JOYCE
ENGINEERING, INC.

Waste Industry Experts

Henderson Building
Suite 203
2301 W Meadowview Rd
Greensboro, NC 27407

tel: 336/323-0092
fax: 336/323-0093

www.JoyceEngineering.com

November 2, 2005

Mr. Matt Gamble
NC DENR
Division of Waste Management - Solid Waste Section
1647 Mail Service Center
Raleigh, NC 27699-1646

RE: Report of Semiannual Leachate Sampling – September 2005 Sampling Event
North Wake Landfill, Wake County, NC
Permit No. 92-09
JEI Project No. 661, Task 14

Carmen Johnson
Scanned by Date Doc ID
8/20/12 RCO
92-09

Dear Matt:

Enclosed is a report of the laboratory analytical results for the leachate monitoring conducted in September 2005 at the North Wake Landfill. In accordance with the North Carolina Department of Environmental and Natural Resources (NCDENR) Solid Waste Management Rule (SWMR) .1626(12)(c) and NC Solid Waste Permit Number 92-09, Joyce Engineering, Inc. (JEI) sampled the leachate pond on September 2, 2005. The samples were sent to Environmental Conservation Laboratories, Inc. and analyzed for the NC Appendix I list of volatile organic compounds and metals, plus BOD, COD, sulfate, nitrate, and phosphorus.

The field data form, the laboratory reports, and the chains of custody for this event are enclosed with this report. The next semiannual sampling event is scheduled to take place in the first half of 2006 in conjunction with discharge sampling during an appropriate discharge event. If you have any questions, please feel free to contact me at (336) 323-0092.

Sincerely,
JOYCE ENGINEERING, INC.

Van Burbach

Van Burbach, P.G.
Senior Project Hydrogeologist

Enclosure

C: Johnny Beal, Wake County Environmental Services
Dusty Reedy, P.G, JEI

P:\Wake County\Tasks\Leachate\Leachate Sampling\Aug Sept 05\DENR transmittal letter.doc

Environmental Conservation Laboratories, Inc.
1015 Passport Way
Cary, NC 27513-2024
(919) 6771669

Login #:	CRY18634
Accont #:	JO004
Client:	Joyce Engineering
Attention:	Van Bubach
Address:	2301 West Meadowview Road S-203 Greensboro, NC 27407
Date Received:	2-Sep-05
Date Invoiced:	16-Sep-05
Project Number:	661.14
Project Desc:	North Wake County LF
Project Loc:	NC

CERTIFICATIONS

Local Laboratory Certification: NCDENR:591

All analyses reported with this project were analyzed by the facility indicated

Product	CERT #
BOD, EPA Method 405.1	NCDENR:424
COD, EPA Method 410.4	NCDENR:424
Nitrate, EPA Method 300	NCDENR:424
pH, EPA Method 150.1	NCDENR:424
Total Phos, EPA Method 365.4	NCDENR:424
Sulfate, EPA Method 300	NCDENR:424

ABBREVIATIONS

J :	Analyte detected; value is between the Method Detection Level (MDL) and the Method Quantitation Level (MQL).
NR :	Analysis not requested for this sample.
Q :	Analysis performed outside of method-specified holding time.
U :	Compound was analyzed for but not detected to the level shown.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. This data has been produced in accordance with NELAC Standards

This report shall not be reproduced except in full, without the written approval of the laboratory. Results for these procedures apply only to the samples as

Chuck Smith

Joyce Engineering
2301 West Meadowview Road
S-203
Greensboro, NC 27407

SAMPLE IDENTIFICATION

Lab Sample ID	Client ID	Collection Date
CRY18634-1	WW-PIPE LINE	09/02/2005 13:45
CRY18634-2	TRIP BLANK	09/02/2005

SAMPLE RESULTS

Parameter	RDL	Units	WW-PIPE LINE	TRIP BLANK	Method BLK
Antimony	30	ug/L	ND	NR	ND
Lead	10	ug/L	ND	NR	ND
Arsenic	10	ug/L	11	NR	ND
Barium	500	ug/L	ND	NR	ND
Nickel	50	ug/L	56	NR	ND
Selenium	20	ug/L	ND	NR	ND
Silver	10	ug/L	ND	NR	ND
Thallium	10	ug/L	ND	NR	ND
Vanadium	40	ug/L	ND	NR	ND
Zinc	50	ug/L	ND	NR	ND
Beryllium	2	ug/L	ND	NR	ND
Cadmium	1	ug/L	ND	NR	ND
Chromium	10	ug/L	ND	NR	ND
Cobalt	10	ug/L	ND	NR	ND
Copper	200	ug/L	ND	NR	ND

SAMPLE RESULTS

Parameter	RDL	Units	WW-PIPE LINE	TRIP BLANK	Method BLK
Ethylbenzene	5	ug/L	ND	ND	ND
2-Hexanone	50	ug/L	ND	ND	ND
Bromomethane	10	ug/L	ND	ND	ND
Chloromethane	10	ug/L	ND	ND	ND
Dibromomethane	10	ug/L	ND	ND	ND
Methylene Chloride	10	ug/L	ND	ND	ND
2-Butanone	100	ug/L	ND	ND	ND
Iodomethane	10	ug/L	ND	ND	ND
4-Methyl-2-pentanone	100	ug/L	ND	ND	ND
Benzene	5	ug/L	ND	ND	ND
Styrene	10	ug/L	ND	ND	ND
1,1,1,2-Tetrachloroethane	5	ug/L	ND	ND	ND
1,1,2,2-Tetrachloroethane	5	ug/L	ND	ND	ND
Tetrachloroethene	5	ug/L	20	ND	ND
Toluene	5	ug/L	ND	ND	ND
1,1,1-Trichloroethane	5	ug/L	ND	ND	ND
Trichloroethene	5	ug/L	ND	ND	ND
1,1,2-Trichloroethane	5	ug/L	ND	ND	ND
Trichlorofluoromethane	5	ug/L	ND	ND	ND
1,2,3-Trichloropropane	15	ug/L	ND	ND	ND
Vinyl Acetate	50	ug/L	ND	ND	ND
Vinyl chloride	10	ug/L	ND	ND	ND
m-Xylene & p-Xylene	5	ug/L	ND	ND	ND
o-Xylene	5	ug/L	ND	ND	ND
Bromochloromethane	5	ug/L	ND	ND	ND
Bromodichloromethane	5	ug/L	ND	ND	ND
Acetone	100	ug/L	ND	ND	ND
Bromoform	5	ug/L	ND	ND	ND
Carbon Disulfide	100	ug/L	ND	ND	ND
Carbon Tetrachloride	10	ug/L	ND	ND	ND
Chlorobenzene	5	ug/L	ND	ND	ND
Chloroethane	10	ug/L	ND	ND	ND
Chloroform	5	ug/L	ND	ND	ND
Dibromochloromethane	5	ug/L	ND	ND	ND
1,2-Dibromo-3-chloropropane	25	ug/L	ND	ND	ND
1,2-Dibromoethane	5	ug/L	ND	ND	ND
1,2-Dichlorobenzene	5	ug/L	ND	ND	ND
1,4-Dichlorobenzene	5	ug/L	ND	ND	ND
t-1,4-Dichloro-2-Butene	100	ug/L	ND	ND	ND
1,1-Dichloroethane	5	ug/L	ND	ND	ND
1,2-Dichloroethane	5	ug/L	ND	ND	ND
1,1-Dichloroethene	5	ug/L	ND	ND	ND
C-1,2-Dichloroethene	5	ug/L	ND	ND	ND
t-1,2-Dichloroethene	5	ug/L	ND	ND	ND
Acrylonitrile	200	ug/L	ND	ND	ND
1,2-Dichloropropane	5	ug/L	ND	ND	ND
c-1,3-Dichloropropene	10	ug/L	ND	ND	ND
t-1,3-Dichloropropene	10	ug/L	ND	ND	ND

SAMPLE RESULTS

Parameter	RDL	Units	WW-PIPE LINE		TRIP BLANK	Method BLK	
Phosphorus, Total	0.030	mg/L	0.45		NR	ND	
NITRATE-N	0.10	mg/L	ND		NR	ND	
Sulfate	2.0	mg/L	19		NR	ND	
BOD	2.0	mg/L	22		NR	ND	
COD	10.0	mg/L	350		NR	ND	
pH		S.U.	8.2	Q	NR	5.2	Q

QUALITY CONTROL

Parameter	% RECOVERY LCS/MS/MSD	LCS LIMITS	MS/MSD LIMITS	RPD MS/MSD	RPD LIMITS
Anions by IC					
EPA METHOD 300					
Chloride	97/82/96	90-110	51-149	16	26
Nitrite-N	100/104/99	90-110	48-161	5	22
Nitrate-N	97/97/94	90-110	40-152	3	23
Sulfate	96/98/94	90-110	47-148	4	25
MISCELLANEOUS					
Phosphorus, Total, 365.4	100/100/104	87-114	74-121	4	11
pH, 150.1	101/NA/NA	99-101	-	NA	
COD, 410.4	96/94/96	90-110	90-110	2	20
BOD, 405.1	92/NA/NA	82-118	-	NA	
TOTAL METALS					
Silver, 6010	95/-999/-999	80-128	69-121	<1	12
Arsenic, 6010	97/91/93	82-117	64-126	2	12
Barium, 6010	100/95/98	72-125	74-119	3	11
Beryllium, 6010	102/99/101	75-121	70-131	2	21
Cadmium, 6010	103/97/99	72-120	68-121	2	12
Cobalt, 6010	98/94/96	76-117	76-120	2	17
Chromium, 6010	99/94/96	78-119	73-120	2	17
Nickel, 6010	101/96/98	78-116	64-126	2	12
Lead, 6010	98/92/95	72-121	68-126	3	19
Antimony, 6010	100/96/99	82-119	38-138	3	30
Selenium, 6010	107/100/103	82-127	65-129	3	10
Thallium, 6010	103/96/98	79-118	67-135	2	13
Vanadium, 6010	98/94/97	78-117	71-130	3	16
Zinc, 6010	101/95/97	80-120	63-131	2	24
Copper, 6010	97/94/96	80-117	75-123	2	16
EPA METHOD APPENDIX I,8260					
1,1-Dichloroethene	120/145/120	64-139	36-177	19	30
Benzene	94/97/101	69-115	53-150	4	23
Trichloroethene	98/101/96	74-118	64-124	5	25
Toluene	96/97/96	77-117	40-161	1	23
Chlorobenzene	91/92/93	76-118	44-128	1	22

SURROGATE RECOVERY

Lab Sample ID	Surrogate	% RECOVERY	ACCEPT LIMITS
CRY18634-1	Bromofluorobenzene	120	70-130
CRY18634-1	D8-Toluene	102	77-118
CRY18634-1	Dibromofluoromethane	129	73-138
CRY18634-2	Bromofluorobenzene	128	70-130
CRY18634-2	D8-Toluene	100	77-118
CRY18634-2	Dibromofluoromethane	130	73-138
V052IA2-1	Bromofluorobenzene	128	70-130
V052IA2-1	D8-Toluene	100	77-118
V052IA2-1	Dibromofluoromethane	129	73-138

QSARF #_____

ENVIRONMENTAL CONSERVATION LABORATORIES

4810 Executive Park Court, Suite 211
Jacksonville, Florida 32216-6069
Ph. (904) 296-3007 • Fax (904) 296-6210

10207 General Drive
Orlando, Florida 32824-8529
Ph. (407) 826-5314 • Fax (407) 850-6945

1015 Passport Way
Cary, North Carolina 27513
Ph. (919) 677-1669 • Fax (919) 677-9846

ENCO CompQAP No.: 960038G/0

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

PROJECT REFERENCE: North Wake County Landfill
PROJECT NO.: 661.14
P.O. NUMBER:
PROJECT LOC. (State): NC
SAMPLER(s) NAME: B. Draper / J. Keely
PHONE: (336) 323-0092
FAX: (336) 323-0093
CLIENT NAME: Joyce Engineering
CLIENT PROJECT MANAGER: Van Burbach
CLIENT ADDRESS (CITY, STATE, ZIP): 2301 West Meadowview Rd Suite 203 Greensboro, NC 27407

☒ STANDARD REPORT DELIVERY
☐ EXPEDITED REPORT DELIVERY (surcharge)
Date Due:_____

MATRIX TYPE / REQUIRED ANALYSIS / PRESERVATIVE / NUMBER OF CONTAINERS SUBMITTED

STATION	DATE	TIME	GRAB	COMP	SAMPLE IDENTIFICATION	SURFACE WATER	GROUND WATER	WASTEWATER	DRINKING WATER	SOIL/SOLID/SEDIMENT	NONAQUEOUS LIQUID (oil, solvent, etc.)	AIR	SLUDGE	OTHER Leachate	NC Leachate List	NC App I VOAS							REMARKS
1	9-2-05	13:45		X	WW Pipe-01									X	X								NC Leachate List NC App. I & BOD, COD, Phosphorus, Nitrate, Sulfate) (TABLE 3) See Attached
2	—	—			Trip Blank											X							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							
13																							
14																							

SAMPLE KIT PREPARED BY: ☐JACKSONVILLE ☐ORLANDO	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
RELINQUISHED BY: (SIGNATURE) [signature]	9-2-05	15:00	RECEIVED BY: (SIGNATURE) [signature]	9/2/05	15:00	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
RECEIVED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	ENCO LOG NO.	REMARKS
☐ Jacksonville ☐ Orlando [signature]	9/2/05	5:18	☒ YES ☐ NO	[illegible]	Note: Short Hold Times

Environmental Conservation Laboratories, Inc.
Login Sample Disposition Form

Client Name: Joyce Login #: CR418634

Proj. Name: N. Wake Co. LF Date Rec'd: 9/2/05 Logged By: aa

Samples received via: (Client Drop-off) Lab Pickup Courier _____ LIST AND ATTACH BILLS

Container Descriptions and Preservation
Indicate presv. type and # of each

Containers	None	HCl	HNO_3	H_2SO_4	NaOH	Other
1 L Glass						
1 L Plastic	1					
500 ml Plastic						
250 ml Plastic	1		1	1		
250 ml Glass						
4 oz Jars						
40 ml Vial		6				
Other						

Receiving Temperatures
Total Number of Coolers: 2

Cooler Number	Receipt Temperature		
1 = 4.9°C	(2-6°)	On Ice	No Ice
2 = 3.7°C	(2-6°)	(On Ice)	No Ice
	2-6°	On Ice	No Ice
	2-6°	On Ice	No Ice
	2-6°	On Ice	No Ice
	2-6°	On Ice	No Ice
	2-6°	On Ice	No Ice

Provide details of "No Ice" in Notification/Comments.

Sample Receipt Disposition

1. Were sample containers received intact? (Yes) No
2. Were sample containers properly preserved? ~~Yes~~ No
3. Were proper containers used for analyses requested? ~~Yes~~ No
4. Do sample labels match Chain-of-Custody record? ~~Yes~~ No
5. Were samples received under custody seal? ~~Yes~~ No
6. If received under custody seal, were all seals intact? ~~Yes~~ No N/A
7. Were volatile containers preserved (check labels only)? ~~Yes~~ No N/A
8. Were aqueous volatile samples headspace-free? ~~Yes~~ No N/A
9. Were aqueous samples checked for residual chlorine? ~~Yes~~ No N/A
10. Were all samples specified in the prelog received? ~~Yes~~ No N/A

Any discrepancies must be noted below and approved by lab management.

Client Notification

1. Does client need to be notified? Yes (No)
2. Who notified client? _____
3. Who was notified? _____
4. When? _____ by: Phone Fax Mail
5. Client requests following action(s) be taken:
   - ____ Continue analysis and report disposition in final report.
   - ____ Cancel affected analyses only (identify in comments below).
   - ____ Cancel all analyses.
   - ____ Other (explain in comments below).

Comments

Project Status

✓ Samples received into lab.
____ Samples rejected

[signature] APPROVED BY 9/6/5 DATE

DATE: 9-2-05

JOYCE ENGINEERING, INC.

LEACHATE MONITORING LOG

Project Name: North Wake County LF **Project/Task No.:** 661.14

Surface Point ID: Pipe WW-01 **Sampler(s):** B. Draper / J. Kerly

Location: Around Backside of LF

Field Parameters:

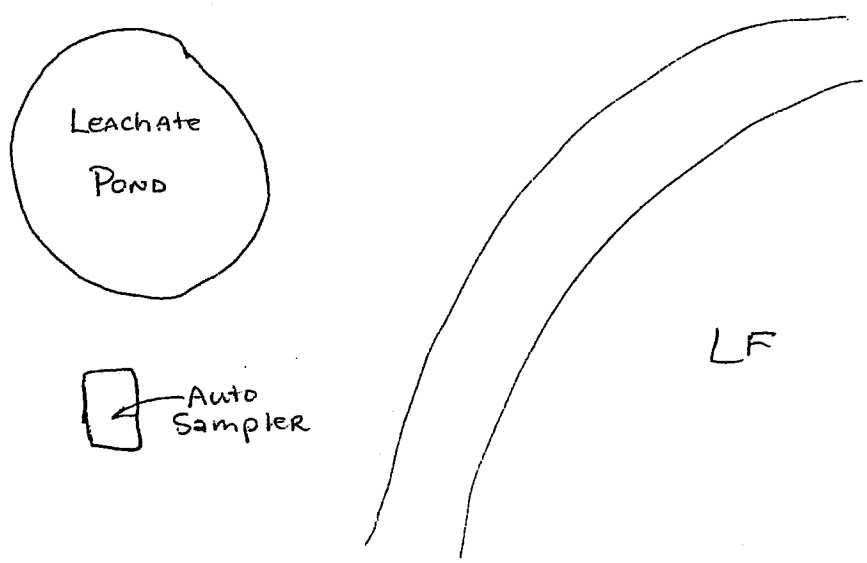
Time of Sampling:	13:45
pH:	8.07
Type of Meter:	Oakton
Intial flow reading:	7,281,972
Final flow reading:	7,284,552

Comments/Sample Description(weather conditions, odor, color, silt, etc.):

Cond: 3520 uS

Flow: 18 gal/min

Sketch of Sample Location (include flow direction, drainage pathways, etc.):



Signature: [signature] **Date:** 9-2-05

QA/QC Sign Off: _____ **Date:** _____

CDM
5400 Glenwood Avenue, Suite 300
Raleigh, North Carolina 27612
tel: 919 787-5620
fax: 919 781-5730

Carrie Schuser
Scanned by | Date 8/20/12 | Doc ID # RCO
92-09

November 27, 2002

Mr. Larry Rose
Solid Waste Section
Division of Waste Management
401 Oberlin Road
Suite 150
Raleigh, North Carolina 27605-1350

Subject: November 2002 Semi-Annual Monitoring Sampling Report
North Wake Unlined Landfill

Dear Mr. Rose:

CDM, on behalf of Wake County, is submitting one copy of the November 2002 semi-annual sampling event report. This letter report presents the results of the semi-annual sampling event that was recently completed at the North Wake Unlined Landfill and constitutes the second semi-annual sampling event for 2002.

