MOUNTAIN
Environmental Group

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March 27, 2009

Mr. Ervin Lane
Hydrogeologist Field Operations Branch
1646 Mail Service Center
North Carolina Department of Environment and Natural Resources
Division of Waste Management – Solid Waste Section
Raleigh, North Carolina 27699-1646

RECEIVED
MAR 30 2009
SOLID WASTE SECTION

Subject: Haywood County Construction and Demolition Debris Landfill Leachate Seep Assessment for White Oak Landfill Permit # 44-07

Dear Mr. Lane,

Mountain Environmental Group (Mountain Environmental) is pleased to submit this summary of leachate seep assessment activities for the C & D Landfill on behalf of Haywood County Solid Waste.

Background

Leachate seeps were observed on March 19 and 20, 2008. Four surface water samples were collected in the area of the seeps on March 20, 2008. The March 2008 sampling included an upstream and downstream sample of the drainage downgradient from the seeps, as well as one sample from a seep area and one from the downgradient sedimentation pond. All four March 2008 samples were analyzed for volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) by EPA Methods 8260 and 8270, respectively. The samples were below detection limits for all parameters. Containment holes were excavated to address the seeps and leachate did not migrate beyond the permitted limits.

October 2008 Assessment

Additional sampling activities were conducted on October 17, 2008 at the request of the North Carolina Department of Environment and Natural Resources – Division of Waste Management – Solid Waste Section (NCDENR).

Four groundwater samples and four soil samples were collected on October 17, 2008. Water samples were collected from three existing wells (MW-15, CD-6 and PZ-9) in the downgradient area of the leachate seeps, and a surface water sample was collected from the small stream flowing through the downgradient drainage.

Two soil samples, SS-1 and SS-2, were collected from seep locations. Soil sample SS-3 was collected from the discharge side of a culvert than runs underneath a gravel roadway downgradient from the seep area. A background sample was collected up-gradient from the seep area near the limit of the landfill permitted area.

1560 Pisgah Drive
Canton, NC 28716

www.mountainenvironmental.com

PHONE: (828) 648-5556
(800) 261-0031
FAX: (828) 648-1566

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With the exception of 2-butanone (MEK) in the groundwater sample from MW-15, all analytical results for samples from the October 2008 event were consistent with appropriate comparison data (historical well sampling data or the background soil sample results).

The volatile organic compound, 2-butanone (MEK) was detected in the October 2008 MW-15 sample at a concentration of 2,820 µg/L. This analyte had not historically been detected in MW-15 samples. NCDENR issued correspondence on February 2, 2009 requesting an additional groundwater sampling event to determine whether the presence of 2-butanont (MEK) continued to be an issue at the site.

March 12, 2009 - Groundwater Sampling

As requested, wells MW-15 and PZ-9 were sampled on March 12, 2009. Sampling locations are shown on ***Figure 1***. Depths to water were 10.16 ft and 22.29 ft below top of casing for wells MW-15 and PZ-9, respectively. The water samples were analyzed for Appendix II VOCs (Method 8260). Both samples were below detection limits for all analytes. The laboratory analytical report is included as ***Attachment A***.

