

TECHNICAL MEMORANDUM



TO: Janusz Bajsarowicz and Paul Rachev, Pacific Topsoils

FROM: Tim Syverson, Elizabeth Poole

DATE: December 17, 2009

RE: **GROUNDWATER AND SOIL/SOLIDS INVESTIGATION
BAXTER NORTH WOOD WASTE LANDFILL
19600 67TH AVENUE NE
ARLINGTON, WASHINGTON**

RECEIVED
JAN 18 2011
Snohomish Health District
Environmental Health

INTRODUCTION

At the request of Pacific Topsoils, Inc. (Pacific Topsoils), Landau Associates conducted a groundwater and soil/solids investigation at the Baxter North Wood Waste Landfill property located at 19600 67th Avenue NE in Arlington, Washington (subject property; Figure 1). Pacific Topsoils is considering purchasing the subject property from J.H. Baxter Company (JHB) for the mining/reclamation of wood waste. The investigation of subsurface conditions at the landfill was conducted as part of its pre-purchase due diligence.

The investigation was conducted in two phases. Groundwater sampling and analysis was conducted from existing onsite wells on September 1, 2009. Following receipt and evaluation of the groundwater analytical results, test pits were excavated on November 9, 2009 to evaluate the thickness of the wood waste and collect soil/solids samples for laboratory analysis.

The scope of work performed was established in our proposal for a groundwater and soil/solids investigation dated August 10, 2009 and in a letter to the Snohomish Health District (SHD) dated October 7, 2009. The SHD provided its concurrence regarding the proposed investigation in its letter to Landau Associates dated October 29, 2009.

This technical memorandum summarizes the results of the groundwater and soil/solids sampling and analysis. The monitoring well and test pit locations are shown on Figure 2. Table 1 summarizes the analytical results for the groundwater samples and the soil/solids analytical results are presented in Table 2.

BACKGROUND

The landfill property is about 9 acres in size and was formerly a sand and gravel quarry. JHB reportedly purchased the property in 1970, operated the wood waste landfill (which includes most of the property) until it was closed in 1991 under SHD Solid Waste Facility Permit #SW-006, and is the current

owner of the property. Post-closure groundwater monitoring is ongoing at the four monitoring wells installed in 1987 at the subject property (Sweet Edwards 1987; Baxter 2008).

The 1987 Hydrogeologic Report prepared for the J.H. Baxter North Wood Waste Landfill by Sweet, Edwards & Associates (Sweet Edwards 1987) indicates that the subject property is underlain by glacial recessional deposits consisting of stratified to massively bedded, fine to coarse sand with some gravel. No specific information was available in the documents provided to us regarding the thickness of the wood waste. However, a cross section by Sweet Edwards dated June 1990 suggests that the maximum thickness of the wood waste was about 15 feet (ft) in 1987. Other documents suggest that the landfill includes a soil cover about 2 ft in thickness. The November 1987 Sweet Edwards report states that "Groundwater levels were at least 9-feet below the base of the wood waste in August, 1997." Two copies of the November 1987 report were included in the materials provided to us; however, the 2007 Groundwater Monitoring Report references a January 1989 Hydrogeologic Report by EMCON (formerly Sweet, Edwards & Associates). A copy of the 1989 report was not available for our review.

Based on the September 2009 groundwater elevation data, the shallowest groundwater beneath the subject property is at a depth of about 45 ft below the "site datum" with groundwater flow to the northwest (Figure 2). Based on groundwater flow to the northwest, three of the existing monitoring wells (BXN-1, -2, and -3) are hydraulically downgradient of the landfill and well BXN-4 is upgradient.

GROUNDWATER SAMPLING

On September 1, 2009, Landau Associates collected one groundwater sample from each of the four existing monitoring wells at the subject property for laboratory analysis. Stephen Barnett of Premier Environmental Services, the consultant for JHB, was on site to observe the sampling and collect split samples.

Three well casing volumes of groundwater were purged from each monitoring well using a disposable bailer prior to sample collection. Field parameters, including pH, temperature, conductivity, and dissolved oxygen, were measured periodically during purging, and prior to sample collection. Following purging, groundwater was transferred slowly from the bailer into the laboratory-supplied jars to minimize agitation of the sample [sample volumes for U.S. Environmental Protection Agency (EPA) Method 8260 analysis were collected first] for submittal to ALS Laboratory in Everett, Washington for analysis. The samples were labeled, stored in a closed, cooled container, and transported to the laboratory in accordance with proper chain-of-custody procedures. The chain-of-custody documentation is included along with the laboratory analytical report in Attachment A. The groundwater samples were analyzed for total petroleum hydrocarbon identification (TPH-HCID) using Method NWTPH-HCID, volatile organic compounds (VOCs) by EPA Method 8260, semivolatile organic compounds (SVOCs) by EPA Method

8270, and pentachlorophenol by EPA Method 8270 SIM. The groundwater samples were not analyzed for metals because metals have not been identified to be present at concentrations of potential concern based on the groundwater data available from the current post-closure monitoring program.

The analytical results for the groundwater samples are presented in Table 1 and selected concentrations detected above the laboratory reporting limits are included on Figure 2. The sample collected from monitoring well BXN-3 contained concentrations of motor oil-range petroleum hydrocarbons (TPH-O) [310 micrograms per liter ($\mu\text{g/L}$) and pentachlorophenol ($1.5 \mu\text{g/L}$) greater than the laboratory reporting limits. The sample collected from monitoring well BXN-4 contained a concentration of trichloroethene ($2.1 \mu\text{g/L}$) greater than the laboratory reporting limit. According to Mr. Barnett, the split samples that he collected have not been submitted for laboratory analysis.

The detected concentrations of TPH-O ($310 \mu\text{g/L}$; BXN-3) and trichloroethene ($2.1 \mu\text{g/L}$; BXN-4) in groundwater are both below their respective Washington State Department of Ecology (Ecology) Model Toxics Cleanup Act (MTCA) Method A groundwater cleanup levels ($500 \mu\text{g/L}$ and $5 \mu\text{g/L}$, respectively). The detected concentration of pentachlorophenol in the sample collected from monitoring well BXN-3 ($1.5 \mu\text{g/L}$) is greater than the MTCA Method B groundwater cleanup level based on the EPA maximum contaminant level (MCL) of $1 \mu\text{g/L}$.

Monitoring well BXN-3 is located in the north-central portion of the landfill (Figure 1). Based on groundwater flow to the northwest, monitoring well BXN-3 is located hydraulically downgradient of the eastern portion of the landfill.

TEST PIT INVESTIGATION

The test pit investigation was conducted on November 9, 2009. Landau Associates returned to the subject property with representatives of Pacific Topsoils and Stephen Barnett of Premier Environmental Services to evaluate the thickness of the wood waste and collect samples for laboratory analysis.

Three test pits were excavated by Pacific Topsoils personnel using a track-mounted excavator to depths ranging from 10.5 (TP-1) to 18 ft (TP-2) below ground surface (BGS). The test pit locations are shown on Figure 2. As outlined in the October 7, 2009 letter to SHD, at each location the surface vegetation and topsoil were removed from the underlying wood waste and stockpiled prior to wood waste excavation. The landfill material was then segregated and stockpiled on plastic sheeting. The materials encountered during the test pit excavations were described on test pit log forms. The material encountered was periodically field-screened for VOCs using a photoionization detector (PID). The test pit logs are provided in Attachment B.

The overlying soil/cover material varied from about 2 ft (TP-1 and TP-2) to 4 ft (TP-3) in thickness. The landfill material was encountered from a minimum of about 2 ft BGS (TP-1 and TP-2) to a maximum of 18 ft BGS (TP-2), and consisted of brown wood debris with silt and sand. Native soil was encountered beneath the landfill material at 10 ft BGS in TP-1. The excavations at TP-2 (18 ft total depth) and TP-3 (17 ft total depth) did not reach the underlying native soil. Based on the test pit excavations, the landfill material ranged from about 8 ft to more than 16 ft in thickness.

One composite grab sample from each landfill material excavation stockpile was collected for laboratory analysis using a decontaminated stainless steel spoon, placed in a decontaminated bowl, and homogenized. The sample material was then placed in laboratory-supplied jars and submitted to ALS Laboratory. Split samples of the composited material were also provided to Premier Environmental. The samples (three total) were labeled, stored in a closed, cooled container, and transported to the laboratory using proper chain-of-custody procedures.

The chain-of-custody documentation is included along with the laboratory analytical report in Attachment A. The three landfill material samples were analyzed for SVOCs by EPA Method 8270, pentachlorophenol by EPA Method 8270 SIM, and EPA Resource Conservation and Recovery Act (RCRA) metals (i.e., arsenic, barium, cadmium, chromium, lead, selenium, silver, mercury) using EPA Method 6010 (EPA Method 7471 for mercury). The samples from TP-2 and TP-3 were also analyzed for total petroleum hydrocarbons using Method NWTPH-HCID.

The analytical results for the landfill material samples are presented in Table 1 and the concentrations of TPH, SVOCs, and pentachlorophenol detected above the laboratory reporting limits are included on Figure 2. The detected concentrations consist of:

- TP-2 OK
TP-3 OK
Carbunkled
accus+
Pentachlorophenol
but not soil
block
- **TPH-D** was detected at a concentration greater than the laboratory reporting limit in the sample collected from TP-3 [400 milligrams per kilogram (mg/kg)].
 - **TPH-O** was detected at a concentration greater than the laboratory reporting limit in the samples collected from TP-2 (410 mg/kg) and TP-3 (810 mg/kg).
 - **Phenol** was detected at a concentration greater than the laboratory reporting limit in the samples collected from TP-1 (120 micrograms per kilogram (µg/kg) and TP-2 (130 µg/kg).
 - ✓ **3&4 Methylphenol** was detected at a concentration greater than the laboratory reporting limit in the samples collected from TP-1 (500 µg/kg), TP-2 (770 µg/kg), and TP-3 (180 µg/kg).
 - ✓ **Naphthalene** was detected at a concentration greater than the laboratory reporting limit in the sample collected from TP-3 (150 µg/kg).
 - **Di-n-butylphthalate** was detected at a concentration greater than the laboratory reporting limit in the sample collected from TP-2 (340 mg/kg).
 - **Pentachlorophenol** was detected at a concentration greater than the laboratory reporting limit in the samples from TP-1 (0.072 mg/kg), TP-2 (0.063 mg/kg) and TP-3 (0.055 mg/kg).
- not
tick
depin
- 2.5 2.5 0.010 15

reclamation and reuse of the landfill material should be completed prior to acquisition of the subject property to ensure that the source material can be removed and used as intended by Pacific Topsoils.

USE OF THIS TECHNICAL MEMORANDUM

This technical memorandum has been prepared for the exclusive use of Pacific Topsoils for specific application to the Baxter North Wood Waste Landfill project. No other party is entitled to rely on the information, conclusions, and recommendations included in this document without the express written consent of Landau Associates. Further, the reuse of information, conclusions, and recommendations provided herein for extensions of the project or for any other project, without review and authorization by Landau Associates, shall be at the user's sole risk. Landau Associates warrants that within the limitations of scope, schedule, and budget, our services have been provided in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions as this project. We make no other warranty, either express or implied.

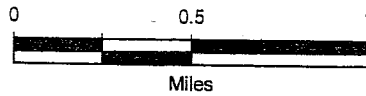
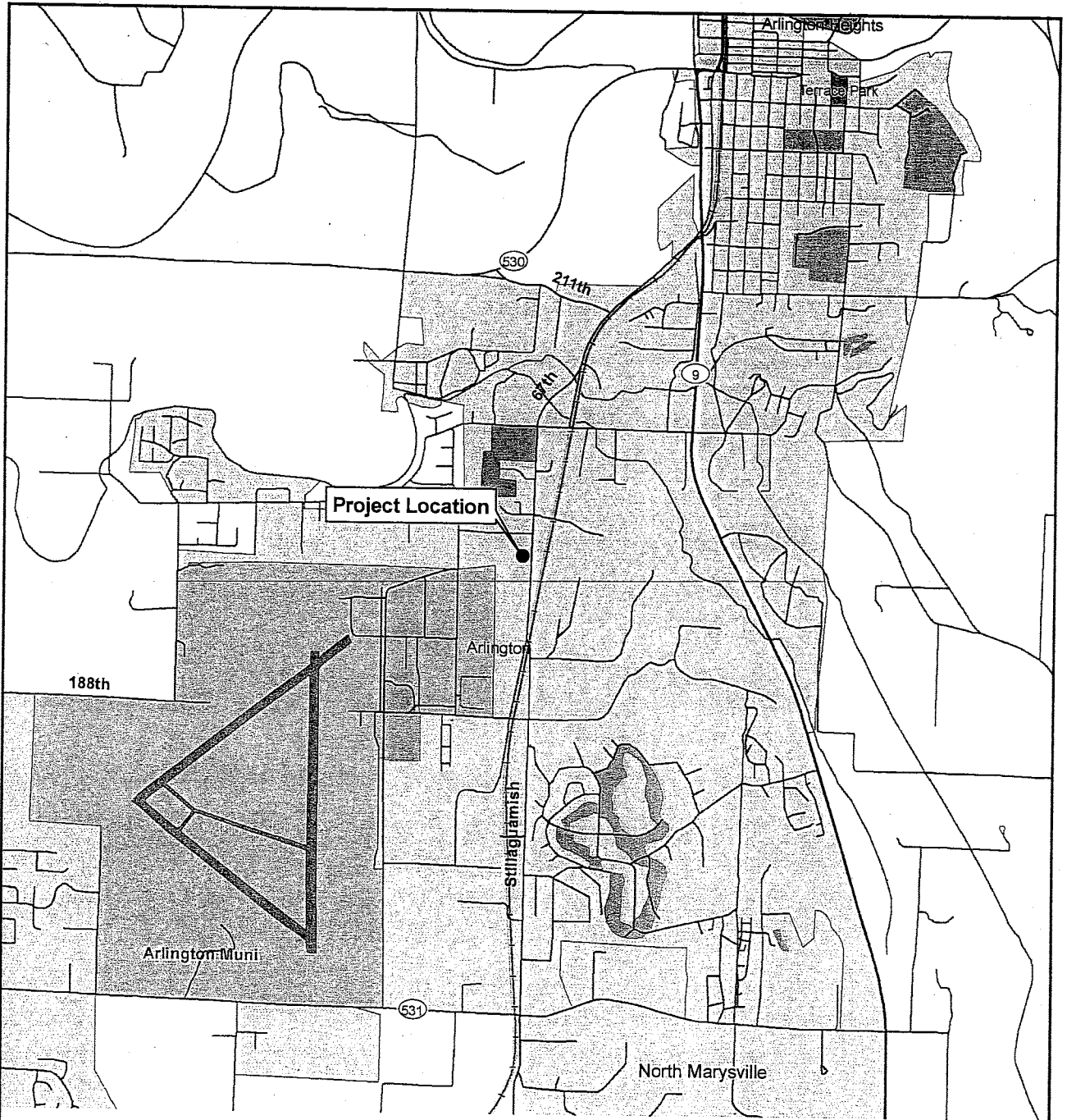
REFERENCES

Baxter. 2008. *2007 Groundwater Monitoring Report, North Woodwaste Landfill, J.H. Baxter & Company, Arlington, Washington.* Prepared by J.H. Baxter & Company. May.

