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NC DENR
Division of Waste Management - Solid Waste

Environmental Monitoring
Reporting Form

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

Instructions:

- Prepare one form for each individually monitored unit.
- Please type or print legibly.
- Attach a notification table with values that attain or exceed NC 2L groundwater standards or NC 2B surface water standards. The notification must include a preliminary analysis of the cause and significance of each value. (e.g. naturally occurring, off-site source, pre-existing condition, etc.).
- Attach a notification table of any groundwater or surface water values that equal or exceed the reporting limits.
- Attach a notification table of any methane gas values that attain or exceed explosive gas levels. This includes any structures on or nearby the facility (NCAC 13B .1629 (4)(a)(i)).
- In accordance with NC General Statutes Chapter 89C and 89E and NC Solid Waste Management Rules 15A NCAC 13B, be sure to affix a seal to the bottom of this page, when applicable.
- Send the original signed and sealed form, any tables, and Electronic Data Deliverable to: Compliance Unit, NCDENR-DWM, Solid Waste Section, 1646 Mail Service Center, Raleigh, NC 27699-1646.

Solid Waste Monitoring Data Submittal Information

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

HDR ENGINEERING INC.

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

Name: Chris Randazzo, PG

Phone: 704.338.6777

E-mail: chris.randazzo@hdrinc.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Old Salisbury Road Landfill	3336 Old Salisbury Road Winston-Salem, NC	34-12 P0708	.1600	April 24, 2007

Environmental Status: (Check all that apply)

- Initial/Background Monitoring Detection Monitoring Assessment Monitoring Corrective Action

Type of data submitted: (Check all that apply)

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

Notification attached?

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

Certification

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

Chris Randazzo, PG

Project Geologist

704.337.6777

Facility Representative Name (Print)

Title

(Area Code) Telephone Number

6.25.2007

Signature

Date

Affix NC Licensed/ Professional Geologist/Engineer Seal here:



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- Attach a notification table of any groundwater or surface water values that equal or exceed the reporting limits.
- Attach a notification table of any methane gas values that attain or exceed explosive gas levels. This includes any structures on or nearby the facility (NCAC 13B 1629 (4)(a)(i)).
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Name of entity submitting data (laboratory, consultant, facility owner):

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

Name: Chris Randazzo

Phone: 704.338.6777

E-mail: chris.randazzo@hdrinc.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g. October 20-24, 2006)
Old Salisbury Road Landfill	3336 Old Salisbury Road Winston-Salem NC 27127	34-12	1600	April 24 2007

Environmental Status: (Check all that apply)

- Initial/Background Monitoring Detection Monitoring Assessment Monitoring Corrective Action

Type of data submitted: (Check all that apply)

- Groundwater monitoring data from monitoring wells Methane gas monitoring data
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 Leachate monitoring data Other(specify) _____
 Surface water monitoring data

Notification attached?

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 Yes, a notification of values exceeding a groundwater or surface water standard is attached. It includes a list of groundwater and surface water monitoring points, dates, analytical values, NC 2L groundwater standard, NC 2B surface water standard or NC Solid Waste GWPS and preliminary analysis of the cause and significance of any concentration.
 Yes, a notification of values exceeding an explosive methane gas limit is attached. It includes the methane monitoring points, dates, sample values and explosive methane gas limits.

Certification

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

Chris Randazzo

Project Geologist

704 338 6777

Facility Representative Name (Print)

Title

(Area Code) Telephone Number

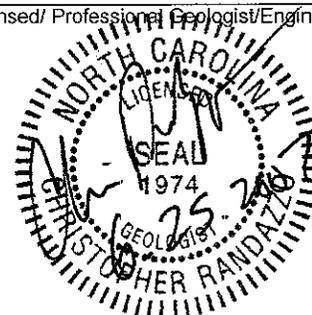


6-25-2007

Signature

Date

Affix NC Licensed/Professional Geologist/Engineer Seal here:





June 21, 2007

Ms. Jaclynn Drummond
North Carolina Department of Environment
and Natural Resources (NCDENR)
Environmental Compliance
Solid Waste Section
1646 Mail Service Center
Raleigh, NC 27699-1646

Re: Spring 2007 Semiannual Groundwater Sampling Analytical
and Landfill Gas Monitoring Results
Winston-Salem Construction and Demolition (C&D) Landfill (No. 34-12)
Forsyth County, North Carolina
HDR Project No. 00162-60815-018

Dear Ms. Drummond:

HDR Engineering, Inc. of the Carolinas (HDR), on behalf of the Winston-Salem City/County Utility Commission (the City), is hereby submitting the groundwater analytical and landfill gas monitoring results for the Spring 2007 monitoring period (January through June 2006) at the C&D Landfill (the Landfill) located in Forsyth County, North Carolina.

Groundwater samples were collected from on-site detection monitoring wells MW-1R, MW-2R, MW-3R, MW-4R, MW-5R, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12, MW-13, and MW-14 on April 24, 2007, for the eight (8) Resource Conservation and Recovery Act (RCRA) metals and Appendix I volatile organic compound (VOC) analysis. In addition, two surface water quality samples were collected and analyzed for the same parameters. Upstream surface water (SW-1) and downstream surface water (SW-2) samples were obtained from the adjacent stream to the east. Field measurements of pH, specific conductance, temperature, salinity, dissolved oxygen, and oxidation-reduction potential were recorded in a data logger during pre-sampling well purging. A printout of this data can be provided upon request. Based on past groundwater flow characteristics for the site, groundwater monitoring well MW-1R is located hydraulically upgradient of the Landfill and is considered as "background" for the site.

The metal concentrations detected in the groundwater monitoring wells are reflective of the naturally-occurring trace metals typically present in the saprolite of this region and consistent with historical sampling results from the site. The trace metal concentrations for this period were below their respective 2L groundwater standards at all groundwater monitoring wells and surface water sampling locations. The presence of these trace metal detections is due to the turbidity of the sample collected. However, since the installation of the dedicated low flow pumps the turbidity, along with the metal detections, has decreased considerably. No VOCs were detected in the groundwater monitoring wells or surface water locations during this period. A full copy of the lab analysis data is on the enclosed CD.

HDR Engineering Inc of the Carolinas

128 S Tryon Street
Suite 1400
Charlotte NC 28202-5004

Phone: (704) 338-6700
Fax: (704) 338-6760
www.hdrinc.com

Ms. Jaclynne Drummond
June 21, 2007
Page 2 of 2

Landfill gas monitoring was performed from the thirteen (13) permanent methane gas monitoring stations (MM-1 through MM-12 and the scalehouse) located around the perimeter of the Landfill. Methane stations MM-2 and MM-4 are nested monitoring stations, while all other stations are constructed as single monitoring points. No trace of methane was detected in any of the on-site methane monitoring stations.

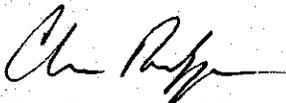
The results of this recent sampling event indicate that the existing groundwater monitoring well network at the Landfill is adequate to provide representative groundwater quality data and release detection determination for the Landfill.

The following attachments are provided for your reference:

- Table 1– Historical Groundwater Analytical Results
- Perimeter Gas Probe Monitoring Field Data Form
- Groundwater and Methane Gas Monitoring Well Locations

If you have any questions or comments concerning the information summarized in this letter, or in the attached analytical data, please do not hesitate to contact me at (704) 338-6777.