The groundwater monitoring network consists of the following wells: MW-11 (shallow background well), MW-11d (deep background well), MW-5, MW-6, MW-6d, MW-7, MW-8, MW-8d, MW-9, MW-10, MW-10d, MW-22, MW-23, MW-23d, MW-24, MW-27, MW-28, MW-28d, MW-29d, MW-30, MW-31, MW-31d, MW-32, MW-33, MW-34, MW-34d, MW-35, TB-1a, and TB-1a deep and surface water sampling locations SW-2 and SW-3. All groundwater samples are analyzed for Appendix I Volatile Organic Compounds and Metals plus the detected Appendix II constituents mercury, bis(2-ethylhexyl)phthalate, and dichlorodifluoromethane. In addition to the Appendix I and detected Appendix II constituents, samples from monitoring wells MW-5, -6, -8, -9, -10, -24, and TB-1a are analyzed for natural attenuation parameters. Sampling results plus the statistical analysis for all wells and surface water locations are discussed below.

Field Activities

Groundwater and surface water samples from the North Wake Unlined Landfill were collected on November 5-7, 2002. Groundwater samples were collected by use of disposable, laboratory decontaminated, Teflon™ bailers.

Groundwater elevations were measured at each well prior to sampling and are presented in Table 1. These groundwater elevations were used to construct potentiometric contours for this sampling event and are presented on Figure 1. The groundwater elevations and potentiometric contours were used to estimate groundwater velocities at each well. Groundwater velocity values are presented in Table 2. After depth to groundwater was determined, three well volumes of water were removed from each well prior to sampling to ensure fresh formation water within the well water column. Each well volume and surface water sample was measured in the field for pH, conductivity, and temperature. The field parameters at the time of sampling are presented in Table 3.

Sampling Results

Groundwater and surface water samples were analyzed by Paradigm Analytical Laboratories in Wilmington, North Carolina for the North Carolina Appendix I constituents plus the detected Appendix II constituents (dichlorodifluoromethane, bis(2-ethylhexyl)phthalate, and mercury). Based on recommendations by the SWS and the Groundwater Assessment Report, select wells (MW-5, -6, -8, -9, -10, -24, and TB-1a) were sampled for chloride, sulfate, sulfide, total organic carbon, ferrous iron, carbon dioxide, and methane in addition to the Appendix I and detected Appendix II constituents. The results of the additional sample analysis are discussed in a separate section.

MW-11 and MW-11d

All analyzed constituents were below detection limits in samples from the background wells (MW-11 and –11d).

MW-5

Compliance well MW-5 had detections of cobalt, trichloroethene, cis-1,2-dichloroethene, 1,1-dichloroethane, chloroethane, 1,4-dichlorobenzene. The cobalt detection was above the groundwater protection standard. The detection of trichloroethene exceeded the North Carolina 2L Standards (2L). These constituents have been detected during previous events.

MW-6

Compliance well MW-6 had detections of mercury, cis-1,2-dichloroethene, 1,1-dichloroethane, and methylene chloride. The detection of methylene chloride exceeded the 2L Standard.

MW-6d

No Appendix I or II VOC's, SVOC's or metals were detected in the samples from MW-6d.

CDM

MW-7
Compliance well MW-7 had detections of 1,1-dichloroethane. No other Appendix I or II constituents were detected.

MW-8
Compliance well MW-8 had detections of cadmium and chromium. Both of these metals have been detected during previous events. No other Appendix I or II VOC's, SVOC's or metals were detected in the samples from MW-8.

MW-8d
No Appendix I or II VOC's, SVOC's or metals were detected in the samples from MW-8d.

MW-9
MW-9 had detections of cobalt, cis-1,2-dichloroethene, 1,1-dichloroethane, and dichlorodifluoromethane. The quantification of cobalt exceeded the groundwater protection standard.

MW-10
Samples from MW-10 had detections of mercury, tetrachloroethene, 1,1-dichloroethane, methylene chloride, and dichlorodifluoromethane. The quantifications of tetrachloroethene and methylene chloride exceeded the 2L Standard. The duplicate sample was collected from MW-10 and showed very good correlation.

MW-10d
Samples from MW-10d had detections of 1,1-dichloroethane below the 2L Standard. No other Appendix I or Appendix II constituents were detected.

MW-22
Samples from MW-22 had detections of cadmium, cobalt, and 1,1-dichloroethane. The detection of cobalt exceeded the groundwater protection standard.

MW-23
No Appendix I or II VOC's, SVOC's or metals were detected in the samples from MW-23.

MW-23 deep
No Appendix I or II VOC's, SVOC's or metals were detected in the samples from MW-23d.

MW-24
MW-24 had detections of 1,1-dichloroethane. No other Appendix I or Appendix II constituents were detected.

MW-27
Samples were not collected from MW-27 during this event. MW-27 is sampled annually.

MW-28
Samples were not collected from MW-28 during this event. MW-28 is sampled annually.

MW-28d
Samples were not collected from MW-28d during this event. MW-28d is sampled annually.

MW-29d
No Appendix I or II VOC's, SVOC's or metals were detected in the samples from MW-29d.

MW-30
No Appendix I or II VOC's, SVOC's or metals were detected in the samples from MW-30.

MW-31
No Appendix I or II VOC's, SVOC's or metals were detected in the samples from MW-31, with the exception of chloroform. The detection of chloroform exceeded the 2L Standard. Chloroform has consistently been detected in the MW-31 samples.

MW-31d
No Appendix I or II VOC's, SVOC's or metals were detected in the samples from MW-31 deep, with the exception of chloroform. The detection of chloroform exceeded the 2L Standard. Chloroform was detected in samples from MW-31 deep for the first time in the spring 2001 event and has been detected in the subsequent sampling events.

MW-32
No Appendix I or II VOC's, SVOC's or metals were detected in the samples from MW-32, with the exception of cobalt. The quantification of cobalt exceeded the groundwater protection standard.

TB-1a
Samples from TB-1a had detections of cadmium, chromium, and 1,1-dichloroethane below the 2L. No other Appendix I or Appendix II VOC, SVOC, or metal constituents were detected.

TB-1a deep
Samples from TB-1a deep were below detection limits for all Appendix I and Appendix II VOC, SVOC, and metal constituents.

MW-33
Samples were not collected from MW-33 during this event. MW-33 is sampled annually.

MW-34
Samples were not collected from MW-34 during this event. MW-34 is sampled annually.

MW-34d
Samples were not collected from MW-34d during this event. MW-34d is sampled annually.

MW-35
Samples were not collected from MW-35 during this event. MW-35 is sampled annually.

SW-2 and SW-3
All analytes were below detection limits in the surface water sample SW-3. Samples were not collected from SW-2 during this event.

All analytes were below detection limits in the trip blank and equipment blank. All detected constituents have been detected during previous events at similar concentrations, except where noted. A complete summary of all detected constituents is presented in Table 4. Laboratory results are included in electronic format following this report.

Statistical Analysis

Statistical analysis was performed for all detected constituents in the groundwater samples. Data from the downgradient compliance wells were compared statistically to data from the background wells using either an ANOVA comparison or the Test of Proportions. The ANOVA comparison was used for all VOC detections. The ANOVA comparison was also used for the metal's comparisons where greater than 50% of the data were above detection limits. While using the ANOVA comparison, in instances where results were below detection limits, a value of one-half of the detection limits was substituted. The Test of Proportions was used only for metal's comparisons where greater than 50% of the data was non-detect.

The Test of Proportions was performed on the detections of mercury in MW-10, cobalt in MW-5 and MW-9, cadmium in MW-8 and TB-1a, and chromium in MW-8 and TB-1a. None of these metals were found to be statistically significant by the Test of Proportions.

For all other detections, the ANOVA comparison was performed. Based on the ANOVA comparison, the following constituents were found to be statistically significant: mercury in MW-6; cadmium in MW-22; cobalt in MW-22 and MW-32; trichloroethene in MW-5; 1,1-dichloroethane in MW-5, MW-9, MW-10, MW-10d, MW-22, MW-24, and TB-1a; cis-1,2-dichloroethene in MW-5, MW-6, MW-7, and MW-9; tetrachloroethene in MW-10; methylene chloride in MW-6 and MW-10, and chloroform in MW-31. Table 5 presents a summary of all parameters detected during the November 2002 sampling event that exceeded the 2L Standard, groundwater protection standard, or were statistically significant.

Natural Attenuation Monitoring

The Groundwater Assessment Report recommended that additional groundwater samples be collected from MW-5, -6, -8, -9, -10, -24, and TB-1a for evaluation of natural attenuation parameters. These parameters included chloride, nitrate, sulfate, sulfide, total organic carbon (TOC), carbon dioxide, ferrous iron, and methane, and field measurements of pH, temperature, conductivity, eH, and dissolved oxygen. Results are presented in Table 6. The laboratory data for the additional parameters is included in the electronic format data.

As discussed in Section 4 of the Groundwater Assessment Report (February 2000), based on the concentrations of some of the geochemical data from the select wells, it appeared that environments were present which favored reductive dechlorination; notably, the concentrations of nitrate, ferrous iron, sulfate, and carbon dioxide. The following evidence indicates that one or more mechanisms of natural attenuation and/or reductive dechlorination may be occurring at the site:

- VOC concentrations in contaminated wells continue to decline over a six-year monitoring period.
- The ratio of parent /daughter compounds continues to generally decrease over time.
- Nitrate, ferrous iron, sulfate, and carbon dioxide continue to be detected at concentrations favoring reductive dechlorination.
- Concentrations of cis-1,2-DCE continue to be greater than other DCE isomers trans-1,2-DCE and 1,1-DCE (neither trans-1,2-DCE or 1,1-DCE have been detected since 1995).

In addition to favorable conditions for attenuation, the County has also installed a series of gas vents along the western property boundary, which have since been converted to a vacuum extraction system. The intent of these vents is to prevent offsite migration of landfill

CDM

gas. Since previous work has indicated a relationship between the landfill gas and the contaminated groundwater, the installation of the gas extraction system should further reduce groundwater contaminant concentrations. The perimeter landfill gas remediation vacuum system was initiated in January 2002. CDM will monitor future sampling results for groundwater data trends in future sampling events.

Recommendations

Because Appendix I and II constituents continue to be detected in groundwater samples at statistically significant concentrations, Wake County will continue with its assessment monitoring program on a semi-annual basis. In addition to the Appendix I and detected Appendix II constituents, samples collected from MW-5, -6, -8, -9, -10, -24, and TB-1a will continue to be analyzed for natural attenuation parameters during the semi-annual events until sufficient data is available for completion of an assessment of corrective measures report.

Groundwater samples from the annually monitored wells (MW-27, -28, -28d, -33, -34, -34d, -35) will be collected during the next sampling event in the spring.

If you have any questions or require further explanation, do not hesitate to call me at 787-5620.

Very truly yours,

Mathew F. Colone, P.G.
Camp Dresser & McKee

NORTH CAROLINA LICENSED SEAL 1851 GEOLOGIST MATHEW F. COLONE

11/27/02

cc: Johnny Beal, WCSWM
Joe Wiseman, CDM

Table 1
Groundwater Elevations
North Wake Unlined Landfill

Monitoring Well Designation	TOC Elevation (AMSL)	12/2/99 Groundwater Elevation (AMSL)	4/12/00 Groundwater Elevation (AMSL)	12/19/00 Groundwater Elevation (AMSL)	4/18/01 Groundwater Elevation (AMSL)	7/25/01 Groundwater Elevation (AMSL)	12/4/01 Groundwater Elevation (AMSL)	4/9/02 Groundwater Elevation (AMSL)	11/6/02 Groundwater Elevation (AMSL)
MW-1	358.97	NA	NA	NA	NA	NA	NA	NA	NA
MW-5	231.79	211.94	212.19	210.79	212.35	210.49	210.29	211.79	211.28
MW-6	219.80	207.95	208.16	207.60	208.00	207.29	207.45	208.71	207.04
MW-6d	218.61					205.96	206.16	205.61	206.45
MW-7	234.15	222.51	222.50	222.45	222.61	222.19	222.41	222.80	223.05
MW-8	226.38	damaged	damaged	215.72	215.95	215.48	215.48	215.76	215.63
MW-8d	226.16					214.06	214.06	213.16	214.36
MW-9	242.69	213.41	213.57	213.19	213.54	213.01	212.92	213.33	212.93
MW-10	277.78	NA	NA	NA	NA	NA	NA	NA	NA
MW-10 (relocated)	274.76	233.44	233.60	233.36	233.32	233.05	232.23	232.31	232.81
MW-10d	274.54					231.17	230.81	230.74	231.22
MW-11	343.63	301.60	302.21	301.63	301.26	NM	302.21	299.48	299.96
MW-22	254.62	220.82	221.04	220.92	220.62	220.74	220.49	220.56	221.27
MW-23	274.83	232.33	232.45	232.43	232.78	232.67	232.02	230.83	231.61
MW-23 deep	274.89	232.02	232.08	232.09	232.24	232.26	231.59	231.62	231.87
MW-24	266.64	223.85	223.99	223.54	223.57	223.44	222.93	223.14	223.05
MW-27	215.54	210.75	210.92	NS	210.48	209.82	NS	209.52	NS
MW-28	237.89	219.60	219.85	NS	219.90	219.74	NS	219.89	NS
MW-28d	238.44	220.08	211.48	NS	210.84	212.09	NS	212.34	NS
MW-29d	275.06	235.31	235.87	236.36	236.02	236.23	235.76	234.56	235.94
MW-30	282.32	233.89	234.31	234.62	234.47	234.64	234.14	233.96	234.30
MW-31	261.67	233.24	233.47	233.47	234.34	234.01	233.32	234.02	234.67
MW-31d	260.92	232.80	233.05	233.12	233.77	233.62	232.86	233.61	234.17
MW-32	242.99	227.96	228.04	227.59	228.89	227.10	226.76	228.74	228.96
TB-1a	255.05	229.91	230.05	229.25	230.16	229.45	228.97	230.05	230.03
TB-1a deep	256.01					228.23	226.86	227.76	228.73
MW-33	222.01	210.94	211.19	NS	211.26	209.34	NS	211.21	NS
MW-34	221.96	209.12	209.31	NS	209.85	207.15	NS	208.41	NS
MW-34d	222.16	208.87	209.06	NS	209.54	207.11	NS	209.06	NS
MW-35	223.48	207.22	207.44	NS	207.93	205.62	NS	206.68	NS

(1) AMSL = Above Mean Sea Level
(2) NS = Well not sampled
(3) NM = Well not measured
(4) NA = Well not available

Table 2
Summary of Calculated Groundwater Flow Velocities
North Wake Unlined Landfill

	Sampling Date:		12/2/99		4/12/00		12/19/00		4/18/01		12/4/01		4/9/02		11/6/02	
Monitoring Well Designation	Hydraulic Conductivity ft/day (cm/s)	Effective Porosity	Gradient	Average Linear Velocity ft/day	Gradient	Average Linear Velocity ft/day	Gradient	Average Linear Velocity ft/day	Gradient	Average Linear Velocity ft/day	Gradient	Average Linear Velocity ft/day	Gradient	Average Linear Velocity ft/day	Gradient	Average Linear Velocity ft/day
MW-5	0.33 1.16E-04	0.18	0.0243	4.45E-02	0.0274	5.02E-02	0.0099	1.81E-02	0.0294	5.39E-02	0.0058	1.06E-02	0.0358	6.56E-02	0.0256	4.69E-02
MW-6	10.58 3.73E-03	0.13	0.0820	6.67E+00	0.0736	5.99E+00	0.0960	7.81E+00	0.0800	6.51E+00	0.1020	8.30E+00	0.0516	4.20E+00	0.1184	9.64E+00
MW-7	1.15 4.06E-04	0.18	0.0502	3.21E-01	0.0500	3.19E-01	0.0490	3.13E-01	0.0522	3.34E-01	0.0482	3.08E-01	0.0560	3.58E-01	0.0610	3.90E-01
MW-8	3.61 1.27E-03	0.18	Damaged	Damaged	Damaged	Damaged	0.0132	2.64E-01	0.0125	2.50E-01	0.0139	2.79E-01	0.0130	2.62E-01	0.0134	2.70E-01
MW-9	1.22 4.30E-04	0.30	0.0530	2.16E-01	0.0477	1.94E-01	0.0603	2.45E-01	0.0487	1.98E-01	0.0693	2.82E-01	0.0557	2.26E-01	0.0690	2.81E-01
MW-10	0.509 1.80E-04	0.05	0.0860	8.75E-01	0.0900	9.16E-01	0.0840	8.55E-01	0.0830	8.45E-01	0.0557	5.68E-01	0.0578	5.88E-01	0.0703	7.15E-01
MW-11	5.66 2.00E-03	0.13	0.0457	1.99E+00	0.0455	1.98E+00	0.0454	1.98E+00	0.0458	2.00E+00	0.0390	1.70E+00	0.0342	1.49E+00	0.0463	2.01E+00
MW-22	0.07 2.47E-05	0.18	0.0096	3.75E-03	0.0122	4.76E-03	0.0108	4.21E-03	0.0073	2.84E-03	0.0058	2.24E-03	0.0066	2.56E-03	0.0149	5.81E-03
MW-23	3.59 1.27E-03	0.30	0.0388	4.65E-01	0.0408	4.89E-01	0.0338	4.05E-01	0.0463	5.54E-01	0.0337	4.03E-01	0.0138	1.66E-01	0.0268	3.21E-01
MW-24	0.34 1.20E-04	0.30	0.0214	2.42E-02	0.0222	2.51E-02	0.0197	2.23E-02	0.0198	2.25E-02	0.0163	1.84E-02	0.0174	1.98E-02	0.0169	1.92E-02

