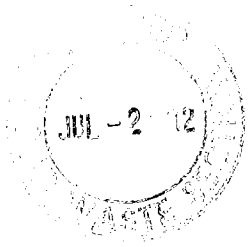
DuPont Engineering
6324 Fairview Road
Charlotte, NC 28210
Tel. (704) 362-6630
Fax (704) 362-6636



DUPONT
DuPont Engineering

June 29, 2012

Mr. Ethan Brown
NCDENR
Compliance Hydrogeologist
Solid Waste Section
1646 Mail Service Center
Raleigh, NC 27699-1646

Re: 2012 Annual Groundwater Monitoring Report
DuPont Industrial Landfills, NC Solid Waste Landfill Permit No. 10-06
Cape Fear Plant, Leland, NC

Dear Mr. Brown:

As required in Landfill Permit No.10-06, attached please find the results of the annual groundwater monitoring program completed at the DuPont Cape Fear Plant in March of 2012. The attached annual report was prepared using the New Guidelines for Electronic Submittal of Environmental Data specified by NCDENR in a memorandum dated October 27, 2006 and addendum dated February 23, 2007.

Please feel free to contact me at 704-362-6635 if you have any questions concerning this annual groundwater monitoring report.

Sincerely,

Kevin P. Garon
Project Director
DuPont Corporate Remediation Group

cc: Mr. Ervin Lane, NCDENR, SWS
File

DENR USE ONLY: ☐ Paper Report ☐ Electronic Data - Email CD (data loaded: Yes / No) Doc/Event #:

NC DENR
Division of Waste Management - Solid Waste

Environmental Monitoring Reporting Form

Notice: This form and any information attached to it are "Public Records" as defined in NC General Statute 132-1. As such, these documents are available for inspection and examination by any person upon request (NC General Statute 132-6).

Instructions:

- **Prepare one form for each individually monitored unit.**
- **Please type or print legibly.**
- Attach a notification table with values that attain or exceed NC 2L groundwater standards or NC 2B surface water standards. The notification must include a preliminary analysis of the cause and significance of each value. (e.g. naturally occurring, off-site source, pre-existing condition, etc.).
- Attach a notification table of any groundwater or surface water values that equal or exceed the reporting limits.
- Attach a notification table of any methane gas values that attain or exceed explosive gas levels. This includes any structures on or nearby the facility (NCAC 13B .1629 (4)(a)(i).
- Send the original signed and sealed form, any tables, and Electronic Data Deliverable to: Compliance Unit, NCDENR-DWM, Solid Waste Section, 1646 Mail Service Center, Raleigh, NC 27699-1646.

Solid Waste Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

DuPont (Facility Owner)

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: Marc W Harder Phone: 704-558-4199

E-mail: marc.harder@parsons.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
DuPont Cape Fear Plant	3500 Daniels Road NE Leland, NC 28451	10-06	.0500	March 23-27, 2012

Environmental Status: (Check all that apply)

☐ Initial/Background Monitoring ☒ Detection Monitoring ☐ Assessment Monitoring ☐ Corrective Action

Type of data submitted: (Check all that apply)

☒ Groundwater monitoring data from monitoring wells
☐ Groundwater monitoring data from private water supply wells
☐ Leachate monitoring data
☐ Surface water monitoring data
☐ Methane gas monitoring data
☐ Corrective action data (specify) _____
☐ Other(specify) _____

Notification attached?

☐ No. No groundwater or surface water standards were exceeded.
☒ Yes, a notification of values exceeding a groundwater or surface water standard is attached. It includes a list of groundwater and surface water monitoring points, dates, analytical values, NC 2L groundwater standard, NC 2B surface water standard or NC Solid Waste GWPS and preliminary analysis of the cause and significance of any concentration.
☐ Yes, a notification of values exceeding an explosive methane gas limit is attached. It includes the methane monitoring points, dates, sample values and explosive methane gas limits.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards. I am aware that there are significant penalties for making any false statement, representation, or certification including the possibility of a fine and imprisonment.

Marc W Harder | Principal Geologist | 704-558-4199

Facility Representative Name (Print) | Title | (Area Code) Telephone Number

Marc W. Harder | 6/26/12 | Affix NC Licensed/ Professional Geologist Seal

Signature | Date

4701 Hedgemore Drive, Charlotte, NC 28209

Facility Representative Address

NC PE Firm License Number (if applicable effective May 1, 2009)

Revised 6/2009

2012 Annual Landfill Groundwater Sampling Report
DuPont Cape Fear Plant
Leland, North Carolina

As required in Landfill Permit No. 10-06, attached please find the results of the annual groundwater monitoring program completed at the DuPont Cape Fear Plant in March 2012. This annual report was prepared using the New Guidelines for Electronic Submittal of Environmental Data specified by NCDENR in a memorandum dated October 27, 2006 and addendum dated February 23, 2007. As part of the new guidelines, a completed Environmental Monitoring Reporting Form has been submitted with this report.

Monitoring wells MW-1, -2, -3, and –9 are associated with the TPA Landfill, MW-4, -5, -6, and –7 are associated with the Ash Landfill, and MW-22, -23, and –24 are associated with the Demolition Landfill. Attached to this letter report are the following figure and tables:

Figure 1: Potentiometric Surface Map: Shows the locations of the monitoring wells associated with the landfill monitoring program along with groundwater elevations at each well (measured in March, 2012). Groundwater elevation contours showing groundwater flow direction are also included on this map.

Table 1: Summary of Analytical Results: Lists the constituents that were detected in groundwater from the landfill monitoring wells and their corresponding concentrations (March 2012). Concentrations of constituents that exceed screening criteria (NC 2L Standards and Solid Waste Section Limits) are highlighted on this table.

Table 2: Target Analyte List: Lists the parameters that were analyzed in the laboratory along with corresponding CAS Numbers and Solid Waste Section ID Numbers.

Table 3: Groundwater Field Parameters: Lists the water quality parameters (i.e., temperature, specific conductivity, pH) collected in the field (March 2012).

Table 4: Groundwater Elevation Data: Lists the depth to groundwater in each well along with the top of casing elevation and groundwater elevation.

Appendix: Laboratory Analytical Data (2012)

QUALITY ASSURANCE/QUALITY CONTROL

As part of an in-house quality assurance/quality control (QA/QC) process, the laboratory analytical data were reviewed and, in some cases, qualified by placing a "J" or "B" flag next to the resulting concentration (see Table 1). A "J" flag means that the value is estimated (it is between the method detection limit and practical quantitation limit) and a "B" flag indicates that the analyte was also detected in the associated laboratory (method) or field (equipment, trip) blank. Overall, the analytical data presented in this letter report is acceptable and considered usable.

LANDFILL ANALYTICAL RESULTS

TPA Landfill

At the TPA Landfill, 1,4-dioxane was detected in groundwater from downgradient monitoring well MW-2 at a concentration of 0.0144 milligrams per liter (mg/L). This is slightly above the Solid Waste Section Limit (SWSL) of 0.01 mg/L and North Carolina 2L (NC 2L) standard of 0.003 mg/L (Table 1). The concentration of 1,4-dioxane at MW-2 is consistent with historical analytical results for this well location. This compound also exceeded the SWSL and NC2L standard at downgradient monitoring well MW-9, where it was detected at a concentration of 0.119 mg/L. There has been a slight increase in the concentration of 1,4-dioxane in groundwater at MW-9 over the past five years. Bis(2-ethylhexylphthalate (BEHP) was detected at a concentration slightly above the NC 2L standard at MW-9. Although not detected in any of the blanks, BEHP is a common laboratory contaminant. Consistent with previous sampling events, total dissolved solids (TDS) were detected at a concentration slightly above the NC 2L standard at MW-9. Concentrations of the remaining constituents detected in groundwater at the TPA landfill were below SWSLs and NC 2L standards.

