



ENGINEERS

SURVEYORS

PLANNERS

December 3, 2010

1488.0030 (10)

Ms. Mary Beth Koza  
UNC – Environment, Health & Safety  
1120 Estes Drive Extension CB# 1650  
Chapel Hill, NC 27599-1650

RE: UNC-Chapel Hill Bingham Facility  
Potable Water Supply Well Testing Results  
Bingham and Lombardi Wells

Dear Ms. Koza:

McKim & Creed was retained by UNC to collect representative potable water samples from both the Bingham and Lombardi wells in connection with the on-going water and wastewater improvements being planned at the site.

Samples were collected on October 18, 2010 from each well of the two wells by Jay Baker of Environmental Chemists, Inc. Each sample was divided into appropriate sample bottles and preserved in accordance with the recommended USEPA analytical method for each of the various contaminants to be tested. The samples were then transported to EnviroChem's Certified Laboratory for Analysis.

We have compiled and summarized the analytical results by contaminant type and have identified the current Drinking Water Allowable Limit for your reference. The measured contaminant concentration in each well is shown to the right of the reference range as summarized in the attached table.

You will note that we completed a comprehensive testing program, checking for standard USEPA-recommended contaminants that are known to occur in groundwater sources. However, we are happy to report that none of the tested contaminant concentrations exceeded the allowable State/Federal allowable drinking water limits.

Venture IV Building

Suite 500

1730 Varsity Drive

Raleigh, NC 27606

919.233.8091

Fax 919.233.8031

[www.mckimcreed.com](http://www.mckimcreed.com)

S:\1488\0030\10-Comm\12-3-10 Bingham Well Test Results.docx

Mr. Mary Beth Koza

December 3, 2010

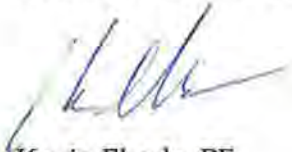
Page 2

In addition to the summary table, we are attaching EnviroChem's certified test results and sample collection chain of custody report for your file.

Please review the attached information and feel free to contact me if you have any questions.

Sincerely,

McKIM & CREED, P.A.



Kevin Eberle, PE  
Senior Project Manager

Enclosures

cc: John Masson, UNC

**UNC Bingham Facility**  
**Summary of Raw Well Water Testing Results**  
 Bingham Production Well and Existing Residential Well on Lombardi Property

Constituent Measured	Units	Drinking Water Allowable Limit	Bingham Water Supply Well Raw Water Sample 10/18/2010	Lombardi Property Well Raw Water Sample 10/18/2010
<b>Inorganic Chemical Analysis</b>				
Arsenic	mg/l	0.010	Not Detected	Not Detected
Barium	mg/l	2.000	Not Detected	Not Detected
Cadmium	mg/l	0.005	Not Detected	Not Detected
Chromium	mg/l	0.100	Not Detected	Not Detected
Copper	mg/l	1.300	Not Detected	Not Detected
Cyanide	mg/l	0.200	Not Detected	Not Detected
Fluoride	mg/l	4.000	Not Detected	0.2
Iron	mg/l	0.300	Not Detected	Not Detected
Lead	mg/l	0.015	Not Detected	Not Detected
Magnesium	mg/l	No Limit	5.65	14.3
Manganese	mg/l	0.050	0.298	0.032
Mercury	mg/l	0.002	Not Detected	Not Detected
Nickel	mg/l	None allowed	Not Detected	Not Detected
Nitrate	mg/l	10.000	Not Detected	Not Detected
Nitrite	mg/l	1.000	Not Detected	Not Detected
Selenium	mg/l	0.050	Not Detected	Not Detected
Sodium	mg/l	250.000	11.7	32.4
Sulfate	mg/l	250.000	Not Detected	Not Detected
Antimony	mg/l	0.006	Not Detected	Not Detected
Beryllium	mg/l	0.004	Not Detected	Not Detected
Thallium	mg/l	0.002	Not Detected	Not Detected
Total Hardness	mg/l	No Limit	123	121
Alkalinity	mg/l	No Limit	139	176
Total Dissolved Solids	mg/l	500.000	183	200
Total Organic Carbon	mg/l	No Official Limit	Not Detected	Not Detected
UV 254	cm <sup>-1</sup>	NA	Not Detected	Not Detected
Dissolved Organic Carbon	mg/l	No Official Limit	Not Detected	Not Detected
Bromide	mg/l	No Official Limit	Not Detected	Not Detected
Bromate	mg/l	0.010	Not Detected	Not Detected
Calcium Hardness	mg/l	No Limit	105	106
Chlorite	mg/l	No Official Limit	Not Detected	Not Detected
<b>Volatile Organic Chemicals (VOCs)</b>				
1,2,4- Trichlorobenzene	mg/l	0.070	Not Detected	Not Detected
Cis-1,1-Dichloroethylene	mg/l	0.070	Not Detected	Not Detected
Xylenes	mg/l	10.000	Not Detected	Not Detected
Dichloromethane	mg/l	0.005	Not Detected	Not Detected
o-Dichlorobenzene	mg/l	0.600	Not Detected	Not Detected
p-Dichlorobenzene	mg/l	0.075	Not Detected	Not Detected
Vinyl Chloride	mg/l	0.002	Not Detected	Not Detected
1,1-Dichloroethylene	mg/l	0.007	Not Detected	Not Detected
Trans1,2-Dichloroethylene	mg/l	0.100	Not Detected	Not Detected
1,2-Dichloroethane	mg/l	0.005	Not Detected	Not Detected
1,1,1-Trichloroethane	mg/l	0.200	Not Detected	Not Detected
Carbon Tetrachloride	mg/l	0.005	Not Detected	Not Detected
1,2-Dichloropropane	mg/l	0.005	Not Detected	Not Detected
Trichloroethylene	mg/l	0.005	Not Detected	Not Detected
1,1,2-Trichloroethane	mg/l	0.005	Not Detected	Not Detected
Tetrachloroethylene	mg/l	0.005	Not Detected	Not Detected
Chlorobenzene	mg/l	0.100	Not Detected	Not Detected
Benzene	mg/l	0.005	Not Detected	Not Detected
Toluene	mg/l	1.000	Not Detected	Not Detected
Ethylbenzene	mg/l	0.700	Not Detected	Not Detected
Styrene	mg/l	0.100	Not Detected	Not Detected