NS - Not Sampled
NC - Not Constructed

Table 3
Field Parameters
North Wake Unlined Landfill

Sampling Date:	4/12/00			12/19/00			4/18/01			12/4/01			4/9/02			11/6/02		
Monitoring Well Designation	pH (-)	Conductivity (µS)	Temp. (deg. C)	pH (-)	Conductivity (µS)	Temp. (deg. C)	pH (-)	Conductivity (µS)	Temp. (deg. C)	pH (-)	Conductivity (µS)	Temp. (deg. C)	pH (-)	Conductivity (µS)	Temp. (deg. C)	pH (-)	Conductivity (µS)	Temp. (deg. C)
MW-11	4.65	62	16.0	5.69	78	15.6	6.80	57	15.0	5.48	70	17.1	6.19	60	16.2	6.14	73	15.6
MW-5	4.84	306	16.0	5.40	203	16.0	5.20	210	17.2	5.68	125	16.7	5.54	190	16.9	5.72	181	17.4
MW-6	4.72	108	14.7	5.54	92	16.1	5.05	73	15.5	5.88	68	17.2	5.47	79	15.6	5.58	98	19.2
MW-6d										6.59	105	16.2	6.87	105	17.3	6.59	101	16.7
MW-7	4.55	226	15.0	5.26	194	16.0	6.36	222	14.5	5.72	145	16.6	5.90	228	15.4	6.14	222	18.6
MW-8	5.11	115	17.8	5.42	100	16.4	5.61	76	16.0	6.40	81	16.8	6.00	76	16.2	6.05	82	18.7
MW-8d										7.58	183	16.2	7.16	163	17.0	6.95	235	16.4
MW-9	4.85	459	17.1	4.79	513	15.7	5.79	415	17.3	6.41	483	16.1	6.11	517	17.3	6.16	521	16.6
MW-10	--	abandoned	--	--	abandoned	--	--	abandoned	--	--	abandoned	--	--	abandoned	--	--	abandoned	--
MW-10 (relocated)	4.30	202	16.4	5.27	166	15.1	5.24	126	15.7	5.88	115	15.4	5.58	122	16.7	5.54	158	16.1
MW-10d										6.42	211	15.4	5.75	195	16.4	6.79	223	15.4
MW-22	4.44	106	16.5	5.40	127	13.8	5.49	120	15.7	6.23	116	15.4	5.75	124	17.0	6.31	111	15.6
MW-23	4.90	160	16.5	6.32	99	14.5	5.46	98	16.2	5.98	100	16.2	4.97	83	16.3	6.05	81	16.3
MW-23 deep	5.18	113	15.8	5.70	99	14.4	5.87	94	15.8	6.51	94	15.2	5.65	96	15.9	6.58	98	15.8
MW-24	4.42	174	15.7	5.61	178	14.7	5.20	131	17.1	5.83	153	15.2	5.59	153	16.9	5.76	147	16.0
MW-27	5.60	312	15.3	NS	NS	NS	6.50	180	13.5	NS	NS	NS	6.25	149	14.2	NS	NS	NS
MW-28	5.18	147	16.6	NS	NS	NS	5.92	132	16.0	NS	NS	NS	6.05	135	16.3	NS	NS	NS
MW-28d	5.80	295	17.0	NS	NS	NS	6.90	231	16.1	NS	NS	NS	6.78	212	16.0	NS	NS	NS
MW-29d	4.60	144	16.0	5.70	111	14.8	5.51	101	15.5	5.94	99	15.9	5.87	100	16.4	6.33	103	15.9
MW-30	4.84	107	15.5	5.80	99	13.9	5.79	86	15.0	6.24	86	15.2	6.09	84	16.0	6.61	84	15.4
MW-31	6.52	95	15.1	5.57	107	15.2	5.30	105	16.6	5.84	132	16.9	5.97	155	18.1	6.15	169	17.6
MW-31d	6.96	103	14.1	6.00	107	14.0	6.06	95	15.5	6.43	109	16.6	6.42	112	16.8	6.61	121	16.6
MW-32	4.89	264	14.8	5.57	225	16.3	5.72	239	14.9	6.11	147	17.2	5.97	164	15.8	6.30	140	17.9
TB-1a	6.65	212	14.6	5.52	212	14.7	5.63	171	15.7	6.01	143	15.3	5.70	151	16.6	5.83	164	15.8
TB-1a deep										6.46	92	16.0	6.46	90	16.1	6.62	98	15.7
MW-33	5.55	83	13.5	NS	NS	NS	5.74	64	14.1	NS	NS	NS	6.59	76	14.9	NS	NS	NS
MW-34	4.73	88	13.5	NS	NS	NS	5.89	71	13.0	NS	NS	NS	5.38	68	14.7	NS	NS	NS
MW-34d	6.37	108	13.7	NS	NS	NS	6.76	93	13.9	NS	NS	NS	6.07	116	15.5	NS	NS	NS
MW-35	5.72	38	13.8	NS	NS	NS	4.95	28	14.4	NS	NS	NS	5.41	28	15.0	NS	NS	NS

MW-6d, -8d, -10d, and TB-1a deep installed in June 2001
NS = Not sampled.
NA = Data Not Available

Table 4a
Detected Groundwater Constituents - Metals
North Wake Unlined Landfill

Monitor Well	Sample Date	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Mercury
NC Standard		50	2000	2*	5	50	2*	1000	15	100	50	18	2*	25*	2100	1.1
MW-1	15-Apr-94	<3	221	<5	<0.5	<20	23	54	14	<20	<3	<1		50	88	
MW-1	11-May-94	<3	146	<5	<0.5	<20	19	55	14	<20	<3	<1		50	83	
MW-1	10-Jun-94	<3	191	<5	<0.5	<20	27	111	7.6	20	<3	<1		90	114	
MW-1	3-Oct-94	<3	143	<5	<0.5	16	26	74	8	<20	<3	<1		60	85	
MW-1	13-Jun-95	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10		<40	<50	<.5
MW-1	28-Sep-95	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		NS	NS	<.5
MW-11 **	31-Oct-95	11	842	8	<1	24	71	331	26	87	<20	<10	<10	117	314	<1
MW-11	22-Mar-96	<10	<500	<2	<1	<10	15	<200	<10	<50	<20	<10	<10	51	70	1.8
MW-11	29-Nov-96	35	<10	<1	<1	<2	<2	<10	<5	<50	<5	<5	<10	<5	<10	<.2
MW-11	22-Apr-97	<10	<20	<5	<0.5	<20	<10	<10	<2	<20	<3	<1	<10	<20	130	<.2
MW-11	31-Oct-97	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	66	<.2
MW-11	11-May-98	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-11	8-Dec-98	<10	<500	<2	2.1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-11	14-Apr-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-11	30-Nov-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-11	5-Apr-00	<10	<500	<2	1.2	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-11	18-Dec-00	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-11	18-Apr-01	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-11	27-Nov-01	<10	311	<10	<10	<10	<10	16.5	<10	<40	<10	<10	<10	<50	29.7	<.3
MW-11	5-Apr-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-11	5-Nov-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-11d	31-Oct-95	<10	<500	<2	2	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<1
MW-11d	22-Mar-96	<10	<500	<2	1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-11d	29-Nov-96	<5	26	<1	<1	<2	<2	<10	<5	<50	<5	<5	<10	<5	<10	<.2
MW-11d	22-Apr-97	<10	<500	<5	<1	<20	<10	<10	<2	<20	<3	<1	<10	<20	54	<.2
MW-11d	31-Oct-97	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	26	<.2
MW-11d	11-May-98	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	69	<.2
MW-11d	8-Dec-98	<10	<500	<2	1.9	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-11d	14-Apr-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-11d	30-Nov-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-11d	5-Apr-00	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-11d	18-Dec-00	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-11d	18-Apr-01	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-11d	27-Nov-01	<10	<100	<10	<10	<10	<10	<10	<10	<40	<10	<10	<10	<50	<20	<.3
MW-11d	5-Apr-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	0.3
MW-11d	5-Nov-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-5	6-Mar-94	<5	76	<5	<5	<10	<10	<20	<5	<10	<5	<10	<10	<10	110	
MW-5	15-Apr-94	<3	60	<50	0.9	<20	<10	<10	<2	<20	<3	62	<10	<20	47	
MW-5	11-May-94	<3	58	<5	0.5	<20	<10	11	<2	<20	<3	<1	<10	<20	28	
MW-5	31-May-94	<5	66	<5	<5	<10	11	<20	<5	17	<5	<10	<10	<10	63	
MW-5	10-Jun-94	<3	54	<5	<.5	<20	<10	<10	2.5	<20	<3	<1	<10	<20	20	
MW-5	30-Sep-94	<3	48	<5	<.5	<20	<20	<10	<2	<20	<3	7.3	<10	<20	10	
MW-5	13-Jun-95	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.5
MW-5	28-Sep-95	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<10	NS	NS	<.5
MW-5	31-Oct-95	<10	<500	<2	1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<1
MW-5 (dup)	31-Oct-95	<10	<500	<2	1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<1
MW-5	30-Jan-96	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	237	<.5
MW-5	29-Nov-96	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<10	NS	NS	NS
MW-5	22-Apr-97	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<10	NS	NS	NS
MW-5	1-Nov-97	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<10	NS	NS	NS
MW-5	6-May-98	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<10	NS	NS	NS
MW-5	6-Aug-98	<10	<500	2.2	4.9	32	24	<200	<10	<50	<20	<10	<10	68	190	<0.2
MW-5	8-Dec-98	<10	<500	<2	1.5	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-5	16-Apr-99	<10	<500	<2	1.5	<10	28.3	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-5	2-Dec-99	<10	<500	<2	1	<10	49.8	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-5	11-Apr-00	<10	<500	<2	<1	<10	34.8	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-5	20-Dec-00	<10	<500	<2	<1	<10	26.9	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-5	16-Apr-01	<10	<500	<2	<1	<10	32.1	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-5	3-Dec-01	<10	<100	<10	<10	<10	19.3	<10	<10	<40	<10	<10	<10	<50	<20	<.3
MW-5	12-Apr-02	<10	<500	<2	<1	<10	34.9	<200	<10	<50	<20	<10	<10	<40	70.5	<.3
MW-5	5-Nov-02	<10	<500	<2	<1	<10	37.7	<200	<10	<50	<20	<10	<10	<40	<50	<.3

Table 4a
Detected Groundwater Constituents - Metals
North Wake Unlined Landfill

Monitor Well	Sample Date	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Mercury
NC Standard		50	2000	2*	5	50	2*	1000	15	100	50	18	2*	25*	2100	1.1
MW-6	6-Mar-94	<5	190	<5	<5	32	10	33	18	33	<5	<10	<10	63	51	
MW-6	15-Apr-94	<3	144	<5	<.5	20	12	20	11	<20	<3	7.3	<10	50	27	
MW-6	11-May-94	<3	175	<5	<.5	30	13	33	9.3	<20	<3	7.3	<10	70	35	
MW-6	1-Jun-94	<5	260	5.4	<.5	49	16	28	14	13	<5	<10	<10	100	72	
MW-6	25-Aug-94	<3	68	<5	<.5	<20	<20	<10	<2	<20	<3	7.3	<10	<20	<10	
MW-6	29-Sep-94	<3	110	<5	<.5	19	<20	19	6.9	<20	<3	7.3	<10	40	16	
MW-6	13-Jun-95	<10	<500	2	<1	22	<10	<200	<10	<50	<20	<10	<10	41	<50	2.6
MW-6	28-Sep-95	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<10	NS	NS	0.5
MW-6	31-Oct-95	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	2.5
MW-6	30-Jan-96	<10	<500	7	<1	44	12	<200	13	<50	<20	<10	<10	65	61	1.8
MW-6	29-Nov-96	<5	150	2	<1	20	6	21	6	<50	<5	<5	<10	52	40	0.83
MW-6	22-Apr-97	<5	<5	<.3	<1	12	<5	<5	<5	<5	<10	<5	<10	<5	67	1.1
MW-6	2-Nov-98	<10	<500	<2	<1	14	<10	<200	<10	<50	<20	<10	<10	<40	28	0.54
MW-6	6-May-98	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	0.65
MW-6 (dup)	6-May-98	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<0.2
MW-6	8-Dec-98	<10	<500	<2	1.4	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	0.81
MW-6	16-Apr-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	0.7
MW-6	2-Dec-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	0.9
MW-6	11-Apr-00	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	1.1
MW-6	19-Dec-00	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	1.8
MW-6	16-Apr-01	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	1.9
MW-6	3-Dec-01	<10	<100	<10	<10	<10	<10	<10	<10	<40	<10	<10	<10	<50	<20	0.6
MW-6	12-Apr-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-6	5-Nov-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	0.9
MW-6d	8-Jun-01	<10	<100	<10	<10	<10	<10	<10	<10	<40	<10	<10	<10	<50	<20	<.3
MW-6d	4-Dec-01	<10	<100	<10	<10	<10	<10	<10	<10	<40	<10	<10	<10	<50	<20	<.3
MW-6d	9-Apr-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-6d	7-Nov-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-7	6-Mar-94	<5	190	<5	<5	48	17	110	22	21	<5	<10	<10	67	82	
MW-7	15-Apr-94	<3	136	<5	<.5	30	11	53	25	20	<3	<1	<10	40	56	
MW-7	11-May-94	<3	51	<5	<.5	30	11	24	6.8	<20	<3	<1	<10	40	29	
MW-7	31-May-94	<5	350	5.4	<.5	89	30	180	34	40	<5	<10	<10	140	150	
MW-7	25-Aug-94	<3	44	<5	<.5	<20	<20	25	2.7	<20	<3	<1	<10	<20	19	
MW-7	29-Sep-94	<3	49	<5	<.5	15	<20	26	4.7	<20	<3	<1	<10	20	20	
MW-7	13-Jun-95	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.5
MW-7	28-Sep-95	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<10	NS	NS	<.5
MW-7	31-Oct-95	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<1
MW-7	30-Jan-96	<10	<500	2	<1	35	<10	<200	10	<50	<20	<1	<10	<40	<50	<.5
MW-7	29-Nov-96	<5	17	<1	<1	<2	<2	<10	<5	<50	<5	<5	<10	<5	<10	<.2
MW-7	21-Apr-97	<5	<5	<.3	<1	<5	<5	<5	<5	<5	<10	<5	<10	<5	<20	0.38
MW-7 (dup)	21-Apr-97	<5	<5	<.3	<1	<5	<5	<5	<5	<5	<10	<5	<10	<5	<20	0.22
MW-7	1-Nov-97	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	48	0.58
MW-7	6-May-98	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	0.24
MW-7	8-Dec-98	<10	<500	<2	2.6	15	<10	<200	<10	<50	<20	<10	<10	<40	<50	0.25
MW-7	16-Apr-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-7	2-Dec-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	0.2
MW-7	11-Apr-00	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	0.2
MW-7 (dup)	11-Apr-00	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	0.2
MW-7	19-Dec-00	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	0.3
MW-7 (dup)	19-Dec-00	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	0.3
MW-7	16-Apr-01	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-7	4-Dec-01	<10	<100	<10	<10	<10	<10	<10	<10	<40	<10	<10	<10	<50	<20	<.3
MW-7	9-Apr-02	<10	<500	<2	<1	<10	10.1	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-7	6-Nov-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3