Sweet Edwards. 1987. *Hydrogeologic Report, J.H. Baxter North Woodwaste Landfill, Arlington, Washington.* Prepared by Sweet, Edwards & Associates. November.

ATTACHMENTS

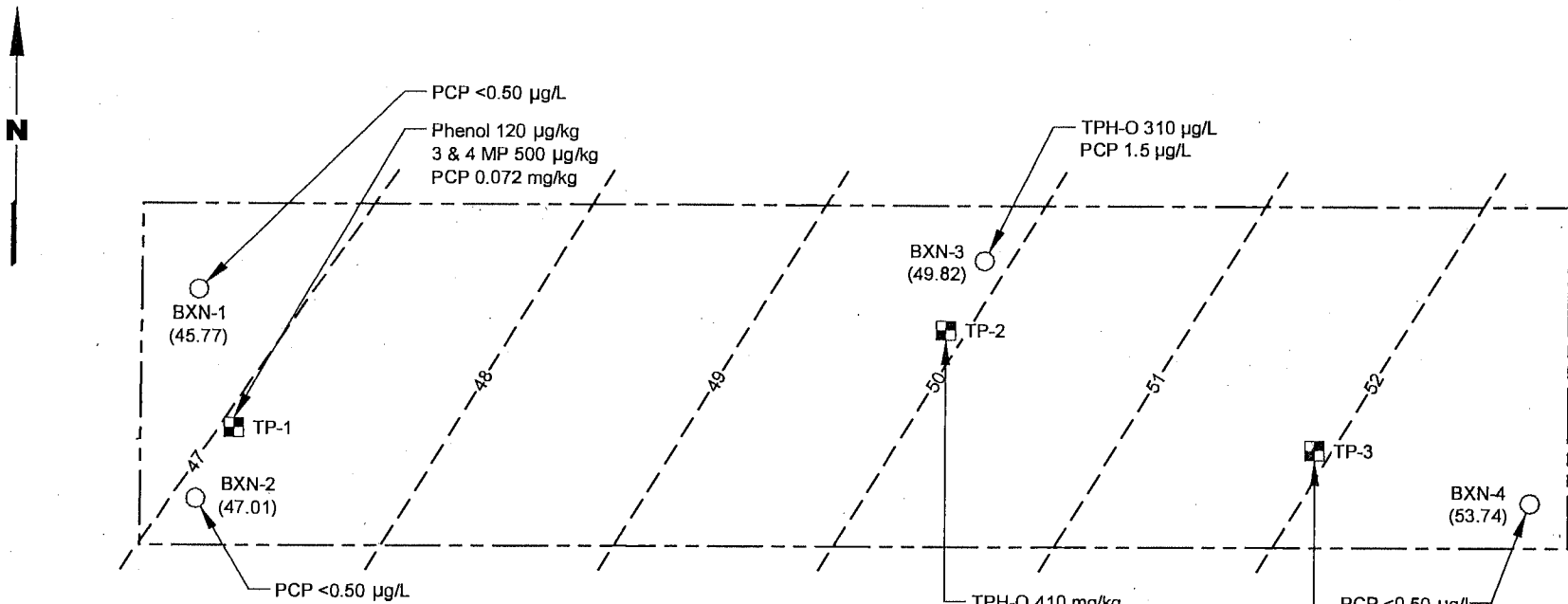
Figure 1: Vicinity Map
Figure 2: Monitoring Well and Test Pit Locations with Selected Sample Analytical Data
Table 1: Groundwater Analytical Results
Table 2: Soil Analytical Results
Attachment A: Laboratory Analytical Reports
Attachment B: Test Pit Logs



Data Source: ESRI 2008



Y:\Projects\1184001\MapDocs\Fig1.mxd 12/17/2009



Legend



Test Pit Location (November 2009)



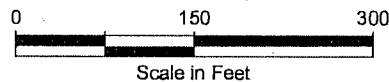
Approx. Monitoring Well Location (Baxter 2008)
Groundwater Elevation (September 2009)

—50— September 2009 Groundwater Contour (Approximate)

----- Site Boundary (Approximate)

PCP	Pentachlorophenol	µg/kg	Micrograms per Kilogram
3 & 4 MP	3 & 4 Methylphenol	µg/L	Micrograms per Liter
Di-n-but.	Di-n-butylphthalate	mg/kg	Milligrams per Kilogram
TPH-O	Oil-Range Total Petroleum Hydrocarbons		
TPH-D	Diesel-Range Total Petroleum Hydrocarbons		

Source: Baxter 2008



Baxter - North
Woodwaste Landfill
Arlington, Washington

**Monitoring Well and Test Pit
Locations with Selected
Sample Analytical Data**

Figure
2

TABLE 1
GROUNDWATER ANALYTICAL RESULTS
BAXTER NORTH WOOD WASTE LANDFILL
ARLINGTON, WASHINGTON

Page 1 of 3

Sample ID:	Method A	Maximum	BXN-1	BXN-2	BXN-3	BXN-4
Lab ID:	Cleanup Level	Contaminant Level	0909007-01	0909007-02	0909007-03	0909007-04
Date Sampled:			9/1/2009	9/1/2009	9/1/2009	9/1/2009
PETROLEUM HYDROCARBONS (µg/L)						
NWTPH-HCID						
Gasoline			130 U	130 U	130 U	130 U
Diesel	500		310 U	310 U	310 U	310 U
Motor Oil	500		310 U	310 U	310	310 U
NWTPH-DX						
Diesel			NA	NA	130 UJ	NA
Motor Oil			NA	NA	250 UJ	NA
VOLATILES (µg/L)						
SW8260B						
Dichlorodifluoromethane			2.0 U	2.0 U	2.0 U	2.0 U
Chloromethane			2.0 U	2.0 U	2.0 U	2.0 U
Vinyl Chloride			0.20 U	0.20 U	0.20 U	0.20 U
Bromomethane			2.0 U	2.0 U	2.0 U	2.0 U
Chloroethane			2.0 U	2.0 U	2.0 U	2.0 U
Carbon Tetrachloride			2.0 U	2.0 U	2.0 U	2.0 U
Trichlorofluoromethane			2.0 U	2.0 U	2.0 U	2.0 U
Acetone			25 U	25 U	25 U	25 U
Carbon Disulfide			2.0 U	2.0 U	2.0 U	2.0 U
1,1-Dichloroethene			2.0 U	2.0 U	2.0 U	2.0 U
Methylene Chloride			5.0 U	5.0 U	5.0 U	5.0 U
Acrylonitrile			10 U	10 U	10 U	10 U
Methyl t-butyl ether			2.0 U	2.0 U	2.0 U	2.0 U
Trans-1,2-Dichloroethene			2.0 U	2.0 U	2.0 U	2.0 U
1,1-Dichloroethane			2.0 U	2.0 U	2.0 U	2.0 U
2-Butanone			10 U	10 U	10 U	10 U
Cis-1,2-Dichloroethene			2.0 U	2.0 U	2.0 U	2.0 U
2,2-Dichloropropane			2.0 U	2.0 U	2.0 U	2.0 U
Bromochloromethane			2.0 U	2.0 U	2.0 U	2.0 U
Chloroform			2.0 U	2.0 U	2.0 U	2.0 U
1,1,1-Trichloroethane			2.0 U	2.0 U	2.0 U	2.0 U
1,1-Dichloropropene			2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dichloroethane			2.0 U	2.0 U	2.0 U	2.0 U
Benzene			2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethene	5		2.0 U	2.0 U	2.0 U	2.1
1,2-Dichloropropane			2.0 U	2.0 U	2.0 U	2.0 U
Dibromomethane			2.0 U	2.0 U	2.0 U	2.0 U
Bromodichloromethane			2.0 U	2.0 U	2.0 U	2.0 U
Trans-1,3-Dichloropropene			2.0 U	2.0 U	2.0 U	2.0 U
4-Methyl-2-pentanone			10 U	10 U	10 U	10 U
Toluene			2.0 U	2.0 U	2.0 U	2.0 U
Cis-1,3-Dichloropropene			2.0 U	2.0 U	2.0 U	2.0 U
1,1,2-Trichloroethane			2.0 U	2.0 U	2.0 U	2.0 U
2-Hexanone			10 U	10 U	10 U	10 U
1,3-Dichloropropane			2.0 U	2.0 U	2.0 U	2.0 U
Tetrachloroethene			2.0 U	2.0 U	2.0 U	2.0 U
Dibromochloromethane			2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dibromoethane			2.0 U	2.0 U	2.0 U	2.0 U
Chlorobenzene			2.0 U	2.0 U	2.0 U	2.0 U
1,1,1,2-Tetrachloroethane			2.0 U	2.0 U	2.0 U	2.0 U
Ethylbenzene			2.0 U	2.0 U	2.0 U	2.0 U
m, p-Xylene			4.0 U	4.0 U	4.0 U	4.0 U
Styrene			2.0 U	2.0 U	2.0 U	2.0 U

LANDAU ASSOCIATES

U = Indicates the compound was undetected at the reported concentration.
J = Indicates an estimated concentration when the value is less than the calculated reporting limit.
NA = Not analyzed.
Bold = Detected compound.
Boxed value = Concentration is greater than regulatory level.

Page 1 of 2

12/17/09 P:\1184\001\010\FileRm\RGW&Soils\Investigation_tbs.xls Soil Analytical Results

TABLE 2
SOIL ANALYTICAL RESULTS
BAXTER NORTH WOOD WASTE LANDFILL
ARLINGTON, WASHINGTON

Sample ID: Lab ID: Date Sampled:	Method A Cleanup Level	Cleanup Level Based on Direct Contact (a)	Cleanup Level Based on Protection of Groundwater (b)	TP-1 0911034-01A 11/9/2009	TP-2 0911034-02A 11/9/2009	TP-3 0911034-03A 11/9/2009
4,6-Dinitro-2-Methylphenol				100 U	100 U	100 U
N-Nitrosodiphenylamine				100 U	100 U	100 U
Azobenzene				100 U	100 U	100 U
4-Bromophenyl-phenylether				100 U	100 U	100 U
Hexachlorobenzene				100 U	100 U	100 U
Pentachlorophenol				500 U	500 U	500 U
Phenanthrene				100 U	100 U	100 U
Anthracene				100 U	100 U	100 U
Carbazole				100 U	100 U	100 U
Di-n-butylphthalate		8,000,000	5,020,800	130 U	340	130 U
Fluoranthene				100 U	100 U	100 U
Pyrene				100 U	100 U	100 U
Butylbenzylphthalate				100 U	100 U	100 U
3,3'-Dichlorobenzidine				100 U	100 U	100 U
Benz(a)anthracene				100 U	100 U	100 U
Chrysene				100 U	100 U	100 U
Bis(2-Ethylhexyl)Phthalate				130 U	130 U	130 U
Di-N-Octylphthalate				100 U	100 U	100 U
Benzo(b)fluoranthene				100 U	100 U	100 U
Benzo(k)fluoranthene				100 U	100 U	100 U
Benzo(a)pyrene				100 U	100 U	100 U
Indeno(1,2,3-cd)pyrene				100 U	100 U	100 U
Dibenzo(a,h)anthracene				100 U	100 U	100 U
Benzo(g,h,i)perylene				100 U	100 U	100 U
Total TEQ				ND	ND	ND
SEMIVOLATILES (mg/kg)						
SW8270SIM						
Pentachlorophenol		8.33	1.19	0.072	0.063	0.055
TOTAL METALS (mg/kg)						
SW6010/7471						
Arsenic				5.0 U	5.0 U	5.0 U
Barium			1,548	60	84	79
Cadmium				1.0 U	1.0 U	1.0 U
Chromium	2,000 (III)			21	41	30
Lead	250			15	19	6.4
Selenium				5.0 U	5.0 U	5.0 U
Silver				5.0 U	5.0 U	5.0 U
Mercury	2			0.030	0.029	0.027

(a) Method B cleanup level for direct contact.

(b) Method B cleanup level for protection of groundwater as drinking water per the three-phase partitioning model and a soil fraction of organic carbon (f_{oc}) value of 0.1.

(c) Screening level protective of groundwater for 3-Methylphenol/4-Methylphenol per the three-phase partitioning model and an f_{oc} value of 0.1.

U = Indicates the compound was undetected at the reported concentration.

J = Indicates an estimated concentration when the value is less than the calculated reporting limit.

NA = Not analyzed.

ND = Not detected.

Bold = Detected compound.

ATTACHMENT A

Laboratory Analytical Reports

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES



September 16, 2009

Mr. Tim Syverson
Landau Associates
130-2nd Ave. South
Edmonds, WA 98020

Dear Mr. Syverson,

On September 1st, 5 water samples were received by our laboratory and assigned our laboratory project number 0909007. The project was identified as your Baxter North Wood Waste Landfill #114001.010.011. The sample identification and requested analyses are outlined on the attached chain of custody record.