Sincerely,



Chris Randazzo, PG
Project Geologist

CR/apb

Enclosures (3)

cc: Edward Gibson, PE, Winston-Salem City/County Utility Commission
File

TABLE 1
 OLD SALISBURY ROAD
 HISTORICAL GROUNDWATER ANALYTICAL RESULTS

WELL NUMBER	DATE	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver	VOCs
		(50)	(2000)	(5)	(50)	(15)	(1.1)	(50)	(18)	(Varies)
MW-1R	1/17/1996	ND	224	ND	ND	6	1.8	ND	ND	23
	10/24/1996	ND	180	ND	6	ND	0.2	ND	ND	ND
	5/13/1997	ND	100	ND	3	ND	ND	ND	ND	ND
	10/30/1997	ND	290	ND	11	12	ND	ND	ND	ND
	5/5/1998	ND	100	ND	49	ND	ND	ND	ND	ND
	11/5/1998	ND	160	ND	12	ND	ND	ND	ND	28
	6/2/1999	ND	150	ND	7.8	ND	ND	ND	ND	19
	11/19/1999	ND	130	ND	5.2	ND	ND	ND	ND	ND
	6/5/2000	ND	110	ND	ND	ND	ND	ND	ND	ND
	12/14/2000	ND	150	ND	6.6	ND	~	ND	ND	ND
	7/31/2001	ND	87	ND	6.6	ND	ND	ND	ND	ND
	11/29/2001	5.8	280	ND	22	10	~	ND	ND	21
	4/17/2002	ND	130	ND	5	ND	ND	ND	ND	ND
	12/9/2002	ND	100	ND	2.3	ND	ND	ND	ND	ND
	5/29/2003	ND	120	ND	4.3	ND	ND	ND	ND	ND
	11/4/2003	ND	460	ND	ND	22	ND	ND	ND	ND
	5/11/2004	ND	96.3	ND	3.5	ND	ND	ND	ND	ND
	11/24/2004	ND	95	ND	2	ND	ND	ND	ND	ND
	6/8/2005	ND	48	ND	ND	ND	ND	5.5	ND	ND
	11/17/2005	ND	78	ND	ND	ND	ND	ND	ND	ND
4/13/2006	ND	82	ND	ND	ND	ND	ND	ND	ND	
11/13/2006	ND	94	ND	ND	ND	ND	ND	ND	ND	
4/24/2007	ND	81	ND	ND	ND	ND	ND	ND	ND	
MW-2R	1/17/1996	ND	350	ND	12	26	0.4	ND	ND	86
	10/24/1996	ND	160	ND	9	8	ND	ND	ND	ND
	5/13/1997	ND	200	3	4	14	ND	ND	6	ND
	10/30/1997	ND	340	ND	43	31	ND	ND	ND	ND
	5/5/1998	ND	190	ND	34	19	ND	ND	ND	ND
	11/5/1998	11	1100	ND	210	68	ND	ND	ND	ND
	6/2/1999	ND	150	ND	7.8	ND	ND	ND	ND	13
	11/19/1999	ND	120	ND	14	6.9	ND	ND	ND	ND
	6/5/2000	ND	180	ND	3	6.5	ND	ND	ND	ND
	12/14/2000	ND	61	ND	3.9	ND	~	ND	ND	ND
	7/31/2001	ND	280	ND	16	8.9	ND	ND	ND	ND
	11/29/2001	ND	160	ND	16	7	~	ND	ND	ND
	4/17/2002	ND	100	ND	ND	ND	ND	ND	ND	ND
	12/9/2002	ND	140	1.9	2.1	ND	ND	ND	ND	ND
	5/29/2003	ND	56	ND	ND	ND	ND	ND	ND	ND
	11/4/2003	ND	60	ND	2.2	ND	ND	ND	ND	ND
	5/11/2004	ND	55	ND	ND	ND	ND	ND	ND	ND
	11/23/2004	ND	52	ND	ND	ND	ND	ND	ND	ND
	6/8/2005	ND	43	ND	ND	ND	ND	ND	ND	ND
	11/17/2005	ND	62	ND	ND	ND	0.34	ND	ND	ND
4/13/2006	ND	52	ND	ND	ND	ND	ND	ND	ND	
11/13/2006	ND	90	ND	ND	ND	ND	ND	ND	ND	
4/24/2007	ND	79	ND	ND	ND	ND	ND	ND	ND	

See footnotes at end of tables.

TABLE 1
 OLD SALISBURY ROAD
 HISTORICAL GROUNDWATER ANALYTICAL RESULTS

WELL NUMBER	DATE	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver	VOCs
		(50)	(2000)	(5)	(50)	(15)	(1.1)	(50)	(18)	(Varies)
MW-3R	1/17/1996	ND	1230	ND	9	15	0.7	ND	ND	ND
	10/24/1996	ND	790	ND	20	15	ND	ND	ND	ND
	5/13/1997	ND	800	ND	28	27	ND	ND	ND	ND
	10/30/1997	ND	620	ND	16	26	0.2	ND	ND	ND
	5/5/1998	ND	860	ND	25	32	ND	ND	ND	ND
	11/5/1998	ND	1400	ND	77	39	ND	ND	ND	ND
	6/2/1999	~	~	~	~	~	~	~	~	ND
	11/19/1999	5.9	52	ND	24	40	ND	ND	ND	ND
	6/5/2000	ND	300	ND	ND	ND	ND	ND	ND	ND
	12/14/2000	31	1500	ND	100	80	~	ND	ND	ND
	7/31/2001	18	950	ND	50	53	ND	ND	ND	ND
	11/29/2001	8.4	400	ND	19	35	~	ND	ND	ND
	4/17/2002	7.4	370	ND	15	21	ND	ND	ND	ND
	12/9/2002	ND	13	ND	ND	ND	ND	ND	ND	ND
	5/29/2003	ND	220	ND	ND	ND	ND	ND	ND	ND
	11/4/2003	ND	200	ND	2.3	ND	ND	ND	ND	ND
	5/11/2004	ND	270	ND	3.7	14	ND	ND	ND	ND
	11/24/2004	ND	340	ND	2.3	ND	ND	ND	ND	ND
	6/8/2005	ND	300	ND	ND	ND	ND	ND	ND	ND
	11/17/2005	ND	300	ND	ND	ND	ND	ND	ND	ND
4/13/2006	ND	290	ND	ND	ND	ND	ND	ND	ND	
11/13/2006	ND	230	2	ND	ND	ND	ND	ND	ND	
4/24/2007	ND	310	ND	ND	ND	ND	24	ND	ND	
MW-4R	1/17/1996	ND	595	7	21	17	1.7	ND	ND	ND
	10/24/1996	ND	720	ND	47	16	0.3	ND	ND	ND
	5/13/1997	ND	280	ND	ND	12	ND	ND	6	ND
	10/30/1997	ND	650	ND	55	29	ND	ND	ND	ND
	5/5/1998	ND	850	ND	130	43	ND	ND	ND	ND
	11/5/1998	ND	2000	ND	300	76	0.21	ND	ND	ND
	6/2/1999	ND	950	ND	110	50	ND	ND	ND	10
	11/19/1999	7.5	860	ND	60	40	0.36	ND	ND	ND
	6/5/2000	ND	570	ND	ND	9.5	ND	ND	ND	ND
	12/14/2000	ND	350	ND	28	8.1	~	ND	ND	ND
	7/31/2001	5.6	550	ND	38	14	ND	ND	ND	ND
	11/29/2001	12	900	ND	95	36	~	ND	ND	ND
	4/17/2002	ND	61	ND	ND	ND	ND	ND	ND	ND
	12/9/2002	ND	86	ND	5	6	ND	ND	ND	ND
	5/29/2003	ND	94	ND	5.5	5.3	ND	ND	ND	ND
	11/4/2003	ND	97	ND	2.6	ND	ND	ND	ND	ND
	5/11/2004	9.2	380	ND	14	18	ND	ND	ND	ND
	11/24/2004	ND	140	ND	ND	ND	ND	ND	ND	ND
	6/8/2005	ND	150	ND	ND	ND	ND	ND	ND	ND
	11/17/2005	ND	180	ND	ND	ND	ND	ND	ND	ND
4/13/2006	ND	220	ND	ND	ND	ND	ND	ND	ND	
11/13/2006	ND	220	ND	ND	ND	ND	ND	ND	ND	
4/24/2007	ND	200	ND	ND	ND	ND	ND	ND	ND	

See footnotes at end of tables.