Table 4a
Detected Groundwater Constituents - Metals
North Wake Unlined Landfill

Monitor Well	Sample Date	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Mercury
NC Standard		50	2000	2*	5	50	2*	1000	15	100	50	18	2*	25*	2100	1.1
MW-8	6-Mar-94	<5	120	<5	<5	17	<10	26	<5	13	<5	<10	<10	35	49	
MW-8	15-Apr-94	<3	97	<5	<.5	<20	<10	22	4.2	20	<3	<1	<10	30	35	
MW-8	11-May-94	<3	89	<5	<.5	<20	<10	20	4.3	<20	<3	<1	<10	20	26	
MW-8	31-May-94	<5	330	5.4	<5	81	34	90	16	39	<5	<10	<10	150	150	
MW-8	25-Aug-94	<3	76	<5	<.5	<20	<10	13	2.7	<20	<3	<1	<10	<20	21	
MW-8	30-Sep-94	<3	82	<5	<.5	20	<10	14	5.4	<20	<3	<1	<10	20	19	
MW-8	13-Jun-95	<10	<500	<2	<1	38	11	<200	<10	<50	<20	<10	<10	87	<50	<.5
MW-8	28-Sep-95	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<10	NS	NS	<.5
MW-8	31-Oct-95	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<1
MW-8	30-Jan-96	<10	<500	3	<1	35	12	<200	<10	<50	<20	<10	<10	64	63	<.5
MW-8 (dup)	30-Jan-96	<10	<500	3	<1	36	12	<200	<10	<50	<20	<10	<10	63	76	<.5
MW-8	29-Nov-96	<5	120	<1	<1	14	5	21	<5	<50	<5	<5	<10	31	54	<.2
MW-8 (dup)	29-Nov-96	<5	82	<1	<1	<2	<2	<10	<5	<50	<5	<5	<10	<5	19	<.2
MW-8	21-Apr-97	<5	<5	<.3	<1	19	<5	<5	<5	<5	<10	<5	<10	<5	<20	<.2
MW-8	2-Nov-97	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-8	6-May-98	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-8	8-Dec-98	<10	<500	<2	1.2	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-8	16-Apr-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-8 (dup)	16-Apr-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-8	2-Dec-99	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<10	NS	NS	NS
MW-8	11-Apr-00	<10	<500	<2	2.1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-8	20-Dec-00	<10	<500	<2	1.5	<10	17.1	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-8	16-Apr-01	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-8	3-Dec-01	<10	<100	<10	<10	<10	<10	<10	<10	<40	<10	<10	<10	<50	<20	<.3
MW-8	12-Apr-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-8	5-Nov-02	<10	<500	<2	1.2	15.3	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-8d	8-Jun-01	<10	<100	<10	<10	<10	<10	<10	<10	<40	12.7	<10	<10	<50	<20	<.3
MW-8d	4-Dec-01	<10	<100	<10	<10	<10	<10	<10	<10	<40	<10	<10	<10	<50	<20	<.3
MW-8d	9-Apr-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-8d (dup)	9-Apr-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-8d	7-Nov-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-9	6-Mar-94	<5	210	<5	<5	<10	<10	<20	<5	<10	<5	<10	<10	<10	<20	
MW-9	15-Apr-94	<3	199	<5	<.5	<20	11	<10	<2	<20	<3	<1	<10	<20	<10	
MW-9	11-May-94	<3	193	<5	<.5	<20	10	<10	2.7	<20	<3	<1	<10	<20	14	
MW-9	31-May-94	<5	270	<5	<5	24	14	25	21	<10	<5	<10	<10	23	120	
MW-9	25-Aug-94	<3	135	<5	<.5	<20	<20	<10	<2	<20	<3	<1	<10	<20	14	
MW-9	29-Sep-94	<3	123	<5	<.5	<20	<20	<10	4.2	<20	<3	<1	<10	<20	12	
MW-9	13-Jun-95	<10	<500	<2	<1	<10	14	<200	<10	<50	<20	<10	<10	<40	<50	<.5
MW-9	28-Sep-95	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<10	NS	NS	<.5
MW-9	31-Oct-95	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<1
MW-9	30-Jan-96	<10	<500	4	1	20	16	<200	17	<50	<20	<10	<10	<40	65	<.5
MW-9	29-Nov-96	<5	140	<1	<1	<2	<2	<10	<5	<50	<5	<5	<10	<5	21	<.2
MW-9	22-Apr-97	<5	<5	<.3	<1	<5	<5	<5	<5	<5	<10	<5	<10	<5	<20	<.2
MW-9	2-Nov-97	<10	<500	<2	<1	<10	11	<200	<10	<50	<20	<10	<10	<40	37	<.2
MW-9	6-May-98	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-9	8-Dec-98	<10	<500	<2	1.5	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-9	16-Apr-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-9	2-Dec-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-9	11-Apr-00	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-9	20-Dec-00	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-9	16-Apr-01	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-9	3-Dec-01	11	166	<10	<10	<10	<10	<10	<10	<40	<10	<10	<10	<50	<20	<.3
MW-9 (dup)	3-Dec-01	12.2	160	<10	<10	<10	<10	<10	<10	<40	<10	<10	<10	<50	<20	<.3
MW-9	12-Apr-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	10.8	<40	<50	<.3
MW-9	5-Nov-02	<10	<500	<2	<1	<10	10.1	<200	<10	<50	<20	<10	<10	<40	<50	<.3

Table 4a
Detected Groundwater Constituents - Metals
North Wake Unlined Landfill

Monitor Well	Sample Date	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Mercury
NC Standard		50	2000	2*	5	50	2*	1000	15	100	50	18	2*	25*	2100	1.1
MW-10	6-Mar-94	<5	690	<5	<5	150	100	380	18	140	110	<10	<10	310	230	
MW-10	15-Apr-94	<3	117	<5	<.5	20	20	51	3.2	40	<3	5.6	<10	40	38	
MW-10	11-May-94	<3	103	<5	<.5	20	16	48	2	20	<3	<1	<10	40	32	
MW-10	31-May-94	<5	280	<5	<5	63	39	140	<5	55	<5	<10	<10	120	120	
MW-10	25-Aug-94	<3	143	<5	<.5	30	<20	63	2.3	30	<3	<1	<10	60	43	
MW-10	29-Sep-94	<3	103	<5	<.5	17	<20	43	3.6	<20	<3	<1	<10	50	29	
MW-10	13-Jun-95	<10	<500	2	2	111	38	339	<10	143	<20	<10	<10	313	168	<.5
MW-10	28-Sep-95	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<10	NS	NS	<.5
MW-10	31-Oct-95	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<1
MW-10	30-Jan-96	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.5
MW-10	28-Nov-96	<5	71	<1	<1	<2	14	<10	<5	<50	<5	<5	<10	<5	<10	<.2
MW-10	22-Apr-97	<5	<5	<.3	<1	31	23	<5	<5	<5	<10	<5	<10	43	98	<.2
MW-10	1-Nov-97	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<10	NS	NS	NS
MW-10	5-May-98	<10	<500	<2	1.3	<10	<10	<200	13	<50	<20	<10	<10	<40	720	0.34
MW-10	18-Aug-98	<10	<500	<2	4.9	<10	<10	<200	<10	<50	<20	<10	<10	<40	150	<.2
MW-10	10-Sep-98	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-10	6-Oct-98	<10	<500	<2	1.2	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-10	8-Dec-98	<10	<500	<2	2	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-10	11-Jan-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-10	8-Feb-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-10 (dup)	8-Feb-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-10	16-Apr-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-10	2-Dec-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	0.3
MW-10	12-Apr-00	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-10	20-Dec-00	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-10	17-Apr-01	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-10	3-Dec-01	<10	<100	<10	<10	<10	<10	<10	<10	<40	<10	<10	<10	<50	<20	<.3
MW-10	12-Apr-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-10	5-Nov-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	0.5
MW-10 (dup)	5-Nov-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	0.4
MW-10d	8-Jun-01	<10	<100	<10	<10	<10	<10	30	<10	<40	<10	<10	<10	<50	<20	0.3
MW-10d	4-Dec-01	<10	<100	<10	<10	<10	<10	<10	<10	<40	<10	<10	<10	<50	<20	<.3
MW-10d	9-Apr-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-10d	5-Nov-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-22	9-Jun-97	<10	<500	<2	2.9	<10	130	<200	<10	66	<20	<10	<10	<40	<50	<.2
MW-22	18-Aug-97	11.9	<500	<2	4.4	<10	229	<200	14.3	164	<20	<10	<10	<40	68.6	<.2
MW-22	2-Nov-97	<10	<500	<2	1.5	<10	210	<200	12	130	<20	<10	<10	<40	230	<.2
MW-22	6-May-98	<10	<500	<2	<1	<10	110	<200	<10	51	<20	<10	<10	<40	80	<.2
MW-22	18-Aug-98	<10	<500	<2	9.6	<10	110	<200	<10	<50	<20	<10	<10	<40	210	<.2
MW-22	10-Sep-98	<10	<500	<2	<1	<10	100	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-22	6-Oct-98	<10	<500	<2	<1	<10	99	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-22	8-Dec-98	<10	<500	<2	1.9	<10	130	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-22	11-Jan-99	<10	<500	<2	1.5	<10	202	<200	<10	55	<20	<10	<10	<40	<50	<.2
MW-22	8-Feb-99	<10	<500	<2	2	<10	168	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-22	16-Apr-99	<10	<500	<2	4.1	10.1	261	<200	21	70.9	<20	<10	<10	<40	<50	<.2
MW-22	2-Dec-99	<10	<500	<2	7.4	<10	160	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-22	12-Apr-00	<10	<500	<2	6.1	<10	98.1	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-22	20-Dec-00	<10	<500	<2	2.4	<10	60.7	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-22	17-Apr-01	<10	<500	<2	1.2	<10	31.4	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-22	5-Dec-01	<10	<100	<10	<10	<10	26.9	<10	<10	<40	<10	<10	<10	<50	<20	<.3
MW-22	9-Apr-02	<10	<100	<10	2.1	<10	63.5	<10	<10	<40	<10	<10	<10	<50	<20	<.3
MW-22	6-Nov-02	<10	<100	<10	1.2	<10	26.5	<10	<10	<40	<10	<10	<10	<50	<20	<.3

Table 4a
Detected Groundwater Constituents - Metals
North Wake Unlined Landfill

Monitor Well	Sample Date	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Mercury
NC Standard		50	2000	2*	5	50	2*	1000	15	100	50	18	2*	25*	2100	1.1
MW-23	9-Jun-97	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-23	18-Aug-97	10.3	<500	<2	2.3	<10	14.2	<200	18.8	59.1	<20	<10	<10	<40	<50	<.2
MW-23	2-Nov-97	<10	600	4.7	2.6	54	35	<200	56	110	<20	<10	<10	170	260	<.2
MW-23	5-May-98	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-23	18-Aug-98	<10	<500	<2	5.4	24	10	<200	17	<50	<20	<10	<10	50	150	<.2
MW-23	10-Sep-98	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-23	6-Oct-98	<10	<500	<2	1.6	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	0.26
MW-23	8-Dec-98	<10	<500	<2	1.7	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-23 (dup)	8-Dec-98	<10	<500	<2	2.3	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-23	11-Jan-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	0.20
MW-23	8-Feb-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	0.20
MW-23	16-Apr-99	<10	<500	<2	<1	11.2	<10	<200	23.8	<50	<20	<10	<10	<40	<50	0.7
MW-23	2-Dec-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	0.2
MW-23 (dup)	2-Dec-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-23	12-Apr-00	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	1.1
MW-23	20-Dec-00	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-23	17-Apr-01	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-23	4-Dec-01	<10	<100	<10	<10	<10	<10	<10	<10	<40	<10	<10	<10	<50	<20	<.3
MW-23	11-Apr-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-23	6-Nov-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-23d	5-May-98	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	80	<.2
MW-23d	18-Aug-98	<10	<500	<2	4	<10	<10	<200	<10	<50	<20	<10	<10	<40	63	<.2
MW-23d	10-Sep-98	<10	<500	<2	1.6	<10	<10	<200	11	<50	<20	<10	<10	<40	<50	<.2
MW-23d	6-Oct-98	<10	<500	<2	2.0	<10	<10	<200	<10	<50	<20	<10	<10	<40	60	0.22
MW-23d	8-Dec-98	<10	<500	<2	1.8	<10	<10	<200	<10	<50	<20	<10	<10	<40	83	<.2
MW-23d	11-Jan-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-23d	8-Feb-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-23d	16-Apr-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-23d	2-Dec-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-23d	12-Apr-00	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-23d	20-Dec-00	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	0.8
MW-23d	17-Apr-01	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-23d	4-Dec-01	<10	<100	<10	<10	<10	<10	<10	<10	<40	<10	<10	<10	<50	<20	<.3
MW-23d	11-Apr-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-23d	6-Nov-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-24	9-Jun-97	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-24	18-Aug-97	<10	<500	<2	1.7	<10	11.2	<200	<10	<50	<20	<10	<10	<40	52.8	<.2
MW-24	1-Nov-97	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	66	<.2
MW-24 (dup)	1-Nov-97	<10	<500	<2	<1	<10	<10	<200	12	<50	<20	<10	<10	<40	91	0.25
MW-24	5-May-98	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-24	18-Aug-98	<10	<500	<2	4.7	<10	<10	<200	16	<50	<20	<10	<10	<40	180	<.2
MW-24 (dup)	18-Aug-98	11	<500	2.1	8.9	12	11	<200	22	<50	<20	<10	<10	<40	290	<.2
MW-24	10-Sep-98	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	0.44
MW-24	6-Oct-98	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	0.98
MW-24	8-Dec-98	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	0.62
MW-24	8-Dec-98	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	0.62
MW-24	11-Jan-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	0.50
MW-24	16-Apr-99	<10	<500	<2	<1	<10	<10	<200	13.7	<50	<20	<10	<10	<40	53.1	0.4
MW-24	2-Dec-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-24	12-Apr-00	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	0.3
MW-24	20-Dec-00	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-24	16-Apr-01	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	0.3
MW-24 (dup)	16-Apr-01	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-24	3-Dec-01	<10	<100	<10	<10	<10	<10	<10	<10	<40	<10	<10	<10	<50	<20	<.3
MW-24	12-Apr-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-24	5-Nov-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-27	4-May-98	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-27	7-Dec-98	<10	<500	<2	1	21	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-27	29-Apr-99	<10	<500	<2	2.3	<10	19	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-27	3-Dec-99	<10	<500	<2	<1	<10	13.2	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-27	12-Apr-00	<10	<500	<2	1.7	<10	14.5	<200	<10	<50	<20	<10	<10	<40	75.6	0.5
MW-27	18-Apr-01	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-27	12-Apr-02	<10	<500	<2	1.7	<10	10.5	<200	<10	<50	<20	<10	<10	<40	51.8	<.3

Table 4a
Detected Groundwater Constituents - Metals
North Wake Unlined Landfill

Monitor Well	Sample Date	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Mercury
NC Standard		50	2000	2*	5	50	2*	1000	15	100	50	18	2*	25*	2100	1.1
MW-28	1-May-98	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-28	17-Aug-98	<10	<500	<2	5.6	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-28	9-Sep-98	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-28	7-Oct-98	<10	<500	<2	8.8	43	24	<200	<10	<50	<20	<10	<10	80	150	<.2
MW-28	9-Dec-98	<10	<500	<2	8.9	39	19	<200	<10	<50	<20	<10	<10	68	140	<.2
MW-28	12-Jan-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-28	9-Feb-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-28	19-Apr-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-28	3-Dec-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-28	12-Apr-00	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-28	18-Apr-01	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-28	12-Apr-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-28d	1-May-98	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-28d	17-Aug-98	<10	<500	<2	1.3	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-28d	9-Sep-98	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-28d	7-Oct-98	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-28d	9-Dec-98	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	0.25
MW-28d	12-Jan-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-28d (dup)	12-Jan-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-28d	9-Feb-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-28d	19-Apr-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-28d	3-Dec-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-28d	12-Apr-00	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-28d	18-Apr-01	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-28d	12-Apr-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-29d	4-May-98	<10	<500	<2	<1	13	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-29d	17-Aug-98	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-29d	9-Sep-98	<10	<500	<2	1	17	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-29d (dup)	9-Sep-98	<10	<500	<2	<1	11	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-29d	7-Oct-98	<10	<500	<2	2.7	18	<10	<200	<10	<50	<20	<10	<10	<40	53	<.2
MW-29d	9-Dec-98	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	0.24
MW-29d	12-Jan-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-29d	9-Feb-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-29d	19-Apr-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-29d	3-Dec-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-29d	12-Apr-00	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-29d	19-Dec-00	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-29d	18-Apr-01	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-29d	4-Dec-01	<10	<100	<10	<10	<10	<10	<10	<10	<40	<10	<10	<10	<50	<20	<.3
MW-29d	11-Apr-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-29d	6-Nov-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-30	4-May-98	<10	<500	<2	<1	60	19	<200	<10	<50	<20	<10	<10	56	60	<.2
MW-30	17-Aug-98	<10	<500	<2	34	50	19	<200	<10	50	<20	<10	<10	50	190	<.2
MW-30	9-Sep-98	<10	<500	<2	<1	16	<10	<200	<10	50	<20	<10	<10	<40	140	<.2
MW-30	7-Oct-98	<10	<500	<2	1.1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-30	7-Dec-98	<10	<500	<2	2.6	20	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-30	12-Jan-99	<10	<500	<2	<1	20	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-30	9-Feb-99	<10	<500	<2	<1	20	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-30	19-Apr-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-30	3-Dec-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-30	12-Apr-00	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-30	19-Dec-00	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-30	18-Apr-01	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-30	4-Dec-01	<10	<100	<10	<10	<10	<10	<10	<10	<40	<10	<10	<10	<50	<20	<.3
MW-30	11-Apr-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-30	6-Nov-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3

Table 4a
Detected Groundwater Constituents - Metals
North Wake Unlined Landfill

Monitor Well	Sample Date	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Mercury
NC Standard		**50**	**2000**	**2***	**5**	**50**	**2***	**1000**	**15**	**100**	**50**	**18**	**2***	**25***	**2100**	**1.1**
MW-31	1-May-98	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-31	17-Aug-98	<10	<500	<2	**14**	**88**	<10	<200	**38**	82	<20	<10	<10	**81**	220	<.2
MW-31	9-Sep-98	<10	<500	<2	3.3	42	<10	<200	**15**	<50	<20	<10	<10	<40	530	<.2
MW-31	7-Oct-98	<10	<500	<2	1.8	10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-31	8-Dec-98	<10	<500	<2	2.6	24	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-31	11-Jan-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-31	8-Feb-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-31	19-Apr-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-31	3-Dec-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-31	13-Apr-00	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-31	19-Dec-00	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-31	17-Apr-01	<10	<500	<2	<1	16.5	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-31	6-Dec-01	<10	<100	<10	<10	**55**	<10	<10	<10	<40	<10	<10	<10	<50	<20	<.3
MW-31	11-Apr-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-31	6-Nov-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-31d	1-May-98	<10	<500	**3**	<1	**110**	**13**	<200	**19**	68	<20	<10	<10	**280**	210	<.2
MW-31d	17-Aug-98	<10	<500	<2	**8.6**	10	<10	<200	<10	<50	<20	<10	<10	<40	94	<.2
MW-31d	9-Sep-98	<10	<500	<2	2.8	25	<10	<200	<10	<50	<20	<10	<10	**60**	260	<.2
MW-31d	7-Oct-98	<10	<500	<2	2.2	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-31d	8-Dec-98	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-31d	11-Jan-99	<10	<500	<2	<1	19.1	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-31d	8-Feb-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-31d	19-Apr-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-31d	3-Dec-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-31d	13-Apr-00	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-31d	19-Dec-00	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-31d	18-Apr-01	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-31d	6-Dec-01	<10	<100	<10	<10	<10	<10	<10	<10	<40	<10	<10	<10	<50	<20	<.3
MW-31d	11-Apr-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-31d	6-Nov-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-32	1-May-98	<10	<500	<2	<1	23	**44**	<200	<10	<50	<20	<10	<10	**41**	59	<.2
MW-32	17-Aug-98	<10	<500	<2	**5.5**	10	**31**	<200	<10	<50	<20	<10	<10	<40	130	<.2
MW-32	9-Sep-98	<10	<500	<2	**5.4**	34	**45**	<200	<10	54	<20	<10	<10	**60**	240	<.2
MW-32	6-Oct-98	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<10	NS	NS	NS
MW-32	7-Dec-98	<10	<500	<2	**8**	40	**42**	<200	<10	77	<20	<10	<10	**74**	85	<.2
MW-32	11-Jan-99	<10	<500	<2	<1	<10	**26.5**	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-32	8-Feb-99	<10	<500	<2	<1	<10	**24**	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-32	19-Apr-99	<10	<500	<2	<1	<10	**28.1**	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-32	3-Dec-99	<10	<500	<2	<1	<10	**25.1**	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-32	13-Apr-00	<10	<500	<2	1.2	<10	**40.9**	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-32	19-Dec-00	<10	<500	<2	1.0	<10	**25.8**	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-32	17-Apr-01	<10	<500	<2	<1	<10	**22.8**	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-32	4-Dec-01	<10	<100	<10	<10	<10	**14.7**	<10	<10	<40	<10	<10	<10	<50	<20	<.3
MW-32	11-Apr-02	<10	<500	<2	<1	<10	**12.1**	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-32	6-Nov-02	<10	<500	<2	<1	<10	**12.2**	<200	<10	<50	<20	<10	<10	<40	<50	<.3

