: Tetrachloro-m-xylene	0.0253		mg/kg wet	0.02500		101	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.0259		mg/kg wet	0.02500		104	30-150			

Matrix Spike Source: 0809074-03

Aroclor 1016	0.565	0.0488	mg/kg dry	0.4882	ND	116	40-140			
Aroclor 1260	0.515	0.0488	mg/kg dry	0.4882	ND	105	40-140			



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Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8082 Polychlorinated Biphenyls (PCB)

Batch BI80909 - 3541

Surrogate: Decachlorobiphenyl	0.0283		mg/kg dry	0.02441		116	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.0344		mg/kg dry	0.02441		141	30-150			
Surrogate: Tetrachloro-m-xylene	0.0246		mg/kg dry	0.02441		101	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.0254		mg/kg dry	0.02441		104	30-150			

Matrix Spike Dup Source: 0809074-03

Aroclor 1016	0.573	0.0503	mg/kg dry	0.5027	ND	114	40-140	1	50	
Aroclor 1260	0.560	0.0503	mg/kg dry	0.5027	ND	111	40-140	8	50	

Surrogate: Decachlorobiphenyl	0.0310		mg/kg dry	0.02513		124	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.0376		mg/kg dry	0.02513		150	30-150			
Surrogate: Tetrachloro-m-xylene	0.0246		mg/kg dry	0.02513		98	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.0257		mg/kg dry	0.02513		102	30-150			

8100M Total Petroleum Hydrocarbons

Batch BI80522 - 3546

Blank

Decane (C10)	ND	0.25	mg/kg wet							
Docosane (C22)	ND	0.25	mg/kg wet							
Dodecane (C12)	ND	0.25	mg/kg wet							
Eicosane (C20)	ND	0.25	mg/kg wet							
Hexacosane (C26)	ND	0.25	mg/kg wet							
Hexadecane (C16)	ND	0.25	mg/kg wet							
Nonadecane (C19)	ND	0.25	mg/kg wet							
Nonane (C9)	ND	0.25	mg/kg wet							
Octacosane (C28)	ND	0.25	mg/kg wet							
Octadecane (C18)	ND	0.25	mg/kg wet							
Tetracosane (C24)	ND	0.25	mg/kg wet							
Tetradecane (C14)	ND	0.25	mg/kg wet							
Total Petroleum Hydrocarbons	ND	37.5	mg/kg wet							
Triacontane (C30)	ND	0.25	mg/kg wet							

Surrogate: O-Terphenyl	4.39		mg/kg wet	5.000		88	40-140			
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LCS

Decane (C10)	1.75	0.25	mg/kg wet	2.500		70	40-140			
Docosane (C22)	1.95	0.25	mg/kg wet	2.500		78	40-140			
Dodecane (C12)	1.84	0.25	mg/kg wet	2.500		74	40-140			
Eicosane (C20)	1.97	0.25	mg/kg wet	2.500		79	40-140			
Hexacosane (C26)	1.94	0.25	mg/kg wet	2.500		78	40-140			
Hexadecane (C16)	1.92	0.25	mg/kg wet	2.500		77	40-140			
Hexatriacontane (C36)	1.81	0.25	mg/kg wet	2.500		72	40-140			
Nonadecane (C19)	1.98	0.25	mg/kg wet	2.500		79	40-140			
Nonane (C9)	1.52	0.25	mg/kg wet	2.500		61	30-140			
Octacosane (C28)	1.99	0.25	mg/kg wet	2.500		79	40-140			
Octadecane (C18)	1.95	0.25	mg/kg wet	2.500		78	40-140			
Tetracosane (C24)	1.99	0.25	mg/kg wet	2.500		80	40-140			



ESS Laboratory

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Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8100M Total Petroleum Hydrocarbons

Batch BI80522 - 3546

Tetradecane (C14)	1.90	0.25	mg/kg wet	2.500		76	40-140			
Triacontane (C30)	1.83	0.25	mg/kg wet	2.500		73	40-140			

<i>Surrogate: O-Terphenyl</i>	<i>3.95</i>		mg/kg wet	<i>5.000</i>		<i>79</i>	<i>40-140</i>			
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LCS Dup

Decane (C10)	1.69	0.25	mg/kg wet	2.500		68	40-140	3	50	
Docosane (C22)	1.88	0.25	mg/kg wet	2.500		75	40-140	4	50	
Dodecane (C12)	1.77	0.25	mg/kg wet	2.500		71	40-140	4	50	
Eicosane (C20)	1.90	0.25	mg/kg wet	2.500		76	40-140	4	50	
Hexacosane (C26)	1.86	0.25	mg/kg wet	2.500		74	40-140	4	50	
Hexadecane (C16)	1.84	0.25	mg/kg wet	2.500		74	40-140	4	50	
Nonadecane (C19)	1.90	0.25	mg/kg wet	2.500		76	40-140	4	50	
Nonane (C9)	1.44	0.25	mg/kg wet	2.500		58	30-140	5	50	
Octacosane (C28)	1.90	0.25	mg/kg wet	2.500		76	40-140	4	50	
Octadecane (C18)	1.88	0.25	mg/kg wet	2.500		75	40-140	4	50	
Tetracosane (C24)	1.91	0.25	mg/kg wet	2.500		76	40-140	4	50	
Tetradecane (C14)	1.82	0.25	mg/kg wet	2.500		73	40-140	4	50	
Triacontane (C30)	1.74	0.25	mg/kg wet	2.500		70	40-140	5	50	

<i>Surrogate: O-Terphenyl</i>	<i>3.66</i>		mg/kg wet	<i>5.000</i>		<i>73</i>	<i>40-140</i>			
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8270C Semi-Volatile Organic Compounds

Batch BI80521 - 3546

Blank

1,1-Biphenyl	ND	0.333	mg/kg wet							
1,2,4-Trichlorobenzene	ND	0.333	mg/kg wet							
1,2-Dichlorobenzene	ND	0.333	mg/kg wet							
1,3-Dichlorobenzene	ND	0.333	mg/kg wet							
1,4-Dichlorobenzene	ND	0.333	mg/kg wet							
2,3,4,6-Tetrachlorophenol	ND	1.67	mg/kg wet							
2,4,5-Trichlorophenol	ND	0.333	mg/kg wet							
2,4,6-Trichlorophenol	ND	0.333	mg/kg wet							
2,4-Dichlorophenol	ND	0.333	mg/kg wet							
2,4-Dimethylphenol	ND	0.333	mg/kg wet							
2,4-Dinitrophenol	ND	1.67	mg/kg wet							
2,4-Dinitrotoluene	ND	0.333	mg/kg wet							
2,6-Dinitrotoluene	ND	0.333	mg/kg wet							
2-Chloronaphthalene	ND	0.333	mg/kg wet							
2-Chlorophenol	ND	0.333	mg/kg wet							
2-Methylnaphthalene	ND	0.333	mg/kg wet							
2-Methylphenol	ND	0.333	mg/kg wet							
2-Nitroaniline	ND	0.333	mg/kg wet							
2-Nitrophenol	ND	0.333	mg/kg wet							
3,3'-Dichlorobenzidine	ND	0.667	mg/kg wet							
3+4-Methylphenol	ND	0.667	mg/kg wet							
3-Nitroaniline	ND	0.333	mg/kg wet							



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Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

Batch B180521 - 3546

4,6-Dinitro-2-Methylphenol	ND	1.67	mg/kg wet							
4-Bromophenyl-phenylether	ND	0.333	mg/kg wet							
4-Chloro-3-Methylphenol	ND	0.333	mg/kg wet							
4-Chloroaniline	ND	0.667	mg/kg wet							
4-Chloro-phenyl-phenyl ether	ND	0.333	mg/kg wet							
4-Nitroaniline	ND	0.333	mg/kg wet							
4-Nitrophenol	ND	1.67	mg/kg wet							
Acenaphthene	ND	0.333	mg/kg wet							
Acenaphthylene	ND	0.333	mg/kg wet							
Acetophenone	ND	0.667	mg/kg wet							
Aniline	ND	0.667	mg/kg wet							
Anthracene	ND	0.333	mg/kg wet							
Azobenzene	ND	0.333	mg/kg wet							
Benzo(a)anthracene	ND	0.333	mg/kg wet							
Benzo(a)pyrene	ND	0.167	mg/kg wet							
Benzo(b)fluoranthene	ND	0.333	mg/kg wet							
Benzo(g,h,i)perylene	ND	0.333	mg/kg wet							
Benzo(k)fluoranthene	ND	0.333	mg/kg wet							
Benzoic Acid	ND	1.67	mg/kg wet							
Benzyl Alcohol	ND	0.333	mg/kg wet							
bis(2-Chloroethoxy)methane	ND	0.333	mg/kg wet							
bis(2-Chloroethyl)ether	ND	0.333	mg/kg wet							
bls(2-chloroisopropyl)Ether	ND	0.333	mg/kg wet							
bls(2-Ethylhexyl)phthalate	ND	0.333	mg/kg wet							
Butylbenzylphthalate	ND	0.333	mg/kg wet							
Carbazole	ND	0.333	mg/kg wet							
Chrysene	ND	0.167	mg/kg wet							
Dibenzo(a,h)Anthracene	ND	0.167	mg/kg wet							
Dibenzofuran	ND	0.333	mg/kg wet							
Diethylphthalate	ND	0.333	mg/kg wet							
Dimethylphthalate	ND	0.333	mg/kg wet							
Di-n-butylphthalate	ND	0.333	mg/kg wet							
Di-n-octylphthalate	ND	0.333	mg/kg wet							
Fluoranthene	ND	0.333	mg/kg wet							
Fluorene	ND	0.333	mg/kg wet							
Hexachlorobenzene	ND	0.167	mg/kg wet							
Hexachlorobutadiene	ND	0.333	mg/kg wet							
Hexachlorocyclopentadiene	ND	1.67	mg/kg wet							
Hexachloroethane	ND	0.333	mg/kg wet							
Indeno(1,2,3-cd)Pyrene	ND	0.333	mg/kg wet							
Isophorone	ND	0.333	mg/kg wet							
Naphthalene	ND	0.333	mg/kg wet							
Nitrobenzene	ND	0.333	mg/kg wet							
N-Nitrosodimethylamine	ND	0.333	mg/kg wet							
N-Nitroso-Di-n-Propylamine	ND	0.333	mg/kg wet							
N-nitrosodiphenylamine	ND	0.333	mg/kg wet							



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Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

Batch B180521 - 3546

Pentachlorophenol	ND	1.67	mg/kg wet							
Phenanthrene	ND	0.333	mg/kg wet							
Phenol	ND	0.333	mg/kg wet							
Pyrene	ND	0.333	mg/kg wet							
Pyridine	ND	1.67	mg/kg wet							
Surrogate: 1,2-Dichlorobenzene-d4	2.35		mg/kg wet	3.333		70	30-130			
Surrogate: 2,4,6-Tribromophenol	4.36		mg/kg wet	5.000		87	30-130			
Surrogate: 2-Chlorophenol-d4	3.40		mg/kg wet	5.000		68	30-130			
Surrogate: 2-Fluorobiphenyl	2.36		mg/kg wet	3.333		71	30-130			
Surrogate: 2-Fluorophenol	3.26		mg/kg wet	5.000		65	30-130			
Surrogate: Nitrobenzene-d5	2.68		mg/kg wet	3.333		80	30-130			
Surrogate: Phenol-d6	3.65		mg/kg wet	5.000		73	30-130			
Surrogate: p-Terphenyl-d14	2.47		mg/kg wet	3.333		74	30-130			

LCS

1,1-Biphenyl	2.68	0.333	mg/kg wet	3.333		80	40-140			
1,2,4-Trichlorobenzene	2.19	0.333	mg/kg wet	3.333		66	40-140			
1,2-Dichlorobenzene	2.11	0.333	mg/kg wet	3.333		63	40-140			
1,3-Dichlorobenzene	2.15	0.333	mg/kg wet	3.333		65	40-140			
1,4-Dichlorobenzene	2.18	0.333	mg/kg wet	3.333		65	40-140			
2,3,4,6-Tetrachlorophenol	2.80	1.67	mg/kg wet	3.333		84	30-130			
2,4,5-Trichlorophenol	2.58	0.333	mg/kg wet	3.333		77	30-130			
2,4,6-Trichlorophenol	2.51	0.333	mg/kg wet	3.333		75	30-130			
2,4-Dichlorophenol	2.32	0.333	mg/kg wet	3.333		70	30-130			
2,4-Dimethylphenol	2.15	0.333	mg/kg wet	3.333		65	30-130			
2,4-Dinitrophenol	2.58	1.67	mg/kg wet	3.333		77	30-130			
2,4-Dinitrotoluene	2.77	0.333	mg/kg wet	3.333		83	40-140			
2,6-Dinitrotoluene	2.61	0.333	mg/kg wet	3.333		78	40-140			
2-Chloronaphthalene	1.91	0.333	mg/kg wet	3.333		57	40-140			
2-Chlorophenol	2.10	0.333	mg/kg wet	3.333		63	30-130			
2-Methylnaphthalene	2.22	0.333	mg/kg wet	3.333		67	40-140			
2-Methylphenol	2.27	0.333	mg/kg wet	3.333		68	30-130			
2-Nitroaniline	2.64	0.333	mg/kg wet	3.333		79	40-140			
2-Nitrophenol	2.25	0.333	mg/kg wet	3.333		67	30-130			
3,3'-Dichlorobenzidine	2.22	0.667	mg/kg wet	3.333		67	40-140			
3+4-Methylphenol	3.82	0.667	mg/kg wet	6.667		57	30-130			
3-Nitroaniline	2.57	0.333	mg/kg wet	3.333		77	40-140			
4,6-Dinitro-2-Methylphenol	3.10	1.67	mg/kg wet	3.333		93	30-130			
4-Bromophenyl-phenylether	2.45	0.333	mg/kg wet	3.333		73	40-140			
4-Chloro-3-Methylphenol	2.48	0.333	mg/kg wet	3.333		74	30-130			
4-Chloroaniline	1.81	0.667	mg/kg wet	3.333		54	40-140			
4-Chloro-phenyl-phenyl ether	2.49	0.333	mg/kg wet	3.333		75	40-140			
4-Nitroaniline	2.84	0.333	mg/kg wet	3.333		85	40-140			
4-Nitrophenol	3.30	1.67	mg/kg wet	3.333		99	30-130			
Acenaphthene	2.30	0.333	mg/kg wet	3.333		69	40-140			
Acenaphthylene	2.27	0.333	mg/kg wet	3.333		68	40-140			
Acetophenone	2.40	0.667	mg/kg wet	3.333		72	40-140			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809074

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

Batch BI80521 - 3546

Aniline	1.69	0.667	mg/kg wet	3.333		51	40-140			
Anthracene	2.43	0.333	mg/kg wet	3.333		73	40-140			
Azobenzene	2.42	0.333	mg/kg wet	3.333		73	40-140			
Benzo(a)anthracene	2.23	0.333	mg/kg wet	3.333		67	40-140			
Benzo(a)pyrene	2.79	0.167	mg/kg wet	3.333		84	40-140			
Benzo(b)fluoranthene	3.02	0.333	mg/kg wet	3.333		90	40-140			
Benzo(g,h,i)perylene	2.76	0.333	mg/kg wet	3.333		83	40-140			
Benzo(k)fluoranthene	2.69	0.333	mg/kg wet	3.333		81	40-140			
Benzoic Acid	1.77	1.67	mg/kg wet	3.333		53	40-140			
Benzyl Alcohol	2.32	0.333	mg/kg wet	3.333		69	40-140			
bis(2-Chloroethoxy)methane	2.15	0.333	mg/kg wet	3.333		65	40-140			
bis(2-Chloroethyl)ether	2.50	0.333	mg/kg wet	3.333		75	40-140			
bis(2-chloroisopropyl)Ether	1.99	0.333	mg/kg wet	3.333		60	40-140			
bis(2-Ethylhexyl)phthalate	2.27	0.333	mg/kg wet	3.333		68	40-140			
Butylbenzylphthalate	2.15	0.333	mg/kg wet	3.333		65	40-140			
Carbazole	2.52	0.333	mg/kg wet	3.333		76	40-140			
Chrysene	2.18	0.167	mg/kg wet	3.333		65	40-140			
Dibenzo(a,h)Anthracene	2.57	0.167	mg/kg wet	3.333		77	40-140			
Dibenzofuran	2.22	0.333	mg/kg wet	3.333		67	40-140			
Diethylphthalate	2.50	0.333	mg/kg wet	3.333		75	40-140			
Dimethylphthalate	2.47	0.333	mg/kg wet	3.333		74	40-140			
Di-n-butylphthalate	2.41	0.333	mg/kg wet	3.333		72	40-140			
Di-n-octylphthalate	2.68	0.333	mg/kg wet	3.333		80	40-140			
Fluoranthene	2.53	0.333	mg/kg wet	3.333		76	40-140			
Fluorene	2.26	0.333	mg/kg wet	3.333		68	40-140			
Hexachlorobenzene	2.48	0.167	mg/kg wet	3.333		74	40-140			
Hexachlorobutadiene	2.24	0.333	mg/kg wet	3.333		67	40-140			
Hexachlorocyclopentadiene	2.61	1.67	mg/kg wet	3.333		78	40-140			
Hexachloroethane	2.32	0.333	mg/kg wet	3.333		69	40-140			
Indeno(1,2,3-cd)Pyrene	2.79	0.333	mg/kg wet	3.333		84	40-140			
Isophorone	2.20	0.333	mg/kg wet	3.333		66	40-140			
Naphthalene	2.43	0.333	mg/kg wet	3.333		73	40-140			
Nitrobenzene	2.06	0.333	mg/kg wet	3.333		62	40-140			
N-Nitrosodimethylamine	2.20	0.333	mg/kg wet	3.333		66	40-140			
N-Nitroso-DI-n-Propylamine	1.91	0.333	mg/kg wet	3.333		57	40-140			
N-nitrosodiphenylamine	2.87	0.333	mg/kg wet	3.333		86	40-140			
Pentachlorophenol	2.84	1.67	mg/kg wet	3.333		85	30-130			
Phenanthrene	2.24	0.333	mg/kg wet	3.333		67	40-140			
Phenol	2.00	0.333	mg/kg wet	3.333		60	30-130			
Pyrene	2.23	0.333	mg/kg wet	3.333		67	40-140			
Pyridine	1.86	1.67	mg/kg wet	3.333		56	40-140			
Surrogate: 1,2-Dichlorobenzene-d4	2.20		mg/kg wet	3.333		66	30-130			
Surrogate: 2,4,6-Tribromophenol	4.19		mg/kg wet	5.000		84	30-130			
Surrogate: 2-Chlorophenol-d4	3.26		mg/kg wet	5.000		65	30-130			
Surrogate: 2-Fluorobiphenyl	2.23		mg/kg wet	3.333		67	30-130			
Surrogate: 2-Fluorophenol	3.14		mg/kg wet	5.000		63	30-130			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809074

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

Batch B180521 - 3546

Surrogate: Nitrobenzene-d5	2.28		mg/kg wet	3.333		68	30-130			
Surrogate: Phenol-d6	2.94		mg/kg wet	5.000		59	30-130			
Surrogate: p-Terphenyl-d14	2.26		mg/kg wet	3.333		68	30-130			

LCS Dup

1,1-Biphenyl	2.73	0.333	mg/kg wet	3.333		82	40-140	2	30	
1,2,4-Trichlorobenzene	2.46	0.333	mg/kg wet	3.333		74	40-140	12	30	
1,2-Dichlorobenzene	2.45	0.333	mg/kg wet	3.333		73	40-140	15	30	
1,3-Dichlorobenzene	2.37	0.333	mg/kg wet	3.333		71	40-140	10	30	
1,4-Dichlorobenzene	2.45	0.333	mg/kg wet	3.333		73	40-140	12	30	
2,3,4,6-Tetrachlorophenol	2.79	1.67	mg/kg wet	3.333		84	30-130	0.5	30	
2,4,5-Trichlorophenol	2.66	0.333	mg/kg wet	3.333		80	30-130	3	30	
2,4,6-Trichlorophenol	2.63	0.333	mg/kg wet	3.333		79	30-130	5	30	
2,4-Dichlorophenol	2.64	0.333	mg/kg wet	3.333		79	30-130	13	30	
2,4-Dimethylphenol	2.42	0.333	mg/kg wet	3.333		73	30-130	12	30	
2,4-Dinitrophenol	2.57	1.67	mg/kg wet	3.333		77	30-130	0.5	30	
2,4-Dinitrotoluene	2.70	0.333	mg/kg wet	3.333		81	40-140	2	30	
2,6-Dinitrotoluene	2.66	0.333	mg/kg wet	3.333		80	40-140	2	30	
2-Chloronaphthalene	1.95	0.333	mg/kg wet	3.333		58	40-140	2	30	
2-Chlorophenol	2.39	0.333	mg/kg wet	3.333		72	30-130	13	30	
2-Methylnaphthalene	2.53	0.333	mg/kg wet	3.333		76	40-140	13	30	
2-Methylphenol	2.49	0.333	mg/kg wet	3.333		75	30-130	9	30	
2-Nitroaniline	2.78	0.333	mg/kg wet	3.333		83	40-140	5	30	
2-Nitrophenol	2.67	0.333	mg/kg wet	3.333		80	30-130	17	30	
3,3'-Dichlorobenzidine	2.27	0.667	mg/kg wet	3.333		68	40-140	2	30	
3+4-Methylphenol	4.21	0.667	mg/kg wet	6.667		63	30-130	10	30	
3-Nitroaniline	2.65	0.333	mg/kg wet	3.333		79	40-140	3	30	
4,6-Dinitro-2-Methylphenol	3.02	1.67	mg/kg wet	3.333		91	30-130	3	30	
4-Bromophenyl-phenylether	2.62	0.333	mg/kg wet	3.333		79	40-140	7	30	
4-Chloro-3-Methylphenol	2.69	0.333	mg/kg wet	3.333		81	30-130	8	30	
4-Chloroaniline	2.05	0.667	mg/kg wet	3.333		61	40-140	12	30	
4-Chloro-phenyl-phenyl ether	2.54	0.333	mg/kg wet	3.333		76	40-140	2	30	
4-Nitroaniline	2.84	0.333	mg/kg wet	3.333		85	40-140	0.2	30	
4-Nitrophenol	2.86	1.67	mg/kg wet	3.333		86	30-130	14	30	
Acenaphthene	2.46	0.333	mg/kg wet	3.333		74	40-140	7	30	
Acenaphthylene	2.40	0.333	mg/kg wet	3.333		72	40-140	6	30	
Acetophenone	2.68	0.667	mg/kg wet	3.333		80	40-140	11	30	
Aniline	1.68	0.667	mg/kg wet	3.333		50	40-140	0.6	30	
Anthracene	2.41	0.333	mg/kg wet	3.333		72	40-140	0.6	30	
Azobenzene	2.44	0.333	mg/kg wet	3.333		73	40-140	0.8	30	
Benzo(a)anthracene	2.23	0.333	mg/kg wet	3.333		67	40-140	0.3	30	
Benzo(a)pyrene	2.76	0.167	mg/kg wet	3.333		83	40-140	1	30	
Benzo(b)fluoranthene	2.96	0.333	mg/kg wet	3.333		89	40-140	2	30	
Benzo(g,h,i)perylene	2.62	0.333	mg/kg wet	3.333		79	40-140	5	30	
Benzo(k)fluoranthene	2.48	0.333	mg/kg wet	3.333		74	40-140	8	30	
Benzoic Acid	1.94	1.67	mg/kg wet	3.333		58	40-140	9	30	



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809074

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

Batch B180521 - 3546

Benzyl Alcohol	2.58	0.333	mg/kg wet	3.333		77	40-140	11	30	
bis(2-Chloroethoxy)methane	2.49	0.333	mg/kg wet	3.333		75	40-140	15	30	
bis(2-Chloroethyl)ether	2.84	0.333	mg/kg wet	3.333		85	40-140	13	30	
bis(2-chloroisopropyl)Ether	2.12	0.333	mg/kg wet	3.333		64	40-140	6	30	
bis(2-Ethylhexyl)phthalate	2.19	0.333	mg/kg wet	3.333		66	40-140	4	30	
Butylbenzylphthalate	2.13	0.333	mg/kg wet	3.333		64	40-140	0.8	30	
Carbazole	2.57	0.333	mg/kg wet	3.333		77	40-140	2	30	
Chrysene	2.18	0.167	mg/kg wet	3.333		65	40-140	0.2	30	
Dibenzo(a,h)Anthracene	2.56	0.167	mg/kg wet	3.333		77	40-140	0.6	30	
Dibenzofuran	2.28	0.333	mg/kg wet	3.333		68	40-140	3	30	
Diethylphthalate	2.45	0.333	mg/kg wet	3.333		74	40-140	2	30	
Dimethylphthalate	2.55	0.333	mg/kg wet	3.333		76	40-140	3	30	
Di-n-butylphthalate	2.39	0.333	mg/kg wet	3.333		72	40-140	0.8	30	
Di-n-octylphthalate	2.62	0.333	mg/kg wet	3.333		79	40-140	2	30	
Fluoranthene	2.52	0.333	mg/kg wet	3.333		76	40-140	0.4	30	
Fluorene	2.33	0.333	mg/kg wet	3.333		70	40-140	3	30	
Hexachlorobenzene	2.60	0.167	mg/kg wet	3.333		78	40-140	5	30	
Hexachlorobutadiene	2.50	0.333	mg/kg wet	3.333		75	40-140	11	30	
Hexachlorocyclopentadiene	2.84	1.67	mg/kg wet	3.333		85	40-140	8	30	
Hexachloroethane	2.51	0.333	mg/kg wet	3.333		75	40-140	8	30	
Indeno(1,2,3-cd)Pyrene	2.69	0.333	mg/kg wet	3.333		81	40-140	3	30	
Isophorone	2.45	0.333	mg/kg wet	3.333		74	40-140	11	30	
Naphthalene	2.58	0.333	mg/kg wet	3.333		77	40-140	6	30	
Nitrobenzene	2.33	0.333	mg/kg wet	3.333		70	40-140	12	30	
N-Nitrosodimethylamine	2.42	0.333	mg/kg wet	3.333		73	40-140	9	30	
N-Nitroso-Di-n-Propylamine	2.05	0.333	mg/kg wet	3.333		61	40-140	7	30	
N-nitrosodiphenylamine	2.83	0.333	mg/kg wet	3.333		85	40-140	1	30	
Pentachlorophenol	2.88	1.67	mg/kg wet	3.333		86	30-130	1	30	
Phenanthrene	2.30	0.333	mg/kg wet	3.333		69	40-140	3	30	
Phenol	2.23	0.333	mg/kg wet	3.333		67	30-130	11	30	
Pyrene	2.14	0.333	mg/kg wet	3.333		64	40-140	4	30	
Pyridine	2.09	1.67	mg/kg wet	3.333		63	40-140	11	30	
Surrogate: 1,2-Dichlorobenzene-d4	2.57		mg/kg wet	3.333		77	30-130			
Surrogate: 2,4,6-Tribromophenol	4.62		mg/kg wet	5.000		92	30-130			
Surrogate: 2-Chlorophenol-d4	3.86		mg/kg wet	5.000		77	30-130			
Surrogate: 2-Fluorobiphenyl	2.53		mg/kg wet	3.333		76	30-130			
Surrogate: 2-Fluorophenol	3.91		mg/kg wet	5.000		78	30-130			
Surrogate: Nitrobenzene-d5	2.72		mg/kg wet	3.333		82	30-130			
Surrogate: Phenol-d6	3.26		mg/kg wet	5.000		65	30-130			
Surrogate: p-Terphenyl-d14	2.41		mg/kg wet	3.333		72	30-130			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809074

Notes and Definitions

- U Analyte included in the analysis, but not detected
- S+ Surrogate recovery(ies) above upper control limit.
- Q Calibration required quadratic regression.
- M- Matrix Spike recovery is below lower control limit.
- IC Internal Standard(s) outside of criteria. Sample was reanalyzed to confirm.
- D+ Relative percent difference for duplicate is outside of criteria.
- D Diluted.
- B+ Blank Spike recovery is above upper control limit.
- ND Analyte NOT DETECTED above the detection limit
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- MDL Method Detection Limit
- MRL Method Reporting Limit
- I/V Initial Volume
- F/V Final Volume
- § Subcontracted analysis; see attached report
- 1 Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
- 2 Range result excludes concentrations of target analytes eluting in that range.
- 3 Range result excludes the concentration of the C9-C10 aromatic range.
- Avg Results reported as a mathematical average.



ESS Laboratory

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CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

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ESS LABORATORY CERTIFICATIONS

U.S. Army Corps of Engineers
Soil and Water

Navy Installation Restoration QA Program
Soil and Water

Rhode Island: A-179

Connecticut: PH-0750

Maine: RI002

Massachusetts: M-RI002

New Hampshire (NELAP accredited): 242405
Potable Water
Non Potable Water

New York (NELAP accredited): 11313
Potable Water
Non Potable Water
Solid and Hazardous Waste

United States Department of Agriculture
Soil Permit: S-54210

New Jersey (NELAP accredited): RI002
Potable Water
Non Potable Water
Soil and Hazardous Waste

Maryland: 301
Potable Water

ESS Laboratory
 Division of Thielsch Engineering, Inc.
 185 Frances Avenue, Cranston, RI 02910-2211
 Tel. (401) 461-7181 Fax (401) 461-4486
 www.esslaboratory.com

CHAIN OF CUSTODY

Turn Time Standard Other _____
 If faster than 5 days, prior approval by laboratory is required # _____
 State where samples were collected from: _____
 MA CT NH NJ NY ME Other _____
 Is this project for any of the following: USACE Other Navy Other _____
 MA-MCP _____

Reporting Limits Residual Direct exposure
 Electronic Deliverable Yes No
 Format: Excel Access PDF Other _____
 ESS LAB PROJECT ID: 0829074

Co. Name: **VHB**
 Contact Person: **Sue Courtemanche**
 City: **Providence** State: **RI** Zip: **02903**
 Telephone #: **401-272-8100** Fax #: _____
 Project Name (20 Char. or less): **1 Restle Trail**
 Address: **10 Dorrance St, Suite 400**
 PO #: _____

ESS LAB Sample#	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Pres Code	Number of Containers	Type of Containers	VPH	8015 GRO	8013 DRO	EPH	EPH w/PARTS	4 Diesel	8081 PCB	8082 Pesticides	608 PCB	PAH 8270	RCRA5 RCRAS 8270	RCRA5 RCRAS 8270	TCLP-RCRAS	MCP-METALS (13)	MCP-METALS (13) w/fg
1	9/3/08	9:12	<input checked="" type="checkbox"/>		S	RiCom-1 0-2	6	5	GA	8021	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										
2	9/3/08	10:49	<input checked="" type="checkbox"/>		S	RiCom-2 0-2	6	5	GA	8015	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										
3	9/3/08	12:43	<input checked="" type="checkbox"/>		S	RiCom-3 0-2	6	5	GA	8021	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										
4	9/3/08	13:00	<input checked="" type="checkbox"/>		S	RiCom-3 0-2-4	6	5	GA	8015	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										
5						Trip Blank	6	2	V															

Container Type: P-Poly G-Glass S-Sterile V-VOA Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters
 Cooler Present: Yes No Internal Use Only
 Seals Intact: Yes No NA: Pickup
 Cooler Temp: **5.1°** [] Technicians _____
 Preservation Code: 1- NP, 2- HCl, 3- H₂SO₄, 4- HNO₃, 5- NaOH, 6- MeOH, 7- Asorbic Acid, 8- ZnAct, 9- _____
 Sampled by: **Joshea Rlement**
 Comments: **WL-VOC: All PID measurements were ND**

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
<i>[Signature]</i>	9/3/08 15:05	<i>[Signature]</i>	
<i>[Signature]</i>	9/3/08 15:05	<i>[Signature]</i>	



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

PROJECT NARRATIVE

Sue Courtemanche
Vanasse Hangen Brustlin, Inc.
10 Dorrance Street, Suite 400
Providence, RI 02903

RE: Trestle Trail
ESS Laboratory Work Order Number: 0809094

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this Project Narrative, the entire report has been paginated. The ESS Laboratory Certifications sheet is the final report page. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been mailed. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

Date: September 16, 2008

Analytical Summary

The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration may be used instead of automated integration because it produces more accurate results. All ICP Metals were analyzed using the established linear dynamic range to determine acceptable analytical results.

ESS Laboratory certifies that the test results meet the requirements of NELAC, except where noted within this project narrative.

Sample Receipt

The following sample(s) were received on September 08, 2008 for the analyses specified on the enclosed Chain of Custody Record.

Laboratory ID	Matrix	Client SampleID
0809094-01	Soil	CAB-4 2-3



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CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809094

PROJECT NARRATIVE

5035/8260B Volatile Organic Compounds / Low Level

BI81617-BSD1 **Relative percent difference for duplicate is outside of criteria.**
Diethyl Ether

No other observations noted.

End of Project Narrative.



ESS Laboratory

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CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: CAB-4 2-3
Date Sampled: 09/03/08 14:18
Percent Solids: 94

ESS Laboratory Work Order: 0809094
ESS Laboratory Sample ID: 0809094-01
Sample Matrix: Soil

3050B/6000/7000 Total Metals

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Antimony	ND	mg/kg dry	5.8	6010B	10	1	SVD	09/08/08	1.82	100
Arsenic	ND	mg/kg dry	2.9	6010B	7	1	SVD	09/08/08	1.82	100
Beryllium	0.12	mg/kg dry	0.06	6010B	0.4	1	SVD	09/08/08	1.82	100
Cadmium	ND	mg/kg dry	0.59	6010B	39	1	SVD	09/08/08	1.82	100
Chromium	ND	mg/kg dry	1.2	6010B	1400	1	SVD	09/08/08	1.82	100
Copper	ND	mg/kg dry	1.2	6010B	3100	1	SVD	09/08/08	1.82	100
Lead	ND	mg/kg dry	5.8	6010B	150	1	SVD	09/08/08	1.82	100
Mercury	ND	mg/kg dry	0.034	7471A	23	1	JP	09/09/08	0.62	40
Nickel	ND	mg/kg dry	2.9	6010B	1000	1	SVD	09/08/08	1.82	100
Selenium	ND	mg/kg dry	5.8	6010B	390	1	SVD	09/08/08	1.82	100
Silver	ND	mg/kg dry	0.59	6010B	200	1	SVD	09/08/08	1.82	100
Thallium	ND	mg/kg dry	1.45	7841	5.5	5	SVD	09/11/08	1.82	100
Zinc	7.0	mg/kg dry	2.9	6010B	6000	1	SVD	09/08/08	1.82	100



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CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: CAB-4 2-3
 Date Sampled: 09/03/08 14:18
 Percent Solids: 94
 Initial Volume: 6.4
 Final Volume: 10
 Extraction Method: 5035

ESS Laboratory Work Order: 0809094
 ESS Laboratory Sample ID: 0809094-01
 Sample Matrix: Soil
 Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

RI - RES DEC

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1,1,2-Tetrachloroethane	ND	mg/kg dry	0.0042	2.2	1	09/16/08
1,1,1-Trichloroethane	ND	mg/kg dry	0.0042	540	1	09/16/08
1,1,2,2-Tetrachloroethane	ND	mg/kg dry	0.0042	1.3	1	09/16/08
1,1,2-Trichloroethane	ND	mg/kg dry	0.0042	3.6	1	09/16/08
1,1-Dichloroethane	ND	mg/kg dry	0.0042	920	1	09/16/08
1,1-Dichloroethene	ND	mg/kg dry	0.0042	0.2	1	09/16/08
1,1-Dichloropropene	ND	mg/kg dry	0.0042		1	09/16/08
1,2,3-Trichlorobenzene	ND	mg/kg dry	0.0042		1	09/16/08
1,2,3-Trichloropropane	ND	mg/kg dry	0.0042		1	09/16/08
1,2,4-Trichlorobenzene	ND	mg/kg dry	0.0042	96	1	09/16/08
1,2,4-Trimethylbenzene	ND	mg/kg dry	0.0042		1	09/16/08
1,2-Dibromo-3-Chloropropane	ND	mg/kg dry	0.0042	0.5	1	09/16/08
1,2-Dibromoethane	ND	mg/kg dry	0.0042	0.01	1	09/16/08
1,2-Dichlorobenzene	ND	mg/kg dry	0.0042	510	1	09/16/08
1,2-Dichloroethane	ND	mg/kg dry	0.0042	0.9	1	09/16/08
1,2-Dichloropropane	ND	mg/kg dry	0.0042	1.9	1	09/16/08
1,3,5-Trimethylbenzene	ND	mg/kg dry	0.0042		1	09/16/08
1,3-Dichlorobenzene	ND	mg/kg dry	0.0042	430	1	09/16/08
1,3-Dichloropropane	ND	mg/kg dry	0.0042		1	09/16/08
1,4-Dichlorobenzene	ND	mg/kg dry	0.0042	27	1	09/16/08
1,4-Dioxane	ND	mg/kg dry	0.0831		1	09/16/08
1-Chlorohexane	ND	mg/kg dry	0.0042		1	09/16/08
2,2-Dichloropropane	ND	mg/kg dry	0.0042		1	09/16/08
2-Butanone	ND	mg/kg dry	0.0416	10000	1	09/16/08
2-Chlorotoluene	ND	mg/kg dry	0.0042		1	09/16/08
2-Hexanone	ND	mg/kg dry	0.0416		1	09/16/08
4-Chlorotoluene	ND	mg/kg dry	0.0042		1	09/16/08
4-Isopropyltoluene	ND	mg/kg dry	0.0042		1	09/16/08
4-Methyl-2-Pentanone	ND	mg/kg dry	0.0416	1200	1	09/16/08
Acetone	ND	mg/kg dry	0.0416	7800	1	09/16/08
Benzene	ND	mg/kg dry	0.0042	2.5	1	09/16/08
Bromobenzene	ND	mg/kg dry	0.0042		1	09/16/08
Bromochloromethane	ND	mg/kg dry	0.0042		1	09/16/08
Bromodichloromethane	ND	mg/kg dry	0.0042	10	1	09/16/08
Bromoform	ND	mg/kg dry	0.0042	81	1	09/16/08



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Division of Thielsch Engineering, Inc.