On sample # 0909007-03 the HCID test indicated the presence of heavy oil range hydrocarbons. On the subsequent follow-up Dx test with silica gel clean-up the results were below the reporting limits. The HCID result was likely due to biogenic interference.

For method 8270 the spike duplicate recovery for 2,4-Dinitrotoluene was outside of recommended laboratory control limits (high). All associated samples were non-detect for associated analytes. No corrective action taken.

No other abnormalities or non-conformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely

ALS Laboratory Group

Rick Bagan
Laboratory Director



ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc.
130 Second Ave. S.
Edmonds, WA 98020

DATE: 9/16/2009
ALS JOB#: 0909007
DATE RECEIVED: 9/1/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Tim Syverson
CLIENT PROJECT ID: Baxter N. Wood Waste Landfill / #1184001.010.011
CLIENT SAMPLE ID: 9/1/2009 BXN-1
ALS SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
HCID-Gas Range	NWTPH-HCID	ND	130	1	UG/L	9/2/2009	EBS
HCID-Diesel Range	NWTPH-HCID	ND	310	1	UG/L	9/2/2009	EBS
HCID-Oil Range	NWTPH-HCID	ND	310	1	UG/L	9/2/2009	EBS
Dichlorodifluoromethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Chloromethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Vinyl Chloride	EPA-8260	ND	0.20	1	UG/L	9/3/2020	GAP
Bromomethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Chloroethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Carbon Tetrachloride	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Trichlorofluoromethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Acetone	EPA-8260	ND	25	1	UG/L	9/3/2020	GAP
Carbon Disulfide	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,1-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Methylene Chloride	EPA-8260	ND	5.0	1	UG/L	9/3/2020	GAP
Acrylonitrile	EPA-8260	ND	10	1	UG/L	9/3/2020	GAP
Methyl T-Butyl Ether	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,1-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
2-Butanone	EPA-8260	ND	10	1	UG/L	9/3/2020	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
2,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Bromochloromethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Chloroform	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,1,1-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,1-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,2-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Benzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Trichloroethene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Dibromomethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Bromodichloromethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
4-Methyl-2-Pentanone	EPA-8260	ND	10	1	UG/L	9/3/2020	GAP
Toluene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,1,2-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP



ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc.
130 Second Ave. S.
Edmonds, WA 98020

DATE: 9/16/2009
ALS JOB#: 0909007
DATE RECEIVED: 9/1/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Tim Syverson
CLIENT PROJECT ID: Baxter N. Wood Waste Landfill / #1184001.010.011
CLIENT SAMPLE ID: 9/1/2009 BXN-1
ALS SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
2-Hexanone	EPA-8260	ND	10	1	UG/L	9/3/2020	GAP
1,3-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Tetrachloroethylene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Dibromochloromethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,2-Dibromoethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Chlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Ethylbenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
m,p-Xylene	EPA-8260	ND	4.0	1	UG/L	9/3/2020	GAP
Styrene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
o-Xylene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Bromoform	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Isopropylbenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,2,3-Trichloropropane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Bromobenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
N-Propyl Benzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
2-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
4-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
T-Butyl Benzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
S-Butyl Benzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
P-Isopropyltoluene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,3 Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,4-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
N-Butylbenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,2-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND	10	1	UG/L	9/3/2020	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Hexachlorobutadiene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Naphthalene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Pentachlorophenol	EPA-8270 SIM	ND	0.50	1	UG/L	9/9/2009	RAL
Pyridine	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
N-Nitrosodimethylamine	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL



ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc.
130 Second Ave. S.
Edmonds, WA 98020

DATE: 9/16/2009
ALS JOB#: 0909007
DATE RECEIVED: 9/1/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Tim Syverson
CLIENT PROJECT ID: Baxter N. Wood Waste Landfill / #1184001.010.011
CLIENT SAMPLE ID: 9/1/2009 BXN-1
ALS SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Phenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Aniline	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Bis(2-Chloroethyl)Ether	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2-Chlorophenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
1,3-Dichlorobenzene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
1,4-Dichlorobenzene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Benzyl Alcohol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
1,2-Dichlorobenzene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2-Methylphenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Bis(2-Chloroisopropyl)Ether	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
3&4-Methylphenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
N-Nitroso-Di-N-Propylamine	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Hexachloroethane	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Nitrobenzene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Isophorone	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2-Nitrophenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2,4-Dimethylphenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Benzoic Acid	EPA-8270	ND	10	1	UG/L	9/2/2009	RAL
Bis(2-Chloroethoxy)Methane	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2,4-Dichlorophenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
1,2,4-Trichlorobenzene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Naphthalene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
4-Chloroaniline	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2,6-Dichlorophenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Hexachlorobutadiene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
4-Chloro-3-Methylphenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2-Methylnaphthalene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
1-Methylnaphthalene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Hexachlorocyclopentadiene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2,4,6-Trichlorophenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2,4,5-Trichlorophenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2-Chloronaphthalene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2-Nitroaniline	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Acenaphthylene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Dimethylphthalate	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2,6-Dinitrotoluene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL



ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

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CLIENT CONTACT: Tim Syverson
CLIENT PROJECT ID: Baxter N. Wood Waste Landfill / #1184001.010.011
CLIENT SAMPLE ID: 9/1/2009 BXN-1
ALS SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Acenaphthene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
3-Nitroaniline	EPA-8270	ND	5.0	1	UG/L	9/2/2009	RAL
2,4-Dinitrophenol	EPA-8270	ND	10	1	UG/L	9/2/2009	RAL
4-Nitrophenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Dibenzofuran	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2,4-Dinitrotoluene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2,3,4,6-Tetrachlorophenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Diethylphthalate	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Fluorene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
4-Chlorophenyl-Phenylether	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
4-Nitroaniline	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
4,6-Dinitro-2-Methylphenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
N-Nitrosodiphenylamine	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Azobenzene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
4-Bromophenyl-Phenylether	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Hexachlorobenzene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Pentachlorophenol	EPA-8270	ND	5.0	1	UG/L	9/2/2009	RAL
Phenanthrene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Anthracene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Carbazole	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Di-N-Butylphthalate	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Fluoranthene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Pyrene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Butylbenzylphthalate	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
3,3'-Dichlorobenzidine	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Benzo[A]Anthracene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Chrysene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Bis(2-Ethylhexyl)Phthalate	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Di-N-Octylphthalate	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Benzo[B]Fluoranthene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Benzo[K]Fluoranthene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Benzo[A]Pyrene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Dibenz[A,H]Anthracene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Benzo[G,H,I]Perylene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL



ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

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130 Second Ave. S.
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ALS JOB#: 0909007
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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Tim Syverson
CLIENT PROJECT ID: Baxter N. Wood Waste Landfill / #1184001.010.011
CLIENT SAMPLE ID: 9/1/2009 BXN-1
ALS SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
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* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT.

** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

APPROVED BY:



ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

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DATE: 9/16/2009
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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Tim Syverson
CLIENT PROJECT ID: Baxter N. Wood Waste Landfill / #1184001.010.011
CLIENT SAMPLE ID: 9/1/2009 BXN-2
ALS SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
HCID-Gas Range	NWTPH-HCID	ND	130	1	UG/L	9/2/2009	EBS
HCID-Diesel Range	NWTPH-HCID	ND	310	1	UG/L	9/2/2009	EBS
HCID-Oil Range	NWTPH-HCID	ND	310	1	UG/L	9/2/2009	EBS
Dichlorodifluoromethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Chloromethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Vinyl Chloride	EPA-8260	ND	0.20	1	UG/L	9/3/2020	GAP
Bromomethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Chloroethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Carbon Tetrachloride	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Trichlorofluoromethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Acetone	EPA-8260	ND	25	1	UG/L	9/3/2020	GAP
Carbon Disulfide	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,1-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Methylene Chloride	EPA-8260	ND	5.0	1	UG/L	9/3/2020	GAP
Acrylonitrile	EPA-8260	ND	10	1	UG/L	9/3/2020	GAP
Methyl T-Butyl Ether	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,1-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
2-Butanone	EPA-8260	ND	10	1	UG/L	9/3/2020	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
2,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Bromochloromethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Chloroform	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,1,1-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,1-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,2-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Benzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Trichloroethene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Dibromomethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Bromodichloromethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
4-Methyl-2-Pentanone	EPA-8260	ND	10	1	UG/L	9/3/2020	GAP
Toluene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,1,2-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP



ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

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DATE RECEIVED: 9/1/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Tim Syverson
CLIENT PROJECT ID: Baxter N. Wood Waste Landfill / #1184001.010.011
CLIENT SAMPLE ID: 9/1/2009 BXN-2
ALS SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING	DILUTION	UNITS**	ANALYSIS	ANALYSIS
			LIMITS	FACTOR		DATE	BY
2-Hexanone	EPA-8260	ND	10	1	UG/L	9/3/2020	GAP
1,3-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Tetrachloroethylene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Dibromochloromethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,2-Dibromoethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Chlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Ethylbenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
m,p-Xylene	EPA-8260	ND	4.0	1	UG/L	9/3/2020	GAP
Styrene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
o-Xylene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Bromoform	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Isopropylbenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,2,3-Trichloropropane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Bromobenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
N-Propyl Benzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
2-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
4-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
T-Butyl Benzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
S-Butyl Benzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
P-Isopropyltoluene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,3 Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,4-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
N-Butylbenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,2-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND	10	1	UG/L	9/3/2020	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Hexachlorobutadiene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Naphthalene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Pentachlorophenol	EPA-8270 SIM	ND	0.50	1	UG/L	9/3/2009	RAL
Pyridine	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
N-Nitrosodimethylamine	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL

**ALS Laboratory Group**

ANALYTICAL CHEMISTRY & TESTING SERVICES

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CLIENT SAMPLE ID: 9/1/2009 BXN-2
ALS SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING	DILUTION	UNITS**	ANALYSIS	ANALYSIS
			LIMITS	FACTOR		DATE	BY
Phenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Aniline	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Bis(2-Chloroethyl)Ether	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2-Chlorophenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
1,3-Dichlorobenzene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
1,4-Dichlorobenzene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Benzyl Alcohol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
1,2-Dichlorobenzene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2-Methylphenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Bis(2-Chloroisopropyl)Ether	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
3&4-Methylphenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
N-Nitroso-Di-N-Propylamine	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Hexachloroethane	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Nitrobenzene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Isophorone	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2-Nitrophenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2,4-Dimethylphenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Benzoic Acid	EPA-8270	ND	10	1	UG/L	9/2/2009	RAL
Bis(2-Chloroethoxy)Methane	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2,4-Dichlorophenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
1,2,4-Trichlorobenzene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Naphthalene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
4-Chloroaniline	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2,6-Dichlorophenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Hexachlorobutadiene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
4-Chloro-3-Methylphenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2-Methylnaphthalene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
1-Methylnaphthalene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Hexachlorocyclopentadiene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2,4,6-Trichlorophenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2,4,5-Trichlorophenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2-Chloronaphthalene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2-Nitroaniline	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Acenaphthylene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Dimethylphthalate	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2,6-Dinitrotoluene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL



ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

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DATE: 9/16/2009
ALS JOB#: 0909007
DATE RECEIVED: 9/1/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Tim Syverson
CLIENT PROJECT ID: Baxter N. Wood Waste Landfill / #1184001.010.011
CLIENT SAMPLE ID: 9/1/2009 BXN-2
ALS SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Acenaphthene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
3-Nitroaniline	EPA-8270	ND	5.0	1	UG/L	9/2/2009	RAL
2,4-Dinitrophenol	EPA-8270	ND	10	1	UG/L	9/2/2009	RAL
4-Nitrophenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Dibenzofuran	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2,4-Dinitrotoluene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2,3,4,6-Tetrachlorophenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Diethylphthalate	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Fluorene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
4-Chlorophenyl-Phenylether	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
4-Nitroaniline	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
4,6-Dinitro-2-Methylphenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
N-Nitrosodiphenylamine	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Azobenzene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
4-Bromophenyl-Phenylether	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Hexachlorobenzene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Pentachlorophenol	EPA-8270	ND	5.0	1	UG/L	9/2/2009	RAL
Phenanthrene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Anthracene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Carbazole	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Di-N-Butylphthalate	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Fluoranthene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Pyrene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Butylbenzylphthalate	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
3,3'-Dichlorobenzidine	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Benzo[A]Anthracene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Chrysene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Bis(2-Ethylhexyl)Phthalate	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Di-N-Octylphthalate	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Benzo[B]Fluoranthene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Benzo[K]Fluoranthene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Benzo[A]Pyrene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Dibenz[A,H]Anthracene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Benzo[G,H,I]Perylene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL



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CLIENT CONTACT: Tim Syverson
CLIENT PROJECT ID: Baxter N. Wood Waste Landfill / #1184001.010.011
CLIENT SAMPLE ID: 9/1/2009 BXN-2
ALS SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
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* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT.

** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

APPROVED BY:



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CLIENT SAMPLE ID: 9/1/2009 BXN-3
ALS SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
HCID-Gas Range	NWTPH-HCID	ND	130	1	UG/L	9/2/2009	EBS
HCID-Diesel Range	NWTPH-HCID	ND	310	1	UG/L	9/2/2009	EBS
HCID-Oil Range	NWTPH-HCID	310	310	1	UG/L	9/2/2009	EBS
TPH-Diesel Range	NWTPH-DX w/ SGA	ND	130	1	UG/L	9/14/2009	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	ND	250	1	UG/L	9/14/2009	EBS
Dichlorodifluoromethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Chloromethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Vinyl Chloride	EPA-8260	ND	0.20	1	UG/L	9/3/2020	GAP
Bromomethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Chloroethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Carbon Tetrachloride	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Trichlorofluoromethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Acetone	EPA-8260	ND	25	1	UG/L	9/3/2020	GAP
Carbon Disulfide	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,1-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Methylene Chloride	EPA-8260	ND	5.0	1	UG/L	9/3/2020	GAP
Acrylonitrile	EPA-8260	ND	10	1	UG/L	9/3/2020	GAP
Methyl T-Butyl Ether	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,1-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
2-Butanone	EPA-8260	ND	10	1	UG/L	9/3/2020	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
2,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Bromochloromethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Chloroform	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,1,1-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,1-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,2-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Benzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Trichloroethene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Dibromomethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Bromodichloromethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
4-Methyl-2-Pentanone	EPA-8260	ND	10	1	UG/L	9/3/2020	GAP
Toluene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP



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CLIENT CONTACT: Tim Syverson
CLIENT PROJECT ID: Baxter N. Wood Waste Landfill / #1184001.010.011
CLIENT SAMPLE ID: 9/1/2009 BXN-3
ALS SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Cis-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,1,2-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
2-Hexanone	EPA-8260	ND	10	1	UG/L	9/3/2020	GAP
1,3-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Tetrachloroethylene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Dibromochloromethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,2-Dibromoethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Chlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Ethylbenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
m,p-Xylene	EPA-8260	ND	4.0	1	UG/L	9/3/2020	GAP
Styrene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
o-Xylene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Bromoform	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Isopropylbenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,2,3-Trichloropropane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Bromobenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
N-Propyl Benzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
2-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
4-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
T-Butyl Benzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
S-Butyl Benzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
P-Isopropyltoluene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,3 Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,4-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
N-Butylbenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,2-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND	10	1	UG/L	9/3/2020	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Hexachlorobutadiene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Naphthalene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Pentachlorophenol	EPA-8270 SIM	1.5	0.50	1	UG/L	9/9/2009	RAL



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CLIENT SAMPLE ID: 9/1/2009 BXN-3
ALS SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Pyridine	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
N-Nitrosodimethylamine	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Phenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Aniline	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Bis(2-Chloroethyl)Ether	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2-Chlorophenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
1,3-Dichlorobenzene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
1,4-Dichlorobenzene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Benzyl Alcohol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
1,2-Dichlorobenzene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2-Methylphenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Bis(2-Chloroisopropyl)Ether	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
3&4-Methylphenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
N-Nitroso-Di-N-Propylamine	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Hexachloroethane	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Nitrobenzene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Isophorone	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2-Nitrophenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2,4-Dimethylphenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Benzoic Acid	EPA-8270	ND	10	1	UG/L	9/2/2009	RAL
Bis(2-Chloroethoxy)Methane	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2,4-Dichlorophenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
1,2,4-Trichlorobenzene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Naphthalene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
4-Chloroaniline	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2,6-Dichlorophenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Hexachlorobutadiene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
4-Chloro-3-Methylphenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2-Methylnaphthalene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
1-Methylnaphthalene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Hexachlorocyclopentadiene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2,4,6-Trichlorophenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2,4,5-Trichlorophenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2-Chloronaphthalene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2-Nitroaniline	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Acenaphthylene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL



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DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dimethylphthalate	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2,6-Dinitrotoluene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Acenaphthene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
3-Nitroaniline	EPA-8270	ND	5.0	1	UG/L	9/2/2009	RAL
2,4-Dinitrophenol	EPA-8270	ND	10	1	UG/L	9/2/2009	RAL
4-Nitrophenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Dibenzofuran	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2,4-Dinitrotoluene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2,3,4,6-Tetrachlorophenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Diethylphthalate	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Fluorene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
4-Chlorophenyl-Phenylether	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
4-Nitroaniline	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
4,6-Dinitro-2-Methylphenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
N-Nitrosodiphenylamine	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Azobenzene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
4-Bromophenyl-Phenylether	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Hexachlorobenzene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Pentachlorophenol	EPA-8270	ND	5.0	1	UG/L	9/2/2009	RAL
Phenanthrene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Anthracene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Carbazole	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Di-N-Butylphthalate	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Fluoranthene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Pyrene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Butylbenzylphthalate	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
3,3'-Dichlorobenzidine	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Benzo[A]Anthracene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Chrysene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Bis(2-Ethylhexyl)Phthalate	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Di-N-Octylphthalate	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Benzo[B]Fluoranthene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Benzo[K]Fluoranthene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Benzo[A]Pyrene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Dibenz[A,H]Anthracene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL



ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc.
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Edmonds, WA 98020

DATE: 9/16/2009
ALS JOB#: 0909007
DATE RECEIVED: 9/1/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Tim Syverson
CLIENT PROJECT ID: Baxter N. Wood Waste Landfill / #1184001.010.011
CLIENT SAMPLE ID: 9/1/2009 BXN-3
ALS SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Benzo[G,H,I]Perylene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL

* HCID Lube Oil Range result likely due to biogenic interference.

**ND* INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT.

** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

APPROVED BY:



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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Tim Syverson
CLIENT PROJECT ID: Baxter N. Wood Waste Landfill / #1184001.010.011
CLIENT SAMPLE ID: 9/1/2009 BXN-4
ALS SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
HCID-Gas Range	NWTPH-HCID	ND	130	1	UG/L	9/2/2009	EBS
HCID-Diesel Range	NWTPH-HCID	ND	310	1	UG/L	9/2/2009	EBS
HCID-Oil Range	NWTPH-HCID	ND	310	1	UG/L	9/2/2009	EBS
Dichlorodifluoromethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Chloromethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Vinyl Chloride	EPA-8260	ND	0.20	1	UG/L	9/3/2020	GAP
Bromomethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Chloroethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Carbon Tetrachloride	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Trichlorofluoromethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Acetone	EPA-8260	ND	25	1	UG/L	9/3/2020	GAP
Carbon Disulfide	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,1-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Methylene Chloride	EPA-8260	ND	5.0	1	UG/L	9/3/2020	GAP
Acrylonitrile	EPA-8260	ND	10	1	UG/L	9/3/2020	GAP
Methyl T-Butyl Ether	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,1-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
2-Butanone	EPA-8260	ND	10	1	UG/L	9/3/2020	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
2,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Bromochloromethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Chloroform	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,1,1-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,1-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,2-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Benzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Trichloroethene	EPA-8260	2.1	2.0	1	UG/L	9/3/2020	GAP
1,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Dibromomethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Bromodichloromethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
4-Methyl-2-Pentanone	EPA-8260	ND	10	1	UG/L	9/3/2020	GAP
Toluene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,1,2-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP



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CLIENT CONTACT: Tim Syverson
CLIENT PROJECT ID: Baxter N. Wood Waste Landfill / #1184001.010.011
CLIENT SAMPLE ID: 9/1/2009 BXN-4
ALS SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
2-Hexanone	EPA-8260	ND	10	1	UG/L	9/3/2020	GAP
1,3-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Tetrachloroethylene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Dibromochloromethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,2-Dibromoethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Chlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Ethylbenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
m,p-Xylene	EPA-8260	ND	4.0	1	UG/L	9/3/2020	GAP
Styrene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
o-Xylene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Bromoform	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Isopropylbenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,2,3-Trichloropropane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Bromobenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
N-Propyl Benzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
2-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
4-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
T-Butyl Benzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
S-Butyl Benzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
P-Isopropyltoluene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,3 Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,4-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
N-Butylbenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,2-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND	10	1	UG/L	9/3/2020	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Hexachlorobutadiene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Naphthalene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Pentachlorophenol	EPA-8270 SIM	ND	0.50	1	UG/L	9/9/2009	RAL
Pyridine	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
N-Nitrosodimethylamine	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL



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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Tim Syverson
CLIENT PROJECT ID: Baxter N. Wood Waste Landfill / #1184001.010.011
CLIENT SAMPLE ID: 9/1/2009 BXN-4
ALS SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Phenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Aniline	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Bis(2-Chloroethyl)Ether	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2-Chlorophenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
1,3-Dichlorobenzene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
1,4-Dichlorobenzene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Benzyl Alcohol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
1,2-Dichlorobenzene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2-Methylphenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Bis(2-Chloroisopropyl)Ether	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
3&4-Methylphenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
N-Nitroso-Di-N-Propylamine	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Hexachloroethane	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Nitrobenzene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Isophorone	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2-Nitrophenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2,4-Dimethylphenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Benzoic Acid	EPA-8270	ND	10	1	UG/L	9/2/2009	RAL
Bis(2-Chloroethoxy)Methane	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2,4-Dichlorophenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
1,2,4-Trichlorobenzene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Naphthalene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
4-Chloroaniline	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2,6-Dichlorophenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Hexachlorobutadiene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
4-Chloro-3-Methylphenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2-Methylnaphthalene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
1-Methylnaphthalene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Hexachlorocyclopentadiene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2,4,6-Trichlorophenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2,4,5-Trichlorophenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2-Chloronaphthalene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2-Nitroaniline	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Acenaphthylene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Dimethylphthalate	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2,6-Dinitrotoluene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL



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CLIENT CONTACT: Tim Syverson
CLIENT PROJECT ID: Baxter N. Wood Waste Landfill / #1184001.010.011
CLIENT SAMPLE ID: 9/1/2009 BXN-4
ALS SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Acenaphthene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
3-Nitroaniline	EPA-8270	ND	5.0	1	UG/L	9/2/2009	RAL
2,4-Dinitrophenol	EPA-8270	ND	10	1	UG/L	9/2/2009	RAL
4-Nitrophenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Dibenzofuran	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2,4-Dinitrotoluene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
2,3,4,6-Tetrachlorophenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Diethylphthalate	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Fluorene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
4-Chlorophenyl-Phenylether	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
4-Nitroaniline	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
4,6-Dinitro-2-Methylphenol	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
N-Nitrosodiphenylamine	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Azobenzene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
4-Bromophenyl-Phenylether	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Hexachlorobenzene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Pentachlorophenol	EPA-8270	ND	5.0	1	UG/L	9/2/2009	RAL
Phenanthrene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Anthracene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Carbazole	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Di-N-Butylphthalate	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Fluoranthene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Pyrene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Butylbenzylphthalate	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
3,3'-Dichlorobenzidine	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Benzo[A]Anthracene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Chrysene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Bis(2-Ethylhexyl)Phthalate	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Di-N-Octylphthalate	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Benzo[B]Fluoranthene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Benzo[K]Fluoranthene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Benzo[A]Pyrene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Dibenz[A,H]Anthracene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL
Benzo[G,H,I]Perylene	EPA-8270	ND	2.0	1	UG/L	9/2/2009	RAL



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CLIENT CONTACT: Tim Syverson
CLIENT PROJECT ID: Baxter N. Wood Waste Landfill / #1184001.010.011
CLIENT SAMPLE ID: 9/1/2009 BXN-4
ALS SAMPLE #: -04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
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* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT.
** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Tim Syverson
CLIENT PROJECT ID: Baxter N. Wood Waste Landfill / #1184001.010.011
CLIENT SAMPLE ID: 9/1/2009 TB
ALS SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dichlorodifluoromethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Chloromethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Vinyl Chloride	EPA-8260	ND	0.20	1	UG/L	9/3/2020	GAP
Bromomethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Chloroethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Carbon Tetrachloride	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Trichlorofluoromethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Acetone	EPA-8260	ND	25	1	UG/L	9/3/2020	GAP
Carbon Disulfide	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,1-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Methylene Chloride	EPA-8260	ND	5.0	1	UG/L	9/3/2020	GAP
Acrylonitrile	EPA-8260	ND	10	1	UG/L	9/3/2020	GAP
Methyl T-Butyl Ether	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Trans-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,1-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
2-Butanone	EPA-8260	ND	10	1	UG/L	9/3/2020	GAP
Cis-1,2-Dichloroethene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
2,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Bromochloromethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Chloroform	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,1,1-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,1-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,2-Dichloroethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Benzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Trichloroethene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,2-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Dibromomethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Bromodichloromethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Trans-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
4-Methyl-2-Pentanone	EPA-8260	ND	10	1	UG/L	9/3/2020	GAP
Toluene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Cis-1,3-Dichloropropene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,1,2-Trichloroethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
2-Hexanone	EPA-8260	ND	10	1	UG/L	9/3/2020	GAP
1,3-Dichloropropane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Tetrachloroethylene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP



ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

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Edmonds, WA 98020

DATE: 9/16/2009
ALS JOB#: 0909007
DATE RECEIVED: 9/1/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Tim Syverson
CLIENT PROJECT ID: Baxter N. Wood Waste Landfill / #1184001.010.011
CLIENT SAMPLE ID: 9/1/2009 TB
ALS SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dibromochloromethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,2-Dibromoethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Chlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,1,1,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Ethylbenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
m,p-Xylene	EPA-8260	ND	4.0	1	UG/L	9/3/2020	GAP
Styrene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
o-Xylene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Bromoform	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Isopropylbenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,1,2,2-Tetrachloroethane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,2,3-Trichloropropane	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Bromobenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
N-Propyl Benzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
2-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,3,5-Trimethylbenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
4-Chlorotoluene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
T-Butyl Benzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,2,4-Trimethylbenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
S-Butyl Benzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
P-Isopropyltoluene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,3 Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,4-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
N-Butylbenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,2-Dichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,2-Dibromo 3-Chloropropane	EPA-8260	ND	10	1	UG/L	9/3/2020	GAP
1,2,4-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Hexachlorobutadiene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
Naphthalene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP
1,2,3-Trichlorobenzene	EPA-8260	ND	2.0	1	UG/L	9/3/2020	GAP



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CLIENT SAMPLE ID: 9/1/2009 TB
ALS SAMPLE #: -05

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
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* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT.

** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

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QUALITY CONTROL RESULTS

SURROGATE RECOVERY

ALS SAMPLE ID	METHOD	SUR ID	% RECV
0909007-01	NWTPH-HCID	BCB	89%
0909007-01	NWTPH-HCID	C25	101%
0909007-01	NWTPH-HCID	C25 (conc)	89%
0909007-01	EPA-8260	1,2-Dichloroethane-d4	91%
0909007-01	EPA-8260	Toluene-d8	104%
0909007-01	EPA-8260	4-Bromofluorobenzene	101%
0909007-01	EPA-8270 SIM	2,4,6-Tribromophenol	95%
0909007-01	EPA-8270	2-Fluorophenol	44%
0909007-01	EPA-8270	Phenol-d5	18%
0909007-01	EPA-8270	Nitrobenzene-d5	102%
0909007-01	EPA-8270	2-Fluorobiphenyl	79%
0909007-01	EPA-8270	2,4,6-Tribromophenol	98%
0909007-01	EPA-8270	Terphenyl-d14	99%
0909007-02	NWTPH-HCID	BCB	93%
0909007-02	NWTPH-HCID	C25 (conc)	86%
0909007-02	NWTPH-HCID	C25	101%
0909007-02	EPA-8260	1,2-Dichloroethane-d4	96%
0909007-02	EPA-8260	Toluene-d8	103%
0909007-02	EPA-8260	4-Bromofluorobenzene	99%
0909007-02	EPA-8270 SIM	2,4,6-Tribromophenol	100%
0909007-02	EPA-8270	2-Fluorophenol	38%
0909007-02	EPA-8270	Phenol-d5	15%
0909007-02	EPA-8270	Nitrobenzene-d5	98%
0909007-02	EPA-8270	2-Fluorobiphenyl	70%
0909007-02	EPA-8270	2,4,6-Tribromophenol	84%
0909007-02	EPA-8270	Terphenyl-d14	91%
0909007-03	NWTPH-HCID	BCB	87%
0909007-03	NWTPH-HCID	C25	100%
0909007-03	NWTPH-HCID	C25 (conc)	90%
0909007-03	NWTPH-DX	C25	91%
0909007-03	EPA-8260	1,2-Dichloroethane-d4	94%
0909007-03	EPA-8260	Toluene-d8	106%
0909007-03	EPA-8260	4-Bromofluorobenzene	100%
0909007-03	EPA-8270 SIM	2,4,6-Tribromophenol	100%
0909007-03	EPA-8270	2-Fluorophenol	43%
0909007-03	EPA-8270	Phenol-d5	19%



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QUALITY CONTROL RESULTS

SURROGATE RECOVERY

ALS SAMPLE ID	METHOD	SUR ID	% RECV
0909007-03	EPA-8270	Nitrobenzene-d5	105%
0909007-03	EPA-8270	2-Fluorobiphenyl	68%
0909007-03	EPA-8270	2,4,6-Tribromophenol	86%
0909007-03	EPA-8270	Terphenyl-d14	86%
0909007-04	NWTPH-HCID	BCB	75%
0909007-04	NWTPH-HCID	C25 (conc)	76%
0909007-04	NWTPH-HCID	C25	82%
0909007-04	EPA-8260	1,2-Dichloroethane-d4	93%
0909007-04	EPA-8260	Toluene-d8	107%
0909007-04	EPA-8260	4-Bromofluorobenzene	96%
0909007-04	EPA-8270 SIM	2,4,6-Tribromophenol	115%
0909007-04	EPA-8270	2-Fluorophenol	40%
0909007-04	EPA-8270	Phenol-d5	18%
0909007-04	EPA-8270	Nitrobenzene-d5	100%
0909007-04	EPA-8270	2-Fluorobiphenyl	69%
0909007-04	EPA-8270	2,4,6-Tribromophenol	96%
0909007-04	EPA-8270	Terphenyl-d14	92%
0909007-05	EPA-8260	1,2-Dichloroethane-d4	96%
0909007-05	EPA-8260	Toluene-d8	109%
0909007-05	EPA-8260	4-Bromofluorobenzene	98%

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QUALITY CONTROL RESULTS

BLANK RESULTS

QC SAMPLE ID	MATRIX	METHOD	ANALYTE	RESULT	UNITS
MB-090209W	Water	NWTPH-HCID	HCID-Gas Range	ND(<130)	UG/L
MB-090209W	Water	NWTPH-HCID	HCID-Diesel Range	ND(<310)	UG/L
MB-090209W	Water	NWTPH-HCID	HCID-Oil Range	ND(<310)	UG/L
MB-090909W	Water	NWTPH-DX	TPH-Diesel Range	ND(<130)	UG/L
MB-090909W	Water	NWTPH-DX	TPH-Oil Range	ND(<250)	UG/L
MB-082809W	Water	EPA-8260	Dichlorodifluoromethane	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	Chloromethane	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	Vinyl Chloride	ND(<0.20)	UG/L
MB-082809W	Water	EPA-8260	Bromomethane	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	Chloroethane	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	Trichlorofluoromethane	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	Carbon Tetrachloride	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	Carbon Disulfide	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	Acetone	ND(<25)	UG/L
MB-082809W	Water	EPA-8260	1,1-Dichloroethene	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	Methylene Chloride	ND(<5.0)	UG/L
MB-082809W	Water	EPA-8260	Acrylonitrile	ND(<10)	UG/L
MB-082809W	Water	EPA-8260	Methyl T-Butyl Ether	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	Trans-1,2-Dichloroethene	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	1,1-Dichloroethane	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	2-Butanone	ND(<10)	UG/L
MB-082809W	Water	EPA-8260	Cis-1,2-Dichloroethene	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	2,2-Dichloropropane	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	Bromochloromethane	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	Chloroform	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	1,1,1-Trichloroethane	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	1,1-Dichloropropene	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	1,2-Dichloroethane	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	Benzene	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	Trichloroethene	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	1,2-Dichloropropane	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	Dibromomethane	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	Bromodichloromethane	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	Trans-1,3-Dichloropropene	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	4-Methyl-2-Pentanone	ND(<10)	UG/L
MB-082809W	Water	EPA-8260	Toluene	ND(<2.0)	UG/L



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QUALITY CONTROL RESULTS

BLANK RESULTS

QC SAMPLE ID	MATRIX	METHOD	ANALYTE	RESULT	UNITS
MB-082809W	Water	EPA-8260	Cis-1,3-Dichloropropene	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	1,1,2-Trichloroethane	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	2-Hexanone	ND(<10)	UG/L
MB-082809W	Water	EPA-8260	1,3-Dichloropropane	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	Tetrachloroethylene	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	Dibromochloromethane	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	1,2-Dibromoethane	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	Chlorobenzene	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	1,1,1,2-Tetrachloroethane	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	Ethylbenzene	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	m,p-Xylene	ND(<4.0)	UG/L
MB-082809W	Water	EPA-8260	Styrene	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	o-Xylene	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	Bromoform	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	Isopropylbenzene	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	1,1,2,2-Tetrachloroethane	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	1,2,3-Trichloropropane	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	Bromobenzene	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	N-Propyl Benzene	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	2-Chlorotoluene	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	1,3,5-Trimethylbenzene	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	4-Chlorotoluene	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	T-Butyl Benzene	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	1,2,4-Trimethylbenzene	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	S-Butyl Benzene	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	P-Isopropyltoluene	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	1,3 Dichlorobenzene	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	1,4-Dichlorobenzene	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	N-Butylbenzene	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	1,2-Dichlorobenzene	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	1,2-Dibromo 3-Chloropropane	ND(<10)	UG/L
MB-082809W	Water	EPA-8260	1,2,4-Trichlorobenzene	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	Hexachlorobutadiene	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	Naphthalene	ND(<2.0)	UG/L
MB-082809W	Water	EPA-8260	1,2,3-Trichlorobenzene	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270 SIM	Pentachlorophenol	ND(<0.50)	UG/L



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QUALITY CONTROL RESULTS

BLANK RESULTS

QC SAMPLE ID	MATRIX	METHOD	ANALYTE	RESULT	UNITS
MB-090209W	Water	EPA-8270	Pyridine	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	N-Nitrosodimethylamine	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	Phenol	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	Aniline	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	Bis(2-Chloroethyl)Ether	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	2-Chlorophenol	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	1,3-Dichlorobenzene	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	1,4-Dichlorobenzene	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	Benzyl Alcohol	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	1,2-Dichlorobenzene	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	2-Methylphenol	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	Bis(2-Chloroisopropyl) Ether	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	3&4-Methylphenol	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	N-Nitroso-Di-N-Propylamine	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	Hexachloroethane	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	Nitrobenzene	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	Isophorone	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	2-Nitrophenol	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	2,4-Dimethylphenol	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	Benzoic Acid	ND(<10)	UG/L
MB-090209W	Water	EPA-8270	Bis(2-Chloroethoxy)Methane	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	2,4-Dichlorophenol	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	1,2,4-Trichlorobenzene	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	Naphthalene	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	4-Chloroaniline	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	2,6-Dichlorophenol	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	Hexachlorobutadiene	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	4-Chloro-3-Methylphenol	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	2-Methylnaphthalene	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	1-Methylnaphthalene	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	Hexachlorocyclopentadiene	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	2,4,6-Trichlorophenol	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	2,4,5-Trichlorophenol	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	2-Chloronaphthalene	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	2-Nitroaniline	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	Acenaphthylene	ND(<2.0)	UG/L



ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc.
130 Second Ave. S.
Edmonds, WA 98020

DATE: 9/16/2009
ALS JOB#: 0909007
DATE RECEIVED: 9/1/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Tim Syverson
CLIENT PROJECT ID: Baxter N. Wood Waste Landfill / #1184001.010.011

QUALITY CONTROL RESULTS

BLANK RESULTS

QC SAMPLE ID	MATRIX	METHOD	ANALYTE	RESULT	UNITS
MB-090209W	Water	EPA-8270	Dimethylphthalate	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	2,6-Dinitrotoluene	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	Acenaphthene	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	3-Nitroaniline	ND(<5.0)	UG/L
MB-090209W	Water	EPA-8270	2,4-Dinitrophenol	ND(<10)	UG/L
MB-090209W	Water	EPA-8270	4-Nitrophenol	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	Dibenzofuran	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	2,4-Dinitrotoluene	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	2,3,4,6-Tetrachlorophenol	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	Diethylphthalate	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	Fluorene	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	4-Chlorophenyl-Phenylether	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	4-Nitroaniline	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	4,6-Dinitro-2-Methylphenol	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	N-Nitrosodiphenylamine	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	Azobenzene	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	4-Bromophenyl-Phenylether	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	Hexachlorobenzene	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	Pentachlorophenol	ND(<5.0)	UG/L
MB-090209W	Water	EPA-8270	Phenanthrene	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	Anthracene	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	Carbazole	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	Di-N-Butylphthalate	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	Fluoranthene	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	Pyrene	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	Butylbenzylphthalate	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	3,3'-Dichlorobenzidine	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	Benzo[A]Anthracene	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	Chrysene	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	Bis(2-Ethylhexyl)Phthalate	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	Di-N-Octylphthalate	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	Benzo[B]Fluoranthene	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	Benzo[K]Fluoranthene	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	Benzo[A]Pyrene	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	Indeno[1,2,3-Cd]Pyrene	ND(<2.0)	UG/L
MB-090209W	Water	EPA-8270	Dibenz[A,H]Anthracene	ND(<2.0)	UG/L



ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Tim Syverson
CLIENT PROJECT ID: Baxter N. Wood Waste Landfill / #1184001.010.011

QUALITY CONTROL RESULTS

BLANK RESULTS

QC SAMPLE ID	MATRIX	METHOD	ANALYTE	RESULT	UNITS
MB-090209W	Water	EPA-8270	Benzo[G,H,I]Perylene	ND(<2.0)	UG/L

APPROVED BY:



ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

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CLIENT CONTACT: Tim Syverson
CLIENT PROJECT ID: Baxter N. Wood Waste Landfill / #1184001.010.011

QUALITY CONTROL RESULTS

BLANK SPIKE/BLANK SPIKE DUPLICATE RESULTS

QC BATCH ID	MATRIX	METHOD	ANALYTE	SPIKE AMOUNT	BLANK SPIKE RECOVERY	BLANK SPIKE DUPLICATE RECOVERY	RPD
246	Water	NWTPH-DX	TPH-Diesel Range	500	82%	82%	0
228	Water	EPA-8260	1,1-Dichloroethene	10	105%	102%	3
228	Water	EPA-8260	Benzene	10	101%	105%	3
228	Water	EPA-8260	Trichloroethene	10	98%	102%	4
228	Water	EPA-8260	Toluene	10	99%	101%	3
228	Water	EPA-8260	Chlorobenzene	10	101%	107%	5
260	Water	EPA-8270 SIM	Pentachlorophenol	50000	71%	69%	3
247	Water	EPA-8270	Phenol	50	24%	21%	17
247	Water	EPA-8270	2-Chlorophenol	50	63%	71%	12
247	Water	EPA-8270	1,4-Dichlorobenzene	25	47%	53%	11
247	Water	EPA-8270	N-Nitroso-Di-N-Propylamine	25	83%	76%	8
247	Water	EPA-8270	1,2,4-Trichlorobenzene	25	57%	62%	9
247	Water	EPA-8270	4-Chloro-3-Methylphenol	50	91%	97%	7
247	Water	EPA-8270	Acenaphthene	25	69%	73%	5
247	Water	EPA-8270	4-Nitrophenol	50	19%	21%	12
247	Water	EPA-8270	2,4-Dinitrotoluene	25	97%	110% (49%-98%)	12
247	Water	EPA-8270	Pentachlorophenol	50	92%	96%	5
247	Water	EPA-8270	Pyrene	25	104%	114%	9

2,4-Dinitrotoluene spike recovery outside of recommended laboratory control limits. All associated samples were non-detect for associated analytes. No corrective action taken.

APPROVED BY:



- ☒ Seattle (Edmonds) (425) 778-0907
☐ Tacoma (253) 926-2493
☐ Spokane (509) 327-9737
☐ Portland (Tigard) (503) 443-6010
☐

Chain-of-Custody Record

Date 9/1/09
Page 1 of 1

Project Name Baxter North Wood Project No. 1184001-010-011
Project Location/Event Waste Landfill Arlington / GW Investigation
Sampler's Name Elizabeth Peale / Alan Starr
Project Contact Tim Syverson
Send Results To Tim Syverson / Anne Halverson

Testing Parameters

Turnaround Time

- ☒ Standard
☐ Accelerated
☐

Sample I.D.