Table 4a
Detected Groundwater Constituents - Metals
North Wake Unlined Landfill

Monitor Well	Sample Date	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Mercury
NC Standard		50	2000	2*	5	50	2*	1000	15	100	50	18	2*	25*	2100	1.1
TB-1a	1-May-98	<10	<500	<2	1.1	<10	<10	<200	<10	<50	<20	14	<10	<40	50	
TB-1a	17-Aug-98	<10	<500	<2	9.3	21	20	<200	<10	<50	<20	<10	<10	<40	130	<.2
TB-1a	9-Sep-98	<10	<500	<2	2.6	14	16	<200	<10	<50	<20	<10	<10	<40	160	<.2
TB-1a	7-Oct-98	<10	<500	<2	4.0	17	14	<200	<10	<50	<20	<10	<10	<40	<50	<.2
TB-1a (dup)	7-Oct-98	<10	<500	<2	2.1	<10	14	<200	<10	<50	<20	<10	<10	<40	<50	<.2
TB-1a	9-Dec-98	<10	<500	<2	3.0	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	0.22
TB-1a	11-Jan-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
TB-1a	8-Feb-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
TB-1a	19-Apr-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
TB-1a	3-Dec-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
TB-1a	13-Apr-00	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
TB-1a	20-Dec-00	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
TB-1a	17-Apr-01	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
TB-1a	3-Dec-01	<10	<100	<10	<10	<10	<10	17.3	<10	<40	<10	<10	<10	<50	<20	<.3
TB-1a	12-Apr-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
TB-1a	5-Nov-02	<10	<500	<2	2.2	12.7	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
TB-1a deep	8-Jun-01	<10	<100	<10	<10	<10	<10	<10	<10	<40	<10	<10	<10	<50	<20	<.3
TB-1a deep	6-Dec-01	<10	<100	<10	<10	<10	<10	<10	<10	<40	<10	<10	<10	<50	<20	<.3
TB-1a deep	11-Apr-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
TB-1a deep	6-Nov-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-33	6-Aug-98	<10	<500	<2	5.8	46	18	<200	<10	<50	<20	<10	<10	73	110	<.2
MW-33	7-Dec-98	<10	<500	<2	2.7	18	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-33	26-Apr-99	<10	<500	<2	<1	15.5	<10	<200	<10	<50	<20	<10	<10	<40	58.5	<.2
MW-33	2-Dec-99	<10	<500	<2	<1	18.1	<10	<200	<10	<50	<20	<10	<10	<40	61	<.2
MW-33	13-Apr-00	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-33	18-Apr-01	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-33	9-Apr-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-34	6-Aug-98	<10	<500	4.9	8.4	43	20	<200	<10	64	<20	<10	<10	110	180	<.2
MW-34	7-Dec-98	<10	<500	<2	2.2	14	<10	<200	<10	<50	<20	<10	<10	<40	59	<.2
MW-34	26-Apr-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	73.2	<.2
MW-34	2-Dec-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-34	13-Apr-00	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-34	18-Apr-01	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-34	9-Apr-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-34d	6-Aug-98	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-34d (dup)	6-Aug-98	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-34d	7-Dec-98	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-34d	26-Apr-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-34d	2-Dec-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-34d	13-Apr-00	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-34d	18-Apr-01	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-34d	9-Apr-02	<10	<500	<2	<1	12.5	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-35	6-Aug-98	<10	<500	4.3	9.8	47	30	<200	<10	52	<20	<10	<10	120	130	<.2
MW-35	7-Dec-98	<10	<500	<2	4.6	22	15	<200	<10	79	<20	<10	<10	43	74	<.2
MW-35	26-Apr-99	<10	<500	<2	<1	<10	13	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-35	2-Dec-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-35	13-Apr-00	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
MW-35	18-Apr-01	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
MW-35	9-Apr-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.3
SW-2	13-Jun-95	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	
SW-2	31-Oct-95	<10	<500	<2	2	<1	<10	<200	<10	<50	<20	<10	<10	<40	<50	
SW-2	28-Nov-96	<5	25	<1	<1	<2	2	<10	<5	<50	<5	<5	<10	<5	21	<.2
SW-2	21-Apr-97	<5	29	<.3	<1	<5	<5	<5	<5	<5	<10	<5	<10	<5	<20	<.2
SW-2	5-Nov-97	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
SW-2	11-May-98	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
SW-2	24-Nov-98	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
SW-2	14-Apr-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
SW-2	9-Apr-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	

Table 4a
Detected Groundwater Constituents - Metals
North Wake Unlined Landfill

Monitor Well	Sample Date	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Mercury
NC Standard		50	2000	2*	5	50	2*	1000	15	100	50	18	2*	25*	2100	1.1
SW-3	13-Jun-95	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	
SW-3	31-Oct-95	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	
SW-3	27-Nov-96	<5	33	<1	<1	<2	2	<10	<5	<50	<5	<5	<10	<5	32	<.2
SW-3	21-Apr-97	<5	19	<.3	<1	<5	<5	<5	<5	<5	<10	<5	<10	<5	<20	<.2
SW-3	1-Nov-97	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	56	<.2
SW-3	11-May-98	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
SW-3	24-Nov-98	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
SW-3	14-Apr-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
SW-3	30-Nov-99	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
SW-3	12-Apr-00	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	<.2
SW-3	15-Dec-00	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	
SW-3	16-Apr-01	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	
SW-3	29-Nov-01	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	
SW-3	9-Apr-02	<10	<500	<2	<1	<10	<10	<200	<10	<50	<20	<10	<10	<40	<50	

All units are in micrograms per liter (parts per billion).
--MW-10 was installed inside landfill fence on April 1, 1998
--MW-23D was installed on April 27, 1998
--MW-5 was re-installed on July 24, 1998
--MW-8 was re-installed on April 11, 2000
--MW-6d, -8d, 10d, and TB-1a deep installed June 2001.
*-groundwater protection standard
**-New background well; NS - Not Sampled; dup - duplicate sample
- Concentration exceeds N.C. Groundwater Standards (2L) or grounwater protection standard

Table 4b
Detected Constituents - Volatile Organic Compounds
North Wake Unlined Landfill

Monitor Well	Sample Date	Benzene	1,2-Dichloroethane	1,1,1-Trichloroethane	Trichloroethene	Chloroethane	Chloroform	cis-1,2-Dichloroethene	1,4-Dichlorobenzene	1,1-Dichloroethane	1,2-Dichloropropane	1,1-Dichloroethene	Toluene	Trichlorofluoromethane	Styrene	Methylene Chloride	Ethyl Benzene	Chloromethane	Tetrachloroethene	Total Xylenes	Acetone	Vinyl Chloride	Dichlorodifluoromethane	1,2-Dibromoethane	trans 1,2-Dichloroethene	bis (2-ethylhexyl) Phthalate	3&4-Methylphenol	1,2,3-Trichloropropane
NC Standard		1	0.38	200	2.8	2800	0.19	70	75	700	0.56	7	1000	2100	100	5	29	2.6	0.7	530	700	0.015	1400	0.0004	70	3	35/3.5*	5E-06
MW-1	15-Apr-94	<1	<.5	<.5	<.5	<1	<.5	<.5	<1	<.5	<1.0	<.5	<1	<1	<1	<1	<1	<1	<.5	<2	<20	<1			<.5			
MW-1	11-May-94	<1	<.5	<.5	<.5	<1	<.5	<.5	<1	<.5	<1	<.5	<1	<1	<1	<1	<1	<1	<.5	<2	<20	<1			<.5			
MW-1	25-Aug-94	<1	<.5	<.5	<.5	<1	<.5	<.5	<1	<.5	<1	<.5	<1	<1	<1	<1	<1	<1	<.5	<2	<20	<1			<.5			
MW-1	29-Sep-94	<1	<.5	<.5	<.5	<1	<.5	<.5	<1	<.5	<1	<.5	<1	<1	<1	<1	<1	<1	<.5	<2	<20	<1			<.5			
MW-1	13-Jun-95	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<5	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<20		
MW-1	28-Sep-95	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<5	NS	NS	NS		
MW-11**	31-Oct-95	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<5	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<20		
MW-11	22-Mar-96	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<5	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<20		
MW-11	27-Nov-96	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<2	<25	<1	<5	<1	<1	<10		
MW-11	22-Apr-97	<1	<1	<1	<1	<5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<5	<1	<2	<20	<1	<1	<1	<1	<5		
MW-11	31-Oct-97	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<5		
MW-11	11-May-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<5		
MW-11	8-Dec-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	24		
MW-11	14-Apr-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10	<10	
MW-11	30-Nov-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		
MW-11	5-Apr-00	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-11	18-Dec-00	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-11	18-Apr-01	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-11	27-Nov-01	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-11	5-Apr-02	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-11	5-Nov-02	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-11d	31-Oct-95	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<5	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<20		
MW-11d	22-Mar-96	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<5	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<20		
MW-11d	27-Nov-96	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<2	<25	<1	<5	<1	<1	<10		
MW-11d	22-Apr-97	<1	<1	<1	<1	<5	<5	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<5	<1	<2	<20	<1	<1	<1	<1	<5		
MW-11d	31-Oct-97	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<5		
MW-11d	11-May-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<5		
MW-11d	8-Dec-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<5		
MW-11d	14-Apr-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10	<10	
MW-11d	30-Nov-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	20		
MW-11d	5-Apr-00	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-11d	18-Dec-00	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-11d	18-Apr-01	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-11d	27-Nov-01	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-11d	5-Apr-02	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-11d	5-Nov-02	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-5	6-Mar-94	4.9	<.5	5.3	14	<.5	<.5	2.1	<.5	150	<.5	0.8	<.5	9.2	<.5	17	<.5	<.5	6.3	3.23	<5	2			<.5			
MW-5	15-Apr-94	4.2	1.1	<.5	11.8	35.7	<.5	1.5	<1	99.6	<1	1.2	<1	17.9	<1	11.7	<1	5.7	6.3	<2	<20	<1			<.5			
MW-5	11-May-94	2.4	<.5	<.5	8.2	24	<.5	<.5	<1	74	<1	1.1	2	26	<1	11	<1	5.7	4.9	<2	<20	<1			<.5			
MW-5	31-May-94	3.1	<.5	7.2	8.1	<.5	0.6	1.2	<.5	47	<.5	1.2	<.5	31	<.5	13	<.5	<.5	5.4	2.72	<5	<.5			<.5			
MW-5	10-Jun-94	2.8	<.5	7.6	7.1	24.5	<.5	1.2	<1	71.8	<1	1.4	<1	34.1	<1	12.4	<1	<1	3.6	<2	<20	<1			<.5			
MW-5	30-Sep-94	1.9	<.5	8.9	<.5	18.7	<.5	<.5	<1	41.6	<1	<1	<1	34.7	<1	<1	<1	10.9	4.6	<2	<20	<1			<.5			
MW-5	13-Jun-95	10	<5	<5	19	48	<5	8	<5	<5	<5	<5	<5	<5	<5	20	<5	<10	10	<5	<100	<10	22	<5	196	<20		
MW-5	28-Sep-95	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	35	NS	NS	NS		
MW-5	31-Oct-95	9	<5	<5	11	61	<5	14	<5	230	<5	<5	<5	<5	<5	18	<5	<10	<5	<5	<100	<10	<5	<5	<5	<20		
MW-5 (dup)	31-Oct-95	9	<5	<5	16	53	<5	14	<5	210	<5	<5	<5	<5	<5	15	<5	<10	9	<5	<100	<10	<5	<5	<5	<20		
MW-5	30-Jan-96	10	<5	<5	17	50	<5	23	<5	198	<5	<5	<5	<5	<5	<10	<5	<10	7	<5	<100	<10	16	<5	<5	<20		
MW-5	28-Nov-96	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
MW-5	22-Apr-97	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
MW-5	1-Nov-97	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
MW-5	6-May-98	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
MW-5	8-Dec-98	7.9	<5	<5	17	20	<5	15	6.0	74	<5	<5	<5	<5	<10	79	<5	<10	11	6.5	<100	<10	10	<5	<5	<5.2		
MW-5	16-Apr-99	8	<10	<10	14	22	<10	42	<10	87	<10	<10	<10	<10	<10	100	<10	<10	6	<20	<250	<10	<10	<10	<10	<10	26	
MW-5	2-Dec-99	6	<5	<5	16	<10	<5	72	<5	60	<5	<5	<5	<5	<10	<10	<5	<10	6	<10	<125	<10	<25	<5	<5	<10		
MW-5	11-Apr-00	6	<5	<5	22	14	<5	34	11.0	70	<5	<5	<5	<5	<10	<10	<5	<10	10	<10	<125	<10	<25	<5	<5	<10		140
MW-5	20-Dec-00	<5	<5	<5	14	<10	<5	17	<5	39	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-5	16-Apr-01	<5	<5	<5	17	<10	<5	29	7.0	44	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-5	3-Dec-01	<5	<5	<5	12	<10	<5	20	<5	31	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-5	12-Apr-02	<5	<5	<5	16	<10	<5	33	7.0	32	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-5	5-Nov-02	<5	<5	<5	15	10	<5	31	6.0	26	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15

Table 4b
Detected Constituents - Volatile Organic Compounds
North Wake Unlined Landfill