Conclusions

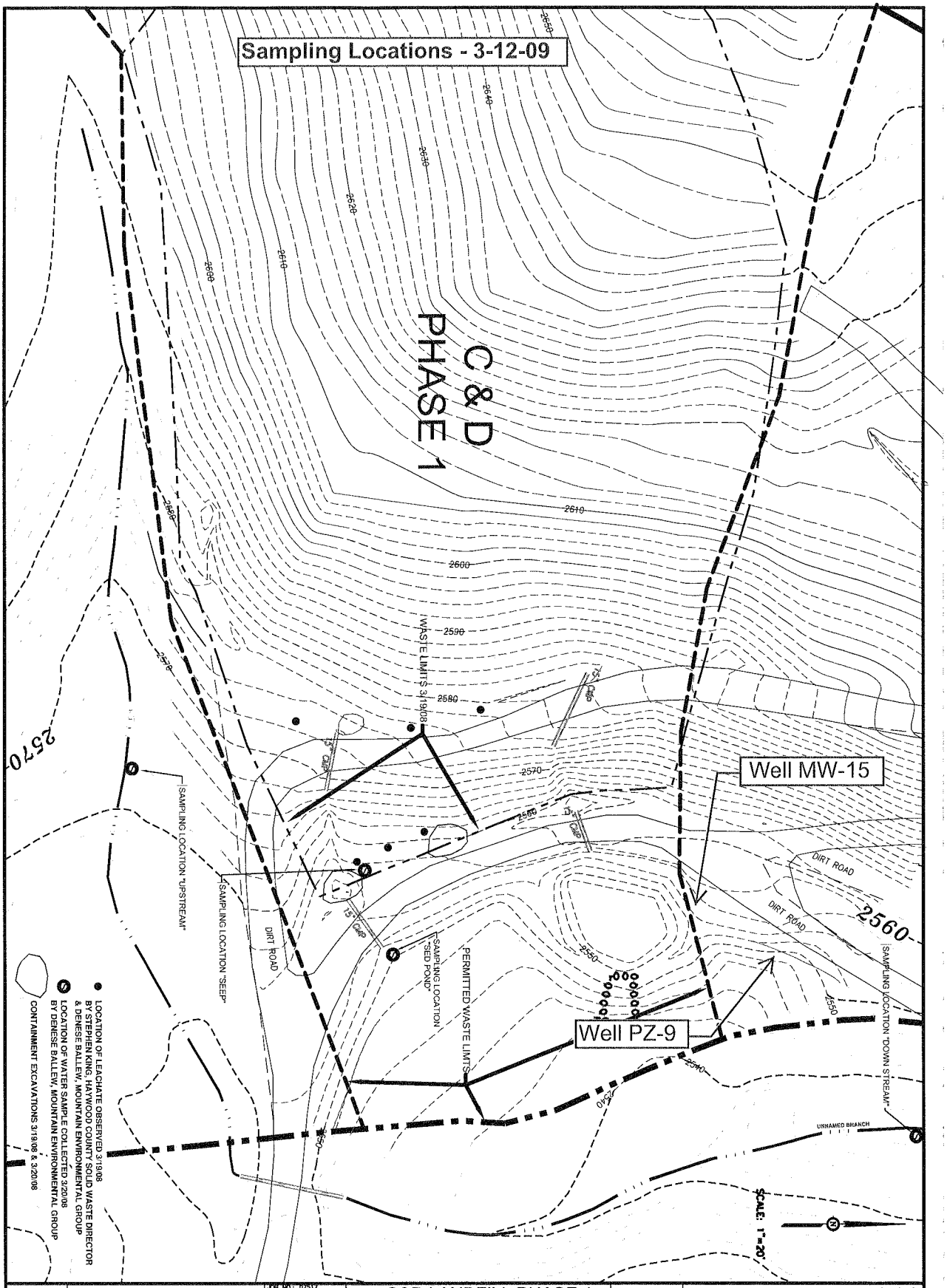
Based on the March 2009 sampling event and analytical results, it appears that the presence of 2-butanone (MEK) in the October 2008 MW-15 sample was an aberration. Mountain Environmental recommends that no further assessment or monitoring activities be conducted in connection with the March 2008 leachate seeps.

Thank you for your consideration in review of this report. If you have any questions, please call me at 1-800-261-0031 or e-mail me at jmahan@mountainenvironmental.com

Sincerely,

NORTH CAROLINA LICENSED SEAL 2026 GEOLOGIST JUSTIN D. MAHAN

Justin 'Judd' Mahan, PG
Project Manager
Mountain Environmental Group



SHEET C1

MAP OF OBSERVED LEACHATE 3/19/08

JOB NO.: 07517
DATE: JULY 2008
SCALE: 1" = 20'
DESIGNED BY: DP
CADD BY: DP
DESIGN REVIEW: _____
CONST. REVIEW: _____
O:\07517\Compliance-Order-7-17-08\leachate-Map-3-19-08.dwg

C&D LANDFILL PHASE 1
WHITE OAK MSW LANDFILL
HAYWOOD COUNTY
HAYWOOD COUNTY, NORTH CAROLINA

McGill ASSOCIATES
ENGINEERING · PLANNING · FINANCE
55 BROAD STREET ASHEVILLE, NC 28801 PH. (828) 252-0575

ATTACHMENT 1

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2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