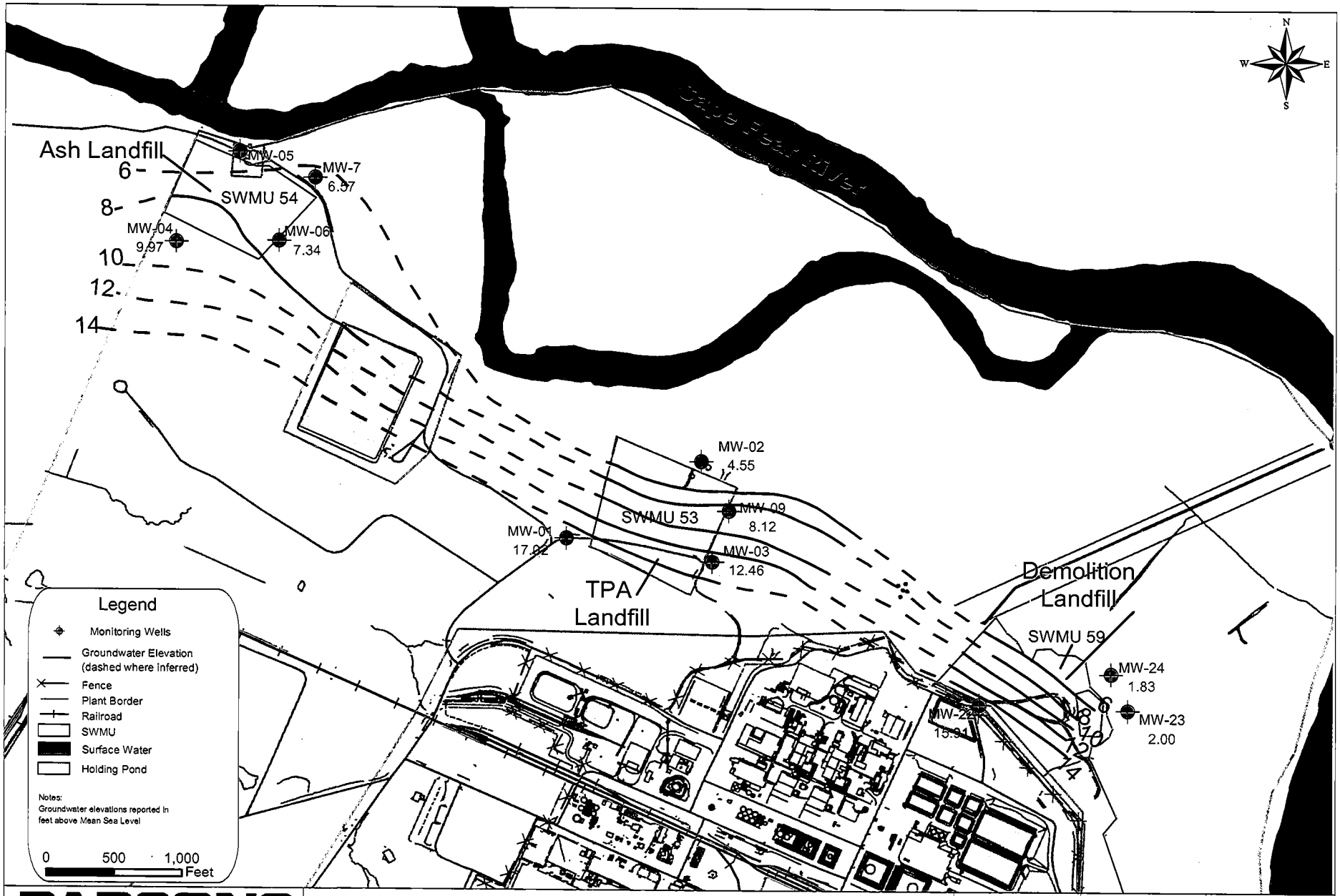
Ash Landfill

At the Ash Landfill, selenium was detected slightly above the SWSL at MW-5 but below the NC2L standard (Table 1). This inorganic compound was also present in MW-5 at a similar concentration in 2011. Due to an obstruction in well at MW-5, not enough volume was available in the well to collect a sample for semi-volatile organic compounds or water quality field parameters. Concentrations of all other constituents in groundwater at the Ash Landfill were below SWSLs and NC2L standards.

Demolition Landfill

At the Demolition Landfill, TDS were detected in groundwater slightly above the NC 2L standard at MW-23 and MW-24 (Table 1). TDS concentrations in groundwater at MW-23 and MW-24 are consistent with previous analytical results. The concentration of barium in groundwater was slightly above the SWSL at MW-23 and MW-24 but below the NC2L standard. Concentrations of the remaining constituents detected in groundwater at the Demolition Landfill were below SWSLs and NC2L standards.

FIGURE



PARSONS

4701 Hedgemore Dr.
Charlotte, NC 28209

TITLE: Potentiometric Surface Map
Data Collected (March, 2012)
Cape Fear Landfill

DRAWN:	DATE:	DuPont Project #:
C. Oneal	04/06/12	504182
REVISION:	FIGURE NO.: 1	Parsons Project #: 445332.05012

FILE NAME: G:/GIS/CapeFear/Gis/Project_figures/Landfill_Sampling_Annual_Report/2012 CF_Pot_Map_2012.mxd

TABLES

Table 1. Summary of Analytical Results (March 2012)
Cape Fear Industrial Landfills

	TPA LANDFILL					
Analyte	1006-MW-1	1006-MW-2	1006-MW-3	1006-MW-9	NC 2L	NC SWSL
1,4-DIOXANE	ND	0.0144	ND	0.119	0.003	0.01
ARSENIC	0.00492 B	0.00630 B	0.00521 B	0.00526 J	0.01	0.01
BARIUM	0.0203 J	0.0143 J	0.0122 J	0.0312 J	0.7	0.1
BIS(2-ETHYLHEXYL)PHTHALATE	ND	ND	ND	0.00314 J	0.003	0.015
CHLORIDE	13.6	15.7	18	10.9	250	NE
FLUORIDE	0.320 J	ND	0.299 J	0.257 J	2	2
SILVER	ND	ND	0.00135 B	ND	0.02	0.01
SULFATE	16.2 J	26.1 J	32.9 J	ND	250	250
TOTAL DISSOLVED SOLIDS	220	370	384	521	500	NE

	ASH LANDFILL					
Analyte	1006-MW-4	1006-MW-5	1006-MW-6	1006-MW-7	NC 2L	NC SWSL
ARSENIC	ND	0.00672 J	0.00447 J	0.00362 J	0.01	0.01
BARIUM	0.0236 J	0.0513 J	0.0239 J	0.0527 J	0.7	0.1
BUTYL BENZYL PHTHALATE	ND	ND	ND	0.00101 J	1	0.01
CHLORIDE	5.18	2.06	27.9	3.84	250	NE
FLUORIDE	0.252 J	ND	0.270 J	ND	2	2
SELENIUM	ND	[redacted]	ND	0.00490 J	0.02	0.01
SILVER	ND	ND	0.00127 J	ND	0.02	0.01
SULFATE	77.3 J	12.0 J	8.84 J	20.2 J	250	250
TOTAL DISSOLVED SOLIDS	208	236	389	43.9	500	NE