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CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: CAB-4 2-3
 Date Sampled: 09/03/08 14:18
 Percent Solids: 94
 Initial Volume: 6.4
 Final Volume: 10
 Extraction Method: 5035

ESS Laboratory Work Order: 0809094
 ESS Laboratory Sample ID: 0809094-01
 Sample Matrix: Soil
 Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Bromomethane	ND	mg/kg dry	0.0083	0.8	1	09/16/08
Carbon Disulfide	ND	mg/kg dry	0.0042		1	09/16/08
Carbon Tetrachloride	ND	mg/kg dry	0.0042	1.5	1	09/16/08
Chlorobenzene	ND	mg/kg dry	0.0042	210	1	09/16/08
Chloroethane	ND	mg/kg dry	0.0083		1	09/16/08
Chloroform	ND	mg/kg dry	0.0042	1.2	1	09/16/08
Chloromethane	ND	mg/kg dry	0.0083		1	09/16/08
cis-1,2-Dichloroethene	ND	mg/kg dry	0.0042	630	1	09/16/08
cis-1,3-Dichloropropene	ND	mg/kg dry	0.0042		1	09/16/08
Dibromochloromethane	ND	mg/kg dry	0.0042	7.6	1	09/16/08
Dibromomethane	ND	mg/kg dry	0.0042		1	09/16/08
Dichlorodifluoromethane	ND	mg/kg dry	0.0083		1	09/16/08
Diethyl Ether	ND	mg/kg dry	0.0042		1	09/16/08
Di-isopropyl ether	ND	mg/kg dry	0.0042		1	09/16/08
Ethyl tertiary-butyl ether	ND	mg/kg dry	0.0042		1	09/16/08
Ethylbenzene	ND	mg/kg dry	0.0042	71	1	09/16/08
Hexachlorobutadiene	ND	mg/kg dry	0.0042	8.2	1	09/16/08
Isopropylbenzene	ND	mg/kg dry	0.0042	27	1	09/16/08
Methyl tert-Butyl Ether	ND	mg/kg dry	0.0042	390	1	09/16/08
Methylene Chloride	ND	mg/kg dry	0.0208	45	1	09/16/08
Naphthalene	ND	mg/kg dry	0.0042	54	1	09/16/08
n-Butylbenzene	ND	mg/kg dry	0.0042		1	09/16/08
n-Propylbenzene	ND	mg/kg dry	0.0042		1	09/16/08
sec-Butylbenzene	ND	mg/kg dry	0.0042		1	09/16/08
Styrene	ND	mg/kg dry	0.0042	13	1	09/16/08
tert-Butylbenzene	ND	mg/kg dry	0.0042		1	09/16/08
Tertiary-amyl methyl ether	ND	mg/kg dry	0.0042		1	09/16/08
Tetrachloroethene	ND	mg/kg dry	0.0042	12	1	09/16/08
Tetrahydrofuran	ND	mg/kg dry	0.0042		1	09/16/08
Toluene	ND	mg/kg dry	0.0042	190	1	09/16/08
trans-1,2-Dichloroethene	ND	mg/kg dry	0.0042	1100	1	09/16/08
trans-1,3-Dichloropropene	ND	mg/kg dry	0.0042		1	09/16/08
Trichloroethene	ND	mg/kg dry	0.0042	13	1	09/16/08
Trichlorofluoromethane	ND	mg/kg dry	0.0042		1	09/16/08
Vinyl Acetate	ND	mg/kg dry	0.0042		1	09/16/08
Vinyl Chloride	ND	mg/kg dry	0.0083	0.02	1	09/16/08



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CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: CAB-4 2-3
 Date Sampled: 09/03/08 14:18
 Percent Solids: 94
 Initial Volume: 6.4
 Final Volume: 10
 Extraction Method: 5035

ESS Laboratory Work Order: 0809094
 ESS Laboratory Sample ID: 0809094-01
 Sample Matrix: Soil
 Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Xylene O	ND	mg/kg dry	0.0042	110	1	09/16/08
Xylene P,M	ND	mg/kg dry	0.0083	110	1	09/16/08
Xylenes (Total)	ND	mg/kg dry	0.0125	110	0	09/16/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	116 %		70-130
Surrogate: 4-Bromofluorobenzene	95 %		70-130
Surrogate: Dibromofluoromethane	104 %		70-130
Surrogate: Toluene-d8	98 %		70-130



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Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: CAB-4 2-3
Date Sampled: 09/03/08 14:18
Percent Solids: 94
Initial Volume: 19.9
Final Volume: 1
Extraction Method: 3546

ESS Laboratory Work Order: 0809094
ESS Laboratory Sample ID: 0809094-01
Sample Matrix: Soil
Analyst: SEP
Prepared: 09/09/08

8100M Total Petroleum Hydrocarbons

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>
Total Petroleum Hydrocarbons	ND	mg/kg dry	40.1	500	1	09/09/08

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: O-Terphenyl	100 %		40-140



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809094

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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3050B/6000/7000 Total Metals

Batch BI80815 - 3050B

Blank

Antimony	ND	6.7	mg/kg wet
Arsenic	ND	3.3	mg/kg wet
Beryllium	ND	0.07	mg/kg wet
Cadmium	ND	0.67	mg/kg wet
Chromium	ND	1.3	mg/kg wet
Copper	ND	1.3	mg/kg wet
Lead	ND	6.7	mg/kg wet
Nickel	ND	3.3	mg/kg wet
Selenium	ND	6.7	mg/kg wet
Silver	ND	0.67	mg/kg wet
Thallium	ND	0.33	mg/kg wet
Zinc	ND	3.3	mg/kg wet

LCS

Antimony	35.4	6.7	mg/kg wet	33.33	106	80-120
Arsenic	31.8	3.3	mg/kg wet	33.33	96	80-120
Beryllium	3.31	0.07	mg/kg wet	3.333	99	80-120
Cadmium	15.6	0.67	mg/kg wet	16.67	94	80-120
Chromium	33.7	1.3	mg/kg wet	33.33	101	80-120
Copper	33.5	1.3	mg/kg wet	33.33	100	80-120
Lead	33.8	6.7	mg/kg wet	33.33	101	80-120
Nickel	33.7	3.3	mg/kg wet	33.33	101	80-120
Selenium	62.9	6.7	mg/kg wet	66.67	94	80-120
Silver	16.8	0.67	mg/kg wet	16.67	101	80-120
Thallium	34.4	6.60	mg/kg wet	33.33	103	80-120
Zinc	32.1	3.3	mg/kg wet	33.33	96	80-120

LCS Dup

Antimony	34.3	6.7	mg/kg wet	33.33	103	80-120	3	20
Arsenic	31.8	3.3	mg/kg wet	33.33	95	80-120	0.2	20
Beryllium	3.26	0.07	mg/kg wet	3.333	98	80-120	1	20
Cadmium	15.4	0.67	mg/kg wet	16.67	93	80-120	1	20
Chromium	33.5	1.3	mg/kg wet	33.33	101	80-120	0.7	20
Copper	33.3	1.3	mg/kg wet	33.33	100	80-120	0.5	20
Lead	33.1	6.7	mg/kg wet	33.33	99	80-120	2	20
Nickel	33.5	3.3	mg/kg wet	33.33	100	80-120	0.7	20
Selenium	63.2	6.7	mg/kg wet	66.67	95	80-120	0.4	20
Silver	16.7	0.67	mg/kg wet	16.67	100	80-120	0.6	20
Thallium	34.4	6.60	mg/kg wet	33.33	103	80-120	0.1	20
Zinc	31.9	3.3	mg/kg wet	33.33	96	80-120	0.6	20

Reference

Antimony	88.1	10.0	mg/kg wet	127.0	69	0-210
Arsenic	264	5.0	mg/kg wet	280.0	94	81-119
Beryllium	50.5	0.10	mg/kg wet	51.00	99	83-117
Cadmium	168	1.00	mg/kg wet	182.0	92	82-118
Chromium	133	2.0	mg/kg wet	142.0	94	81-120



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CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809094

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
3050B/6000/7000 Total Metals										
Batch BI80815 - 3050B										
Copper	125	2.0	mg/kg wet	132.0		95	83-117			
Lead	71.1	10.0	mg/kg wet	72.20		98	82-118			
Nickel	151	5.0	mg/kg wet	155.0		97	82-117			
Selenium	155	10.0	mg/kg wet	165.0		94	78-123			
Silver	131	1.00	mg/kg wet	126.0		104	66-134			
Thallium	198	24.8	mg/kg wet	184.0		108	77-122			
Zinc	317	5.0	mg/kg wet	346.0		92	79-121			
Batch BI80816 - 7471A										
Blank										
Mercury	ND	0.033	mg/kg wet							
LCS										
Mercury	0.181	0.033	mg/kg wet	0.2000		90	80-120			
LCS Dup										
Mercury	0.183	0.033	mg/kg wet	0.2000		91	80-120	1	20	
Reference										
Mercury	8.12	0.660	mg/kg wet	8.480		96	66-132			

5035/8260B Volatile Organic Compounds / Low Level

Batch BI81617 - 5035										
Blank										
1,1,1,2-Tetrachloroethane	ND	0.0050	mg/kg wet							
1,1,1-Trichloroethane	ND	0.0050	mg/kg wet							
1,1,2,2-Tetrachloroethane	ND	0.0050	mg/kg wet							
1,1,2-Trichloroethane	ND	0.0050	mg/kg wet							
1,1-Dichloroethane	ND	0.0050	mg/kg wet							
1,1-Dichloroethene	ND	0.0050	mg/kg wet							
1,1-Dichloropropene	ND	0.0050	mg/kg wet							
1,2,3-Trichlorobenzene	ND	0.0050	mg/kg wet							
1,2,3-Trichloropropane	ND	0.0050	mg/kg wet							
1,2,4-Trichlorobenzene	ND	0.0050	mg/kg wet							
1,2,4-Trimethylbenzene	ND	0.0050	mg/kg wet							
1,2-Dibromo-3-Chloropropane	ND	0.0050	mg/kg wet							
1,2-Dibromoethane	ND	0.0050	mg/kg wet							
1,2-Dichlorobenzene	ND	0.0050	mg/kg wet							
1,2-Dichloroethane	ND	0.0050	mg/kg wet							
1,2-Dichloropropane	ND	0.0050	mg/kg wet							
1,3,5-Trimethylbenzene	ND	0.0050	mg/kg wet							
1,3-Dichlorobenzene	ND	0.0050	mg/kg wet							
1,3-Dichloropropane	ND	0.0050	mg/kg wet							
1,4-Dichlorobenzene	ND	0.0050	mg/kg wet							
1,4-Dioxane	ND	0.100	mg/kg wet							
1-Chlorohexane	ND	0.0050	mg/kg wet							
2,2-Dichloropropane	ND	0.0050	mg/kg wet							
2-Butanone	ND	0.0500	mg/kg wet							



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CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809094

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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5035/8260B Volatile Organic Compounds / Low Level

Batch B181617 - 5035

2-Chlorotoluene	ND	0.0050	mg/kg wet							
2-Hexanone	ND	0.0500	mg/kg wet							
4-Chlorotoluene	ND	0.0050	mg/kg wet							
4-Isopropyltoluene	ND	0.0050	mg/kg wet							
4-Methyl-2-Pentanone	ND	0.0500	mg/kg wet							
Acetone	ND	0.0500	mg/kg wet							
Benzene	ND	0.0050	mg/kg wet							
Bromobenzene	ND	0.0050	mg/kg wet							
Bromochloromethane	ND	0.0050	mg/kg wet							
Bromodichloromethane	ND	0.0050	mg/kg wet							
Bromoform	ND	0.0050	mg/kg wet							
Bromomethane	ND	0.0100	mg/kg wet							
Carbon Disulfide	ND	0.0050	mg/kg wet							
Carbon Tetrachloride	ND	0.0050	mg/kg wet							
Chlorobenzene	ND	0.0050	mg/kg wet							
Chloroethane	ND	0.0100	mg/kg wet							
Chloroform	ND	0.0050	mg/kg wet							
Chloromethane	ND	0.0100	mg/kg wet							
cis-1,2-Dichloroethene	ND	0.0050	mg/kg wet							
cis-1,3-Dichloropropene	ND	0.0050	mg/kg wet							
Dibromochloromethane	ND	0.0050	mg/kg wet							
Dibromomethane	ND	0.0050	mg/kg wet							
Dichlorodifluoromethane	ND	0.0100	mg/kg wet							
Diethyl Ether	ND	0.0050	mg/kg wet							
Di-isopropyl ether	ND	0.0050	mg/kg wet							
Ethyl tertiary-butyl ether	ND	0.0050	mg/kg wet							
Ethylbenzene	ND	0.0050	mg/kg wet							
Hexachlorobutadiene	ND	0.0050	mg/kg wet							
Isopropylbenzene	ND	0.0050	mg/kg wet							
Methyl tert-Butyl Ether	ND	0.0050	mg/kg wet							
Methylene Chloride	ND	0.0250	mg/kg wet							
Naphthalene	ND	0.0050	mg/kg wet							
n-Butylbenzene	ND	0.0050	mg/kg wet							
n-Propylbenzene	ND	0.0050	mg/kg wet							
sec-Butylbenzene	ND	0.0050	mg/kg wet							
Styrene	ND	0.0050	mg/kg wet							
tert-Butylbenzene	ND	0.0050	mg/kg wet							
Tertiary-amyl methyl ether	ND	0.0050	mg/kg wet							
Tetrachloroethene	ND	0.0050	mg/kg wet							
Tetrahydrofuran	ND	0.0050	mg/kg wet							
Toluene	ND	0.0050	mg/kg wet							
trans-1,2-Dichloroethene	ND	0.0050	mg/kg wet							
trans-1,3-Dichloropropene	ND	0.0050	mg/kg wet							
Trichloroethene	ND	0.0050	mg/kg wet							
Vinyl Acetate	ND	0.0050	mg/kg wet							
Vinyl Chloride	ND	0.0100	mg/kg wet							



ESS Laboratory

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CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809094

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
5035/8260B Volatile Organic Compounds / Low Level										
Batch B181617 - 5035										
Xylene O	ND	0.0050	mg/kg wet							
Xylene P,M	ND	0.0100	mg/kg wet							
Surrogate: 1,2-Dichloroethane-d4	0.0569		mg/kg wet	0.05000		114	70-130			
Surrogate: 4-Bromofluorobenzene	0.0490		mg/kg wet	0.05000		98	70-130			
Surrogate: Dibromofluoromethane	0.0515		mg/kg wet	0.05000		103	70-130			
Surrogate: Toluene-d8	0.0486		mg/kg wet	0.05000		97	70-130			
LCS										
1,1,1,2-Tetrachloroethane	0.0520	0.0050	mg/kg wet	0.05000		104	70-130			
1,1,1-Trichloroethane	0.0490	0.0050	mg/kg wet	0.05000		98	70-130			
1,1,2,2-Tetrachloroethane	0.0445	0.0050	mg/kg wet	0.05000		89	70-130			
1,1,2-Trichloroethane	0.0484	0.0050	mg/kg wet	0.05000		97	70-130			
1,1-Dichloroethane	0.0499	0.0050	mg/kg wet	0.05000		100	70-130			
1,1-Dichloroethene	0.0511	0.0050	mg/kg wet	0.05000		102	70-130			
1,1-Dichloropropene	0.0479	0.0050	mg/kg wet	0.05000		96	70-130			
1,2,3-Trichlorobenzene	0.0489	0.0050	mg/kg wet	0.05000		98	70-130			
1,2,3-Trichloropropane	0.0457	0.0050	mg/kg wet	0.05000		91	70-130			
1,2,4-Trichlorobenzene	0.0473	0.0050	mg/kg wet	0.05000		95	70-130			
1,2,4-Trimethylbenzene	0.0497	0.0050	mg/kg wet	0.05000		99	70-130			
1,2-Dibromo-3-Chloropropane	0.0472	0.0050	mg/kg wet	0.05000		94	70-130			
1,2-Dibromoethane	0.0497	0.0050	mg/kg wet	0.05000		99	70-130			
1,2-Dichlorobenzene	0.0474	0.0050	mg/kg wet	0.05000		95	70-130			
1,2-Dichloroethane	0.0497	0.0050	mg/kg wet	0.05000		99	70-130			
1,2-Dichloropropane	0.0473	0.0050	mg/kg wet	0.05000		95	70-130			
1,3,5-Trimethylbenzene	0.0479	0.0050	mg/kg wet	0.05000		96	70-130			
1,3-Dichlorobenzene	0.0471	0.0050	mg/kg wet	0.05000		94	70-130			
1,3-Dichloropropane	0.0485	0.0050	mg/kg wet	0.05000		97	70-130			
1,4-Dichlorobenzene	0.0465	0.0050	mg/kg wet	0.05000		93	70-130			
1,4-Dioxane	0.855	0.100	mg/kg wet	1.000		85	70-130			
1-Chlorohexane	0.0518	0.0050	mg/kg wet	0.05000		104	70-130			
2,2-Dichloropropane	0.0480	0.0050	mg/kg wet	0.05000		96	70-130			
2-Butanone	0.276	0.0500	mg/kg wet	0.2500		110	70-130			
2-Chlorotoluene	0.0479	0.0050	mg/kg wet	0.05000		96	70-130			
2-Hexanone	0.274	0.0500	mg/kg wet	0.2500		109	70-130			
4-Chlorotoluene	0.0469	0.0050	mg/kg wet	0.05000		94	70-130			
4-Isopropyltoluene	0.0462	0.0050	mg/kg wet	0.05000		92	70-130			
4-Methyl-2-Pentanone	0.240	0.0500	mg/kg wet	0.2500		96	70-130			
Acetone	0.321	0.0500	mg/kg wet	0.2500		128	70-130			
Benzene	0.0471	0.0050	mg/kg wet	0.05000		94	70-130			
Bromobenzene	0.0486	0.0050	mg/kg wet	0.05000		97	70-130			
Bromochloromethane	0.0512	0.0050	mg/kg wet	0.05000		102	70-130			
Bromodichloromethane	0.0489	0.0050	mg/kg wet	0.05000		98	70-130			
Bromoform	0.0529	0.0050	mg/kg wet	0.05000		106	70-130			
Bromomethane	0.0555	0.0100	mg/kg wet	0.05000		111	70-130			
Carbon Disulfide	0.0582	0.0050	mg/kg wet	0.05000		116	70-130			
Carbon Tetrachloride	0.0481	0.0050	mg/kg wet	0.05000		96	70-130			
Chlorobenzene	0.0471	0.0050	mg/kg wet	0.05000		94	70-130			



ESS Laboratory

Division of Thielsch Engineering, Inc.

REVISED
SEP 16 2008

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809094

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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5035/8260B Volatile Organic Compounds / Low Level

Batch B181617 - 5035

Chloroethane	0.0495	0.0100	mg/kg wet	0.05000		99	70-130			
Chloroform	0.0491	0.0050	mg/kg wet	0.05000		98	70-130			
Chloromethane	0.0493	0.0100	mg/kg wet	0.05000		99	70-130			
cis-1,2-Dichloroethene	0.0505	0.0050	mg/kg wet	0.05000		101	70-130			
cis-1,3-Dichloropropene	0.0472	0.0050	mg/kg wet	0.05000		94	70-130			
Dibromochloromethane	0.0527	0.0050	mg/kg wet	0.05000		105	70-130			
Dibromomethane	0.0504	0.0050	mg/kg wet	0.05000		101	70-130			
Dichlorodifluoromethane	0.0573	0.0100	mg/kg wet	0.05000		115	70-130			
Diethyl Ether	0.0501	0.0050	mg/kg wet	0.05000		100	70-130			
DI-isopropyl ether	0.0501	0.0050	mg/kg wet	0.05000		100	70-130			
Ethyl tertiary-butyl ether	0.0500	0.0050	mg/kg wet	0.05000		100	70-130			
Ethylbenzene	0.0490	0.0050	mg/kg wet	0.05000		98	70-130			
Hexachlorobutadiene	0.0473	0.0050	mg/kg wet	0.05000		95	70-130			
Isopropylbenzene	0.0433	0.0050	mg/kg wet	0.05000		87	70-130			
Methyl tert-Butyl Ether	0.0501	0.0050	mg/kg wet	0.05000		100	70-130			
Methylene Chloride	0.0524	0.0250	mg/kg wet	0.05000		105	70-130			
Naphthalene	0.0490	0.0050	mg/kg wet	0.05000		98	70-130			
n-Butylbenzene	0.0482	0.0050	mg/kg wet	0.05000		96	70-130			
n-Propylbenzene	0.0492	0.0050	mg/kg wet	0.05000		98	70-130			
sec-Butylbenzene	0.0476	0.0050	mg/kg wet	0.05000		95	70-130			
Styrene	0.0479	0.0050	mg/kg wet	0.05000		96	70-130			
tert-Butylbenzene	0.0475	0.0050	mg/kg wet	0.05000		95	70-130			
Tertiary-amyl methyl ether	0.0508	0.0050	mg/kg wet	0.05000		102	70-130			
Tetrachloroethene	0.0481	0.0050	mg/kg wet	0.05000		96	70-130			
Tetrahydrofuran	0.0480	0.0050	mg/kg wet	0.05000		96	70-130			
Toluene	0.0478	0.0050	mg/kg wet	0.05000		96	70-130			
trans-1,2-Dichloroethene	0.0518	0.0050	mg/kg wet	0.05000		104	70-130			
trans-1,3-Dichloropropene	0.0435	0.0050	mg/kg wet	0.05000		87	70-130			
Trichloroethene	0.0501	0.0050	mg/kg wet	0.05000		100	70-130			
Vinyl Acetate	0.0459	0.0050	mg/kg wet	0.05000		92	70-130			
Vinyl Chloride	0.0607	0.0100	mg/kg wet	0.05000		121	70-130			
Xylene O	0.0473	0.0050	mg/kg wet	0.05000		95	70-130			
Xylene P,M	0.0953	0.0100	mg/kg wet	0.1000		95	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0493		mg/kg wet	0.05000		99	70-130			
Surrogate: 4-Bromofluorobenzene	0.0498		mg/kg wet	0.05000		100	70-130			
Surrogate: Dibromofluoromethane	0.0509		mg/kg wet	0.05000		102	70-130			
Surrogate: Toluene-d8	0.0492		mg/kg wet	0.05000		98	70-130			

LCS Dup

1,1,1,2-Tetrachloroethane	0.0469	0.0050	mg/kg wet	0.05000		94	70-130	10	20	
1,1,1-Trichloroethane	0.0430	0.0050	mg/kg wet	0.05000		86	70-130	13	20	
1,1,2,2-Tetrachloroethane	0.0431	0.0050	mg/kg wet	0.05000		86	70-130	3	20	
1,1,2-Trichloroethane	0.0476	0.0050	mg/kg wet	0.05000		95	70-130	2	20	
1,1-Dichloroethane	0.0458	0.0050	mg/kg wet	0.05000		92	70-130	8	20	
1,1-Dichloroethene	0.0472	0.0050	mg/kg wet	0.05000		94	70-130	8	20	
1,1-Dichloropropene	0.0443	0.0050	mg/kg wet	0.05000		89	70-130	8	20	
1,2,3-Trichlorobenzene	0.0473	0.0050	mg/kg wet	0.05000		95	70-130	3	20	



ESS Laboratory

Division of Thielsch Engineering, Inc.

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SEP 16 2008

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.

Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809094

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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5035/8260B Volatile Organic Compounds / Low Level

Batch BI81617 - 5035

1,2,3-Trichloropropane	0.0445	0.0050	mg/kg wet	0.05000		89	70-130	3	20	
1,2,4-Trichlorobenzene	0.0458	0.0050	mg/kg wet	0.05000		92	70-130	3	20	
1,2,4-Trimethylbenzene	0.0486	0.0050	mg/kg wet	0.05000		97	70-130	2	20	
1,2-Dibromo-3-Chloropropane	0.0463	0.0050	mg/kg wet	0.05000		93	70-130	2	20	
1,2-Dibromoethane	0.0485	0.0050	mg/kg wet	0.05000		97	70-130	2	20	
1,2-Dichlorobenzene	0.0467	0.0050	mg/kg wet	0.05000		93	70-130	1	20	
1,2-Dichloroethane	0.0485	0.0050	mg/kg wet	0.05000		97	70-130	3	20	
1,2-Dichloropropane	0.0445	0.0050	mg/kg wet	0.05000		89	70-130	6	20	
1,3,5-Trimethylbenzene	0.0465	0.0050	mg/kg wet	0.05000		93	70-130	3	20	
1,3-Dichlorobenzene	0.0459	0.0050	mg/kg wet	0.05000		92	70-130	2	20	
1,3-Dichloropropane	0.0460	0.0050	mg/kg wet	0.05000		92	70-130	5	20	
1,4-Dichlorobenzene	0.0447	0.0050	mg/kg wet	0.05000		89	70-130	4	20	
1,4-Dioxane	0.909	0.100	mg/kg wet	1.000		91	70-130	6	20	
1-Chlorohexane	0.0501	0.0050	mg/kg wet	0.05000		100	70-130	3	20	
2,2-Dichloropropane	0.0427	0.0050	mg/kg wet	0.05000		85	70-130	12	20	
2-Butanone	0.253	0.0500	mg/kg wet	0.2500		101	70-130	9	20	
2-Chlorotoluene	0.0459	0.0050	mg/kg wet	0.05000		92	70-130	4	20	
2-Hexanone	0.266	0.0500	mg/kg wet	0.2500		106	70-130	3	20	
4-Chlorotoluene	0.0456	0.0050	mg/kg wet	0.05000		91	70-130	3	20	
4-Isopropyltoluene	0.0455	0.0050	mg/kg wet	0.05000		91	70-130	2	20	
4-Methyl-2-Pentanone	0.247	0.0500	mg/kg wet	0.2500		99	70-130	3	20	
Acetone	0.296	0.0500	mg/kg wet	0.2500		118	70-130	8	20	
Benzene	0.0446	0.0050	mg/kg wet	0.05000		89	70-130	5	20	
Bromobenzene	0.0464	0.0050	mg/kg wet	0.05000		93	70-130	5	20	
Bromochloromethane	0.0479	0.0050	mg/kg wet	0.05000		96	70-130	7	20	
Bromodichloromethane	0.0462	0.0050	mg/kg wet	0.05000		92	70-130	6	20	
Bromoform	0.0510	0.0050	mg/kg wet	0.05000		102	70-130	4	20	
Bromomethane	0.0552	0.0100	mg/kg wet	0.05000		110	70-130	0.7	20	
Carbon Disulfide	0.0558	0.0050	mg/kg wet	0.05000		112	70-130	4	20	
Carbon Tetrachloride	0.0425	0.0050	mg/kg wet	0.05000		85	70-130	12	20	
Chlorobenzene	0.0462	0.0050	mg/kg wet	0.05000		92	70-130	2	20	
Chloroethane	0.0491	0.0100	mg/kg wet	0.05000		98	70-130	0.9	20	
Chloroform	0.0460	0.0050	mg/kg wet	0.05000		92	70-130	6	20	
Chloromethane	0.0522	0.0100	mg/kg wet	0.05000		104	70-130	6	20	
cis-1,2-Dichloroethene	0.0483	0.0050	mg/kg wet	0.05000		97	70-130	4	20	
cis-1,3-Dichloropropene	0.0467	0.0050	mg/kg wet	0.05000		93	70-130	1	20	
Dibromochloromethane	0.0478	0.0050	mg/kg wet	0.05000		96	70-130	10	20	
Dibromomethane	0.0493	0.0050	mg/kg wet	0.05000		99	70-130	2	20	
Dichlorodifluoromethane	0.0545	0.0100	mg/kg wet	0.05000		109	70-130	5	20	
Diethyl Ether	0.0353	0.0050	mg/kg wet	0.05000		71	70-130	35	20	D+
Di-Isopropyl ether	0.0456	0.0050	mg/kg wet	0.05000		91	70-130	9	20	
Ethyl tertiary-butyl ether	0.0444	0.0050	mg/kg wet	0.05000		89	70-130	12	20	
Ethylbenzene	0.0478	0.0050	mg/kg wet	0.05000		96	70-130	2	20	
Hexachlorobutadiene	0.0449	0.0050	mg/kg wet	0.05000		90	70-130	5	20	
Isopropylbenzene	0.0422	0.0050	mg/kg wet	0.05000		84	70-130	3	20	
Methyl tert-Butyl Ether	0.0433	0.0050	mg/kg wet	0.05000		87	70-130	15	20	



ESS Laboratory

Division of Thielsch Engineering, Inc.

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SEP 16 2008

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.

Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809094

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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5035/8260B Volatile Organic Compounds / Low Level

Batch BI81617 - 5035

Methylene Chloride	0.0511	0.0250	mg/kg wet	0.05000		102	70-130	3	20	
Naphthalene	0.0474	0.0050	mg/kg wet	0.05000		95	70-130	3	20	
n-Butylbenzene	0.0477	0.0050	mg/kg wet	0.05000		95	70-130	1	20	
n-Propylbenzene	0.0482	0.0050	mg/kg wet	0.05000		96	70-130	2	20	
sec-Butylbenzene	0.0463	0.0050	mg/kg wet	0.05000		93	70-130	3	20	
Styrene	0.0477	0.0050	mg/kg wet	0.05000		95	70-130	0.4	20	
tert-Butylbenzene	0.0461	0.0050	mg/kg wet	0.05000		92	70-130	3	20	
Tertiary-aryl methyl ether	0.0465	0.0050	mg/kg wet	0.05000		93	70-130	9	20	
Tetrachloroethene	0.0462	0.0050	mg/kg wet	0.05000		92	70-130	4	20	
Tetrahydrofuran	0.0453	0.0050	mg/kg wet	0.05000		91	70-130	6	20	
Toluene	0.0491	0.0050	mg/kg wet	0.05000		98	70-130	3	20	
trans-1,2-Dichloroethene	0.0482	0.0050	mg/kg wet	0.05000		96	70-130	7	20	
trans-1,3-Dichloropropene	0.0437	0.0050	mg/kg wet	0.05000		87	70-130	0.5	20	
Trichloroethene	0.0471	0.0050	mg/kg wet	0.05000		94	70-130	6	20	
Vinyl Acetate	0.0437	0.0050	mg/kg wet	0.05000		87	70-130	5	20	
Vinyl Chloride	0.0589	0.0100	mg/kg wet	0.05000		118	70-130	3	20	
Xylene O	0.0466	0.0050	mg/kg wet	0.05000		93	70-130	1	20	
Xylene P,M	0.0940	0.0100	mg/kg wet	0.1000		94	70-130	1	20	
Surrogate: 1,2-Dichloroethane-d4	0.0472		mg/kg wet	0.05000		94	70-130			
Surrogate: 4-Bromofluorobenzene	0.0508		mg/kg wet	0.05000		102	70-130			
Surrogate: Dibromofluoromethane	0.0483		mg/kg wet	0.05000		97	70-130			
Surrogate: Toluene-d8	0.0484		mg/kg wet	0.05000		97	70-130			

5035/8260B Volatile Organic Compounds / Methanol

8100M Total Petroleum Hydrocarbons

Batch BI80921 - 3546

Blank										
Decane (C10)	ND	0.25	mg/kg wet							
Docosane (C22)	ND	0.25	mg/kg wet							
Dodecane (C12)	ND	0.25	mg/kg wet							
Eicosane (C20)	ND	0.25	mg/kg wet							
Hexacosane (C26)	ND	0.25	mg/kg wet							
Hexadecane (C16)	ND	0.25	mg/kg wet							
Nonadecane (C19)	ND	0.25	mg/kg wet							
Nonane (C9)	ND	0.25	mg/kg wet							
Octacosane (C28)	ND	0.25	mg/kg wet							
Octadecane (C18)	ND	0.25	mg/kg wet							
Tetracosane (C24)	ND	0.25	mg/kg wet							
Tetradecane (C14)	ND	0.25	mg/kg wet							
Total Petroleum Hydrocarbons	ND	37.5	mg/kg wet							
Triacontane (C30)	ND	0.25	mg/kg wet							

Surrogate: O-Terphenyl	5.98		mg/kg wet	5.000		120	40-140			
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LCS



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809094

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8100M Total Petroleum Hydrocarbons										
Batch BI80921 - 3546										
Decane (C10)	2.18	0.25	mg/kg wet	2.500		87	40-140			
Docosane (C22)	2.72	0.25	mg/kg wet	2.500		109	40-140			
Dodecane (C12)	2.48	0.25	mg/kg wet	2.500		99	40-140			
Eicosane (C20)	2.76	0.25	mg/kg wet	2.500		110	40-140			
Hexacosane (C26)	2.72	0.25	mg/kg wet	2.500		109	40-140			
Hexadecane (C16)	2.65	0.25	mg/kg wet	2.500		106	40-140			
Hexatriacontane (C36)	2.58	0.25	mg/kg wet	2.500		103	40-140			
Nonadecane (C19)	2.76	0.25	mg/kg wet	2.500		110	40-140			
Nonane (C9)	1.86	0.25	mg/kg wet	2.500		74	30-140			
Octacosane (C28)	2.78	0.25	mg/kg wet	2.500		111	40-140			
Octadecane (C18)	2.70	0.25	mg/kg wet	2.500		108	40-140			
Tetracosane (C24)	2.79	0.25	mg/kg wet	2.500		112	40-140			
Tetradecane (C14)	2.62	0.25	mg/kg wet	2.500		105	40-140			
Triacontane (C30)	2.82	0.25	mg/kg wet	2.500		113	40-140			
<i>Surrogate: O-Terphenyl</i>	<i>5.52</i>		mg/kg wet	<i>5.000</i>		<i>110</i>	<i>40-140</i>			
LCS Dup										
Decane (C10)	2.14	0.25	mg/kg wet	2.500		86	40-140	2	50	
Docosane (C22)	2.64	0.25	mg/kg wet	2.500		105	40-140	3	50	
Dodecane (C12)	2.39	0.25	mg/kg wet	2.500		96	40-140	4	50	
Eicosane (C20)	2.65	0.25	mg/kg wet	2.500		106	40-140	4	50	
Hexacosane (C26)	2.63	0.25	mg/kg wet	2.500		105	40-140	3	50	
Hexadecane (C16)	2.54	0.25	mg/kg wet	2.500		102	40-140	4	50	
Nonadecane (C19)	2.64	0.25	mg/kg wet	2.500		106	40-140	4	50	
Nonane (C9)	1.93	0.25	mg/kg wet	2.500		77	30-140	4	50	
Octacosane (C28)	2.70	0.25	mg/kg wet	2.500		108	40-140	3	50	
Octadecane (C18)	2.59	0.25	mg/kg wet	2.500		103	40-140	4	50	
Tetracosane (C24)	2.70	0.25	mg/kg wet	2.500		108	40-140	3	50	
Tetradecane (C14)	2.51	0.25	mg/kg wet	2.500		101	40-140	4	50	
Triacontane (C30)	2.74	0.25	mg/kg wet	2.500		110	40-140	3	50	
<i>Surrogate: O-Terphenyl</i>	<i>5.15</i>		mg/kg wet	<i>5.000</i>		<i>103</i>	<i>40-140</i>			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809094

Notes and Definitions

- U Analyte included in the analysis, but not detected
- D+ Relative percent difference for duplicate is outside of criteria.
- D Diluted.
- ND Analyte NOT DETECTED above the detection limit
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- MDL Method Detection Limit
- MRL Method Reporting Limit
- I/V Initial Volume
- F/V Final Volume
- § Subcontracted analysis; see attached report
- 1 Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
- 2 Range result excludes concentrations of target analytes eluting in that range.
- 3 Range result excludes the concentration of the C9-C10 aromatic range.
- Avg Results reported as a mathematical average.



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809094

ESS LABORATORY CERTIFICATIONS

U.S. Army Corps of Engineers
Soil and Water

Navy Installation Restoration QA Program
Soil and Water

Rhode Island: A-179

Connecticut: PH-0750

Maine: RI002

Massachusetts: M-RI002

New Hampshire (NELAP accredited): 242405
Potable Water
Non Potable Water

New York (NELAP accredited): 11313
Potable Water
Non Potable Water
Solid and Hazardous Waste

United States Department of Agriculture
Soil Permit: S-54210

New Jersey (NELAP accredited): RI002
Potable Water
Non Potable Water
Soil and Hazardous Waste

Maryland: 301
Potable Water

ESS Laboratory
 Division of Thielsch Engineering, Inc.
 185 Frances Avenue, Cranston, RI 02910-2211
 Tel. (401) 461-7181 Fax (401) 461-4486
 www.esslaboratory.com

CHAIN OF CUSTODY

Turn Time: Standard Other: _____
 If faster than 5 days, prior approval by laboratory is required # _____
 State where samples were collected from:
 MA CT NH NJ NY ME Other: _____
 Is this project for any of the following: USACE Navy Other: _____
 Reporting Limits: **GA**
 Electronic Deliverable: Yes No
 Format: Excel Access PDF Other: _____

ESS LAB PROJECT ID: **0809094**

Co. Name	Project #	Project Name (20 Char. or less)	Number of Containers		Type of Containers	Circle and/or Write Required Analysis																
			Number of Containers	Pres Code		8270 VOA	8015 DRO	8018 EPH	8019 EPH w/PAHs	8020 EPH w/PAHs & Diesel	8081 PCB	8082 PCB	8270 PAH	RCRAS PCBs TAL23	TCLP-RCRAS	MCP-METALS (13)	MCP-METALS (13) w/Tr					
VAB	72015	Tresle Trail	6	5	6/1	8270 VOA	8015 DRO	8018 EPH	8019 EPH w/PAHs	8020 EPH w/PAHs & Diesel	8081 PCB	8082 PCB	8270 PAH	RCRAS PCBs TAL23	TCLP-RCRAS	MCP-METALS (13)	MCP-METALS (13) w/Tr					
Contact Person	Address		Zip	PO#	Email Address																	
Sue Courtemanche	10 Dorrance St Suite 400		02903		sklement@vab.com																	
City	State	Fax #																				
Providence	RI																					
Telephone #	Sample Identification (20 Char. or less)																					
401-272-8100	Sue Courtemanche 201-312-2000																					
ESS LAB Sample#	Date	Collection Time	COMP	GRAB	MATRIX																	
1	9/3/08	0920	✓		S	CAB-1 0-2	6	5	6/1	8270 VOA	8015 DRO	8018 EPH	8019 EPH w/PAHs	8020 EPH w/PAHs & Diesel	8081 PCB	8082 PCB	8270 PAH	RCRAS PCBs TAL23	TCLP-RCRAS	MCP-METALS (13)	MCP-METALS (13) w/Tr	
2	9/3/08	10:24	✓		S	CAB-2 0-2	6	5	6/4	8270 VOA	8015 DRO	8018 EPH	8019 EPH w/PAHs	8020 EPH w/PAHs & Diesel	8081 PCB	8082 PCB	8270 PAH	RCRAS PCBs TAL23	TCLP-RCRAS	MCP-METALS (13)	MCP-METALS (13) w/Tr	
3	9/3/08	11:30	✓		S	CAB-3 0-2	6	5	6/1	8270 VOA	8015 DRO	8018 EPH	8019 EPH w/PAHs	8020 EPH w/PAHs & Diesel	8081 PCB	8082 PCB	8270 PAH	RCRAS PCBs TAL23	TCLP-RCRAS	MCP-METALS (13)	MCP-METALS (13) w/Tr	
4	9/3/08	11:50	✓		S	CAB-3 2-4	-	2	6	8270 VOA	8015 DRO	8018 EPH	8019 EPH w/PAHs	8020 EPH w/PAHs & Diesel	8081 PCB	8082 PCB	8270 PAH	RCRAS PCBs TAL23	TCLP-RCRAS	MCP-METALS (13)	MCP-METALS (13) w/Tr	
5	9/3/08	12:15	✓		S	CAB-3 8-10	-	5	6/1	8270 VOA	8015 DRO	8018 EPH	8019 EPH w/PAHs	8020 EPH w/PAHs & Diesel	8081 PCB	8082 PCB	8270 PAH	RCRAS PCBs TAL23	TCLP-RCRAS	MCP-METALS (13)	MCP-METALS (13) w/Tr	
6	9/3/08	13:40	✓		S	CAB-4 0-2	6	5	6/1	8270 VOA	8015 DRO	8018 EPH	8019 EPH w/PAHs	8020 EPH w/PAHs & Diesel	8081 PCB	8082 PCB	8270 PAH	RCRAS PCBs TAL23	TCLP-RCRAS	MCP-METALS (13)	MCP-METALS (13) w/Tr	
7	9/3/08	14:18	✓		S	CAB-4 2-3	6	4	6/1	8270 VOA	8015 DRO	8018 EPH	8019 EPH w/PAHs	8020 EPH w/PAHs & Diesel	8081 PCB	8082 PCB	8270 PAH	RCRAS PCBs TAL23	TCLP-RCRAS	MCP-METALS (13)	MCP-METALS (13) w/Tr	
8	9/3/08	14:45	✓		S	CAB-4 8-10	6	5	6/1	8270 VOA	8015 DRO	8018 EPH	8019 EPH w/PAHs	8020 EPH w/PAHs & Diesel	8081 PCB	8082 PCB	8270 PAH	RCRAS PCBs TAL23	TCLP-RCRAS	MCP-METALS (13)	MCP-METALS (13) w/Tr	
9	9/3/08					Trip Blank																

Container Type: P-Poly Glass S-Sterile V-VOA Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present: Yes No Internal Use Only: Yes No NA: [] Pickup [] Technicians

Cooler Temp: **5.5**

Sampled by: **Joshua Hale ment #7 JGR**
 Comments: **Hold samples 4, 5, 7. Sample #6 25 ppm on PID; all others = 2.7 ppm**

Relinquished by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
<i>[Signature]</i>	9/3/08 16:26	<i>[Signature]</i>	9/308/16:26		
<i>[Signature]</i>		<i>[Signature]</i>			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

PROJECT NARRATIVE

Sue Courtemanche
Vanasse Hangen Brustlin, Inc.
10 Dorrance Street, Suite 400
Providence, RI 02903

RE: Trestle Trail
ESS Laboratory Work Order Number: 0809107

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this Project Narrative, the entire report has been paginated. The ESS Laboratory Certifications sheet is the final report page. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been mailed. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

Date: September 16, 2008

Analytical Summary

The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration may be used instead of automated integration because it produces more accurate results. All ICP Metals were analyzed using the established linear dynamic range to determine acceptable analytical results.

ESS Laboratory certifies that the test results meet the requirements of NELAC, except where noted within this project narrative.

Sample Receipt

The following sample(s) were received on September 09, 2008 for the analyses specified on the enclosed Chain of Custody Record.

Laboratory ID	Matrix	Client SampleID
0809107-01	Soil	SS-1
0809107-02	Soil	SS-2
0809107-03	Soil	SS-3
0809107-04	Solid	Trip Blank



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809107

PROJECT NARRATIVE

5035/8260B Volatile Organic Compounds / Low Level

- 0809107-03 **Internal Standard(s) outside of criteria. Sample was reanalyzed to confirm.**
- BI80902-BSD1 **Blank Spike recovery is above upper control limit.**
Acetone
- BI80902-BSD1 **Relative percent difference for duplicate is outside of criteria.**
Acetone

8082 Polychlorinated Biphenyls (PCB)

- 0809107-03 **Surrogate recovery(ies) above upper control limit.**

8270C Semi-Volatile Organic Compounds

- BI81029-BSD1 **Relative percent difference for duplicate is outside of criteria.**
2-Methylphenol
- BI81029-MS1 **Matrix Spike recovery is below lower control limit.**
Benzoic Acid
- BI81029-MSD1 **Matrix Spike recovery is below lower control limit.**
Benzoic Acid, Pyridine
- BI81029-MSD1 **Relative percent difference for duplicate is outside of criteria.**
2-Methylnaphthalene, Benzoic Acid
- BRI0069-CCV1 **Calibration required quadratic regression.**
2-Methylnaphthalene, Di-n-octylphthalate, Fluorene
- BRI0081-CCV1 **Calibration required quadratic regression.**
2-Methylnaphthalene, Di-n-octylphthalate, Fluorene

No other observations noted.

End of Project Narrative.