Monitor Well	Sample Date	Benzene	1,2-Dichloroethane	1,1,1-Trichloroethane	Trichloroethene	Chloroethane	Chloroform	cis-1,2-Dichloroethene	1,4-Dichlorobenzene	1,1-Dichloroethane	1,2-Dichloropropane	1,1-Dichloroethene	Toluene	Trichlorofluoromethane	Styrene	Methylene Chloride	Ethyl Benzene	Chloromethane	Tetrachloroethene	Total Xylenes	Acetone	Vinyl Chloride	Dichlorodifluoromethane	1,2-Dibromoethane	trans 1,2-Dichloroethene	bis (2-ethylhexyl) Phthalate	3&4-Methylphenol	1,2,3-Trichloropropane
NC Standard		1	0.38	200	2.8	2800	0.19	70	75	700	0.56	7	1000	2100	100	5	29	2.6	0.7	530	700	0.015	1400	0.0004	70	3	35/3.5[a]	5E-06
MW-6	6-Mar-94	1.7	<.5	5.9	4.6	<.5	0.83	<.5	<.5	34	<1	1	<.5	3.9	<.5	37	<.5	<.5	3.4	2.42	<5	<.5			<.5			
MW-6	15-Apr-94	<1	<.5	<.5	2.1	8.5	<.5	<.5	<1	12.5	<1	<.5	<1	2.6	<1	21	<1	1.2	1.9	<2	<20	<1			<.5			
MW-6	11-May-94	<1	<.5	<.5	4.9	18.4	<.5	<.5	<1	28.7	<1	<.5	<1	2.6	<1	64.2	<1	1.2	2.3	<2	<20	<1			<.5			
MW-6 (dup)	1-Jun-94	3.7	<.5	14	7.5	<.5	4.3	<.5	<.5	50	<.5	<.5	<.5	11	<.5	130	<.5	<1	7	16.6	<5	<.5			<.5			
MW-6	25-Aug-94	<1	<.5	<.5	<5	22	<.5	<.5	<1	36	<1	<.5	<1	<5	<1	79.8	<1	<1	<5	<2	<20	<1			<.5			
MW-6	29-Sep-94	2	<.5	1.4	<.5	18	<.5	<.5	<1	34	<1	<.5	<1	<1	<1	6.1	<1	66	3	<2	<20	<1			<.5			
MW-6	13-Jun-95	<5	<5	<5	6	19	<5	<5	<5	28	<5	<5	<5	<5	<5	61	<5	<10	<5	<5	<100	<10	<5	<5	<5	<20		
MW-6	28-Sep-95	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<5	NS	NS	NS		
MW-6	31-Oct-95	<5	<5	<5	6	22	<5	<5	<5	32	<5	<5	<5	<5	<5	56	<5	<10	<5	<5	<100	<10	<5	<5	<5	<20		
MW-6	30-Jan-96	6	<5	<5	11	37	<5	<5	<5	61	<5	<5	<5	<5	<5	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<20		
MW-6	29-Nov-96	<10	<10	<10	16	34	<10	<10	<10	41	<10	<10	<10	<10	<10	91	<10	<10	<10	<20	<250	<10	<50	<10	<10	<10		
MW-6	22-Apr-97	5.4	<1	<1	15	37	<5	6.7	<1	29	<1	<1	<1	<1	<1	88	<1	<5	<1	<2	<20	<1	<1	<1	<1	<5		
MW-6	2-Nov-97	6.1	<5	<5	16	28	<5	7.8	<5	28	<5	<5	<5	<5	<10	90	<5	<10	5.2	<5	<100	<10	<5	<5	<5	<5		
MW-6	6-May-98	<10	<10	<10	17	29	<10	13	<10	34	<10	<10	<10	<10	<20	140	<10	<20	<10	<10	<200	<20	<10	<10	<10	<5		
MW-6 (dup)	6-May-98	<10	<10	<10	19	30	<10	14	<10	35	<10	<10	<10	<10	<20	140	<10	<20	<10	<10	<200	<20	<10	<10	<10	<5		
MW-6	8-Dec-98	<10	<10	<10	19	26	<10	14	<10	40	<10	<10	<10	<10	<20	180	<10	<20	<10	<10	<200	<20	<10	<10	<10	<5		
MW-6	16-Apr-99	5	<10	<10	11	16	<10	<10	<10	26	<10	<10	<10	<10	<20	110	<10	<20	<10	<10	<250	<20	<10	<10	<10	<10	<10	
MW-6	2-Dec-99	<5	<5	<5	6	<10	<5	7	<5	12	<5	<5	<5	<5	<10	67	<5	<10	<5	<10	<125	<10	<25	<5	<5	<10		
MW-6	11-Apr-00	<5	<5	<5	6	<10	<5	7	<5	12	<5	<5	<5	<5	<10	63	<5	<10	<5	<10	<125	<10	<25	<5	<5	<10		<15
MW-6	19-Dec-00	<5	<5	<5	<5	<10	<5	<5	<5	6	<5	<5	<5	<5	<10	20	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-6	16-Apr-01	<5	<5	<5	<5	<10	<5	6	<5	8	<5	<5	<5	<5	<10	46	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-6	3-Dec-01	<5	<5	<5	<5	<10	<5	6	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-6	12-Apr-02	<5	<5	<5	<5	<10	<5	5	<5	7	<5	<5	<5	<5	<10	26	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-6	5-Nov-02	<5	<5	<5	<5	<10	<5	5	<5	<5	<5	<5	<5	<5	<10	10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-6d	8-Jun-01	<5	<5	<5	<5	<10	<5	6	<5	8	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-6d	4-Dec-01	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-6d	9-Apr-02	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-6d	7-Nov-02	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-7	6-Mar-94	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<5	<.5			<.5			
MW-7	15-Apr-94	<1	<.5	<.5	<1	<1	<.5	<.5	<1	<.5	<1	<.5	<1	<1	<1	<1	<1	<1	<.5	<2	<20	<1			<.5			
MW-7	11-May-94	<1	<.5	<.5	<1	<1	<.5	<.5	<1	<.5	<1	<.5	<1	<1	<1	<1	<1	<1	<.5	<2	<20	<1			<.5			
MW-7	31-May-94	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<5	<.5			<.5			
MW-7	25-Aug-94	<1	<.5	<.5	<1	<1	<.5	<.5	<1	<.5	<1	<.5	<1	<1	<1	<1	<1	<1	<.5	<2	<20	<1			<.5			
MW-7	29-Sep-94	<1	<.5	<.5	<1	<1	<.5	<.5	<1	<.5	<1	<.5	<1	<1	<1	<1	<1	<1	<.5	<2	<20	<1			<.5			
MW-7	13-Jun-95	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<5	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<20		
MW-7	28-Sep-95	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<5	NS	NS	NS		
MW-7	31-Oct-95	<5	<5	<5	<5	11	<5	<5	<5	5	<5	<5	<5	<5	<5	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<20		
MW-7	30-Jan-96	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<5	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<20		
MW-7	29-Nov-96	<2	<2	<2	5	22	<2	2	<2	9	<2	<2	<2	<2	<2	<2	<2	<2	4	<4	<50	<2	<10	<2	<2	<10		
MW-7	21-Apr-97	<1	<1	<1	<1	19	<5	5.9	<1	11	<1	<1	<1	<1	<1	<1	<1	<5	<1	<2	<20	<1	<1	<1	<1	<5		
MW-7	1-Nov-97	<5	<5	<5	<5	26	<5	6.2	<5	10	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<5		
MW-7	6-May-98	<5	<5	<5	<5	24	<5	21	<5	17	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<5		
MW-7	8-Dec-98	7.2	<5	<5	5.2	32	<5	36	<5	20	<5	<5	<5	<5	<10	12	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		
MW-7	16-Apr-99	<5	<5	<5	<5	21	<5	24	<5	14	<5	<5	<5	<5	<10	<20	<5	<10	<5	<5	<100	<10	<5	<5	<5	<5.3	<10	
MW-7	2-Dec-99	<5	<5	<5	<5	<10	<5	16	<5	9	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		
MW-7	11-Apr-00	<5	<5	<5	<5	<10	<5	17	<5	8	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-7 (dup)	11-Apr-00	<5	<5	<5	<5	<10	<5	17	<5	8	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	16		<15
MW-7	19-Dec-00	<5	<5	<5	<5	<10	<5	10	<5	5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-7 (dup)	19-Dec-00	<5	<5	<5	<5	<10	<5	12	<5	6	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-7	16-Apr-01	<5	<5	<5	<5	<10	<5	13	<5	6	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	16		<15
MW-7	4-Dec-01	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-7	9-Apr-02	<5	<5	<5	<5	<10	<5	7	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-7	6-Nov-02	<5	<5	<5	<5	<10	<5	12	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15

Table 4b
Detected Constituents - Volatile Organic Compounds
North Wake Unlined Landfill

Monitor Well	Sample Date	Benzene	1,2-Dichloroethane	1,1,1-Trichloroethane	Trichloroethene	Chloroethane	Chloroform	cis-1,2-Dichloroethene	1,4-Dichlorobenzene	1,1-Dichloroethane	1,2-Dichloropropane	1,1-Dichloroethene	Toluene	Trichlorofluoromethane	Styrene	Methylene Chloride	Ethyl Benzene	Chloromethane	Tetrachloroethene	Total Xylenes	Acetone	Vinyl Chloride	Dichlorodifluoromethane	1,2-Dibromoethane	trans 1,2-Dichloroethene	bis (2-ethylhexyl) Phthalate	3&4-Methylphenol	1,2,3-Trichloropropane
NC Standard		1	0.38	200	2.8	2800	0.19	70	75	700	0.56	7	1000	2100	100	5	29	2.6	0.7	530	700	0.015	1400	0.0004	70	3	35/3.5[a]	5E-06
MW-8	6-Mar-94	6.8	1	18	16	<.5	2.2	7.6	3.2	13	<1	1.3	4	7.3	<.5	450	0.56	<.5	7.5	35.6	<5	0.76			<.5			
MW-8	15-Apr-94	7.9	1.8	<.5	17.5	39.8	1.3	8.9	4.9	88.6	3	1.5	5	5.1	<1	310	1.4	8.8	8.1	39.7	<20	<1			<.5			
MW-8	11-May-94	5.6	<2.5	<2.5	15	34	<2.5	<2.5	<5	83	<5	<2.5	<5	<5	<1	276	<5	<1	7	27.1	<20	<1			<.5			
MW-8	31-May-94	12	2.6	16	29	<.5	1.1	23	13	110	<5	1.6	11	4.4	3.1	310	<.5	<.5	16	89	<5	<.5			<.5			
MW-8	25-Aug-94	<5	<5	<5	<5	51.3	<5	<5	<5	109	<5	<5	<5	<5	<1	400	<5	<1	<5	32	<20	<1			<.5			
MW-8	30-Sep-94	5.8	<.5	8.9	13	35	<2.5	5.6	5.2	86	<5	<2.5	<5	<5	<1	300	<5	12.2	<5	22.8	<20	<1			<.5			
MW-8	13-Jun-95	<5	<5	<5	6	15	<5	<5	<5	36	<5	<5	<5	<5	<5	47	<5	<10	<5	19	<100	<10	<5	<5	<5	<20		
MW-8	28-Sep-95	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<5	NS	NS	NS		
MW-8	31-Oct-95	8	<5	<5	14	40	8	23	<5	72	<5	<5	<5	<5	<5	137	32	<10	9	<5	<100	<10	8	<5	<5	<20		
MW-8	30-Jan-96	10	<5	<5	23	37	<5	34	<5	71	<5	<5	<5	<5	<5	123	<5	<10	18	58	<100	<10	10	<5	<5	20		
MW-8	29-Nov-96	4	<1	1	12	15	<1	24	3	18	<1	<1	<1	<1	<1	23	<1	<1	13	13	<25	<1	5	8	<1	<10		
MW-8	21-Apr-97	<1	<1	<1	8.1	<5	<1	20	<1	10	<1	<1	<1	<1	<1	16	<1	<5	8.3	<2	<20	<1	<1	<1	<1	8		
MW-8	2-Nov-97	<5	<5	<5	5.2	<10	<5	22	<5	6.3	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<5		
MW-8	6-May-98	5.7	<5	<5	8.7	<10	<5	56	<5	15	<5	<5	<5	<5	<10	13	<5	<10	7.8	6.1	<100	<10	<5	<5	<5	<5		
MW-8	8-Dec-98	<5	<5	<5	5.2	<10	<5	37	<5	7.9	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<5		
MW-8	16-Apr-99	<5	<5	<5	6	<10	<5	55	6	13	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		
MW-8 (dup)	16-Apr-99	<5	<5	<5	<5	<10	<5	41	<5	10	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<5	<10	
MW-8	2-Dec-99	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
MW-8	11-Apr-00	<5	<5	<5	<5	<10	<5	12	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-8	20-Dec-00	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-8	16-Apr-01	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-8	3-Dec-01	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-8	12-Apr-02	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-8	5-Nov-02	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-8d	8-Jun-01	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-8d	4-Dec-01	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-8d	9-Apr-02	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-8d (dup)	9-Apr-02	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-8d	7-Nov-02	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-9	6-Mar-94	5.3	<.5	7	8.7	<.5	5.8	<.5	1.6	100	<.5	1.3	6	4.2	<.5	680	0.73	<.5	6.6	15.2	<5	0.96			<.5			
MW-9	15-Apr-94	5.6	<.5	<.5	12.4	14.1	4.9	0.7	2.4	96.8	<1	1.8	1.6	3.6	<1	357	<5	7.3	8.2	17.3	<20	<1			<.5			
MW-9	11-May-94	6.8	<.5	<2.5	13	<5	5	<2.5	<2.5	134	<1	<2.5	<5	<5	<1	357	<5	20.1	7.6	20.5	<20	<1			<.5			
MW-9	31-May-94	8.2	<.5	8.7	14	<.5	6.6	<.5	3.4	170	<.5	1.7	1.7	3.6	<.5	460	<.5	<.5	8.8	23.3	<5	<.5			<.5			
MW-9	25-Aug-94	<5	<.5	<5	<5	<10	<5	<5	<5	165	<1	<2.5	<5	<5	<1	558	<5	<1	<5	<10	<20	<1			<.5			
MW-9	29-Sep-94	7	<.5	6.5	<2.5	<5	5.1	<2.5	<5	131	<1	<2.5	<5	<5	<1	400	<5	<1	8.2	16	<20	<1			<.5			
MW-9	13-Jun-95	11	<5	7	23	20	<5	<5	<5	203	<5	<5	<5	<5	<5	258	<5	<10	11	8	<100	<10	28	<5	<5	<20		
MW-9	28-Sep-95	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	41	NS	NS	NS		
MW-9	31-Oct-95	15	<5	6	27	29	<5	<5	<5	310	<5	<5	<5	<5	<5	278	<5	<10	14	14	<100	<10	44	<5	<5	<20		
MW-9	30-Jan-96	14	<5	<5	23	22	<5	<5	<5	270	<5	<5	<5	<5	<5	<10	<5	11	8	6	<100	<10	33	<5	<5	<20		
MW-9	29-Nov-96	22	<20	<20	31	<20	<20	<20	<20	280	<20	<20	<20	<20	<20	<100	<20	<20	<20	<40	<500	<20	<100	<20	<20	<10		
MW-9	22-Apr-97	24	<2.5	<2.5	28	<13	<13	<2.5	6.6	220	<2.5	<2.5	<2.5	<2.5	<2.5	<13	<2.5	<13	<2.5	14.2	<50	<2.5	16	<2.5	<2.5	<5		
MW-9	2-Nov-97	<25	<25	<25	<25	<50	<25	<25	<25	200	<25	<25	<25	<25	<50	<50	<25	<50	<25	<50	<500	<50	32	<25	<25	<5		
MW-9	6-May-98	17	<12	<12	32	<25	<12	<12	<12	210	<12	<12	<12	<12	<25	<25	<12	<25	13	<12	<250	<25	31	<12	<12	<5		
MW-9	8-Dec-98	14	<10	<10	31	<20	<10	<10	<10	200	<10	<10	<10	<10	<20	<20	<10	<20	13	<10	<200	<20	53	<10	<10	20		
MW-9	16-Apr-99	7	<10	<10	20	<20	<10	<10	<10	140	<10	<10	<10	<10	<20	<20	<10	<10	7	<20	<250	<10	49	<10	<10	12	<10	
MW-9	2-Dec-99	<5	<10	<10	20	<20	<10	<10	<10	120	<10	<10	<10	<10	<20	<50	<10	<10	<10	<20	<250	<10	<50	<10	<10	<10		
MW-9	11-Apr-00	<5	<10	<10	20	<20	<10	<10	<10	110	<10	<10	<10	<10	<20	<50	<10	<10	<10	<20	<250	<10	<50	<10	<10	<10		<15
MW-9	20-Dec-00	<10	<10	<10	18	<10	<10	<10	<10	100	<10	<10	<10	<10	<20	<50	<10	<10	<10	<20	<250	<10	25	<10	<10	<10		<15
MW-9	16-Apr-01	<5	<5	<5	15	<10	<5	6	<5	93	<5	<5	<5	<5	<10	<20	<5	<10	6	<8	<100	<10	20	<5	<5	21		<15
MW-9	3-Dec-01	<5	<5	<5	5	<10	<5	20	<5	100	<5	<5	<5	<5	<10	<20	<5	<10	<5	<8	<100	<10	25	<5	<5	<10		<15
MW-9 (dup)	3-Dec-01	<5	<5	<5	<5	<10	<5	19	<5	89	<5	<5	<5	<5	<10	<20	<5	<10	<5	<8	<100	<10	20	<5	<5	22		<15
MW-9	12-Apr-02	<5	<5	<5	<5	<10	<5	21	<5	97	<5	<5	<5	<5	<10	<20	<5	<10	<5	<8	<100	<10	<5	<5	<5	<10		<15
MW-9	5-Nov-02	<5	<5	<5	<5	<10	<5	20	<5	84	<5	<5	<5	<5	<10	<10	<5	<10	<5	<8	<100	<10	19	<5	<5	<10		<15

Table 4b
Detected Constituents - Volatile Organic Compounds
North Wake Unlined Landfill