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WELL NUMBER	DATE	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver	VOCs
		(50)	(2000)	(5)	(50)	(15)	(1.1)	(50)	(18)	(Varies)
MW-5R	1/17/1996	ND	1000	ND	96	19	0.8	ND	ND	ND
	10/24/1996	ND	620	ND	43	20	ND	ND	ND	ND
	5/13/1997	ND	330	ND	70	14	ND	ND	ND	ND
	10/30/1997	ND	610	ND	16	31	ND	ND	ND	ND
	5/5/1998	5	820	ND	170	69	ND	ND	ND	ND
	11/5/1998	ND	480	ND	96	29	ND	ND	ND	175
	6/2/1999	ND	240	ND	38	16	ND	ND	ND	10
	11/19/1999	ND	200	ND	29	8.2	ND	ND	ND	ND
	6/5/2000	ND	200	ND	8.1	ND	ND	ND	ND	ND
	12/14/2000	5	400	ND	82	7.6	~	ND	ND	ND
	7/31/2001	ND	270	ND	49	7.6	ND	ND	ND	ND
	11/29/2001	7	610	ND	140	13	~	ND	ND	ND
	4/17/2002	ND	150	ND	23	ND	ND	ND	ND	ND
	12/9/2002	ND	65	ND	7.4	ND	ND	ND	ND	ND
	5/29/2003	ND	72	2.7	9.5	ND	ND	ND	ND	ND
	11/4/2003	ND	65	ND	8.7	ND	ND	ND	ND	ND
	5/11/2004	5	76	ND	7.3	5.1	ND	ND	ND	ND
	11/24/2004	5.1	80	ND	14	ND	ND	ND	ND	ND
	6/8/2005	ND	53	ND	5.6	ND	ND	ND	ND	ND
	11/17/2005	ND	54	ND	3.5	ND	0.4	ND	ND	ND
4/13/2006	ND	57	ND	6.2	ND	ND	ND	ND	ND	
11/13/2006	ND	58	ND	6.2	ND	ND	ND	ND	ND	
4/24/2007	ND	58	ND	6.4	ND	ND	ND	ND	ND	
MW-6R	1/17/1996	ND	1400	ND	12	18	1.4	ND	ND	ND
	10/24/1996	ND	590	ND	10	11	ND	ND	ND	ND
	5/13/1997	ND	300	ND	21	14	ND	ND	ND	ND
	10/30/1997	ND	260	ND	14	14	ND	ND	ND	ND
	5/5/1998	ND	360	ND	33	20	ND	ND	ND	ND
	11/5/1998	ND	160	ND	12	ND	ND	ND	ND	ND
	6/2/1999	~	~	~	~	~	~	~	~	ND
	11/19/1999	ND	59	ND	2.8	ND	ND	ND	ND	ND
	6/5/2000	ND	82	ND	ND	5.8	ND	ND	ND	ND
	12/14/2000	ND	41	ND	2.6	ND	~	ND	ND	ND
	7/31/2001	ND	62	ND	4.1	ND	ND	ND	ND	ND
	11/29/2001	16	530	ND	95	38	~	ND	ND	ND
	4/17/2002	ND	180	ND	26	7.6	ND	ND	ND	ND
	12/9/2002	ND	41	ND	3.2	ND	ND	ND	ND	ND
	5/29/2003	ND	24	ND	ND	ND	ND	ND	ND	ND
11/4/2003	ND	25	ND	2.4	ND	ND	ND	ND	12	
5/11/2004	ND	28	ND	2.2	ND	ND	ND	ND	ND	

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		(50)	(2000)	(5)	(50)	(15)	(1.1)	(50)	(18)	(Varies)
MW-7	1/17/1996	ND	1930	ND	28	17	1.4	ND	ND	ND
	10/24/1996	ND	970	ND	21	6	0.4	ND	ND	ND
	5/13/1997	ND	750	ND	180	23	ND	ND	ND	ND
	10/30/1997	ND	1800	ND	410	53	0.2	ND	ND	ND
	5/5/1998	ND	1200	ND	430	38	ND	ND	ND	ND
	11/5/1998	ND	1300	ND	350	36	ND	ND	ND	9
	6/2/1999	9.8	960	ND	190	30	ND	ND	ND	10
	11/19/1999	ND	390	ND	62	12	ND	ND	ND	ND
	6/5/2000	ND	360	ND	2.5	8.7	ND	ND	ND	ND
	12/14/2000	45	2600	ND	580	65	~	ND	ND	ND
	7/31/2001	16	1300	ND	210	26	ND	ND	ND	ND
	11/29/2001	17	1300	ND	270	36	~	ND	ND	ND
	4/17/2002	ND	84	ND	6.8	ND	ND	ND	2.6	ND
	12/9/2002	ND	210	ND	32	6	ND	ND	ND	ND
	5/29/2003	ND	130	ND	17	5.3	ND	ND	ND	ND
	11/4/2003	8.6	820	ND	150	24	ND	ND	ND	ND
	5/11/2004	ND	180	ND	26	ND	ND	ND	ND	ND
	11/24/2004	ND	63	ND	4.4	ND	ND	ND	ND	ND
	6/8/2005	ND	53	ND	ND	ND	ND	ND	ND	ND
	11/17/2005	ND	60	ND	ND	ND	0.24	ND	ND	ND
4/13/2006	ND	74	ND	ND	ND	ND	ND	ND	ND	
11/13/2006	ND	76	ND	ND	ND	ND	ND	ND	ND	
4/24/2007	ND	89	ND	ND	ND	ND	ND	ND	ND	
MW-8	12/14/2000	89	4200	ND	240	400	~	ND	ND	ND
	7/31/2001	46	2600	ND	92	210	ND	ND	ND	ND
	11/29/2001	36	2700	ND	94	150	~	ND	ND	ND
	4/17/2002	ND	150	ND	23	ND	ND	ND	ND	ND
	12/9/2002	ND	48	ND	2	ND	ND	ND	ND	ND
	5/29/2003	ND	77	ND	3.8	6.7	ND	ND	ND	ND
	11/4/2003	ND	52	ND	3.2	ND	ND	ND	ND	ND
	5/11/2004	6	480	ND	28	41	ND	ND	ND	ND
	11/23/2004	ND	30	ND	2.4	ND	ND	ND	ND	ND
	6/8/2005	ND	25	ND	ND	ND	ND	ND	ND	ND
	11/17/2005	ND	26	ND	ND	ND	0.26	ND	ND	ND
	4/13/2006	ND	29	ND	ND	ND	ND	ND	ND	ND
	11/13/2006	ND	29	ND	ND	ND	ND	ND	ND	ND
4/24/2007	ND	30	ND	ND	ND	ND	ND	ND	ND	

See footnotes at end of tables.

TABLE 1
 OLD SALISBURY ROAD
 HISTORICAL GROUNDWATER ANALYTICAL RESULTS

WELL NUMBER	DATE	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver	VOCs
		(50)	(2000)	(5)	(50)	(15)	(1.1)	(50)	(18)	(Varies)
MW-9	8/24/2004	ND	240	ND	14	14	ND	ND	ND	ND
	11/23/2004	ND	95	ND	ND	ND	ND	ND	ND	ND
	6/8/2005	ND	85	ND	ND	ND	ND	ND	ND	ND
	11/17/2005	ND	100	ND	ND	ND	ND	ND	ND	ND
	4/13/2006	ND	100	ND	ND	ND	ND	ND	ND	ND
	11/13/2006	ND	140	ND	ND	ND	ND	ND	ND	ND
	4/24/2007	ND	140	ND	ND	ND	ND	ND	ND	ND
MW-10	8/24/2004	ND	98	ND	13	6.8	ND	6.2	ND	ND
	11/23/2004	ND	55	ND	ND	ND	ND	ND	ND	ND
	6/8/2005	ND	82	ND	ND	ND	ND	ND	ND	ND
	11/17/2005	ND	46	ND	ND	ND	0.2	ND	ND	ND
	4/13/2006	ND	48	ND	ND	ND	ND	ND	ND	ND
	11/13/2006	ND	71	ND	ND	ND	ND	ND	ND	ND
	4/24/2007	ND	52	ND	ND	ND	ND	ND	ND	ND
MW-11	8/24/2004	ND	47	ND	3.3	ND	ND	ND	ND	ND
	11/23/2004	ND	28	ND	3.9	ND	ND	ND	ND	ND
	6/8/2005	ND	24	ND	ND	ND	ND	ND	ND	ND
	11/17/2005	ND	27	ND	ND	ND	ND	ND	ND	ND
	4/13/2006	ND	26	ND	ND	ND	ND	ND	ND	ND
	11/13/2006	ND	24	ND	ND	ND	ND	ND	ND	ND
	4/24/2007	ND	25	ND	ND	ND	ND	ND	ND	ND
MW-12	8/24/2004	ND	74	ND	ND	ND	ND	ND	ND	ND
	11/23/2004	ND	77	ND	2.1	ND	ND	ND	ND	ND
	6/8/2005	ND	50	ND	ND	ND	ND	ND	ND	ND
	11/17/2005	ND	77	ND	ND	ND	ND	ND	ND	ND
	4/13/2006	ND	55	ND	4	ND	ND	ND	ND	ND
	11/13/2006	ND	66	ND	ND	ND	ND	ND	ND	ND
	4/24/2007	ND	31	ND	ND	ND	ND	ND	ND	ND
MW-13	8/24/2004	ND	160	ND	9.2	11	ND	ND	ND	ND
	11/23/2004	ND	57	ND	4.8	ND	ND	ND	ND	ND
	6/8/2005	ND	46	ND	ND	ND	ND	ND	ND	ND
	11/17/2005	ND	59	ND	ND	ND	ND	ND	ND	ND
	4/13/2006	ND	65	ND	2	ND	ND	ND	ND	ND
	11/13/2006	ND	62	ND	ND	ND	ND	ND	ND	ND
	4/24/2007	ND	79	ND	ND	ND	ND	ND	ND	ND
MW-14	8/24/2004	ND	170	ND	3.2	8	ND	ND	ND	ND
	11/23/2004	ND	66	ND	ND	ND	ND	ND	ND	ND
	6/8/2005	ND	69	ND	ND	ND	ND	ND	ND	ND
	11/17/2005	ND	120	ND	3.9	5.9	0.44	ND	ND	ND
	4/13/2006	ND	250	ND	15	13	ND	ND	ND	ND
	11/13/2006	8.3	460	ND	35	23	ND	ND	ND	ND
	4/24/2007	ND	210	ND	6.6	5.2	ND	ND	ND	ND