	DEMOLITION LANDFILL				
Analyte	1006-MW-22	1006-MW-23	1006-MW-24	NC 2L	NC SWSL
ARSENIC	0.00375 J	0.00573 J	0.00619 J	0.01	0.01
BARIUM	0.00727 J	[redacted]	[redacted]	0.7	0.1
CHLORIDE	9.94	120	50.5	250	NE
CHROMIUM	ND	ND	0.00400 J	0.01	0.01
FLUORIDE	0.294 J	0.311 J	0.460 J	2	2
SILVER	0.00161 J	0.00215 J	0.00258 J	0.02	0.01
SULFATE	12.9 J	ND	ND	250	250
TOTAL DISSOLVED SOLIDS	178	723	516	500	NE

NOTE:

Yellow Shaded values are above NC 2L standards

[redacted] values are above NC SWSL standards

NC 2L = NC Administrative Code 15A NCAC 2L.0200 - North Carolina Groundwater Classifications and Standards

NC SWSL = North Carolina Solid Waste Section Limit

All units are reported in in milligrams per liter (MG/L)

ND = Not Detected

NE= Not Established

J = *In-House Qualifier*. Analyte present, reported value may not be accurate or precise.

B = *In-House Qualifier*. Not detected substantially above the level in the laboratory or field blanks.

Table 2. Target Analyte List - March 2012
Cape Fear Landfills

TYPE	CASNO	ANALYTE	SWS ID #
VOC	630206	1,1,1,2-TETRACHLOROETHANE	190
VOC	71556	1,1,1-TRICHLOROETHANE	200
VOC	79345	1,1,2,2-TETRACHLOROETHANE	191
VOC	79005	1,1,2-TRICHLOROETHANE	202
VOC	75343	1,1-DICHLOROETHANE	75
VOC	75354	1,1-DICHLOROETHENE	77
VOC	96184	1,2,3-TRICHLOROPROPANE	206
VOC	96128	1,2-DIBROMO-3-CHLOROPROPANE	67
VOC	106934	1,2-DIBROMOETHANE	68
VOC	107062	1,2-DICHLOROETHANE	76
VOC	78875	1,2-DICHLOROPROPANE	82
VOC	123911	1,4-DIOXANE	422
VOC	591786	2-HEXANONE	124
VOC	67641	ACETONE	3
VOC	107131	ACRYLONITRILE	8
VOC	71432	BENZENE	16
VOC	74975	BROMOCHLOROMETHANE	28
VOC	75274	BROMODICHLOROMETHANE	29
VOC	75252	BROMOFORM	30
VOC	75150	CARBON DISULFIDE	35
VOC	56235	CARBON TETRACHLORIDE	36
VOC	108907	CHLOROBENZENE	39
VOC	75003	CHLOROETHANE	41
VOC	67663	CHLOROFORM	44
VOC	156592	CIS-1,2-DICHLOROETHENE	78
VOC	10061015	CIS-1,3-DICHLOROPROPENE	86
VOC	124481	DIBROMOCHLOROMETHANE	66
VOC	74953	DIBROMOMETHANE	139
VOC	100414	ETHYLBENZENE	110
VOC	107211	ETHYLENE GLYCOL	424
VOC	74884	IODOMETHANE	142
VOC	67561	METHANOL	NE
VOC	74839	METHYL BROMIDE	136
VOC	74873	METHYL CHLORIDE	140
VOC	78933	METHYL ETHYL KETONE	141
VOC	75092	METHYLENE CHLORIDE	137
VOC	108101	METHYL-ISO-BUTYL KETONE	147
VOC	100425	STYRENE	186
VOC	127184	TETRACHLOROETHENE	192
VOC	108883	TOLUENE	196
VOC	156605	TRANS-1,2-DICHLOROETHENE	79
VOC	10061026	TRANS-1,3-DICHLOROPROPENE	87
VOC	110576	TRANS-1,4-DICHLORO-2-BUTENE	73
VOC	79016	TRICHLOROETHENE	201
VOC	75694	TRICHLOROFLUOROMETHANE	203
VOC	108054	VINYL ACETATE	210
VOC	75014	VINYL CHLORIDE	211
VOC	1330207	XYLENES (TOTAL)	346
SVOC	120821	1,2,4-TRICHLOROBENZENE	199
SVOC	95501	1,2-DICHLOROBENZENE	69
SVOC	541731	1,3-DICHLOROBENZENE	70
SVOC	106467	1,4-DICHLOROBENZENE	71
SVOC	95954	2,4,5-TRICHLOROPHENOL	204
SVOC	88062	2,4,6-TRICHLOROPHENOL	205
SVOC	120832	2,4-DICHLOROPHENOL	80
SVOC	105679	2,4-DIMETHYLPHENOL	95
SVOC	51285	2,4-DINITROPHENOL	99
SVOC	121142	2,4-DINITROTOLUENE	100
SVOC	606202	2,6-DINITROTOLUENE	101
SVOC	91587	2-CHLORONAPHTHALENE	47
SVOC	95578	2-CHLOROPHENOL	48
SVOC	91576	2-METHYLNAPHTHALENE	145
SVOC	88755	2-NITROPHENOL	154
SVOC	EVS-0197	3 OR 4-METHYLPHENOL	344

MDL= Method Detection Limit
PQL= Practical Quantitation Limit
SWSL= Solid Waste Section Limit
SWS ID#=Solid Waste Section ID Number