**UNC Bingham Facility**  
**Summary of Raw Well Water Testing Results**  
 Bingham Production Well and Existing Residential Well on Lombardi Property

Constituent Measured	Units	Drinking Water Allowable Limit	Bingham Water Supply Well Raw Water Sample 10/18/2010	Lombardi Property Well Raw Water Sample 10/18/2010
<b>Pesticides &amp; Synthetic Organic Chemicals (SOCs)</b>				
Endrin	mg/l	0.002	Not Detected	Not Detected
Lindane	mg/l	0.0002	Not Detected	Not Detected
Methoxychlor	mg/l	0.040	Not Detected	Not Detected
Toxaphene	mg/l	0.003	Not Detected	Not Detected
Dalapon	mg/l	0.200	Not Detected	Not Detected
Di(2-ethylhexyl)adipate	mg/l	0.400	Not Detected	Not Detected
Oxamyl(vydate)	mg/l	0.200	Not Detected	Not Detected
Simazine	mg/l	0.004	Not Detected	Not Detected
Picloram	mg/l	0.500	Not Detected	Not Detected
Dinoseb	mg/l	0.007	Not Detected	Not Detected
Hexachlorocyclopentadiene	mg/l	0.050	Not Detected	Not Detected
Carbofuran	mg/l	0.040	Not Detected	Not Detected
Atrazine	mg/l	0.003	Not Detected	Not Detected
Alachlor	mg/l	0.002	Not Detected	Not Detected
Heptachlor	mg/l	0.0004	Not Detected	Not Detected
Heptachlor Epoxide	mg/l	0.0002	Not Detected	Not Detected
2,4-D	mg/l	0.070	Not Detected	Not Detected
2,4,5-TP(silvex)	mg/l	0.050	Not Detected	Not Detected
Hexachlorobenzene	mg/l	0.001	Not Detected	Not Detected
Di(2-ethylhexyl)phthalate	mg/l	0.006	Not Detected	Not Detected
Benzo(a)pyrene	mg/l	0.000	Not Detected	Not Detected
Pentachlorophenol	mg/l	0.001	Not Detected	Not Detected
PCB's	mg/l	0.0005	Not Detected	Not Detected
DBCP	mg/l	0.0002	Not Detected	Not Detected
Ethylene Dibromide(EDB)	mg/l	0.00005	Not Detected	Not Detected
Chlordane	mg/l	0.002	Not Detected	Not Detected
Diaquat	ug/l	No Official Limit	Not Detected	Not Detected
Endothall	mg/l	No Official Limit	Not Detected	Not Detected
Glyphosate	mg/l	No Official Limit	Not Detected	Not Detected
<b>Unregulated Organic Chemicals Analysis</b>				
2,3,7,8 - TCDD	ng/l	No Official Limit	<0.01	<0.01
<b>Microbiology</b>				
Heterotrophic Bacteria	cfu/ml	No Official Limit	46	27
E.Coli	col/100ml	zero	<1	<1
Fecal Coliform	col/100ml	zero	<1	<1
Total Coliform	col/100ml	zero	<1	2

**UNC Bingham Facility**  
**Summary of Raw Well Water Testing Results**  
 Bingham Production Well and Existing Residential Well on Lombardi Property