TABLE 1
 OLD SALISBURY ROAD
 HISTORICAL GROUNDWATER ANALYTICAL RESULTS

WELL NUMBER	DATE	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver	VOCs
		(50)	(2000)	(5)	(50)	(15)	(1.1)	(50)	(18)	(Varies)
SW-1	8/24/2004	20	500	ND	36	38	ND	ND	ND	ND
	11/23/2004	ND	53	ND	3.2	ND	ND	ND	ND	ND
	6/8/2005	23	750	ND	52	57	ND	ND	ND	ND
	11/17/2005	ND	73	ND	ND	ND	1.1	ND	ND	ND
	4/13/2006	ND	120	ND	4.2	ND	ND	ND	ND	ND
	11/13/2006	ND	54	ND	ND	ND	ND	ND	ND	ND
	4/24/2007	ND	88	ND	ND	ND	ND	ND	ND	ND
SW-2	8/24/2004	ND	63	ND	ND	ND	ND	ND	ND	ND
	11/23/2004	ND	65	ND	ND	ND	ND	ND	ND	ND
	6/8/2005	ND	47	ND	ND	ND	ND	ND	ND	ND
	11/17/2005	ND	51	ND	ND	ND	ND	ND	ND	ND
	4/13/2006	ND	150	ND	4.7	7.6	ND	ND	ND	ND
	11/13/2006	ND	44	ND	ND	ND	ND	ND	ND	ND
	4/24/2007	5.5	300	ND	17	11	ND	21	ND	ND

ND - Non Detect
 ~ - Not Sampled
 All results in ppb.
 Highlighted cells indicate exceedances in 2L Standards.
 (50) - 2L Standard

**PERIMETER GAS PROBE MONITORING
FIELD DATA FORM**

Date: <u>4/23/07</u>	Inspector: <u>MA</u>	Site Name: OSR - Winston	Instrument: <u>GEM-500</u>
Temperature @ Start: <u>58</u> °F		Weather: <u>Clear</u>	Legend: I = Trace CO ₂ = Carbon Dioxide W = Water NA = No reading taken LEL = Lower explosive limit
Temperature @ End: <u>79</u> °F		Barometric Pressure: <u>30.22</u> in.	

MM #	Methane: CH ₄ (%)	Carbon Dioxide: CO ₂ (%)	Oxygen: O ₂ (%)	Remarks
Scale-house	0.00	0.00	20.0	Balance: 80.0%
1	0.00	1.8	17.9	Balance: 80.3%
2	S 0.00	0.00	19.8	Balance: 80.2%
	D 0.00	0.00	19.9	Balance: 80.1%
3	0.00	0.2	19.7	Balance: 80.1%
4	S 0.00	4.5	15.2	Balance: 80.3%
	D 0.00	4.3	14.9	Balance: 80.8%
5	0.00	0.00	19.7	Balance: 80.3%
6	0.00	5.3	15.2	Balance: 79.5%
7	0.00	1.1	17.7	Balance: 81.2%
8	0.00	0.1	20.0	Balance: 79.9%
9	0.00	0.7	19.5	Balance: 79.8%
10	0.00	0.00	20.3	Balance: 79.7%
11	0.00	0.00	20.1	Balance: 79.9%
12	0.00	0.2	19.7	Balance: 80.1%



FIELD INSTRUMENT CALIBRATION FORM

Date & Time: April 23, 2007 @ 0850

Field Analyst: AL Nelson

Project Name: HDR - OSR

pH Meter

Meter ID: MP20

Probe ID: NA

CALIBRATION BUFFER

RESULTS (s.u.)

BUFFER TEMPERATURE (Celsius)

#	RESULTS (s.u.)	TEMPERATURE (Celsius)
<u>#4</u>	<u>7.01</u>	<u>21.8</u>
<u>#7</u>	<u>6.97</u>	<u>22.4</u>
<u>#10</u>	<u>10.03</u>	<u>22.7</u>
<u>*#7* (Check)</u>	<u>NA</u>	<u>NA</u>

Aspen Calibration

Chlorine Meter

Instrument ID: _____

REFERENCE STANDARD

ACCEPTABLE RANGE

RESULTS (mg/L)

REFERENCE STANDARD	ACCEPTABLE RANGE	RESULTS (mg/L)
_____	_____	_____
_____	_____	_____
_____	_____	_____

Specific Conductivity Meter

Instrument ID: MP20

REFERENCE STANDARD

RESULTS (uS)

TEMPERATURE

REFERENCE STANDARD	RESULTS (uS)	TEMPERATURE
<u>10uS</u>	<u>9</u>	<u>20.6</u>
<u>100uS</u>	<u>101</u>	<u>20.2</u>
<u>1000uS</u>	<u>998</u>	<u>20.7</u>

Dissolved Oxygen Meter

Instrument ID: MP20

CALIBRATION PROCEDURE (List steps)

- Filled cell w/ 2002 O₂ solution (sodium sulfide)
- Observed reading:
- Result: 0.09 mg/L @ 21.2°C

Turbidity Meter

Instrument ID: _____

REFERENCE STANDARD

ACCEPTABLE RANGE

RESULTS (ntu)

REFERENCE STANDARD	ACCEPTABLE RANGE	RESULTS (ntu)
_____	_____	_____
_____	_____	_____
_____	_____	_____

REDOX Meter/Other (_____)

Instrument ID: _____

REFERENCE STANDARD

ACCEPTABLE RANGE

RESULTS

REFERENCE STANDARD	ACCEPTABLE RANGE	RESULTS
_____	_____	_____
_____	_____	_____
_____	_____	_____

Analyst signature: AL Nelson



GROUNDWATER SAMPLING

FIELD DATA SHEET

HDR WINSTON

Client: HDR Engineering Location: Winston Salem, NC Project Name/#: OSR
 Name & Affiliation (Sampler(s)): Al Nelson / Face Analytical
 Name & Affiliation (Inspector): NA

Well Information

Well ID: MW-2R Well Locked: yes no
 Well Diameter: 2" Construction: PVC Steel Stainless Steel
 Total Well Depth: 21.0 ft.
 Static Water Level: 8.58 ft.
 Height of Water Col.: 12.42 ft.

Purge Information

Date Purged: 4/23/07 Time Start: 1417 Finish: 1735 Purge Rate: 175 mls/cycle
 Purging Method: Micropurge

Sampling Information

Date Sample Collected: 4/23/07 Time Sample Collected: 1436 am pm

Sampling Equipment Used: Micropurge

Bottle Type	Preservation	Analysis Required
<u>3-40ml VOA's</u>	<u>HCL</u>	<u>App I VOCs</u>
<u>1-250ml</u>	<u>HNO3</u>	<u>RCRA Metals</u>

Field Measurements/Observations

Sample Temp. (°C): 12.4 Time: 1436 Dis. Oxy. (mg/L): 0.48 Time: 1436
 Sample pH (s.u.): 5.59 Time: 1436
 Specific Cond. (uS): 151 Time: 1436
 Redox (mV): 50 Time: 1436
 Odor: None Appearance: Clear
 General Observations: _____

Weather Conditions: _____

Sampler Signature: Al Nelson Date: 4/23/07

Stabilization Test

STORE # [38]

Time Purged	pH (s.u.)	Spec. Cond. (uS)	Redox. (mV)	Dissolved Oxy. (mg/L)	Temp. (°C)
<u>1419</u>	<u>5.43</u>	<u>152</u>	<u>115</u>	<u>3.05</u>	<u>12.8</u>
<u>1421</u>	<u>5.47</u>	<u>150</u>	<u>99</u>	<u>2.19</u>	<u>12.6</u>
<u>1423</u>	<u>5.51</u>	<u>150</u>	<u>88</u>	<u>1.71</u>	<u>12.6</u>
<u>1425</u>	<u>5.55</u>	<u>151</u>	<u>78</u>	<u>1.38</u>	<u>12.4</u>
<u>1427</u>	<u>5.57</u>	<u>153</u>	<u>70</u>	<u>1.09</u>	<u>12.5</u>
<u>1429</u>	<u>5.58</u>	<u>153</u>	<u>64</u>	<u>0.88</u>	<u>12.4</u>
<u>1431</u>	<u>5.59</u>	<u>151</u>	<u>60</u>	<u>0.75</u>	<u>12.5</u>
<u>1433</u>	<u>5.58</u>	<u>150</u>	<u>56</u>	<u>0.63</u>	<u>12.5</u>
<u>1435</u>	<u>5.58</u>	<u>150</u>	<u>53</u>	<u>0.56</u>	<u>12.4</u>



GROUNDWATER SAMPLING

FIELD DATA SHEET

HDR WINSTON

Client: HOR Engineering Location: Winston Salem NC Project Name/#: OSR
 Name & Affiliation (Sampler(s)): Al Nelson / Pace Analytical
 Name & Affiliation (Inspector): MA

Well Information

Well ID: MW-8 Well Locked: yes no
 Well Diameter: 2" Construction: PVC Steel Stainless Steel
 Total Well Depth: 27.0 ft.
 Static Water Level: 14.14 ft.
 Height of Water Col.: 12.86 ft.