UG/L= micrograms per liter
NE=Not Established

Table 2. Target Analyte List - March 2012
Cape Fear Landfills

TYPE	CASNO	ANALYTE	SWS ID #
SVOC	91941	3,3'-DICHLOROBENZIDINE	72
SVOC	534521	4,6-DINITRO-2-METHYLPHENOL	98
SVOC	101553	4-BROMOPHENYL PHENYL ETHER	31
SVOC	59507	4-CHLORO-3-METHYLPHENOL	45
SVOC	106478	4-CHLOROANILINE	38
SVOC	7005723	4-CHLOROPHENYL PHENYL ETHER	49
SVOC	100027	4-NITROPHENOL	159
SVOC	83329	ACENAPHTHENE	1
SVOC	208968	ACENAPHTHYLENE	2
SVOC	120127	ANTHRACENE	12
SVOC	56553	BENZO(A)ANTHRACENE	17
SVOC	50328	BENZO(A)PYRENE	21
SVOC	205992	BENZO(B)FLUORANTHENE	18
SVOC	191242	BENZO(G,H,I)PERYLENE	20
SVOC	207089	BENZO(K)FLUORANTHENE	19
SVOC	111911	BIS(2-CHLOROETHOXY)METHANE	42
SVOC	111444	BIS(2-CHLOROETHYL) ETHER	43
SVOC	108601	BIS(2-CHLOROISOPROPYL)ETHER	NE
SVOC	117817	BIS(2-ETHYLHEXYL)PHTHALATE	111
SVOC	85687	BUTYL BENZYL PHTHALATE	32
SVOC	86748	CARBAZOLE	NE
SVOC	218019	CHRYSENE	52
SVOC	53703	DIBENZO(A,H)ANTHRACENE	64
SVOC	132649	DIBENZOFURAN	65
SVOC	84662	DIETHYL PHTHALATE	90
SVOC	131113	DIMETHYL PHTHALATE	96
SVOC	84742	DI-N-BUTYL PHTHALATE	33
SVOC	117840	DI-N-OCTYL PHTHALATE	168
SVOC	101848	DIPHENYL ETHER	423
SVOC	206440	FLUORANTHENE	115
SVOC	86737	FLUORENE	116
SVOC	118741	HEXACHLOROBENZENE	119
SVOC	87683	HEXACHLOROBUTADIENE	120
SVOC	77474	HEXACHLOROCYCLOPENTADIENE	121
SVOC	67721	HEXACHLOROETHANE	122
SVOC	193395	INDENO(1,2,3-CD)PYRENE	125
SVOC	78591	ISOPHORONE	128
SVOC	99092	M-NITROANILINE	153
SVOC	91203	NAPHTHALENE	148
SVOC	98953	NITROBENZENE	156
SVOC	621647	N-NITROSODI-N-PROPYLAMINE	164
SVOC	86306	N-NITROSODIPHENYLAMINE	163
SVOC	95487	O-CRESOL	56
SVOC	88744	O-NITROANILINE	154
SVOC	87865	PENTACHLOROPHENOL	173
SVOC	85018	PHENANTHRENE	175
SVOC	108952	PHENOL	177
SVOC	100016	P-NITROANILINE	155
SVOC	129000	PYRENE	181
METALS	7440360	ANTIMONY	13
METALS	7440382	ARSENIC	14
METALS	7440393	BARIUM	15
METALS	7440439	CADMIUM	34
METALS	7440473	CHROMIUM	51
METALS	7439921	LEAD	131
METALS	7439976	MERCURY	132
METALS	7782492	SELENIUM	183
METALS	7440224	SILVER	184
MISC	16887006	CHLORIDE	455
MISC	16984488	FLUORIDE	312
MISC	14808798	SULFATE	315
MISC	C-010	TOTAL DISSOLVED SOLIDS	311
MISC	92524	1,1 -BIPHENYL	421
MISC	111466	DIETHYLENE GLYCOL	NE

MDL= Method Detection Limit
PQL= Practical Quantitation Limit
SWSL= Solid Waste Section Limit
SWS ID#=Solid Waste Section ID Number
UG/L= micrograms per liter
NE=Not Established

Table 2. Target Analyte List - March 2012
Cape Fear Landfills

TYPE	CASNO	ANALYTE	SWS ID #
MISC	120616	DIMETHYLTEREPHTHALATE	NE
MISC	100210	TEREPHTHALIC ACID	NE
MISC	112276	TRIETHYLENE GLYCOL	NE

MDL= Method Detection Limit
PQL= Practical Quantitation Limit
SWSL= Solid Waste Section Limit
SWS ID#=Solid Waste Section ID Number

UG/L= micrograms per liter
NE=Not Established

Table 3. Groundwater Field Parameters
DuPont Cape Fear Landfills
Leland, NC

SAMPLE (WELL ID)	DATE SAMPLED	TIME SAMPLED	WATER LEVEL (ft)	pH	TEMP (C)	SPECIFIC CONDUCTANCE (mS/cm)	DISSOLVED OXYGEN (mg/l)	REDOX (mv)	TURBIDITY (ntu)	COLOR	ODOR
MW-1	3/23/2012	1040	8.67	6.75	15.91	0.355	3.23	-23.5	8.41	Clear	None
MW-2	3/23/2012	1150	8.40	6.75	18.29	0.654	0.31	-24.4	NM	Clear	None
MW-3	3/23/2012	1310	3.79	6.72	17.82	0.561	0.25	-24.8	NM	Clear	None
MW-4	3/27/2012	1330	7.55	5.79	15.94	0.269	4.28	111.0	29.70	Clear	None
MW-5	3/27/2012	1230	No Readings*								
MW-6	3/27/2012	1430	1.41	6.11	15.99	0.714	0.14	39.0	1.46	Clear	Slight Sulfur
MW-7	3/26/2012	1400	13.65	4.74	20.25	0.101	0.59	129.8	NM	Clear	None
MW-9	3/26/2012	1540	4.49	6.12	16.49	0.983	0.09	-45.9	42.00	Clear	Slight Sulfur
MW-22	3/26/2012	1230	8.23	6.80	18.42	0.292	4.70	-53.4	3.23	Clear	None
MW-23	3/27/2012	1040	4.65	5.86	15.58	1.000	0.21	16.4	17.40	Slight Yellow	Slight Sulfur
MW-24	3/27/2012	940	5.62	5.30	15.01	0.358	0.17	65.8	19.50	Slight Yellow	Slight Sulfur

*MW-5 - No readings due to a limited amount of water in the well; Was not able to collect a sample for semi-volatile organic compounds.

ft=feet; C=degrees celsius; mS/cm=milliSiemens per centimeter; mg/l=milligrams per liter; mv=millivolts; ntu=national turbidity unit.

Table 4
Groundwater Elevation Data
DuPont Cape Fear Landfills
Leland, NC

Well ID	TOC Elevation	Depth to Water	Groundwater Elevation
MW-1	25.69	8.67	17.02
MW-2	12.95	8.40	4.55
MW-3	16.25	3.79	12.46
MW-4	17.52	7.55	9.97
MW-6	8.75	1.41	7.34
MW-7	20.22	13.65	6.57
MW-9	12.61	4.49	8.12
MW-22	24.14	8.23	15.91
MW-23	6.65	4.65	2.00
MW-24	7.45	5.62	1.83

APPENDIX: LABORATORY ANALYTICAL DATA

LANDFILL – ANNUAL 12

DuPont Cape Fear

May 23, 2012

Prepared for

Marc Harder – Parsons

Prepared by

Project Chemist – Wanda M. Davis
URS Corporation
Iron Hill Corporate Center
4051 Ogletown Road, Suite 300
Newark, DE 19713

Memorandum

DATE: May 23, 2012

TO: Marc Harder – URS Diamond

FROM: Wanda Davis, ADQM

RE: Analytical Data for Cape Fear, NC – Landfill Annual Sampling 2012

Enclosed please find the report for the groundwater samples collected March 23-27, 2012 at the Cape Fear Landfill site.

Please call or e-mail me with any questions.

Thanks
Wanda

ADQM FINAL DATA REPORT
NARRATIVE

Site **Cape Fear**

Project **LANDFILL – Annual 12**

Sampling Dates March 23, 26, 27, 2012

Laboratory **Test America**
Austin, Texas

Analytical Protocol

Parameter	Analytical Method	Laboratory
Semivolatile Organic Compounds	SW846 8270C	Test America, Austin, Texas
Teraphthalic Acid	MCAWW 300.0	Test America, Austin, Texas
Chloride, fluoride, sulfate	MCAWW 300.0	Test America, Austin, Texas
Metals	SW846 6010B	Test America, Austin, Texas
Mercury	SW846 7470B	Test America, Austin, Texas
Volatile Organic Compounds	SW846 8260B	Test America, Austin, Texas
Glycols and Methanol	SW846 8015M	Test America, Austin, Texas
Total Dissolved Solids	SM 2540C	Test America, Austin, Texas

Sample Arrival & Receipt
The samples arrived at the laboratory intact and within the correct temperature range (4±2°C).

Significant QC Findings/Comments
Overall these data are acceptable and usable for determining the impacts to groundwater from chemicals of concern at the site with the exception of the semivolatile compounds that were flagged "R" in sample ids CAP-G-MW-1, CAP-G-MW-2, and CAP-G-MW-3. Some of the data is estimated due to blank contamination, low or high matrix spike/matrix spike duplicate and/or laboratory control spike /laboratory control spike duplicate recoveries, and results reported between the method detection limit (MDL) and the practical quantitation limit (PQL).