Constituent Measured	Units	Drinking Water Allowable Limit	Bingham Water Supply Well Raw Water Sample 10/18/2010	Lombardi Property Well Raw Water Sample 10/18/2010
<b>Disinfection By-Products Analysis (TTHM&amp;HAA5)</b>				
Chloroform	mg/l	0.080	Not Detected	Not Detected
Bromoform	mg/l	0.080	Not Detected	Not Detected
Bromodichloromethane	mg/l	0.080	Not Detected	Not Detected
Chlorodibromomethane	mg/l	0.080	Not Detected	Not Detected
Total Trihalomethanes	mg/l	0.080	Not Detected	Not Detected
Monochloroacetic acid	mg/l	0.060	Not Detected	Not Detected
Dichloroacetic acid	mg/l	0.060	Not Detected	Not Detected
Trichloroacetic acid	mg/l	0.060	Not Detected	Not Detected
Monobromoacetic acid	mg/l	0.060	Not Detected	Not Detected
Dibromoacetic acid	mg/l	0.060	Not Detected	Not Detected
Total Haloacetic Acids	mg/l	0.060	Not Detected	Not Detected
<b>Asbestos Analysis</b>				
Crysotile Asbestos	MFL	7.000	Not Detected	Not Detected
Amphibole	MFL	7.000	Not Detected	Not Detected
Total Asbestos	MFL	7.000	Not Detected	Not Detected
<b>Radiological Analysis</b>				
Cesium-134	pCi/L	80.0	Not Detected	Not Detected
Strontium-89	pCi/L	10.0	Not Detected	Not Detected
Strontium-90	pCi/L	2.0	Not Detected	Not Detected
Alpha	pCi/L	15.0	Not Detected	Not Detected
Beta	pCi/L	50.0	4.12	Not Detected
Iodine-131	pCi/L	1.0	Not Detected	Not Detected
Radium-226	pCi/L	3.0	0.503	0.762
Radium-228	pCi/L	2.0	Not Detected	Not Detected
Tritium	pCi/L	400.0	Not Detected	Not Detected

*milligrams per liter (ppm)*    *mg/l*  
*micrograms per liter (ppb)*    *ug/l*  
*per centimeter*    *cm<sup>-1</sup>*  
*million fibers per liter*    *MFL*  
*colony forming units per milliliter*    *cfu/ml*  
*colonies per 100 milliliters*    *co/100ml*  
*picoCuries per liter*    *pCi/L*



Analytical & Consulting Chemists

Environmental Chemists, Inc.

6602 Windmill Way • Wilmington, North Carolina 28405
(910) 392-0223 Phone • (910) 392-4424 Fax
EChemW@aol.com

NCDENR: DWQ Certificate #94, DLS Certificate #37729

NEW WELL INORGANIC CHEMICAL ANALYSIS

Note: All information must be supplied for plan review credit.

WATER SYSTEM ID #: \_\_\_\_\_ County: \_\_\_\_\_

Name of Water System: UNC - Bingham

Sample Type: X Source for Plan Review

Location Where Collected: Raw Water- Well
(Note: Compliance sample MUST be collected at the entry point.)

Location Code: N/A Collection Date Collection Time

Collected By: Jay Baker (Please Print) 10/18/10 (MM/DD/YY) 1120 (Specify AM or PM)

Mail Results to (water system representative):

McKIM & CREED - RALEIGH
1730 Varsity Drive Suite 500
Raleigh, NC 27606
Attn: Kevin Eberle, P.E

Phone #: ( ) \_\_\_\_\_
Fax #: ( ) \_\_\_\_\_

\*NOTE: Please complete portion above double line on Page 2.

LABORATORY ID #: 37729

Sample Unsatisfactory Resample Required

Table with 7 columns: CONTAM CODE, CONTAMINANT, METHOD CODE, REQUIRED REPORTING LIMIT (R.R.L.), NOT DETECTED (i.e. < R.R.L.) (X), QUANTIFIED RESULTS\*, ALLOWABLE LIMIT. Rows include Arsenic, Barium, Cadmium, Chromium, Copper, Cyanide, Fluoride, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Nitrate, Nitrite.

\*Note: Concentrations for Lead and Copper are action levels, not MCLs.

# 26332 10-10502



Analytical & Consulting Chemists

**Environmental Chemists, Inc.**

6602 Windmill Way • Wilmington, North Carolina 28405

(910) 392-0223 Phone • (910) 392-4424 Fax

[EChemW@aol.com](mailto:EChemW@aol.com)

NCDENR: DWQ Certificate #94, DLS Certificate #37729

**NEW WELL INORGANIC CHEMICAL ANALYSIS**

(Continued)

Note: All information must be supplied for plan review credit.