Purge Information

Date Purged: 4/23/07 Time Start: 0942 Finish: 0948 Purge Rate: 300 mls/cycle
 Purging Method: Micro-purge

Sampling Information

Date Sample Collected: 4/23/07 Time Sample Collected: 0950 am pm
 Sampling Equipment Used: _____

<u>Bottle Type</u>	<u>Preservation</u>	<u>Analysis Required</u>
<u>3-4oz Nalgene</u>	<u>HCl</u>	<u>App I VOC's</u>
<u>1-250ml</u>	<u>HNO₃</u>	<u>PCRA Metals</u>
_____	_____	_____
_____	_____	_____

Field Measurements/Observations

Sample Temp. (°C): 14.3 Time: 0950 Dis. Oxy. (mg/L): 5.14 Time: 0950
 Sample pH (s.u.): 5.03 Time: 0950
 Specific Cond. (uS): 52 Time: 0950
 Redox (mV): 48 Time: 0950
 Odor: None Appearance: Clear
 General Observations: Equipment Banks on Water Level Meter Probe Collected at 0920

Weather Conditions: _____

Sampler Signature: Al Nelson Date: 4/23/07

Stabilization Test

STORE #1001

Time Purged	pH (s.u.)	Spec. Cond. (uS)	Redox (mV)	Dissolved Oxy. (mg/L)	Temp. (°C)
<u>0944</u>	<u>4.99</u>	<u>52</u>	<u>42</u>	<u>5.2*</u>	<u>14.3</u>
<u>0946</u>	<u>5.03</u>	<u>52</u>	<u>43</u>	<u>5.20</u>	<u>14.2</u>
<u>0948</u>	<u>5.11</u>	<u>52</u>	<u>47</u>	<u>5.10</u>	<u>14.3</u>
<u>0950</u>	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____



GROUNDWATER SAMPLING

FIELD DATA SHEET

HDR WINSTON

Client: NDR Eng. & Con. Co. Location: Winston Salem NC Project Name/#: OSP
 Name & Affiliation (Sampler(s)): M. Nelson / Pace Analytical
 Name & Affiliation (Inspector): NA

Well Information

Well ID: MW-9 Well Locked: yes no
 Well Diameter: 2" Construction: PVC Steel Stainless Steel
 Total Well Depth: 100.0 ft.
 Static Water Level: 49.98 ft.
 Height of Water Col.: 10.02 ft.

Purge Information

Date Purged: 4/22/07 Time Start: 1013 Finish: 1023 Purge Rate: 250 mls/cycle
 Purging Method: Micropurge

Sampling Information

Date Sample Collected: 4/23/07 Time Sample Collected: 1025 (am) pm
 Sampling Equipment Used: Micropurge

Bottle Type	Preservation	Analysis Required
<u>3 - 40ml VOA</u>	<u>HCL</u>	<u>Asp. & VOCs</u>
<u>1 - 250ml</u>	<u>HNO3</u>	<u>RCRA Act 6</u>

Field Measurements/Observations

Sample Temp. (°C): 15.5 Time: 1025 Dis. Oxy. (mg/L): 5.25 Time: 1025
 Sample pH (s.u.): 5.26 Time: 1025
 Specific Cond. (uS): 115 Time: 1025
 Redox (mV): 90 Time: 1025
 Odor: None Appearance: Clear
 General Observations: _____

Weather Conditions: _____

Sampler Signature: [Signature] Date: 4/23/07

Stabilization Test

STORE # [051]

Time Purged	pH (s.u.)	Spec. Cond. (uS)	Redox (mV)	Dissolved Oxy. (mg/L)	Temp. (°C)
<u>1015</u>	<u>5.26</u>	<u>120</u>	<u>76</u>	<u>5.04</u>	<u>15.6</u>
<u>1017</u>	<u>5.61</u>	<u>118</u>	<u>83</u>	<u>5.07</u>	<u>15.5</u>
<u>1019</u>	<u>5.74</u>	<u>118</u>	<u>86</u>	<u>5.23</u>	<u>15.5</u>
<u>1021</u>	<u>5.81</u>	<u>116</u>	<u>89</u>	<u>5.29</u>	<u>15.6</u>
<u>1023</u>	<u>5.84</u>	<u>115</u>	<u>90</u>	<u>5.04</u>	<u>15.5</u>



GROUNDWATER SAMPLING

FIELD DATA SHEET

HDR WINSTON

Client: HDR Engineering Location: Winston Salem, NC Project Name/ #: OSR
 Name & Affiliation (Sampler(s)): Al Nelson / Pace Analytical
 Name & Affiliation (Inspector): MA

Well Information

Well ID: MW-10 Well Locked: yes no
 Well Diameter: 2" Construction: PVC Steel Stainless Steel
 Total Well Depth: 260 ft.
 Static Water Level: 1143 ft.
 Height of Water Col.: 9.57 ft.

Purge Information

Date Purged: 4/23/07 Time Start: 1136 Finish: 1144 Purge Rate: 175 mls/cycle
 Purging Method: Micropurge

Sampling Information

Date Sample Collected: 4/23/07 Time Sample Collected: 1145 am pm
 Sampling Equipment Used: Micropurge

Bottle Type	Preservation	Analysis Required
<u>3-40ml Vials</u>	<u>HCL</u>	<u>App + VOCs</u>
<u>1-200ml</u>	<u>NO₃</u>	<u>RCRA Metals</u>

Field Measurements/Observations

Sample Temp. (°C): 14.0 Time: 1145 Dis. Oxy. (mg/L): 5.53 Time: 1145
 Sample pH (s.u.): 5.62 Time: 1145
 Specific Cond. (uS): 39 Time: 1145
 Redox (mV): 124 Time: 1145
 Odor: None Appearance: Clear
 General Observations: _____

Weather Conditions: _____

Sampler Signature: [Signature] Date: 4/23/07

Stabilization Test STORE # [16]

Time Purged	pH (s.u.)	Spec. Cond. (uS)	Redox (mV)	Dissolved Oxy. (mg/L)	Temp. (°C)
<u>1138</u>	<u>5.46</u>	<u>39</u>	<u>20</u>	<u>5.88</u>	<u>14.1</u>
<u>1140</u>	<u>5.57</u>	<u>39</u>	<u>22</u>	<u>5.70</u>	<u>14.1</u>
<u>1142</u>	<u>5.59</u>	<u>39</u>	<u>24</u>	<u>5.58</u>	<u>14.0</u>
<u>1144</u>	<u>5.64</u>	<u>35</u>	<u>25</u>	<u>5.53</u>	<u>14.0</u>



GROUNDWATER SAMPLING

FIELD DATA SHEET

HDR WINSTON

Client: ADR Engineering Location: Winston Salem, NC Project Name/#: OSR
Name & Affiliation (Sampler(s)): NA Nelson / Face Analytical
Name & Affiliation (Inspector): NA

Well Information

Well ID: MW-11 Well Locked: yes no
Well Diameter: 2" Construction: PVC Steel Stainless Steel
Total Well Depth: 20.0 ft.
Static Water Level: 2.66 ft.
Height of Water Col.: 17.34 ft.