Date

Time

Matrix

No. of Containers

Observations/Comments

1
2
3
4
5

BXN-1
BXN-2
BXN-3
BXN-4
TB

9/1/09
↓

1125
1240
1425
1330

H₂O
↓

8
8
7
8
2

X X X X X
X X X X X
X X X X X
X X X X X
X

VOCs 8260
SVOCs 8260
Pentachlorophenol
NWTPH-HC/A
Dx/cleanup

X Allow water samples to settle, collect aliquot from clear portion

NWTPH-Dx:

X run acid wash/silica gel cleanup
run samples standardized to
product

Analyze for EPH if no specific product identified

VOC/BTEX/VPH (soil):

non-preserved
preserved w/methanol
preserved w/sodium bisulfate
Freeze upon receipt

Dissolved metal water samples field filtered

Other Hold jars for Dx and
CAR

Added 9/14/09 per Tim
use 8270 SIM on PCP per Tim S.

Special Shipment/Handling or Storage Requirements

Method of Shipment

Relinquished by

Signature Elizabeth Peale
Printed Name Elizabeth Peale
Company Landau Associates

Date 9/1/09 Time 1545

Received by

Signature Shawn Robinson
Printed Name Shawn Robinson
Company Arc Laboratory Group

Date 9/1/09 Time 1545

Relinquished by

Signature
Printed Name
Company

Date Time

Received by

Signature
Printed Name
Company

Date Time



ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc.
130 - 2nd Ave. S.
Edmonds, WA 98020

DATE: 11/23/2009
ALS JOB#: 0911034
DATE RECEIVED: 11/9/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Tim Syverson
CLIENT PROJECT ID: Baxter Landfill
CLIENT SAMPLE ID: 11/9/2009 TP-1
ALS SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Pentachlorophenol	EPA-8270 SIM	0.072	0.050	1	MG/KG	11/23/2009	RAL
Pyridine	EPA-8270	ND	200	1	UG/KG	11/11/2009	RAL
N-Nitrosodimethylamine	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Phenol	EPA-8270	120	100	1	UG/KG	11/11/2009	RAL
Aniline	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Bis(2-Chloroethyl)Ether	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
2-Chlorophenol	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
1,3-Dichlorobenzene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
1,4-Dichlorobenzene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Benzyl Alcohol	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
1,2-Dichlorobenzene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
2-Methylphenol	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Bis(2-Chloroisopropyl)Ether	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
3&4-Methylphenol	EPA-8270	500	100	1	UG/KG	11/11/2009	RAL
N-Nitroso-Di-N-Propylamine	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Hexachloroethane	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Nitrobenzene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Isophorone	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
2-Nitrophenol	EPA-8270	ND	250	1	UG/KG	11/11/2009	RAL
2,4-Dimethylphenol	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Benzoic Acid	EPA-8270	ND	1,000	1	UG/KG	11/11/2009	RAL
Bis(2-Chloroethoxy)Methane	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
2,4-Dichlorophenol	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
1,2,4-Trichlorobenzene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Naphthalene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
4-Chloroaniline	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
2,6-Dichlorophenol	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Hexachlorobutadiene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
4-Chloro-3-Methylphenol	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
2-Methylnaphthalene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
1-Methylnaphthalene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Hexachlorocyclopentadiene	EPA-8270	ND	500	1	UG/KG	11/11/2009	RAL
2,4,6-Trichlorophenol	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
2,4,5-Trichlorophenol	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
2-Chloronaphthalene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
2-Nitroaniline	EPA-8270	ND	250	1	UG/KG	11/11/2009	RAL



ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Tim Syverson
CLIENT PROJECT ID: Baxter Landfill
CLIENT SAMPLE ID: 11/9/2009 TP-1
ALS SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Acenaphthylene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Dimethylphthalate	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
2,6-Dinitrotoluene	EPA-8270	ND	250	1	UG/KG	11/11/2009	RAL
Acenaphthene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
3-Nitroaniline	EPA-8270	ND	250	1	UG/KG	11/11/2009	RAL
2,4-Dinitrophenol	EPA-8270	ND	500	1	UG/KG	11/11/2009	RAL
4-Nitrophenol	EPA-8270	ND	500	1	UG/KG	11/11/2009	RAL
Dibenzofuran	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
2,4-Dinitrotoluene	EPA-8270	ND	250	1	UG/KG	11/11/2009	RAL
2,3,4,6-Tetrachlorophenol	EPA-8270	ND	250	1	UG/KG	11/11/2009	RAL
Diethylphthalate	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Fluorene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
4-Chlorophenyl-Phenylether	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
4-Nitroaniline	EPA-8270	ND	250	1	UG/KG	11/11/2009	RAL
4,6-Dinitro-2-Methylphenol	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
N-Nitrosodiphenylamine	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Azobenzene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
4-Bromophenyl-Phenylether	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Hexachlorobenzene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Pentachlorophenol	EPA-8270	ND	500	1	UG/KG	11/11/2009	RAL
Phenanthrene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Anthracene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Carbazole	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Di-N-Butylphthalate	EPA-8270	ND	130	1	UG/KG	11/11/2009	RAL
Fluoranthene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Pyrene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Butylbenzylphthalate	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
3,3'-Dichlorobenzidine	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Benzo[A]Anthracene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Chrysene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Bis(2-Ethylhexyl)Phthalate	EPA-8270	ND	130	1	UG/KG	11/11/2009	RAL
Di-N-Octylphthalate	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Benzo[B]Fluoranthene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Benzo[K]Fluoranthene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Benzo[A]Pyrene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL



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CLIENT CONTACT: Tim Syverson
CLIENT PROJECT ID: Baxter Landfill
CLIENT SAMPLE ID: 11/9/2009 TP-1
ALS SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Dibenz[A,H]Anthracene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Benzo[G,H,I]Perylene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Arsenic	EPA-6010	ND	5.0	4	MG/KG	11/19/2009	BAM
Barium	EPA-6010	60	3.0	4	MG/KG	11/19/2009	BAM
Cadmium	EPA-6010	ND	1.0	4	MG/KG	11/19/2009	BAM
Chromium	EPA-6010	21	1.0	4	MG/KG	11/19/2009	BAM
Lead	EPA-6010	15	5.0	4	MG/KG	11/19/2009	BAM
Selenium	EPA-6010	ND	5.0	4	MG/KG	11/19/2009	BAM
Silver	EPA-6010	ND	5.0	4	MG/KG	11/19/2009	BAM
Mercury	EPA-7471	0.030	0.020	1	MG/KG	11/11/2009	BAM

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT.

** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

APPROVED BY:



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DATE: 11/23/2009
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DATE RECEIVED: 11/9/2009
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CLIENT CONTACT: Tim Syverson
CLIENT PROJECT ID: Baxter Landfill
CLIENT SAMPLE ID: 11/9/2009 TP-2
ALS SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	ND	48	1	MG/KG	11/13/2009	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	410	50	1	MG/KG	11/13/2009	EBS
Pentachlorophenol	EPA-8270 SIM	0.063	0.050	1	MG/KG	11/23/2009	RAL
Pyridine	EPA-8270	ND	200	1	UG/KG	11/11/2009	RAL
N-Nitrosodimethylamine	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Phenol	EPA-8270	130	100	1	UG/KG	11/11/2009	RAL
Aniline	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Bis(2-Chloroethyl)Ether	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
2-Chlorophenol	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
1,3-Dichlorobenzene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
1,4-Dichlorobenzene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Benzyl Alcohol	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
1,2-Dichlorobenzene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
2-Methylphenol	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Bis(2-Chloroisopropyl)Ether	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
3&4-Methylphenol	EPA-8270	770	100	1	UG/KG	11/11/2009	RAL
N-Nitroso-Di-N-Propylamine	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Hexachloroethane	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Nitrobenzene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Isophorone	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
2-Nitrophenol	EPA-8270	ND	250	1	UG/KG	11/11/2009	RAL
2,4-Dimethylphenol	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Benzoic Acid	EPA-8270	ND	1,000	1	UG/KG	11/11/2009	RAL
Bis(2-Chloroethoxy)Methane	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
2,4-Dichlorophenol	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
1,2,4-Trichlorobenzene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Naphthalene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
4-Chloroaniline	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
2,6-Dichlorophenol	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Hexachlorobutadiene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
4-Chloro-3-Methylphenol	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
2-Methylnaphthalene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
1-Methylnaphthalene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Hexachlorocyclopentadiene	EPA-8270	ND	500	1	UG/KG	11/11/2009	RAL
2,4,6-Trichlorophenol	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
2,4,5-Trichlorophenol	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL



ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc.
130 - 2nd Ave. S.
Edmonds, WA 98020

DATE: 11/23/2009
ALS JOB#: 0911034
DATE RECEIVED: 11/9/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Tim Syverson
CLIENT PROJECT ID: Baxter Landfill
CLIENT SAMPLE ID: 11/9/2009 TP-2
ALS SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
2-Chloronaphthalene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
2-Nitroaniline	EPA-8270	ND	250	1	UG/KG	11/11/2009	RAL
Acenaphthylene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Dimethylphthalate	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
2,6-Dinitrotoluene	EPA-8270	ND	250	1	UG/KG	11/11/2009	RAL
Acenaphthene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
3-Nitroaniline	EPA-8270	ND	250	1	UG/KG	11/11/2009	RAL
2,4-Dinitrophenol	EPA-8270	ND	500	1	UG/KG	11/11/2009	RAL
4-Nitrophenol	EPA-8270	ND	500	1	UG/KG	11/11/2009	RAL
Dibenzofuran	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
2,4-Dinitrotoluene	EPA-8270	ND	250	1	UG/KG	11/11/2009	RAL
2,3,4,6-Tetrachlorophenol	EPA-8270	ND	250	1	UG/KG	11/11/2009	RAL
Diethylphthalate	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Fluorene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
4-Chlorophenyl-Phenylether	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
4-Nitroaniline	EPA-8270	ND	250	1	UG/KG	11/11/2009	RAL
4,6-Dinitro-2-Methylphenol	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
N-Nitrosodiphenylamine	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Azobenzene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
4-Bromophenyl-Phenylether	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Hexachlorobenzene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Pentachlorophenol	EPA-8270	ND	500	1	UG/KG	11/11/2009	RAL
Phenanthrene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Anthracene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Carbazole	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Di-N-Butylphthalate	EPA-8270	340	130	1	UG/KG	11/11/2009	RAL
Fluoranthene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Pyrene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Butylbenzylphthalate	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
3,3'-Dichlorobenzidine	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Benzo[A]Anthracene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Chrysene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Bis(2-Ethylhexyl)Phthalate	EPA-8270	ND	130	1	UG/KG	11/11/2009	RAL
Di-N-Octylphthalate	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Benzo[B]Fluoranthene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Benzo[K]Fluoranthene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL



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CLIENT CONTACT: Tim Syverson
CLIENT PROJECT ID: Baxter Landfill
CLIENT SAMPLE ID: 11/9/2009 TP-2
ALS SAMPLE #: -02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Benzo[A]Pyrene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Dibenz[A,H]Anthracene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Benzo[G,H,I]Perylene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Arsenic	EPA-6010	ND	5.0	4	MG/KG	11/19/2009	BAM
Barium	EPA-6010	84	3.0	4	MG/KG	11/19/2009	BAM
Cadmium	EPA-6010	ND	1.0	4	MG/KG	11/19/2009	BAM
Chromium	EPA-6010	41	1.0	4	MG/KG	11/19/2009	BAM
Lead	EPA-6010	19	5.0	4	MG/KG	11/19/2009	BAM
Selenium	EPA-6010	ND	5.0	4	MG/KG	11/19/2009	BAM
Silver	EPA-6010	ND	5.0	4	MG/KG	11/19/2009	BAM
Mercury	EPA-7471	0.029	0.020	1	MG/KG	11/11/2009	BAM

Chromatogram indicates that it is likely that sample contains lube oil.

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT.

** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

APPROVED BY:



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CLIENT CONTACT: Tim Syverson
CLIENT PROJECT ID: Baxter Landfill
CLIENT SAMPLE ID: 11/9/2009 TP-3
ALS SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX w/ SGA	400	25	1	MG/KG	11/13/2009	EBS
TPH-Oil Range	NWTPH-DX w/ SGA	810	50	1	MG/KG	11/13/2009	EBS
Pentachlorophenol	EPA-8270 SIM	0.055	0.050	1	MG/KG	11/23/2009	RAL
Pyridine	EPA-8270	ND	200	1	UG/KG	11/11/2009	RAL
N-Nitrosodimethylamine	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Phenol	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Aniline	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Bis(2-Chloroethyl)Ether	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
2-Chlorophenol	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
1,3-Dichlorobenzene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
1,4-Dichlorobenzene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Benzyl Alcohol	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
1,2-Dichlorobenzene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
2-Methylphenol	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Bis(2-Chloroisopropyl)Ether	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
3&4-Methylphenol	EPA-8270	180	100	1	UG/KG	11/11/2009	RAL
N-Nitroso-Di-N-Propylamine	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Hexachloroethane	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Nitrobenzene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Isophorone	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
2-Nitrophenol	EPA-8270	ND	250	1	UG/KG	11/11/2009	RAL
2,4-Dimethylphenol	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Benzoic Acid	EPA-8270	ND	1,000	1	UG/KG	11/11/2009	RAL
Bis(2-Chloroethoxy)Methane	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
2,4-Dichlorophenol	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
1,2,4-Trichlorobenzene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Naphthalene	EPA-8270	150	100	1	UG/KG	11/11/2009	RAL
4-Chloroaniline	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
2,6-Dichlorophenol	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Hexachlorobutadiene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
4-Chloro-3-Methylphenol	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
2-Methylnaphthalene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
1-Methylnaphthalene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Hexachlorocyclopentadiene	EPA-8270	ND	500	1	UG/KG	11/11/2009	RAL
2,4,6-Trichlorophenol	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
2,4,5-Trichlorophenol	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL



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CLIENT CONTACT: Tim Syverson
CLIENT PROJECT ID: Baxter Landfill
CLIENT SAMPLE ID: 11/9/2009 TP-3
ALS SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
2-Chloronaphthalene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
2-Nitroaniline	EPA-8270	ND	250	1	UG/KG	11/11/2009	RAL
Acenaphthylene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Dimethylphthalate	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
2,6-Dinitrotoluene	EPA-8270	ND	250	1	UG/KG	11/11/2009	RAL
Acenaphthene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
3-Nitroaniline	EPA-8270	ND	250	1	UG/KG	11/11/2009	RAL
2,4-Dinitrophenol	EPA-8270	ND	500	1	UG/KG	11/11/2009	RAL
4-Nitrophenol	EPA-8270	ND	500	1	UG/KG	11/11/2009	RAL
Dibenzofuran	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
2,4-Dinitrotoluene	EPA-8270	ND	250	1	UG/KG	11/11/2009	RAL
2,3,4,6-Tetrachlorophenol	EPA-8270	ND	250	1	UG/KG	11/11/2009	RAL
Diethylphthalate	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Fluorene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
4-Chlorophenyl-Phenylether	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
4-Nitroaniline	EPA-8270	ND	250	1	UG/KG	11/11/2009	RAL
4,6-Dinitro-2-Methylphenol	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
N-Nitrosodiphenylamine	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Azobenzene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
4-Bromophenyl-Phenylether	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Hexachlorobenzene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Pentachlorophenol	EPA-8270	ND	500	1	UG/KG	11/11/2009	RAL
Phenanthrene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Anthracene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Carbazole	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Di-N-Butylphthalate	EPA-8270	ND	130	1	UG/KG	11/11/2009	RAL
Fluoranthene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Pyrene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Butylbenzylphthalate	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
3,3'-Dichlorobenzidine	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Benzo[A]Anthracene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Chrysene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Bis(2-Ethylhexyl)Phthalate	EPA-8270	ND	130	1	UG/KG	11/11/2009	RAL
Di-N-Octylphthalate	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Benzo[B]Fluoranthene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Benzo[K]Fluoranthene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL



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ANALYTICAL CHEMISTRY & TESTING SERVICES

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CLIENT CONTACT: Tim Syverson
CLIENT PROJECT ID: Baxter Landfill
CLIENT SAMPLE ID: 11/9/2009 TP-3
ALS SAMPLE #: -03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Benzo[A]Pyrene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Dibenz[A,H]Anthracene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Benzo[G,H,I]Perylene	EPA-8270	ND	100	1	UG/KG	11/11/2009	RAL
Arsenic	EPA-6010	ND	5.0	4	MG/KG	11/19/2009	BAM
Barium	EPA-6010	79	3.0	4	MG/KG	11/19/2009	BAM
Cadmium	EPA-6010	ND	1.0	4	MG/KG	11/19/2009	BAM
Chromium	EPA-6010	30	1.0	4	MG/KG	11/19/2009	BAM
Lead	EPA-6010	6.4	5.0	4	MG/KG	11/19/2009	BAM
Selenium	EPA-6010	ND	5.0	4	MG/KG	11/19/2009	BAM
Silver	EPA-6010	ND	5.0	4	MG/KG	11/19/2009	BAM
Mercury	EPA-7471	0.027	0.020	1	MG/KG	11/11/2009	BAM

Chromatogram indicates that it is likely that sample contains weathered diesel and an unidentified oil range product.

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT.

** UNITS FOR ALL NON-LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS.

APPROVED BY:



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CLIENT PROJECT ID: Baxter Landfill

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

ALS SAMPLE ID	METHOD	SUR ID	% RECV
0911034-01	EPA-8270 SIM	2,4,6-Tribromophenol	86%
0911034-01	EPA-8270	2-Fluorophenol	77%
0911034-01	EPA-8270	Phenol-d5	84%
0911034-01	EPA-8270	Nitrobenzene-d5	111%
0911034-01	EPA-8270	2-Fluorobiphenyl	96%
0911034-01	EPA-8270	2,4,6-Tribromophenol	S1
0911034-01	EPA-8270	Terphenyl-d14	90%
0911034-02	NWTPH-DX	C25	115%
0911034-02	EPA-8270 SIM	2,4,6-Tribromophenol	83%
0911034-02	EPA-8270	2-Fluorophenol	76%
0911034-02	EPA-8270	Phenol-d5	82%
0911034-02	EPA-8270	Nitrobenzene-d5	99%
0911034-02	EPA-8270	2-Fluorobiphenyl	91%
0911034-02	EPA-8270	2,4,6-Tribromophenol	102%
0911034-02	EPA-8270	Terphenyl-d14	91%
0911034-03	NWTPH-DX	C25	102%
0911034-03	EPA-8270 SIM	2,4,6-Tribromophenol	86%
0911034-03	EPA-8270	2-Fluorophenol	81%
0911034-03	EPA-8270	Phenol-d5	90%
0911034-03	EPA-8270	Nitrobenzene-d5	113%
0911034-03	EPA-8270	2-Fluorobiphenyl	101%
0911034-03	EPA-8270	2,4,6-Tribromophenol	S1
0911034-03	EPA-8270	Terphenyl-d14	97%

S1- Surrogate outside of control limits due to matrix effect.

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CLIENT PROJECT ID: Baxter Landfill

QUALITY CONTROL RESULTS

BLANK RESULTS

QC SAMPLE ID	MATRIX	METHOD	ANALYTE	RESULT	UNITS
MB-111209S	Soil	NWTPH-DX	Diesel	ND(<25)	MG/KG
MB-111209S	Soil	NWTPH-DX	Motor Oil	ND(<50)	MG/KG
MB-111009S	Soil	EPA-8270 SIM	Pentachlorophenol	ND(<0.050)	MG/KG
MB-111009S	Soil	EPA-8270 SIM	Benzo(ghi)perylene	ND(<0.020)	MG/KG
MB-111009S	Soil	EPA-8270	Pyridine	ND(<200)	UG/KG
MB-111009S	Soil	EPA-8270	N-Nitrosodimethylamine	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	Phenol	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	Aniline	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	Bis(2-Chloroethyl) Ether	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	2-Chlorophenol	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	1,3-Dichlorobenzene	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	1,4-Dichlorobenzene	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	Benzyl Alcohol	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	1,2-Dichlorobenzene	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	o-Cresol	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	Bis(2-chloroisopropyl) ether	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	m,p-Cresol (2:1 ratio)	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	N-Nitrosodi-n-propylamine	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	Hexachloroethane	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	Nitrobenzene	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	Isophorone	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	2-Nitrophenol	ND(<250)	UG/KG
MB-111009S	Soil	EPA-8270	2,4-Dimethylphenol	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	Benzoic Acid	ND(<1,000)	UG/KG
MB-111009S	Soil	EPA-8270	Bis(2-Chloroethoxy)Methane	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	2,4-Dichlorophenol	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	1,2,4-Trichlorobenzene	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	Naphthalene	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	4-Chloroaniline	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	2,6-Dichlorophenol	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	Hexachlorobutadiene	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	4-Chloro-3-Methylphenol	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	2-Methylnaphthalene	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	1-Methylnaphthalene	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	Hexachlorocyclopentadiene	ND(<500)	UG/KG
MB-111009S	Soil	EPA-8270	2,4,6-Trichlorophenol	ND(<100)	UG/KG



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CLIENT CONTACT: Tim Syverson
CLIENT PROJECT ID: Baxter Landfill

QUALITY CONTROL RESULTS

BLANK RESULTS

QC SAMPLE ID	MATRIX	METHOD	ANALYTE	RESULT	UNITS
MB-111009S	Soil	EPA-8270	2,4,5-Trichlorophenol	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	2-Chloronaphthalene	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	2-Nitroaniline	ND(<250)	UG/KG
MB-111009S	Soil	EPA-8270	Acenaphthylene	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	Dimethyl phthalate	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	2,6-Dinitrotoluene	ND(<250)	UG/KG
MB-111009S	Soil	EPA-8270	Acenaphthene	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	m-Nitroaniline	ND(<250)	UG/KG
MB-111009S	Soil	EPA-8270	2,4-Dinitrophenol	ND(<500)	UG/KG
MB-111009S	Soil	EPA-8270	4-Nitrophenol	ND(<500)	UG/KG
MB-111009S	Soil	EPA-8270	Dibenzofuran	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	2,4-Dinitrotoluene	ND(<250)	UG/KG
MB-111009S	Soil	EPA-8270	2,3,4,6-Tetrachlorophenol	ND(<250)	UG/KG
MB-111009S	Soil	EPA-8270	Diethyl phthalate	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	Fluorene	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	4-Chlorophenyl-Phenylether	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	4-Nitroaniline	ND(<250)	UG/KG
MB-111009S	Soil	EPA-8270	4,6-Dinitro-2-Methylphenol	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	N-Nitrosodiphenylamine	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	Azobenzene	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	4-Bromophenyl phenyl ether	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	Hexachlorobenzene	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	Pentachlorophenol	ND(<500)	UG/KG
MB-111009S	Soil	EPA-8270	Phenanthrene	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	Anthracene	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	Carbazole	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	Dibutyl phthalate	ND(<130)	UG/KG
MB-111009S	Soil	EPA-8270	Fluoranthene	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	Pyrene	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	Butyl benzyl phthalate	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	3,3'-Dichlorobenzidine	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	Benz[a]anthracene	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	Chrysene	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	Bis(2-Ethylhexyl) Phthalate	ND(<130)	UG/KG
MB-111009S	Soil	EPA-8270	Di-N-Octyl Phthalate	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	Benzo(b)fluoranthene	ND(<100)	UG/KG



ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc.
130 - 2nd Ave. S.
Edmonds, WA 98020

DATE: 11/23/2009
ALS JOB#: 0911034
DATE RECEIVED: 11/9/2009
WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Tim Syverson
CLIENT PROJECT ID: Baxter Landfill

QUALITY CONTROL RESULTS

BLANK RESULTS

QC SAMPLE ID	MATRIX	METHOD	ANALYTE	RESULT	UNITS
MB-111009S	Soil	EPA-8270	Benzo(k)fluoranthene	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	Benzo(a)pyrene	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	Indeno(1,2,3-cd)pyrene	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	Dibenzo(a,h)anthracene	ND(<100)	UG/KG
MB-111009S	Soil	EPA-8270	Benzo(ghi)perylene	ND(<100)	UG/KG
MBLK-11192009	Soil	EPA-6010	Arsenic	ND(<1.3)	MG/KG
MBLK-11192009	Soil	EPA-6010	Barium	ND(<0.75)	MG/KG
MBLK-11192009	Soil	EPA-6010	Cadmium	ND(<0.25)	MG/KG
MBLK-11192009	Soil	EPA-6010	Chromium	ND(<0.25)	MG/KG
MBLK-11192009	Soil	EPA-6010	Lead	ND(<1.3)	MG/KG
MBLK-11192009	Soil	EPA-6010	Selenium	ND(<1.3)	MG/KG
MBLK-11192009	Soil	EPA-6010	Silver	ND(<1.3)	MG/KG
MBLK-11112009	Soil	EPA-7471	Mercury	ND(<0.020)	MG/KG

APPROVED BY:



ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

CLIENT: Landau Associates, Inc.
130 - 2nd Ave. S.
Edmonds, WA 98020

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WDOE ACCREDITATION #: C1336

CLIENT CONTACT: Tim Syverson
CLIENT PROJECT ID: Baxter Landfill

QUALITY CONTROL RESULTS

BLANK SPIKE/BLANK SPIKE DUPLICATE RESULTS

QC BATCH ID	MATRIX	METHOD	ANALYTE	SPIKE AMOUNT	BLANK SPIKE RECOVERY	BLANK SPIKE DUPLICATE RECOVERY	RPD
396	Soil	NWTPH-DX	Diesel	250	93%	95%	2
398	Soil	EPA-8270	Phenol	1666	95%	96%	0
398	Soil	EPA-8270	2-Chlorophenol	1666	84%	86%	3
398	Soil	EPA-8270	1,4-Dichlorobenzene	833	86%	90%	4
398	Soil	EPA-8270	N-Nitrosodi-n-propylamine	833	102%	103%	1
398	Soil	EPA-8270	1,2,4-Trichlorobenzene	833	82%	83%	1
398	Soil	EPA-8270	4-Chloro-3-Methylphenol	1666	94%	88%	6
398	Soil	EPA-8270	Acenaphthene	833	96%	98%	3
398	Soil	EPA-8270	4-Nitrophenol	1666	80%	75%	7
398	Soil	EPA-8270	2,4-Dinitrotoluene	833	90%	87%	3
398	Soil	EPA-8270	Pentachlorophenol	1666	85%	79%	7
398	Soil	EPA-8270	Pyrene	833	99%	107%	9
R66908	Soil	EPA-6010	Arsenic	100	98%	98%	0
R66908	Soil	EPA-6010	Barium	100	106%	106%	0
R66908	Soil	EPA-6010	Cadmium	100	98%	98%	0
R66908	Soil	EPA-6010	Chromium	100	103%	103%	0
R66908	Soil	EPA-6010	Lead	100	99%	99%	0
R66908	Soil	EPA-6010	Selenium	100	95%	96%	1
R66908	Soil	EPA-6010	Silver	100	98%	98%	0
R66906	Soil	EPA-7471	Mercury	100	100%	100%	0

APPROVED BY:



☒ Seattle/Edmonds (425) 778-0907
☐ Tacoma (253) 926-2493
☐ Spokane (509) 327-9737
☐ Portland (503) 542-1080
☐

911034

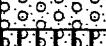
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Page 1 of 1