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: SS-1
Date Sampled: 09/09/08 10:00
Percent Solids: 89

ESS Laboratory Work Order: 0809107
ESS Laboratory Sample ID: 0809107-01
Sample Matrix: Soil

3050B/6000/7000 Total Metals

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Antimony	ND	mg/kg dry	6.0	6010B	10	1	SVD	09/10/08	1.86	100
Arsenic	51.8	mg/kg dry	3.0	6010B	7	1	SVD	09/10/08	1.86	100
Beryllium	0.31	mg/kg dry	0.06	6010B	0.4	1	SVD	09/10/08	1.86	100
Cadmium	1.07	mg/kg dry	0.61	6010B	39	1	SVD	09/10/08	1.86	100
Chromium	3.2	mg/kg dry	1.2	6010B	1400	1	SVD	09/10/08	1.86	100
Copper	14.8	mg/kg dry	1.2	6010B	3100	1	SVD	09/10/08	1.86	100
Lead	68.4	mg/kg dry	6.0	6010B	150	1	SVD	09/10/08	1.86	100
Mercury	0.039	mg/kg dry	0.036	7471A	23	1	JP	09/10/08	0.62	40
Nickel	ND	mg/kg dry	3.0	6010B	1000	1	SVD	09/10/08	1.86	100
Selenium	ND	mg/kg dry	6.0	6010B	390	1	SVD	09/10/08	1.86	100
Silver	ND	mg/kg dry	0.61	6010B	200	1	SVD	09/10/08	1.86	100
Thallium	ND	mg/kg dry	1.50	7841	5.5	5	JP	09/09/08	1.86	100
Zinc	26.9	mg/kg dry	3.0	6010B	6000	1	SVD	09/10/08	1.86	100



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: SS-1
 Date Sampled: 09/09/08 10:00
 Percent Solids: 89
 Initial Volume: 6.4
 Final Volume: 10
 Extraction Method: 5035

ESS Laboratory Work Order: 0809107
 ESS Laboratory Sample ID: 0809107-01
 Sample Matrix: Soil
 Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

RI - RES DEC

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1,1,2-Tetrachloroethane	ND	mg/kg dry	0.0044	2.2	1	09/09/08
1,1,1-Trichloroethane	ND	mg/kg dry	0.0044	540	1	09/09/08
1,1,2,2-Tetrachloroethane	ND	mg/kg dry	0.0044	1.3	1	09/09/08
1,1,2-Trichloroethane	ND	mg/kg dry	0.0044	3.6	1	09/09/08
1,1-Dichloroethane	ND	mg/kg dry	0.0044	920	1	09/09/08
1,1-Dichloroethene	ND	mg/kg dry	0.0044	0.2	1	09/09/08
1,1-Dichloropropene	ND	mg/kg dry	0.0044		1	09/09/08
1,2,3-Trichlorobenzene	ND	mg/kg dry	0.0044		1	09/09/08
1,2,3-Trichloropropane	ND	mg/kg dry	0.0044		1	09/09/08
1,2,4-Trichlorobenzene	ND	mg/kg dry	0.0044	96	1	09/09/08
1,2,4-Trimethylbenzene	ND	mg/kg dry	0.0044		1	09/09/08
1,2-Dibromo-3-Chloropropane	ND	mg/kg dry	0.0044	0.5	1	09/09/08
1,2-Dibromoethane	ND	mg/kg dry	0.0044	0.01	1	09/09/08
1,2-Dichlorobenzene	ND	mg/kg dry	0.0044	510	1	09/09/08
1,2-Dichloroethane	ND	mg/kg dry	0.0044	0.9	1	09/09/08
1,2-Dichloropropane	ND	mg/kg dry	0.0044	1.9	1	09/09/08
1,3,5-Trimethylbenzene	ND	mg/kg dry	0.0044		1	09/09/08
1,3-Dichlorobenzene	ND	mg/kg dry	0.0044	430	1	09/09/08
1,3-Dichloropropane	ND	mg/kg dry	0.0044		1	09/09/08
1,4-Dichlorobenzene	ND	mg/kg dry	0.0044	27	1	09/09/08
1,4-Dioxane	ND	mg/kg dry	0.0878		1	09/09/08
1-Chlorohexane	ND	mg/kg dry	0.0044		1	09/09/08
2,2-Dichloropropane	ND	mg/kg dry	0.0044		1	09/09/08
2-Butanone	ND	mg/kg dry	0.0439	10000	1	09/09/08
2-Chlorotoluene	ND	mg/kg dry	0.0044		1	09/09/08
2-Hexanone	ND	mg/kg dry	0.0439		1	09/09/08
4-Chlorotoluene	ND	mg/kg dry	0.0044		1	09/09/08
4-Isopropyltoluene	ND	mg/kg dry	0.0044		1	09/09/08
4-Methyl-2-Pentanone	ND	mg/kg dry	0.0439	1200	1	09/09/08
Acetone	ND	mg/kg dry	0.0439	7800	1	09/09/08
Benzene	ND	mg/kg dry	0.0044	2.5	1	09/09/08
Bromobenzene	ND	mg/kg dry	0.0044		1	09/09/08
Bromochloromethane	ND	mg/kg dry	0.0044		1	09/09/08
Bromodichloromethane	ND	mg/kg dry	0.0044	10	1	09/09/08
Bromoform	ND	mg/kg dry	0.0044	81	1	09/09/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: SS-1
 Date Sampled: 09/09/08 10:00
 Percent Solids: 89
 Initial Volume: 6.4
 Final Volume: 10
 Extraction Method: 5035

ESS Laboratory Work Order: 0809107
 ESS Laboratory Sample ID: 0809107-01
 Sample Matrix: Soil
 Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Bromomethane	ND	mg/kg dry	0.0088	0.8	1	09/09/08
Carbon Disulfide	ND	mg/kg dry	0.0044		1	09/09/08
Carbon Tetrachloride	ND	mg/kg dry	0.0044	1.5	1	09/09/08
Chlorobenzene	ND	mg/kg dry	0.0044	210	1	09/09/08
Chloroethane	ND	mg/kg dry	0.0088		1	09/09/08
Chloroform	ND	mg/kg dry	0.0044	1.2	1	09/09/08
Chloromethane	ND	mg/kg dry	0.0088		1	09/09/08
cis-1,2-Dichloroethene	ND	mg/kg dry	0.0044	630	1	09/09/08
cis-1,3-Dichloropropene	ND	mg/kg dry	0.0044		1	09/09/08
Dibromochloromethane	ND	mg/kg dry	0.0044	7.6	1	09/09/08
Dibromomethane	ND	mg/kg dry	0.0044		1	09/09/08
Dichlorodifluoromethane	ND	mg/kg dry	0.0088		1	09/09/08
Diethyl Ether	ND	mg/kg dry	0.0044		1	09/09/08
Di-isopropyl ether	ND	mg/kg dry	0.0044		1	09/09/08
Ethyl tertiary-butyl ether	ND	mg/kg dry	0.0044		1	09/09/08
Ethylbenzene	ND	mg/kg dry	0.0044	71	1	09/09/08
Hexachlorobutadiene	ND	mg/kg dry	0.0044	8.2	1	09/09/08
Isopropylbenzene	ND	mg/kg dry	0.0044	27	1	09/09/08
Methyl tert-Butyl Ether	ND	mg/kg dry	0.0044	390	1	09/09/08
Methylene Chloride	ND	mg/kg dry	0.0219	45	1	09/09/08
Naphthalene	ND	mg/kg dry	0.0044	54	1	09/09/08
n-Butylbenzene	ND	mg/kg dry	0.0044		1	09/09/08
n-Propylbenzene	ND	mg/kg dry	0.0044		1	09/09/08
sec-Butylbenzene	ND	mg/kg dry	0.0044		1	09/09/08
Styrene	ND	mg/kg dry	0.0044	13	1	09/09/08
tert-Butylbenzene	ND	mg/kg dry	0.0044		1	09/09/08
Tertiary-amyl methyl ether	ND	mg/kg dry	0.0044		1	09/09/08
Tetrachloroethene	ND	mg/kg dry	0.0044	12	1	09/09/08
Tetrahydrofuran	ND	mg/kg dry	0.0044		1	09/09/08
Toluene	ND	mg/kg dry	0.0044	190	1	09/09/08
trans-1,2-Dichloroethene	ND	mg/kg dry	0.0044	1100	1	09/09/08
trans-1,3-Dichloropropene	ND	mg/kg dry	0.0044		1	09/09/08
Trichloroethene	ND	mg/kg dry	0.0044	13	1	09/09/08
Trichlorofluoromethane	ND	mg/kg dry	0.0044		1	09/09/08
Vinyl Acetate	ND	mg/kg dry	0.0044		1	09/09/08
Vinyl Chloride	ND	mg/kg dry	0.0088	0.02	1	09/09/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: SS-1
 Date Sampled: 09/09/08 10:00
 Percent Solids: 89
 Initial Volume: 6.4
 Final Volume: 10
 Extraction Method: 5035

ESS Laboratory Work Order: 0809107
 ESS Laboratory Sample ID: 0809107-01
 Sample Matrix: Soil
 Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Xylene O	ND	mg/kg dry	0.0044	110	1	09/09/08
Xylene P,M	ND	mg/kg dry	0.0088	110	1	09/09/08
Xylenes (Total)	ND	mg/kg dry	0.0132	110	0	09/09/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	115 %		70-130
Surrogate: 4-Bromofluorobenzene	89 %		70-130
Surrogate: Dibromofluoromethane	107 %		70-130
Surrogate: Toluene-d8	101 %		70-130



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: SS-1
 Date Sampled: 09/09/08 10:00
 Percent Solids: 89
 Initial Volume: 20.3
 Final Volume: 10
 Extraction Method: 3541

ESS Laboratory Work Order: 0809107
 ESS Laboratory Sample ID: 0809107-01
 Sample Matrix: Soil
 Analyst: SEP
 Prepared: 09/09/08

8082 Polychlorinated Biphenyls (PCB)

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>
Aroclor 1016	ND	mg/kg dry	0.0553	10	1	09/10/08
Aroclor 1221	ND	mg/kg dry	0.0553	10	1	09/10/08
Aroclor 1232	ND	mg/kg dry	0.0553	10	1	09/10/08
Aroclor 1242	ND	mg/kg dry	0.0553	10	1	09/10/08
Aroclor 1248	ND	mg/kg dry	0.0553	10	1	09/10/08
Aroclor 1254	ND	mg/kg dry	0.0553	10	1	09/10/08
Aroclor 1260	ND	mg/kg dry	0.0553	10	1	09/10/08
Aroclor 1262	ND	mg/kg dry	0.0553	10	1	09/10/08
Aroclor 1268	ND	mg/kg dry	0.0553	10	1	09/10/08

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	103 %		30-150
Surrogate: Decachlorobiphenyl [2C]	108 %		30-150
Surrogate: Tetrachloro-m-xylene	92 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	102 %		30-150



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: SS-1
 Date Sampled: 09/09/08 10:00
 Percent Solids: 89
 Initial Volume: 19.6
 Final Volume: 1
 Extraction Method: 3546

ESS Laboratory Work Order: 0809107
 ESS Laboratory Sample ID: 0809107-01
 Sample Matrix: Soil
 Analyst: SEP
 Prepared: 09/09/08

8100M Total Petroleum Hydrocarbons

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>
Total Petroleum Hydrocarbons	176	mg/kg dry	43.0	500	1	09/09/08

<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
115 %		40-140

Surrogate: O-Terphenyl



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: SS-1
 Date Sampled: 09/09/08 10:00
 Percent Solids: 89
 Initial Volume: 15.1
 Final Volume: 0.5
 Extraction Method: 3546

ESS Laboratory Work Order: 0809107
 ESS Laboratory Sample ID: 0809107-01
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 09/10/08

8270C Semi-Volatile Organic Compounds

RI - RES DEC

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1-Biphenyl	ND	mg/kg dry	0.372	0.8	1	09/12/08
1,2,4-Trichlorobenzene	ND	mg/kg dry	0.372	96	1	09/12/08
1,2-Dichlorobenzene	ND	mg/kg dry	0.372	510	1	09/12/08
1,3-Dichlorobenzene	ND	mg/kg dry	0.372	430	1	09/12/08
1,4-Dichlorobenzene	ND	mg/kg dry	0.372	27	1	09/12/08
2,3,4,6-Tetrachlorophenol	ND	mg/kg dry	1.86		1	09/12/08
2,4,5-Trichlorophenol	ND	mg/kg dry	0.372	330	1	09/12/08
2,4,6-Trichlorophenol	ND	mg/kg dry	0.372	58	1	09/12/08
2,4-Dichlorophenol	ND	mg/kg dry	0.372	30	1	09/12/08
2,4-Dimethylphenol	ND	mg/kg dry	0.372	1400	1	09/12/08
2,4-Dinitrophenol	ND	mg/kg dry	1.86	160	1	09/12/08
2,4-Dinitrotoluene	ND	mg/kg dry	0.372	0.9	1	09/12/08
2,6-Dinitrotoluene	ND	mg/kg dry	0.372		1	09/12/08
2-Chloronaphthalene	ND	mg/kg dry	0.372		1	09/12/08
2-Chlorophenol	ND	mg/kg dry	0.372	50	1	09/12/08
2-Methylnaphthalene	ND	mg/kg dry	0.372	123	1	09/12/08
2-Methylphenol	ND	mg/kg dry	0.372		1	09/12/08
2-Nitroaniline	ND	mg/kg dry	0.372		1	09/12/08
2-Nitrophenol	ND	mg/kg dry	0.372		1	09/12/08
3,3'-Dichlorobenzidine	ND	mg/kg dry	0.744	1.4	1	09/12/08
3+4-Methylphenol	ND	mg/kg dry	0.744		1	09/12/08
3-Nitroaniline	ND	mg/kg dry	0.372		1	09/12/08
4,6-Dinitro-2-Methylphenol	ND	mg/kg dry	1.86		1	09/12/08
4-Bromophenyl-phenylether	ND	mg/kg dry	0.372		1	09/12/08
4-Chloro-3-Methylphenol	ND	mg/kg dry	0.372		1	09/12/08
4-Chloroaniline	ND	mg/kg dry	0.744	310	1	09/12/08
4-Chloro-phenyl-phenyl ether	ND	mg/kg dry	0.372		1	09/12/08
4-Nitroaniline	ND	mg/kg dry	0.372		1	09/12/08
4-Nitrophenol	ND	mg/kg dry	1.86		1	09/12/08
Acenaphthene	ND	mg/kg dry	0.372	43	1	09/12/08
Acenaphthylene	ND	mg/kg dry	0.372	23	1	09/12/08
Acetophenone	ND	mg/kg dry	0.744		1	09/12/08
Aniline	ND	mg/kg dry	0.744		1	09/12/08
Anthracene	ND	mg/kg dry	0.372	35	1	09/12/08
Azobenzene	ND	mg/kg dry	0.372		1	09/12/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: SS-1
 Date Sampled: 09/09/08 10:00
 Percent Solids: 89
 Initial Volume: 15.1
 Final Volume: 0.5
 Extraction Method: 3546

ESS Laboratory Work Order: 0809107
 ESS Laboratory Sample ID: 0809107-01
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 09/10/08

8270C Semi-Volatile Organic Compounds

Benzo(a)anthracene	1.49	mg/kg dry	0.372	0.9	1	09/12/08
Benzo(a)pyrene	1.32	mg/kg dry	0.186	0.4	1	09/12/08
Benzo(b)fluoranthene	2.30	mg/kg dry	0.372	0.9	1	09/12/08
Benzo(g,h,i)perylene	0.595	mg/kg dry	0.372	0.8	1	09/12/08
Benzo(k)fluoranthene	1.83	mg/kg dry	0.372	0.9	1	09/12/08
Benzoic Acid	ND	mg/kg dry	1.86		1	09/12/08
Benzyl Alcohol	ND	mg/kg dry	0.372		1	09/12/08
bis(2-Chloroethoxy)methane	ND	mg/kg dry	0.372		1	09/12/08
bis(2-Chloroethyl)ether	ND	mg/kg dry	0.372	0.6	1	09/12/08
bis(2-chloroisopropyl)Ether	ND	mg/kg dry	0.372	9.1	1	09/12/08
bis(2-Ethylhexyl)phthalate	ND	mg/kg dry	0.372	46	1	09/12/08
Butylbenzylphthalate	ND	mg/kg dry	0.372		1	09/12/08
Carbazole	ND	mg/kg dry	0.372		1	09/12/08
Chrysene	1.88	mg/kg dry	0.186	0.4	1	09/12/08
Dibenzo(a,h)Anthracene	0.194	mg/kg dry	0.186	0.4	1	09/12/08
Dibenzofuran	ND	mg/kg dry	0.372		1	09/12/08
Diethylphthalate	ND	mg/kg dry	0.372	340	1	09/12/08
Dimethylphthalate	ND	mg/kg dry	0.372	1900	1	09/12/08
Di-n-butylphthalate	ND	mg/kg dry	0.372		1	09/12/08
Di-n-octylphthalate	ND	mg/kg dry	0.372		1	09/12/08
Fluoranthene	3.61	mg/kg dry	0.372	20	1	09/12/08
Fluorene	ND	mg/kg dry	0.372	28	1	09/12/08
Hexachlorobenzene	ND	mg/kg dry	0.186	0.4	1	09/12/08
Hexachlorobutadiene	ND	mg/kg dry	0.372	8.2	1	09/12/08
Hexachlorocyclopentadiene	ND	mg/kg dry	1.86		1	09/12/08
Hexachloroethane	ND	mg/kg dry	0.372	46	1	09/12/08
Indeno(1,2,3-cd)Pyrene	0.742	mg/kg dry	0.372	0.9	1	09/12/08
Isophorone	ND	mg/kg dry	0.372		1	09/12/08
Naphthalene	ND	mg/kg dry	0.372	54	1	09/12/08
Nitrobenzene	ND	mg/kg dry	0.372		1	09/12/08
N-Nitrosodimethylamine	ND	mg/kg dry	0.372		1	09/12/08
N-Nitroso-Di-n-Propylamine	ND	mg/kg dry	0.372		1	09/12/08
N-nitrosodiphenylamine	ND	mg/kg dry	0.372		1	09/12/08
Pentachlorophenol	ND	mg/kg dry	1.86	5.3	1	09/12/08
Phenanthrene	0.961	mg/kg dry	0.372	40	1	09/12/08
Phenol	ND	mg/kg dry	0.372	6000	1	09/12/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: SS-1
 Date Sampled: 09/09/08 10:00
 Percent Solids: 89
 Initial Volume: 15.1
 Final Volume: 0.5
 Extraction Method: 3546

ESS Laboratory Work Order: 0809107
 ESS Laboratory Sample ID: 0809107-01
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 09/10/08

8270C Semi-Volatile Organic Compounds

Pyrene	2.68	mg/kg dry	0.372	13	1	09/12/08
Pyridine	ND	mg/kg dry	1.86		1	09/12/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	72 %		30-130
Surrogate: 2,4,6-Tribromophenol	81 %		30-130
Surrogate: 2-Chlorophenol-d4	62 %		30-130
Surrogate: 2-Fluorobiphenyl	67 %		30-130
Surrogate: 2-Fluorophenol	58 %		30-130
Surrogate: Nitrobenzene-d5	71 %		30-130
Surrogate: Phenol-d6	71 %		30-130
Surrogate: p-Terphenyl-d14	70 %		30-130



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: SS-2
Date Sampled: 09/09/08 10:50
Percent Solids: 79

ESS Laboratory Work Order: 0809107
ESS Laboratory Sample ID: 0809107-02
Sample Matrix: Soil

3050B/6000/7000 Total Metals

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Antimony	ND	mg/kg dry	6.8	6010B	10	1	SVD	09/10/08	1.85	100
Arsenic	6.2	mg/kg dry	3.4	6010B	7	1	SVD	09/10/08	1.85	100
Beryllium	0.46	mg/kg dry	0.07	6010B	0.4	1	SVD	09/10/08	1.85	100
Cadmium	ND	mg/kg dry	0.69	6010B	39	1	SVD	09/10/08	1.85	100
Chromium	1.9	mg/kg dry	1.4	6010B	1400	1	SVD	09/10/08	1.85	100
Copper	3.6	mg/kg dry	1.4	6010B	3100	1	SVD	09/10/08	1.85	100
Lead	10.9	mg/kg dry	6.8	6010B	150	1	SVD	09/10/08	1.85	100
Mercury	ND	mg/kg dry	0.039	7471A	23	1	JP	09/10/08	0.64	40
Nickel	ND	mg/kg dry	3.4	6010B	1000	1	SVD	09/10/08	1.85	100
Selenium	ND	mg/kg dry	6.8	6010B	390	1	SVD	09/10/08	1.85	100
Silver	ND	mg/kg dry	0.69	6010B	200	1	SVD	09/10/08	1.85	100
Thallium	ND	mg/kg dry	1.69	7841	5.5	5	JP	09/09/08	1.85	100
Zinc	51.6	mg/kg dry	3.4	6010B	6000	1	SVD	09/10/08	1.85	100



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: SS-2
 Date Sampled: 09/09/08 10:50
 Percent Solids: 79
 Initial Volume: 7.5
 Final Volume: 10
 Extraction Method: 5035

ESS Laboratory Work Order: 0809107
 ESS Laboratory Sample ID: 0809107-02
 Sample Matrix: Soil
 Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

RI - RES DEC

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1,1,2-Tetrachloroethane	ND	mg/kg dry	0.0042	2.2	1	09/09/08
1,1,1-Trichloroethane	ND	mg/kg dry	0.0042	540	1	09/09/08
1,1,2,2-Tetrachloroethane	ND	mg/kg dry	0.0042	1.3	1	09/09/08
1,1,2-Trichloroethane	ND	mg/kg dry	0.0042	3.6	1	09/09/08
1,1-Dichloroethane	ND	mg/kg dry	0.0042	920	1	09/09/08
1,1-Dichloroethene	ND	mg/kg dry	0.0042	0.2	1	09/09/08
1,1-Dichloropropene	ND	mg/kg dry	0.0042		1	09/09/08
1,2,3-Trichlorobenzene	ND	mg/kg dry	0.0042		1	09/09/08
1,2,3-Trichloropropane	ND	mg/kg dry	0.0042		1	09/09/08
1,2,4-Trichlorobenzene	ND	mg/kg dry	0.0042	96	1	09/09/08
1,2,4-Trimethylbenzene	ND	mg/kg dry	0.0042		1	09/09/08
1,2-Dibromo-3-Chloropropane	ND	mg/kg dry	0.0042	0.5	1	09/09/08
1,2-Dibromoethane	ND	mg/kg dry	0.0042	0.01	1	09/09/08
1,2-Dichlorobenzene	ND	mg/kg dry	0.0042	510	1	09/09/08
1,2-Dichloroethane	ND	mg/kg dry	0.0042	0.9	1	09/09/08
1,2-Dichloropropane	ND	mg/kg dry	0.0042	1.9	1	09/09/08
1,3,5-Trimethylbenzene	ND	mg/kg dry	0.0042		1	09/09/08
1,3-Dichlorobenzene	ND	mg/kg dry	0.0042	430	1	09/09/08
1,3-Dichloropropane	ND	mg/kg dry	0.0042		1	09/09/08
1,4-Dichlorobenzene	ND	mg/kg dry	0.0042	27	1	09/09/08
1,4-Dioxane	ND	mg/kg dry	0.0844		1	09/09/08
1-Chlorohexane	ND	mg/kg dry	0.0042		1	09/09/08
2,2-Dichloropropane	ND	mg/kg dry	0.0042		1	09/09/08
2-Butanone	ND	mg/kg dry	0.0422	10000	1	09/09/08
2-Chlorotoluene	ND	mg/kg dry	0.0042		1	09/09/08
2-Hexanone	ND	mg/kg dry	0.0422		1	09/09/08
4-Chlorotoluene	ND	mg/kg dry	0.0042		1	09/09/08
4-Isopropyltoluene	ND	mg/kg dry	0.0042		1	09/09/08
4-Methyl-2-Pentanone	ND	mg/kg dry	0.0422	1200	1	09/09/08
Acetone	ND	mg/kg dry	0.0422	7800	1	09/09/08
Benzene	ND	mg/kg dry	0.0042	2.5	1	09/09/08
Bromobenzene	ND	mg/kg dry	0.0042		1	09/09/08
Bromochloromethane	ND	mg/kg dry	0.0042		1	09/09/08
Bromodichloromethane	ND	mg/kg dry	0.0042	10	1	09/09/08
Bromoform	ND	mg/kg dry	0.0042	81	1	09/09/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: SS-2
 Date Sampled: 09/09/08 10:50
 Percent Solids: 79
 Initial Volume: 7.5
 Final Volume: 10
 Extraction Method: 5035

ESS Laboratory Work Order: 0809107
 ESS Laboratory Sample ID: 0809107-02
 Sample Matrix: Soil
 Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Bromomethane	ND	mg/kg dry	0.0084	0.8	1	09/09/08
Carbon Disulfide	ND	mg/kg dry	0.0042		1	09/09/08
Carbon Tetrachloride	ND	mg/kg dry	0.0042	1.5	1	09/09/08
Chlorobenzene	ND	mg/kg dry	0.0042	210	1	09/09/08
Chloroethane	ND	mg/kg dry	0.0084		1	09/09/08
Chloroform	ND	mg/kg dry	0.0042	1.2	1	09/09/08
Chloromethane	ND	mg/kg dry	0.0084		1	09/09/08
cis-1,2-Dichloroethene	ND	mg/kg dry	0.0042	630	1	09/09/08
cis-1,3-Dichloropropene	ND	mg/kg dry	0.0042		1	09/09/08
Dibromochloromethane	ND	mg/kg dry	0.0042	7.6	1	09/09/08
Dibromomethane	ND	mg/kg dry	0.0042		1	09/09/08
Dichlorodifluoromethane	ND	mg/kg dry	0.0084		1	09/09/08
Diethyl Ether	ND	mg/kg dry	0.0042		1	09/09/08
Di-isopropyl ether	ND	mg/kg dry	0.0042		1	09/09/08
Ethyl tertiary-butyl ether	ND	mg/kg dry	0.0042		1	09/09/08
Ethylbenzene	ND	mg/kg dry	0.0042	71	1	09/09/08
Hexachlorobutadiene	ND	mg/kg dry	0.0042	8.2	1	09/09/08
Isopropylbenzene	ND	mg/kg dry	0.0042	27	1	09/09/08
Methyl tert-Butyl Ether	ND	mg/kg dry	0.0042	390	1	09/09/08
Methylene Chloride	ND	mg/kg dry	0.0211	45	1	09/09/08
Naphthalene	ND	mg/kg dry	0.0042	54	1	09/09/08
n-Butylbenzene	ND	mg/kg dry	0.0042		1	09/09/08
n-Propylbenzene	ND	mg/kg dry	0.0042		1	09/09/08
sec-Butylbenzene	ND	mg/kg dry	0.0042		1	09/09/08
Styrene	ND	mg/kg dry	0.0042	13	1	09/09/08
tert-Butylbenzene	ND	mg/kg dry	0.0042		1	09/09/08
Tertiary-amyl methyl ether	ND	mg/kg dry	0.0042		1	09/09/08
Tetrachloroethene	ND	mg/kg dry	0.0042	12	1	09/09/08
Tetrahydrofuran	ND	mg/kg dry	0.0042		1	09/09/08
Toluene	ND	mg/kg dry	0.0042	190	1	09/09/08
trans-1,2-Dichloroethene	ND	mg/kg dry	0.0042	1100	1	09/09/08
trans-1,3-Dichloropropene	ND	mg/kg dry	0.0042		1	09/09/08
Trichloroethene	ND	mg/kg dry	0.0042	13	1	09/09/08
Trichlorofluoromethane	ND	mg/kg dry	0.0042		1	09/09/08
Vinyl Acetate	ND	mg/kg dry	0.0042		1	09/09/08
Vinyl Chloride	ND	mg/kg dry	0.0084	0.02	1	09/09/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: SS-2
 Date Sampled: 09/09/08 10:50
 Percent Solids: 79
 Initial Volume: 7.5
 Final Volume: 10
 Extraction Method: 5035

ESS Laboratory Work Order: 0809107
 ESS Laboratory Sample ID: 0809107-02
 Sample Matrix: Soil
 Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Xylene O	ND	mg/kg dry	0.0042	110	1	09/09/08
Xylene P,M	ND	mg/kg dry	0.0084	110	1	09/09/08
Xylenes (Total)	ND	mg/kg dry	0.0127	110	0	09/09/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	110 %		70-130
Surrogate: 4-Bromofluorobenzene	97 %		70-130
Surrogate: Dibromofluoromethane	103 %		70-130
Surrogate: Toluene-d8	103 %		70-130



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: SS-2
 Date Sampled: 09/09/08 10:50
 Percent Solids: 79
 Initial Volume: 20.6
 Final Volume: 10
 Extraction Method: 3541

ESS Laboratory Work Order: 0809107
 ESS Laboratory Sample ID: 0809107-02
 Sample Matrix: Soil
 Analyst: SEP
 Prepared: 09/09/08

8082 Polychlorinated Biphenyls (PCB)

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>
Aroclor 1016	ND	mg/kg dry	0.0614	10	1	09/10/08
Aroclor 1221	ND	mg/kg dry	0.0614	10	1	09/10/08
Aroclor 1232	ND	mg/kg dry	0.0614	10	1	09/10/08
Aroclor 1242	ND	mg/kg dry	0.0614	10	1	09/10/08
Aroclor 1248	ND	mg/kg dry	0.0614	10	1	09/10/08
Aroclor 1254	0.173	mg/kg dry	0.0614	10	1	09/10/08
Aroclor 1260	ND	mg/kg dry	0.0614	10	1	09/10/08
Aroclor 1262	ND	mg/kg dry	0.0614	10	1	09/10/08
Aroclor 1268	ND	mg/kg dry	0.0614	10	1	09/10/08

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	95 %		30-150
Surrogate: Decachlorobiphenyl [2C]	117 %		30-150
Surrogate: Tetrachloro-m-xylene	84 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	92 %		30-150



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: SS-2
 Date Sampled: 09/09/08 10:50
 Percent Solids: 79
 Initial Volume: 19.9
 Final Volume: 1
 Extraction Method: 3546

ESS Laboratory Work Order: 0809107
 ESS Laboratory Sample ID: 0809107-02
 Sample Matrix: Soil
 Analyst: SEP
 Prepared: 09/09/08

8100M Total Petroleum Hydrocarbons

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>
Total Petroleum Hydrocarbons	129	mg/kg dry	47.7	500	1	09/09/08

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: O-Terphenyl	97 %		40-140



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: SS-2
 Date Sampled: 09/09/08 10:50
 Percent Solids: 79
 Initial Volume: 14.8
 Final Volume: 0.5
 Extraction Method: 3546

ESS Laboratory Work Order: 0809107
 ESS Laboratory Sample ID: 0809107-02
 Sample Matrix: Soil
 Analyst: VSC
 Prepared: 09/10/08

8270C Semi-Volatile Organic Compounds

RI - RES DEC

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1-Biphenyl	ND	mg/kg dry	0.427	0.8	1	09/12/08
1,2,4-Trichlorobenzene	ND	mg/kg dry	0.427	96	1	09/12/08
1,2-Dichlorobenzene	ND	mg/kg dry	0.427	510	1	09/12/08
1,3-Dichlorobenzene	ND	mg/kg dry	0.427	430	1	09/12/08
1,4-Dichlorobenzene	ND	mg/kg dry	0.427	27	1	09/12/08
2,3,4,6-Tetrachlorophenol	ND	mg/kg dry	2.14		1	09/12/08
2,4,5-Trichlorophenol	ND	mg/kg dry	0.427	330	1	09/12/08
2,4,6-Trichlorophenol	ND	mg/kg dry	0.427	58	1	09/12/08
2,4-Dichlorophenol	ND	mg/kg dry	0.427	30	1	09/12/08
2,4-Dimethylphenol	ND	mg/kg dry	0.427	1400	1	09/12/08
2,4-Dinitrophenol	ND	mg/kg dry	2.14	160	1	09/12/08
2,4-Dinitrotoluene	ND	mg/kg dry	0.427	0.9	1	09/12/08
2,6-Dinitrotoluene	ND	mg/kg dry	0.427		1	09/12/08
2-Chloronaphthalene	ND	mg/kg dry	0.427		1	09/12/08
2-Chlorophenol	ND	mg/kg dry	0.427	50	1	09/12/08
2-Methylnaphthalene	ND	mg/kg dry	0.427	123	1	09/12/08
2-Methylphenol	ND	mg/kg dry	0.427		1	09/12/08
2-Nitroaniline	ND	mg/kg dry	0.427		1	09/12/08
2-Nitrophenol	ND	mg/kg dry	0.427		1	09/12/08
3,3'-Dichlorobenzidine	ND	mg/kg dry	0.856	1.4	1	09/12/08
3+4-Methylphenol	ND	mg/kg dry	0.856		1	09/12/08
3-Nitroaniline	ND	mg/kg dry	0.427		1	09/12/08
4,6-Dinitro-2-Methylphenol	ND	mg/kg dry	2.14		1	09/12/08
4-Bromophenyl-phenylether	ND	mg/kg dry	0.427		1	09/12/08
4-Chloro-3-Methylphenol	ND	mg/kg dry	0.427		1	09/12/08
4-Chloroaniline	ND	mg/kg dry	0.856	310	1	09/12/08
4-Chloro-phenyl-phenyl ether	ND	mg/kg dry	0.427		1	09/12/08
4-Nitroaniline	ND	mg/kg dry	0.427		1	09/12/08
4-Nitrophenol	ND	mg/kg dry	2.14		1	09/12/08
Acenaphthene	ND	mg/kg dry	0.427	43	1	09/12/08
Acenaphthylene	ND	mg/kg dry	0.427	23	1	09/12/08
Acetophenone	ND	mg/kg dry	0.856		1	09/12/08
Aniline	ND	mg/kg dry	0.856		1	09/12/08
Anthracene	ND	mg/kg dry	0.427	35	1	09/12/08
Azobenzene	ND	mg/kg dry	0.427		1	09/12/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: SS-2
Date Sampled: 09/09/08 10:50
Percent Solids: 79
Initial Volume: 14.8
Final Volume: 0.5
Extraction Method: 3546

ESS Laboratory Work Order: 0809107
ESS Laboratory Sample ID: 0809107-02
Sample Matrix: Soil
Analyst: VSC
Prepared: 09/10/08

8270C Semi-Volatile Organic Compounds

Benzo(a)anthracene	ND	mg/kg dry	0.427	0.9	1	09/12/08
Benzo(a)pyrene	ND	mg/kg dry	0.214	0.4	1	09/12/08
Benzo(b)fluoranthene	ND	mg/kg dry	0.427	0.9	1	09/12/08
Benzo(g,h,i)perylene	ND	mg/kg dry	0.427	0.8	1	09/12/08
Benzo(k)fluoranthene	ND	mg/kg dry	0.427	0.9	1	09/12/08
Benzoic Acid	ND	mg/kg dry	2.14		1	09/12/08
Benzyl Alcohol	ND	mg/kg dry	0.427		1	09/12/08
bis(2-Chloroethoxy)methane	ND	mg/kg dry	0.427		1	09/12/08
bis(2-Chloroethyl)ether	ND	mg/kg dry	0.427	0.6	1	09/12/08
bis(2-chloroisopropyl)Ether	ND	mg/kg dry	0.427	9.1	1	09/12/08
bis(2-Ethylhexyl)phthalate	ND	mg/kg dry	0.427	46	1	09/12/08
Butylbenzylphthalate	ND	mg/kg dry	0.427		1	09/12/08
Carbazole	ND	mg/kg dry	0.427		1	09/12/08
Chrysene	ND	mg/kg dry	0.214	0.4	1	09/12/08
Dibenzo(a,h)Anthracene	ND	mg/kg dry	0.214	0.4	1	09/12/08
Dibenzofuran	ND	mg/kg dry	0.427		1	09/12/08
Diethylphthalate	ND	mg/kg dry	0.427	340	1	09/12/08
Dimethylphthalate	ND	mg/kg dry	0.427	1900	1	09/12/08
Di-n-butylphthalate	ND	mg/kg dry	0.427		1	09/12/08
Di-n-octylphthalate	ND	mg/kg dry	0.427		1	09/12/08
Fluoranthene	ND	mg/kg dry	0.427	20	1	09/12/08
Fluorene	ND	mg/kg dry	0.427	28	1	09/12/08
Hexachlorobenzene	ND	mg/kg dry	0.214	0.4	1	09/12/08
Hexachlorobutadiene	ND	mg/kg dry	0.427	8.2	1	09/12/08
Hexachlorocyclopentadiene	ND	mg/kg dry	2.14		1	09/12/08
Hexachloroethane	ND	mg/kg dry	0.427	46	1	09/12/08
Indeno(1,2,3-cd)Pyrene	ND	mg/kg dry	0.427	0.9	1	09/12/08
Isophorone	ND	mg/kg dry	0.427		1	09/12/08
Naphthalene	ND	mg/kg dry	0.427	54	1	09/12/08
Nitrobenzene	ND	mg/kg dry	0.427		1	09/12/08
N-Nitrosodimethylamine	ND	mg/kg dry	0.427		1	09/12/08
N-Nitroso-Di-n-Propylamine	ND	mg/kg dry	0.427		1	09/12/08
N-nitrosodiphenylamine	ND	mg/kg dry	0.427		1	09/12/08
Pentachlorophenol	ND	mg/kg dry	2.14	5.3	1	09/12/08
Phenanthrene	ND	mg/kg dry	0.427	40	1	09/12/08
Phenol	ND	mg/kg dry	0.427	6000	1	09/12/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: SS-2
Date Sampled: 09/09/08 10:50
Percent Solids: 79
Initial Volume: 14.8
Final Volume: 0.5
Extraction Method: 3546

ESS Laboratory Work Order: 0809107
ESS Laboratory Sample ID: 0809107-02
Sample Matrix: Soil
Analyst: VSC
Prepared: 09/10/08

8270C Semi-Volatile Organic Compounds

Pyrene	ND	mg/kg dry	0.427	13	1	09/12/08
Pyridine	ND	mg/kg dry	2.14		1	09/12/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	60 %		30-130
Surrogate: 2,4,6-Tribromophenol	58 %		30-130
Surrogate: 2-Chlorophenol-d4	55 %		30-130
Surrogate: 2-Fluorobiphenyl	45 %		30-130
Surrogate: 2-Fluorophenol	56 %		30-130
Surrogate: Nitrobenzene-d5	71 %		30-130
Surrogate: Phenol-d6	69 %		30-130
Surrogate: p-Terphenyl-d14	39 %		30-130



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: SS-3
Date Sampled: 09/09/08 11:45
Percent Solids: 95

ESS Laboratory Work Order: 0809107
ESS Laboratory Sample ID: 0809107-03
Sample Matrix: Soil

3050B/6000/7000 Total Metals

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Antimony	ND	mg/kg dry	5.6	6010B	10	1	SVD	09/10/08	1.87	100
Arsenic	16.9	mg/kg dry	2.8	6010B	7	1	SVD	09/10/08	1.87	100
Beryllium	0.18	mg/kg dry	0.06	6010B	0.4	1	SVD	09/10/08	1.87	100
Cadmium	ND	mg/kg dry	0.57	6010B	39	1	SVD	09/10/08	1.87	100
Chromium	ND	mg/kg dry	1.1	6010B	1400	1	SVD	09/10/08	1.87	100
Copper	7.9	mg/kg dry	1.1	6010B	3100	1	SVD	09/10/08	1.87	100
Lead	18.8	mg/kg dry	5.6	6010B	150	1	SVD	09/10/08	1.87	100
Mercury	ND	mg/kg dry	0.034	7471A	23	1	JP	09/10/08	0.61	40
Nickel	ND	mg/kg dry	2.8	6010B	1000	1	SVD	09/10/08	1.87	100
Selenium	ND	mg/kg dry	5.6	6010B	390	1	SVD	09/10/08	1.87	100
Silver	ND	mg/kg dry	0.57	6010B	200	1	SVD	09/10/08	1.87	100
Thallium	ND	mg/kg dry	1.39	7841	5.5	5	JP	09/09/08	1.87	100
Zinc	12.0	mg/kg dry	2.8	6010B	6000	1	SVD	09/10/08	1.87	100



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: SS-3
Date Sampled: 09/09/08 11:45
Percent Solids: 95
Initial Volume: 7.1
Final Volume: 10
Extraction Method: 5035

ESS Laboratory Work Order: 0809107
ESS Laboratory Sample ID: 0809107-03
Sample Matrix: Soil
Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>
1,1,1,2-Tetrachloroethane	ND	mg/kg dry	0.0037	2.2	1	09/09/08
1,1,1-Trichloroethane	ND	mg/kg dry	0.0037	540	1	09/09/08
1,1,2,2-Tetrachloroethane	ND	mg/kg dry	0.0037	1.3	1	09/09/08
1,1,2-Trichloroethane	ND	mg/kg dry	0.0037	3.6	1	09/09/08
1,1-Dichloroethane	ND	mg/kg dry	0.0037	920	1	09/09/08
1,1-Dichloroethene	ND	mg/kg dry	0.0037	0.2	1	09/09/08
1,1-Dichloropropene	ND	mg/kg dry	0.0037		1	09/09/08
1,2,3-Trichlorobenzene	ND	mg/kg dry	0.0037		1	09/09/08
1,2,3-Trichloropropane	ND	mg/kg dry	0.0037		1	09/09/08
1,2,4-Trichlorobenzene	ND	mg/kg dry	0.0037	96	1	09/09/08
1,2,4-Trimethylbenzene	ND	mg/kg dry	0.0037		1	09/09/08
1,2-Dibromo-3-Chloropropane	ND	mg/kg dry	0.0037	0.5	1	09/09/08
1,2-Dibromoethane	ND	mg/kg dry	0.0037	0.01	1	09/09/08
1,2-Dichlorobenzene	ND	mg/kg dry	0.0037	510	1	09/09/08
1,2-Dichloroethane	ND	mg/kg dry	0.0037	0.9	1	09/09/08
1,2-Dichloropropane	ND	mg/kg dry	0.0037	1.9	1	09/09/08
1,3,5-Trimethylbenzene	ND	mg/kg dry	0.0037		1	09/09/08
1,3-Dichlorobenzene	ND	mg/kg dry	0.0037	430	1	09/09/08
1,3-Dichloropropane	ND	mg/kg dry	0.0037		1	09/09/08
1,4-Dichlorobenzene	ND	mg/kg dry	0.0037	27	1	09/09/08
1,4-Dioxane	ND	mg/kg dry	0.0741		1	09/09/08
1-Chlorohexane	ND	mg/kg dry	0.0037		1	09/09/08
2,2-Dichloropropane	ND	mg/kg dry	0.0037		1	09/09/08
2-Butanone	ND	mg/kg dry	0.0371	10000	1	09/09/08
2-Chlorotoluene	ND	mg/kg dry	0.0037		1	09/09/08
2-Hexanone	ND	mg/kg dry	0.0371		1	09/09/08
4-Chlorotoluene	ND	mg/kg dry	0.0037		1	09/09/08
4-Isopropyltoluene	ND	mg/kg dry	0.0037		1	09/09/08
4-Methyl-2-Pentanone	ND	mg/kg dry	0.0371	1200	1	09/09/08
Acetone	ND	mg/kg dry	0.0371	7800	1	09/09/08
Benzene	ND	mg/kg dry	0.0037	2.5	1	09/09/08
Bromobenzene	ND	mg/kg dry	0.0037		1	09/09/08
Bromochloromethane	ND	mg/kg dry	0.0037		1	09/09/08
Bromodichloromethane	ND	mg/kg dry	0.0037	10	1	09/09/08
Bromoform	ND	mg/kg dry	0.0037	81	1	09/09/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: SS-3
Date Sampled: 09/09/08 11:45
Percent Solids: 95
Initial Volume: 7.1
Final Volume: 10
Extraction Method: 5035

ESS Laboratory Work Order: 0809107
ESS Laboratory Sample ID: 0809107-03
Sample Matrix: Soil
Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Bromomethane	ND	mg/kg dry	0.0074	0.8	1	09/09/08
Carbon Disulfide	ND	mg/kg dry	0.0037		1	09/09/08
Carbon Tetrachloride	ND	mg/kg dry	0.0037	1.5	1	09/09/08
Chlorobenzene	ND	mg/kg dry	0.0037	210	1	09/09/08
Chloroethane	ND	mg/kg dry	0.0074		1	09/09/08
Chloroform	ND	mg/kg dry	0.0037	1.2	1	09/09/08
Chloromethane	ND	mg/kg dry	0.0074		1	09/09/08
cis-1,2-Dichloroethene	ND	mg/kg dry	0.0037	630	1	09/09/08
cis-1,3-Dichloropropene	ND	mg/kg dry	0.0037		1	09/09/08
Dibromochloromethane	ND	mg/kg dry	0.0037	7.6	1	09/09/08
Dibromomethane	ND	mg/kg dry	0.0037		1	09/09/08
Dichlorodifluoromethane	ND	mg/kg dry	0.0074		1	09/09/08
Diethyl Ether	ND	mg/kg dry	0.0037		1	09/09/08
Di-isopropyl ether	ND	mg/kg dry	0.0037		1	09/09/08
Ethyl tertiary-butyl ether	ND	mg/kg dry	0.0037		1	09/09/08
Ethylbenzene	ND	mg/kg dry	0.0037	71	1	09/09/08
Hexachlorobutadiene	ND	mg/kg dry	0.0037	8.2	1	09/09/08
Isopropylbenzene	ND	mg/kg dry	0.0037	27	1	09/09/08
Methyl tert-Butyl Ether	ND	mg/kg dry	0.0037	390	1	09/09/08
Methylene Chloride	ND	mg/kg dry	0.0185	45	1	09/09/08
Naphthalene	ND	mg/kg dry	0.0037	54	1	09/09/08
n-Butylbenzene	ND	mg/kg dry	0.0037		1	09/09/08
n-Propylbenzene	ND	mg/kg dry	0.0037		1	09/09/08
sec-Butylbenzene	ND	mg/kg dry	0.0037		1	09/09/08
Styrene	ND	mg/kg dry	0.0037	13	1	09/09/08
tert-Butylbenzene	ND	mg/kg dry	0.0037		1	09/09/08
Tertiary-amyl methyl ether	ND	mg/kg dry	0.0037		1	09/09/08
Tetrachloroethene	ND	mg/kg dry	0.0037	12	1	09/09/08
Tetrahydrofuran	ND	mg/kg dry	0.0037		1	09/09/08
Toluene	ND	mg/kg dry	0.0037	190	1	09/09/08
trans-1,2-Dichloroethene	ND	mg/kg dry	0.0037	1100	1	09/09/08
trans-1,3-Dichloropropene	ND	mg/kg dry	0.0037		1	09/09/08
Trichloroethene	ND	mg/kg dry	0.0037	13	1	09/09/08
Trichlorofluoromethane	ND	mg/kg dry	0.0037		1	09/09/08
Vinyl Acetate	ND	mg/kg dry	0.0037		1	09/09/08
Vinyl Chloride	ND	mg/kg dry	0.0074	0.02	1	09/09/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: SS-3
Date Sampled: 09/09/08 11:45
Percent Solids: 95
Initial Volume: 7.1
Final Volume: 10
Extraction Method: 5035