March 25, 2009

Mr. Judd Mahan
Mountain Environmental
1560 Pisgah Drive
Canton, NC 28716

RE: Project: HAYWOOD CITY LF 03/12
Pace Project No.: 9239871

Dear Mr. Mahan:
Enclosed are the analytical results for sample(s) received by the laboratory on March 12, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Inorganic Wet Chemistry and Metals analyses were performed at our Pace Asheville laboratory and Organic testing was performed at our Pace Huntersville laboratory unless otherwise footnoted. All Microbiological analyses were performed at the laboratory where the samples were received.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Lorri Patton

Lorri Patton

lorri.patton@pacelabs.com
Project Manager

Enclosures

REPORT OF LABORATORY ANALYSIS

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Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: HAYWOOD CITY LF 03/12
Pace Project No.: 9239871

Charlotte Certification IDs

West Virginia Certification #: 357
Virginia Certification #: 00213
Tennessee Certification #: 04010
South Carolina Drinking Water Cert. #: 990060003
South Carolina Certification #: 990060001
Pennsylvania Certification #: 68-00784
Connecticut Certification #: PH-0104
North Carolina Field Services Certification #: 5342
North Carolina Drinking Water Certification #: 37706
New Jersey Certification #: NC012
Louisiana/LELAP Certification #: 04034
Kentucky UST Certification #: 84
Florida/NELAP Certification #: E87627
North Carolina Wastewater Certification #: 12

Asheville Certification IDs

West Virginia Certification #: 356
Virginia Certification #: 00072
Connecticut Certification #: PH-0106
Florida/NELAP Certification #: E87648
Tennessee Certification #: 2980
South Carolina Certification #: 99030001
South Carolina Bioassay Certification #: 99030002
Pennsylvania Certification #: 68-03578
North Carolina Wastewater Certification #: 40
North Carolina Drinking Water Certification #: 37712
North Carolina Bioassay Certification #: 9
New Jersey Certification #: NC011
Massachusetts Certification #: M-NC030
Louisiana/LELAP Certification #: 03095

Eden Certification IDs

North Carolina Wastewater Certification #: 633
Virginia Drinking Water Certification #: 00424
North Carolina Drinking Water Certification #: 37738

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ANALYTICAL RESULTS

Project: HAYWOOD CITY LF 03/12
Pace Project No.: 9239871

Sample: P-9 **Lab ID: 9239871001** Collected: 03/12/09 12:00 Received: 03/12/09 16:18 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		03/20/09 05:45	67-64-1	
Acetonitrile	ND	ug/L	50.0	1		03/20/09 05:45	75-05-8	
Acrolein	ND	ug/L	10.0	1		03/20/09 05:45	107-02-8	
Acrylonitrile	ND	ug/L	10.0	1		03/20/09 05:45	107-13-1	
Allyl chloride	ND	ug/L	2.0	1		03/20/09 05:45	107-05-1	
Benzene	ND	ug/L	1.0	1		03/20/09 05:45	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		03/20/09 05:45	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		03/20/09 05:45	75-27-4	
Bromoform	ND	ug/L	1.0	1		03/20/09 05:45	75-25-2	
Bromomethane	ND	ug/L	5.0	1		03/20/09 05:45	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		03/20/09 05:45	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		03/20/09 05:45	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		03/20/09 05:45	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		03/20/09 05:45	108-90-7	
Chloroethane	ND	ug/L	1.0	1		03/20/09 05:45	75-00-3	
Chloroform	ND	ug/L	1.0	1		03/20/09 05:45	67-66-3	
Chloromethane	ND	ug/L	1.0	1		03/20/09 05:45	74-87-3	
Chloroprene	ND	ug/L	5.0	1		03/20/09 05:45	126-99-8	
1,2-Dibromo-3-chloropropane	ND	ug/L	3.0	1		03/20/09 05:45	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		03/20/09 05:45	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		03/20/09 05:45	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		03/20/09 05:45	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		03/20/09 05:45	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		03/20/09 05:45	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		03/20/09 05:45	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		03/20/09 05:45	110-57-6	
Dichlorodifluoromethane	ND	ug/L	1.0	1		03/20/09 05:45	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		03/20/09 05:45	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		03/20/09 05:45	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		03/20/09 05:45	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		03/20/09 05:45	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		03/20/09 05:45	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		03/20/09 05:45	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		03/20/09 05:45	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		03/20/09 05:45	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		03/20/09 05:45	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		03/20/09 05:45	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		03/20/09 05:45	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		03/20/09 05:45	100-41-4	
Ethyl methacrylate	ND	ug/L	1.0	1		03/20/09 05:45	97-63-2	
2-Hexanone	ND	ug/L	5.0	1		03/20/09 05:45	591-78-6	
Iodomethane	ND	ug/L	5.0	1		03/20/09 05:45	74-88-4	
Isobutanol	ND	ug/L	100	1		03/20/09 05:45	78-83-1	
Methacrylonitrile	ND	ug/L	10.0	1		03/20/09 05:45	126-98-7	
Methylene Chloride	ND	ug/L	2.0	1		03/20/09 05:45	75-09-2	
Methyl methacrylate	ND	ug/L	2.0	1		03/20/09 05:45	80-62-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		03/20/09 05:45	108-10-1	