**WATER SYSTEM ID #:** \_\_\_\_\_

**Collection Date**

**Collection Time**

**Location Code:** Raw Water -- Bingham

10/18/10  
(MM/DD/YY)

1120  
(Specify AM or PM)

**LABORATORY ID #:** **37729**

CONTAM CODE	CONTAMINANT	METHOD CODE	REQUIRED REPORTING LIMIT (R.R.L.)	NOT DETECTED (i.e. < R.R.L.) (X)	QUANTIFIED RESULTS*	ALLOWABLE LIMIT
1045	Selenium	EPA 200.8	0.010 mg/L	X	_____ mg/L	0.050 mg/L
1052	Sodium	EPA 200.7	1.0 mg/L	<input type="checkbox"/>	<u>11.7</u> mg/L	N/A
1055	Sulfate	EPA 300.0	15.0 mg/L	X	_____ mg/L	250.0 mg/L
1074	Antimony	EPA 200.8	0.003 mg/L	X	_____ mg/L	0.006 mg/L
1075	Beryllium	EPA 200.8	0.002 mg/L	X	_____ mg/L	0.004 mg/L
1085	Thallium	EPA 200.8	0.001 mg/L	X	_____ mg/L	0.002 mg/L
1915	Total Hardness	SM 2340 C	1.0 mg/L	<input type="checkbox"/>	<u>123.</u> mg/L	N/A
1927	Alkalinity	SM 2320 B	1.0 mg/L	<input type="checkbox"/>	<u>139.</u> mg/L	N/A
1930	Total Dissolved Solids	SM 2540 C	10.0 mg/L	<input type="checkbox"/>	<u>183.</u> mg/L	500.0 mg/L
2920	Total Organic Carbon (TOC)	SM 5310 B	1.0 mg/L	X	_____ mg/L	N/A
2922	Ultraviolet Absorption 254 (UV254)	SM 5910 B	1.0 cm <sup>-1</sup>	X	_____ m <sup>-1</sup>	N/A
2919	Dissolved Organic Carbon	SM 5310 B	1.0 mg/L	X	_____ mg/L	N/A
1004	Bromide	EPA 300.1	0.010 mg/L	X	_____ mg/L	N/A
1011	Bromate	EPA 300.1	0.0050 mg/L	X	_____ mg/L	0.010 mg/L
-	Calcium Hardness	SM 3500 Ca D	N/A	<input type="checkbox"/>	<u>105.</u> mg/L	N/A
-	Chlorite	EPA 300.1	0.01 mg/L	X	_____ mg/L	N/A

\*Note: Concentrations for Lead and Copper are action levels, not MCLs.

	<b>DATE:</b>	<b>TIME:</b>
<b>ANALYSES BEGUN:</b>	<u>10/19/10</u>	<u>1520</u>
<b>ANALYSES COMPLETED:</b>	<u>11/05/10</u>	<u>1221</u>

Laboratory Log #: 26332

Certified By:

*BARBARA FIFIELD* *Barbara Fifield*  
(Print and sign name)

COMMENTS:

REPORT # 10-10502



NCDENR: DWQ Certificate #94, DLS Certificate #37729

**VOLATILE ORGANIC CHEMICALS (VOCs) ANALYSIS**

Note: All information must be supplied for compliance credit.

WATER SYSTEM ID #: \_\_\_\_\_ County: \_\_\_\_\_

Name of Water System: UNC - Bingham

Sample Type:  Entry Point  Special/Non-compliance

Location Where Collected: Raw Water Well

Facility ID No. \_\_\_\_\_

Sample Point: \_\_\_\_\_

Collected By: Jay Baker  
(Please Print)

Collection Date	Collection Time
<u>10/18/10</u> <small>(MM/DD/YY)</small>	<u>1120</u> <small>(Specify AM or PM)</small>