ESS Laboratory Work Order: 0809107
ESS Laboratory Sample ID: 0809107-03
Sample Matrix: Soil
Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Xylene O	ND	mg/kg dry	0.0037	110	1	09/09/08
Xylene P,M	ND	mg/kg dry	0.0074	110	1	09/09/08
Xylenes (Total)	ND	mg/kg dry	0.0111	110	0	09/09/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	111 %		70-130
Surrogate: 4-Bromofluorobenzene	84 %		70-130
Surrogate: Dibromofluoromethane	106 %		70-130
Surrogate: Toluene-d8	108 %		70-130



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: SS-3
 Date Sampled: 09/09/08 11:45
 Percent Solids: 95
 Initial Volume: 20.8
 Final Volume: 10
 Extraction Method: 3541

ESS Laboratory Work Order: 0809107
 ESS Laboratory Sample ID: 0809107-03
 Sample Matrix: Soil
 Analyst: SEP
 Prepared: 09/09/08

8082 Polychlorinated Biphenyls (PCB)

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>
Aroclor 1016	ND	mg/kg dry	0.0506	10	1	09/10/08
Aroclor 1221	ND	mg/kg dry	0.0506	10	1	09/10/08
Aroclor 1232	ND	mg/kg dry	0.0506	10	1	09/10/08
Aroclor 1242	ND	mg/kg dry	0.0506	10	1	09/10/08
Aroclor 1248	ND	mg/kg dry	0.0506	10	1	09/10/08
Aroclor 1254	0.253	mg/kg dry	0.0506	10	1	09/10/08
Aroclor 1260	ND	mg/kg dry	0.0506	10	1	09/10/08
Aroclor 1262	ND	mg/kg dry	0.0506	10	1	09/10/08
Aroclor 1268	ND	mg/kg dry	0.0506	10	1	09/10/08

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	93 %		30-150
Surrogate: Decachlorobiphenyl [2C]	162 %	S+	30-150
Surrogate: Tetrachloro-m-xylene	94 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	109 %		30-150



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: SS-3
 Date Sampled: 09/09/08 11:45
 Percent Solids: 95
 Initial Volume: 20.8
 Final Volume: 1
 Extraction Method: 3546

ESS Laboratory Work Order: 0809107
 ESS Laboratory Sample ID: 0809107-03
 Sample Matrix: Soil
 Analyst: SEP
 Prepared: 09/09/08

8100M Total Petroleum Hydrocarbons

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>
Total Petroleum Hydrocarbons	41.5	mg/kg dry	38.0	500	1	09/09/08

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: O-Terphenyl	103 %		40-140



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: SS-3
Date Sampled: 09/09/08 11:45
Percent Solids: 95
Initial Volume: 15.1
Final Volume: 0.5
Extraction Method: 3546

ESS Laboratory Work Order: 0809107
ESS Laboratory Sample ID: 0809107-03
Sample Matrix: Soil
Analyst: VSC
Prepared: 09/10/08

8270C Semi-Volatile Organic Compounds

RI - RES DEC

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>
1,1-Biphenyl	ND	mg/kg dry	0.348	0.8	1	09/11/08
1,2,4-Trichlorobenzene	ND	mg/kg dry	0.348	96	1	09/11/08
1,2-Dichlorobenzene	ND	mg/kg dry	0.348	510	1	09/11/08
1,3-Dichlorobenzene	ND	mg/kg dry	0.348	430	1	09/11/08
1,4-Dichlorobenzene	ND	mg/kg dry	0.348	27	1	09/11/08
2,3,4,6-Tetrachlorophenol	ND	mg/kg dry	1.75		1	09/11/08
2,4,5-Trichlorophenol	ND	mg/kg dry	0.348	330	1	09/11/08
2,4,6-Trichlorophenol	ND	mg/kg dry	0.348	58	1	09/11/08
2,4-Dichlorophenol	ND	mg/kg dry	0.348	30	1	09/11/08
2,4-Dimethylphenol	ND	mg/kg dry	0.348	1400	1	09/11/08
2,4-Dinitrophenol	ND	mg/kg dry	1.75	160	1	09/11/08
2,4-Dinitrotoluene	ND	mg/kg dry	0.348	0.9	1	09/11/08
2,6-Dinitrotoluene	ND	mg/kg dry	0.348		1	09/11/08
2-Chloronaphthalene	ND	mg/kg dry	0.348		1	09/11/08
2-Chlorophenol	ND	mg/kg dry	0.348	50	1	09/11/08
2-Methylnaphthalene	ND	mg/kg dry	0.348	123	1	09/11/08
2-Methylphenol	ND	mg/kg dry	0.348		1	09/11/08
2-Nitroaniline	ND	mg/kg dry	0.348		1	09/11/08
2-Nitrophenol	ND	mg/kg dry	0.348		1	09/11/08
3,3'-Dichlorobenzidine	ND	mg/kg dry	0.697	1.4	1	09/11/08
3+4-Methylphenol	ND	mg/kg dry	0.697		1	09/11/08
3-Nitroaniline	ND	mg/kg dry	0.348		1	09/11/08
4,6-Dinitro-2-Methylphenol	ND	mg/kg dry	1.75		1	09/11/08
4-Bromophenyl-phenylether	ND	mg/kg dry	0.348		1	09/11/08
4-Chloro-3-Methylphenol	ND	mg/kg dry	0.348		1	09/11/08
4-Chloroaniline	ND	mg/kg dry	0.697	310	1	09/11/08
4-Chloro-phenyl-phenyl ether	ND	mg/kg dry	0.348		1	09/11/08
4-Nitroaniline	ND	mg/kg dry	0.348		1	09/11/08
4-Nitrophenol	ND	mg/kg dry	1.75		1	09/11/08
Acenaphthene	ND	mg/kg dry	0.348	43	1	09/11/08
Acenaphthylene	ND	mg/kg dry	0.348	23	1	09/11/08
Acetophenone	ND	mg/kg dry	0.697		1	09/11/08
Aniline	ND	mg/kg dry	0.697		1	09/11/08
Anthracene	ND	mg/kg dry	0.348	35	1	09/11/08
Azobenzene	ND	mg/kg dry	0.348		1	09/11/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: SS-3
Date Sampled: 09/09/08 11:45
Percent Solids: 95
Initial Volume: 15.1
Final Volume: 0.5
Extraction Method: 3546

ESS Laboratory Work Order: 0809107
ESS Laboratory Sample ID: 0809107-03
Sample Matrix: Soil
Analyst: VSC
Prepared: 09/10/08

8270C Semi-Volatile Organic Compounds

Benzo(a)anthracene	ND	mg/kg dry	0.348	0.9	1	09/11/08
Benzo(a)pyrene	0.222	mg/kg dry	0.175	0.4	1	09/11/08
Benzo(b)fluoranthene	0.444	mg/kg dry	0.348	0.9	1	09/11/08
Benzo(g,h,i)perylene	ND	mg/kg dry	0.348	0.8	1	09/11/08
Benzo(k)fluoranthene	ND	mg/kg dry	0.348	0.9	1	09/11/08
Benzoic Acid	ND	mg/kg dry	1.75		1	09/11/08
Benzyl Alcohol	ND	mg/kg dry	0.348		1	09/11/08
bis(2-Chloroethoxy)methane	ND	mg/kg dry	0.348		1	09/11/08
bis(2-Chloroethyl)ether	ND	mg/kg dry	0.348	0.6	1	09/11/08
bis(2-chloroisopropyl)Ether	ND	mg/kg dry	0.348	9.1	1	09/11/08
bis(2-Ethylhexyl)phthalate	ND	mg/kg dry	0.348	46	1	09/11/08
Butylbenzylphthalate	ND	mg/kg dry	0.348		1	09/11/08
Carbazole	ND	mg/kg dry	0.348		1	09/11/08
Chrysene	0.393	mg/kg dry	0.175	0.4	1	09/11/08
Dibenzo(a,h)Anthracene	ND	mg/kg dry	0.175	0.4	1	09/11/08
Dibenzofuran	ND	mg/kg dry	0.348		1	09/11/08
Diethylphthalate	ND	mg/kg dry	0.348	340	1	09/11/08
Dimethylphthalate	ND	mg/kg dry	0.348	1900	1	09/11/08
Di-n-butylphthalate	ND	mg/kg dry	0.348		1	09/11/08
Di-n-octylphthalate	ND	mg/kg dry	0.348		1	09/11/08
Fluoranthene	0.529	mg/kg dry	0.348	20	1	09/11/08
Fluorene	ND	mg/kg dry	0.348	28	1	09/11/08
Hexachlorobenzene	ND	mg/kg dry	0.175	0.4	1	09/11/08
Hexachlorobutadiene	ND	mg/kg dry	0.348	8.2	1	09/11/08
Hexachlorocyclopentadiene	ND	mg/kg dry	1.75		1	09/11/08
Hexachloroethane	ND	mg/kg dry	0.348	46	1	09/11/08
Indeno(1,2,3-cd)Pyrene	ND	mg/kg dry	0.348	0.9	1	09/11/08
Isophorone	ND	mg/kg dry	0.348		1	09/11/08
Naphthalene	ND	mg/kg dry	0.348	54	1	09/11/08
Nitrobenzene	ND	mg/kg dry	0.348		1	09/11/08
N-Nitrosodimethylamine	ND	mg/kg dry	0.348		1	09/11/08
N-Nitroso-Di-n-Propylamine	ND	mg/kg dry	0.348		1	09/11/08
N-nitrosodiphenylamine	ND	mg/kg dry	0.348		1	09/11/08
Pentachlorophenol	ND	mg/kg dry	1.75	5.3	1	09/11/08
Phenanthrene	ND	mg/kg dry	0.348	40	1	09/11/08
Phenol	ND	mg/kg dry	0.348	6000	1	09/11/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: SS-3
Date Sampled: 09/09/08 11:45
Percent Solids: 95
Initial Volume: 15.1
Final Volume: 0.5
Extraction Method: 3546

ESS Laboratory Work Order: 0809107
ESS Laboratory Sample ID: 0809107-03
Sample Matrix: Soil
Analyst: VSC
Prepared: 09/10/08

8270C Semi-Volatile Organic Compounds

Pyrene	0.433	mg/kg dry	0.348	13	1	09/11/08
Pyridine	ND	mg/kg dry	1.75		1	09/11/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	64 %		30-130
Surrogate: 2,4,6-Tribromophenol	81 %		30-130
Surrogate: 2-Chlorophenol-d4	56 %		30-130
Surrogate: 2-Fluorobiphenyl	62 %		30-130
Surrogate: 2-Fluorophenol	59 %		30-130
Surrogate: Nitrobenzene-d5	77 %		30-130
Surrogate: Phenol-d6	67 %		30-130
Surrogate: p-Terphenyl-d14	75 %		30-130



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: Trip Blank
 Date Sampled: 09/09/08 00:00
 Percent Solids: N/A
 Initial Volume: 5
 Final Volume: 10
 Extraction Method: 5035

ESS Laboratory Work Order: 0809107
 ESS Laboratory Sample ID: 0809107-04
 Sample Matrix: Solid
 Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

RI - RES DEC

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0050	2.2	1	09/09/08
1,1,1-Trichloroethane	ND	mg/kg	0.0050	540	1	09/09/08
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0050	1.3	1	09/09/08
1,1,2-Trichloroethane	ND	mg/kg	0.0050	3.6	1	09/09/08
1,1-Dichloroethane	ND	mg/kg	0.0050	920	1	09/09/08
1,1-Dichloroethene	ND	mg/kg	0.0050	0.2	1	09/09/08
1,1-Dichloropropene	ND	mg/kg	0.0050		1	09/09/08
1,2,3-Trichlorobenzene	ND	mg/kg	0.0050		1	09/09/08
1,2,3-Trichloropropane	ND	mg/kg	0.0050		1	09/09/08
1,2,4-Trichlorobenzene	ND	mg/kg	0.0050		1	09/09/08
1,2,4-Trimethylbenzene	ND	mg/kg	0.0050		1	09/09/08
1,2-Dibromo-3-Chloropropane	ND	mg/kg	0.0050	0.5	1	09/09/08
1,2-Dibromoethane	ND	mg/kg	0.0050	0.01	1	09/09/08
1,2-Dichlorobenzene	ND	mg/kg	0.0050		1	09/09/08
1,2-Dichloroethane	ND	mg/kg	0.0050	0.9	1	09/09/08
1,2-Dichloropropane	ND	mg/kg	0.0050	1.9	1	09/09/08
1,3,5-Trimethylbenzene	ND	mg/kg	0.0050		1	09/09/08
1,3-Dichlorobenzene	ND	mg/kg	0.0050		1	09/09/08
1,3-Dichloropropane	ND	mg/kg	0.0050		1	09/09/08
1,4-Dichlorobenzene	ND	mg/kg	0.0050		1	09/09/08
1,4-Dioxane	ND	mg/kg	0.100		1	09/09/08
1-Chlorohexane	ND	mg/kg	0.0050		1	09/09/08
2,2-Dichloropropane	ND	mg/kg	0.0050		1	09/09/08
2-Butanone	ND	mg/kg	0.0500	10000	1	09/09/08
2-Chlorotoluene	ND	mg/kg	0.0050		1	09/09/08
2-Hexanone	ND	mg/kg	0.0500		1	09/09/08
4-Chlorotoluene	ND	mg/kg	0.0050		1	09/09/08
4-Isopropyltoluene	ND	mg/kg	0.0050		1	09/09/08
4-Methyl-2-Pentanone	ND	mg/kg	0.0500	1200	1	09/09/08
Acetone	ND	mg/kg	0.0500	7800	1	09/09/08
Benzene	ND	mg/kg	0.0050	2.5	1	09/09/08
Bromobenzene	ND	mg/kg	0.0050		1	09/09/08
Bromochloromethane	ND	mg/kg	0.0050		1	09/09/08
Bromodichloromethane	ND	mg/kg	0.0050	10	1	09/09/08
Bromoform	ND	mg/kg	0.0050	81	1	09/09/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: Trip Blank
Date Sampled: 09/09/08 00:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 10
Extraction Method: 5035

ESS Laboratory Work Order: 0809107
ESS Laboratory Sample ID: 0809107-04
Sample Matrix: Solid
Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Bromomethane	ND	mg/kg	0.0100	0.8	1	09/09/08
Carbon Disulfide	ND	mg/kg	0.0050		1	09/09/08
Carbon Tetrachloride	ND	mg/kg	0.0050	1.5	1	09/09/08
Chlorobenzene	ND	mg/kg	0.0050	210	1	09/09/08
Chloroethane	ND	mg/kg	0.0100		1	09/09/08
Chloroform	ND	mg/kg	0.0050	1.2	1	09/09/08
Chloromethane	ND	mg/kg	0.0100		1	09/09/08
cis-1,2-Dichloroethene	ND	mg/kg	0.0050	630	1	09/09/08
cis-1,3-Dichloropropene	ND	mg/kg	0.0050		1	09/09/08
Dibromochloromethane	ND	mg/kg	0.0050	7.6	1	09/09/08
Dibromomethane	ND	mg/kg	0.0050		1	09/09/08
Dichlorodifluoromethane	ND	mg/kg	0.0100		1	09/09/08
Diethyl Ether	ND	mg/kg	0.0050		1	09/09/08
Di-isopropyl ether	ND	mg/kg	0.0050		1	09/09/08
Ethyl tertiary-butyl ether	ND	mg/kg	0.0050		1	09/09/08
Ethylbenzene	ND	mg/kg	0.0050	71	1	09/09/08
Hexachlorobutadiene	ND	mg/kg	0.0050		1	09/09/08
Isopropylbenzene	ND	mg/kg	0.0050	27	1	09/09/08
Methyl tert-Butyl Ether	ND	mg/kg	0.0050	390	1	09/09/08
Methylene Chloride	ND	mg/kg	0.0250	45	1	09/09/08
Naphthalene	ND	mg/kg	0.0050		1	09/09/08
n-Butylbenzene	ND	mg/kg	0.0050		1	09/09/08
n-Propylbenzene	ND	mg/kg	0.0050		1	09/09/08
sec-Butylbenzene	ND	mg/kg	0.0050		1	09/09/08
Styrene	ND	mg/kg	0.0050	13	1	09/09/08
tert-Butylbenzene	ND	mg/kg	0.0050		1	09/09/08
Tertiary-amyl methyl ether	ND	mg/kg	0.0050		1	09/09/08
Tetrachloroethene	ND	mg/kg	0.0050	12	1	09/09/08
Tetrahydrofuran	ND	mg/kg	0.0050		1	09/09/08
Toluene	ND	mg/kg	0.0050	190	1	09/09/08
trans-1,2-Dichloroethene	ND	mg/kg	0.0050	1100	1	09/09/08
trans-1,3-Dichloropropene	ND	mg/kg	0.0050		1	09/09/08
Trichloroethene	ND	mg/kg	0.0050	13	1	09/09/08
Trichlorofluoromethane	ND	mg/kg	0.0050		1	09/09/08
Vinyl Acetate	ND	mg/kg	0.0050		1	09/09/08
Vinyl Chloride	ND	mg/kg	0.0100	0.02	1	09/09/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: Trip Blank
 Date Sampled: 09/09/08 00:00
 Percent Solids: N/A
 Initial Volume: 5
 Final Volume: 10
 Extraction Method: 5035

ESS Laboratory Work Order: 0809107
 ESS Laboratory Sample ID: 0809107-04
 Sample Matrix: Solid
 Analyst: MD

5035/8260B Volatile Organic Compounds / Low Level

Xylene O	ND	mg/kg	0.0050	110	1	09/09/08
Xylene P,M	ND	mg/kg	0.0100	110	1	09/09/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	110 %		70-130
Surrogate: 4-Bromofluorobenzene	95 %		70-130
Surrogate: Dibromofluoromethane	108 %		70-130
Surrogate: Toluene-d8	98 %		70-130



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809107

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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3050B/6000/7000 Total Metals

Batch BI80911 - 3050B

Blank

Antimony	ND	6.7	mg/kg wet							
Arsenic	ND	3.3	mg/kg wet							
Beryllium	ND	0.07	mg/kg wet							
Cadmium	ND	0.67	mg/kg wet							
Chromium	ND	1.3	mg/kg wet							
Copper	ND	1.3	mg/kg wet							
Lead	ND	6.7	mg/kg wet							
Nickel	ND	3.3	mg/kg wet							
Selenium	ND	6.7	mg/kg wet							
Silver	ND	0.67	mg/kg wet							
Thallium	ND	0.33	mg/kg wet							
Zinc	ND	3.3	mg/kg wet							

LCS

Antimony	35.9	6.7	mg/kg wet	33.33		108	80-120			
Arsenic	29.3	3.3	mg/kg wet	33.33		88	80-120			
Beryllium	3.42	0.07	mg/kg wet	3.333		103	80-120			
Cadmium	16.2	0.67	mg/kg wet	16.67		97	80-120			
Chromium	34.6	1.3	mg/kg wet	33.33		104	80-120			
Copper	34.5	1.3	mg/kg wet	33.33		104	80-120			
Lead	33.2	6.7	mg/kg wet	33.33		100	80-120			
Nickel	34.7	3.3	mg/kg wet	33.33		104	80-120			
Selenium	66.5	6.7	mg/kg wet	66.67		100	80-120			
Silver	17.5	0.67	mg/kg wet	16.67		105	80-120			
Thallium	27.0	6.60	mg/kg wet	33.33		81	80-120			
Zinc	33.5	3.3	mg/kg wet	33.33		101	80-120			

LCS Dup

Antimony	35.6	6.7	mg/kg wet	33.33		107	80-120	1	20	
Arsenic	29.5	3.3	mg/kg wet	33.33		88	80-120	0.6	20	
Beryllium	3.41	0.07	mg/kg wet	3.333		102	80-120	0.3	20	
Cadmium	16.2	0.67	mg/kg wet	16.67		97	80-120	0.4	20	
Chromium	34.5	1.3	mg/kg wet	33.33		103	80-120	0.4	20	
Copper	34.4	1.3	mg/kg wet	33.33		103	80-120	0.4	20	
Lead	33.3	6.7	mg/kg wet	33.33		100	80-120	0.3	20	
Nickel	34.4	3.3	mg/kg wet	33.33		103	80-120	0.8	20	
Selenium	66.5	6.7	mg/kg wet	66.67		100	80-120	0.06	20	
Silver	17.4	0.67	mg/kg wet	16.67		104	80-120	0.7	20	
Thallium	30.7	6.60	mg/kg wet	33.33		92	80-120	13	20	
Zinc	34.0	3.3	mg/kg wet	33.33		102	80-120	2	20	

Reference

Antimony	111	10.0	mg/kg wet	127.0		87	0-210			
Arsenic	245	5.0	mg/kg wet	280.0		87	81-119			
Beryllium	51.4	0.10	mg/kg wet	51.00		101	83-117			
Cadmium	176	1.00	mg/kg wet	182.0		97	82-118			
Chromium	137	2.0	mg/kg wet	142.0		96	81-120			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809107

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
3050B/6000/7000 Total Metals										
Batch BI80911 - 3050B										
Copper	130	2.0	mg/kg wet	132.0		99	83-117			
Lead	69.0	10.0	mg/kg wet	72.20		96	82-118			
Nickel	156	5.0	mg/kg wet	155.0		101	82-117			
Selenium	162	10.0	mg/kg wet	165.0		98	78-123			
Silver	136	1.00	mg/kg wet	126.0		108	66-134			
Thallium	161	24.8	mg/kg wet	184.0		87	77-122			
Zinc	335	5.0	mg/kg wet	346.0		97	79-121			
Batch BI80912 - 7471A										
Blank										
Mercury	ND	0.033	mg/kg wet							
LCS										
Mercury	0.201	0.033	mg/kg wet	0.2000		101	80-120			
LCS Dup										
Mercury	0.203	0.033	mg/kg wet	0.2000		101	80-120	0.8	20	
Reference										
Mercury	9.03	0.660	mg/kg wet	8.480		107	66-132			

5035/8260B Volatile Organic Compounds / Low Level

Batch BI80902 - 5035										
Blank										
1,1,1,2-Tetrachloroethane	ND	0.0050	mg/kg wet							
1,1,1-Trichloroethane	ND	0.0050	mg/kg wet							
1,1,2,2-Tetrachloroethane	ND	0.0050	mg/kg wet							
1,1,2-Trichloroethane	ND	0.0050	mg/kg wet							
1,1-Dichloroethane	ND	0.0050	mg/kg wet							
1,1-Dichloroethene	ND	0.0050	mg/kg wet							
1,1-Dichloropropene	ND	0.0050	mg/kg wet							
1,2,3-Trichlorobenzene	ND	0.0050	mg/kg wet							
1,2,3-Trichloropropane	ND	0.0050	mg/kg wet							
1,2,4-Trichlorobenzene	ND	0.0050	mg/kg wet							
1,2,4-Trimethylbenzene	ND	0.0050	mg/kg wet							
1,2-Dibromo-3-Chloropropane	ND	0.0050	mg/kg wet							
1,2-Dibromoethane	ND	0.0050	mg/kg wet							
1,2-Dichlorobenzene	ND	0.0050	mg/kg wet							
1,2-Dichloroethane	ND	0.0050	mg/kg wet							
1,2-Dichloropropane	ND	0.0050	mg/kg wet							
1,3,5-Trimethylbenzene	ND	0.0050	mg/kg wet							
1,3-Dichlorobenzene	ND	0.0050	mg/kg wet							
1,3-Dichloropropane	ND	0.0050	mg/kg wet							
1,4-Dichlorobenzene	ND	0.0050	mg/kg wet							
1,4-Dioxane	ND	0.100	mg/kg wet							
1-Chlorohexane	ND	0.0050	mg/kg wet							
2,2-Dichloropropane	ND	0.0050	mg/kg wet							
2-Butanone	ND	0.0500	mg/kg wet							



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809107

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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5035/8260B Volatile Organic Compounds / Low Level

Batch B180902 - 5035

2-Chlorotoluene	ND	0.0050	mg/kg wet							
2-Hexanone	ND	0.0500	mg/kg wet							
4-Chlorotoluene	ND	0.0050	mg/kg wet							
4-Isopropyltoluene	ND	0.0050	mg/kg wet							
4-Methyl-2-Pentanone	ND	0.0500	mg/kg wet							
Acetone	ND	0.0500	mg/kg wet							
Benzene	ND	0.0050	mg/kg wet							
Bromobenzene	ND	0.0050	mg/kg wet							
Bromochloromethane	ND	0.0050	mg/kg wet							
Bromodichloromethane	ND	0.0050	mg/kg wet							
Bromoform	ND	0.0050	mg/kg wet							
Bromomethane	ND	0.0100	mg/kg wet							
Carbon Disulfide	ND	0.0050	mg/kg wet							
Carbon Tetrachloride	ND	0.0050	mg/kg wet							
Chlorobenzene	ND	0.0050	mg/kg wet							
Chloroethane	ND	0.0100	mg/kg wet							
Chloroform	ND	0.0050	mg/kg wet							
Chloromethane	ND	0.0100	mg/kg wet							
cis-1,2-Dichloroethene	ND	0.0050	mg/kg wet							
cis-1,3-Dichloropropene	ND	0.0050	mg/kg wet							
Dibromochloromethane	ND	0.0050	mg/kg wet							
Dibromomethane	ND	0.0050	mg/kg wet							
Dichlorodifluoromethane	ND	0.0100	mg/kg wet							
Diethyl Ether	ND	0.0050	mg/kg wet							
Di-isopropyl ether	ND	0.0050	mg/kg wet							
Ethyl tertiary-butyl ether	ND	0.0050	mg/kg wet							
Ethylbenzene	ND	0.0050	mg/kg wet							
Hexachlorobutadiene	ND	0.0050	mg/kg wet							
Isopropylbenzene	ND	0.0050	mg/kg wet							
Methyl tert-Butyl Ether	ND	0.0050	mg/kg wet							
Methylene Chloride	ND	0.0250	mg/kg wet							
Naphthalene	ND	0.0050	mg/kg wet							
n-Butylbenzene	ND	0.0050	mg/kg wet							
n-Propylbenzene	ND	0.0050	mg/kg wet							
sec-Butylbenzene	ND	0.0050	mg/kg wet							
Styrene	ND	0.0050	mg/kg wet							
tert-Butylbenzene	ND	0.0050	mg/kg wet							
Tertiary-amyl methyl ether	ND	0.0050	mg/kg wet							
Tetrachloroethene	ND	0.0050	mg/kg wet							
Tetrahydrofuran	ND	0.0050	mg/kg wet							
Toluene	ND	0.0050	mg/kg wet							
trans-1,2-Dichloroethene	ND	0.0050	mg/kg wet							
trans-1,3-Dichloropropene	ND	0.0050	mg/kg wet							
Trichloroethene	ND	0.0050	mg/kg wet							
Vinyl Acetate	ND	0.0050	mg/kg wet							
Vinyl Chloride	ND	0.0100	mg/kg wet							



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809107

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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5035/8260B Volatile Organic Compounds / Low Level

Batch B180902 - 5035

Xylene O	ND	0.0050	mg/kg wet							
Xylene P,M	ND	0.0100	mg/kg wet							
Surrogate: 1,2-Dichloroethane-d4	0.0515		mg/kg wet	0.05000		103	70-130			
Surrogate: 4-Bromofluorobenzene	0.0480		mg/kg wet	0.05000		96	70-130			
Surrogate: Dibromofluoromethane	0.0503		mg/kg wet	0.05000		101	70-130			
Surrogate: Toluene-d8	0.0499		mg/kg wet	0.05000		100	70-130			

LCS

1,1,1,2-Tetrachloroethane	0.0479	0.0050	mg/kg wet	0.05000		96	70-130			
1,1,1-Trichloroethane	0.0444	0.0050	mg/kg wet	0.05000		89	70-130			
1,1,2,2-Tetrachloroethane	0.0480	0.0050	mg/kg wet	0.05000		96	70-130			
1,1,2-Trichloroethane	0.0499	0.0050	mg/kg wet	0.05000		100	70-130			
1,1-Dichloroethane	0.0505	0.0050	mg/kg wet	0.05000		101	70-130			
1,1-Dichloroethene	0.0514	0.0050	mg/kg wet	0.05000		103	70-130			
1,1-Dichloropropene	0.0485	0.0050	mg/kg wet	0.05000		97	70-130			
1,2,3-Trichlorobenzene	0.0478	0.0050	mg/kg wet	0.05000		96	70-130			
1,2,3-Trichloropropane	0.0501	0.0050	mg/kg wet	0.05000		100	70-130			
1,2,4-Trichlorobenzene	0.0456	0.0050	mg/kg wet	0.05000		91	70-130			
1,2,4-Trimethylbenzene	0.0489	0.0050	mg/kg wet	0.05000		98	70-130			
1,2-Dibromo-3-Chloropropane	0.0512	0.0050	mg/kg wet	0.05000		102	70-130			
1,2-Dibromoethane	0.0484	0.0050	mg/kg wet	0.05000		97	70-130			
1,2-Dichlorobenzene	0.0460	0.0050	mg/kg wet	0.05000		92	70-130			
1,2-Dichloroethane	0.0456	0.0050	mg/kg wet	0.05000		91	70-130			
1,2-Dichloropropane	0.0491	0.0050	mg/kg wet	0.05000		98	70-130			
1,3,5-Trimethylbenzene	0.0466	0.0050	mg/kg wet	0.05000		93	70-130			
1,3-Dichlorobenzene	0.0454	0.0050	mg/kg wet	0.05000		91	70-130			
1,3-Dichloropropane	0.0492	0.0050	mg/kg wet	0.05000		98	70-130			
1,4-Dichlorobenzene	0.0444	0.0050	mg/kg wet	0.05000		89	70-130			
1,4-Dioxane	1.00	0.100	mg/kg wet	1.000		100	70-130			
1-Chlorohexane	0.0498	0.0050	mg/kg wet	0.05000		100	70-130			
2,2-Dichloropropane	0.0456	0.0050	mg/kg wet	0.05000		91	70-130			
2-Butanone	0.310	0.0500	mg/kg wet	0.2500		124	70-130			
2-Chlorotoluene	0.0466	0.0050	mg/kg wet	0.05000		93	70-130			
2-Hexanone	0.317	0.0500	mg/kg wet	0.2500		127	70-130			
4-Chlorotoluene	0.0457	0.0050	mg/kg wet	0.05000		91	70-130			
4-Isopropyltoluene	0.0450	0.0050	mg/kg wet	0.05000		90	70-130			
4-Methyl-2-Pentanone	0.266	0.0500	mg/kg wet	0.2500		107	70-130			
Acetone	0.311	0.0500	mg/kg wet	0.2500		124	70-130			
Benzene	0.0478	0.0050	mg/kg wet	0.05000		96	70-130			
Bromobenzene	0.0458	0.0050	mg/kg wet	0.05000		92	70-130			
Bromochloromethane	0.0493	0.0050	mg/kg wet	0.05000		99	70-130			
Bromodichloromethane	0.0468	0.0050	mg/kg wet	0.05000		94	70-130			
Bromoform	0.0485	0.0050	mg/kg wet	0.05000		97	70-130			
Bromomethane	0.0516	0.0100	mg/kg wet	0.05000		103	70-130			
Carbon Disulfide	0.0603	0.0050	mg/kg wet	0.05000		121	70-130			
Carbon Tetrachloride	0.0450	0.0050	mg/kg wet	0.05000		90	70-130			
Chlorobenzene	0.0446	0.0050	mg/kg wet	0.05000		89	70-130			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809107

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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5035/8260B Volatile Organic Compounds / Low Level

Batch B180902 - 5035

Chloroethane	0.0447	0.0100	mg/kg wet	0.05000		89	70-130			
Chloroform	0.0473	0.0050	mg/kg wet	0.05000		95	70-130			
Chloromethane	0.0460	0.0100	mg/kg wet	0.05000		92	70-130			
cis-1,2-Dichloroethene	0.0497	0.0050	mg/kg wet	0.05000		99	70-130			
cis-1,3-Dichloropropene	0.0478	0.0050	mg/kg wet	0.05000		96	70-130			
Dibromochloromethane	0.0490	0.0050	mg/kg wet	0.05000		98	70-130			
Dibromomethane	0.0495	0.0050	mg/kg wet	0.05000		99	70-130			
Dichlorodifluoromethane	0.0540	0.0100	mg/kg wet	0.05000		108	70-130			
Diethyl Ether	0.0561	0.0050	mg/kg wet	0.05000		112	70-130			
Di-isopropyl ether	0.0543	0.0050	mg/kg wet	0.05000		109	70-130			
Ethyl tertiary-butyl ether	0.0496	0.0050	mg/kg wet	0.05000		99	70-130			
Ethylbenzene	0.0467	0.0050	mg/kg wet	0.05000		93	70-130			
Hexachlorobutadiene	0.0445	0.0050	mg/kg wet	0.05000		89	70-130			
Isopropylbenzene	0.0423	0.0050	mg/kg wet	0.05000		85	70-130			
Methyl tert-Butyl Ether	0.0497	0.0050	mg/kg wet	0.05000		99	70-130			
Methylene Chloride	0.0509	0.0250	mg/kg wet	0.05000		102	70-130			
Naphthalene	0.0514	0.0050	mg/kg wet	0.05000		103	70-130			
n-Butylbenzene	0.0477	0.0050	mg/kg wet	0.05000		95	70-130			
n-Propylbenzene	0.0486	0.0050	mg/kg wet	0.05000		97	70-130			
sec-Butylbenzene	0.0466	0.0050	mg/kg wet	0.05000		93	70-130			
Styrene	0.0467	0.0050	mg/kg wet	0.05000		93	70-130			
tert-Butylbenzene	0.0466	0.0050	mg/kg wet	0.05000		93	70-130			
Tertiary-amyl methyl ether	0.0534	0.0050	mg/kg wet	0.05000		107	70-130			
Tetrachloroethene	0.0453	0.0050	mg/kg wet	0.05000		91	70-130			
Tetrahydrofuran	0.0531	0.0050	mg/kg wet	0.05000		106	70-130			
Toluene	0.0460	0.0050	mg/kg wet	0.05000		92	70-130			
trans-1,2-Dichloroethene	0.0525	0.0050	mg/kg wet	0.05000		105	70-130			
trans-1,3-Dichloropropene	0.0434	0.0050	mg/kg wet	0.05000		87	70-130			
Trichloroethene	0.0458	0.0050	mg/kg wet	0.05000		92	70-130			
Vinyl Acetate	0.0523	0.0050	mg/kg wet	0.05000		105	70-130			
Vinyl Chloride	0.0550	0.0100	mg/kg wet	0.05000		110	70-130			
Xylene O	0.0464	0.0050	mg/kg wet	0.05000		93	70-130			
Xylene P,M	0.0910	0.0100	mg/kg wet	0.1000		91	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0475		mg/kg wet	0.05000		95	70-130			
Surrogate: 4-Bromofluorobenzene	0.0489		mg/kg wet	0.05000		98	70-130			
Surrogate: Dibromofluoromethane	0.0500		mg/kg wet	0.05000		100	70-130			
Surrogate: Toluene-d8	0.0483		mg/kg wet	0.05000		97	70-130			

LCS Dup

1,1,1,2-Tetrachloroethane	0.0450	0.0050	mg/kg wet	0.05000		90	70-130	6	20	
1,1,1-Trichloroethane	0.0411	0.0050	mg/kg wet	0.05000		82	70-130	8	20	
1,1,2,2-Tetrachloroethane	0.0440	0.0050	mg/kg wet	0.05000		88	70-130	9	20	
1,1,2-Trichloroethane	0.0466	0.0050	mg/kg wet	0.05000		93	70-130	7	20	
1,1-Dichloroethane	0.0481	0.0050	mg/kg wet	0.05000		96	70-130	5	20	
1,1-Dichloroethene	0.0487	0.0050	mg/kg wet	0.05000		97	70-130	6	20	
1,1-Dichloropropene	0.0451	0.0050	mg/kg wet	0.05000		90	70-130	7	20	
1,2,3-Trichlorobenzene	0.0465	0.0050	mg/kg wet	0.05000		93	70-130	3	20	



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809107

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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5035/8260B Volatile Organic Compounds / Low Level

Batch B180902 - 5035

1,2,3-Trichloropropane	0.0449	0.0050	mg/kg wet	0.05000		90	70-130	11	20	
1,2,4-Trichlorobenzene	0.0441	0.0050	mg/kg wet	0.05000		88	70-130	3	20	
1,2,4-Trimethylbenzene	0.0470	0.0050	mg/kg wet	0.05000		94	70-130	4	20	
1,2-Dibromo-3-Chloropropane	0.0421	0.0050	mg/kg wet	0.05000		84	70-130	19	20	
1,2-Dibromoethane	0.0449	0.0050	mg/kg wet	0.05000		90	70-130	8	20	
1,2-Dichlorobenzene	0.0445	0.0050	mg/kg wet	0.05000		89	70-130	3	20	
1,2-Dichloroethane	0.0443	0.0050	mg/kg wet	0.05000		89	70-130	3	20	
1,2-Dichloropropane	0.0475	0.0050	mg/kg wet	0.05000		95	70-130	3	20	
1,3,5-Trimethylbenzene	0.0448	0.0050	mg/kg wet	0.05000		90	70-130	4	20	
1,3-Dichlorobenzene	0.0441	0.0050	mg/kg wet	0.05000		88	70-130	3	20	
1,3-Dichloropropane	0.0451	0.0050	mg/kg wet	0.05000		90	70-130	9	20	
1,4-Dichlorobenzene	0.0434	0.0050	mg/kg wet	0.05000		87	70-130	2	20	
1,4-Dioxane	0.917	0.100	mg/kg wet	1.000		92	70-130	9	20	
1-Chlorohexane	0.0487	0.0050	mg/kg wet	0.05000		97	70-130	2	20	
2,2-Dichloropropane	0.0412	0.0050	mg/kg wet	0.05000		82	70-130	10	20	
2-Butanone	0.264	0.0500	mg/kg wet	0.2500		106	70-130	16	20	
2-Chlorotoluene	0.0453	0.0050	mg/kg wet	0.05000		91	70-130	3	20	
2-Hexanone	0.282	0.0500	mg/kg wet	0.2500		113	70-130	11	20	
4-Chlorotoluene	0.0447	0.0050	mg/kg wet	0.05000		89	70-130	2	20	
4-Isopropyltoluene	0.0436	0.0050	mg/kg wet	0.05000		87	70-130	3	20	
4-Methyl-2-Pentanone	0.258	0.0500	mg/kg wet	0.2500		103	70-130	3	20	
Acetone	0.382	0.0500	mg/kg wet	0.2500		153	70-130	21	20	B+, D+
Benzene	0.0464	0.0050	mg/kg wet	0.05000		93	70-130	3	20	
Bromobenzene	0.0435	0.0050	mg/kg wet	0.05000		87	70-130	5	20	
Bromochloromethane	0.0458	0.0050	mg/kg wet	0.05000		92	70-130	7	20	
Bromodichloromethane	0.0444	0.0050	mg/kg wet	0.05000		89	70-130	5	20	
Bromoform	0.0460	0.0050	mg/kg wet	0.05000		92	70-130	5	20	
Bromomethane	0.0468	0.0100	mg/kg wet	0.05000		94	70-130	10	20	
Carbon Disulfide	0.0583	0.0050	mg/kg wet	0.05000		117	70-130	3	20	
Carbon Tetrachloride	0.0402	0.0050	mg/kg wet	0.05000		80	70-130	11	20	
Chlorobenzene	0.0436	0.0050	mg/kg wet	0.05000		87	70-130	2	20	
Chloroethane	0.0438	0.0100	mg/kg wet	0.05000		88	70-130	2	20	
Chloroform	0.0445	0.0050	mg/kg wet	0.05000		89	70-130	6	20	
Chloromethane	0.0488	0.0100	mg/kg wet	0.05000		98	70-130	6	20	
cis-1,2-Dichloroethene	0.0470	0.0050	mg/kg wet	0.05000		94	70-130	5	20	
cis-1,3-Dichloropropene	0.0466	0.0050	mg/kg wet	0.05000		93	70-130	2	20	
Dibromochloromethane	0.0446	0.0050	mg/kg wet	0.05000		89	70-130	10	20	
Dibromomethane	0.0456	0.0050	mg/kg wet	0.05000		91	70-130	8	20	
Dichlorodifluoromethane	0.0523	0.0100	mg/kg wet	0.05000		105	70-130	3	20	
Diethyl Ether	0.0532	0.0050	mg/kg wet	0.05000		106	70-130	5	20	
Di-isopropyl ether	0.0513	0.0050	mg/kg wet	0.05000		103	70-130	6	20	
Ethyl tertiary-butyl ether	0.0474	0.0050	mg/kg wet	0.05000		95	70-130	4	20	
Ethylbenzene	0.0458	0.0050	mg/kg wet	0.05000		92	70-130	2	20	
Hexachlorobutadiene	0.0432	0.0050	mg/kg wet	0.05000		86	70-130	3	20	
Isopropylbenzene	0.0403	0.0050	mg/kg wet	0.05000		81	70-130	5	20	
Methyl tert-Butyl Ether	0.0446	0.0050	mg/kg wet	0.05000		89	70-130	11	20	



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809107

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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5035/8260B Volatile Organic Compounds / Low Level