The DDR Narrative Report, which follows this cover letter, lists the samples qualified and the reasons for qualification.

The detection limits reported by the laboratory meet the North Carolina Department of Environment and Natural Resources (NCDENR) Solid Waste Section Limits (SWSLs) for groundwater with the exception of hexachlorocyclopentadiene. The laboratory reporting limit for this hexachlorocyclopentadiene is 24 ug/L and the SWSL is 10 ug/L.

Site: CAP - CAPE FEAR
Project: LANDFILL Annual 12
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DDR Standards LABSTATS

Associated LCS and/or LCSD analysis had relative percent recovery (RPR) values below the data rejection level. The reported non-detect result is unusable.

Sample ID	Date Sampled	Lab ID	Analyte	Result	Units	MDL	PQL	Qual	Analytical Methods: Analysis	Preprep-	Prep-
CAP-G-MW-1	3/23/2012	AVC028501-1 FS	4-CHLOROANILINE	< 5.77	UG/L	5.77	9.62	R	8270D		3520C
CAP-G-MW-1	3/23/2012	AVC028501-1 FS	3,3"-DICHLOROBENZIDINE	< 9.62	UG/L	9.62	48.1	R	8270D		3520C
CAP-G-MW-2	3/23/2012	AVC028502-1 FS	4-CHLOROANILINE	< 5.77	UG/L	5.77	9.62	R	8270D		3520C
CAP-G-MW-2	3/23/2012	AVC028502-1 FS	3,3"-DICHLOROBENZIDINE	< 9.62	UG/L	9.62	48.1	R	8270D		3520C
CAP-G-MW-3	3/23/2012	AVC028503-1 FS	4-CHLOROANILINE	< 6.00	UG/L	6.00	10.0	R	8270D		3520C
CAP-G-MW-3	3/23/2012	AVC028503-1 FS	3,3"-DICHLOROBENZIDINE	< 10.0	UG/L	10.0	50.0	R	8270D		3520C

Contamination detected in Method Blank(s). Sample result does not differ significantly from the analyte concentration detected in the associated method blank(s).

Sample ID	Date Sampled	Lab ID	Analyte	Result	Units	MDL	PQL	Qual	Analytical Methods: Analysis	Preprep-	Prep-
CAP-G-MW-1	3/23/2012	AVC028501-1 FS	ARSENIC	0.00492	MG/L	0.0029(	0.0100	B	6010C		3030C
CAP-G-MW-2	3/23/2012	AVC028502-1 FS	ARSENIC	0.00630	MG/L	0.0029(	0.0100	B	6010C		3030C
CAP-G-MW-3	3/23/2012	AVC028503-1 FS	SILVER	0.00135	MG/L	0.0012(	0.0100	B	6010C		3030C
CAP-G-MW-3	3/23/2012	AVC028503-1 FS	ARSENIC	0.00521	MG/L	0.0029(	0.0100	B	6010C		3030C

Associated MS and/or MSD analysis had relative percent recovery (RPR) values higher than the upper control limit. The reported result may be biased high.

Sample ID	Date Sampled	Lab ID	Analyte	Result	Units	MDL	PQL	Qual	Analytical Methods: Analysis	Preprep-	Prep-
CAP-G-MW-4	3/27/2012	AVC030801-DL FS	SULFATE	77.3	MG/L	6.98	1000	J	300.0A		METHOD
CAP-G-MW-5	3/27/2012	AVC030802-DL FS	SULFATE	12.0	MG/L	1.74	250	J	300.0A		METHOD

The reported result is greater than/equal to the MDL and less than the PQL; it should be considered an estimated value.

Sample ID	Date Sampled	Lab ID	Analyte	Result	Units	MDL	PQL	Qual	Analytical Methods: Analysis	Preprep-	Prep-
CAP-G-MW-1	3/23/2012	AVC028501-DL FS	SULFATE	16.2	MG/L	1.74	250	J	300.0A		METHOD
CAP-G-MW-1	3/23/2012	AVC028501-1 FS	BARIUM	0.0203	MG/L	0.0012(	0.100	J	6010C		3030C
CAP-G-MW-1	3/23/2012	AVC028501-1 FS	FLUORIDE	0.320	MG/L	0.112	2.00	J	300.0A		METHOD
CAP-G-MW-2	3/23/2012	AVC028502-DL FS	SULFATE	26.1	MG/L	1.74	250	J	300.0A		METHOD
CAP-G-MW-2	3/23/2012	AVC028502-1 FS	BARIUM	0.0143	MG/L	0.0012(	0.100	J	6010C		3030C
CAP-G-MW-22	3/26/2012	AVC030003-DL FS	SULFATE	12.9	MG/L	1.74	250	J	300.0A		METHOD
CAP-G-MW-22	3/26/2012	AVC030003-1 FS	SILVER	0.00161	MG/L	0.0012(	0.0100	J	6010C		3030C

The reported result is greater than/equal to the MDL and less than the PQL; it should be considered an estimated value.