**McKIM & CREED - RALEIGH**  
 1730 Varsity Drive Suite 500  
 Raleigh, NC 27606  
 Attn: Kevin Eberle, P.E

Phone #: (\_\_\_\_) \_\_\_\_\_

Fax #: (\_\_\_\_) \_\_\_\_\_

LABORATORY ID #: 37729  SAMPLE UNSATISFACTORY  RESAMPLE REQUIRED

CONTAM CODE	CONTAMINANT	METHOD CODE	REQUIRED REPORTING LIMIT (R.R.L.)	NOT DETECTED (i.e. < R.R.L.) (X)	QUANTIFIED RESULTS*	ALLOWABLE LIMIT
2378	1,2,4-Trichlorobenzene	502.2	0.0005 mg/L	X	_____ mg/L	0.07 mg/L
2380	Cis-1,2-Dichloroethylene	502.2	0.0005 mg/L	X	_____ mg/L	0.07 mg/L
2955	Xylenes (Total)	502.2	0.0005 mg/L	X	_____ mg/L	10.00 mg/L
2964	Dichloromethane	502.2	0.0005 mg/L	X	_____ mg/L	0.005 mg/L
2968	o-Dichlorobenzene	502.2	0.0005 mg/L	X	_____ mg/L	0.60 mg/L
2969	p-Dichlorobenzene	502.2	0.0005 mg/L	X	_____ mg/L	0.075 mg/L
2976	Vinyl Chloride	502.2	0.0005 mg/L	X	_____ mg/L	0.002 mg/L
2977	1,1,-Dichloroethylene	502.2	0.0005 mg/L	X	_____ mg/L	0.007 mg/L
2979	Trans-1,2,-Dichloroethylene	502.2	0.0005 mg/L	X	_____ mg/L	0.10 mg/L
2980	1,2-Dichloroethane	502.2	0.0005 mg/L	X	_____ mg/L	0.005 mg/L
2981	1,1,1-Trichloroethane	502.2	0.0005 mg/L	X	_____ mg/L	0.20 mg/L
2982	Carbon Tetrachloride	502.2	0.0005 mg/L	X	_____ mg/L	0.005 mg/L
2983	1,2-Dichloropropane	502.2	0.0005 mg/L	X	_____ mg/L	0.005 mg/L
2984	Trichloroethylene	502.2	0.0005 mg/L	X	_____ mg/L	0.005 mg/L
2985	1,1,2-Trichloroethane	502.2	0.0005 mg/L	X	_____ mg/L	0.005 mg/L
2987	Tetrachloroethylene	502.2	0.0005 mg/L	X	_____ mg/L	0.005 mg/L
2989	Chlorobenzene	502.2	0.0005 mg/L	X	_____ mg/L	0.10 mg/L
2990	Benzene	502.2	0.0005 mg/L	X	_____ mg/L	0.005 mg/L
2991	Toluene	502.2	0.0005 mg/L	X	_____ mg/L	1.00 mg/L
2992	Ethylbenzene	502.2	0.0005 mg/L	X	_____ mg/L	0.70 mg/L
2996	Styrene	502.2	0.0005 mg/L	X	_____ mg/L	0.10 mg/L

\*Note: If result exceeds allowable limit, the laboratory must fax analytical results to the State within 48 hours.

	DATE:	TIME:
ANALYSES BEGUN:	<u>10/24/10</u>	<u>0341</u>
ANALYSES COMPLETED:	<u>10/26/10</u>	<u>1700</u>

Laboratory Log #: 26332 Certified By: [Signature]

COMMENTS: [Signature] Report # 10-10502





**PESTICIDES AND SYNTHETIC ORGANIC CHEMICALS (SOCs) ANALYSIS**

Note: All information must be supplied for compliance credit.

WATER SYSTEM ID #: \_\_\_\_\_ County: \_\_\_\_\_

Name of Water System: UNC- Bingham

Sample Type:  Entry Point  Special/Non-compliance

Location Where Collected: Raw Water Well

Facility ID No. \_\_\_\_\_

Sample Point: \_\_\_\_\_

Collected By: Jay Baker  
(Please Print)

Collection Date	Collection Time
<u>10/18/10</u> <small>(MM/DD/YY)</small>	<u>1120</u> <small>(Specify AM or PM)</small>

Mail Results to (water system representative):

**McKIM & CREED – RALEIGH**  
**1730 Varsity Drive Suite 500**  
**Raleigh, NC 27606**  
**Attn: Kevin Eberle, P.E**

Phone #: (\_\_\_\_) \_\_\_\_\_

Fax #: (\_\_\_\_) \_\_\_\_\_

NOTE: Please complete portion above double line on Page 2

LABORATORY ID #: 37729

SAMPLE UNSATISFACTORY

RESAMPLE REQUIRED

CONTAM CODE	CONTAMINANT	METHOD CODE	REQUIRED REPORTING LIMIT (R.R.L.)	NOT DETECTED (i.e. < R.R.L.) (X)	QUANTIFIED RESULTS*	ALLOWABLE LIMIT
2005	Endrin	EPA 508.1	0.0001 mg/L	X	_____ mg/L	0.002 mg/L
2010	Lindane	EPA 508.1	0.0002 mg/L	X	_____ mg/L	0.002 mg/L
2015	Methoxychlor	EPA 508.1	0.0001 mg/L	X	_____ mg/L	0.04 mg/L
2020	Toxaphene	EPA 508.1	0.001 mg/L	X	_____ mg/L	0.003 mg/L
2031	Dalapon	EPA 515.1	0.001 mg/L	X	_____ mg/L	0.2 mg/L
2035	Di(2-ethylhexyl)adipate	EPA 525.2	0.0006 mg/L	X	_____ mg/L	0.4 mg/L
2036	Oxamyl(vydate)	EPA 531.1	0.002 mg/L	X	_____ mg/L	0.2 mg/L
2037	Simazine	EPA 508.1	0.00007 mg/L	X	_____ mg/L	0.004 mg/L
2040	Picloram	EPA 515.1	0.0001 mg/L	X	_____ mg/L	0.5 mg/L
2041	Dinoseb	EPA 515.1	0.0002 mg/L	X	_____ mg/L	0.007 mg/L
2042	Hexachlorocyclopentadiene	EPA 508.1	0.0001 mg/L	X	_____ mg/L	0.05 mg/L
2046	Carbofuran	EPA 531.1	0.0009 mg/L	X	_____ mg/L	0.04 mg/L
2050	Atrazine	EPA 508.1	0.0001 mg/L	X	_____ mg/L	0.003 mg/L
2051	Alachlor	EPA 508.1	0.0002 mg/L	X	_____ mg/L	0.002 mg/L
2065	Heptachlor	EPA 508.1	0.00004 mg/L	X	_____ mg/L	0.0004 mg/L