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ANALYTICAL RESULTS

Project: HAYWOOD CITY LF 03/12
Pace Project No.: 9239871

Sample: P-9 **Lab ID: 9239871001** Collected: 03/12/09 12:00 Received: 03/12/09 16:18 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Naphthalene	ND	ug/L	1.0	1		03/20/09 05:45	91-20-3	
Propionitrile	ND	ug/L	20.0	1		03/20/09 05:45	107-12-0	
Styrene	ND	ug/L	1.0	1		03/20/09 05:45	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		03/20/09 05:45	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		03/20/09 05:45	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		03/20/09 05:45	127-18-4	
Toluene	ND	ug/L	1.0	1		03/20/09 05:45	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		03/20/09 05:45	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		03/20/09 05:45	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		03/20/09 05:45	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		03/20/09 05:45	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		03/20/09 05:45	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		03/20/09 05:45	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		03/20/09 05:45	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		03/20/09 05:45	75-01-4	
m&p-Xylene	ND	ug/L	2.0	1		03/20/09 05:45	1330-20-7	
o-Xylene	ND	ug/L	1.0	1		03/20/09 05:45	95-47-6	
4-Bromofluorobenzene (S)	97	%	87-109	1		03/20/09 05:45	460-00-4	
Dibromofluoromethane (S)	94	%	85-115	1		03/20/09 05:45	1868-53-7	
1,2-Dichloroethane-d4 (S)	97	%	79-120	1		03/20/09 05:45	17060-07-0	
Toluene-d8 (S)	101	%	70-120	1		03/20/09 05:45	2037-26-5	

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(704)875-9092

ANALYTICAL RESULTS

Project: HAYWOOD CITY LF 03/12
Pace Project No.: 9239871

Sample: MW-15 **Lab ID: 9239871002** Collected: 03/12/09 12:30 Received: 03/12/09 16:18 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Acetone	ND	ug/L	25.0	1		03/24/09 02:14	67-64-1	
Acetonitrile	ND	ug/L	50.0	1		03/24/09 02:14	75-05-8	
Acrolein	ND	ug/L	10.0	1		03/24/09 02:14	107-02-8	
Acrylonitrile	ND	ug/L	10.0	1		03/24/09 02:14	107-13-1	
Allyl chloride	ND	ug/L	2.0	1		03/24/09 02:14	107-05-1	
Benzene	ND	ug/L	1.0	1		03/24/09 02:14	71-43-2	
Bromochloromethane	ND	ug/L	1.0	1		03/24/09 02:14	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		03/24/09 02:14	75-27-4	
Bromoform	ND	ug/L	1.0	1		03/24/09 02:14	75-25-2	
Bromomethane	ND	ug/L	5.0	1		03/24/09 02:14	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		03/24/09 02:14	78-93-3	
Carbon disulfide	ND	ug/L	2.0	1		03/24/09 02:14	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		03/24/09 02:14	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		03/24/09 02:14	108-90-7	
Chloroethane	ND	ug/L	1.0	1		03/24/09 02:14	75-00-3	
Chloroform	ND	ug/L	1.0	1		03/24/09 02:14	67-66-3	
Chloromethane	ND	ug/L	1.0	1		03/24/09 02:14	74-87-3	
Chloroprene	ND	ug/L	5.0	1		03/24/09 02:14	126-99-8	
1,2-Dibromo-3-chloropropane	ND	ug/L	3.0	1		03/24/09 02:14	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		03/24/09 02:14	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		03/24/09 02:14	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		03/24/09 02:14	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		03/24/09 02:14	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		03/24/09 02:14	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		03/24/09 02:14	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	1.0	1		03/24/09 02:14	110-57-6	
Dichlorodifluoromethane	ND	ug/L	1.0	1		03/24/09 02:14	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		03/24/09 02:14	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		03/24/09 02:14	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		03/24/09 02:14	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		03/24/09 02:14	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		03/24/09 02:14	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		03/24/09 02:14	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		03/24/09 02:14	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		03/24/09 02:14	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		03/24/09 02:14	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		03/24/09 02:14	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		03/24/09 02:14	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		03/24/09 02:14	100-41-4	
Ethyl methacrylate	ND	ug/L	1.0	1		03/24/09 02:14	97-63-2	
2-Hexanone	ND	ug/L	5.0	1		03/24/09 02:14	591-78-6	
Iodomethane	ND	ug/L	5.0	1		03/24/09 02:14	74-88-4	
Isobutanol	ND	ug/L	100	1		03/24/09 02:14	78-83-1	
Methacrylonitrile	ND	ug/L	10.0	1		03/24/09 02:14	126-98-7	
Methylene Chloride	ND	ug/L	2.0	1		03/24/09 02:14	75-09-2	
Methyl methacrylate	ND	ug/L	2.0	1		03/24/09 02:14	80-62-6	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		03/24/09 02:14	108-10-1	