Batch BI80902 - 5035

Methylene Chloride	0.0500	0.0250	mg/kg wet	0.05000		100	70-130	2	20	
Naphthalene	0.0469	0.0050	mg/kg wet	0.05000		94	70-130	9	20	
n-Butylbenzene	0.0458	0.0050	mg/kg wet	0.05000		92	70-130	4	20	
n-Propylbenzene	0.0468	0.0050	mg/kg wet	0.05000		94	70-130	4	20	
sec-Butylbenzene	0.0446	0.0050	mg/kg wet	0.05000		89	70-130	4	20	
Styrene	0.0453	0.0050	mg/kg wet	0.05000		91	70-130	3	20	
tert-Butylbenzene	0.0437	0.0050	mg/kg wet	0.05000		87	70-130	6	20	
Tertiary-aryl methyl ether	0.0485	0.0050	mg/kg wet	0.05000		97	70-130	10	20	
Tetrachloroethene	0.0430	0.0050	mg/kg wet	0.05000		86	70-130	5	20	
Tetrahydrofuran	0.0488	0.0050	mg/kg wet	0.05000		98	70-130	8	20	
Toluene	0.0477	0.0050	mg/kg wet	0.05000		95	70-130	3	20	
trans-1,2-Dichloroethene	0.0497	0.0050	mg/kg wet	0.05000		99	70-130	6	20	
trans-1,3-Dichloropropene	0.0421	0.0050	mg/kg wet	0.05000		84	70-130	3	20	
Trichloroethene	0.0445	0.0050	mg/kg wet	0.05000		89	70-130	3	20	
Vinyl Acetate	0.0489	0.0050	mg/kg wet	0.05000		98	70-130	7	20	
Vinyl Chloride	0.0528	0.0100	mg/kg wet	0.05000		106	70-130	4	20	
Xylene O	0.0450	0.0050	mg/kg wet	0.05000		90	70-130	3	20	
Xylene P,M	0.0893	0.0100	mg/kg wet	0.1000		89	70-130	2	20	
Surrogate: 1,2-Dichloroethane-d4	0.0448		mg/kg wet	0.05000		90	70-130			
Surrogate: 4-Bromofluorobenzene	0.0491		mg/kg wet	0.05000		98	70-130			
Surrogate: Dibromofluoromethane	0.0480		mg/kg wet	0.05000		96	70-130			
Surrogate: Toluene-d8	0.0482		mg/kg wet	0.05000		96	70-130			

8082 Polychlorinated Biphenyls (PCB)

Batch BI80909 - 3541

Blank										
Aroclor 1016	ND	0.0500	mg/kg wet							
Aroclor 1221	ND	0.0500	mg/kg wet							
Aroclor 1232	ND	0.0500	mg/kg wet							
Aroclor 1242	ND	0.0500	mg/kg wet							
Aroclor 1248	ND	0.0500	mg/kg wet							
Aroclor 1254	ND	0.0500	mg/kg wet							
Aroclor 1260	ND	0.0500	mg/kg wet							
Aroclor 1262	ND	0.0500	mg/kg wet							
Aroclor 1268	ND	0.0500	mg/kg wet							

Surrogate: Decachlorobiphenyl	0.0290		mg/kg wet	0.02500		116	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.0293		mg/kg wet	0.02500		117	30-150			
Surrogate: Tetrachloro-m-xylene	0.0229		mg/kg wet	0.02500		91	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.0248		mg/kg wet	0.02500		99	30-150			

LCS										
Aroclor 1016	0.565	0.0500	mg/kg wet	0.5000		113	40-140			
Aroclor 1260	0.544	0.0500	mg/kg wet	0.5000		109	40-140			

Surrogate: Decachlorobiphenyl	0.0300		mg/kg wet	0.02500		120	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.0301		mg/kg wet	0.02500		120	30-150			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809107

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8082 Polychlorinated Biphenyls (PCB)

Batch BI80909 - 3541

Surrogate: Tetrachloro-m-xylene	0.0241		mg/kg wet	0.02500		96	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.0248		mg/kg wet	0.02500		99	30-150			

LCS Dup

Aroclor 1016	0.578	0.0500	mg/kg wet	0.5000		116	40-140	2	50	
Aroclor 1260	0.569	0.0500	mg/kg wet	0.5000		114	40-140	5	50	

Surrogate: Decachlorobiphenyl	0.0303		mg/kg wet	0.02500		121	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.0302		mg/kg wet	0.02500		121	30-150			
Surrogate: Tetrachloro-m-xylene	0.0253		mg/kg wet	0.02500		101	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.0259		mg/kg wet	0.02500		104	30-150			

8100M Total Petroleum Hydrocarbons

Batch BI80921 - 3546

Blank

Decane (C10)	ND	0.25	mg/kg wet							
Docosane (C22)	ND	0.25	mg/kg wet							
Dodecane (C12)	ND	0.25	mg/kg wet							
Eicosane (C20)	ND	0.25	mg/kg wet							
Hexacosane (C26)	ND	0.25	mg/kg wet							
Hexadecane (C16)	ND	0.25	mg/kg wet							
Nonadecane (C19)	ND	0.25	mg/kg wet							
Nonane (C9)	ND	0.25	mg/kg wet							
Octacosane (C28)	ND	0.25	mg/kg wet							
Octadecane (C18)	ND	0.25	mg/kg wet							
Tetracosane (C24)	ND	0.25	mg/kg wet							
Tetradecane (C14)	ND	0.25	mg/kg wet							
Total Petroleum Hydrocarbons	ND	37.5	mg/kg wet							
Triacontane (C30)	ND	0.25	mg/kg wet							

Surrogate: O-Terphenyl	5.98		mg/kg wet	5.000		120	40-140			
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LCS

Decane (C10)	2.18	0.25	mg/kg wet	2.500		87	40-140			
Docosane (C22)	2.72	0.25	mg/kg wet	2.500		109	40-140			
Dodecane (C12)	2.48	0.25	mg/kg wet	2.500		99	40-140			
Eicosane (C20)	2.76	0.25	mg/kg wet	2.500		110	40-140			
Hexacosane (C26)	2.72	0.25	mg/kg wet	2.500		109	40-140			
Hexadecane (C16)	2.65	0.25	mg/kg wet	2.500		106	40-140			
Hexatriacontane (C36)	2.58	0.25	mg/kg wet	2.500		103	40-140			
Nonadecane (C19)	2.76	0.25	mg/kg wet	2.500		110	40-140			
Nonane (C9)	1.86	0.25	mg/kg wet	2.500		74	30-140			
Octacosane (C28)	2.78	0.25	mg/kg wet	2.500		111	40-140			
Octadecane (C18)	2.70	0.25	mg/kg wet	2.500		108	40-140			
Tetracosane (C24)	2.79	0.25	mg/kg wet	2.500		112	40-140			
Tetradecane (C14)	2.62	0.25	mg/kg wet	2.500		105	40-140			
Triacontane (C30)	2.82	0.25	mg/kg wet	2.500		113	40-140			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809107

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8100M Total Petroleum Hydrocarbons

Batch B180921 - 3546

<i>Surrogate: O-Terphenyl</i>	5.52		mg/kg wet	5.000		110	40-140			
LCS Dup										
Decane (C10)	2.14	0.25	mg/kg wet	2.500		86	40-140	2	50	
Docosane (C22)	2.64	0.25	mg/kg wet	2.500		105	40-140	3	50	
Dodecane (C12)	2.39	0.25	mg/kg wet	2.500		96	40-140	4	50	
Eicosane (C20)	2.65	0.25	mg/kg wet	2.500		106	40-140	4	50	
Hexacosane (C26)	2.63	0.25	mg/kg wet	2.500		105	40-140	3	50	
Hexadecane (C16)	2.54	0.25	mg/kg wet	2.500		102	40-140	4	50	
Nonadecane (C19)	2.64	0.25	mg/kg wet	2.500		106	40-140	4	50	
Nonane (C9)	1.93	0.25	mg/kg wet	2.500		77	30-140	4	50	
Octacosane (C28)	2.70	0.25	mg/kg wet	2.500		108	40-140	3	50	
Octadecane (C18)	2.59	0.25	mg/kg wet	2.500		103	40-140	4	50	
Tetracosane (C24)	2.70	0.25	mg/kg wet	2.500		108	40-140	3	50	
Tetradecane (C14)	2.51	0.25	mg/kg wet	2.500		101	40-140	4	50	
Triacotane (C30)	2.74	0.25	mg/kg wet	2.500		110	40-140	3	50	

<i>Surrogate: O-Terphenyl</i>	5.15		mg/kg wet	5.000		103	40-140			
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8270C Semi-Volatile Organic Compounds

Batch B181029 - 3546

Blank										
1,1-Biphenyl	ND	0.333	mg/kg wet							
1,2,4-Trichlorobenzene	ND	0.333	mg/kg wet							
1,2-Dichlorobenzene	ND	0.333	mg/kg wet							
1,3-Dichlorobenzene	ND	0.333	mg/kg wet							
1,4-Dichlorobenzene	ND	0.333	mg/kg wet							
2,3,4,6-Tetrachlorophenol	ND	1.67	mg/kg wet							
2,4,5-Trichlorophenol	ND	0.333	mg/kg wet							
2,4,6-Trichlorophenol	ND	0.333	mg/kg wet							
2,4-Dichlorophenol	ND	0.333	mg/kg wet							
2,4-Dimethylphenol	ND	0.333	mg/kg wet							
2,4-Dinitrophenol	ND	1.67	mg/kg wet							
2,4-Dinitrotoluene	ND	0.333	mg/kg wet							
2,6-Dinitrotoluene	ND	0.333	mg/kg wet							
2-Chloronaphthalene	ND	0.333	mg/kg wet							
2-Chlorophenol	ND	0.333	mg/kg wet							
2-Methylnaphthalene	ND	0.333	mg/kg wet							
2-Methylphenol	ND	0.333	mg/kg wet							
2-Nitroaniline	ND	0.333	mg/kg wet							
2-Nitrophenol	ND	0.333	mg/kg wet							
3,3'-Dichlorobenzidine	ND	0.667	mg/kg wet							
3+4-Methylphenol	ND	0.667	mg/kg wet							
3-Nitroaniline	ND	0.333	mg/kg wet							
4,6-Dinitro-2-Methylphenol	ND	1.67	mg/kg wet							
4-Bromophenyl-phenylether	ND	0.333	mg/kg wet							



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809107

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

Batch B181029 - 3546

4-Chloro-3-Methylphenol	ND	0.333	mg/kg wet							
4-Chloroaniline	ND	0.667	mg/kg wet							
4-Chloro-phenyl-phenyl ether	ND	0.333	mg/kg wet							
4-Nitroaniline	ND	0.333	mg/kg wet							
4-Nitrophenol	ND	1.67	mg/kg wet							
Acenaphthene	ND	0.333	mg/kg wet							
Acenaphthylene	ND	0.333	mg/kg wet							
Acetophenone	ND	0.667	mg/kg wet							
Aniline	ND	0.667	mg/kg wet							
Anthracene	ND	0.333	mg/kg wet							
Azobenzene	ND	0.333	mg/kg wet							
Benzo(a)anthracene	ND	0.333	mg/kg wet							
Benzo(a)pyrene	ND	0.167	mg/kg wet							
Benzo(b)fluoranthene	ND	0.333	mg/kg wet							
Benzo(g,h,i)perylene	ND	0.333	mg/kg wet							
Benzo(k)fluoranthene	ND	0.333	mg/kg wet							
Benzoic Acid	ND	1.67	mg/kg wet							
Benzyl Alcohol	ND	0.333	mg/kg wet							
bis(2-Chloroethoxy)methane	ND	0.333	mg/kg wet							
bis(2-Chloroethyl)ether	ND	0.333	mg/kg wet							
bis(2-chloroisopropyl)Ether	ND	0.333	mg/kg wet							
bis(2-Ethylhexyl)phthalate	ND	0.333	mg/kg wet							
Butylbenzylphthalate	ND	0.333	mg/kg wet							
Carbazole	ND	0.333	mg/kg wet							
Chrysene	ND	0.167	mg/kg wet							
Dibenzo(a,h)Anthracene	ND	0.167	mg/kg wet							
Dibenzofuran	ND	0.333	mg/kg wet							
Diethylphthalate	ND	0.333	mg/kg wet							
Dimethylphthalate	ND	0.333	mg/kg wet							
Di-n-butylphthalate	ND	0.333	mg/kg wet							
Di-n-octylphthalate	ND	0.333	mg/kg wet							
Fluoranthene	ND	0.333	mg/kg wet							
Fluorene	ND	0.333	mg/kg wet							
Hexachlorobenzene	ND	0.167	mg/kg wet							
Hexachlorobutadiene	ND	0.333	mg/kg wet							
Hexachlorocyclopentadiene	ND	1.67	mg/kg wet							
Hexachloroethane	ND	0.333	mg/kg wet							
Indeno(1,2,3-cd)Pyrene	ND	0.333	mg/kg wet							
Isophorone	ND	0.333	mg/kg wet							
Naphthalene	ND	0.333	mg/kg wet							
Nitrobenzene	ND	0.333	mg/kg wet							
N-Nitrosodimethylamine	ND	0.333	mg/kg wet							
N-Nitroso-Di-n-Propylamine	ND	0.333	mg/kg wet							
N-nitrosodiphenylamine	ND	0.333	mg/kg wet							
Pentachlorophenol	ND	1.67	mg/kg wet							
Phenanthrene	ND	0.333	mg/kg wet							



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

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Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

Batch BI81029 - 3546

Phenol	ND	0.333	mg/kg wet							
Pyrene	ND	0.333	mg/kg wet							
Pyridine	ND	1.67	mg/kg wet							
Surrogate: 1,2-Dichlorobenzene-d4	2.37		mg/kg wet	3.333		71	30-130			
Surrogate: 2,4,6-Tribromophenol	4.44		mg/kg wet	5.000		89	30-130			
Surrogate: 2-Chlorophenol-d4	3.07		mg/kg wet	5.000		61	30-130			
Surrogate: 2-Fluorobiphenyl	2.43		mg/kg wet	3.333		73	30-130			
Surrogate: 2-Fluorophenol	3.05		mg/kg wet	5.000		61	30-130			
Surrogate: Nitrobenzene-d5	2.65		mg/kg wet	3.333		80	30-130			
Surrogate: Phenol-d6	3.93		mg/kg wet	5.000		79	30-130			
Surrogate: p-Terphenyl-d14	2.91		mg/kg wet	3.333		87	30-130			

LCS

1,1-Biphenyl	2.36	0.333	mg/kg wet	3.333		71	40-140			
1,2,4-Trichlorobenzene	2.43	0.333	mg/kg wet	3.333		73	40-140			
1,2-Dichlorobenzene	2.14	0.333	mg/kg wet	3.333		64	40-140			
1,3-Dichlorobenzene	2.01	0.333	mg/kg wet	3.333		60	40-140			
1,4-Dichlorobenzene	2.32	0.333	mg/kg wet	3.333		70	40-140			
2,3,4,6-Tetrachlorophenol	2.90	1.67	mg/kg wet	3.333		87	30-130			
2,4,5-Trichlorophenol	2.82	0.333	mg/kg wet	3.333		85	30-130			
2,4,6-Trichlorophenol	2.65	0.333	mg/kg wet	3.333		79	30-130			
2,4-Dichlorophenol	2.71	0.333	mg/kg wet	3.333		81	30-130			
2,4-Dimethylphenol	2.71	0.333	mg/kg wet	3.333		81	30-130			
2,4-Dinitrophenol	2.52	1.67	mg/kg wet	3.333		76	30-130			
2,4-Dinitrotoluene	2.78	0.333	mg/kg wet	3.333		83	40-140			
2,6-Dinitrotoluene	2.33	0.333	mg/kg wet	3.333		70	40-140			
2-Chloronaphthalene	2.00	0.333	mg/kg wet	3.333		60	40-140			
2-Chlorophenol	2.17	0.333	mg/kg wet	3.333		65	30-130			
2-Methylnaphthalene	2.06	0.333	mg/kg wet	3.333		62	40-140			
2-Methylphenol	1.39	0.333	mg/kg wet	3.333		42	30-130			
2-Nitroaniline	2.95	0.333	mg/kg wet	3.333		88	40-140			
2-Nitrophenol	2.50	0.333	mg/kg wet	3.333		75	30-130			
3,3'-Dichlorobenzidine	2.34	0.667	mg/kg wet	3.333		70	40-140			
3+4-Methylphenol	6.07	0.667	mg/kg wet	6.667		91	30-130			
3-Nitroaniline	2.39	0.333	mg/kg wet	3.333		72	40-140			
4,6-Dinitro-2-Methylphenol	2.56	1.67	mg/kg wet	3.333		77	30-130			
4-Bromophenyl-phenylether	2.48	0.333	mg/kg wet	3.333		74	40-140			
4-Chloro-3-Methylphenol	2.78	0.333	mg/kg wet	3.333		84	30-130			
4-Chloroaniline	1.82	0.667	mg/kg wet	3.333		55	40-140			
4-Chloro-phenyl-phenyl ether	2.60	0.333	mg/kg wet	3.333		78	40-140			
4-Nitroaniline	2.59	0.333	mg/kg wet	3.333		78	40-140			
4-Nitrophenol	3.51	1.67	mg/kg wet	3.333		105	30-130			
Acenaphthene	2.41	0.333	mg/kg wet	3.333		72	40-140			
Acenaphthylene	2.38	0.333	mg/kg wet	3.333		71	40-140			
Acetophenone	2.52	0.667	mg/kg wet	3.333		76	40-140			
Aniline	2.24	0.667	mg/kg wet	3.333		67	40-140			
Anthracene	2.36	0.333	mg/kg wet	3.333		71	40-140			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809107

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

Batch B181029 - 3546

Azobenzene	2.14	0.333	mg/kg wet	3.333		64	40-140			
Benzo(a)anthracene	2.61	0.333	mg/kg wet	3.333		78	40-140			
Benzo(a)pyrene	2.70	0.167	mg/kg wet	3.333		81	40-140			
Benzo(b)fluoranthene	2.50	0.333	mg/kg wet	3.333		75	40-140			
Benzo(g,h,i)perylene	2.47	0.333	mg/kg wet	3.333		74	40-140			
Benzo(k)fluoranthene	2.65	0.333	mg/kg wet	3.333		79	40-140			
Benzoic Acid	1.97	1.67	mg/kg wet	3.333		59	40-140			
Benzyl Alcohol	2.46	0.333	mg/kg wet	3.333		74	40-140			
bis(2-Chloroethoxy)methane	2.68	0.333	mg/kg wet	3.333		80	40-140			
bis(2-Chloroethyl)ether	2.46	0.333	mg/kg wet	3.333		74	40-140			
bis(2-chloroisopropyl)Ether	2.04	0.333	mg/kg wet	3.333		61	40-140			
bis(2-Ethylhexyl)phthalate	2.65	0.333	mg/kg wet	3.333		79	40-140			
Butylbenzylphthalate	2.52	0.333	mg/kg wet	3.333		76	40-140			
Carbazole	2.48	0.333	mg/kg wet	3.333		74	40-140			
Chrysene	2.56	0.167	mg/kg wet	3.333		77	40-140			
Dibenzo(a,h)Anthracene	2.82	0.167	mg/kg wet	3.333		85	40-140			
Dibenzofuran	2.44	0.333	mg/kg wet	3.333		73	40-140			
Diethylphthalate	2.42	0.333	mg/kg wet	3.333		73	40-140			
Dimethylphthalate	2.51	0.333	mg/kg wet	3.333		75	40-140			
Di-n-butylphthalate	2.43	0.333	mg/kg wet	3.333		73	40-140			
Di-n-octylphthalate	2.27	0.333	mg/kg wet	3.333		68	40-140			
Fluoranthene	2.70	0.333	mg/kg wet	3.333		81	40-140			
Fluorene	2.19	0.333	mg/kg wet	3.333		66	40-140			
Hexachlorobenzene	2.61	0.167	mg/kg wet	3.333		78	40-140			
Hexachlorobutadiene	2.71	0.333	mg/kg wet	3.333		81	40-140			
Hexachlorocyclopentadiene	2.47	1.67	mg/kg wet	3.333		74	40-140			
Hexachloroethane	2.23	0.333	mg/kg wet	3.333		67	40-140			
Indeno(1,2,3-cd)Pyrene	2.65	0.333	mg/kg wet	3.333		80	40-140			
Isophorone	2.31	0.333	mg/kg wet	3.333		69	40-140			
Naphthalene	2.34	0.333	mg/kg wet	3.333		70	40-140			
Nitrobenzene	2.30	0.333	mg/kg wet	3.333		69	40-140			
N-Nitrosodimethylamine	2.02	0.333	mg/kg wet	3.333		61	40-140			
N-Nitroso-Di-n-Propylamine	1.95	0.333	mg/kg wet	3.333		59	40-140			
N-nitrosodiphenylamine	2.34	0.333	mg/kg wet	3.333		70	40-140			
Pentachlorophenol	2.75	1.67	mg/kg wet	3.333		82	30-130			
Phenanthrene	2.27	0.333	mg/kg wet	3.333		68	40-140			
Phenol	2.45	0.333	mg/kg wet	3.333		74	30-130			
Pyrene	2.50	0.333	mg/kg wet	3.333		75	40-140			
Pyridine	1.64	1.67	mg/kg wet	3.333		49	40-140			
Surrogate: 1,2-Dichlorobenzene-d4	2.13		mg/kg wet	3.333		64	30-130			
Surrogate: 2,4,6-Tribromophenol	4.13		mg/kg wet	5.000		83	30-130			
Surrogate: 2-Chlorophenol-d4	3.31		mg/kg wet	5.000		66	30-130			
Surrogate: 2-Fluorobiphenyl	2.44		mg/kg wet	3.333		73	30-130			
Surrogate: 2-Fluorophenol	3.55		mg/kg wet	5.000		71	30-130			
Surrogate: Nitrobenzene-d5	2.46		mg/kg wet	3.333		74	30-130			
Surrogate: Phenol-d6	3.66		mg/kg wet	5.000		73	30-130			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809107

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

Batch **BI81029 - 3546**

Surrogate: <i>p</i> -Terphenyl-d14	2.74		mg/kg wet	3.333		82	30-130			
LCS Dup										
1,1-Biphenyl	2.15	0.333	mg/kg wet	3.333		65	40-140	9	30	
1,2,4-Trichlorobenzene	2.20	0.333	mg/kg wet	3.333		66	40-140	10	30	
1,2-Dichlorobenzene	2.02	0.333	mg/kg wet	3.333		60	40-140	6	30	
1,3-Dichlorobenzene	2.05	0.333	mg/kg wet	3.333		61	40-140	2	30	
1,4-Dichlorobenzene	2.00	0.333	mg/kg wet	3.333		60	40-140	15	30	
2,3,4,6-Tetrachlorophenol	2.81	1.67	mg/kg wet	3.333		84	30-130	3	30	
2,4,5-Trichlorophenol	2.50	0.333	mg/kg wet	3.333		75	30-130	12	30	
2,4,6-Trichlorophenol	2.43	0.333	mg/kg wet	3.333		73	30-130	9	30	
2,4-Dichlorophenol	2.43	0.333	mg/kg wet	3.333		73	30-130	11	30	
2,4-Dimethylphenol	2.49	0.333	mg/kg wet	3.333		75	30-130	8	30	
2,4-Dinitrophenol	2.47	1.67	mg/kg wet	3.333		74	30-130	2	30	
2,4-Dinitrotoluene	2.60	0.333	mg/kg wet	3.333		78	40-140	7	30	
2,6-Dinitrotoluene	2.21	0.333	mg/kg wet	3.333		66	40-140	5	30	
2-Chloronaphthalene	1.80	0.333	mg/kg wet	3.333		54	40-140	10	30	
2-Chlorophenol	1.92	0.333	mg/kg wet	3.333		57	30-130	12	30	
2-Methylnaphthalene	2.40	0.333	mg/kg wet	3.333		72	40-140	15	30	
2-Methylphenol	2.35	0.333	mg/kg wet	3.333		70	30-130	51	30	D+
2-Nitroaniline	2.70	0.333	mg/kg wet	3.333		81	40-140	9	30	
2-Nitrophenol	2.32	0.333	mg/kg wet	3.333		70	30-130	8	30	
3,3'-Dichlorobenzidine	2.22	0.667	mg/kg wet	3.333		67	40-140	5	30	
3+4-Methylphenol	5.59	0.667	mg/kg wet	6.667		84	30-130	8	30	
3-Nitroaniline	2.24	0.333	mg/kg wet	3.333		67	40-140	7	30	
4,6-Dinitro-2-Methylphenol	2.58	1.67	mg/kg wet	3.333		77	30-130	0.6	30	
4-Bromophenyl-phenylether	2.45	0.333	mg/kg wet	3.333		74	40-140	1	30	
4-Chloro-3-Methylphenol	2.59	0.333	mg/kg wet	3.333		78	30-130	7	30	
4-Chloroaniline	1.90	0.667	mg/kg wet	3.333		57	40-140	4	30	
4-Chloro-phenyl-phenyl ether	2.44	0.333	mg/kg wet	3.333		73	40-140	6	30	
4-Nitroaniline	2.39	0.333	mg/kg wet	3.333		72	40-140	8	30	
4-Nitrophenol	3.35	1.67	mg/kg wet	3.333		100	30-130	5	30	
Acenaphthene	2.19	0.333	mg/kg wet	3.333		66	40-140	10	30	
Acenaphthylene	2.12	0.333	mg/kg wet	3.333		63	40-140	12	30	
Acetophenone	2.35	0.667	mg/kg wet	3.333		71	40-140	7	30	
Aniline	2.10	0.667	mg/kg wet	3.333		63	40-140	6	30	
Anthracene	2.21	0.333	mg/kg wet	3.333		66	40-140	6	30	
Azobenzene	1.95	0.333	mg/kg wet	3.333		59	40-140	9	30	
Benzo(a)anthracene	2.35	0.333	mg/kg wet	3.333		71	40-140	10	30	
Benzo(a)pyrene	2.44	0.167	mg/kg wet	3.333		73	40-140	10	30	
Benzo(b)fluoranthene	2.40	0.333	mg/kg wet	3.333		72	40-140	4	30	
Benzo(g,h,i)perylene	2.39	0.333	mg/kg wet	3.333		72	40-140	3	30	
Benzo(k)fluoranthene	2.46	0.333	mg/kg wet	3.333		74	40-140	7	30	
Benzoic Acid	1.98	1.67	mg/kg wet	3.333		59	40-140	0.4	30	
Benzyl Alcohol	2.22	0.333	mg/kg wet	3.333		67	40-140	10	30	
bis(2-Chloroethoxy)methane	2.38	0.333	mg/kg wet	3.333		71	40-140	12	30	



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809107

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

Batch B181029 - 3546

bis(2-Chloroethyl)ether	2.20	0.333	mg/kg wet	3.333		66	40-140	11	30	
bis(2-chloroisopropyl)Ether	1.75	0.333	mg/kg wet	3.333		53	40-140	15	30	
bis(2-Ethylhexyl)phthalate	2.29	0.333	mg/kg wet	3.333		69	40-140	15	30	
Butylbenzylphthalate	2.23	0.333	mg/kg wet	3.333		67	40-140	12	30	
Carbazole	2.14	0.333	mg/kg wet	3.333		64	40-140	15	30	
Chrysene	2.38	0.167	mg/kg wet	3.333		71	40-140	7	30	
Dibenzo(a,h)Anthracene	2.60	0.167	mg/kg wet	3.333		78	40-140	8	30	
Dibenzofuran	2.18	0.333	mg/kg wet	3.333		65	40-140	11	30	
Diethylphthalate	2.28	0.333	mg/kg wet	3.333		68	40-140	6	30	
Dimethylphthalate	2.34	0.333	mg/kg wet	3.333		70	40-140	7	30	
Di-n-butylphthalate	2.20	0.333	mg/kg wet	3.333		66	40-140	10	30	
Di-n-octylphthalate	2.10	0.333	mg/kg wet	3.333		63	40-140	8	30	
Fluoranthene	2.38	0.333	mg/kg wet	3.333		71	40-140	13	30	
Fluorene	2.07	0.333	mg/kg wet	3.333		62	40-140	5	30	
Hexachlorobenzene	2.53	0.167	mg/kg wet	3.333		76	40-140	3	30	
Hexachlorobutadiene	2.41	0.333	mg/kg wet	3.333		72	40-140	12	30	
Hexachlorocyclopentadiene	2.31	1.67	mg/kg wet	3.333		69	40-140	7	30	
Hexachloroethane	2.08	0.333	mg/kg wet	3.333		62	40-140	7	30	
Indeno(1,2,3-cd)Pyrene	2.54	0.333	mg/kg wet	3.333		76	40-140	4	30	
Isophorone	2.07	0.333	mg/kg wet	3.333		62	40-140	11	30	
Naphthalene	2.18	0.333	mg/kg wet	3.333		65	40-140	7	30	
Nitrobenzene	2.03	0.333	mg/kg wet	3.333		61	40-140	12	30	
N-Nitrosodimethylamine	1.78	0.333	mg/kg wet	3.333		53	40-140	13	30	
N-Nitroso-DI-n-Propylamine	1.53	0.333	mg/kg wet	3.333		46	40-140	25	30	
N-nitrosodiphenylamine	2.50	0.333	mg/kg wet	3.333		75	40-140	7	30	
Pentachlorophenol	2.79	1.67	mg/kg wet	3.333		84	30-130	2	30	
Phenanthrene	2.11	0.333	mg/kg wet	3.333		63	40-140	8	30	
Phenol	2.22	0.333	mg/kg wet	3.333		67	30-130	10	30	
Pyrene	2.31	0.333	mg/kg wet	3.333		69	40-140	8	30	
Pyridine	1.63	1.67	mg/kg wet	3.333		49	40-140	0.5	30	
Surrogate: 1,2-Dichlorobenzene-d4	2.00		mg/kg wet	3.333		60	30-130			
Surrogate: 2,4,6-Tribromophenol	4.05		mg/kg wet	5.000		81	30-130			
Surrogate: 2-Chlorophenol-d4	3.04		mg/kg wet	5.000		61	30-130			
Surrogate: 2-Fluorobiphenyl	2.28		mg/kg wet	3.333		68	30-130			
Surrogate: 2-Fluorophenol	3.39		mg/kg wet	5.000		68	30-130			
Surrogate: Nitrobenzene-d5	2.16		mg/kg wet	3.333		65	30-130			
Surrogate: Phenol-d6	3.37		mg/kg wet	5.000		67	30-130			
Surrogate: p-Terphenyl-d14	2.58		mg/kg wet	3.333		78	30-130			

Matrix Spike Source: 0809107-03

1,1-Biphenyl	2.19	0.351	mg/kg dry	3.509	ND	62	40-140			
1,2,4-Trichlorobenzene	2.28	0.351	mg/kg dry	3.509	ND	65	40-140			
1,2-Dichlorobenzene	2.03	0.351	mg/kg dry	3.509	ND	58	40-140			
1,3-Dichlorobenzene	1.93	0.351	mg/kg dry	3.509	ND	55	40-140			
1,4-Dichlorobenzene	2.13	0.351	mg/kg dry	3.509	ND	61	40-140			
2,3,4,6-Tetrachlorophenol	2.86	1.76	mg/kg dry	3.509	ND	82	30-130			
2,4,5-Trichlorophenol	2.60	0.351	mg/kg dry	3.509	ND	74	30-130			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809107

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

Batch B181029 - 3546

2,4,6-Trichlorophenol	2.46	0.351	mg/kg dry	3.509	ND	70	30-130			
2,4-Dichlorophenol	2.60	0.351	mg/kg dry	3.509	ND	74	30-130			
2,4-Dimethylphenol	2.46	0.351	mg/kg dry	3.509	ND	70	30-130			
2,4-Dinitrophenol	2.13	1.76	mg/kg dry	3.509	ND	61	30-130			
2,4-Dinitrotoluene	2.73	0.351	mg/kg dry	3.509	ND	78	40-140			
2,6-Dinitrotoluene	2.30	0.351	mg/kg dry	3.509	ND	66	40-140			
2-Chloronaphthalene	1.83	0.351	mg/kg dry	3.509	ND	52	40-140			
2-Chlorophenol	2.04	0.351	mg/kg dry	3.509	ND	58	30-130			
2-Methylnaphthalene	1.96	0.351	mg/kg dry	3.509	ND	56	40-140			
2-Methylphenol	2.29	0.351	mg/kg dry	3.509	ND	65	30-130			
2-Nitroaniline	2.63	0.351	mg/kg dry	3.509	ND	75	40-140			
2-Nitrophenol	2.35	0.351	mg/kg dry	3.509	ND	67	30-130			
3,3'-Dichlorobenzidine	2.23	0.702	mg/kg dry	3.509	ND	64	40-140			
3+4-Methylphenol	5.40	0.702	mg/kg dry	7.018	ND	77	30-130			
3-Nitroaniline	2.41	0.351	mg/kg dry	3.509	ND	69	40-140			
4,6-Dinitro-2-Methylphenol	2.62	1.76	mg/kg dry	3.509	ND	75	30-130			
4-Bromophenyl-phenylether	2.35	0.351	mg/kg dry	3.509	ND	67	40-140			
4-Chloro-3-Methylphenol	2.68	0.351	mg/kg dry	3.509	ND	76	30-130			
4-Chloroaniline	1.98	0.702	mg/kg dry	3.509	ND	56	40-140			
4-Chloro-phenyl-phenyl ether	2.35	0.351	mg/kg dry	3.509	ND	67	40-140			
4-Nitroaniline	2.50	0.351	mg/kg dry	3.509	ND	71	40-140			
4-Nitrophenol	3.42	1.76	mg/kg dry	3.509	ND	98	30-130			
Acenaphthene	2.20	0.351	mg/kg dry	3.509	ND	63	40-140			
Acenaphthylene	2.18	0.351	mg/kg dry	3.509	ND	62	40-140			
Acetophenone	2.21	0.702	mg/kg dry	3.509	ND	63	40-140			
Aniline	1.70	0.702	mg/kg dry	3.509	ND	49	40-140			
Anthracene	2.23	0.351	mg/kg dry	3.509	ND	64	40-140			
Azobenzene	1.94	0.351	mg/kg dry	3.509	ND	55	40-140			
Benzo(a)anthracene	2.60	0.351	mg/kg dry	3.509	0.199	68	40-140			
Benzo(a)pyrene	2.51	0.176	mg/kg dry	3.509	0.222	65	40-140			
Benzo(b)fluoranthene	2.94	0.351	mg/kg dry	3.509	0.444	71	40-140			
Benzo(g,h,i)perylene	2.27	0.351	mg/kg dry	3.509	0.197	59	40-140			
Benzo(k)fluoranthene	2.63	0.351	mg/kg dry	3.509	0.303	66	40-140			
Benzolic Acid	0.764	1.76	mg/kg dry	3.509	ND	22	40-140			M-
Benzyl Alcohol	2.16	0.351	mg/kg dry	3.509	ND	62	40-140			
bis(2-Chloroethoxy)methane	2.33	0.351	mg/kg dry	3.509	ND	66	40-140			
bis(2-Chloroethyl)ether	2.12	0.351	mg/kg dry	3.509	ND	60	40-140			
bis(2-chloroisopropyl)Ether	1.69	0.351	mg/kg dry	3.509	ND	48	40-140			
bis(2-Ethylhexyl)phthalate	2.42	0.351	mg/kg dry	3.509	ND	69	40-140			
Butylbenzylphthalate	2.33	0.351	mg/kg dry	3.509	ND	67	40-140			
Carbazole	2.33	0.351	mg/kg dry	3.509	ND	66	40-140			
Chrysene	2.78	0.176	mg/kg dry	3.509	0.393	68	40-140			
Dibenzo(a,h)Anthracene	2.62	0.176	mg/kg dry	3.509	0.066	73	40-140			
Dibenzofuran	2.21	0.351	mg/kg dry	3.509	ND	63	40-140			
Diethylphthalate	2.42	0.351	mg/kg dry	3.509	ND	69	40-140			
Dimethylphthalate	2.42	0.351	mg/kg dry	3.509	ND	69	40-140			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.

Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809107

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

Batch B181029 - 3546

Di-n-butylphthalate	2.30	0.351	mg/kg dry	3.509	ND	66	40-140			
Di-n-octylphthalate	2.30	0.351	mg/kg dry	3.509	ND	65	40-140			
Fluoranthene	2.96	0.351	mg/kg dry	3.509	0.529	69	40-140			
Fluorene	2.20	0.351	mg/kg dry	3.509	ND	63	40-140			
Hexachlorobenzene	2.42	0.176	mg/kg dry	3.509	ND	69	40-140			
Hexachlorobutadiene	2.23	0.351	mg/kg dry	3.509	ND	64	40-140			
Hexachlorocyclopentadiene	2.03	1.76	mg/kg dry	3.509	ND	58	40-140			
Hexachloroethane	1.82	0.351	mg/kg dry	3.509	ND	52	40-140			
Indeno(1,2,3-cd)Pyrene	2.44	0.351	mg/kg dry	3.509	0.215	63	40-140			
Isophorone	2.10	0.351	mg/kg dry	3.509	ND	60	40-140			
Naphthalene	2.20	0.351	mg/kg dry	3.509	ND	63	40-140			
Nitrobenzene	2.06	0.351	mg/kg dry	3.509	ND	59	40-140			
N-Nitrosodimethylamine	1.54	0.351	mg/kg dry	3.509	ND	44	40-140			
N-Nitroso-Di-n-Propylamine	1.70	0.351	mg/kg dry	3.509	ND	48	40-140			
N-nitrosodiphenylamine	3.38	0.351	mg/kg dry	3.509	ND	96	40-140			
Pentachlorophenol	2.54	1.76	mg/kg dry	3.509	ND	72	30-130			
Phenanthrene	2.24	0.351	mg/kg dry	3.509	0.130	60	40-140			
Phenol	2.11	0.351	mg/kg dry	3.509	ND	60	30-130			
Pyrene	2.67	0.351	mg/kg dry	3.509	0.433	64	40-140			
Pyridine	1.40	1.76	mg/kg dry	3.509	ND	40	40-140			
Surrogate: 1,2-Dichlorobenzene-d4	2.07		mg/kg dry	3.509		59	30-130			
Surrogate: 2,4,6-Tribromophenol	3.89		mg/kg dry	5.263		74	30-130			
Surrogate: 2-Chlorophenol-d4	3.23		mg/kg dry	5.263		61	30-130			
Surrogate: 2-Fluorobiphenyl	2.18		mg/kg dry	3.509		62	30-130			
Surrogate: 2-Fluorophenol	3.11		mg/kg dry	5.263		59	30-130			
Surrogate: Nitrobenzene-d5	2.21		mg/kg dry	3.509		63	30-130			
Surrogate: Phenol-d6	3.34		mg/kg dry	5.263		63	30-130			
Surrogate: p-Terphenyl-d14	2.42		mg/kg dry	3.509		69	30-130			

Matrix Spike Dup Source: 0809107-03

1,1-Biphenyl	2.39	0.346	mg/kg dry	3.463	ND	69	40-140	8	30	
1,2,4-Trichlorobenzene	2.26	0.346	mg/kg dry	3.463	ND	65	40-140	1	30	
1,2-Dichlorobenzene	2.04	0.346	mg/kg dry	3.463	ND	59	40-140	0.7	30	
1,3-Dichlorobenzene	2.08	0.346	mg/kg dry	3.463	ND	60	40-140	8	30	
1,4-Dichlorobenzene	2.15	0.346	mg/kg dry	3.463	ND	62	40-140	0.9	30	
2,3,4,6-Tetrachlorophenol	2.88	1.73	mg/kg dry	3.463	ND	83	30-130	0.6	30	
2,4,5-Trichlorophenol	2.84	0.346	mg/kg dry	3.463	ND	82	30-130	9	30	
2,4,6-Trichlorophenol	2.59	0.346	mg/kg dry	3.463	ND	75	30-130	5	30	
2,4-Dichlorophenol	2.63	0.346	mg/kg dry	3.463	ND	76	30-130	1	30	
2,4-Dimethylphenol	2.43	0.346	mg/kg dry	3.463	ND	70	30-130	1	30	
2,4-Dinitrophenol	2.34	1.73	mg/kg dry	3.463	ND	68	30-130	9	30	
2,4-Dinitrotoluene	2.65	0.346	mg/kg dry	3.463	ND	76	40-140	3	30	
2,6-Dinitrotoluene	2.40	0.346	mg/kg dry	3.463	ND	69	40-140	4	30	
2-Chloronaphthalene	1.96	0.346	mg/kg dry	3.463	ND	56	40-140	7	30	
2-Chlorophenol	2.12	0.346	mg/kg dry	3.463	ND	61	30-130	4	30	
2-Methylnaphthalene	2.67	0.346	mg/kg dry	3.463	ND	77	40-140	31	30	D+
2-Methylphenol	2.26	0.346	mg/kg dry	3.463	ND	65	30-130	1	30	



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.

Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809107

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

Batch BI81029 - 3546

2-Nitroaniline	2.71	0.346	mg/kg dry	3.463	ND	78	40-140	3	30	
2-Nitrophenol	2.38	0.346	mg/kg dry	3.463	ND	69	30-130	1	30	
3,3'-Dichlorobenzidine	2.18	0.693	mg/kg dry	3.463	ND	63	40-140	2	30	
3+4-Methylphenol	5.52	0.693	mg/kg dry	6.925	ND	80	30-130	2	30	
3-Nitroaniline	2.36	0.346	mg/kg dry	3.463	ND	68	40-140	2	30	
4,6-Dinitro-2-Methylphenol	2.57	1.73	mg/kg dry	3.463	ND	74	30-130	2	30	
4-Bromophenyl-phenylether	2.32	0.346	mg/kg dry	3.463	ND	67	40-140	1	30	
4-Chloro-3-Methylphenol	2.44	0.346	mg/kg dry	3.463	ND	70	30-130	10	30	
4-Chloroaniline	1.97	0.693	mg/kg dry	3.463	ND	57	40-140	0.1	30	
4-Chloro-phenyl-phenyl ether	2.43	0.346	mg/kg dry	3.463	ND	70	40-140	3	30	
4-Nitroaniline	2.57	0.346	mg/kg dry	3.463	ND	74	40-140	3	30	
4-Nitrophenol	3.51	1.73	mg/kg dry	3.463	ND	101	30-130	3	30	
Acenaphthene	2.34	0.346	mg/kg dry	3.463	ND	68	40-140	6	30	
Acenaphthylene	2.35	0.346	mg/kg dry	3.463	ND	68	40-140	7	30	
Acetophenone	2.28	0.693	mg/kg dry	3.463	ND	66	40-140	3	30	
Aniline	1.78	0.693	mg/kg dry	3.463	ND	51	40-140	4	30	
Anthracene	2.32	0.346	mg/kg dry	3.463	ND	67	40-140	4	30	
Azobenzene	2.01	0.346	mg/kg dry	3.463	ND	58	40-140	4	30	
Benzo(a)anthracene	2.71	0.346	mg/kg dry	3.463	0.199	73	40-140	4	30	
Benzo(a)pyrene	2.56	0.173	mg/kg dry	3.463	0.222	67	40-140	2	30	
Benzo(b)fluoranthene	3.20	0.346	mg/kg dry	3.463	0.444	80	40-140	8	30	
Benzo(g,h,i)perylene	1.90	0.346	mg/kg dry	3.463	0.197	49	40-140	18	30	
Benzo(k)fluoranthene	2.73	0.346	mg/kg dry	3.463	0.303	70	40-140	4	30	
Benzoic Acid	1.08	1.73	mg/kg dry	3.463	ND	31	40-140	35	30	D+, M-
Benzyl Alcohol	2.24	0.346	mg/kg dry	3.463	ND	65	40-140	4	30	
bis(2-Chloroethoxy)methane	2.39	0.346	mg/kg dry	3.463	ND	69	40-140	2	30	
bis(2-Chloroethyl)ether	2.03	0.346	mg/kg dry	3.463	ND	59	40-140	4	30	
bis(2-chloroisopropyl)Ether	1.69	0.346	mg/kg dry	3.463	ND	49	40-140	0.4	30	
bis(2-Ethylhexyl)phthalate	2.41	0.346	mg/kg dry	3.463	ND	70	40-140	0.3	30	
Butylbenzylphthalate	2.28	0.346	mg/kg dry	3.463	ND	66	40-140	2	30	
Carbazole	2.58	0.346	mg/kg dry	3.463	ND	74	40-140	10	30	
Chrysene	2.87	0.173	mg/kg dry	3.463	0.393	72	40-140	3	30	
Dibenzo(a,h)Anthracene	2.24	0.173	mg/kg dry	3.463	0.066	63	40-140	16	30	
Dibenzofuran	2.38	0.346	mg/kg dry	3.463	ND	69	40-140	7	30	
Diethylphthalate	2.41	0.346	mg/kg dry	3.463	ND	70	40-140	0.1	30	
Dimethylphthalate	2.48	0.346	mg/kg dry	3.463	ND	72	40-140	2	30	
Di-n-butylphthalate	2.32	0.346	mg/kg dry	3.463	ND	67	40-140	0.9	30	
Di-n-octylphthalate	2.57	0.346	mg/kg dry	3.463	ND	74	40-140	11	30	
Fluoranthene	3.26	0.346	mg/kg dry	3.463	0.529	79	40-140	10	30	
Fluorene	2.25	0.346	mg/kg dry	3.463	ND	65	40-140	2	30	
Hexachlorobenzene	2.33	0.173	mg/kg dry	3.463	ND	67	40-140	4	30	
Hexachlorobutadiene	2.34	0.346	mg/kg dry	3.463	ND	68	40-140	5	30	
Hexachlorocyclopentadiene	2.28	1.73	mg/kg dry	3.463	ND	66	40-140	12	30	
Hexachloroethane	1.94	0.346	mg/kg dry	3.463	ND	56	40-140	7	30	
Indeno(1,2,3-cd)Pyrene	2.19	0.346	mg/kg dry	3.463	0.215	57	40-140	11	30	
Isophorone	2.06	0.346	mg/kg dry	3.463	ND	59	40-140	2	30	



ESS Laboratory

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CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.

Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809107

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

Batch B181029 - 3546

Naphthalene	2.16	0.346	mg/kg dry	3.463	ND	62	40-140	2	30	
Nitrobenzene	2.04	0.346	mg/kg dry	3.463	ND	59	40-140	1	30	
N-Nitrosodimethylamine	1.89	0.346	mg/kg dry	3.463	ND	55	40-140	21	30	
N-Nitroso-Di-n-Propylamine	1.76	0.346	mg/kg dry	3.463	ND	51	40-140	3	30	
N-nitrosodiphenylamine	3.00	0.346	mg/kg dry	3.463	ND	87	40-140	12	30	
Pentachlorophenol	2.65	1.73	mg/kg dry	3.463	ND	76	30-130	4	30	
Phenanthrene	2.31	0.346	mg/kg dry	3.463	0.130	63	40-140	3	30	
Phenol	2.07	0.346	mg/kg dry	3.463	ND	60	30-130	2	30	
Pyrene	2.71	0.346	mg/kg dry	3.463	0.433	66	40-140	2	30	
Pyridine	1.12	1.73	mg/kg dry	3.463	ND	32	40-140	22	30	M-
Surrogate: 1,2-Dichlorobenzene-d4	2.08		mg/kg dry	3.463		60	30-130			
Surrogate: 2,4,6-Tribromophenol	3.98		mg/kg dry	5.194		77	30-130			
Surrogate: 2-Chlorophenol-d4	3.39		mg/kg dry	5.194		65	30-130			
Surrogate: 2-Fluorobiphenyl	3.05		mg/kg dry	3.463		88	30-130			
Surrogate: 2-Fluorophenol	3.17		mg/kg dry	5.194		61	30-130			
Surrogate: Nitrobenzene-d5	2.19		mg/kg dry	3.463		63	30-130			
Surrogate: Phenol-d6	3.50		mg/kg dry	5.194		67	30-130			
Surrogate: p-Terphenyl-d14	2.42		mg/kg dry	3.463		70	30-130			



ESS Laboratory

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CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809107

Notes and Definitions

- U Analyte included in the analysis, but not detected
- S+ Surrogate recovery(ies) above upper control limit.
- Q Calibration required quadratic regression.
- M- Matrix Spike recovery is below lower control limit.
- IC Internal Standard(s) outside of criteria. Sample was reanalyzed to confirm.
- D+ Relative percent difference for duplicate is outside of criteria.
- D Diluted.
- B+ Blank Spike recovery is above upper control limit.
- ND Analyte NOT DETECTED above the detection limit
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- MDL Method Detection Limit
- MRL Method Reporting Limit
- I/V Initial Volume
- F/V Final Volume
- § Subcontracted analysis; see attached report
- 1 Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
- 2 Range result excludes concentrations of target analytes eluting in that range.
- 3 Range result excludes the concentration of the C9-C10 aromatic range.
- Avg Results reported as a mathematical average.



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Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809107

ESS LABORATORY CERTIFICATIONS

U.S. Army Corps of Engineers
Soil and Water

Navy Installation Restoration QA Program
Soil and Water

Rhode Island: A-179

Connecticut: PH-0750

Maine: RI002

Massachusetts: M-RI002

New Hampshire (NELAP accredited): 242405
Potable Water
Non Potable Water

New York (NELAP accredited): 11313
Potable Water
Non Potable Water
Solid and Hazardous Waste

United States Department of Agriculture
Soil Permit: S-54210

New Jersey (NELAP accredited): RI002
Potable Water
Non Potable Water
Soil and Hazardous Waste

Maryland: 301
Potable Water

ESS Laboratory
 Division of Thielsch Engineering, Inc.
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 Tel. (401) 461-7181 Fax (401) 461-4486
 www.esslaboratory.com

CHAIN OF CUSTODY

Turn Time: Standard Other _____
 If faster than 5 days, prior approval by laboratory is required # _____
 State where samples were collected from:
 MA CT NH NJ NY ME Other _____
 Is this project for any of the following: USACE Other No
 MA-MCP Navy

ESS LAB PROJECT ID: _____
 Reporting Limits: Residential
 Direct Exposure: 0809107
 Electronic Deliverable: Yes No
 Format: Excel Access PDF Other

ESS LAB Sample #	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Pres Code	Number of Containers	Type of Containers	Write Required Analytes													
										TPH	PPB	PCBs	8270 SVOCs										
1	9/9/08	10:00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S	SS-1	65	5	9/9/08	8270 SVOCs	TPH	PPB	PCBs	8270 SVOCs									
2	9/9/08	10:50	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S	SS-2	1	1	1	1	1	1	1	1									
3	9/9/08	11:45	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	S	SS-3	1	1	1	1	1	1	1	1									
4						Trip Blank	1	2															

Project Name (20 Char. or less): Irestle Trail
 Address: 10 Dorrance St, Suite 400
 City: Providence State: RI Zip: 02903
 Telephone #: 401-272-8100 Fax #: _____
 Email Address: SKlement@DUMB.com
 Project Name (20 Char. or less): JKlement@DUMB.com

Container Type: P-Poly G-Glass S-Sterile V-VOA Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present: Yes No Internal Use Only
 Seals Intact: Yes No NA: [] Pickup
 Cooler Temp: 4.6

Preservation Code: 1 - NP, 2 - HCl, 3 - H₂SO₄, 4 - HNO₃, 5 - NaOH, 6 - MeOH, 7 - Asorbic Acid, 8 - ZnAct, 9 - _____

Sampled by: Joshua Klement
 Comments: 8270 SVOC: PID reading were Non detect.

Relinquished by: (Signature) <u>Joshua Klement</u>	Date/Time <u>9-9-08 11:08</u>	Relinquished by: (Signature)	Date/Time
Relinquished by: (Signature) <u>Joshua Klement</u>	Date/Time <u>9-9-08 11:08</u>	Relinquished by: (Signature)	Date/Time



Appendix D – Groundwater Analytical Report



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

PROJECT NARRATIVE

Sue Courtemanche
Vanasse Hangen Brustlin, Inc.
10 Dorrance Street, Suite 400
Providence, RI 02903

RE: Trestle Trail
ESS Laboratory Work Order Number: 0809063

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this Project Narrative, the entire report has been paginated. The ESS Laboratory Certifications sheet is the final report page. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been mailed. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

Date: September 15, 2008

Analytical Summary

The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration may be used instead of automated integration because it produces more accurate results. All ICP Metals were analyzed using the established linear dynamic range to determine acceptable analytical results.

ESS Laboratory certifies that the test results meet the requirements of NELAC, except where noted within this project narrative.

Sample Receipt

The following sample(s) were received on September 04, 2008 for the analyses specified on the enclosed Chain of Custody Record.

Laboratory ID	Matrix	Client SampleID
0809063-01	Ground Water	RIP-1
0809063-02	Ground Water	RIP-3
0809063-03	Aqueous	Trip Blank



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809063

PROJECT NARRATIVE

3005A/6000/7000 Total Metals

0809063-01 **Elevated Method Reporting Limits due to sample matrix.**
0809063-02 **Elevated Method Reporting Limits due to sample matrix.**

8270C Semi-Volatile Organic Compounds

BI80814-BS1 **Blank Spike recovery is below lower control limit.**
3+4-Methylphenol, Benzoic Acid, N-Nitroso-Di-n-Propylamine
BI80814-BSD1 **Blank Spike recovery is below lower control limit.**
Benzoic Acid
BI80814-BSD1 **Relative percent difference for duplicate is outside of criteria.**
2,4-Dinitrophenol, 3+4-Methylphenol, Benzoic Acid
BI81033-BS1 **Blank Spike recovery is below lower control limit.**
2,4-Dinitrophenol, Benzoic Acid
BI81033-BSD1 **Blank Spike recovery is below lower control limit.**
Benzoic Acid
BI81033-BSD1 **Relative percent difference for duplicate is outside of criteria.**
2,4-Dinitrophenol, 4-Nitroaniline, N-Nitrosodimethylamine, N-nitrosodiphenylamine
BRI0041-CCV1 **Continuing Calibration recovery is below lower control limit.**
Aniline, Benzyl Alcohol, bis(2-chloroisopropyl)Ether, N-Nitroso-Di-n-Propylamine, Pyridine

8270C(SIM) Semi-Volatile Organic Compounds

0809063-01 **Present in Method Blank.**
Benzo(a)anthracene
0809063-02 **Present in Method Blank.**
Benzo(a)anthracene

No other observations noted.

End of Project Narrative.



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: RIP-1
Date Sampled: 09/04/08 10:00
Percent Solids: N/A

ESS Laboratory Work Order: 0809063
ESS Laboratory Sample ID: 0809063-01
Sample Matrix: Ground Water

3005A/6000/7000 Total Metals

RI - GA

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Antimony	ND	mg/L	0.0025	7041	0.006	1	SVD	09/08/08	100	50
Arsenic	0.0163	mg/L	0.0025	7060A	0.01	1	SVD	09/08/08	100	50
Beryllium	0.0088	mg/L	0.0025	6010B	0.004	5	JP	09/05/08	100	50
Cadmium	ND	mg/L	0.0125	6010B	0.005	5	JP	09/05/08	100	50
Chromium	0.640	mg/L	0.050	6010B	0.1	5	JP	09/05/08	100	50
Copper	0.197	mg/L	0.050	6010B		5	JP	09/05/08	100	50
Lead	0.227	mg/L	0.050	6010B	0.015	5	JP	09/05/08	100	50
Mercury	ND	mg/L	0.00050	7470A	0.002	1	JP	09/08/08	20	40
Nickel	0.128	mg/L	0.125	6010B	0.1	5	JP	09/05/08	100	50
Selenium	ND	mg/L	0.125	6010B	0.05	5	JP	09/05/08	100	50
Silver	ND	mg/L	0.025	6010B		5	JP	09/05/08	100	50
Thallium	ND	mg/L	0.0015	7841	0.002	1	SVD	09/08/08	100	50
Zinc	0.589	mg/L	0.125	6010B		5	JP	09/05/08	100	50



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: RIP-1
Date Sampled: 09/04/08 10:00
Percent Solids: N/A
Initial Volume: 1000
Final Volume: 1
Extraction Method: 3510C

ESS Laboratory Work Order: 0809063
ESS Laboratory Sample ID: 0809063-01
Sample Matrix: Ground Water
Analyst: SEP
Prepared: 09/08/08

8100M Total Petroleum Hydrocarbons

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>RI - GA</u> <u>Limit</u>	<u>DF</u>	<u>Analyzed</u>
Total Petroleum Hydrocarbons	ND	mg/L	0.20		1	09/08/08

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: O-Terphenyl	96 %		40-140



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-1
 Date Sampled: 09/04/08 10:00
 Percent Solids: N/A
 Initial Volume: 10
 Final Volume: 10
 Extraction Method: 5030B

ESS Laboratory Work Order: 0809063
 ESS Laboratory Sample ID: 0809063-01
 Sample Matrix: Ground Water
 Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results	Units	MRL	RI - GA		Analyzed
				Limit	DF	
1,1,1,2-Tetrachloroethane	ND	mg/L	0.0010		1	09/09/08
1,1,1-Trichloroethane	ND	mg/L	0.0010	0.2	1	09/09/08
1,1,2,2-Tetrachloroethane	ND	mg/L	0.0005		1	09/09/08
1,1,2-Trichloroethane	ND	mg/L	0.0010	0.005	1	09/09/08
1,1-Dichloroethane	ND	mg/L	0.0010		1	09/09/08
1,1-Dichloroethene	ND	mg/L	0.0010	0.007	1	09/09/08
1,1-Dichloropropene	ND	mg/L	0.0020		1	09/09/08
1,2,3-Trichlorobenzene	ND	mg/L	0.0010		1	09/09/08
1,2,3-Trichloropropane	ND	mg/L	0.0010		1	09/09/08
1,2,4-Trichlorobenzene	ND	mg/L	0.0010	0.07	1	09/09/08
1,2,4-Trimethylbenzene	ND	mg/L	0.0010		1	09/09/08
1,2-Dibromo-3-Chloropropane	ND	mg/L	0.0050	0.0002	1	09/09/08
1,2-Dibromoethane	ND	mg/L	0.0010	0.00005	1	09/09/08
1,2-Dichlorobenzene	ND	mg/L	0.0010	0.6	1	09/09/08
1,2-Dichloroethane	ND	mg/L	0.0010	0.005	1	09/09/08
1,2-Dichloropropane	ND	mg/L	0.0010	0.005	1	09/09/08
1,3,5-Trimethylbenzene	ND	mg/L	0.0010		1	09/09/08
1,3-Dichlorobenzene	ND	mg/L	0.0010	0.6	1	09/09/08
1,3-Dichloropropane	ND	mg/L	0.0010		1	09/09/08
1,4-Dichlorobenzene	ND	mg/L	0.0010	0.075	1	09/09/08
1,4-Dioxane - Screen	ND	mg/L	0.500		1	09/09/08
1-Chlorohexane	ND	mg/L	0.0010		1	09/09/08
2,2-Dichloropropane	ND	mg/L	0.0010		1	09/09/08
2-Butanone	ND	mg/L	0.0250		1	09/09/08
2-Chlorotoluene	ND	mg/L	0.0010		1	09/09/08
2-Hexanone	ND	mg/L	0.0100		1	09/09/08
4-Chlorotoluene	ND	mg/L	0.0010		1	09/09/08
4-Isopropyltoluene	ND	mg/L	0.0010		1	09/09/08
4-Methyl-2-Pentanone	ND	mg/L	0.0250		1	09/09/08
Acetone	ND	mg/L	0.0250		1	09/09/08
Benzene	ND	mg/L	0.0010	0.005	1	09/09/08
Bromobenzene	ND	mg/L	0.0020		1	09/09/08
Bromochloromethane	ND	mg/L	0.0010		1	09/09/08
Bromodichloromethane	ND	mg/L	0.0006		1	09/09/08
Bromoform	ND	mg/L	0.0010		1	09/09/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-1
 Date Sampled: 09/04/08 10:00
 Percent Solids: N/A
 Initial Volume: 10
 Final Volume: 10
 Extraction Method: 5030B

ESS Laboratory Work Order: 0809063
 ESS Laboratory Sample ID: 0809063-01
 Sample Matrix: Ground Water
 Analyst: MD

8260B Volatile Organic Compounds

Bromomethane	ND	mg/L	0.0020		1	09/09/08
Carbon Disulfide	ND	mg/L	0.0010		1	09/09/08
Carbon Tetrachloride	ND	mg/L	0.0010	0.005	1	09/09/08
Chlorobenzene	ND	mg/L	0.0010	0.1	1	09/09/08
Chloroethane	ND	mg/L	0.0020		1	09/09/08
Chloroform	ND	mg/L	0.0010		1	09/09/08
Chloromethane	ND	mg/L	0.0020		1	09/09/08
cis-1,2-Dichloroethene	ND	mg/L	0.0010	0.07	1	09/09/08
cis-1,3-Dichloropropene	ND	mg/L	0.0004		1	09/09/08
Dibromochloromethane	ND	mg/L	0.0010		1	09/09/08
Dibromomethane	ND	mg/L	0.0010		1	09/09/08
Dichlorodifluoromethane	ND	mg/L	0.0020		1	09/09/08
Diethyl Ether	ND	mg/L	0.0010		1	09/09/08
Di-isopropyl ether	ND	mg/L	0.0010		1	09/09/08
Ethyl tertiary-butyl ether	ND	mg/L	0.0010		1	09/09/08
Ethylbenzene	ND	mg/L	0.0010	0.7	1	09/09/08
Hexachlorobutadiene	ND	mg/L	0.0006		1	09/09/08
Hexachloroethane	ND	mg/L	0.0010		1	09/09/08
Isopropylbenzene	ND	mg/L	0.0010		1	09/09/08
Methyl tert-Butyl Ether	ND	mg/L	0.0010	0.04	1	09/09/08
Methylene Chloride	ND	mg/L	0.0040	0.005	1	09/09/08
Naphthalene	ND	mg/L	0.0010	0.02	1	09/09/08
n-Butylbenzene	ND	mg/L	0.0010		1	09/09/08
n-Propylbenzene	ND	mg/L	0.0010		1	09/09/08
sec-Butylbenzene	ND	mg/L	0.0010		1	09/09/08
Styrene	ND	mg/L	0.0010	0.1	1	09/09/08
tert-Butylbenzene	ND	mg/L	0.0010		1	09/09/08
Tertiary-amyl methyl ether	ND	mg/L	0.0010		1	09/09/08
Tetrachloroethene	ND	mg/L	0.0010	0.005	1	09/09/08
Tetrahydrofuran	ND	mg/L	0.0050		1	09/09/08
Toluene	ND	mg/L	0.0010	1	1	09/09/08
trans-1,2-Dichloroethene	ND	mg/L	0.0010	0.1	1	09/09/08
trans-1,3-Dichloropropene	ND	mg/L	0.0004		1	09/09/08
Trichloroethene	ND	mg/L	0.0010	0.005	1	09/09/08
Trichlorofluoromethane	ND	mg/L	0.0010		1	09/09/08
Vinyl Acetate	ND	mg/L	0.0050		1	09/09/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-1
 Date Sampled: 09/04/08 10:00
 Percent Solids: N/A
 Initial Volume: 10
 Final Volume: 10
 Extraction Method: 5030B

ESS Laboratory Work Order: 0809063
 ESS Laboratory Sample ID: 0809063-01
 Sample Matrix: Ground Water
 Analyst: MD

8260B Volatile Organic Compounds

Vinyl Chloride	ND	mg/L	0.0010	0.002	1	09/09/08
Xylene O	ND	mg/L	0.0010	10	1	09/09/08
Xylene P,M	ND	mg/L	0.0020	10	1	09/09/08
Xylenes (Total)	ND	mg/L	0.0030	10	1	09/09/08
Trihalomethanes (Total)	ND	mg/L	0.0036	0.1		09/09/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	102 %		70-130
Surrogate: 4-Bromofluorobenzene	108 %		70-130
Surrogate: Dibromofluoromethane	99 %		70-130
Surrogate: Toluene-d8	106 %		70-130



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-1
 Date Sampled: 09/04/08 10:00
 Percent Solids: N/A
 Initial Volume: 1000
 Final Volume: 1
 Extraction Method: 3520C

ESS Laboratory Work Order: 0809063
 ESS Laboratory Sample ID: 0809063-01
 Sample Matrix: Ground Water
 Analyst: VSC
 Prepared: 09/10/08

8270C Semi-Volatile Organic Compounds

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>RI - GA</u>		<u>Analyzed</u>
				<u>Limit</u>	<u>DF</u>	
1,1-Biphenyl	ND	mg/L	0.01		1	09/11/08
1,2,4-Trichlorobenzene	ND	mg/L	0.01	0.07	1	09/11/08
1,2-Dichlorobenzene	ND	mg/L	0.01	0.6	1	09/11/08
1,3-Dichlorobenzene	ND	mg/L	0.01	0.6	1	09/11/08
1,4-Dichlorobenzene	ND	mg/L	0.01	0.075	1	09/11/08
2,3,4,6-Tetrachlorophenol	ND	mg/L	0.05		1	09/11/08
2,4,5-Trichlorophenol	ND	mg/L	0.01		1	09/11/08
2,4,6-Trichlorophenol	ND	mg/L	0.01		1	09/11/08
2,4-Dichlorophenol	ND	mg/L	0.01		1	09/11/08
2,4-Dimethylphenol	ND	mg/L	0.05		1	09/11/08
2,4-Dinitrophenol	ND	mg/L	0.05		1	09/11/08
2,4-Dinitrotoluene	ND	mg/L	0.01		1	09/11/08
2,6-Dinitrotoluene	ND	mg/L	0.01		1	09/11/08
2-Chloronaphthalene	ND	mg/L	0.01		1	09/11/08
2-Chlorophenol	ND	mg/L	0.01		1	09/11/08
2-Methylphenol	ND	mg/L	0.01		1	09/11/08
2-Nitroaniline	ND	mg/L	0.01		1	09/11/08
2-Nitrophenol	ND	mg/L	0.01		1	09/11/08
3,3'-Dichlorobenzidine	ND	mg/L	0.01		1	09/11/08
3+4-Methylphenol	ND	mg/L	0.02		1	09/11/08
3-Nitroaniline	ND	mg/L	0.01		1	09/11/08
4,6-Dinitro-2-Methylphenol	ND	mg/L	0.05		1	09/11/08
4-Bromophenyl-phenylether	ND	mg/L	0.01		1	09/11/08
4-Chloro-3-Methylphenol	ND	mg/L	0.01		1	09/11/08
4-Chloroaniline	ND	mg/L	0.02		1	09/11/08
4-Chloro-phenyl-phenyl ether	ND	mg/L	0.01		1	09/11/08
4-Nitroaniline	ND	mg/L	0.01		1	09/11/08
4-Nitrophenol	ND	mg/L	0.05		1	09/11/08
Acetophenone	ND	mg/L	0.01		1	09/11/08
Aniline	ND	mg/L	0.01		1	09/11/08
Azobenzene	ND	mg/L	0.02		1	09/11/08
Benzoic Acid	ND	mg/L	0.1		1	09/11/08
Benzyl Alcohol	ND	mg/L	0.01		1	09/11/08
bis(2-Chloroethoxy)methane	ND	mg/L	0.01		1	09/11/08
bis(2-Chloroethyl)ether	ND	mg/L	0.01		1	09/11/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-1
 Date Sampled: 09/04/08 10:00
 Percent Solids: N/A
 Initial Volume: 1000
 Final Volume: 1
 Extraction Method: 3520C

ESS Laboratory Work Order: 0809063
 ESS Laboratory Sample ID: 0809063-01
 Sample Matrix: Ground Water
 Analyst: VSC
 Prepared: 09/10/08

8270C Semi-Volatile Organic Compounds

bis(2-chloroisopropyl)Ether	ND	mg/L	0.01	1	09/11/08
bis(2-Ethylhexyl)phthalate	ND	mg/L	0.006	0.006	1 09/11/08
Butylbenzylphthalate	ND	mg/L	0.01	1	09/11/08
Carbazole	ND	mg/L	0.01	1	09/11/08
Dibenzofuran	ND	mg/L	0.01	1	09/11/08
Diethylphthalate	ND	mg/L	0.01	1	09/11/08
Dimethylphthalate	ND	mg/L	0.01	1	09/11/08
Di-n-butylphthalate	ND	mg/L	0.01	1	09/11/08
Di-n-octylphthalate	ND	mg/L	0.01	1	09/11/08
Hexachlorobutadiene	ND	mg/L	0.01	1	09/11/08
Hexachlorocyclopentadiene	ND	mg/L	0.02	1	09/11/08
Hexachloroethane	ND	mg/L	0.005	1	09/11/08
Isophorone	ND	mg/L	0.01	1	09/11/08
Nitrobenzene	ND	mg/L	0.01	1	09/11/08
N-Nitrosodimethylamine	ND	mg/L	0.01	1	09/11/08
N-Nitroso-Di-n-Propylamine	ND	mg/L	0.01	1	09/11/08
N-nitrosodiphenylamine	ND	mg/L	0.01	1	09/11/08
Phenol	ND	mg/L	0.01	1	09/11/08
Pyridine	ND	mg/L	0.1	1	09/11/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	66 %		30-130
Surrogate: 2,4,6-Tribromophenol	80 %		15-110
Surrogate: 2-Chlorophenol-d4	57 %		15-110
Surrogate: 2-Fluorobiphenyl	66 %		30-130
Surrogate: 2-Fluorophenol	49 %		15-110
Surrogate: Nitrobenzene-d5	88 %		30-130
Surrogate: Phenol-d6	80 %		15-110
Surrogate: p-Terphenyl-d14	38 %		30-130



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-1
 Date Sampled: 09/04/08 10:00
 Percent Solids: N/A
 Initial Volume: 1000
 Final Volume: 0.25
 Extraction Method: 3520C

ESS Laboratory Work Order: 0809063
 ESS Laboratory Sample ID: 0809063-01
 Sample Matrix: Ground Water
 Analyst: VSC
 Prepared: 09/10/08

8270C(SIM) Semi-Volatile Organic Compounds

RI - GA

<u>Analyte</u>		<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>
2-Methylnaphthalene		ND	mg/L	0.00020		1	09/12/08
Acenaphthene		ND	mg/L	0.00020		1	09/12/08
Acenaphthylene		ND	mg/L	0.00020		1	09/12/08
Anthracene		ND	mg/L	0.00020		1	09/12/08
Benzo(a)anthracene	B	0.00022	mg/L	0.00005		1	09/12/08
Benzo(a)pyrene		0.00010	mg/L	0.00005	0.0002	1	09/12/08
Benzo(b)fluoranthene		0.00018	mg/L	0.00005		1	09/12/08
Benzo(g,h,i)perylene		ND	mg/L	0.00020		1	09/12/08
Benzo(k)fluoranthene		0.00011	mg/L	0.00005		1	09/12/08
Chrysene		0.00016	mg/L	0.00005		1	09/12/08
Dibenzo(a,h)Anthracene		ND	mg/L	0.00005		1	09/12/08
Fluoranthene		0.00036	mg/L	0.00020		1	09/12/08
Fluorene		ND	mg/L	0.00020		1	09/12/08
Hexachlorobenzene		ND	mg/L	0.00020	0.001	1	09/12/08
Indeno(1,2,3-cd)Pyrene		0.00008	mg/L	0.00005		1	09/12/08
Naphthalene		ND	mg/L	0.00020	0.02	1	09/12/08
Pentachlorophenol		ND	mg/L	0.00100	0.001	1	09/12/08
Phenanthrene		0.00022	mg/L	0.00020		1	09/12/08
Pyrene		0.00023	mg/L	0.00020		1	09/12/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: RIP-3
Date Sampled: 09/04/08 12:50
Percent Solids: N/A

ESS Laboratory Work Order: 0809063
ESS Laboratory Sample ID: 0809063-02
Sample Matrix: Ground Water

3005A/6000/7000 Total Metals

RI - GA

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>
Antimony	0.0040	mg/L	0.0025	7041	0.006	1	SVD	09/08/08	100	50
Arsenic	0.0406	mg/L	0.0075	7060A	0.01	3	SVD	09/08/08	100	50
Beryllium	0.0374	mg/L	0.0100	6010B	0.004	20	SVD	09/08/08	100	50
Cadmium	ND	mg/L	0.0500	6010B	0.005	20	SVD	09/08/08	100	50
Chromium	0.590	mg/L	0.200	6010B	0.1	20	SVD	09/08/08	100	50
Copper	ND	mg/L	0.200	6010B		20	SVD	09/08/08	100	50
Lead	0.563	mg/L	0.200	6010B	0.015	20	SVD	09/08/08	100	50
Mercury	0.00087	mg/L	0.00050	7470A	0.002	1	JP	09/08/08	20	40
Nickel	ND	mg/L	0.500	6010B	0.1	20	SVD	09/08/08	100	50
Selenium	ND	mg/L	0.500	6010B	0.05	20	SVD	09/08/08	100	50
Silver	ND	mg/L	0.100	6010B		20	SVD	09/08/08	100	50
Thallium	ND	mg/L	0.0015	7841	0.002	1	SVD	09/08/08	100	50
Zinc	1.48	mg/L	0.500	6010B		20	SVD	09/08/08	100	50



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-3
 Date Sampled: 09/04/08 12:50
 Percent Solids: N/A
 Initial Volume: 1000
 Final Volume: 1
 Extraction Method: 3510C

ESS Laboratory Work Order: 0809063
 ESS Laboratory Sample ID: 0809063-02
 Sample Matrix: Ground Water
 Analyst: SEP
 Prepared: 09/08/08

8100M Total Petroleum Hydrocarbons

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>RI - GA</u> <u>Limit</u>	<u>DF</u>	<u>Analyzed</u>
Total Petroleum Hydrocarbons	ND	mg/L	0.20		1	09/08/08

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: O-Terphenyl	83 %		40-140



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-3
 Date Sampled: 09/04/08 12:50
 Percent Solids: N/A
 Initial Volume: 10
 Final Volume: 10
 Extraction Method: 5030B

ESS Laboratory Work Order: 0809063
 ESS Laboratory Sample ID: 0809063-02
 Sample Matrix: Ground Water
 Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results	Units	MRL	RI - GA		Analyzed
				Limit	DF	
1,1,1,2-Tetrachloroethane	ND	mg/L	0.0010		1	09/09/08
1,1,1-Trichloroethane	ND	mg/L	0.0010	0.2	1	09/09/08
1,1,2,2-Tetrachloroethane	ND	mg/L	0.0005		1	09/09/08
1,1,2-Trichloroethane	ND	mg/L	0.0010	0.005	1	09/09/08
1,1-Dichloroethane	ND	mg/L	0.0010		1	09/09/08
1,1-Dichloroethene	ND	mg/L	0.0010	0.007	1	09/09/08
1,1-Dichloropropene	ND	mg/L	0.0020		1	09/09/08
1,2,3-Trichlorobenzene	ND	mg/L	0.0010		1	09/09/08
1,2,3-Trichloropropane	ND	mg/L	0.0010		1	09/09/08
1,2,4-Trichlorobenzene	ND	mg/L	0.0010	0.07	1	09/09/08
1,2,4-Trimethylbenzene	ND	mg/L	0.0010		1	09/09/08
1,2-Dibromo-3-Chloropropane	ND	mg/L	0.0050	0.0002	1	09/09/08
1,2-Dibromoethane	ND	mg/L	0.0010	0.00005	1	09/09/08
1,2-Dichlorobenzene	ND	mg/L	0.0010	0.6	1	09/09/08
1,2-Dichloroethane	ND	mg/L	0.0010	0.005	1	09/09/08
1,2-Dichloropropane	ND	mg/L	0.0010	0.005	1	09/09/08
1,3,5-Trimethylbenzene	ND	mg/L	0.0010		1	09/09/08
1,3-Dichlorobenzene	ND	mg/L	0.0010	0.6	1	09/09/08
1,3-Dichloropropane	ND	mg/L	0.0010		1	09/09/08
1,4-Dichlorobenzene	ND	mg/L	0.0010	0.075	1	09/09/08
1,4-Dioxane - Screen	ND	mg/L	0.500		1	09/09/08
1-Chlorohexane	ND	mg/L	0.0010		1	09/09/08
2,2-Dichloropropane	ND	mg/L	0.0010		1	09/09/08
2-Butanone	ND	mg/L	0.0250		1	09/09/08
2-Chlorotoluene	ND	mg/L	0.0010		1	09/09/08
2-Hexanone	ND	mg/L	0.0100		1	09/09/08
4-Chlorotoluene	ND	mg/L	0.0010		1	09/09/08
4-Isopropyltoluene	ND	mg/L	0.0010		1	09/09/08
4-Methyl-2-Pentanone	ND	mg/L	0.0250		1	09/09/08
Acetone	ND	mg/L	0.0250		1	09/09/08
Benzene	ND	mg/L	0.0010	0.005	1	09/09/08
Bromobenzene	ND	mg/L	0.0020		1	09/09/08
Bromochloromethane	ND	mg/L	0.0010		1	09/09/08
Bromodichloromethane	ND	mg/L	0.0006		1	09/09/08
Bromoform	ND	mg/L	0.0010		1	09/09/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-3
 Date Sampled: 09/04/08 12:50
 Percent Solids: N/A
 Initial Volume: 10
 Final Volume: 10
 Extraction Method: 5030B

ESS Laboratory Work Order: 0809063
 ESS Laboratory Sample ID: 0809063-02
 Sample Matrix: Ground Water
 Analyst: MD

8260B Volatile Organic Compounds

Bromomethane	ND	mg/L	0.0020		1	09/09/08
Carbon Disulfide	ND	mg/L	0.0010		1	09/09/08
Carbon Tetrachloride	ND	mg/L	0.0010	0.005	1	09/09/08
Chlorobenzene	ND	mg/L	0.0010	0.1	1	09/09/08
Chloroethane	ND	mg/L	0.0020		1	09/09/08
Chloroform	ND	mg/L	0.0010		1	09/09/08
Chloromethane	ND	mg/L	0.0020		1	09/09/08
cis-1,2-Dichloroethene	ND	mg/L	0.0010	0.07	1	09/09/08
cis-1,3-Dichloropropene	ND	mg/L	0.0004		1	09/09/08
Dibromochloromethane	ND	mg/L	0.0010		1	09/09/08
Dibromomethane	ND	mg/L	0.0010		1	09/09/08
Dichlorodifluoromethane	ND	mg/L	0.0020		1	09/09/08
Diethyl Ether	ND	mg/L	0.0010		1	09/09/08
Di-isopropyl ether	ND	mg/L	0.0010		1	09/09/08
Ethyl tertiary-butyl ether	ND	mg/L	0.0010		1	09/09/08
Ethylbenzene	ND	mg/L	0.0010	0.7	1	09/09/08
Hexachlorobutadiene	ND	mg/L	0.0006		1	09/09/08
Hexachloroethane	ND	mg/L	0.0010		1	09/09/08
Isopropylbenzene	ND	mg/L	0.0010		1	09/09/08
Methyl tert-Butyl Ether	ND	mg/L	0.0010	0.04	1	09/09/08
Methylene Chloride	ND	mg/L	0.0040	0.005	1	09/09/08
Naphthalene	ND	mg/L	0.0010	0.02	1	09/09/08
n-Butylbenzene	ND	mg/L	0.0010		1	09/09/08
n-Propylbenzene	ND	mg/L	0.0010		1	09/09/08
sec-Butylbenzene	ND	mg/L	0.0010		1	09/09/08
Styrene	ND	mg/L	0.0010	0.1	1	09/09/08
tert-Butylbenzene	ND	mg/L	0.0010		1	09/09/08
Tertiary-amyl methyl ether	ND	mg/L	0.0010		1	09/09/08
Tetrachloroethene	ND	mg/L	0.0010	0.005	1	09/09/08
Tetrahydrofuran	ND	mg/L	0.0050		1	09/09/08
Toluene	ND	mg/L	0.0010	1	1	09/09/08
trans-1,2-Dichloroethene	ND	mg/L	0.0010	0.1	1	09/09/08
trans-1,3-Dichloropropene	ND	mg/L	0.0004		1	09/09/08
Trichloroethene	ND	mg/L	0.0010	0.005	1	09/09/08
Trichlorofluoromethane	ND	mg/L	0.0010		1	09/09/08
Vinyl Acetate	ND	mg/L	0.0050		1	09/09/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: RIP-3
Date Sampled: 09/04/08 12:50
Percent Solids: N/A
Initial Volume: 10
Final Volume: 10
Extraction Method: 5030B

ESS Laboratory Work Order: 0809063
ESS Laboratory Sample ID: 0809063-02
Sample Matrix: Ground Water
Analyst: MD

8260B Volatile Organic Compounds

Vinyl Chloride	ND	mg/L	0.0010	0.002	1	09/09/08
Xylene O	ND	mg/L	0.0010	10	1	09/09/08
Xylene P,M	ND	mg/L	0.0020	10	1	09/09/08
Xylenes (Total)	ND	mg/L	0.0030	10	1	09/09/08
Trihalomethanes (Total)	ND	mg/L	0.0036	0.1		09/09/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	103 %		70-130
Surrogate: 4-Bromofluorobenzene	105 %		70-130
Surrogate: Dibromofluoromethane	101 %		70-130
Surrogate: Toluene-d8	105 %		70-130



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-3
 Date Sampled: 09/04/08 12:50
 Percent Solids: N/A
 Initial Volume: 850
 Final Volume: 1
 Extraction Method: 3520C

ESS Laboratory Work Order: 0809063
 ESS Laboratory Sample ID: 0809063-02
 Sample Matrix: Ground Water
 Analyst: VSC
 Prepared: 09/08/08

8270C Semi-Volatile Organic Compounds

RI - GA

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1-Biphenyl	ND	mg/L	0.01		1	09/09/08
1,2,4-Trichlorobenzene	ND	mg/L	0.01	0.07	1	09/09/08
1,2-Dichlorobenzene	ND	mg/L	0.01	0.6	1	09/09/08
1,3-Dichlorobenzene	ND	mg/L	0.01	0.6	1	09/09/08
1,4-Dichlorobenzene	ND	mg/L	0.01	0.075	1	09/09/08
2,3,4,6-Tetrachlorophenol	ND	mg/L	0.06		1	09/09/08
2,4,5-Trichlorophenol	ND	mg/L	0.01		1	09/09/08
2,4,6-Trichlorophenol	ND	mg/L	0.01		1	09/09/08
2,4-Dichlorophenol	ND	mg/L	0.01		1	09/09/08
2,4-Dimethylphenol	ND	mg/L	0.06		1	09/09/08
2,4-Dinitrophenol	ND	mg/L	0.06		1	09/09/08
2,4-Dinitrotoluene	ND	mg/L	0.01		1	09/09/08
2,6-Dinitrotoluene	ND	mg/L	0.01		1	09/09/08
2-Chloronaphthalene	ND	mg/L	0.01		1	09/09/08
2-Chlorophenol	ND	mg/L	0.01		1	09/09/08
2-Methylphenol	ND	mg/L	0.01		1	09/09/08
2-Nitroaniline	ND	mg/L	0.01		1	09/09/08
2-Nitrophenol	ND	mg/L	0.01		1	09/09/08
3,3'-Dichlorobenzidine	ND	mg/L	0.01		1	09/09/08
3+4-Methylphenol	ND	mg/L	0.02		1	09/09/08
3-Nitroaniline	ND	mg/L	0.01		1	09/09/08
4,6-Dinitro-2-Methylphenol	ND	mg/L	0.06		1	09/09/08
4-Bromophenyl-phenylether	ND	mg/L	0.01		1	09/09/08
4-Chloro-3-Methylphenol	ND	mg/L	0.01		1	09/09/08
4-Chloroaniline	ND	mg/L	0.02		1	09/09/08
4-Chloro-phenyl-phenyl ether	ND	mg/L	0.01		1	09/09/08
4-Nitroaniline	ND	mg/L	0.01		1	09/09/08
4-Nitrophenol	ND	mg/L	0.06		1	09/09/08
Acetophenone	ND	mg/L	0.01		1	09/09/08
Aniline	ND	mg/L	0.01		1	09/09/08
Azobenzene	ND	mg/L	0.02		1	09/09/08
Benzoic Acid	ND	mg/L	0.1		1	09/09/08
Benzyl Alcohol	ND	mg/L	0.01		1	09/09/08
bis(2-Chloroethoxy)methane	ND	mg/L	0.01		1	09/09/08
bis(2-Chloroethyl)ether	ND	mg/L	0.01		1	09/09/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-3
 Date Sampled: 09/04/08 12:50
 Percent Solids: N/A
 Initial Volume: 850
 Final Volume: 1
 Extraction Method: 3520C

ESS Laboratory Work Order: 0809063
 ESS Laboratory Sample ID: 0809063-02
 Sample Matrix: Ground Water
 Analyst: VSC
 Prepared: 09/08/08

8270C Semi-Volatile Organic Compounds

bis(2-chloroisopropyl)Ether	ND	mg/L	0.01	1	09/09/08
bis(2-Ethylhexyl)phthalate	ND	mg/L	0.007	0.006	1 09/09/08
Butylbenzylphthalate	ND	mg/L	0.01	1	09/09/08
Carbazole	ND	mg/L	0.01	1	09/09/08
Dibenzofuran	ND	mg/L	0.01	1	09/09/08
Diethylphthalate	ND	mg/L	0.01	1	09/09/08
Dimethylphthalate	ND	mg/L	0.01	1	09/09/08
Di-n-butylphthalate	ND	mg/L	0.01	1	09/09/08
Di-n-octylphthalate	ND	mg/L	0.01	1	09/09/08
Hexachlorobutadiene	ND	mg/L	0.01	1	09/09/08
Hexachlorocyclopentadiene	ND	mg/L	0.03	1	09/09/08
Hexachloroethane	ND	mg/L	0.006	1	09/09/08
Isophorone	ND	mg/L	0.01	1	09/09/08
Nitrobenzene	ND	mg/L	0.01	1	09/09/08
N-Nitrosodimethylamine	ND	mg/L	0.01	1	09/09/08
N-Nitroso-Di-n-Propylamine	ND	mg/L	0.01	1	09/09/08
N-nitrosodiphenylamine	ND	mg/L	0.01	1	09/09/08
Phenol	ND	mg/L	0.01	1	09/09/08
Pyridine	ND	mg/L	0.1	1	09/09/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	68 %		30-130
Surrogate: 2,4,6-Tribromophenol	96 %		15-110
Surrogate: 2-Chlorophenol-d4	62 %		15-110
Surrogate: 2-Fluorobiphenyl	75 %		30-130
Surrogate: 2-Fluorophenol	53 %		15-110
Surrogate: Nitrobenzene-d5	72 %		30-130
Surrogate: Phenol-d6	67 %		15-110
Surrogate: p-Terphenyl-d14	53 %		30-130