\*Note: If result exceeds allowable limit, the laboratory must fax analytical results to the State within 48 hours. **LAB # 26332 REPORT # 10-10502**



Environmental Chemists, Inc.

6602 Windmill Way • Wilmington, North Carolina 28405  
(910) 392-0223 Phone • (910) 392-4424 Fax  
[EChemW@aol.com](mailto:ECHEM@aol.com)

NCDENR: DWQ Certificate #94, DLS Certificate #37729

**PESTICIDES AND SYNTHETIC ORGANIC CHEMICALS (SOCs) ANALYSIS  
(continued)**

Note: All information must be supplied for compliance credit.

WATER SYSTEM NO. \_\_\_\_\_

Name of Water System: Raw Water – Bingham

Facility ID No. \_\_\_\_\_

Sample Point: \_\_\_\_\_

<b>Collection Date</b>	<b>Collection Time</b>
<u>10/18/10</u> <small>(MM/DD/YY)</small>	<u>1120</u> <small>(Specify AM or PM)</small>

CONTAM CODE	CONTAMINANT	METHOD CODE	REQUIRED REPORTING LIMIT (R.R.L.)	NOT DETECTED (i.e. < R.R.L.) (X)	QUANTIFIED RESULTS*	ALLOWABLE LIMIT
2067	Heptachlor Epoxide	EPA 508.1	0.00002 mg/L	X	_____ mg/L	0.0002 mg/L
2105	2,4-D	EPA 515.1	0.0001 mg/L	X	_____ mg/L	0.07 mg/L
2110	2,4,5-TP (Silvex)	EPA 515.1	0.0002 mg/L	X	_____ mg/L	0.05 mg/L
2274	Hexachlorobenzene	EPA 508.1	0.0001 mg/L	X	_____ mg/L	0.001 mg/L
2039	Di(2-ethylhexyl)phthalate	EPA 525.2	0.00132 mg/L	X	_____ mg/L	0.006 mg/L
2306	Benzo(a)pyrene	EPA 525.2	0.00002 mg/L	X	_____ mg/L	0.0002 mg/L
2326	Pentachlorophenol	EPA 515.1	0.00004 mg/L	X	_____ mg/L	0.001 mg/L
2383	PCB's (as decachlorobiphenol)	EPA 508.1	0.0001** mg/L	X	_____ mg/L	0.0005 mg/L
2931	DBCP	EPA 504.1	0.00002 mg/L	X	_____ mg/L	0.0002 mg/L
2946	Ethylene Dibromide (EDB)	EPA 504.1	0.00001 mg/L	X	_____ mg/L	0.00005 mg/L
2959	Chlordane	EPA 508.1	0.0002 mg/L	X	_____ mg/L	0.002 mg/L

\*Note: If result exceeds allowable limit, the laboratory must fax analytical results to the State within 48 hours.  
 \*\*Note: R.R.L. (mg/L) for PCB screening are as follows: Aroclor 1016 - 0.00008, Aroclor 1221 - 0.02, Aroclor 1232 - 0.0005, Aroclor 1242 - 0.0003, Aroclor 1248 & 1254 - 0.0001, Aroclor 1260 - 0.0002

	<b>DATE:</b>	<b>TIME:</b>
<b>ANALYSES BEGUN:</b>	<u>10/18/10</u>	<u>1200</u>
<b>ANALYSES COMPLETED:</b>	<u>10/25/10</u>	<u>1500</u>

Laboratory Log #: 26332

Certified By: BARBARA FIELD *Barbara Field*  
(Print and sign name)

COMMENTS: \_\_\_\_\_ **REPORT # 10-10502**

**Laboratory should Mail Results to:**  
Public Water Supply Section, Attn: Data Entry, 1634 Mail Service Center, Raleigh, NC 27699-1634  
Fax: 919.715.6637



**PESTICIDES AND SYNTHETIC ORGANIC CHEMICALS (SOCs) EXTENDED**

Note: All information must be supplied for compliance credit.