Sample ID	Date Sampled	Lab ID	Analyte	Result	Units	MDL	PQL	Qual	Analytical Methods		
									Analysis	Preprep-	Prep-
CAP-G-MW-22	3/26/2012	AVC030003-1 FS	BARIUM	0.00727	MG/L	0.0012(	0.100	J	6010C		3030C
CAP-G-MW-22	3/26/2012	AVC030003-1 FS	ARSENIC	0.00375	MG/L	0.0029(	0.0100	J	6010C		3030C
CAP-G-MW-22	3/26/2012	AVC030003-1 FS	FLUORIDE	0.294	MG/L	0.112	2.00	J	300.0A		METHOD
CAP-G-MW-23	3/27/2012	AVC030805-1 FS	SILVER	0.00215	MG/L	0.0012(	0.0100	J	6010C		3030C
CAP-G-MW-23	3/27/2012	AVC030805-1 FS	ARSENIC	0.00573	MG/L	0.0029(	0.0100	J	6010C		3030C
CAP-G-MW-23	3/27/2012	AVC030805-1 FS	FLUORIDE	0.311	MG/L	0.112	2.00	J	300.0A		METHOD
CAP-G-MW-24	3/27/2012	AVC030806-1 FS	SILVER	0.00258	MG/L	0.0012(	0.0100	J	6010C		3030C
CAP-G-MW-24	3/27/2012	AVC030806-1 FS	CHROMIUM	0.00400	MG/L	0.0029(	0.0100	J	6010C		3030C
CAP-G-MW-24	3/27/2012	AVC030806-1 FS	ARSENIC	0.00619	MG/L	0.0029(	0.0100	J	6010C		3030C
CAP-G-MW-24	3/27/2012	AVC030806-1 FS	FLUORIDE	0.460	MG/L	0.112	2.00	J	300.0A		METHOD
CAP-G-MW-3	3/23/2012	AVC028503-DL FS	SULFATE	32.9	MG/L	1.74	250	J	300.0A		METHOD
CAP-G-MW-3	3/23/2012	AVC028503-1 FS	BARIUM	0.0122	MG/L	0.0012(	0.100	J	6010C		3030C
CAP-G-MW-3	3/23/2012	AVC028503-1 FS	FLUORIDE	0.299	MG/L	0.112	2.00	J	300.0A		METHOD
CAP-G-MW-4	3/27/2012	AVC030801-1 FS	BARIUM	0.0236	MG/L	0.0012(	0.100	J	6010C		3030C
CAP-G-MW-4	3/27/2012	AVC030801-1 FS	FLUORIDE	0.252	MG/L	0.112	2.00	J	300.0A		METHOD
CAP-G-MW-5	3/27/2012	AVC030802-1 FS	BARIUM	0.0513	MG/L	0.0012(	0.100	J	6010C		3030C
CAP-G-MW-5	3/27/2012	AVC030802-1 FS	ARSENIC	0.00672	MG/L	0.0029(	0.0100	J	6010C		3030C
CAP-G-MW-6	3/27/2012	AVC030803-1 FS	SILVER	0.00127	MG/L	0.0012(	0.0100	J	6010C		3030C
CAP-G-MW-6	3/27/2012	AVC030803-1 FS	BARIUM	0.0239	MG/L	0.0012(	0.100	J	6010C		3030C
CAP-G-MW-6	3/27/2012	AVC030803-1 FS	ARSENIC	0.00447	MG/L	0.0029(	0.0100	J	6010C		3030C
CAP-G-MW-6	3/27/2012	AVC030803-1 FS	SULFATE	8.84	MG/L	0.349	50.0	J	300.0A		METHOD
CAP-G-MW-6	3/27/2012	AVC030803-1 FS	FLUORIDE	0.270	MG/L	0.112	2.00	J	300.0A		METHOD
CAP-G-MW-6-DUP	3/27/2012	AVC030804-1 FS	SILVER	0.00137	MG/L	0.0012(	0.0100	J	6010C		3030C
CAP-G-MW-6-DUP	3/27/2012	AVC030804-1 FS	BARIUM	0.0226	MG/L	0.0012(	0.100	J	6010C		3030C
CAP-G-MW-6-DUP	3/27/2012	AVC030804-1 FS	SULFATE	8.99	MG/L	0.349	50.0	J	300.0A		METHOD
CAP-G-MW-6-DUP	3/27/2012	AVC030804-1 FS	FLUORIDE	0.264	MG/L	0.112	2.00	J	300.0A		METHOD
CAP-G-MW-7	3/26/2012	AVC030001-DL FS	SULFATE	20.2	MG/L	1.74	250	J	300.0A		METHOD
CAP-G-MW-7	3/26/2012	AVC030001-1 FS	SELENIUM	0.00490	MG/L	0.00261	0.0100	J	6010C		3030C
CAP-G-MW-7	3/26/2012	AVC030001-1 FS	BARIUM	0.0527	MG/L	0.0012(	0.100	J	6010C		3030C
CAP-G-MW-7	3/26/2012	AVC030001-1 FS	ARSENIC	0.00362	MG/L	0.0029(	0.0100	J	6010C		3030C
CAP-G-MW-7	3/26/2012	AVC030001-1 FS	BUTYL BENZYL PHTHALATE	1.01	UG/L	0.949	9.62	J	8270D		3520C
CAP-G-MW-9	3/26/2012	AVC030002-1 FS	BARIUM	0.0312	MG/L	0.0012(	0.100	J	6010C		3030C
CAP-G-MW-9	3/26/2012	AVC030002-1 FS	ARSENIC	0.00526	MG/L	0.0029(	0.0100	J	6010C		3030C
CAP-G-MW-9	3/26/2012	AVC030002-1 FS	BIS(2-ETHYLHEXYL) PHTHALATE	3.14	UG/L	2.74	10.0	J	8270D		3520C
CAP-G-MW-9	3/26/2012	AVC030002-1 FS	FLUORIDE	0.257	MG/L	0.112	2.00	J	300.0A		METHOD

Associated LCS and/or LCSD analysis had relative percent recovery (RPR) values less than the lower control limit but above 10%. The actual detection limits may be higher than reported.

Sample ID	Date Sampled	Lab ID	Analyte	Result	Units	MDL	PQL	Qual	Analytical Methods		
									Analysis	Preprep-	Prep-
CAP-G-MW-1	3/23/2012	AVC028501-1 FS	N-NITROSODIPHENYLAMINE	< 0.900	UG/L	0.900	9.62	UJ	8270D		3520C

Associated LCS and/or LCSD analysis had relative percent recovery (RPR) values less than the lower control limit but above 10%. The actual detection limits may be higher than reported.