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: RIP-3
 Date Sampled: 09/04/08 12:50
 Percent Solids: N/A
 Initial Volume: 850
 Final Volume: 0.25
 Extraction Method: 3520C

ESS Laboratory Work Order: 0809063
 ESS Laboratory Sample ID: 0809063-02
 Sample Matrix: Ground Water
 Analyst: VSC
 Prepared: 09/08/08

8270C(SIM) Semi-Volatile Organic Compounds

<u>Analyte</u>	<u>Results</u>	<u>Units</u>	<u>MRL</u>	<u>RI - GA</u>		<u>Analyzed</u>
				<u>Limit</u>	<u>DF</u>	
2-Methylnaphthalene	ND	mg/L	0.00024		1	09/12/08
Acenaphthene	ND	mg/L	0.00024		1	09/12/08
Acenaphthylene	ND	mg/L	0.00024		1	09/12/08
Anthracene	ND	mg/L	0.00024		1	09/12/08
Benzo(a)anthracene	B 0.00013	mg/L	0.00006		1	09/12/08
Benzo(a)pyrene	ND	mg/L	0.00006	0.0002	1	09/12/08
Benzo(b)fluoranthene	ND	mg/L	0.00006		1	09/12/08
Benzo(g,h,i)perylene	ND	mg/L	0.00024		1	09/12/08
Benzo(k)fluoranthene	ND	mg/L	0.00006		1	09/12/08
Chrysene	ND	mg/L	0.00006		1	09/12/08
Dibenzo(a,h)Anthracene	ND	mg/L	0.00006		1	09/12/08
Fluoranthene	ND	mg/L	0.00024		1	09/12/08
Fluorene	ND	mg/L	0.00024		1	09/12/08
Hexachlorobenzene	ND	mg/L	0.00024	0.001	1	09/12/08
Indeno(1,2,3-cd)Pyrene	ND	mg/L	0.00006		1	09/12/08
Naphthalene	ND	mg/L	0.00024	0.02	1	09/12/08
Pentachlorophenol	ND	mg/L	0.00118	0.001	1	09/12/08
Phenanthrene	ND	mg/L	0.00024		1	09/12/08
Pyrene	ND	mg/L	0.00024		1	09/12/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail
 Client Sample ID: Trip Blank
 Date Sampled: 09/04/08 00:00
 Percent Solids: N/A
 Initial Volume: 10
 Final Volume: 10
 Extraction Method: 5030B

ESS Laboratory Work Order: 0809063
 ESS Laboratory Sample ID: 0809063-03
 Sample Matrix: Aqueous
 Analyst: MD

8260B Volatile Organic Compounds

RI - GA

Analyte	Results	Units	MRL	Limit	DF	Analyzed
1,1,1,2-Tetrachloroethane	ND	mg/L	0.0010		1	09/09/08
1,1,1-Trichloroethane	ND	mg/L	0.0010		1	09/09/08
1,1,2,2-Tetrachloroethane	ND	mg/L	0.0005		1	09/09/08
1,1,2-Trichloroethane	ND	mg/L	0.0010		1	09/09/08
1,1-Dichloroethane	ND	mg/L	0.0010		1	09/09/08
1,1-Dichloroethene	ND	mg/L	0.0010		1	09/09/08
1,1-Dichloropropene	ND	mg/L	0.0020		1	09/09/08
1,2,3-Trichlorobenzene	ND	mg/L	0.0010		1	09/09/08
1,2,3-Trichloropropane	ND	mg/L	0.0010		1	09/09/08
1,2,4-Trichlorobenzene	ND	mg/L	0.0010		1	09/09/08
1,2,4-Trimethylbenzene	ND	mg/L	0.0010		1	09/09/08
1,2-Dibromo-3-Chloropropane	ND	mg/L	0.0050		1	09/09/08
1,2-Dibromoethane	ND	mg/L	0.0010		1	09/09/08
1,2-Dichlorobenzene	ND	mg/L	0.0010		1	09/09/08
1,2-Dichloroethane	ND	mg/L	0.0010		1	09/09/08
1,2-Dichloropropane	ND	mg/L	0.0010		1	09/09/08
1,3,5-Trimethylbenzene	ND	mg/L	0.0010		1	09/09/08
1,3-Dichlorobenzene	ND	mg/L	0.0010		1	09/09/08
1,3-Dichloropropane	ND	mg/L	0.0010		1	09/09/08
1,4-Dichlorobenzene	ND	mg/L	0.0010		1	09/09/08
1,4-Dioxane - Screen	ND	mg/L	0.500		1	09/09/08
1-Chlorohexane	ND	mg/L	0.0010		1	09/09/08
2,2-Dichloropropane	ND	mg/L	0.0010		1	09/09/08
2-Butanone	ND	mg/L	0.0250		1	09/09/08
2-Chlorotoluene	ND	mg/L	0.0010		1	09/09/08
2-Hexanone	ND	mg/L	0.0100		1	09/09/08
4-Chlorotoluene	ND	mg/L	0.0010		1	09/09/08
4-Isopropyltoluene	ND	mg/L	0.0010		1	09/09/08
4-Methyl-2-Pentanone	ND	mg/L	0.0250		1	09/09/08
Acetone	ND	mg/L	0.0250		1	09/09/08
Benzene	ND	mg/L	0.0010		1	09/09/08
Bromobenzene	ND	mg/L	0.0020		1	09/09/08
Bromochloromethane	ND	mg/L	0.0010		1	09/09/08
Bromodichloromethane	ND	mg/L	0.0006		1	09/09/08
Bromoform	ND	mg/L	0.0010		1	09/09/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: Trip Blank
Date Sampled: 09/04/08 00:00
Percent Solids: N/A
Initial Volume: 10
Final Volume: 10
Extraction Method: 5030B

ESS Laboratory Work Order: 0809063
ESS Laboratory Sample ID: 0809063-03
Sample Matrix: Aqueous
Analyst: MD

8260B Volatile Organic Compounds

Bromomethane	ND	mg/L	0.0020	1	09/09/08
Carbon Disulfide	ND	mg/L	0.0010	1	09/09/08
Carbon Tetrachloride	ND	mg/L	0.0010	1	09/09/08
Chlorobenzene	ND	mg/L	0.0010	1	09/09/08
Chloroethane	ND	mg/L	0.0020	1	09/09/08
Chloroform	ND	mg/L	0.0010	1	09/09/08
Chloromethane	ND	mg/L	0.0020	1	09/09/08
cis-1,2-Dichloroethene	ND	mg/L	0.0010	1	09/09/08
cis-1,3-Dichloropropene	ND	mg/L	0.0004	1	09/09/08
Dibromochloromethane	ND	mg/L	0.0010	1	09/09/08
Dibromomethane	ND	mg/L	0.0010	1	09/09/08
Dichlorodifluoromethane	ND	mg/L	0.0020	1	09/09/08
Diethyl Ether	ND	mg/L	0.0010	1	09/09/08
Di-isopropyl ether	ND	mg/L	0.0010	1	09/09/08
Ethyl tertiary-butyl ether	ND	mg/L	0.0010	1	09/09/08
Ethylbenzene	ND	mg/L	0.0010	1	09/09/08
Hexachlorobutadiene	ND	mg/L	0.0006	1	09/09/08
Hexachloroethane	ND	mg/L	0.0010	1	09/09/08
Isopropylbenzene	ND	mg/L	0.0010	1	09/09/08
Methyl tert-Butyl Ether	ND	mg/L	0.0010	1	09/09/08
Methylene Chloride	ND	mg/L	0.0040	1	09/09/08
Naphthalene	ND	mg/L	0.0010	1	09/09/08
n-Butylbenzene	ND	mg/L	0.0010	1	09/09/08
n-Propylbenzene	ND	mg/L	0.0010	1	09/09/08
sec-Butylbenzene	ND	mg/L	0.0010	1	09/09/08
Styrene	ND	mg/L	0.0010	1	09/09/08
tert-Butylbenzene	ND	mg/L	0.0010	1	09/09/08
Tertiary-amyl methyl ether	ND	mg/L	0.0010	1	09/09/08
Tetrachloroethene	ND	mg/L	0.0010	1	09/09/08
Tetrahydrofuran	ND	mg/L	0.0050	1	09/09/08
Toluene	ND	mg/L	0.0010	1	09/09/08
trans-1,2-Dichloroethene	ND	mg/L	0.0010	1	09/09/08
trans-1,3-Dichloropropene	ND	mg/L	0.0005	1	09/09/08
Trichloroethene	ND	mg/L	0.0010	1	09/09/08
Trichlorofluoromethane	ND	mg/L	0.0010	1	09/09/08
Vinyl Acetate	ND	mg/L	0.0050	1	09/09/08



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail
Client Sample ID: Trip Blank
Date Sampled: 09/04/08 00:00
Percent Solids: N/A
Initial Volume: 10
Final Volume: 10
Extraction Method: 5030B

ESS Laboratory Work Order: 0809063
ESS Laboratory Sample ID: 0809063-03
Sample Matrix: Aqueous
Analyst: MD

8260B Volatile Organic Compounds

Vinyl Chloride	ND	mg/L	0.0010	1	09/09/08
Xylene O	ND	mg/L	0.0010	1	09/09/08
Xylene P,M	ND	mg/L	0.0020	1	09/09/08

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	97 %		70-130
Surrogate: 4-Bromofluorobenzene	104 %		70-130
Surrogate: Dibromofluoromethane	98 %		70-130
Surrogate: Toluene-d8	102 %		70-130



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809063

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
3005A/6000/7000 Total Metals										
Batch BI80419 - 3005A										
Blank										
Antimony	ND	0.0025	mg/L							
Arsenic	ND	0.0025	mg/L							
Beryllium	ND	0.0005	mg/L							
Cadmium	ND	0.0025	mg/L							
Chromium	ND	0.010	mg/L							
Copper	ND	0.010	mg/L							
Lead	ND	0.010	mg/L							
Nickel	ND	0.025	mg/L							
Selenium	ND	0.025	mg/L							
Silver	ND	0.005	mg/L							
Thallium	ND	0.0015	mg/L							
Zinc	ND	0.025	mg/L							
LCS										
Beryllium	0.0252	0.0005	mg/L	0.02500		101	80-120			
Cadmium	0.124	0.0025	mg/L	0.1250		99	80-120			
Chromium	0.254	0.010	mg/L	0.2500		101	80-120			
Copper	0.260	0.010	mg/L	0.2500		104	80-120			
Lead	0.260	0.010	mg/L	0.2500		104	80-120			
Nickel	0.258	0.025	mg/L	0.2500		103	80-120			
Selenium	0.502	0.025	mg/L	0.5000		100	80-120			
Silver	0.128	0.005	mg/L	0.1250		103	80-120			
Zinc	0.253	0.025	mg/L	0.2500		101	80-120			
LCS										
Antimony	0.0103	0.0025	mg/L	0.01000		103	80-120			
Arsenic	0.0098	0.0025	mg/L	0.01000		98	80-120			
Thallium	0.0097	0.0015	mg/L	0.01000		97	80-120			
LCS Dup										
Beryllium	0.0251	0.0005	mg/L	0.02500		101	80-120	0.2	20	
Cadmium	0.122	0.0025	mg/L	0.1250		98	80-120	1	20	
Chromium	0.247	0.010	mg/L	0.2500		99	80-120	3	20	
Copper	0.255	0.010	mg/L	0.2500		102	80-120	2	20	
Lead	0.257	0.010	mg/L	0.2500		103	80-120	1	20	
Nickel	0.252	0.025	mg/L	0.2500		101	80-120	2	20	
Selenium	0.495	0.025	mg/L	0.5000		99	80-120	1	20	
Silver	0.126	0.005	mg/L	0.1250		101	80-120	2	20	
Zinc	0.249	0.025	mg/L	0.2500		99	80-120	2	20	
LCS Dup										
Antimony	0.0105	0.0025	mg/L	0.01000		105	80-120	2	20	
Arsenic	0.0096	0.0025	mg/L	0.01000		96	80-120	2	20	
Thallium	0.0100	0.0015	mg/L	0.01000		100	80-120	3	20	
Batch BI80420 - 245.1/7470A										
Blank										
Mercury	ND	0.00050	mg/L							



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809063

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
3005A/6000/7000 Total Metals										
Batch BI80420 - 245.1/7470A										
LCS										
Mercury	0.00626	0.00050	mg/L	0.006000		104	80-120			
LCS Dup										
Mercury	0.00627	0.00050	mg/L	0.006000		104	80-120	0.09	20	
8100M Total Petroleum Hydrocarbons										
Batch BI80820 - 3510C										
Blank										
Decane (C10)	ND	0.005	mg/L							
Docosane (C22)	ND	0.005	mg/L							
Dodecane (C12)	ND	0.005	mg/L							
Eicosane (C20)	ND	0.005	mg/L							
Hexacosane (C26)	ND	0.005	mg/L							
Hexadecane (C16)	ND	0.005	mg/L							
Nonadecane (C19)	ND	0.005	mg/L							
Nonane (C9)	ND	0.005	mg/L							
Octacosane (C28)	ND	0.005	mg/L							
Octadecane (C18)	ND	0.005	mg/L							
Tetracosane (C24)	ND	0.005	mg/L							
Tetradecane (C14)	ND	0.005	mg/L							
Total Petroleum Hydrocarbons	ND	0.20	mg/L							
Triacontane (C30)	ND	0.005	mg/L							
<i>Surrogate: O-Terphenyl</i>	<i>0.0923</i>		mg/L	<i>0.1000</i>		<i>92</i>	<i>40-140</i>			
LCS										
Decane (C10)	0.041	0.005	mg/L	0.05000		83	40-140			
Docosane (C22)	0.045	0.005	mg/L	0.05000		89	40-140			
Dodecane (C12)	0.042	0.005	mg/L	0.05000		84	40-140			
Eicosane (C20)	0.045	0.005	mg/L	0.05000		90	40-140			
Hexacosane (C26)	0.044	0.005	mg/L	0.05000		88	40-140			
Hexadecane (C16)	0.044	0.005	mg/L	0.05000		88	40-140			
Nonadecane (C19)	0.046	0.005	mg/L	0.05000		93	40-140			
Nonane (C9)	0.036	0.005	mg/L	0.05000		72	30-140			
Octacosane (C28)	0.045	0.005	mg/L	0.05000		90	40-140			
Octadecane (C18)	0.044	0.005	mg/L	0.05000		88	40-140			
Tetracosane (C24)	0.045	0.005	mg/L	0.05000		91	40-140			
Tetradecane (C14)	0.044	0.005	mg/L	0.05000		87	40-140			
Triacontane (C30)	0.046	0.005	mg/L	0.05000		92	40-140			
<i>Surrogate: O-Terphenyl</i>	<i>0.0894</i>		mg/L	<i>0.1000</i>		<i>89</i>	<i>40-140</i>			
LCS Dup										
Decane (C10)	0.042	0.005	mg/L	0.05000		84	40-140	0.9	25	
Docosane (C22)	0.048	0.005	mg/L	0.05000		97	40-140	8	25	
Dodecane (C12)	0.044	0.005	mg/L	0.05000		89	40-140	5	25	
Eicosane (C20)	0.048	0.005	mg/L	0.05000		97	40-140	7	25	



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809063

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8100M Total Petroleum Hydrocarbons										
Batch BI80820 - 3510C										
Hexacosane (C26)	0.048	0.005	mg/L	0.05000		96	40-140	8	25	
Hexadecane (C16)	0.046	0.005	mg/L	0.05000		92	40-140	5	25	
Nonadecane (C19)	0.050	0.005	mg/L	0.05000		100	40-140	7	25	
Nonane (C9)	0.036	0.005	mg/L	0.05000		72	30-140	0.3	25	
Octacosane (C28)	0.049	0.005	mg/L	0.05000		98	40-140	8	25	
Octadecane (C18)	0.047	0.005	mg/L	0.05000		94	40-140	6	25	
Tetracosane (C24)	0.049	0.005	mg/L	0.05000		99	40-140	8	25	
Tetradecane (C14)	0.045	0.005	mg/L	0.05000		91	40-140	4	25	
Triacontane (C30)	0.050	0.005	mg/L	0.05000		100	40-140	8	25	

<i>Surrogate: O-Terphenyl</i>	<i>0.0969</i>		mg/L	<i>0.1000</i>		<i>97</i>	<i>40-140</i>			
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8260B Volatile Organic Compounds

Batch BI80908 - 5030B

Blank

1,1,1,2-Tetrachloroethane	ND	0.0010	mg/L							
1,1,1-Trichloroethane	ND	0.0010	mg/L							
1,1,2,2-Tetrachloroethane	ND	0.0005	mg/L							
1,1,2-Trichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethane	ND	0.0010	mg/L							
1,1-Dichloroethene	ND	0.0010	mg/L							
1,1-Dichloropropene	ND	0.0020	mg/L							
1,2,3-Trichlorobenzene	ND	0.0010	mg/L							
1,2,3-Trichloropropane	ND	0.0010	mg/L							
1,2,4-Trichlorobenzene	ND	0.0010	mg/L							
1,2,4-Trimethylbenzene	ND	0.0010	mg/L							
1,2-Dibromo-3-Chloropropane	ND	0.0050	mg/L							
1,2-Dibromoethane	ND	0.0010	mg/L							
1,2-Dichlorobenzene	ND	0.0010	mg/L							
1,2-Dichloroethane	ND	0.0010	mg/L							
1,2-Dichloropropane	ND	0.0010	mg/L							
1,3,5-Trimethylbenzene	ND	0.0010	mg/L							
1,3-Dichlorobenzene	ND	0.0010	mg/L							
1,3-Dichloropropane	ND	0.0010	mg/L							
1,4-Dichlorobenzene	ND	0.0010	mg/L							
1,4-Dioxane - Screen	ND	0.500	mg/L							
1-Chlorohexane	ND	0.0010	mg/L							
2,2-Dichloropropane	ND	0.0010	mg/L							
2-Butanone	ND	0.0250	mg/L							
2-Chlorotoluene	ND	0.0010	mg/L							
2-Hexanone	ND	0.0100	mg/L							
4-Chlorotoluene	ND	0.0010	mg/L							
4-Isopropyltoluene	ND	0.0010	mg/L							
4-Methyl-2-Pentanone	ND	0.0250	mg/L							
Acetone	ND	0.0250	mg/L							
Benzene	ND	0.0010	mg/L							



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809063

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8260B Volatile Organic Compounds

Batch B180908 - 5030B

Bromobenzene	ND	0.0020	mg/L							
Bromochloromethane	ND	0.0010	mg/L							
Bromodichloromethane	ND	0.0006	mg/L							
Bromoform	ND	0.0010	mg/L							
Bromomethane	ND	0.0020	mg/L							
Carbon Disulfide	ND	0.0010	mg/L							
Carbon Tetrachloride	ND	0.0010	mg/L							
Chlorobenzene	ND	0.0010	mg/L							
Chloroethane	ND	0.0020	mg/L							
Chloroform	ND	0.0010	mg/L							
Chloromethane	ND	0.0020	mg/L							
cis-1,2-Dichloroethene	ND	0.0010	mg/L							
cis-1,3-Dichloropropene	ND	0.0004	mg/L							
Dibromochloromethane	ND	0.0010	mg/L							
Dibromomethane	ND	0.0010	mg/L							
Dichlorodifluoromethane	ND	0.0020	mg/L							
Diethyl Ether	ND	0.0010	mg/L							
Di-Isopropyl ether	ND	0.0010	mg/L							
Ethyl tertiary-butyl ether	ND	0.0010	mg/L							
Ethylbenzene	ND	0.0010	mg/L							
Hexachlorobutadiene	ND	0.0006	mg/L							
Hexachloroethane	ND	0.0010	mg/L							
Isopropylbenzene	ND	0.0010	mg/L							
Methyl tert-Butyl Ether	ND	0.0010	mg/L							
Methylene Chloride	ND	0.0040	mg/L							
Naphthalene	ND	0.0010	mg/L							
n-Butylbenzene	ND	0.0010	mg/L							
n-Propylbenzene	ND	0.0010	mg/L							
sec-Butylbenzene	ND	0.0010	mg/L							
Styrene	ND	0.0010	mg/L							
tert-Butylbenzene	ND	0.0010	mg/L							
Tertiary-amyl methyl ether	ND	0.0010	mg/L							
Tetrachloroethene	ND	0.0010	mg/L							
Tetrahydrofuran	ND	0.0050	mg/L							
Toluene	ND	0.0010	mg/L							
trans-1,2-Dichloroethene	ND	0.0010	mg/L							
trans-1,3-Dichloropropene	ND	0.0004	mg/L							
Trichloroethene	ND	0.0010	mg/L							
Trichlorofluoromethane	ND	0.0010	mg/L							
Vinyl Acetate	ND	0.0050	mg/L							
Vinyl Chloride	ND	0.0010	mg/L							
Xylene O	ND	0.0010	mg/L							
Xylene P,M	ND	0.0020	mg/L							
Surrogate: 1,2-Dichloroethane-d4	0.0250		mg/L	0.02500		100	70-130			
Surrogate: 4-Bromofluorobenzene	0.0264		mg/L	0.02500		106	70-130			
Surrogate: Dibromofluoromethane	0.0250		mg/L	0.02500		100	70-130			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809063

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8260B Volatile Organic Compounds

Batch **8180908 - 50308**

Surrogate: Toluene-d8 0.0251 mg/L 0.02500 100 70-130

LCS

1,1,1,2-Tetrachloroethane	8.92		ug/L	10.00		89	70-130			
1,1,1-Trichloroethane	8.67		ug/L	10.00		87	70-130			
1,1,2,2-Tetrachloroethane	8.58		ug/L	10.00		86	70-130			
1,1,2-Trichloroethane	8.82		ug/L	10.00		88	70-130			
1,1-Dichloroethane	8.56		ug/L	10.00		86	70-130			
1,1-Dichloroethene	9.18		ug/L	10.00		92	70-130			
1,1-Dichloropropene	8.71		ug/L	10.00		87	70-130			
1,2,3-Trichlorobenzene	11.7		ug/L	10.00		117	70-130			
1,2,3-Trichloropropane	8.39		ug/L	10.00		84	70-130			
1,2,4-Trichlorobenzene	10.2		ug/L	10.00		102	70-130			
1,2,4-Trimethylbenzene	9.65		ug/L	10.00		96	70-130			
1,2-Dibromo-3-Chloropropane	8.26		ug/L	10.00		83	70-130			
1,2-Dibromoethane	8.91		ug/L	10.00		89	70-130			
1,2-Dichlorobenzene	9.26		ug/L	10.00		93	70-130			
1,2-Dichloroethane	8.77		ug/L	10.00		88	70-130			
1,2-Dichloropropane	8.89		ug/L	10.00		89	70-130			
1,3,5-Trimethylbenzene	9.57		ug/L	10.00		96	70-130			
1,3-Dichlorobenzene	9.22		ug/L	10.00		92	70-130			
1,3-Dichloropropane	9.36		ug/L	10.00		94	70-130			
1,4-Dichlorobenzene	8.67		ug/L	10.00		87	70-130			
1,4-Dioxane - Screen	498		ug/L	200.0		249	0-332			
1-Chlorohexane	10.0		ug/L	10.00		100	70-130			
2,2-Dichloropropane	8.88		ug/L	10.00		89	70-130			
2-Butanone	43.6		ug/L	50.00		87	70-130			
2-Chlorotoluene	9.41		ug/L	10.00		94	70-130			
2-Hexanone	53.4		ug/L	50.00		107	70-130			
4-Chlorotoluene	9.26		ug/L	10.00		93	70-130			
4-Isopropyltoluene	9.03		ug/L	10.00		90	70-130			
4-Methyl-2-Pentanone	48.4		ug/L	50.00		97	70-130			
Acetone	48.1		ug/L	50.00		96	70-130			
Benzene	9.01		ug/L	10.00		90	70-130			
Bromobenzene	9.17		ug/L	10.00		92	70-130			
Bromochloromethane	8.88		ug/L	10.00		89	70-130			
Bromodichloromethane	9.07		ug/L	10.00		91	70-130			
Bromoform	9.51		ug/L	10.00		95	70-130			
Bromomethane	9.42		ug/L	10.00		94	70-130			
Carbon Disulfide	10.2		ug/L	10.00		102	70-130			
Carbon Tetrachloride	8.74		ug/L	10.00		87	70-130			
Chlorobenzene	9.10		ug/L	10.00		91	70-130			
Chloroethane	9.10		ug/L	10.00		91	70-130			
Chloroform	8.76		ug/L	10.00		88	70-130			
Chloromethane	9.27		ug/L	10.00		93	70-130			
cis-1,2-Dichloroethene	9.06		ug/L	10.00		91	70-130			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809063

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8260B Volatile Organic Compounds

Batch B180908 - 50308

cis-1,3-Dichloropropene	8.82		ug/L	10.00		88	70-130			
Dibromochloromethane	8.86		ug/L	10.00		89	70-130			
Dibromomethane	8.69		ug/L	10.00		87	70-130			
Dichlorodifluoromethane	9.11		ug/L	10.00		91	70-130			
Diethyl Ether	9.25		ug/L	10.00		92	70-130			
Di-Isopropyl ether	9.34		ug/L	10.00		93	70-130			
Ethyl tertiary-butyl ether	9.06		ug/L	10.00		91	70-130			
Ethylbenzene	9.36		ug/L	10.00		94	70-130			
Hexachlorobutadiene	10.8		ug/L	10.00		108	70-130			
Hexachloroethane	9.10		ug/L	10.00		91	70-130			
Isopropylbenzene	8.20		ug/L	10.00		82	70-130			
Methyl tert-Butyl Ether	9.21		ug/L	10.00		92	70-130			
Methylene Chloride	9.44		ug/L	10.00		94	70-130			
Naphthalene	10.5		ug/L	10.00		105	70-130			
n-Butylbenzene	9.90		ug/L	10.00		99	70-130			
n-Propylbenzene	9.11		ug/L	10.00		91	70-130			
sec-Butylbenzene	9.49		ug/L	10.00		95	70-130			
Styrene	9.32		ug/L	10.00		93	70-130			
tert-Butylbenzene	9.36		ug/L	10.00		94	70-130			
Tertiary-amyl methyl ether	9.75		ug/L	10.00		98	70-130			
Tetrachloroethene	8.97		ug/L	10.00		90	70-130			
Tetrahydrofuran	9.07		ug/L	10.00		91	70-130			
Toluene	9.36		ug/L	10.00		94	70-130			
trans-1,2-Dichloroethene	9.61		ug/L	10.00		96	70-130			
trans-1,3-Dichloropropene	8.18		ug/L	10.00		82	70-130			
Trichloroethene	9.02		ug/L	10.00		90	70-130			
Trichlorofluoromethane	7.93		ug/L	10.00		79	70-130			
Vinyl Acetate	10.1		ug/L	10.00		101	70-130			
Vinyl Chloride	10.1		ug/L	10.00		101	70-130			
Xylene O	9.52		ug/L	10.00		95	70-130			
Xylene P,M	18.8		ug/L	20.00		94	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0237		mg/L	0.02500		95	70-130			
Surrogate: 4-Bromofluorobenzene	0.0262		mg/L	0.02500		105	70-130			
Surrogate: Dibromofluoromethane	0.0237		mg/L	0.02500		95	70-130			
Surrogate: Toluene-d8	0.0259		mg/L	0.02500		103	70-130			

LCS Dup

1,1,1,2-Tetrachloroethane	8.82		ug/L	10.00		88	70-130	1	20	
1,1,1-Trichloroethane	8.85		ug/L	10.00		88	70-130	2	20	
1,1,2,2-Tetrachloroethane	9.04		ug/L	10.00		90	70-130	5	20	
1,1,2-Trichloroethane	9.42		ug/L	10.00		94	70-130	7	20	
1,1-Dichloroethane	8.84		ug/L	10.00		88	70-130	3	20	
1,1-Dichloroethene	9.22		ug/L	10.00		92	70-130	0.4	20	
1,1-Dichloropropene	9.08		ug/L	10.00		91	70-130	4	20	
1,2,3-Trichlorobenzene	10.5		ug/L	10.00		105	70-130	12	20	
1,2,3-Trichloropropane	9.02		ug/L	10.00		90	70-130	7	20	
1,2,4-Trichlorobenzene	9.87		ug/L	10.00		99	70-130	3	20	



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809063

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8260B Volatile Organic Compounds

Batch B180908 - 5030B

1,2,4-Trimethylbenzene	9.52		ug/L	10.00		95	70-130	1	20	
1,2-Dibromo-3-Chloropropane	8.41		ug/L	10.00		84	70-130	2	20	
1,2-Dibromoethane	9.10		ug/L	10.00		91	70-130	2	20	
1,2-Dichlorobenzene	9.35		ug/L	10.00		94	70-130	1	20	
1,2-Dichloroethane	8.76		ug/L	10.00		88	70-130	0.1	20	
1,2-Dichloropropane	9.00		ug/L	10.00		90	70-130	1	20	
1,3,5-Trimethylbenzene	9.51		ug/L	10.00		95	70-130	0.6	20	
1,3-Dichlorobenzene	9.09		ug/L	10.00		91	70-130	1	20	
1,3-Dichloropropane	9.21		ug/L	10.00		92	70-130	2	20	
1,4-Dichlorobenzene	8.94		ug/L	10.00		89	70-130	3	20	
1,4-Dioxane - Screen	291		ug/L	200.0		145	0-332	53	200	
1-Chlorohexane	10.1		ug/L	10.00		101	70-130	0.9	20	
2,2-Dichloropropane	9.08		ug/L	10.00		91	70-130	2	20	
2-Butanone	46.8		ug/L	50.00		94	70-130	7	20	
2-Chlorotoluene	9.43		ug/L	10.00		94	70-130	0.2	20	
2-Hexanone	53.6		ug/L	50.00		107	70-130	0.4	20	
4-Chlorotoluene	9.31		ug/L	10.00		93	70-130	0.5	20	
4-Isopropyltoluene	8.83		ug/L	10.00		88	70-130	2	20	
4-Methyl-2-Pentanone	49.1		ug/L	50.00		98	70-130	1	20	
Acetone	50.6		ug/L	50.00		101	70-130	5	20	
Benzene	8.92		ug/L	10.00		89	70-130	1	20	
Bromobenzene	9.40		ug/L	10.00		94	70-130	2	20	
Bromochloromethane	9.16		ug/L	10.00		92	70-130	3	20	
Bromodichloromethane	9.02		ug/L	10.00		90	70-130	0.6	20	
Bromoform	9.59		ug/L	10.00		96	70-130	0.8	20	
Bromomethane	8.98		ug/L	10.00		90	70-130	5	20	
Carbon Disulfide	10.1		ug/L	10.00		101	70-130	0.6	20	
Carbon Tetrachloride	8.88		ug/L	10.00		89	70-130	2	20	
Chlorobenzene	8.90		ug/L	10.00		89	70-130	2	20	
Chloroethane	9.10		ug/L	10.00		91	70-130	0	20	
Chloroform	9.03		ug/L	10.00		90	70-130	3	20	
Chloromethane	9.46		ug/L	10.00		95	70-130	2	20	
cis-1,2-Dichloroethene	9.04		ug/L	10.00		90	70-130	0.2	20	
cis-1,3-Dichloropropene	8.97		ug/L	10.00		90	70-130	2	20	
Dibromochloromethane	8.99		ug/L	10.00		90	70-130	1	20	
Dibromomethane	8.84		ug/L	10.00		88	70-130	2	20	
Dichlorodifluoromethane	9.39		ug/L	10.00		94	70-130	3	20	
Diethyl Ether	9.85		ug/L	10.00		98	70-130	6	20	
Di-isopropyl ether	9.86		ug/L	10.00		99	70-130	5	20	
Ethyl tertiary-butyl ether	9.29		ug/L	10.00		93	70-130	3	20	
Ethylbenzene	9.26		ug/L	10.00		93	70-130	1	20	
Hexachlorobutadiene	10.0		ug/L	10.00		100	70-130	7	20	
Hexachloroethane	8.69		ug/L	10.00		87	70-130	5	20	
Isopropylbenzene	8.07		ug/L	10.00		81	70-130	2	20	
Methyl tert-Butyl Ether	9.42		ug/L	10.00		94	70-130	2	20	
Methylene Chloride	9.26		ug/L	10.00		93	70-130	2	20	



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.

Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809063

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8260B Volatile Organic Compounds

Batch B180908 - 5030B

Naphthalene	9.76		ug/L	10.00		98	70-130	8	20	
n-Butylbenzene	9.54		ug/L	10.00		95	70-130	4	20	
n-Propylbenzene	9.27		ug/L	10.00		93	70-130	2	20	
sec-Butylbenzene	9.38		ug/L	10.00		94	70-130	1	20	
Styrene	9.37		ug/L	10.00		94	70-130	0.5	20	
tert-Butylbenzene	9.39		ug/L	10.00		94	70-130	0.3	20	
Tertiary-amyl methyl ether	9.84		ug/L	10.00		98	70-130	0.9	20	
Tetrachloroethene	9.14		ug/L	10.00		91	70-130	2	20	
Tetrahydrofuran	10.8		ug/L	10.00		108	70-130	18	20	
Toluene	9.45		ug/L	10.00		94	70-130	1	20	
trans-1,2-Dichloroethene	9.57		ug/L	10.00		96	70-130	0.4	20	
trans-1,3-Dichloropropene	8.36		ug/L	10.00		84	70-130	2	20	
Trichloroethene	8.98		ug/L	10.00		90	70-130	0.4	20	
Trichlorofluoromethane	8.18		ug/L	10.00		82	70-130	3	20	
Vinyl Acetate	10.0		ug/L	10.00		100	70-130	1	20	
Vinyl Chloride	10.2		ug/L	10.00		102	70-130	1	20	
Xylene O	9.36		ug/L	10.00		94	70-130	2	20	
Xylene P,M	18.5		ug/L	20.00		92	70-130	2	20	
Surrogate: 1,2-Dichloroethane-d4	0.0245		mg/L	0.02500		98	70-130			
Surrogate: 4-Bromofluorobenzene	0.0259		mg/L	0.02500		103	70-130			
Surrogate: Dibromofluoromethane	0.0243		mg/L	0.02500		97	70-130			
Surrogate: Toluene-d8	0.0262		mg/L	0.02500		105	70-130			

Matrix Spike Source: 0809063-01

1,1,1,2-Tetrachloroethane	8.88		ug/L	10.00	ND	89	70-130			
1,1,1-Trichloroethane	9.23		ug/L	10.00	ND	92	70-130			
1,1,2,2-Tetrachloroethane	9.17		ug/L	10.00	ND	92	70-130			
1,1,2-Trichloroethane	9.61		ug/L	10.00	ND	96	70-130			
1,1-Dichloroethane	9.10		ug/L	10.00	ND	91	70-130			
1,1-Dichloroethene	9.26		ug/L	10.00	ND	93	70-130			
1,1-Dichloropropene	8.42		ug/L	10.00	ND	84	70-130			
1,2,3-Trichlorobenzene	8.38		ug/L	10.00	ND	84	70-130			
1,2,3-Trichloropropane	9.07		ug/L	10.00	ND	91	70-130			
1,2,4-Trichlorobenzene	7.88		ug/L	10.00	ND	79	70-130			
1,2,4-Trimethylbenzene	9.19		ug/L	10.00	ND	92	70-130			
1,2-Dibromo-3-Chloropropane	8.04		ug/L	10.00	ND	80	70-130			
1,2-Dibromoethane	8.97		ug/L	10.00	ND	90	70-130			
1,2-Dichlorobenzene	9.10		ug/L	10.00	ND	91	70-130			
1,2-Dichloroethane	9.35		ug/L	10.00	ND	94	70-130			
1,2-Dichloropropane	9.32		ug/L	10.00	ND	93	70-130			
1,3,5-Trimethylbenzene	8.89		ug/L	10.00	ND	89	70-130			
1,3-Dichlorobenzene	9.20		ug/L	10.00	ND	92	70-130			
1,3-Dichloropropane	9.33		ug/L	10.00	ND	93	70-130			
1,4-Dichlorobenzene	8.95		ug/L	10.00	ND	90	70-130			
1,4-Dioxane - Screen	104		ug/L	200.0	ND	52	0-332			
1-Chlorohexane	9.25		ug/L	10.00	ND	92	70-130			
2,2-Dichloropropane	8.70		ug/L	10.00	ND	87	70-130			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809063

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch BI80908 - 5030B										
2-Butanone	44.1		ug/L	50.00	ND	88	70-130			
2-Chlorotoluene	9.13		ug/L	10.00	ND	91	70-130			
2-Hexanone	44.6		ug/L	50.00	ND	89	70-130			
4-Chlorotoluene	8.86		ug/L	10.00	ND	89	70-130			
4-Isopropyltoluene	8.44		ug/L	10.00	ND	84	70-130			
4-Methyl-2-Pentanone	44.3		ug/L	50.00	ND	89	70-130			
Acetone	57.8		ug/L	50.00	9.09	97	70-130			
Benzene	9.50		ug/L	10.00	0.150	94	70-130			
Bromobenzene	9.00		ug/L	10.00	ND	90	70-130			
Bromochloromethane	9.40		ug/L	10.00	ND	94	70-130			
Bromodichloromethane	9.16		ug/L	10.00	ND	92	70-130			
Bromoform	9.26		ug/L	10.00	ND	93	70-130			
Bromomethane	8.64		ug/L	10.00	ND	86	70-130			
Carbon Disulfide	10.9		ug/L	10.00	0.150	108	70-130			
Carbon Tetrachloride	9.38		ug/L	10.00	ND	94	70-130			
Chlorobenzene	9.13		ug/L	10.00	ND	91	70-130			
Chloroethane	9.92		ug/L	10.00	ND	99	70-130			
Chloroform	9.42		ug/L	10.00	ND	94	70-130			
Chloromethane	9.50		ug/L	10.00	ND	95	70-130			
cis-1,2-Dichloroethene	9.18		ug/L	10.00	ND	92	70-130			
cis-1,3-Dichloropropene	8.10		ug/L	10.00	ND	81	70-130			
Dibromochloromethane	8.74		ug/L	10.00	ND	87	70-130			
Dibromomethane	9.16		ug/L	10.00	ND	92	70-130			
Dichlorodifluoromethane	10.1		ug/L	10.00	ND	101	70-130			
Diethyl Ether	9.23		ug/L	10.00	ND	92	70-130			
Di-isopropyl ether	8.77		ug/L	10.00	ND	88	70-130			
Ethyl tertiary-butyl ether	8.47		ug/L	10.00	ND	85	70-130			
Ethylbenzene	8.85		ug/L	10.00	ND	88	70-130			
Hexachlorobutadiene	7.82		ug/L	10.00	ND	78	70-130			
Hexachloroethane	8.85		ug/L	10.00	ND	88	70-130			
Isopropylbenzene	7.57		ug/L	10.00	ND	76	70-130			
Methyl tert-Butyl Ether	8.37		ug/L	10.00	ND	84	70-130			
Methylene Chloride	9.42		ug/L	10.00	ND	94	70-130			
Naphthalene	8.10		ug/L	10.00	ND	81	70-130			
n-Butylbenzene	8.98		ug/L	10.00	ND	90	70-130			
n-Propylbenzene	8.84		ug/L	10.00	ND	88	70-130			
sec-Butylbenzene	9.01		ug/L	10.00	ND	90	70-130			
Styrene	8.56		ug/L	10.00	ND	86	70-130			
tert-Butylbenzene	9.16		ug/L	10.00	ND	92	70-130			
Tertiary-amyyl methyl ether	8.87		ug/L	10.00	ND	89	70-130			
Tetrachloroethene	9.00		ug/L	10.00	ND	90	70-130			
Tetrahydrofuran	8.34		ug/L	10.00	ND	83	70-130			
Toluene	9.52		ug/L	10.00	0.130	94	70-130			
trans-1,2-Dichloroethene	9.46		ug/L	10.00	ND	95	70-130			
trans-1,3-Dichloropropene	7.58		ug/L	10.00	ND	76	70-130			
Trichloroethene	8.95		ug/L	10.00	ND	90	70-130			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809063

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8260B Volatile Organic Compounds

Batch B180908 - 50308

Trichlorofluoromethane	8.71		ug/L	10.00	ND	87	70-130			
Vinyl Acetate	9.15		ug/L	10.00	ND	92	70-130			
Vinyl Chloride	11.2		ug/L	10.00	ND	112	70-130			
Xylene O	9.27		ug/L	10.00	ND	93	70-130			
Xylene P,M	18.1		ug/L	20.00	ND	91	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0251		mg/L	0.02500		101	70-130			
Surrogate: 4-Bromofluorobenzene	0.0250		mg/L	0.02500		100	70-130			
Surrogate: Dibromofluoromethane	0.0242		mg/L	0.02500		97	70-130			
Surrogate: Toluene-d8	0.0252		mg/L	0.02500		101	70-130			

Matrix Spike Dup Source: 0809063-01

1,1,1,2-Tetrachloroethane	8.79		ug/L	10.00	ND	88	70-130	1	20	
1,1,1-Trichloroethane	9.15		ug/L	10.00	ND	92	70-130	0.9	20	
1,1,2,2-Tetrachloroethane	9.13		ug/L	10.00	ND	91	70-130	0.4	20	
1,1,2-Trichloroethane	9.42		ug/L	10.00	ND	94	70-130	2	20	
1,1-Dichloroethane	9.02		ug/L	10.00	ND	90	70-130	0.9	20	
1,1-Dichloroethene	9.46		ug/L	10.00	ND	95	70-130	2	20	
1,1-Dichloropropene	8.60		ug/L	10.00	ND	86	70-130	2	20	
1,2,3-Trichlorobenzene	9.48		ug/L	10.00	ND	95	70-130	12	20	
1,2,3-Trichloropropane	9.12		ug/L	10.00	ND	91	70-130	0.5	20	
1,2,4-Trichlorobenzene	8.55		ug/L	10.00	ND	86	70-130	8	20	
1,2,4-Trimethylbenzene	9.59		ug/L	10.00	ND	96	70-130	4	20	
1,2-Dibromo-3-Chloropropane	8.46		ug/L	10.00	ND	85	70-130	5	20	
1,2-Dibromoethane	8.70		ug/L	10.00	ND	87	70-130	3	20	
1,2-Dichlorobenzene	9.32		ug/L	10.00	ND	93	70-130	2	20	
1,2-Dichloroethane	9.03		ug/L	10.00	ND	90	70-130	3	20	
1,2-Dichloropropane	9.03		ug/L	10.00	ND	90	70-130	3	20	
1,3,5-Trimethylbenzene	9.23		ug/L	10.00	ND	92	70-130	4	20	
1,3-Dichlorobenzene	9.42		ug/L	10.00	ND	94	70-130	2	20	
1,3-Dichloropropane	9.22		ug/L	10.00	ND	92	70-130	1	20	
1,4-Dichlorobenzene	9.00		ug/L	10.00	ND	90	70-130	0.6	20	
1,4-Dioxane - Screen	215		ug/L	200.0	ND	108	0-332	70	200	
1-Chlorohexane	9.33		ug/L	10.00	ND	93	70-130	0.9	20	
2,2-Dichloropropane	8.61		ug/L	10.00	ND	86	70-130	1	20	
2-Butanone	44.8		ug/L	50.00	ND	90	70-130	2	20	
2-Chlorotoluene	9.49		ug/L	10.00	ND	95	70-130	4	20	
2-Hexanone	45.1		ug/L	50.00	ND	90	70-130	1	20	
4-Chlorotoluene	9.18		ug/L	10.00	ND	92	70-130	4	20	
4-Isopropyltoluene	8.77		ug/L	10.00	ND	88	70-130	4	20	
4-Methyl-2-Pentanone	45.7		ug/L	50.00	ND	91	70-130	3	20	
Acetone	56.2		ug/L	50.00	9.09	94	70-130	3	20	
Benzene	9.50		ug/L	10.00	0.150	94	70-130	0	20	
Bromobenzene	9.25		ug/L	10.00	ND	92	70-130	3	20	
Bromochloromethane	9.40		ug/L	10.00	ND	94	70-130	0	20	
Bromodichloromethane	9.24		ug/L	10.00	ND	92	70-130	0.9	20	
Bromoform	9.05		ug/L	10.00	ND	90	70-130	2	20	
Bromomethane	8.95		ug/L	10.00	ND	90	70-130	4	20	



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.

Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809063

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8260B Volatile Organic Compounds

Batch B180908 - 50308

Carbon Disulfide	10.7		ug/L	10.00	0.150	106	70-130	2	20	
Carbon Tetrachloride	9.31		ug/L	10.00	ND	93	70-130	0.7	20	
Chlorobenzene	9.04		ug/L	10.00	ND	90	70-130	1	20	
Chloroethane	9.53		ug/L	10.00	ND	95	70-130	4	20	
Chloroform	9.70		ug/L	10.00	ND	97	70-130	3	20	
Chloromethane	9.84		ug/L	10.00	ND	98	70-130	4	20	
cis-1,2-Dichloroethene	9.04		ug/L	10.00	ND	90	70-130	2	20	
cis-1,3-Dichloropropene	8.27		ug/L	10.00	ND	83	70-130	2	20	
Dibromochloromethane	8.79		ug/L	10.00	ND	88	70-130	0.6	20	
Dibromomethane	8.78		ug/L	10.00	ND	88	70-130	4	20	
Dichlorodifluoromethane	9.77		ug/L	10.00	ND	98	70-130	3	20	
Diethyl Ether	9.34		ug/L	10.00	ND	93	70-130	1	20	
DI-Isopropyl ether	9.10		ug/L	10.00	ND	91	70-130	4	20	
Ethyl tertiary-butyl ether	8.64		ug/L	10.00	ND	86	70-130	2	20	
Ethylbenzene	9.06		ug/L	10.00	ND	91	70-130	2	20	
Hexachlorobutadiene	8.40		ug/L	10.00	ND	84	70-130	7	20	
Hexachloroethane	8.94		ug/L	10.00	ND	89	70-130	1	20	
Isopropylbenzene	7.83		ug/L	10.00	ND	78	70-130	3	20	
Methyl tert-Butyl Ether	8.62		ug/L	10.00	ND	86	70-130	3	20	
Methylene Chloride	9.82		ug/L	10.00	ND	98	70-130	4	20	
Naphthalene	8.64		ug/L	10.00	ND	86	70-130	6	20	
n-Butylbenzene	9.13		ug/L	10.00	ND	91	70-130	2	20	
n-Propylbenzene	8.93		ug/L	10.00	ND	89	70-130	1	20	
sec-Butylbenzene	9.18		ug/L	10.00	ND	92	70-130	2	20	
Styrene	8.97		ug/L	10.00	ND	90	70-130	5	20	
tert-Butylbenzene	9.09		ug/L	10.00	ND	91	70-130	0.8	20	
Tertiary-amyl methyl ether	8.90		ug/L	10.00	ND	89	70-130	0.3	20	
Tetrachloroethene	8.73		ug/L	10.00	ND	87	70-130	3	20	
Tetrahydrofuran	8.89		ug/L	10.00	ND	89	70-130	6	20	
Toluene	9.65		ug/L	10.00	0.130	95	70-130	1	20	
trans-1,2-Dichloroethene	9.72		ug/L	10.00	ND	97	70-130	3	20	
trans-1,3-Dichloropropene	7.59		ug/L	10.00	ND	76	70-130	0.1	20	
Trichloroethene	9.04		ug/L	10.00	ND	90	70-130	1	20	
Trichlorofluoromethane	8.75		ug/L	10.00	ND	88	70-130	0.5	20	
Vinyl Acetate	9.28		ug/L	10.00	ND	93	70-130	1	20	
Vinyl Chloride	11.0		ug/L	10.00	ND	110	70-130	1	20	
Xylene O	9.32		ug/L	10.00	ND	93	70-130	0.5	20	
Xylene P,M	18.4		ug/L	20.00	ND	92	70-130	2	20	
Surrogate: 1,2-Dichloroethane-d4	0.0244		mg/L	0.02500		98	70-130			
Surrogate: 4-Bromofluorobenzene	0.0255		mg/L	0.02500		102	70-130			
Surrogate: Dibromofluoromethane	0.0247		mg/L	0.02500		99	70-130			
Surrogate: Toluene-d8	0.0251		mg/L	0.02500		101	70-130			

8270C Semi-Volatile Organic Compounds

Batch B180814 - 3520C



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809063

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

Batch B180814 - 3520C

Blank

1,1-Biphenyl	ND	0.01	mg/L
1,2,4-Trichlorobenzene	ND	0.01	mg/L
1,2-Dichlorobenzene	ND	0.01	mg/L
1,3-Dichlorobenzene	ND	0.01	mg/L
1,4-Dichlorobenzene	ND	0.01	mg/L
2,3,4,6-Tetrachlorophenol	ND	0.05	mg/L
2,4,5-Trichlorophenol	ND	0.01	mg/L
2,4,6-Trichlorophenol	ND	0.01	mg/L
2,4-Dichlorophenol	ND	0.01	mg/L
2,4-Dimethylphenol	ND	0.05	mg/L
2,4-Dinitrophenol	ND	0.05	mg/L
2,4-Dinitrotoluene	ND	0.01	mg/L
2,6-Dinitrotoluene	ND	0.01	mg/L
2-Chloronaphthalene	ND	0.01	mg/L
2-Chlorophenol	ND	0.01	mg/L
2-Methylphenol	ND	0.01	mg/L
2-Nitroaniline	ND	0.01	mg/L
2-Nitrophenol	ND	0.01	mg/L
3,3'-Dichlorobenzidine	ND	0.01	mg/L
3+4-Methylphenol	ND	0.02	mg/L
3-Nitroaniline	ND	0.01	mg/L
4,6-Dinitro-2-Methylphenol	ND	0.05	mg/L
4-Bromophenyl-phenylether	ND	0.01	mg/L
4-Chloro-3-Methylphenol	ND	0.01	mg/L
4-Chloroaniline	ND	0.02	mg/L
4-Chloro-phenyl-phenyl ether	ND	0.01	mg/L
4-Nitroaniline	ND	0.01	mg/L
4-Nitrophenol	ND	0.05	mg/L
Acetophenone	ND	0.01	mg/L
Aniline	ND	0.01	mg/L
Azobenzene	ND	0.02	mg/L
Benzoic Acid	ND	0.1	mg/L
Benzyl Alcohol	ND	0.01	mg/L
bis(2-Chloroethoxy)methane	ND	0.01	mg/L
bis(2-Chloroethyl)ether	ND	0.01	mg/L
bis(2-chloroisopropyl)Ether	ND	0.01	mg/L
bis(2-Ethylhexyl)phthalate	ND	0.006	mg/L
Butylbenzylphthalate	ND	0.01	mg/L
Carbazole	ND	0.01	mg/L
Dibenzofuran	ND	0.01	mg/L
Diethylphthalate	ND	0.01	mg/L
Dimethylphthalate	ND	0.01	mg/L
Di-n-butylphthalate	ND	0.01	mg/L
Di-n-octylphthalate	ND	0.01	mg/L
Hexachlorobutadiene	ND	0.01	mg/L



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
 Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809063

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8270C Semi-Volatile Organic Compounds										
Batch BI80814 - 3520C										
Hexachlorocyclopentadiene	ND	0.02	mg/L							
Hexachloroethane	ND	0.005	mg/L							
Isophorone	ND	0.01	mg/L							
Nitrobenzene	ND	0.01	mg/L							
N-Nitrosodimethylamine	ND	0.01	mg/L							
N-Nitroso-Di-n-Propylamine	ND	0.01	mg/L							
N-nitrosodiphenylamine	ND	0.01	mg/L							
Phenol	ND	0.01	mg/L							
Pyridine	ND	0.1	mg/L							
Surrogate: 1,2-Dichlorobenzene-d4	0.0621		mg/L	0.1000		62	30-130			
Surrogate: 2,4,6-Tribromophenol	0.120		mg/L	0.1500		80	15-110			
Surrogate: 2-Chlorophenol-d4	0.0835		mg/L	0.1500		56	15-110			
Surrogate: 2-Fluorobiphenyl	0.0732		mg/L	0.1000		73	30-130			
Surrogate: 2-Fluorophenol	0.0651		mg/L	0.1500		43	15-110			
Surrogate: Nitrobenzene-d5	0.0704		mg/L	0.1000		70	30-130			
Surrogate: Phenol-d6	0.0832		mg/L	0.1500		55	15-110			
Surrogate: p-Terphenyl-d14	0.0906		mg/L	0.1000		91	30-130			
LCS										
1,1-Biphenyl	0.07	0.01	mg/L	0.1000		71	40-140			
1,2,4-Trichlorobenzene	0.06	0.01	mg/L	0.1000		63	40-140			
1,2-Dichlorobenzene	0.05	0.01	mg/L	0.1000		48	40-140			
1,3-Dichlorobenzene	0.05	0.01	mg/L	0.1000		49	40-140			
1,4-Dichlorobenzene	0.05	0.01	mg/L	0.1000		52	40-140			
2,3,4,6-Tetrachlorophenol	0.08	0.05	mg/L	0.1000		84	40-140			
2,4,5-Trichlorophenol	0.09	0.01	mg/L	0.1000		90	30-130			
2,4,6-Trichlorophenol	0.08	0.01	mg/L	0.1000		79	30-130			
2,4-Dichlorophenol	0.08	0.01	mg/L	0.1000		75	30-130			
2,4-Dimethylphenol	0.07	0.05	mg/L	0.1000		66	30-130			
2,4-Dinitrophenol	0.05	0.05	mg/L	0.1000		52	30-130			
2,4-Dinitrotoluene	0.08	0.01	mg/L	0.1000		83	40-140			
2,6-Dinitrotoluene	0.08	0.01	mg/L	0.1000		78	40-140			
2-Chloronaphthalene	0.06	0.01	mg/L	0.1000		58	40-140			
2-Chlorophenol	0.06	0.01	mg/L	0.1000		57	30-130			
2-Methylphenol	0.06	0.01	mg/L	0.1000		63	30-130			
2-Nitroaniline	0.07	0.01	mg/L	0.1000		72	40-140			
2-Nitrophenol	0.07	0.01	mg/L	0.1000		73	30-130			
3,3'-Dichlorobenzidine	0.07	0.01	mg/L	0.1000		71	40-140			
3+4-Methylphenol	0.06	0.02	mg/L	0.2000		28	30-130			B-
3-Nitroaniline	0.08	0.01	mg/L	0.1000		80	40-140			
4,6-Dinitro-2-Methylphenol	0.08	0.05	mg/L	0.1000		83	30-130			
4-Bromophenyl-phenylether	0.07	0.01	mg/L	0.1000		74	40-140			
4-Chloro-3-Methylphenol	0.07	0.01	mg/L	0.1000		75	30-130			
4-Chloroaniline	0.06	0.02	mg/L	0.1000		61	40-140			
4-Chloro-phenyl-phenyl ether	0.07	0.01	mg/L	0.1000		72	40-140			
4-Nitroaniline	0.08	0.01	mg/L	0.1000		82	40-140			
4-Nitrophenol	0.09	0.05	mg/L	0.1000		88	30-130			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.

Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809063

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

Batch BI80814 - 3520C

Acetophenone	0.07	0.01	mg/L	0.1000		65	40-140			
Aniline	0.04	0.01	mg/L	0.1000		44	40-140			
Azobenzene	0.07	0.02	mg/L	0.1000		66	40-140			
Benzoic Acid	0.02	0.1	mg/L	0.1000		21	40-140			B-
Benzyl Alcohol	0.05	0.01	mg/L	0.1000		52	40-140			
bis(2-Chloroethoxy)methane	0.07	0.01	mg/L	0.1000		69	40-140			
bis(2-Chloroethyl)ether	0.04	0.01	mg/L	0.1000		40	40-140			
bis(2-chloroisopropyl)Ether	0.05	0.01	mg/L	0.1000		50	40-140			
bis(2-Ethylhexyl)phthalate	0.07	0.006	mg/L	0.1000		68	40-140			
Butylbenzylphthalate	0.07	0.01	mg/L	0.1000		67	40-140			
Carbazole	0.08	0.01	mg/L	0.1000		80	40-140			
Dibenzofuran	0.07	0.01	mg/L	0.1000		71	40-140			
Diethylphthalate	0.08	0.01	mg/L	0.1000		75	40-140			
Dimethylphthalate	0.08	0.01	mg/L	0.1000		78	40-140			
Di-n-butylphthalate	0.07	0.01	mg/L	0.1000		70	40-140			
Di-n-octylphthalate	0.06	0.01	mg/L	0.1000		64	40-140			
Hexachlorobutadiene	0.05	0.01	mg/L	0.1000		54	40-140			
Hexachlorocyclopentadiene	0.06	0.02	mg/L	0.1000		57	40-140			
Hexachloroethane	0.04	0.005	mg/L	0.1000		44	40-140			
Isophorone	0.06	0.01	mg/L	0.1000		61	40-140			
Nitrobenzene	0.06	0.01	mg/L	0.1000		61	40-140			
N-Nitrosodimethylamine	0.06	0.01	mg/L	0.1000		61	40-140			
N-Nitroso-Di-n-Propylamine	0.04	0.01	mg/L	0.1000		37	40-140			B-
N-nitrosodiphenylamine	0.08	0.01	mg/L	0.1000		77	40-140			
Phenol	0.05	0.01	mg/L	0.1000		49	30-130			
Pyridine	0.05	0.1	mg/L	0.1000		50	40-140			
Surrogate: 1,2-Dichlorobenzene-d4	0.0560		mg/L	0.1000		56	30-130			
Surrogate: 2,4,6-Tribromophenol	0.129		mg/L	0.1500		86	15-110			
Surrogate: 2-Chlorophenol-d4	0.0915		mg/L	0.1500		61	15-110			
Surrogate: 2-Fluorobiphenyl	0.0732		mg/L	0.1000		73	30-130			
Surrogate: 2-Fluorophenol	0.0757		mg/L	0.1500		50	15-110			
Surrogate: Nitrobenzene-d5	0.0610		mg/L	0.1000		61	30-130			
Surrogate: Phenol-d6	0.0810		mg/L	0.1500		54	15-110			
Surrogate: p-Terphenyl-d14	0.0815		mg/L	0.1000		82	30-130			

LCS Dup

1,1-Biphenyl	0.07	0.01	mg/L	0.1000		74	40-140	5	20	
1,2,4-Trichlorobenzene	0.06	0.01	mg/L	0.1000		64	40-140	1	20	
1,2-Dichlorobenzene	0.06	0.01	mg/L	0.1000		56	40-140	15	20	
1,3-Dichlorobenzene	0.05	0.01	mg/L	0.1000		46	40-140	7	20	
1,4-Dichlorobenzene	0.06	0.01	mg/L	0.1000		57	40-140	10	20	
2,3,4,6-Tetrachlorophenol	0.08	0.05	mg/L	0.1000		84	40-140	0.01	20	
2,4,5-Trichlorophenol	0.09	0.01	mg/L	0.1000		90	30-130	0.2	20	
2,4,6-Trichlorophenol	0.09	0.01	mg/L	0.1000		86	30-130	9	20	
2,4-Dichlorophenol	0.08	0.01	mg/L	0.1000		79	30-130	5	20	
2,4-Dimethylphenol	0.07	0.05	mg/L	0.1000		66	30-130	0.2	20	
2,4-Dinitrophenol	0.04	0.05	mg/L	0.1000		41	30-130	23	20	D+



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809063

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8270C Semi-Volatile Organic Compounds										
Batch BI80814 - 3520C										
2,4-Dinitrotoluene	0.09	0.01	mg/L	0.1000		85	40-140	2	20	
2,6-Dinitrotoluene	0.08	0.01	mg/L	0.1000		82	40-140	5	20	
2-Chloronaphthalene	0.06	0.01	mg/L	0.1000		61	40-140	4	20	
2-Chlorophenol	0.06	0.01	mg/L	0.1000		63	30-130	11	20	
2-Methylphenol	0.07	0.01	mg/L	0.1000		69	30-130	9	20	
2-Nitroaniline	0.08	0.01	mg/L	0.1000		78	40-140	9	20	
2-Nitrophenol	0.08	0.01	mg/L	0.1000		78	30-130	7	20	
3,3'-Dichlorobenzidine	0.08	0.01	mg/L	0.1000		79	40-140	11	20	
3+4-Methylphenol	0.2	0.02	mg/L	0.2000		81	30-130	98	20	D+
3-Nitroaniline	0.08	0.01	mg/L	0.1000		76	40-140	5	20	
4,6-Dinitro-2-Methylphenol	0.08	0.05	mg/L	0.1000		84	30-130	0.8	20	
4-Bromophenyl-phenylether	0.08	0.01	mg/L	0.1000		79	40-140	7	20	
4-Chloro-3-Methylphenol	0.08	0.01	mg/L	0.1000		78	30-130	4	20	
4-Chloroaniline	0.07	0.02	mg/L	0.1000		69	40-140	11	20	
4-Chloro-phenyl-phenyl ether	0.07	0.01	mg/L	0.1000		72	40-140	0.1	20	
4-Nitroaniline	0.09	0.01	mg/L	0.1000		87	40-140	7	20	
4-Nitrophenol	0.09	0.05	mg/L	0.1000		93	30-130	6	20	
Acetophenone	0.07	0.01	mg/L	0.1000		72	40-140	10	20	
Aniline	0.05	0.01	mg/L	0.1000		51	40-140	15	20	
Azobenzene	0.07	0.02	mg/L	0.1000		75	40-140	12	20	
Benzolc Acid	ND	0.1	mg/L	0.1000			40-140	200	20	B-, D+
Benzyl Alcohol	0.06	0.01	mg/L	0.1000		59	40-140	12	20	
bis(2-Chloroethoxy)methane	0.07	0.01	mg/L	0.1000		70	40-140	1	20	
bis(2-Chloroethyl)ether	0.05	0.01	mg/L	0.1000		47	40-140	16	20	
bis(2-chloroisopropyl)Ether	0.05	0.01	mg/L	0.1000		52	40-140	3	20	
bis(2-Ethylhexyl)phthalate	0.07	0.006	mg/L	0.1000		74	40-140	8	20	
Butylbenzylphthalate	0.07	0.01	mg/L	0.1000		69	40-140	3	20	
Carbazole	0.08	0.01	mg/L	0.1000		84	40-140	4	20	
Dibenzofuran	0.07	0.01	mg/L	0.1000		73	40-140	3	20	
Diethylphthalate	0.08	0.01	mg/L	0.1000		75	40-140	0.2	20	
Dimethylphthalate	0.08	0.01	mg/L	0.1000		83	40-140	5	20	
Di-n-butylphthalate	0.07	0.01	mg/L	0.1000		74	40-140	6	20	
Di-n-octylphthalate	0.07	0.01	mg/L	0.1000		69	40-140	8	20	
Hexachlorobutadiene	0.06	0.01	mg/L	0.1000		55	40-140	3	20	
Hexachlorocyclopentadiene	0.06	0.02	mg/L	0.1000		55	40-140	3	20	
Hexachloroethane	0.05	0.005	mg/L	0.1000		47	40-140	6	20	
Isophorone	0.06	0.01	mg/L	0.1000		63	40-140	4	20	
Nitrobenzene	0.06	0.01	mg/L	0.1000		62	40-140	2	20	
N-Nitrosodimethylamine	0.06	0.01	mg/L	0.1000		61	40-140	0.03	20	
N-Nitroso-Di-n-Propylamine	0.04	0.01	mg/L	0.1000		42	40-140	11	20	
N-nitrosodiphenylamine	0.08	0.01	mg/L	0.1000		82	40-140	7	20	
Phenol	0.05	0.01	mg/L	0.1000		52	30-130	6	20	
Pyridine	0.06	0.1	mg/L	0.1000		61	40-140	19	20	
Surrogate: 1,2-Dichlorobenzene-d4	0.0706		mg/L	0.1000		71	30-130			
Surrogate: 2,4,6-Tribromophenol	0.144		mg/L	0.1500		96	15-110			
Surrogate: 2-Chlorophenol-d4	0.103		mg/L	0.1500		69	15-110			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.

Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809063

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

Batch BI80814 - 3520C

Surrogate: 2-Fluorobiphenyl	0.0811		mg/L	0.1000		81	30-130			
Surrogate: 2-Fluorophenol	0.0800		mg/L	0.1500		53	15-110			
Surrogate: Nitrobenzene-d5	0.0646		mg/L	0.1000		65	30-130			
Surrogate: Phenol-d6	0.0966		mg/L	0.1500		64	15-110			
Surrogate: p-Terphenyl-d14	0.0854		mg/L	0.1000		85	30-130			

Batch BI81033 - 3520C

Blank

1,1-Biphenyl	ND	0.01	mg/L
1,2,4-Trichlorobenzene	ND	0.01	mg/L
1,2-Dichlorobenzene	ND	0.01	mg/L
1,3-Dichlorobenzene	ND	0.01	mg/L
1,4-Dichlorobenzene	ND	0.01	mg/L
2,3,4,6-Tetrachlorophenol	ND	0.05	mg/L
2,4,5-Trichlorophenol	ND	0.01	mg/L
2,4,6-Trichlorophenol	ND	0.01	mg/L
2,4-Dichlorophenol	ND	0.01	mg/L
2,4-Dimethylphenol	ND	0.05	mg/L
2,4-Dinitrophenol	ND	0.05	mg/L
2,4-Dinitrotoluene	ND	0.01	mg/L
2,6-Dinitrotoluene	ND	0.01	mg/L
2-Chloronaphthalene	ND	0.01	mg/L
2-Chlorophenol	ND	0.01	mg/L
2-Methylphenol	ND	0.01	mg/L
2-Nitroaniline	ND	0.01	mg/L
2-Nitrophenol	ND	0.01	mg/L
3,3'-Dichlorobenzidine	ND	0.01	mg/L
3+4-Methylphenol	ND	0.02	mg/L
3-Nitroaniline	ND	0.01	mg/L
4,6-Dinitro-2-Methylphenol	ND	0.05	mg/L
4-Bromophenyl-phenylether	ND	0.01	mg/L
4-Chloro-3-Methylphenol	ND	0.01	mg/L
4-Chloroaniline	ND	0.02	mg/L
4-Chloro-phenyl-phenyl ether	ND	0.01	mg/L
4-Nitroaniline	ND	0.01	mg/L
4-Nitrophenol	ND	0.05	mg/L
Acetophenone	ND	0.01	mg/L
Aniline	ND	0.01	mg/L
Azobenzene	ND	0.02	mg/L
Benzoic Acid	ND	0.1	mg/L
Benzyl Alcohol	ND	0.01	mg/L
bis(2-Chloroethoxy)methane	ND	0.01	mg/L
bis(2-Chloroethyl)ether	ND	0.01	mg/L
bis(2-chloroisopropyl)Ether	ND	0.01	mg/L
bis(2-Ethylhexyl)phthalate	ND	0.006	mg/L
Butylbenzylphthalate	ND	0.01	mg/L



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.

Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809063

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

Batch B181033 - 3520C

Carbazole	ND	0.01	mg/L							
Dibenzofuran	ND	0.01	mg/L							
Diethylphthalate	ND	0.01	mg/L							
Dimethylphthalate	ND	0.01	mg/L							
Di-n-butylphthalate	ND	0.01	mg/L							
Di-n-octylphthalate	ND	0.01	mg/L							
Hexachlorobutadiene	ND	0.01	mg/L							
Hexachlorocyclopentadiene	ND	0.02	mg/L							
Hexachloroethane	ND	0.005	mg/L							
Isophorone	ND	0.01	mg/L							
Nitrobenzene	ND	0.01	mg/L							
N-Nitrosodimethylamine	ND	0.01	mg/L							
N-Nitroso-Di-n-Propylamine	ND	0.01	mg/L							
N-nitrosodiphenylamine	ND	0.01	mg/L							
Phenol	ND	0.01	mg/L							
Pyridine	ND	0.1	mg/L							
Surrogate: 1,2-Dichlorobenzene-d4	0.0617		mg/L	0.1000		62	30-130			
Surrogate: 2,4,6-Tribromophenol	0.105		mg/L	0.1500		70	15-110			
Surrogate: 2-Chlorophenol-d4	0.0773		mg/L	0.1500		52	15-110			
Surrogate: 2-Fluorobiphenyl	0.0612		mg/L	0.1000		61	30-130			
Surrogate: 2-Fluorophenol	0.0659		mg/L	0.1500		44	15-110			
Surrogate: Nitrobenzene-d5	0.0730		mg/L	0.1000		73	30-130			
Surrogate: Phenol-d6	0.103		mg/L	0.1500		69	15-110			
Surrogate: p-Terphenyl-d14	0.0743		mg/L	0.1000		74	30-130			

LCS

1,1-Biphenyl	0.06	0.01	mg/L	0.1000		63	40-140			
1,2,4-Trichlorobenzene	0.07	0.01	mg/L	0.1000		65	40-140			
1,2-Dichlorobenzene	0.06	0.01	mg/L	0.1000		59	40-140			
1,3-Dichlorobenzene	0.05	0.01	mg/L	0.1000		54	40-140			
1,4-Dichlorobenzene	0.05	0.01	mg/L	0.1000		54	40-140			
2,3,4,6-Tetrachlorophenol	0.08	0.05	mg/L	0.1000		84	40-140			
2,4,5-Trichlorophenol	0.07	0.01	mg/L	0.1000		72	30-130			
2,4,6-Trichlorophenol	0.07	0.01	mg/L	0.1000		69	30-130			
2,4-Dichlorophenol	0.07	0.01	mg/L	0.1000		70	30-130			
2,4-Dimethylphenol	0.07	0.05	mg/L	0.1000		67	30-130			
2,4-Dinitrophenol	0.02	0.05	mg/L	0.1000		23	30-130			B-
2,4-Dinitrotoluene	0.08	0.01	mg/L	0.1000		79	40-140			
2,6-Dinitrotoluene	0.07	0.01	mg/L	0.1000		70	40-140			
2-Chloronaphthalene	0.05	0.01	mg/L	0.1000		53	40-140			
2-Chlorophenol	0.05	0.01	mg/L	0.1000		54	30-130			
2-Methylphenol	0.07	0.01	mg/L	0.1000		69	30-130			
2-Nitroaniline	0.08	0.01	mg/L	0.1000		77	40-140			
2-Nitrophenol	0.06	0.01	mg/L	0.1000		59	30-130			
3,3'-Dichlorobenzidine	0.07	0.01	mg/L	0.1000		73	40-140			
3+4-Methylphenol	0.2	0.02	mg/L	0.2000		94	30-130			
3-Nitroaniline	0.07	0.01	mg/L	0.1000		74	40-140			



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809063

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

Batch BI81033 - 3520C

4,6-Dinitro-2-Methylphenol	0.06	0.05	mg/L	0.1000		64	30-130			
4-Bromophenyl-phenylether	0.07	0.01	mg/L	0.1000		72	40-140			
4-Chloro-3-Methylphenol	0.08	0.01	mg/L	0.1000		82	30-130			
4-Chloroaniline	0.06	0.02	mg/L	0.1000		60	40-140			
4-Chloro-phenyl-phenyl ether	0.07	0.01	mg/L	0.1000		73	40-140			
4-Nitroaniline	0.07	0.01	mg/L	0.1000		65	40-140			
4-Nitrophenol	0.1	0.05	mg/L	0.1000		97	30-130			
Acetophenone	0.07	0.01	mg/L	0.1000		74	40-140			
Aniline	0.06	0.01	mg/L	0.1000		63	40-140			
Azobenzene	0.06	0.02	mg/L	0.1000		57	40-140			
Benzoic Acid	ND	0.1	mg/L	0.1000			40-140			B-
Benzyl Alcohol	0.07	0.01	mg/L	0.1000		73	40-140			
bis(2-Chloroethoxy)methane	0.07	0.01	mg/L	0.1000		68	40-140			
bis(2-Chloroethyl)ether	0.07	0.01	mg/L	0.1000		65	40-140			
bis(2-chloroisopropyl)Ether	0.06	0.01	mg/L	0.1000		56	40-140			
bis(2-Ethylhexyl)phthalate	0.07	0.006	mg/L	0.1000		72	40-140			
Butylbenzylphthalate	0.07	0.01	mg/L	0.1000		70	40-140			
Carbazole	0.07	0.01	mg/L	0.1000		68	40-140			
Dibenzofuran	0.07	0.01	mg/L	0.1000		69	40-140			
Diethylphthalate	0.07	0.01	mg/L	0.1000		74	40-140			
Dimethylphthalate	0.07	0.01	mg/L	0.1000		72	40-140			
Di-n-butylphthalate	0.07	0.01	mg/L	0.1000		68	40-140			
Di-n-octylphthalate	0.06	0.01	mg/L	0.1000		61	40-140			
Hexachlorobutadiene	0.07	0.01	mg/L	0.1000		68	40-140			
Hexachlorocyclopentadiene	0.06	0.02	mg/L	0.1000		56	40-140			
Hexachloroethane	0.06	0.005	mg/L	0.1000		60	40-140			
Isophorone	0.06	0.01	mg/L	0.1000		61	40-140			
Nitrobenzene	0.06	0.01	mg/L	0.1000		63	40-140			
N-Nitrosodimethylamine	0.09	0.01	mg/L	0.1000		95	40-140			
N-Nitroso-DI-n-Propylamine	0.06	0.01	mg/L	0.1000		60	40-140			
N-nitrosodiphenylamine	0.07	0.01	mg/L	0.1000		65	40-140			
Phenol	0.07	0.01	mg/L	0.1000		66	30-130			
Pyridine	0.07	0.1	mg/L	0.1000		73	40-140			
Surrogate: 1,2-Dichlorobenzene-d4	0.0623		mg/L	0.1000		62	30-130			
Surrogate: 2,4,6-Tribromophenol	0.119		mg/L	0.1500		79	15-110			
Surrogate: 2-Chlorophenol-d4	0.0830		mg/L	0.1500		55	15-110			
Surrogate: 2-Fluorobiphenyl	0.0651		mg/L	0.1000		65	30-130			
Surrogate: 2-Fluorophenol	0.0768		mg/L	0.1500		51	15-110			
Surrogate: Nitrobenzene-d5	0.0676		mg/L	0.1000		68	30-130			
Surrogate: Phenol-d6	0.104		mg/L	0.1500		69	15-110			
Surrogate: p-Terphenyl-d14	0.0772		mg/L	0.1000		77	30-130			

LCS Dup

1,1-Biphenyl	0.07	0.01	mg/L	0.1000		66	40-140	4	20	
1,2,4-Trichlorobenzene	0.07	0.01	mg/L	0.1000		66	40-140	1	20	
1,2-Dichlorobenzene	0.06	0.01	mg/L	0.1000		61	40-140	3	20	
1,3-Dichlorobenzene	0.05	0.01	mg/L	0.1000		53	40-140	2	20	



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.
Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809063

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8270C Semi-Volatile Organic Compounds										
Batch B181033 - 3520C										
1,4-Dichlorobenzene	0.06	0.01	mg/L	0.1000		56	40-140	3	20	
2,3,4,6-Tetrachlorophenol	0.09	0.05	mg/L	0.1000		91	40-140	9	20	
2,4,5-Trichlorophenol	0.08	0.01	mg/L	0.1000		78	30-130	8	20	
2,4,6-Trichlorophenol	0.07	0.01	mg/L	0.1000		73	30-130	6	20	
2,4-Dichlorophenol	0.07	0.01	mg/L	0.1000		66	30-130	5	20	
2,4-Dimethylphenol	0.06	0.05	mg/L	0.1000		64	30-130	5	20	
2,4-Dinitrophenol	0.04	0.05	mg/L	0.1000		36	30-130	43	20	D+
2,4-Dinitrotoluene	0.08	0.01	mg/L	0.1000		82	40-140	3	20	
2,6-Dinitrotoluene	0.07	0.01	mg/L	0.1000		72	40-140	3	20	
2-Chloronaphthalene	0.05	0.01	mg/L	0.1000		54	40-140	1	20	
2-Chlorophenol	0.05	0.01	mg/L	0.1000		53	30-130	2	20	
2-Methylphenol	0.06	0.01	mg/L	0.1000		63	30-130	8	20	
2-Nitroaniline	0.08	0.01	mg/L	0.1000		78	40-140	1	20	
2-Nitrophenol	0.06	0.01	mg/L	0.1000		58	30-130	2	20	
3,3'-Dichlorobenzidine	0.08	0.01	mg/L	0.1000		82	40-140	11	20	
3+4-Methylphenol	0.2	0.02	mg/L	0.2000		86	30-130	9	20	
3-Nitroaniline	0.08	0.01	mg/L	0.1000		75	40-140	2	20	
4,6-Dinitro-2-Methylphenol	0.07	0.05	mg/L	0.1000		72	30-130	11	20	
4-Bromophenyl-phenylether	0.08	0.01	mg/L	0.1000		76	40-140	5	20	
4-Chloro-3-Methylphenol	0.08	0.01	mg/L	0.1000		79	30-130	4	20	
4-Chloroaniline	0.07	0.02	mg/L	0.1000		66	40-140	9	20	
4-Chloro-phenyl-phenyl ether	0.08	0.01	mg/L	0.1000		75	40-140	3	20	
4-Nitroaniline	0.09	0.01	mg/L	0.1000		89	40-140	31	20	D+
4-Nitrophenol	0.1	0.05	mg/L	0.1000		102	30-130	5	20	
Acetophenone	0.07	0.01	mg/L	0.1000		69	40-140	7	20	
Aniline	0.06	0.01	mg/L	0.1000		61	40-140	3	20	
Azobenzene	0.06	0.02	mg/L	0.1000		59	40-140	3	20	
Benzoic Acid	ND	0.1	mg/L	0.1000			40-140		20	B-
Benzyl Alcohol	0.07	0.01	mg/L	0.1000		67	40-140	8	20	
bis(2-Chloroethoxy)methane	0.07	0.01	mg/L	0.1000		66	40-140	4	20	
bis(2-Chloroethyl)ether	0.05	0.01	mg/L	0.1000		54	40-140	18	20	
bis(2-chloroisopropyl)Ether	0.05	0.01	mg/L	0.1000		51	40-140	9	20	
bis(2-Ethylhexyl)phthalate	0.08	0.006	mg/L	0.1000		79	40-140	9	20	
Butylbenzylphthalate	0.08	0.01	mg/L	0.1000		76	40-140	9	20	
Carbazole	0.07	0.01	mg/L	0.1000		75	40-140	8	20	
Dibenzofuran	0.07	0.01	mg/L	0.1000		69	40-140	0.8	20	
Diethylphthalate	0.08	0.01	mg/L	0.1000		78	40-140	6	20	
Dimethylphthalate	0.08	0.01	mg/L	0.1000		78	40-140	7	20	
Di-n-butylphthalate	0.07	0.01	mg/L	0.1000		73	40-140	7	20	
Di-n-octylphthalate	0.07	0.01	mg/L	0.1000		66	40-140	8	20	
Hexachlorobutadiene	0.07	0.01	mg/L	0.1000		69	40-140	1	20	
Hexachlorocyclopentadiene	0.06	0.02	mg/L	0.1000		57	40-140	2	20	
Hexachloroethane	0.06	0.005	mg/L	0.1000		57	40-140	5	20	
Isophorone	0.06	0.01	mg/L	0.1000		58	40-140	5	20	
Nitrobenzene	0.06	0.01	mg/L	0.1000		60	40-140	4	20	
N-Nitrosodimethylamine	0.06	0.01	mg/L	0.1000		57	40-140	50	20	D+



ESS Laboratory

Division of Thielsch Engineering, Inc.

CERTIFICATE OF ANALYSIS

Client Name: Vanasse Hangen Brustlin, Inc.

Client Project ID: Trestle Trail

ESS Laboratory Work Order: 0809063

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C Semi-Volatile Organic Compounds

Batch B181033 - 3520C

N-Nitroso-Di-n-Propylamine	0.05	0.01	mg/L	0.1000		52	40-140	14	20	
N-nitrosodiphenylamine	0.08	0.01	mg/L	0.1000		83	40-140	24	20	D+
Phenol	0.06	0.01	mg/L	0.1000		62	30-130	7	20	
Pyridine	0.07	0.1	mg/L	0.1000		70	40-140	5	20	
Surrogate: 1,2-Dichlorobenzene-d4	0.0646		mg/L	0.1000		65	30-130			
Surrogate: 2,4,6-Tribromophenol	0.130		mg/L	0.1500		87	15-110			
Surrogate: 2-Chlorophenol-d4	0.0821		mg/L	0.1500		55	15-110			
Surrogate: 2-Fluorobiphenyl	0.0669		mg/L	0.1000		67	30-130			
Surrogate: 2-Fluorophenol	0.0685		mg/L	0.1500		46	15-110			
Surrogate: Nitrobenzene-d5	0.0634		mg/L	0.1000		63	30-130			
Surrogate: Phenol-d6	0.0963		mg/L	0.1500		64	15-110			
Surrogate: p-Terphenyl-d14	0.0840		mg/L	0.1000		84	30-130			

8270C(SIM) Semi-Volatile Organic Compounds

Batch B180814 - 3520C

Blank										
2-Methylnaphthalene	ND	0.00020	mg/L							
Acenaphthene	ND	0.00020	mg/L							
Acenaphthylene	ND	0.00020	mg/L							
Anthracene	ND	0.00020	mg/L							
Benzo(a)anthracene	0.00013	0.00005	mg/L							
Benzo(a)pyrene	ND	0.00005	mg/L							
Benzo(b)fluoranthene	ND	0.00005	mg/L							
Benzo(g,h,i)perylene	ND	0.00020	mg/L							
Benzo(k)fluoranthene	ND	0.00005	mg/L							
Chrysene	ND	0.00005	mg/L							
Dibenzo(a,h)Anthracene	ND	0.00005	mg/L							
Fluoranthene	ND	0.00020	mg/L							
Fluorene	ND	0.00020	mg/L							
Hexachlorobenzene	ND	0.00020	mg/L							
Indeno(1,2,3-cd)Pyrene	ND	0.00005	mg/L							
Naphthalene	ND	0.00020	mg/L							
Pentachlorophenol	ND	0.00100	mg/L							
Phenanthrene	ND	0.00020	mg/L							
Pyrene	ND	0.00020	mg/L							

Batch B181033 - 3520C

Blank										
2-Methylnaphthalene	ND	0.00020	mg/L							
Acenaphthene	ND	0.00020	mg/L							
Acenaphthylene	ND	0.00020	mg/L							
Anthracene	ND	0.00020	mg/L							
Benzo(a)anthracene	0.00012	0.00005	mg/L							
Benzo(a)pyrene	ND	0.00005	mg/L							
Benzo(b)fluoranthene	ND	0.00005	mg/L							
Benzo(g,h,i)perylene	ND	0.00020	mg/L							



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Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8270C(SIM) Semi-Volatile Organic Compounds

Batch B181033 - 3520C

Benzo(k)fluoranthene	ND	0.00005	mg/L							
Chrysene	ND	0.00005	mg/L							
Dibenzo(a,h)Anthracene	ND	0.00005	mg/L							
Fluoranthene	ND	0.00020	mg/L							
Fluorene	ND	0.00020	mg/L							
Hexachlorobenzene	ND	0.00020	mg/L							
Indeno(1,2,3-cd)Pyrene	ND	0.00005	mg/L							
Naphthalene	0.00020	0.00020	mg/L							
Pentachlorophenol	ND	0.00100	mg/L							
Phenanthrene	ND	0.00020	mg/L							
Pyrene	ND	0.00020	mg/L							



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Notes and Definitions

- U Analyte included in the analysis, but not detected
- EL Elevated Method Reporting Limits due to sample matrix.
- D+ Relative percent difference for duplicate is outside of criteria.
- D Diluted.
- C- Continuing Calibration recovery is below lower control limit.
- B- Blank Spike recovery is below lower control limit.
- B Present in Method Blank.
- ND Analyte NOT DETECTED above the detection limit
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- MDL Method Detection Limit
- MRL Method Reporting Limit
- I/V Initial Volume
- F/V Final Volume
- § Subcontracted analysis; see attached report
- 1 Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
- 2 Range result excludes concentrations of target analytes eluting in that range.
- 3 Range result excludes the concentration of the C9-C10 aromatic range.
- Avg Results reported as a mathematical average.



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CERTIFICATE OF ANALYSIS

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ESS LABORATORY CERTIFICATIONS

U.S. Army Corps of Engineers
Soil and Water

Navy Installation Restoration QA Program
Soil and Water

Rhode Island: A-179

Connecticut: PH-0750

Maine: RI002

Massachusetts: M-RI002

New Hampshire (NELAP accredited): 242405
Potable Water
Non Potable Water

New York (NELAP accredited): 11313
Potable Water
Non Potable Water
Solid and Hazardous Waste

United States Department of Agriculture
Soil Permit: S-54210

New Jersey (NELAP accredited): RI002
Potable Water
Non Potable Water
Soil and Hazardous Waste

Maryland: 301
Potable Water