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ANALYTICAL RESULTS

Project: HAYWOOD CITY LF 03/12
Pace Project No.: 9239871

Sample: MW-15 **Lab ID: 9239871002** Collected: 03/12/09 12:30 Received: 03/12/09 16:18 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260							
Naphthalene	ND	ug/L	1.0	1		03/24/09 02:14	91-20-3	
Propionitrile	ND	ug/L	20.0	1		03/24/09 02:14	107-12-0	
Styrene	ND	ug/L	1.0	1		03/24/09 02:14	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		03/24/09 02:14	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		03/24/09 02:14	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		03/24/09 02:14	127-18-4	
Toluene	ND	ug/L	1.0	1		03/24/09 02:14	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		03/24/09 02:14	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		03/24/09 02:14	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		03/24/09 02:14	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		03/24/09 02:14	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		03/24/09 02:14	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		03/24/09 02:14	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		03/24/09 02:14	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		03/24/09 02:14	75-01-4	
m&p-Xylene	ND	ug/L	2.0	1		03/24/09 02:14	1330-20-7	
o-Xylene	ND	ug/L	1.0	1		03/24/09 02:14	95-47-6	
4-Bromofluorobenzene (S)	95	%	87-109	1		03/24/09 02:14	460-00-4	
Dibromofluoromethane (S)	99	%	85-115	1		03/24/09 02:14	1868-53-7	
1,2-Dichloroethane-d4 (S)	98	%	79-120	1		03/24/09 02:14	17060-07-0	
Toluene-d8 (S)	101	%	70-120	1		03/24/09 02:14	2037-26-5	

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Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: HAYWOOD CITY LF 03/12
Pace Project No.: 9239871

QC Batch: MSV/6468 | Analysis Method: EPA 8260
QC Batch Method: EPA 8260 | Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 9239871001, 9239871002