Sample ID	Date Sampled	Lab ID	Analyte	Result	Units	MDL	PQL	Qual	Analytical Methods		
									Analysis	Preprep-	Prep-
CAP-G-MW-1	3/23/2012	AVC028501-1 FS	BENZO[A]PYRENE	< 1.07	UG/L	1.07	9.62	UJ	8270D		3520C
CAP-G-MW-2	3/23/2012	AVC028502-1 FS	N-NITROSODIPHENYLAMINE	< 0.900	UG/L	0.900	9.62	UJ	8270D		3520C
CAP-G-MW-2	3/23/2012	AVC028502-1 FS	BENZO[A]PYRENE	< 1.07	UG/L	1.07	9.62	UJ	8270D		3520C
CAP-G-MW-22	3/26/2012	AVC030003-1 FS	PENTACHLOROPHENOL	< 5.44	UG/L	5.44	50.0	UJ	8270D		3520C
CAP-G-MW-22	3/26/2012	AVC030003-1 FS	4,6-DINITRO-2-METHYLPHENOL	< 3.56	UG/L	3.56	50.0	UJ	8270D		3520C
CAP-G-MW-22	3/26/2012	AVC030003-1 FS	2,4-DINITROPHENOL	< 3.74	UG/L	3.74	50.0	UJ	8270D		3520C
CAP-G-MW-23	3/27/2012	AVC030805-1 FS	PENTACHLOROPHENOL	< 5.44	UG/L	5.44	50.0	UJ	8270D		3520C
CAP-G-MW-23	3/27/2012	AVC030805-1 FS	4,6-DINITRO-2-METHYLPHENOL	< 3.56	UG/L	3.56	50.0	UJ	8270D		3520C
CAP-G-MW-23	3/27/2012	AVC030805-1 FS	2,4-DINITROPHENOL	< 3.74	UG/L	3.74	50.0	UJ	8270D		3520C
CAP-G-MW-24	3/27/2012	AVC030806-1 FS	PENTACHLOROPHENOL	< 5.44	UG/L	5.44	50.0	UJ	8270D		3520C
CAP-G-MW-24	3/27/2012	AVC030806-1 FS	4,6-DINITRO-2-METHYLPHENOL	< 3.56	UG/L	3.56	50.0	UJ	8270D		3520C
CAP-G-MW-24	3/27/2012	AVC030806-1 FS	2,4-DINITROPHENOL	< 3.74	UG/L	3.74	50.0	UJ	8270D		3520C
CAP-G-MW-3	3/23/2012	AVC028503-1 FS	N-NITROSODIPHENYLAMINE	< 0.936	UG/L	0.936	10.0	UJ	8270D		3520C
CAP-G-MW-3	3/23/2012	AVC028503-1 FS	BENZO[A]PYRENE	< 1.11	UG/L	1.11	10.0	UJ	8270D		3520C
CAP-G-MW-4	3/27/2012	AVC030801-1 FS	PENTACHLOROPHENOL	< 5.44	UG/L	5.44	50.0	UJ	8270D		3520C
CAP-G-MW-4	3/27/2012	AVC030801-1 FS	4,6-DINITRO-2-METHYLPHENOL	< 3.56	UG/L	3.56	50.0	UJ	8270D		3520C
CAP-G-MW-4	3/27/2012	AVC030801-1 FS	2,4-DINITROPHENOL	< 3.74	UG/L	3.74	50.0	UJ	8270D		3520C
CAP-G-MW-6	3/27/2012	AVC030803-1 FS	PENTACHLOROPHENOL	< 5.44	UG/L	5.44	50.0	UJ	8270D		3520C
CAP-G-MW-6	3/27/2012	AVC030803-1 FS	4,6-DINITRO-2-METHYLPHENOL	< 3.56	UG/L	3.56	50.0	UJ	8270D		3520C
CAP-G-MW-6	3/27/2012	AVC030803-1 FS	2,4-DINITROPHENOL	< 3.74	UG/L	3.74	50.0	UJ	8270D		3520C
CAP-G-MW-6-DUP	3/27/2012	AVC030804-1 FS	PENTACHLOROPHENOL	< 5.44	UG/L	5.44	50.0	UJ	8270D		3520C
CAP-G-MW-6-DUP	3/27/2012	AVC030804-1 FS	4,6-DINITRO-2-METHYLPHENOL	< 3.56	UG/L	3.56	50.0	UJ	8270D		3520C
CAP-G-MW-6-DUP	3/27/2012	AVC030804-1 FS	2,4-DINITROPHENOL	< 3.74	UG/L	3.74	50.0	UJ	8270D		3520C
CAP-G-MW-7	3/26/2012	AVC030001-1 FS	PENTACHLOROPHENOL	< 5.23	UG/L	5.23	48.1	UJ	8270D		3520C
CAP-G-MW-7	3/26/2012	AVC030001-1 FS	4,6-DINITRO-2-METHYLPHENOL	< 3.42	UG/L	3.42	48.1	UJ	8270D		3520C
CAP-G-MW-7	3/26/2012	AVC030001-1 FS	2,4-DINITROPHENOL	< 3.60	UG/L	3.60	48.1	UJ	8270D		3520C
CAP-G-MW-9	3/26/2012	AVC030002-1 FS	PENTACHLOROPHENOL	< 5.44	UG/L	5.44	50.0	UJ	8270D		3520C
CAP-G-MW-9	3/26/2012	AVC030002-1 FS	4,6-DINITRO-2-METHYLPHENOL	< 3.56	UG/L	3.56	50.0	UJ	8270D		3520C
CAP-G-MW-9	3/26/2012	AVC030002-1 FS	2,4-DINITROPHENOL	< 3.74	UG/L	3.74	50.0	UJ	8270D		3520C
CAP-K-EQBLK-LANDFILL	3/26/2012	AVC030004-1 EB	PENTACHLOROPHENOL	< 5.44	UG/L	5.44	50.0	UJ	8270D		3520C
CAP-K-EQBLK-LANDFILL	3/26/2012	AVC030004-1 EB	4,6-DINITRO-2-METHYLPHENOL	< 3.56	UG/L	3.56	50.0	UJ	8270D		3520C
CAP-K-EQBLK-LANDFILL	3/26/2012	AVC030004-1 EB	2,4-DINITROPHENOL	< 3.74	UG/L	3.74	50.0	UJ	8270D		3520C

Associated MS and/or MSD analysis had relative percent recovery (RPR) values less than the lower control limit. The actual detection limits may be higher than reported.

Sample ID	Date Sampled	Lab ID	Analyte	Result	Units	MDL	PQL	Qual	Analytical Methods		
									Analysis	Preprep-	Prep-
CAP-G-MW-23	3/27/2012	AVC030708-1 FS	ACETONE	< 1.54	UG/L	1.54	100	UJ	8260B		5030B
CAP-G-MW-23	3/27/2012	AVC030708-1 FS	TRIETHYLENE GLYCOL	< 8.45	MG/L	8.45	25.0	UJ	8015C		None
CAP-G-MW-3	3/23/2012	AVC028403-1 FS	ACETONE	< 1.54	UG/L	1.54	100	UJ	8260B		5030B
CAP-G-MW-3	3/23/2012	AVC028403-1 FS	TRIETHYLENE GLYCOL	< 8.45	MG/L	8.45	25.0	UJ	8015C		None

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DDR Standards LABSTATS

Associated MS and/or MSD analysis had relative percent recovery (RPR) values less than the lower control limit. The actual detection limits may be higher than reported.

Sample ID	Date Sampled	Lab ID	Analyte	Result	Units	MDL	PQL	Qual	Analytical Methods		
									Analysis	Preprep-	Prep-
CAP-G-MW-7	3/26/2012	AVC030705-1 FS	CIS-1,3-DICHLOROPROPENE	< 0.307	UG/L	0.307	1.00	UJ	8260B		5030B
CAP-G-MW-7	3/26/2012	AVC030705-1 FS	ACETONE	< 1.54	UG/L	1.54	100	UJ	8260B		5030B

Corporate Environmental Database
Summary of Positive Results
with Laboratory and DDR Qualifiers

Site: CAP - CAPE FEAR
Project: LANDFILL Annual 12
Reporting Limit: MDL

Analyte/Parameter	Result	Qualifiers LAB	Qualifiers DDR	Unit	Detection Limit MDL	Detection Limit PQL	Analytical Methods Analysis	Analytical Methods Preprep-	Analytical Methods Prep-
Sampling Point: MW-4		Sampleno:	CAP-G-MW-4						
Date sampled: Mar 27, 2012		Sample type:	Groundwater						
BARIUM	0.0236	J	J	MG/L	0.0012C	0.100	6010C		3030C
SULFATE	77.3	J	J	MG/L	6.98	1000	300.0A		METHOD
CHLORIDE	5.18			MG/L	0.100	1.00	300.0A		METHOD
FLUORIDE	0.252	J	J	MG/L	0.112	2.00	300.0A		METHOD
TOTAL DISSOLVED SOLIDS	208			MG/L	40.0	40.0	2540C		METHOD
Sampling Point: MW-1		Sampleno:	CAP-G-MW-1						
Date sampled: Mar 23, 2012		Sample type:	Groundwater						
BARIUM	0.0203	J	J	MG/L	0.0012C	0.100	6010C		3030C
ARSENIC	0.00492	J, B	B	MG/L	0.0029C	0.0100	6010C		3030C
SULFATE	16.2	J	J	MG/L	1.74	250	300.0A		METHOD
CHLORIDE	13.6			MG/L	0.500	5.00	300.0A		METHOD
FLUORIDE	0.320	J	J	MG/L	0.112	2.00	300.0A		METHOD
TOTAL DISSOLVED SOLIDS	220			MG/L	40.0	40.0	2540C		METHOD
Sampling Point: MW-2		Sampleno:	CAP-G-MW-2						
Date sampled: Mar 23, 2012		Sample type:	Groundwater						
BARIUM	0.0143	J	J	MG/L	0.0012C	0.100	6010C		3030C
ARSENIC	0.00630	J, B	B	MG/L	0.0029C	0.0100	6010C		3030C
SULFATE	26.1	J	J	MG/L	1.74	250	300.0A		METHOD
CHLORIDE	15.7			MG/L	0.500	5.00	300.0A		METHOD
1,4-DIOXANE	14.4			UG/L	4.18	9.62	8270D		3520C
TOTAL DISSOLVED SOLIDS	370			MG/L	40.0	40.0	2540C		METHOD
Sampling Point: MW-5		Sampleno:	CAP-G-MW-5						
Date sampled: Mar 27, 2012		Sample type:	Groundwater						
BARIUM	0.0513	J	J	MG/L	0.0012C	0.100	6010C		3030C
ARSENIC	0.00672	J	J	MG/L	0.0029C	0.0100	6010C		3030C
SULFATE	12.0	J	J	MG/L	1.74	250	300.0A		METHOD
CHLORIDE	2.06			MG/L	0.100	1.00	300.0A		METHOD
SELENIUM	0.0103			MG/L	0.00261	0.0100	6010C		3030C
TOTAL DISSOLVED SOLIDS	236			MG/L	40.0	40.0	2540C		METHOD
Sampling Point: MW-6		Sampleno:	CAP-G-MW-6-DUP						
Date sampled: Mar 27, 2012		Sample type:	Groundwater						
BARIUM	0.0226	J	J	MG/L	0.0012C	0.100	6010C		3030C
SILVER	0.00137	J	J	MG/L	0.0012C	0.0100	6010C		3030C
SULFATE	8.99	J	J	MG/L	0.349	50.0	300.0A		METHOD
CHLORIDE	29.4			MG/L	2.00	20.0	300.0A		METHOD
FLUORIDE	0.264	J	J	MG/L	0.112	2.00	300.0A		METHOD
TOTAL DISSOLVED SOLIDS	419			MG/L	40.0	40.0	2540C		METHOD
Sampling Point: MW-23		Sampleno:	CAP-G-MW-23						
Date sampled: Mar 27, 2012		Sample type:	Groundwater						
BARIUM	0.244			MG/L	0.0012C	0.100	6010C		3030C
SILVER	0.00215	J	J	MG/L	0.0012C	0.0100	6010C		3030C
ARSENIC	0.00573	J	J	MG/L	0.0029C	0.0100	6010C		3030C
CHLORIDE	120			MG/L	5.00	50.0	300.0A		METHOD
FLUORIDE	0.311	J	J	MG/L	0.112	2.00	300.0A		METHOD
TOTAL DISSOLVED SOLIDS	723			MG/L	40.0	40.0	2540C		METHOD