Purge Information

Date Purged: 4/23/07 Time Start: 1226 Finish: 1238 Purge Rate: 150 mls/cycle
Purging Method: Micropurge

Sampling Information

Date Sample Collected: 4/23/07 Time Sample Collected: 1239 ~~am~~ pm
Sampling Equipment Used: Micropurge

Bottle Type	Preservation	Analysis Required
<u>3-40ml VOA's</u>	<u>HCl</u>	<u>App. ± VOC's</u>
<u>1-250ml</u>	<u>HNO₃</u>	<u>RCRA Metals</u>

Field Measurements/Observations

Sample Temp. (°C): <u>13.9</u>	Time: <u>1239</u>	Dis. Oxy. (mg/L): <u>0.28</u>	Time: <u>1239</u>
Sample pH (s.u.): <u>5.96</u>	Time: <u>1239</u>		
Specific Cond. (uS): <u>25</u>	Time: <u>1239</u>		
Redox (mV): <u>-114</u>	Time: <u>1239</u>		
Odor: <u>None</u>		Appearance: <u>Clear</u>	
General Observations: _____			

Weather Conditions: _____

Sampler Signature: Albert N. Date: 4/23/07

Stabilization Test

STORE # [21]

Time Purged	pH (s.u.)	Spec. Cond. (uS)	Redox (mV)	Dissolved Oxy. (mg/L)	Temp. (°C)
<u>1228</u>	<u>5.58</u>	<u>24</u>	<u>-29</u>	<u>1.66</u>	<u>13.9</u>
<u>1230</u>	<u>5.66</u>	<u>25</u>	<u>-72</u>	<u>0.71</u>	<u>13.9</u>
<u>1232</u>	<u>5.78</u>	<u>25</u>	<u>-87</u>	<u>0.53</u>	<u>13.9</u>
<u>1234</u>	<u>5.82</u>	<u>25</u>	<u>-101</u>	<u>0.56</u>	<u>13.9</u>
<u>1236</u>	<u>5.88</u>	<u>25</u>	<u>-109</u>	<u>0.38</u>	<u>13.9</u>
<u>1238</u>	<u>5.95</u>	<u>25</u>	<u>-111</u>	<u>0.31</u>	<u>13.9</u>



GROUNDWATER SAMPLING

FIELD DATA SHEET

HDR WINSTON

Client: HDR Engineering Location: Winston Salem, NC Project Name/ #: OSR
 Name & Affiliation (Sampler(s)): Al Nelson / Face Analytical
 Name & Affiliation (Inspector): AK

Well Information

Well ID: MW-12 Well Locked: yes no
 Well Diameter: 2" Construction: PVC Steel Stainless Steel
 Total Well Depth: 15.7 ft.
 Static Water Level: 4.21 ft.
 Height of Water Col.: 10.79 ft.

Purge Information

Date Purged: 4/23/07 Time Start: 1307 Finish: 1327 Purge Rate: 150 mls/cycle
 Purging Method: Micropurge

Sampling Information

Date Sample Collected: 4/23/07 Time Sample Collected: 1328 am (pm)
 Sampling Equipment Used: Micropurge

Bottle Type	Preservation	Analysis Required
<u>3-4oz VOA's</u>	<u>NH₂</u>	<u>App I VOA's</u>
<u>1-2oz</u>	<u>NO₂</u>	<u>RCRA Metals</u>

Field Measurements/Observations

Sample Temp. (°C): 13.5 Time: 1328 Dis. Oxy. (mg/L): 6.57 Time: 1328
 Sample pH (s.u.): 6.02 Time: 1328
 Specific Cond. (uS): 105 Time: 1328
 Redox (mV): 85 Time: 1328
 Odor: None Appearance: Clear
 General Observations: _____

Weather Conditions: _____

Sampler Signature: [Signature] Date: 4/23/07

Stabilization Test

STORE # [28]

Time Purged	pH (s.u.)	Spec. Cond. (uS)	Redox (mV)	Dissolved Oxy. (mg/L)	Temp. (°C)
1307	5.84	104	84	6.07	13.6
1311	5.88	104	84	6.97	13.6
1313	5.93	104	85	6.41	13.5
1315	5.96	104	85	6.45	13.5
1317	5.97	104	85	6.55	13.4
1319	6.13	104	85	6.50	13.4
1321	6.03	104	85	6.45	13.5
1323	6.01	105	86	6.50	13.5
1325	6.00	105	86	6.54	13.5
1327	6.07	105	87	6.50	13.5



GROUNDWATER SAMPLING

FIELD DATA SHEET

HDR WINSTON

Client: HDR Engineering Location: Winston Salem, NC Project Name/#: OSR
 Name & Affiliation (Sampler(s)): Al Nelson / Face Analytical
 Name & Affiliation (Inspector): NA

Well Information

Well ID: MW-13 Well Locked: yes no
 Well Diameter: 2" Construction: PVC Steel Stainless Steel
 Total Well Depth: 20.0 ft.
 Static Water Level: 8.67 ft.
 Height of Water Col.: 11.33 ft.

Purge Information

Date Purged: 4/23/07 Time Start: 1350 Finish: 1358 Purge Rate: 150 mls/ Cycle
 Purging Method: Micropurge

Sampling Information

Date Sample Collected: 4/23/07 Time Sample Collected: 1359 am (pm)
 Sampling Equipment Used: Micropurge

Bottle Type	Preservation	Analysis Required
<u>3-40ml Noks</u>	<u>ACL</u>	<u>App + VOCs</u>
<u>1-250 ml</u>	<u>ANO3</u>	<u>ACRA Metals</u>

Field Measurements/Observations

Sample Temp. (°C): 12.9 Time: 1359 Dis. Oxy. (mg/L): 4.59 Time: 1359
 Sample pH (s.u.): 5.72 Time: 1359
 Specific Cond. (uS): 72 Time: 1359
 Redox (mV): 110 Time: 1359
 Odor: None Appearance: Clear
 General Observations: _____

Weather Conditions: _____

Sampler Signature: Al Nelson Date: 4/23/07

Stabilization Test STORE # [33]

Time Purged	pH (s.u.)	Spec. Cond. (uS)	Redox (mV)	Dissolved Oxy. (mg/L)	Temp. (°C)
<u>1352</u>	<u>5.70</u>	<u>72</u>	<u>118</u>	<u>5.87</u>	<u>13.1</u>
<u>1354</u>	<u>5.70</u>	<u>72</u>	<u>114</u>	<u>4.79</u>	<u>12.9</u>
<u>1356</u>	<u>5.25</u>	<u>72</u>	<u>111</u>	<u>4.64</u>	<u>12.9</u>
<u>1358</u>	<u>5.72</u>	<u>72</u>	<u>109</u>	<u>4.61</u>	<u>12.9</u>



GROUNDWATER SAMPLING

FIELD DATA SHEET

HDR WINSTON

Client: HDR Engineering Location: Winston Salem NC Project Name/ #: QJR
 Name & Affiliation (Sampler(s)): Al McLeod / Pace Analytical
 Name & Affiliation (Inspector): MP

Well Information

Well ID: MW-14 Well Locked: yes no
 Well Diameter: 2" Construction: PVC Steel Stainless Steel
 Total Well Depth: 60.0 ft.
 Static Water Level: 49.43 ft.
 Height of Water Col.: 10.57 ft.

Purge Information

Date Purged: 4/23/07 Time Start: 10:58 Finish: 11:06 Purge Rate: 1.50 mls/cycle
 Purging Method: Micropurge

Sampling Information

Date Sample Collected: 4/23/07 Time Sample Collected: 11:07 am pm
 Sampling Equipment Used: Micropurge

Bottle Type	Preservation	Analysis Required
<u>3 - 40m (VOA)</u>	<u>HCl</u>	<u>App + VOA</u>
<u>1 - 250 ml</u>	<u>As₂O₃</u>	<u>RCRA Metals</u>

Field Measurements/Observations

Sample Temp. (°C): 15.4 Time: 11:07 Dis. Oxy. (mg/L): 0.70 Time: 11:07
 Sample pH (s.u.): 5.79 Time: 11:07
 Specific Cond. (uS): 140 Time: 11:07
 Redox (mV): 99 Time: 11:07
 Odor: None Appearance: Clear
 General Observations: _____

Weather Conditions: _____

Sampler Signature: [Signature] Date: 4 / 23 / 07

Stabilization Test

STORE # [11]

Time Purged	pH (s.u.)	Spec. Cond. (uS)	Redox (mV)	Dissolved Oxy. (mg/L)	Temp. (°C)
<u>1100</u>	<u>5.80</u>	<u>141</u>	<u>103</u>	<u>5.21</u>	<u>15.4</u>
<u>1102</u>	<u>5.82</u>	<u>140</u>	<u>100</u>	<u>5.20</u>	<u>15.4</u>
<u>1104</u>	<u>5.79</u>	<u>141</u>	<u>100</u>	<u>5.29</u>	<u>15.8</u>
<u>1106</u>	<u>5.81</u>	<u>140</u>	<u>100</u>	<u>5.23</u>	<u>15.4</u>