METHOD BLANK: 252136 | Matrix: Water
Associated Lab Samples: 9239871001, 9239871002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	03/20/09 03:48	
1,1,1-Trichloroethane	ug/L	ND	1.0	03/20/09 03:48	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	03/20/09 03:48	
1,1,2-Trichloroethane	ug/L	ND	1.0	03/20/09 03:48	
1,1-Dichloroethane	ug/L	ND	1.0	03/20/09 03:48	
1,1-Dichloroethene	ug/L	ND	1.0	03/20/09 03:48	
1,1-Dichloropropene	ug/L	ND	1.0	03/20/09 03:48	
1,2,3-Trichloropropane	ug/L	ND	1.0	03/20/09 03:48	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	03/20/09 03:48	
1,2-Dibromo-3-chloropropane	ug/L	ND	3.0	03/20/09 03:48	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	03/20/09 03:48	
1,2-Dichlorobenzene	ug/L	ND	1.0	03/20/09 03:48	
1,2-Dichloroethane	ug/L	ND	1.0	03/20/09 03:48	
1,2-Dichloropropane	ug/L	ND	1.0	03/20/09 03:48	
1,3-Dichlorobenzene	ug/L	ND	1.0	03/20/09 03:48	
1,3-Dichloropropane	ug/L	ND	1.0	03/20/09 03:48	
1,4-Dichlorobenzene	ug/L	ND	1.0	03/20/09 03:48	
2,2-Dichloropropane	ug/L	ND	1.0	03/20/09 03:48	
2-Butanone (MEK)	ug/L	ND	5.0	03/20/09 03:48	
2-Hexanone	ug/L	ND	5.0	03/20/09 03:48	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	03/20/09 03:48	
Acetone	ug/L	ND	25.0	03/20/09 03:48	
Acetonitrile	ug/L	ND	50.0	03/20/09 03:48	
Acrolein	ug/L	ND	10.0	03/20/09 03:48	
Acrylonitrile	ug/L	ND	10.0	03/20/09 03:48	
Allyl chloride	ug/L	ND	2.0	03/20/09 03:48	
Benzene	ug/L	ND	1.0	03/20/09 03:48	
Bromochloromethane	ug/L	ND	1.0	03/20/09 03:48	
Bromodichloromethane	ug/L	ND	1.0	03/20/09 03:48	
Bromoform	ug/L	ND	1.0	03/20/09 03:48	
Bromomethane	ug/L	ND	5.0	03/20/09 03:48	
Carbon disulfide	ug/L	ND	2.0	03/20/09 03:48	
Carbon tetrachloride	ug/L	ND	1.0	03/20/09 03:48	
Chlorobenzene	ug/L	ND	1.0	03/20/09 03:48	
Chloroethane	ug/L	ND	1.0	03/20/09 03:48	
Chloroform	ug/L	ND	1.0	03/20/09 03:48	
Chloromethane	ug/L	ND	1.0	03/20/09 03:48	
Chloroprene	ug/L	ND	5.0	03/20/09 03:48	
cis-1,2-Dichloroethene	ug/L	ND	1.0	03/20/09 03:48	
cis-1,3-Dichloropropene	ug/L	ND	1.0	03/20/09 03:48	
Dibromochloromethane	ug/L	ND	1.0	03/20/09 03:48	
Dibromomethane	ug/L	ND	1.0	03/20/09 03:48	
Dichlorodifluoromethane	ug/L	ND	1.0	03/20/09 03:48	

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Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: HAYWOOD CITY LF 03/12
Pace Project No.: 9239871

METHOD BLANK: 252136 Matrix: Water

Associated Lab Samples: 9239871001, 9239871002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethyl methacrylate	ug/L	ND	1.0	03/20/09 03:48	
Ethylbenzene	ug/L	ND	1.0	03/20/09 03:48	
Iodomethane	ug/L	ND	5.0	03/20/09 03:48	
Isobutanol	ug/L	ND	100	03/20/09 03:48	
m&p-Xylene	ug/L	ND	2.0	03/20/09 03:48	
Methacrylonitrile	ug/L	ND	10.0	03/20/09 03:48	
Methyl methacrylate	ug/L	ND	2.0	03/20/09 03:48	
Methylene Chloride	ug/L	ND	2.0	03/20/09 03:48	
Naphthalene	ug/L	ND	1.0	03/20/09 03:48	
o-Xylene	ug/L	ND	1.0	03/20/09 03:48	
Propionitrile	ug/L	ND	20.0	03/20/09 03:48	
Styrene	ug/L	ND	1.0	03/20/09 03:48	
Tetrachloroethene	ug/L	ND	1.0	03/20/09 03:48	
Toluene	ug/L	ND	1.0	03/20/09 03:48	
trans-1,2-Dichloroethene	ug/L	ND	1.0	03/20/09 03:48	
trans-1,3-Dichloropropene	ug/L	ND	1.0	03/20/09 03:48	
trans-1,4-Dichloro-2-butene	ug/L	ND	1.0	03/20/09 03:48	
Trichloroethene	ug/L	ND	1.0	03/20/09 03:48	
Trichlorofluoromethane	ug/L	ND	1.0	03/20/09 03:48	
Vinyl acetate	ug/L	ND	2.0	03/20/09 03:48	
Vinyl chloride	ug/L	ND	1.0	03/20/09 03:48	
1,2-Dichloroethane-d4 (S)	%	99	79-120	03/20/09 03:48	
4-Bromofluorobenzene (S)	%	98	87-109	03/20/09 03:48	
Dibromofluoromethane (S)	%	96	85-115	03/20/09 03:48	
Toluene-d8 (S)	%	100	70-120	03/20/09 03:48	