Monitor Well	Sample Date	Benzene	1,2-Dichloroethane	1,1,1-Trichloroethane	Trichloroethene	Chloroethane	Chloroform	cis-1,2-Dichloroethene	1,4-Dichlorobenzene	1,1-Dichloroethane	1,2-Dichloropropane	1,1-Dichloroethene	Toluene	Trichlorofluoromethane	Styrene	Methylene Chloride	Ethyl Benzene	Chloromethane	Tetrachloroethene	Total Xylenes	Acetone	Vinyl Chloride	Dichlorodifluoromethane	1,2-Dibromoethane	trans 1,2-Dichloroethene	bis (2-ethylhexyl) Phthalate	3&4-Methylphenol	1,2,3-Trichloropropane
NC Standard		1	0.38	200	2.8	2800	0.19	70	75	700	0.56	7	1000	2100	100	5	29	2.6	0.7	530	700	0.015	1400	0.0004	70	3	35/3.5*	5E-06
MW-10	6-Mar-94	2.4	<.5	16	9.8	<.5	2.5	<.5	<.5	37	<.5	2.4	<.5	12	<.5	72	<.5	<.5	4.6	26.7	<5	<.5			<.5			
MW-10	15-Apr-94	1.8	2.6	<.5	8	18.1	1.6	<.5	<1	24.2	<1	2.6	<1	<1	<1	67.3	<1	5.5	4.8	16.9	<20	<1			<.5			
MW-10	11-May-94	1.4	2.6	<.5	6.8	15.8	1.7	<.5	<1	23	<1	1.8	<1	16.3	<1	54.8	<1	4	4	6.7	<20	<1			<.5			
MW-10	31-May-94	3.7	<.5	17	15	<.5	3.9	<.5	<.5	57	<.5	2.7	<.5	15	<.5	120	<.5	<.5	8.7	19.1	<5	<.5			<.5			
MW-10	25-Aug-94	<5	<5	18.4	<5	47.7	<5	<.5	<1	72	<1	<5	<1	18	<1	194	8	18.7	9.2	15	<20	<1			<.5			
MW-10	29-Sep-94	4.2	<.5	3.5	19	37.7	3.4	<.5	<1	56.3	<1	3.5	<1	17.1	<1	148	<1	7.2	<1	13.1	<20	<1			<.5			
MW-10	13-Jun-95	7	<5	13	20	53	<5	<5	<5	84	<5	<5	<5	<5	<5	223	<5	13	13	14	<100	<10	18	<5	<5	<20		
MW-10	28-Sep-95	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	53	NS	NS	NS		
MW-10	31-Oct-95	<5	<5	14	8	33	<5	10	<5	44	<5	<5	<5	14	<5	47	<5	<10	7	<5	<100	<10	46	<5	<5	<20		
MW-10	30-Jan-96	8	<5	8	18	48	<5	12	<5	101	<5	<5	<5	<5	<5	<10	<5	10	9	8	<100	<10	29	<5	<5	<20		
MW-10	28-Nov-96	<1	<1	<1	2	3	<1	1	<1	12	<1	<1	<1	<1	<1	15	<1	<1	2	<2	<25	<1	<5	<1	<1	<10		
MW-10	22-Apr-97	12	<2.5	<2.5	33	31	<13	20	<2.5	160	<2.5	<2.5	<2.5	<2.5	<2.5	120	<2.5	<13	25	19.6	<50	<2.5	8.5	<2.5	<2.5	7.3		
MW-10	1-Nov-97	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
MW-10	8-Dec-98	<12	<12	<12	19	<25	<12	48	<12	140	<12	<12	<12	<12	<25	270	<12	<25	16	12	<250	<25	<12	<12	<12	<5.1		
MW-10	11-Jan-99	7*	<12.5	<12.5	18	19	<12.5	36	<12.5	140	<12.5	<12.5	<12.5	<12.5	<13	320	<12.5	<13	14	<25	<313	<13	<12.5	<12.5	<12.5	NS		
MW-10	8-Feb-99	9*	<10	<10	21	24	<10	41	<10	140	<10	<10	<10	<10	<10	<50	<10	<10	17	20	<250	<10	<10	<10	<10	NS		
MW-10 (dup)	8-Feb-99	8*	<10	<10	17	20	<10	38	<10	130	<10	<10	<10	<10	<10	<50	<10	<10	13	19*	<250	<10	<10	<10	<10	NS		
MW-10	16-Apr-99	<20	<20	<20	<20	<20	<20	26	<20	160	<20	<20	<20	<20	<20	410	<20	<20	<40	<80	<1000	<20	<20	<20	<20	16	<10	
MW-10	2-Dec-99	<5	<5	<5	<5	<10	<5	<5	<5	40	<5	<5	<5	<5	<10	77	<5	<5	6	<8	<100	<10	<20	<5	<5	14		
MW-10	12-Apr-00	<5	<5	<5	6	<10	<5	7	<5	46	<5	<5	<5	<5	<10	88	<5	<5	7	<8	<100	<10	<20	<5	<5	<10		<15
MW-10	20-Dec-00	<5	<5	<5	<5	<10	<5	<5	<5	35	<5	<5	<5	<5	<10	40	<5	<5	<5	<8	<100	<10	<5	<5	<5	<10		<15
MW-10	17-Apr-01	<5	<5	<5	<5	<10	<5	<5	<5	34	<5	<5	<5	<5	<10	34	<5	<5	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-10	3-Dec-01	<5	<5	<5	<5	<10	<5	<5	<5	26	<5	<5	<5	<5	<10	18	<5	<5	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-10	12-Apr-02	<5	<5	<5	<5	<10	<5	<5	<5	22	<5	<5	<5	<5	<10	18	<5	<5	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-10	5-Nov-02	<5	<5	<5	<5	<10	<5	<5	<5	20	<5	<5	<5	<5	<10	16	<5	<5	8	<5	<100	<10	6	<5	<5	<10		<15
MW-10 (dup)	5-Nov-02	<5	<5	<5	<5	<10	<5	<5	<5	21	<5	<5	<5	<5	<10	16	<5	<5	9	<5	<100	<10	6	<5	<5	<10		<15
MW-10d	8-Jun-01	<5	<5	<5	<5	<10	<5	<5	<5	12	<5	<5	<5	<5	<10	16	<5	<5	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-10d	4-Dec-01	<5	<5	<5	<5	<10	<5	<5	<5	17	<5	<5	<5	<5	<10	<10	<5	<5	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-10d	11-Apr-02	<5	<5	<5	<5	<10	<5	<5	<5	16	<5	<5	<5	<5	<10	<10	<5	<5	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-10d	5-Nov-02	<5	<5	<5	<5	<10	<5	<5	<5	13	<5	<5	<5	<5	<10	<10	<5	<5	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-22	9-Jun-97	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<20		
MW-22	18-Aug-97	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		
MW-22	2-Nov-97	<5	<5	<5	<5	<10	<5	<5	<5	6.9	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	5.2	<5	<5	<5		
MW-22	6-May-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<5		
MW-22	8-Dec-98	<5	<5	<5	<5	<10	<5	<5	<5	8.6	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<5.4		
MW-22	16-Apr-99	<5	<5	<5	<5	<10	<5	<5	<5	6	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10	<10	
MW-22	2-Dec-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		
MW-22	12-Apr-00	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-22	20-Dec-00	<5	<5	<5	<5	<10	<5	<5	<5	9	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-22	17-Apr-01	<5	<5	<5	<5	<10	<5	<5	<5	9	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-22	4-Dec-01	<5	<5	<5	<5	<10	<5	<5	<5	6	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-22	9-Apr-02	<5	<5	<5	<5	<10	<5	<5	<5	5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-22	6-Nov-02	<5	<5	<5	<5	<10	<5	<5	<5	5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-23	9-Jun-97	<5	<5	6.4	9.1	40	<5	7.6	<5	86	<5	<5	16	<5	<10	100	<5	<10	9.3	13	<100	<10	<5	<5	<5	<20		
MW-23	18-Aug-97	<5	<5	<5	<5	33	<5	11	<5	93	<5	<5	<5	<5	<10	85	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		
MW-23	2-Nov-97	<5	<5	<5	6.3	26	<5	11	<5	68	<5	<5	<5	<5	<10	40	<5	<10	5.6	<5	<100	<10	<5	<5	<5	<5		
MW-23	5-May-98	<5	<5	<5	<5	<10	<5	<5	<5	6.9	<5	<5	<5	<5	<10	10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<5		
MW-23	8-Dec-98	<5	<5	<5	<5	<10	<5	<5	<5	7.4	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	8.3		
MW-23 (dup)	8-Dec-98	<5	<5	<5	<5	<10	<5	<5	<5	9.2	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5			
MW-23	16-Apr-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10	<10	
MW-23	2-Dec-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		
MW-23 (dup)	2-Dec-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		
MW-23	12-Apr-00	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-23	20-Dec-00	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-23	17-Apr-01	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-23	4-Dec-01	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-23	11-Apr-02	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-23	6-Nov-02	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15

CDM

Table 4b
Detected Constituents - Volatile Organic Compounds
North Wake Unlined Landfill

Monitor Well	Sample Date	Benzene	1,2-Dichloroethane	1,1,1-Trichloroethane	Trichloroethene	Chloroethane	Chloroform	cis-1,2-Dichloroethene	1,4-Dichlorobenzene	1,1-Dichloroethane	1,2-Dichloropropane	1,1-Dichloroethene	Toluene	Trichlorofluoromethane	Styrene	Methylene Chloride	Ethyl Benzene	Chloromethane	Tetrachloroethene	Total Xylenes	Acetone	Vinyl Chloride	Dichlorodifluoromethane	1,2-Dibromoethane	trans 1,2-Dichloroethene	bis (2-ethylhexyl) Phthalate	3&4-Methylphenol	1,2,3-Trichloropropane
NC Standard		1	0.38	200	2.8	2800	0.19	70	75	700	0.56	7	1000	2100	100	5	29	2.6	0.7	530	700	0.015	1400	0.0004	70	3	35/3.5*	5E-06
MW-23d	5-May-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<5		
MW-23d	8-Dec-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	7.8		
MW-23d	16-Apr-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10	<10	
MW-23d	2-Dec-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	10		
MW-23d	12-Apr-00	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	10		<15
MW-23d	20-Dec-00	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-23d	17-Apr-01	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-23d	4-Dec-01	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-23d	11-Apr-02	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-23d	6-Nov-02	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-24	9-Jun-97	<5	<5	<5	8.5	12	<5	5.1	<5	37	<5	<5	160	<5	<10	200	14	<10	<5	57	<100	<10	<5	<5	<5	<20		
MW-24	18-Aug-97	<5	<5	<5	<5	<10	<5	<5	<5	68	<5	<5	400	<5	<10	380	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		
MW-24	1-Nov-97	<25	<25	<25	<25	<50	<25	<25	<25	56	<25	<25	260	<25	<50	340	25	<50	<25	98	<500	<50	<25	<25	<25	<5		
MW-24 (dup)	1-Nov-97	<25	<25	<25	<25	<50	<25	<25	<25	68	<25	<25	340	<25	<50	370	33	<50	<25	131	<500	<50	<25	<25	<25	<5		
MW-24	5-May-98	<25	<25	<25	<25	<50	<25	<25	<25	42	<25	<25	230	<25	<50	240	28	<50	<25	112	<500	<50	<25	<25	<25	<5		
MW-24	8-Dec-98	12	<12	<12	15	30	<12	26	<12	85	<12	<12	140	<12	<25	280	23	<25	<12	93	<250	<25	<12	<12	<12	7.7		
MW-24	16-Apr-99	<10	<10	<10	<10	19	<10	<10	<10	55	<10	<10	46	<10	<10	170	13	<10	<10	60	<500	<10	<10	<10	<10	<10	<10	
MW-24	2-Dec-99	<5	<5	<5	<5	<10	<5	<5	<5	25	<5	<5	<5	<5	<10	43	<5	<5	<5	21	<100	<10	<20	<5	<5	11		
MW-24	12-Apr-00	<5	<5	<5	7	<10	<5	5	<5	42	<5	<5	<5	<5	<10	39	<5	<5	7	33	<100	<10	<20	<5	<5	<10		<15
MW-24	20-Dec-00	<5	<5	<5	7	<10	<5	5	<5	44	<5	<5	<5	<5	<10	29	<5	<5	8	21	<100	<10	<5	<5	<5	<10		<15
MW-24	16-Apr-01	<5	<5	<5	<5	<10	<5	5	<5	34	<5	<5	<5	<5	<10	18	<5	<5	6	12	<100	<10	<5	<5	<5	<10		<15
MW-24 (dup)	16-Apr-01	<5	<5	<5	<5	<10	<5	5	<5	34	<5	<5	<5	<5	<10	20	<5	<5	6	12	<100	<10	<5	<5	<5	<10		<15
MW-24	3-Dec-01	<5	<5	<5	<5	<10	<5	5	<5	33	<5	<5	<5	<5	<10	12	<5	<5	8	10	<100	<10	<5	<5	<5	<10		<15
MW-24	12-Apr-02	<5	<5	<5	<5	<10	<5	<5	<5	27	<5	<5	<5	<5	<10	<10	<5	<5	6	8	<100	<10	<5	<5	<5	<10		<15
MW-24	5-Nov-02	<5	<5	<5	<5	<10	<5	<5	<5	21	<5	<5	<5	<5	<10	<10	<5	<5	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-27	4-May-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	7.5		
MW-27	7-Dec-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	6.4		
MW-27	26-Apr-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	20	NS	
MW-27	3-Dec-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		
MW-27	12-Apr-00	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-27	18-Apr-01	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-27	12-Apr-02	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-28	1-May-98	<1	<5	<5	<1	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<1	<5	<100	<10	<5	<5	<5	<5		
MW-28	17-Aug-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-28	9-Sep-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-28	7-Oct-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-28	9-Dec-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	12		
MW-28	12-Jan-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-28	9-Feb-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-28	19-Apr-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10	<10	
MW-28	3-Dec-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		
MW-28	12-Apr-00	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-28	18-Apr-01	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-28	12-Apr-02	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-28d	1-May-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<5		
MW-28d	17-Aug-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-28d	9-Sep-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-28d	7-Oct-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-28d	9-Dec-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	20		
MW-28d	12-Jan-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-28d (dup)	12-Jan-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-28d	9-Feb-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-28d	19-Apr-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-28d	3-Dec-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-28d	12-Apr-00	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	94		
MW-28d	18-Apr-01	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	46		<15
MW-28d	12-Apr-02	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
																										36		<15

Table 4b
Detected Constituents - Volatile Organic Compounds
North Wake Unlined Landfill

Monitor Well	Sample Date	Benzene	1,2-Dichloroethane	1,1,1-Trichloroethane	Trichloroethene	Chloroethane	Chloroform	cis-1,2-Dichloroethene	1,4-Dichlorobenzene	1,1-Dichloroethane	1,2-Dichloropropane	1,1-Dichloroethene	Toluene	Trichlorofluoromethane	Styrene	Methylene Chloride	Ethyl Benzene	Chloromethane	Tetrachloroethene	Total Xylenes	Acetone	Vinyl Chloride	Dichlorodifluoromethane	1,2-Dibromoethane	trans 1,2-Dichloroethene	bis (2-ethylhexyl) Phthalate	3&4-Methylphenol	1,2,3-Trichloropropane
NC Standard		1	0.38	200	2.8	2800	0.19	70	75	700	0.56	7	1000	2100	100	5	29	2.6	0.7	530	700	0.015	1400	0.0004	70	3	35/3.5[a]	5E-06
MW-29	4-May-98	<1	<5	<5	<1	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<1	<5	<100	<10	<5	<5	<5	<5		
MW-29	17-Aug-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-29d	4-May-98	<1	<5	<5	<1	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<1	<5	<100	<10	<5	<5	<5	<5		
MW-29d	17-Aug-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-29d	9-Sep-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-29d (dup)	9-Sep-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-29d	7-Oct-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-29d	9-Dec-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-29d	12-Jan-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	37		
MW-29d	9-Feb-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-29d	19-Apr-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-29d	3-Dec-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10	<10	
MW-29d	12-Apr-00	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		
MW-29d	19-Dec-00	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-29d	18-Apr-01	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-29d	4-Dec-01	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-29d	11-Apr-02	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-29d	6-Nov-02	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-30	4-May-98	<1	<5	<5	<1	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<1	<5	<100	<10	<5	<5	<5	<5		
MW-30	17-Aug-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-30	9-Sep-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-30	7-Oct-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-30	7-Dec-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-30	12-Jan-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<5.2		
MW-30	9-Feb-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-30	19-Apr-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-30	3-Dec-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10	<10	
MW-30	12-Apr-00	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		
MW-30	19-Dec-00	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-30	18-Apr-01	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-30	4-Dec-01	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-30	11-Apr-02	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-30	6-Nov-02	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-31	1-May-98	<1	<5	<5	<1	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<1	<5	<100	<10	<5	<5	<5	<5		
MW-31	17-Aug-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-31	9-Sep-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-31	7-Oct-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-31	8-Dec-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<5.1		
MW-31	11-Jan-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-31	8-Feb-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-31	19-Apr-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10	<10	
MW-31	3-Dec-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		
MW-31	13-Apr-00	<5	<5	<5	<5	<10	13	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-31	19-Dec-00	<5	<5	<5	<5	<10	25	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-31	17-Apr-01	<5	<5	<5	<5	<10	21	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-31	6-Dec-01	<5	<5	<5	<5	<10	54	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-31	11-Apr-02	<5	<5	<5	<5	<10	37	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-31	6-Nov-02	<5	<5	<5	<5	<10	43	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-31d	1-May-98	<1	<5	<5	<1	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<1	<5	<100	<10	<5	<5	<5	<5		
MW-31d	17-Aug-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-31d	9-Sep-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-31d	7-Oct-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-31d	8-Dec-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	10		
MW-31d	11-Jan-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-31d	8-Feb-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-31d	19-Apr-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	10	<10	
MW-31d	3-Dec-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	41		
MW-31d	13-Apr-00	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-31d	19-Dec-00	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-31d	18-Apr-01	<5	<5	<5	<5	<10	7	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-31d	6-Dec-01	<5	<5	<5	<5	<10	14	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-31d	11-Apr-02	<5	<5	<5	<5	<10	23	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-31d	6-Nov-02	<5	<5	<5	<5	<10	31	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15

Table 4b
Detected Constituents - Volatile Organic Compounds
North Wake Unlined Landfill