Chain-of-Custody Record

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Test Pit Logs

Soil Classification System

MAJOR DIVISIONS		USCS GRAPHIC LETTER SYMBOL SYMBOL ⁽¹⁾		TYPICAL DESCRIPTIONS ⁽²⁾⁽³⁾
COARSE-GRAINED SOIL (More than 50% of material is larger than No. 200 sieve size)	GRAVEL AND GRAVELLY SOIL (More than 50% of coarse fraction retained on No. 4 sieve)	CLEAN GRAVEL (Little or no fines)	 GW	Well-graded gravel; gravel/sand mixture(s); little or no fines
		GRAVEL WITH FINES (Appreciable amount of fines)	 GP	Poorly graded gravel; gravel/sand mixture(s); little or no fines
	SAND AND SANDY SOIL (More than 50% of coarse fraction passed through No. 4 sieve)	CLEAN SAND (Little or no fines)	 GM	Silty gravel; gravel/sand/silt mixture(s)
			 GC	Clayey gravel; gravel/sand/clay mixture(s)
		CLEAN SAND (Little or no fines)	 SW	Well-graded sand; gravelly sand; little or no fines
			 SP	Poorly graded sand; gravelly sand; little or no fines
FINE-GRAINED SOIL (More than 50% of material is smaller than No. 200 sieve size)	SILT AND CLAY (Liquid limit less than 50)	SAND WITH FINES (Appreciable amount of fines)	 SM	Silty sand; sand/silt mixture(s)
			 SC	Clayey sand; sand/clay mixture(s)
			 ML	Inorganic silt and very fine sand; rock flour; silty or clayey fine sand or clayey silt with slight plasticity
	SILT AND CLAY (Liquid limit greater than 50)		 CL	Inorganic clay of low to medium plasticity; gravelly clay; sandy clay; silty clay; lean clay
			 OL	Organic silt; organic, silty clay of low plasticity
			 MH	Inorganic silt; micaceous or diatomaceous fine sand
		 CH	Inorganic clay of high plasticity; fat clay	
		OH	Organic clay of medium to high plasticity; organic silt	
	HIGHLY ORGANIC SOIL	PT	Peat; humus; swamp soil with high organic content	

OTHER MATERIALS	GRAPHIC SYMBOL	LETTER SYMBOL	TYPICAL DESCRIPTIONS
PAVEMENT		AC or PC	Asphalt concrete pavement or Portland cement pavement
ROCK		RK	Rock (See Rock Classification)
WOOD		WD	Wood, lumber, wood chips
DEBRIS		DB	Construction debris, garbage

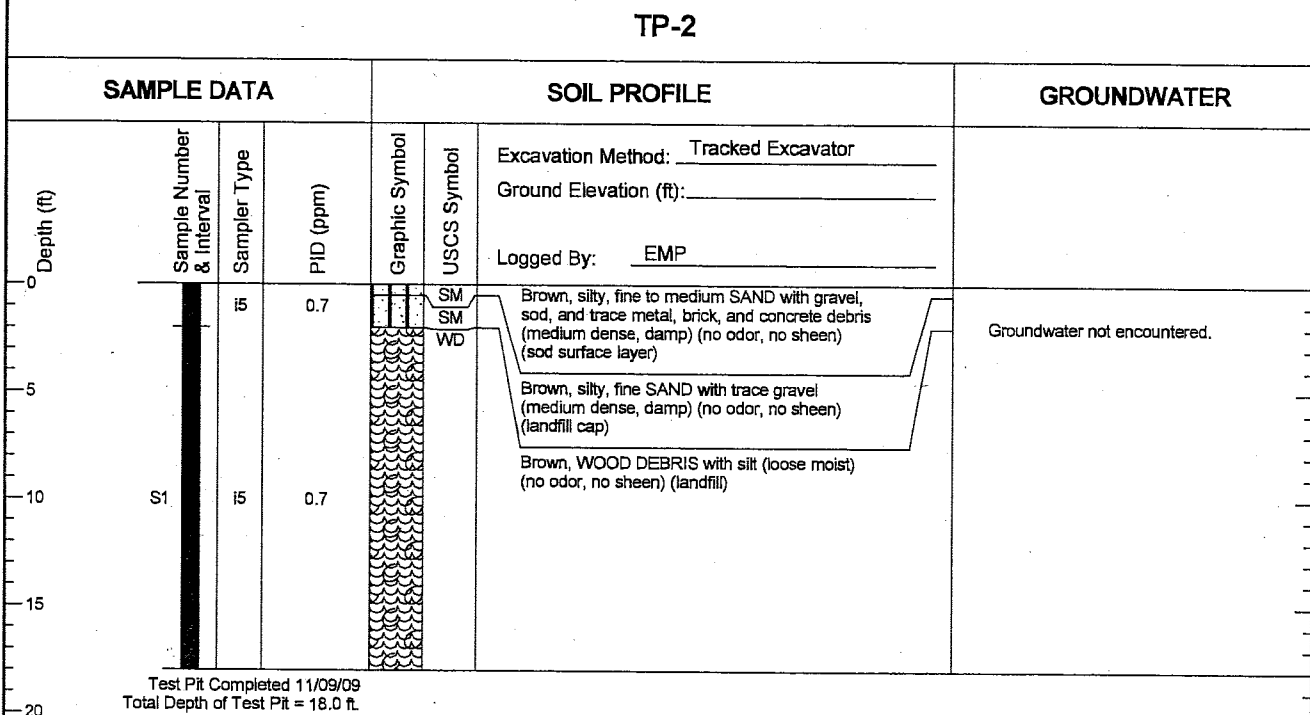
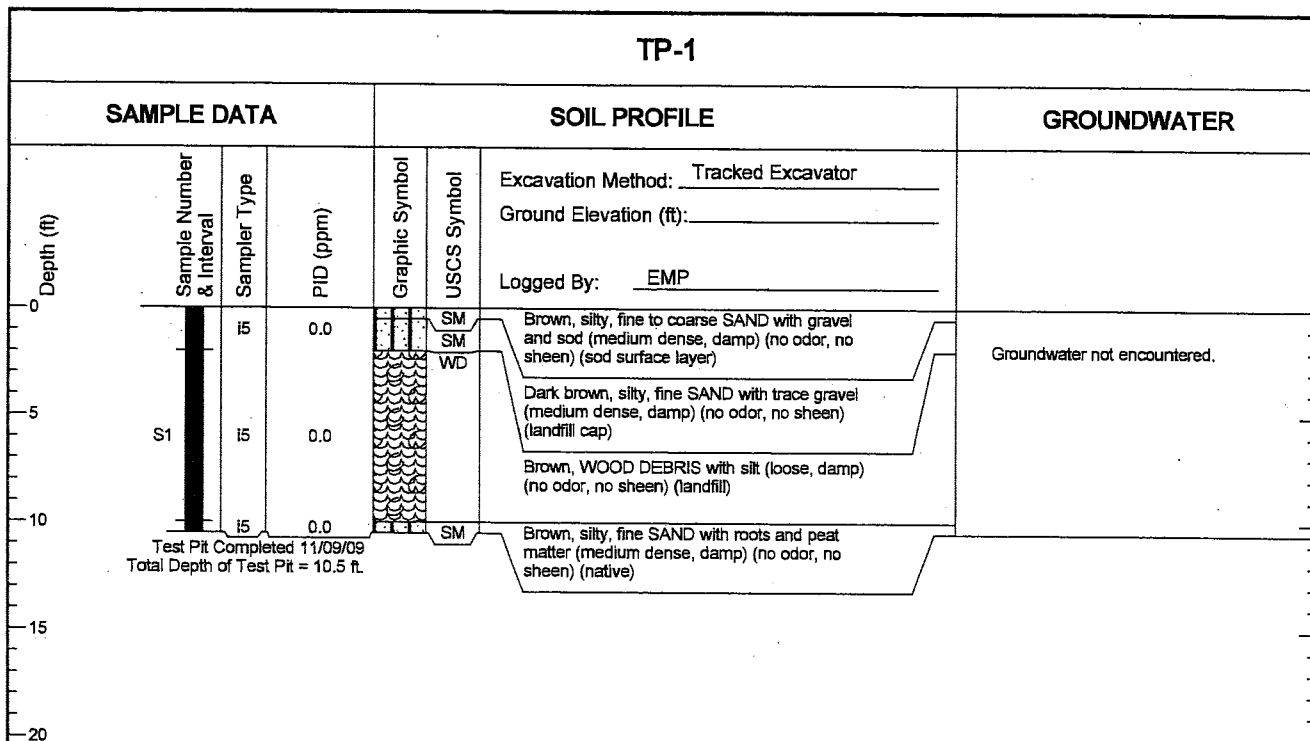
- Notes: 1. USCS letter symbols correspond to symbols used by the Unified Soil Classification System and ASTM classification methods. Dual letter symbols (e.g., SP-SM for sand or gravel) indicate soil with an estimated 5-15% fines. Multiple letter symbols (e.g., ML/CL) indicate borderline or multiple soil classifications.
2. Soil descriptions are based on the general approach presented in the Standard Practice for Description and Identification of Soils (Visual-Manual Procedure), outlined in ASTM D 2488. Where laboratory index testing has been conducted, soil classifications are based on the Standard Test Method for Classification of Soils for Engineering Purposes, as outlined in ASTM D 2487.
3. Soil description terminology is based on visual estimates (in the absence of laboratory test data) of the percentages of each soil type and is defined as follows:

Primary Constituent: > 50% - "GRAVEL," "SAND," "SILT," "CLAY," etc.
 Secondary Constituents: > 30% and < 50% - "very gravelly," "very sandy," "very silty," etc.
 > 15% and < 30% - "gravelly," "sandy," "silty," etc.
 Additional Constituents: > 5% and < 15% - "with gravel," "with sand," "with silt," etc.
 < 5% - "with trace gravel," "with trace sand," "with trace silt," etc., or not noted.

4. Soil density or consistency descriptions are based on judgement using a combination of sampler penetration blow counts, drilling or excavating conditions, field tests, and laboratory tests, as appropriate.

Drilling and Sampling Key		Field and Lab Test Data	
SAMPLER TYPE	SAMPLE NUMBER & INTERVAL	Code	Description
a 3.25-inch O.D., 2.42-inch I.D. Split Spoon		PP = 1.0	Pocket Penetrometer, tsf
b 2.00-inch O.D., 1.50-inch I.D. Split Spoon		TV = 0.5	Torvane, tsf
c Shelby Tube		PID = 100	Photoionization Detector VOC screening, ppm
d Grab Sample		W = 10	Moisture Content, %
e Single-Tube Core Barrel		D = 120	Dry Density, pcf
f Double-Tube Core Barrel		-200 = 60	Material smaller than No. 200 sieve, %
g 2.50-inch O.D., 2.00-inch I.D. WSDOT		GS	Grain Size - See separate figure for data
h 3.00-inch O.D., 2.375-inch I.D. Mod. California		AL	Atterberg Limits - See separate figure for data
i Other - See text if applicable		GT	Other Geotechnical Testing
1 300-lb Hammer, 30-inch Drop		CA	Chemical Analysis
2 140-lb Hammer, 30-inch Drop			
3 Pushed			
4 Vibrocore (Rotasonic/Geoprobe)	Groundwater		
5 Other - See text if applicable			

12/17/09 N:\PROJECTS\1184001.0\10.GPJ SOIL CLASS SHEET



- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

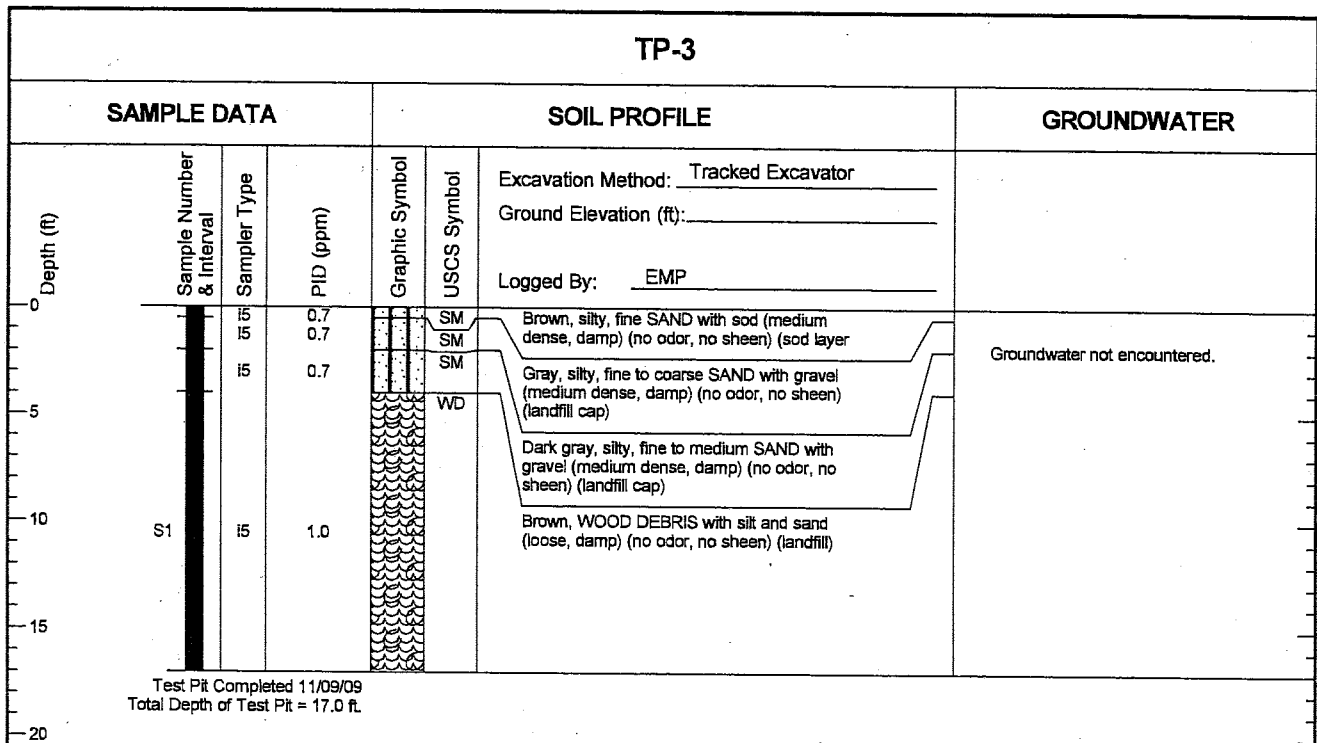
1184001.01 12/17/09 N:\PROJECTS\1184001.010.GPJ TEST PIT LOG



Baxter Landfill
Arlington, Washington

Log of Test Pits

Figure
B-2



- Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
 2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
 3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

1184001.01 12/17/09 N:\PROJECTS\1184001.010.GPJ TEST PIT LOG



Baxter Landfill
Arlington, Washington

Log of Test Pits

Figure
B-3