LABORATORY CONTROL SAMPLE: 252137

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	48.9	98	83-125	
1,1,1-Trichloroethane	ug/L	50	50.1	100	80-129	
1,1,2,2-Tetrachloroethane	ug/L	50	48.6	97	73-127	
1,1,2-Trichloroethane	ug/L	50	49.5	99	77-123	
1,1-Dichloroethane	ug/L	50	51.6	103	76-129	
1,1-Dichloroethene	ug/L	50	49.9	100	78-146	
1,1-Dichloropropene	ug/L	50	50.9	102	79-134	
1,2,3-Trichloropropane	ug/L	50	47.6	95	72-125	
1,2,4-Trichlorobenzene	ug/L	50	48.2	96	68-127	
1,2-Dibromo-3-chloropropane	ug/L	50	50.7	101	65-128	
1,2-Dibromoethane (EDB)	ug/L	50	51.2	102	81-125	
1,2-Dichlorobenzene	ug/L	50	50.7	101	82-126	
1,2-Dichloroethane	ug/L	50	48.9	98	72-126	
1,2-Dichloropropane	ug/L	50	50.2	100	80-127	
1,3-Dichlorobenzene	ug/L	50	50.2	100	82-124	
1,3-Dichloropropane	ug/L	50	50.6	101	79-124	

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Pace Analytical Services, Inc.
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Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: HAYWOOD CITY LF 03/12
Pace Project No.: 9239871

LABORATORY CONTROL SAMPLE: 252137

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	50	54.0	108	79-125	
2,2-Dichloropropane	ug/L	50	43.9	88	58-140	
2-Butanone (MEK)	ug/L	100	103	103	50-134	
2-Hexanone	ug/L	100	111	111	58-138	
4-Methyl-2-pentanone (MIBK)	ug/L	100	105	105	70-131	
Acetone	ug/L	100	107	107	50-146	
Acetonitrile	ug/L	500	546	109	66-124	
Acrolein	ug/L	250	207	83	55-143	
Acrylonitrile	ug/L	250	280	112	66-124	
Allyl chloride	ug/L	50	51.5	103	73-141	
Benzene	ug/L	50	49.5	99	78-128	
Bromochloromethane	ug/L	50	49.8	100	73-124	
Bromodichloromethane	ug/L	50	48.4	97	81-125	
Bromoform	ug/L	50	52.4	105	71-125	
Bromomethane	ug/L	50	52.0	104	50-150	
Carbon disulfide	ug/L	50	49.5	99	54-150	
Carbon tetrachloride	ug/L	50	55.4	111	81-137	
Chlorobenzene	ug/L	50	48.7	97	82-126	
Chloroethane	ug/L	50	49.2	98	69-140	
Chloroform	ug/L	50	47.5	95	77-129	
Chloromethane	ug/L	50	42.8	86	54-139	
Chloroprene	ug/L	50	44.9	90	71-142	
cis-1,2-Dichloroethene	ug/L	50	51.5	103	76-133	
cis-1,3-Dichloropropene	ug/L	50	49.5	99	76-127	
Dibromochloromethane	ug/L	50	49.7	99	77-125	
Dibromomethane	ug/L	50	50.9	102	77-125	
Dichlorodifluoromethane	ug/L	50	42.3	85	50-150	
Ethyl methacrylate	ug/L	50	57.0	114	73-129	
Ethylbenzene	ug/L	50	52.1	104	80-127	
Iodomethane	ug/L	100	105	105	65-172	
Isobutanol	ug/L	1000	1100	110	50-150	
m&p-Xylene	ug/L	100	101	101	82-127	
Methacrylonitrile	ug/L	500	557	111	70-128	
Methyl methacrylate	ug/L	50	52.7	105	79-122	
Methylene Chloride	ug/L	50	51.9	104	67-133	
Naphthalene	ug/L	50	50.6	101	52-136	
o-Xylene	ug/L	50	50.0	100	83-124	
Propionitrile	ug/L	500	537	107	65-129	
Styrene	ug/L	50	53.1	106	80-130	
Tetrachloroethene	ug/L	50	50.9	102	78-128	
Toluene	ug/L	50	48.2	96	76-126	
trans-1,2-Dichloroethene	ug/L	50	47.5	95	78-134	
trans-1,3-Dichloropropene	ug/L	50	49.8	100	75-125	
trans-1,4-Dichloro-2-butene	ug/L	50	46.0	92	51-140	
Trichloroethene	ug/L	50	49.0	98	79-127	
Trichlorofluoromethane	ug/L	50	45.2	90	76-148	
Vinyl acetate	ug/L	100	128	128	50-150	
Vinyl chloride	ug/L	50	45.7	91	67-143	