FIELD MEASUREMENT DATA FORM

Client: ADR Engineering Location: Winston Salem, NC Project: OSR

Parameter(s) Requested: Temperature pH Residual Chlorine Total Chlorine
 Specific Conductivity Dissolved Oxygen Turbidity Redox (ORP)
 Other _____

Meter Calibration/Standardization Data Requested: Yes** No
(* Attach Form 1502)

Reference/Sample ID: SW-1

Field Measurements

Sample Temp. (°C): <u>22.3</u>	Time: <u>1957</u>	Meter info: <u>-</u>
Sample pH (s.u.): <u>6.63</u>	Time: <u>1957</u>	Meter info: <u>-</u>
Res. Cl (mg/L): <u>NA</u>	Time: <u>NA</u>	Meter info: <u>NA</u>
Tot. Cl (mg/L): <u>NA</u>	Time: <u>NA</u>	Meter info: <u>NA</u>
Specific Cond. (uS): <u>314</u>	Time: <u>1957</u>	Meter info: <u>-</u>
Dis. Oxy. (mg/L): <u>5.50</u>	Time: <u>1957</u>	Meter info: <u>-</u>
Turbidity (ntu): <u>NA</u>	Time: <u>NA</u>	Meter info: <u>NA</u>
ReDox (mV): <u>27</u>	Time: <u>1957</u>	Meter info: <u>-</u>
Other: <u>NA</u>	Time: <u>NA</u>	Meter info: <u>NA</u>

Describe Procedure(s) Sample collected @ 1955 on 4/23/07

Technician (Print name & Affiliation): Albert G. Nelson / Pace Analytical
Technician Signature: *Albert G. Nelson* Date: 4/23/07



FIELD MEASUREMENT DATA FORM

Client: AOA Eng, Decree Location: Winston Salem, NC Project: OSR

Parameter(s) Requested: Temperature pH Residual Chlorine Total Chlorine
 Specific Conductivity Dissolved Oxygen Turbidity Redox (ORP)
 Other _____

Meter Calibration/Standardization Data Requested: Yes** No
(* Attach Form 1502)

Reference/Sample ID: SW-2

Field Measurements

Sample Temp. (°C): <u>20.8</u>	Time: <u>1205</u>	Meter info: <u>-</u>
Sample pH (s.u.): <u>6.32</u>	Time: <u>1205</u>	Meter info: <u>-</u>
Res. Cl (mg/L): <u>NA</u>	Time: <u>NA</u>	Meter info: <u>NA</u>
Tot. Cl (mg/L): <u>NA</u>	Time: <u>NA</u>	Meter info: <u>NA</u>
Specific Cond. (uS): <u>130</u>	Time: <u>1205</u>	Meter info: <u>-</u>
Dis. Oxy. (mg/L): <u>6.16</u>	Time: <u>1205</u>	Meter info: <u>-</u>
Turbidity (ntu): <u>NA</u>	Time: <u>NA</u>	Meter info: <u>NA</u>
ReDox (mV): <u>86</u>	Time: <u>1205</u>	Meter info: <u>-</u>
Other: <u>NA</u>	Time: <u>NA</u>	Meter info: <u>-</u>

Describe Procedure(s) Sample collected @ 1202 on 4/23/07

Technician (Print name & Affiliation): Albert G. Wilson / Face Analytical
Technician Signature: [Signature] Date: 4.23.07



GROUNDWATER SAMPLING

FIELD DATA SHEET

HDR WINSTON

Client: HDR Engineering Location: Winston Salem, NC Project Name/#: OSR
 Name & Affiliation (Sampler(s)): AL Noller / Pace Analytical
 Name & Affiliation (Inspector): NA

Well Information

Well ID: MW-1R Well Locked: yes no
 Well Diameter: 2" Construction: PVC Steel Stainless Steel
 Total Well Depth: 66.0 ft.
 Static Water Level: 37.43 ft.
 Height of Water Col.: 22.57 ft.

Purge Information

Date Purged: 4/24/07 Time Start: 0834 Finish: 0842 Purge Rate: 175 ml/cycle
 Purging Method: Micropurge

Sampling Information

Date Sample Collected: 4/24/07 Time Sample Collected: 0843 am pm
 Sampling Equipment Used: _____

<u>Bottle Type</u>	<u>Preservation</u>	<u>Analysis Required</u>
<u>3- 40ml Vols</u>	<u>App1 Vock</u>	_____
<u>1- 250ml</u>	<u>RCRA Metals</u>	_____
_____	_____	_____
_____	_____	_____

Field Measurements/Observations

Sample Temp. (°C): 15.4 Time: 0843 Dis. Oxy. (mg/L): 3.82 Time: 0843
 Sample pH (s.u.): 5.86 Time: 0843
 Specific Cond. (uS): 91 Time: 0843
 Redox (mV): 58 Time: 0843
 Odor: None Appearance: Clear
 General Observations: _____

Weather Conditions: _____

Sampler Signature: [Signature] Date: 4/24/07

Stabilization Test

STORE # [45]

Time Purged	pH (s.u.)	Spec. Cond. (uS)	Redox. (mV)	Dissolved Oxy. (mg/L)	Temp. (°C)
<u>0836</u>	<u>5.76</u>	<u>91</u>	<u>57</u>	<u>4.26</u>	<u>15.4</u>
<u>0838</u>	<u>5.82</u>	<u>91</u>	<u>56</u>	<u>3.97</u>	<u>15.4</u>
<u>0840</u>	<u>5.84</u>	<u>91</u>	<u>57</u>	<u>3.92</u>	<u>15.4</u>
<u>0842</u>	<u>5.86</u>	<u>92</u>	<u>58</u>	<u>3.86</u>	<u>15.4</u>



GROUNDWATER SAMPLING

FIELD DATA SHEET

HDR WINSTON

Client: HDR Engineering Location: Winston Salem, NC Project Name/ #: OSR
Name & Affiliation (Sampler(s)): AL Wilson / Pace Analytical
Name & Affiliation (Inspector): NA

Well Information

Well ID: MW-3R Well Locked: yes no
Well Diameter: 2" Construction: PVC Steel Stainless Steel
Total Well Depth: 27.0 ft.
Static Water Level: 20.12 ft.
Height of Water Col.: 6.88 ft.

Purge Information

Date Purged: 4/24/07 Time Start: 1219 Finish: 1224 Purge Rate: 200 mls/cycle
Purging Method: M&E purge

Sampling Information

Date Sample Collected: 4/24/07 Time Sample Collected: 1225 am pm

Sampling Equipment Used:

Table with 3 columns: Bottle Type, Preservation, Analysis Required. Includes handwritten entries like '3-40ml VOA', 'HCL', 'WO3', 'Asst VOCs', 'RCRA Metals'.

Field Measurements/Observations

Sample Temp. (°C): 14.2 Time: 1225 Dis. Oxy. (mg/L): 0.29 Time: 1225
Sample pH (s.u.): 5.81 Time: 1225
Specific Cond. (uS): 324 Time: 1225
ReDox (mV): -3 Time: 1225
Odor: None Appearance: Clear
General Observations:

Weather Conditions:

Sampler Signature: [Signature] Date: 4/24/07

Stabilization Test

STORE # [71]

Table with 6 columns: Time Purged, pH (s.u.), Spec. Cond. (uS), Redox (mV), Dissolved Oxy. (mg/L), Temp. (°C). Contains 5 rows of handwritten data.



GROUNDWATER SAMPLING

FIELD DATA SHEET

HDR WINSTON

Client: HDR Engineering Location: Winston Salem, NC Project Name/ #: OSR
 Name & Affiliation (Sampler(s)): Al Deber / Face Analytical
 Name & Affiliation (Inspector): MA

Well Information

Well ID: MW-4R Well Locked: yes no
 Well Diameter: 24 Construction: PVC Steel Stainless Steel
 Total Well Depth: 20.0 ft.
 Static Water Level: 8.71 ft.
 Height of Water Col.: 11.29 ft.