Corporate Environmental Database
Summary of Positive Results
with Laboratory and DDR Qualifiers

Site: CAP - CAPE FEAR
Project: LANDFILL Annual 12
Reporting Limit: MDL

Analyte/Parameter	Result	Qualifiers LAB	Qualifiers DDR	Unit	Detection Limit MDL	Detection Limit PQL	Analytical Methods Analysis	Analytical Methods Preprep-	Analytical Methods Prep-
Sampling Point: MW-3		Sampleno:	CAP-G-MW-3						
Date sampled: Mar 23, 2012		Sample type:	Groundwater						
BARIUM	0.0122	J	J	MG/L	0.0012C	0.100	6010C		3030C
SILVER	0.00135	J, B	B	MG/L	0.0012C	0.0100	6010C		3030C
ARSENIC	0.00521	J, B	B	MG/L	0.0029C	0.0100	6010C		3030C
SULFATE	32.9	J	J	MG/L	1.74	250	300.0A		METHOD
CHLORIDE	18.0			MG/L	0.500	5.00	300.0A		METHOD
FLUORIDE	0.299	J	J	MG/L	0.112	2.00	300.0A		METHOD
TOTAL DISSOLVED SOLIDS	384			MG/L	40.0	40.0	2540C		METHOD
Sampling Point: MW-6		Sampleno:	CAP-G-MW-6						
Date sampled: Mar 27, 2012		Sample type:	Groundwater						
BARIUM	0.0239	J	J	MG/L	0.0012C	0.100	6010C		3030C
SILVER	0.00127	J	J	MG/L	0.0012C	0.0100	6010C		3030C
ARSENIC	0.00447	J	J	MG/L	0.0029C	0.0100	6010C		3030C
SULFATE	8.84	J	J	MG/L	0.349	50.0	300.0A		METHOD
CHLORIDE	27.9			MG/L	1.00	10.0	300.0A		METHOD
FLUORIDE	0.270	J	J	MG/L	0.112	2.00	300.0A		METHOD
TOTAL DISSOLVED SOLIDS	389			MG/L	40.0	40.0	2540C		METHOD
Sampling Point: MW-7		Sampleno:	CAP-G-MW-7						
Date sampled: Mar 26, 2012		Sample type:	Groundwater						
BARIUM	0.0527	J	J	MG/L	0.0012C	0.100	6010C		3030C
ARSENIC	0.00362	J	J	MG/L	0.0029C	0.0100	6010C		3030C
SULFATE	20.2	J	J	MG/L	1.74	250	300.0A		METHOD
CHLORIDE	3.84			MG/L	0.100	1.00	300.0A		METHOD
SELENIUM	0.00490	J	J	MG/L	0.00261	0.0100	6010C		3030C
BUTYL BENZYL PHTHALATE	1.01	J	J	UG/L	0.949	9.62	8270D		3520C
TOTAL DISSOLVED SOLIDS	43.9			MG/L	40.0	40.0	2540C		METHOD
Sampling Point: MW-9		Sampleno:	CAP-G-MW-9						
Date sampled: Mar 26, 2012		Sample type:	Groundwater						
BARIUM	0.0312	J	J	MG/L	0.0012C	0.100	6010C		3030C
ARSENIC	0.00526	J	J	MG/L	0.0029C	0.0100	6010C		3030C
CHLORIDE	10.9			MG/L	0.100	1.00	300.0A		METHOD
FLUORIDE	0.257	J	J	MG/L	0.112	2.00	300.0A		METHOD
1,4-DIOXANE	119			UG/L	4.35	10.0	8270D		3520C
TOTAL DISSOLVED SOLIDS	521			MG/L	40.0	40.0	2540C		METHOD
BIS(2-ETHYLHEXYL) PHTHALATE	3.14	J	J	UG/L	2.74	10.0	8270D		3520C
Sampling Point: MW-22		Sampleno:	CAP-G-MW-22						
Date sampled: Mar 26, 2012		Sample type:	Groundwater						
BARIUM	0.00727	J	J	MG/L	0.0012C	0.100	6010C		3030C
SILVER	0.00161	J	J	MG/L	0.0012C	0.0100	6010C		3030C
ARSENIC	0.00375	J	J	MG/L	0.0029C	0.0100	6010C		3030C
SULFATE	12.9	J	J	MG/L	1.74	250	300.0A		METHOD
CHLORIDE	9.94			MG/L	0.100	1.00	300.0A		METHOD
FLUORIDE	0.294	J	J	MG/L	0.112	2.00	300.0A		METHOD
TOTAL DISSOLVED SOLIDS	178			MG/L	40.0	40.0	2540C		METHOD
Sampling Point: MW-24		Sampleno:	CAP-G-MW-24						
Date sampled: Mar 27, 2012		Sample type:	Groundwater						
BARIUM	0.208			MG/L	0.0012C	0.100	6010C		3030C
SILVER	0.00258	J	J	MG/L	0.0012C	0.0100	6010C		3030C
ARSENIC	0.00619	J	J	MG/L	0.0029C	0.0100	6010C		3030C
CHLORIDE	50.5			MG/L	2.00	20.0	300.0A		METHOD
CHROMIUM	0.00400	J	J	MG/L	0.0029C	0.0100	6010C		3030C
FLUORIDE	0.460	J	J	MG/L	0.112	2.00	300.0A		METHOD
TOTAL DISSOLVED SOLIDS	516			MG/L	40.0	40.0	2540C		METHOD