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Huntersville, NC 28078
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QUALITY CONTROL DATA

Project: HAYWOOD CITY LF 03/12
Pace Project No.: 9239871

LABORATORY CONTROL SAMPLE: 252137

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane-d4 (S)	%			96	79-120	
4-Bromofluorobenzene (S)	%			100	87-109	
Dibromofluoromethane (S)	%			98	85-115	
Toluene-d8 (S)	%			100	70-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 252237 252238

Parameter	Units	9239871001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,1-Dichloroethene	ug/L	ND	50	50	47.3	43.8	95	88	60-150	8	
Benzene	ug/L	ND	50	50	57.8	55.3	116	111	74-136	5	
Chlorobenzene	ug/L	ND	50	50	55.5	53.9	111	108	79-135	3	
Toluene	ug/L	ND	50	50	55.9	53.5	112	107	73-131	4	
Trichloroethene	ug/L	ND	50	50	57.7	54.2	115	108	73-131	6	
1,2-Dichloroethane-d4 (S)	%						94	93	79-120		
4-Bromofluorobenzene (S)	%						100	99	87-109		
Dibromofluoromethane (S)	%						95	94	85-115		
Toluene-d8 (S)	%						100	99	70-120		

MATRIX SPIKE SAMPLE: 253408

Parameter	Units	9239871001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/L	ND	50	47.3	95	60-150	
Benzene	ug/L	ND	50	57.8	116	74-136	
Chlorobenzene	ug/L	ND	50	55.5	111	79-135	
Toluene	ug/L	ND	50	55.9	112	73-131	
Trichloroethene	ug/L	ND	50	57.7	115	73-131	
1,2-Dichloroethane-d4 (S)	%				94	79-120	
4-Bromofluorobenzene (S)	%				100	87-109	
Dibromofluoromethane (S)	%				95	85-115	
Toluene-d8 (S)	%				100	70-120	

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QUALIFIERS

Project: HAYWOOD CITY LF 03/12
Pace Project No.: 9239871

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

1001523

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Mountain Environ.	Report To:	Attention:
Address: Canton, NC 28716	Copy To:	Company Name:
		Address:
Email To: Judd Maher	Purchase Order No.: 4444	Pace Quote Reference:
Phone / Fax	Project Name: Hollywood City Landfill	Pace Project Manager: Connie Patton
Requested Due Date/TAT: STAND.	Project Number: 9-HLW01-1A	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☑ Other_____

SITE LOCATION ☐GA ☐IL ☐IN ☐MI ☐MN ☑NC ☐OH ☐SC ☐WI ☐OTHER _____

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / .-) Samples IDs MUST BE UNIQUE)	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Filtered (Y/N) Requested Analysis: APPENDIX 2 5260	Residual Chlorine (Y/N)	Pace Project Number / Lab I.D
1	P-9	WT	G	3/12/09	1200				4				✓					✓		923987100 1
2	MW-15	WT	G	3/12/09	1230				4				✓					✓		923987100 2
3	~~Trip Blank~~																			~~923987100 3~~
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITION			
Brian Bauer (MWE)	3/12/09	1615	[signature]	3/12/09	16:18	12.1	Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N
						Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Brian Bauer

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM / DD / YY): 3/12/09

SEE REVERSE SIDE FOR INSTRUCTIONS

ORIGINAL

ALLQ020rev.3,31Mar05