Purge Information

Date Purged: 4/24/07 Time Start: 1039 Finish: 1055 Purge Rate: 250 mls/cycle
 Purging Method: Micropurge

Sampling Information

Date Sample Collected: 4/24/07 Time Sample Collected: 1056 am pm
 Sampling Equipment Used: Micropurge

Bottle Type	Preservation	Analysis Required
<u>3-4oz VOA's</u>	<u>HCL</u>	<u>App 5 VOA's</u>
<u>1-250ml</u>	<u>HNO3</u>	<u>RCRA Metals</u>

Field Measurements/Observations

Sample Temp. (°C): 12.1 Time: 1056 Dis. Oxy. (mg/L): 1.07 Time: 1056
 Sample pH (s.u.): 6.00 Time: 1056
 Specific Cond. (uS): 333 Time: 1056
 Redox (mV): -8 Time: 1056
 Odor: None Appearance: Clear
 General Observations: _____

Weather Conditions: _____

Sampler Signature: Al Deber Date: 4/24/07

Stabilization Test

STORE # [56]

Time Purged	pH (s.u.)	Spec. Cond. (uS)	Redox (mV)	Dissolved Oxy. (mg/L)	Temp. (°C)
<u>1041</u>	<u>5.83</u>	<u>267</u>	<u>40</u>	<u>3.83</u>	<u>12.3</u>
<u>1043</u>	<u>5.95</u>	<u>297</u>	<u>26</u>	<u>2.52</u>	<u>12.2</u>
<u>1045</u>	<u>5.98</u>	<u>309</u>	<u>17</u>	<u>1.94</u>	<u>12.2</u>
<u>1047</u>	<u>6.03</u>	<u>317</u>	<u>10</u>	<u>1.62</u>	<u>12.1</u>
<u>1049</u>	<u>6.04</u>	<u>322</u>	<u>5</u>	<u>1.44</u>	<u>12.1</u>
<u>1051</u>	<u>6.03</u>	<u>327</u>	<u>5</u>	<u>1.28</u>	<u>12.1</u>
<u>1053</u>	<u>6.01</u>	<u>330</u>	<u>3</u>	<u>1.19</u>	<u>12.2</u>
<u>1055</u>	<u>6.00</u>	<u>330</u>	<u>-7</u>	<u>1.12</u>	<u>12.2</u>



GROUNDWATER SAMPLING

FIELD DATA SHEET

HDR WINSTON

Client: HDR Engineering Location: Winston Salem, NC Project Name/ #: OSR
Name & Affiliation (Sampler(s)): Al Nelson / Pace Analytical
Name & Affiliation (Inspector): MN

Well Information

Well ID: MW-SR Well Locked: yes no
Well Diameter: 2" Construction: PVC Steel Stainless Steel
Total Well Depth: 30.0 ft.
Static Water Level: 10.32 ft.
Height of Water Col.: 19.67 ft.

Purge Information

Date Purged: 4/24/01 Time Start: 0907 Finish: 0919 Purge Rate: 200 mls/cycle
Purging Method: Micropurge

Sampling Information

Date Sample Collected: 4/24/01 Time Sample Collected: 0920 am pm
Sampling Equipment Used: Micropurge

Table with 3 columns: Bottle Type, Preservation, Analysis Required. Rows include 3-40ml VOA, 1-25ml, HCL, HNO3, and various VOCs and PCBs.

Field Measurements/Observations

Sample Temp. (°C): 13.5 Time: 0920 Dis. Oxy. (mg/L): 5.55 Time: 0920
Sample pH (s.u.): 6.17 Time: 0920
Specific Cond. (uS): 171 Time: 0920
Redox (mV): 36 Time: 0920
Odor: None Appearance: Clear
General Observations:

Weather Conditions:

Sampler Signature: [Signature] Date: 4/24/01

Stabilization Test

STORE # [50]

Table with 6 columns: Time Purged, pH (s.u.), Spec. Cond. (uS), Redox (mV), Dissolved Oxy. (mg/L), Temp. (°C). Contains 6 rows of data.



GROUNDWATER SAMPLING

FIELD DATA SHEET

HDR WINSTON

Client: HDR Engineering Location: Winston Salem, NC Project Name/ #: OSR
 Name & Affiliation (Sampler(s)): M. Nelson / Face Analytical
 Name & Affiliation (Inspector): MA

Well Information

Well ID: MW-7 Well Locked: yes no
 Well Diameter: 2" Construction: PVC Steel Stainless Steel
 Total Well Depth: 48.00 ft.
 Static Water Level: 39.81 ft.
 Height of Water Col.: 8.19 ft.

Purge Information

Date Purged: 4/24/07 Time Start: 1125 Finish: 1147 Purge Rate: 100 mls/cycle
 Purging Method: Micropurge

Sampling Information

Date Sample Collected: 4/24/07 Time Sample Collected: 1148 am pm
 Sampling Equipment Used: Micropurge

Bottle Type	Preservation	Analysis Required
<u>3-40ml Vials</u>	<u>NA</u>	<u>Non-VOCs</u>
<u>1-250ml</u>	<u>None</u>	<u>RCRA Metals</u>

Field Measurements/Observations

Sample Temp. (°C): 15.4 Time: 1148 Dis. Oxy. (mg/L): 0.67 Time: 1148
 Sample pH (s.u.): 5.66 Time: 1148
 Specific Cond. (uS): 139 Time: 1148
 Redox (mV): 30 Time: 1148
 Odor: None Appearance: Clear
 General Observations: _____

Weather Conditions: _____

Sampler Signature: [Signature] Date: 4/24/07

Stabilization Test

STORE # [63]

Time Purged	pH (s.u.)	Spec. Cond. (uS)	Redox (mV)	Dissolved Oxy. (mg/L)	Temp. (°C)
1127	5.61	142	34	2.17	
1129	5.63	156	33	2.50	
1131	5.65	142	34	2.09	
1133	5.66	141	35	1.63	
1135	5.67	142	34	1.41	
1137	5.67	140	34	1.16	
1139	5.66	140	33	1.38	
1141	5.67	140	32	1.27	
1143	5.66	139	31	0.95	
1145	5.65	140	31	0.87	
1147	5.66	139	30	0.84	



CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: **1005470** of

Section A

Required Client Information:

Section B

Required Project Information:

Section C

Invoice Information:

Company: HDR Engineering	Report To:	Attention:
Address:	Copy To:	Company Name:
Email To:	Purchase Order No.:	Address:
Phone: Fax:	Project Name: OSR	Pace Quote Reference:
Requested Due Date/TAT:	Project Number:	Pace Project Manager:
		Pace Profile #:

REGULATORY AGENCY		
<input type="checkbox"/> NPDES	<input type="checkbox"/> GROUND WATER	<input type="checkbox"/> DRINKING WATER
<input type="checkbox"/> UST	<input type="checkbox"/> RCRA	<input type="checkbox"/> Other
SITE LOCATION		
<input type="checkbox"/> GA	<input type="checkbox"/> IL	<input type="checkbox"/> IN
<input type="checkbox"/> OH	<input type="checkbox"/> SC	<input type="checkbox"/> WI
<input type="checkbox"/> MI	<input type="checkbox"/> MN	<input checked="" type="checkbox"/> NC
<input type="checkbox"/> OTHER		

Section D Required Client Information

SAMPLE ID

One Character per box.
(A-Z, 0-9 / -)

Samples IDs MUST BE UNIQUE

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

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	DATE	TIME	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Filtered (Y/N)	Requested Analysis:	Residual Chlorine (Y/N)	Pace Project Number	Lab I.D.
1	MW-1A	WT	G	4/23/07	1100	4/23/07	1100		4	HCl	XX			928299817	
2	SW-1	WT	G	4/23/07	1455	4/23/07	1455		4	HCl	XX			928299825	
3	SW-2	WT	G	4/23/07	1200	4/23/07	1200		4	HCl	XX			928299833	
4	TRIP BLANK	WT	-	4/23/07	0920				4		XX			928299841	7081
5	TRIP BLANK	WT	-												
6															
7															
8															
9															
10															
11															
12															

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITION
<i>Robert G. McLean / Pace One</i>	<i>4/25/07</i>	<i>1000</i>	<i>Robert G. McLean / Pace One</i>	<i>4/25/07</i>	<i>12:45</i>	Y/N
<i>Robert G. McLean / Pace One</i>	<i>4/25/07</i>	<i>11:15</i>	<i>Robert G. McLean / Pace One</i>	<i>4/25/07</i>	<i>15:15</i>	Y/N
						Y/N
						Y/N
						Y/N
						Y/N

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
PRINT Name of SAMPLER: <i>Robert G. McLean / Pace Analytical</i>	SIGNATURE of SAMPLER: <i>Robert G. McLean</i>				
DATE Signed (MM/DD/YY) <i>4/25/07</i>					

SEE REVERSE SIDE FOR INSTRUCTIONS