WATER SYSTEM ID #: \_\_\_\_\_ County: \_\_\_\_\_

Name of Water System: UNC- Bingham

Sample Type:  Entry Point  Special/Non-compliance

Location Where Collected: Raw Water Well

Facility ID No. \_\_\_\_\_

Sample Point: \_\_\_\_\_

Collected By: Jay Baker  
(Please Print)

Collection Date	Collection Time
<u>10/18/10</u> <small>(MM/DD/YY)</small>	<u>1120</u> <small>(Specify AM or PM)</small>

Mail Results to (water system representative):  
**McKIM & CREED – RALEIGH**  
**1730 Varsity Drive Suite 500**  
**Raleigh, NC 27606**  
**Attn: Kevin Eberle, P.E**

Phone #: (\_\_\_\_) \_\_\_\_\_

Fax #: (\_\_\_\_) \_\_\_\_\_

NOTE: Please complete portion above double line on Page 2

LABORATORY ID #: 37729       SAMPLE UNSATISFACTORY       RESAMPLE REQUIRED

CONTAM CODE	CONTAMINANT	METHOD CODE	REQUIRED REPORTING LIMIT (R.R.L.)	NOT DETECTED (i.e. < R.R.L.) (X)	QUANTIFIED RESULTS*	ALLOWABLE LIMIT
-	Diquat	EPA 549.2	2.0	X	_____ µg/L	N/A
-	Endothall	EPA 548.1	10	X	_____ mg/L	N/A
-	Glyphosate	EPA 547	25	X	_____ mg/L	N/A

\*Note: If result exceeds allowable limit, the laboratory must fax analytical results to the State within 48 hours. **LAB # 26332 REPORT # 10-10502**

	DATE:	TIME:
ANALYSES BEGUN:	<u>10/21/10</u>	<u>1404</u>
ANALYSES COMPLETED:	<u>10/25/10</u>	<u>1829</u>

Laboratory Log #: 26332

Certified By: BARBARA FLETCHER  
(Print and sign name)

COMMENTS: \_\_\_\_\_ **REPORT # 10-10502**



# Environmental Chemists, Inc.

6602 Windmill Way • Wilmington, NC 28405  
(910) 392-0223 (Lab) • (910) 392-4424 (Fax)  
710 Bowsertown Road • Manteo, NC 27954  
(252) 473-5702

ANALYTICAL & CONSULTING  
CHEMISTS

NC DENR: DWQ CERTIFICATE #94. DLS CERTIFICATE #37729

## MICROBIOLOGY

Water System ID #:

County:

Name of Water System: McKim & Creed - Raleigh

Sample Type: Special

Location: Bingham Raw Water

Facility ID:

Sample Point:

Collection Date:

Collection Time:

10/18/2010

11:20:00 AM

Collected by: Jay Baker

Mail Results to (water system representative)

Phone Number:

Fax Number:

1730 Varsity Drive #500

Raleigh

NC

27606

Free Chlorine Residual: mg/L

Total Chlorine Residual: mg/L

LABORATORY ID #: 37729

Repeat Samples Required from Client

Resample Required from Client

<u>CONTAMINANT</u>	<u>METHOD CODE</u>	<u>QUANTIFIED RESULTS</u>	<u>ANALYSES BEGUN</u>	<u>ANALYSES COMPLETED</u>
LABORATORY LOG #:	10-26332			
Heterotrophic Bacteria	SM 9215B	46 cfu/ml	10/18/2010 16:15	10/20/2010 17:00
LABORATORY LOG #:	10-26332A			
E. Coli	M-ColiBlue 24 (MF)	<1est Colonies/100mL	10/18/2010 14:00	10/19/2010 15:30
Fecal Coliform	SM 9222D MF	<1est Colonies/100mL	10/18/2010 14:00	10/19/2010 15:30
Total Coliform	SM 9222B	<1est Colonies/100mL	10/18/2010 14:00	10/19/2010 15:30

Comment:

Reviewed by:

*Jim Pease*      *Rhonda Shelton*

Sample Number 10-26332A

REPORT #: 2010-10502



Consulting Chemists

### Environmental Chemists, Inc.

6602 Windmill Way • Wilmington, North Carolina 28405  
(910) 392-0223 Phone • (910) 392-4424 Fax  
EChemW@aol.com

NCDENR: DWO Certificate #94. DLS Certificate #37729

## TTHM/HAA5 - Disinfection Byproducts Analysis

Note: All information must be supplied for compliance credit.

Water System ID#: \_\_\_\_\_ County: \_\_\_\_\_  
Name of Water System: UNC - Bingham

Sample Type:  Maximum Chlorine Residence  Distribution  Special/Non-compliance  
Location Where Collected: Raw Water Well

(Note: sample MUST be collected from Maximum Chlorine Residence or Distribution sites)

Location Code: \_\_\_\_\_ Collection Date: 10/18/10 Collection Time: 1120  
Collected By: Jay Baker (MM/DD/YY) (Specify AM or PM)

Mail Results to (water system representative):  
McKim & Creed - Raleigh Attn: Kevin Eberle, P.E.