Monitor Well	Sample Date	Benzene	1,2-Dichloroethane	1,1,1-Trichloroethane	Trichloroethene	Chloroethane	Chloroform	cis-1,2-Dichloroethene	1,4-Dichlorobenzene	1,1-Dichloroethane	1,2-Dichloropropane	1,1-Dichloroethene	Toluene	Trichlorofluoromethane	Styrene	Methylene Chloride	Ethyl Benzene	Chloromethane	Tetrachloroethene	Total Xylenes	Acetone	Vinyl Chloride	Dichlorodifluoromethane	1,2-Dibromoethane	trans 1,2-Dichloroethene	bis (2-ethylhexyl) Phthalate	3&4-Methylphenol	1,2,3-Trichloropropane
NC Standard		1	0.38	200	2.8	2800	0.19	70	75	700	0.56	7	1000	2100	100	5	29	2.6	0.7	530	700	0.015	1400	0.0004	70	3	35/3.5*	5E-06
MW-32	1-May-98	<1	<5	<5	<1	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<1	<5	<100	<10	<5	<5	<5	<5		
MW-32	18-Aug-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-32	9-Sep-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-32	6-Oct-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-32	7-Dec-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<5.2		
MW-32	11-Jan-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-32	8-Feb-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS		
MW-32	19-Apr-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10	<10	
MW-32	3-Dec-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		
MW-32	13-Apr-00	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-32	19-Dec-00	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-32	17-Apr-01	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-32	4-Dec-01	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-32	11-Apr-02	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-32	6-Nov-02	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
TB-1a	1-May-98	<5	<5	6.9	<5	<10	<5	<5	<5	5.3	<5	<5	6.9	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<5		
TB-1a	18-Aug-98	<5	<5	9.8	7.6	20	<5	<5	<5	39	<5	<5	<5	<5	<10	22	<5	<10	7.5	23	<100	<10	<5	<5	<5	NS		
TB-1a	9-Sep-98	<5	<5	11	7.9	21	<5	<5	<5	40	<5	<5	<5	<5	<10	22	<5	<10	7.7	20	<100	<10	<5	<5	<5	NS		
TB-1a	7-Oct-98	<5	<5	11	7.1	17	<5	<5	<5	35	<5	<5	<5	<5	<10	16	<5	<10	8.2	13	<100	<10	<5	<5	<5	NS		
TB-1a (dup)	7-Oct-98	<5	<5	11	7.2	17	<5	<5	<5	33	<5	<5	<5	<5	<10	16	<5	<10	8.3	17	<100	<10	<5	<5	<5	NS		
TB-1a	9-Dec-98	<5	<5	8.2	<5	14	<5	<5	<5	23	<5	<5	<5	<5	<10	<10	<5	<10	5.3	11	<100	<10	<5	<5	<5	<5.2		
TB-1a	11-Jan-99	<5	<5	11	5.0	16	<5	<5	<5	21	<5	<5	<5	<5	<10	<10	<5	<10	6.0	6	<100	<10	<5	<5	<5	NS		
TB-1a	8-Feb-99	<5	<5	10	<5	15	<5	<5	<5	18	<5	<5	<5	<5	<10	<10	<5	<10	7.0	8	<100	<10	<5	<5	<5	NS		
TB-1a	19-Apr-99	<5	<5	10	<5	10	<5	<5	<5	14	<5	<5	<5	<5	<10	<10	<5	<10	5.0	5	<100	<10	<5	<5	<5	<10	<10	
TB-1a	3-Dec-99	<5	<5	10	<5	11	<5	<5	<5	19	<5	<5	<5	<5	<10	<10	<5	<10	6.0	9	<100	<10	<5	<5	<5	<10		
TB-1a	13-Apr-00	<5	<5	8	5.0	11	<5	<5	<5	22	<5	<5	<5	<5	<10	<10	<5	<10	7.0	11	<100	<10	<5	<5	<5	<10		<15
TB-1a	20-Dec-00	<5	<5	<5	<5	<10	<5	<5	<5	13	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
TB-1a	17-Apr-01	<5	<5	<5	<5	<10	<5	<5	<5	11	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
TB-1a	3-Dec-01	<5	<5	<5	<5	<10	<5	<5	<5	7	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
TB-1a	12-Apr-02	<5	<5	<5	<5	<10	<5	<5	<5	8	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
TB-1a	5-Nov-02	<5	<5	<5	<5	<10	<5	<5	<5	9	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
TB-1a deep	8-Jun-01	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
TB-1a deep	6-Dec-01	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
TB-1a deep	11-Apr-02	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
TB-1a deep	6-Nov-02	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10		<15
MW-33	6-Aug-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<5		
MW-33	7-Dec-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<5		
MW-33	26-Apr-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10	NS	NS
MW-33	2-Dec-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10	NS	NS
MW-33	13-Apr-00	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10	NS	<15
MW-33	18-Apr-01	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10	NS	<15
MW-33	9-Apr-02	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10	NS	<15
MW-34	6-Aug-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<5.4		
MW-34	7-Dec-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<5		
MW-34	26-Apr-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10	NS	NS
MW-34	2-Dec-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10	NS	NS
MW-34	13-Apr-00	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10	NS	<15
MW-34	18-Apr-01	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10	NS	<15
MW-34	9-Apr-02	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10	NS	<15
MW-34d	6-Aug-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	7.3		
MW-34d (dup)	6-Aug-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<5.2		
MW-34d	7-Dec-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<5.1		
MW-34d	26-Apr-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	NS	NS	NS
MW-34d	2-Dec-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10	NS	NS
MW-34d	13-Apr-00	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10	NS	<15
MW-34d	18-Apr-01	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10	NS	<15
MW-34d	9-Apr-02	<5	<5	<5	<5	<10	<5	<5	<5	5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10	NS	<15
MW-35	6-Aug-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<5.2		
MW-35	7-Dec-98	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<5		
MW-35	26-Apr-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10	NS	NS
MW-35	2-Dec-99	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10	NS	NS
MW-35	13-Apr-00	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10	NS	<15
MW-35	18-Apr-01	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10	NS	<15
MW-35	9-Apr-02	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<5	<5	<10	<10	<5	<10	<5	<5	<100	<10	<5	<5	<5	<10	NS	<15

All units are in micrograms per liter (parts per billion).
* - Estimated Value
[a]- N.C. 2L interim standards are for individual isomers; interim standard for 3-methylphenol is 35 ug/l; interim standard for 4-methylphenol is 3.5 ug/l.
**-New background well.
--MW-10 was installed inside the landfill fence on April 1, 1998. MW-23D was installed on April 27, 1998. MW-5 was re-installed on July 24, 1998.
--MW-6d, -8d, -10d, TB-1a deep installed June 2001.
[ ]- No Data
[ ]- Concentration exceeds N.C. Groundwater Standards (2L).
* - Estimated Value

CDM

Table 5
Statistically Significant Constituents Over Background
North Wake Unlined Landfill
November 2002

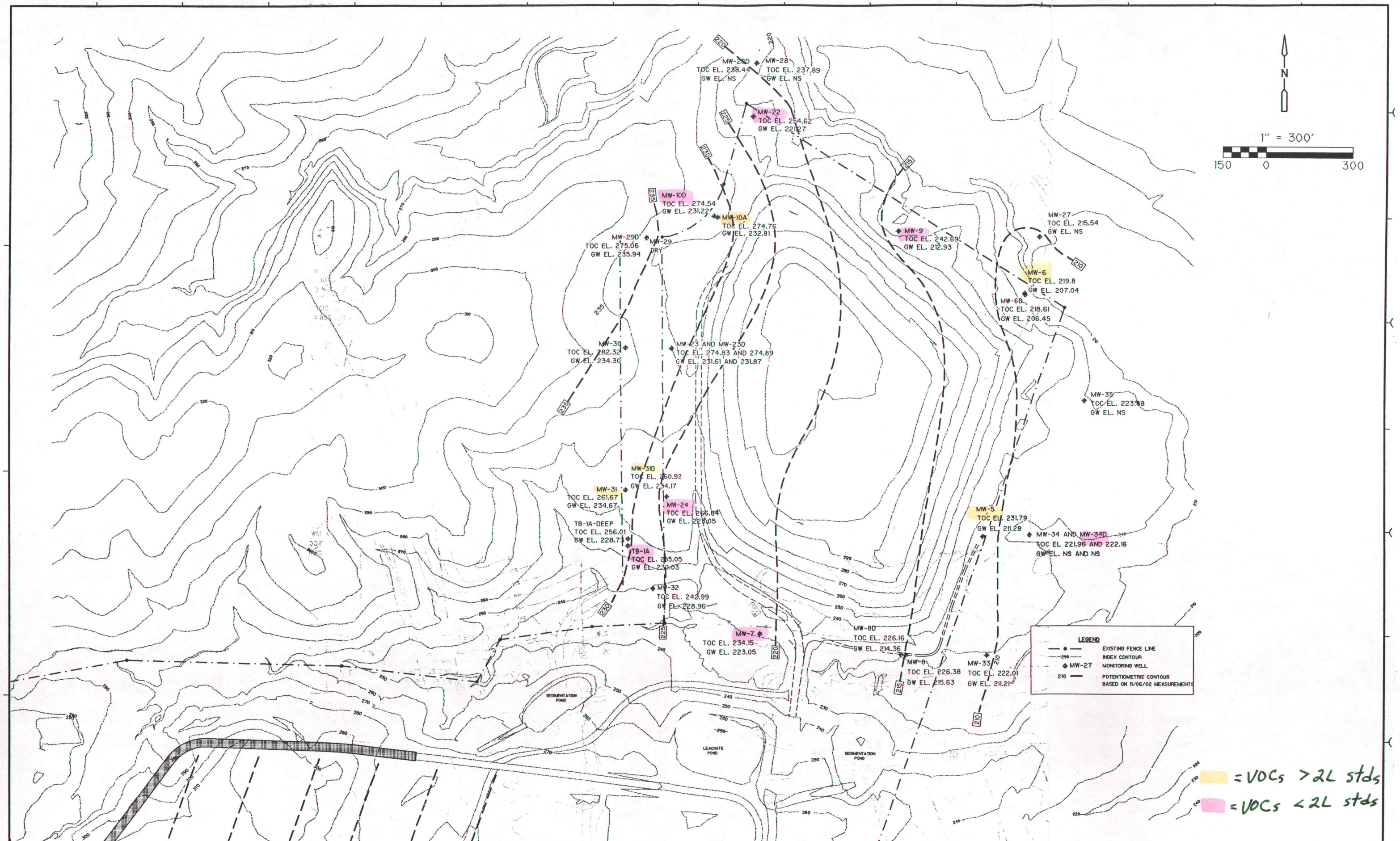
WELL	PARAMETERS EXCEEDING 2L STANDARDS - APPENDIX I and II NOVEMBER 2002	PARAMETERS STATISTICALLY OVER BACKGROUND - APPENDIX I and II NOVEMBER 2002
MW-11	none	Designated Shallow Background Well
MW-11d	none	Designated Deep Background Well
MW-5	cobalt*, trichloroethene	trichloroethene, cis-1,2-dichloroethene 1,1-dichloroethane, chloroethane
MW-6	methylene chloride	cis-1,2-dichloroethene, methylene chloride mercury
MW-6d	none	none
MW-7	none	cis-1,2-dichloroethene
MW-8	none	none
MW-8d	none	none
MW-9	cobalt*	1,1-dichloroethane, cis-1,2-dichloroethene dichlorodifluoromethane
MW-10	methylene chloride, tetrachloroethene	methylene chloride, 1,1-dichloroethane tetrachloroethene, dichlorodifluoromethane
MW-10d	none	1,1-dichloroethane
MW-22	cobalt*	cadmium, cobalt 1,1-dichloroethane
MW-23	none	none
MW-23d	none	none
MW-24	none	1,1-dichloroethane
MW-27	NS	NS
MW-28	NS	NS
MW-28d	NS	NS
MW-29d	none	none
MW-30	none	none
MW-31	chloroform	chloroform
MW-31d	chloroform	none
MW-32	cobalt*	cobalt
TB-1a	none	1,1-dichloroethane
TB-1a deep	none	none
MW-33	NS	NS
MW-34	NS	NS
MW-34d	NS	NS
MW-35	NS	NS

-*Constituent exceeds Groundwater Protection Standard - Currently no 2L Standard.
-NS - sampled yearly, no sample collected during this event.

Table 6
Geochemical Data
North Wake Unlined Landfill

Monitor Well	Sample Date	eH (mV)	pH	Temperature (C)	Conductivity (uS)	Dissolved Oxygen (mg/l)	Methane (ug/l)	Chloride	Nitrate	OrthoPhosphate	Total Organic Carbon	Alkalinity (CaCO3 - Lab)	Alkalinity (CaCO3 - Field)	Sulfate (Lab)	Sulfate (Field)	Sulfide (Lab)	Ammonia	Free Chlorine	Carbon Dioxide	Ferrous Iron
MW-11	8-Dec-98	156.2	5.57	15.7	61	6.03		3.5	0.6	<0.05	2.1	21	40	<10	ND		<0.2	0.17	50	0.02
MW-11	18-Dec-00	742	5.69	15.6	78															
MW-11	18-Apr-01		6.80	15.0	57															
MW-11	27-Nov-01		5.48	17.1	70															
MW-11	5-Apr-02		6.19	16.2	60															
MW-11	5-Nov-02		6.14	15.6	73															
MW-11d	8-Dec-98	123.0	6.03	15.7	78	4.68		3.0	0.58	<0.05	0.64	14	60	<10	ND		<0.2	0.02	30	ND
MW-11d	18-Dec-00	154	5.26	15.5	87															
MW-11d	18-Apr-01		6.91	15.7	69															
MW-11d	27-Nov-01		5.21	17.5	70															
MW-11d	5-Apr-02		6.97	15.5	74															
MW-11d	5-Nov-02		6.26	15.9	75															
MW-5	3-Dec-98		5.70	16.9	166			5.6												
MW-5	20-Dec-00	38	5.40	16.0	203		4500	13.4	0.07		2.7			<2		<0.01			141	<0.2
MW-5	16-Apr-01	85	5.20	17.2	210		<7.2	8.5	<.2		8.8			6.8		<0.01			141	1.07
MW-5	3-Dec-01	103	5.68	16.7	125		1600	5.2	<.2		<0.5			1.7		<0.01			79.2	<0.2
MW-5	12-Apr-02	43	5.54	16.9	190		2400	3.3			<0.5			4.1		<0.01			44	3.7
MW-5	5-Nov-02	65	5.72	17.4	181		1500	8.7	0.34		1.2			4.7		<0.01			244	<0.2
MW-6	3-Dec-98		5.71	18.0	118			6.8												
MW-6	19-Dec-00	156	5.54	16.1	92		669	9.12	0.05		5.9			<2		<0.01			57	<0.2
MW-6	16-Apr-01	97	5.05	15.5	73		450	7.5	<.2		7.7			0.66		<0.01			47	<0.2
MW-6	3-Dec-01	136	5.88	17.2	68		470	6.4	<.2		<0.5			0.34		<0.01			30.8	<0.2
MW-6	12-Apr-02	174	5.47	15.6	79		800	7.3			<0.5			0.46		<0.01			35	<0.2
MW-6	5-Nov-02	73	5.58	19.2	98		1500	11	0.36		2.1			0.74		<0.01			83	<0.2
MW-8	3-Dec-98		5.75	18.0	145			7.3												
MW-8	20-Dec-00	66	5.42	16.4	100		<26	6.84	0.09		5.9			<2		<0.01			22	<0.2
MW-8	16-Apr-01	54	5.61	16.0	76		17	3.2	0.23		1.3			0.89		0.04			32	<0.2
MW-8	3-Dec-01	111	6.40	16.8	81		<7.2	3	<0.2		<0.5			0.61		0.01			39.6	<0.2
MW-8	12-Apr-02	51	6.00	16.2	76		42	3.5			<0.5			0.81		<0.01			31	<0.2
MW-8	5-Nov-02	44	6.05	18.7	82		11	3.4	0.42		0.7			1.1		0.06			29	<0.2
MW-9	3-Dec-98		6.27	16.1	416			15												
MW-9	20-Dec-00	102	4.79	15.7	513		3340	21.9	0.09		12.3			<2		<0.01			176	<0.2
MW-9	16-Apr-01	64	5.79	17.3	415		790	19	0.24		5.5			0.75		<0.01			121	1.28
MW-9	3-Dec-01	21	6.41	16.1	483		2700	24	<0.2		<0.5			0.38		<0.01			123	2.5
MW-9	12-Apr-02	77	6.11	17.3	517		1200	29			<0.5			0.32		<0.01			136	9.8
MW-9	5-Nov-02	39	6.16	16.6	521		470	24	<0.2		5.7			0.66		<0.01			236	1.67
MW-10	3-Dec-98		5.85	15.7	204			6.8												
MW-10	20-Dec-00	76	5.27	15.1	166		372	10.6	1.5		3.7			<2		<0.01			26	<0.2
MW-10	17-Apr-01	81	5.24	15.7	126		320	5.4	2.2		5.3			1.2		<.1			101	<0.2
MW-10	3-Dec-01	146	5.88	15.4	115		<7.2	4.2	1.6		<0.5			3		<0.01			35.2	<0.2
MW-10	12-Apr-02	98	5.58	16.7	122		300	4.9			<0.5			1.7		<0.01			35	<0.2
MW-10	5-Nov-02	74	5.54	16.1	158		770	5.4	2		1.8			2.9		0.03			216	<0.2
MW-24	8-Dec-98	145.9	5.75	15.2	176	1.02		4.2	<0.05	<0.05	2.5	66	140	<10	2		<0.2	0.07	260	0.78
MW-24	20-Dec-00	67	5.61	14.7	178		4410	8.25	0.08		2.5			<2		<0.01			101	<0.2
MW-24	16-Apr-01	93	5.20	17.1	131		2500	4.2	0.28		5			0.59		<0.1			121	1.18
MW-24	3-Dec-01	103	5.83	15.2	153		2100	2.9	<0.2		<0.5			<0.3		<0.01			52.8	0.3
MW-24	12-Apr-02	17	5.59	16.9	153		1800	1.5			<0.5			<0.3		<0.01			92	0.6
MW-24	5-Nov-02	62	5.76	16.0	147		2200	0.56	<0.2		1.6			0.48		0.01			171	0.21
TB-1a	9-Dec-98	193.8	5.98	14.7	203	0.64		4.1	<0.05	<0.05	0.54	95	120	<10	2		<0.2	0.05	500	0.15
TB-1a	20-Dec-00	63	5.52	14.7	212		2470	6.6	0.09		3.3			<2		<0.01			62	<0.2
TB-1a	17-Apr-01	78	5.63	15.7	171		1500	5.1	0.29		2.4			0.58		0.1			99	<0.2
TB-1a	3-Dec-01	111	6.01	15.3	143		<7.2	3.1	<0.2		<0.5			<0.3		<0.01			52.8	<0.2
TB-1a	12-Apr-02	42	5.70	16.6	151		990	1.6			<0.5			<0.3		<0.01			84	<0.2
TB-1a	5-Nov-02	58	5.83	15.8	164		400	4.2	<0.2		0.7			0.47		<0.01			138	<0.2

MW-11 & MW-11d are background wells for site.
All units are in milligrams per liter (parts per million), unless otherwise noted.
ND - Not Detected
-Blank Cells Indicate No Data Collected
-Field Tests Performed with HACH test kits



REV.	DATE	DRAWN	CHKD	REMARKS

DESIGNED BY: M. COLONE
DRAWN BY: E. VINSON
SHEET CHK'D BY:
CROSS CHK'D BY:
APPROVED BY:
NOVEMBER 2002

CDM Camp Dresser & McKee
environmental services
offices worldwide
5400 Glenwood Avenue, Suite 300
Raleigh, North Carolina 27612
Tel: (919) 787-5620 Fax: (919) 781-5730

WAKE COUNTY
NORTH CAROLINA

NORTH WAKE UNLINED LANDFILL

POTENTIOMETRIC CONTOUR MAP

PROJECT NO. 22910
FILE NAME: NWGW11-26-02.dwg

SHEET NO.
1