Telephone No: (910) 223-4698

1730 Varsity Drive Suite 500

Fax No: (910) 223-7728

Raleigh, NC 27606

Responsible person's email: \_\_\_\_\_@\_\_\_\_\_

Laboratory ID#: 37729  SAMPLE UNSATISFACTORY  RESAMPLE REQUIRED

	CONTAM CODE	CONTAMINANT	METHOD CODE			REQUIRED REPORTING LIMIT (R.R.L.)		LESS THAN R.R.L. (X)	QUANTIFIED RESULTS*					ALLOWABLE LIMIT		
			2	1	7	0.001	mg/L		-	.	-	-	-	mg/L	0.080	mg/L
TTHM ANALYSIS	2941	Chloroform	2	1	7	0.001	mg/L	X	-	.	-	-	-	mg/L	0.080	mg/L
	2942	Bromoform	2	1	7	0.001	mg/L	X	-	.	-	-	-	mg/L	0.080	mg/L
	2943	Bromodichloromethane	2	1	7	0.001	mg/L	X	-	.	-	-	-	mg/L	0.080	mg/L
	2944	Chlorodibromomethane	2	1	7	0.001	mg/L	X	-	.	-	-	-	mg/L	0.080	mg/L
	2950	Total Trihalomethanes	2	1	7	0.001	mg/L	X	-	.	-	-	-	mg/L	0.080	mg/L
HAA5 ANALYSIS	2450	Monochloroacetic Acid	2	5	3	0.002	mg/L	X	-	.	-	-	-	mg/L	0.060	mg/L
	2451	Dichloroacetic Acid	2	5	3	0.001	mg/L	X	-	.	-	-	-	mg/L	0.060	mg/L
	2452	Trichloroacetic Acid	2	5	3	0.001	mg/L	X	-	.	-	-	-	mg/L	0.060	mg/L
	2453	Monobromoacetic Acid	2	5	3	0.001	mg/L	X	-	.	-	-	-	mg/L	0.060	mg/L
	2454	Dibromoacetic Acid	2	5	3	0.001	mg/L	X	-	.	-	-	-	mg/L	0.060	mg/L
	2456	Total Haloacetic Acids	2	5	3	0.002	mg/L	X	-	.	-	-	-	mg/L	0.060	mg/L

\* Note: If result exceeds allowable limit, the laboratory must fax analytical results to the State within 48 hours.

	DATE:	TIME:
Analysis Begun:	<u>10/20/2010</u>	<u>1300</u>
Analysis Completed:	<u>10/26/2010</u>	<u>1700</u>

Laboratory Log #: 26332

Certified By: BARBARA FIELD *Barbara Field*  
(Print and Sign Name)

COMMENTS:

Report # 10-10502

Bottle ID #



**Environmental Chemists, Inc.**  
 6602 Windmill Way • Wilmington, North Carolina 28405  
 (910) 392-0223 Phone • (910) 392-4424 Fax  
 EChemW@aol.com

**NCDENR: DWQ Certificate #94, DLS Certificate #37729**

**UNREGULATED ORGANIC CHEMICALS ANALYSIS**

Note: All information must be supplied for compliance credit.

WATER SYSTEM ID #: \_\_\_\_\_ County: \_\_\_\_\_

Name of Water System: UNC – Bingham

Sample Type:  Entry Point  Special/Non-compliance

Location Where Collected: Raw Water

Facility ID No. \_\_\_\_\_

Sample Point: \_\_\_\_\_

Collected By: Jay Baker

Collection Date	Collection Time
<u>10/18/10</u>	<u>11:20 AM</u>

McKim & Creed – Raleigh Attn: Kevin Eberle, P.E.

1730 Varsity Drive Suite 500

Raleigh, NC 27606

Phone #: ( ) \_\_\_\_\_

Fax #: ( ) \_\_\_\_\_

LABORATORY ID #: 37729  SAMPLE UNSATISFACTORY  RESAMPLE REQUIRED

CONTAMINANT	METHOD CODE	QUANTIFIED RESULTS
2,3,7,8 – TCDD	1613	< 0.0100 ng/L

	DATE:	TIME:
ANALYSES BEGUN:	<u>10/26/10</u>	<u>0800</u>
ANALYSES COMPLETED:	<u>11/04/10</u>	<u>1416</u>

Laboratory Log #: 26332 Certified By: Barbara J. Field

COMMENTS: \_\_\_\_\_

**Report # 10-10502**

## ASBESTOS ANALYSIS

Note: All information must be supplied for compliance credit.

WATER SYSTEM ID #: N/A

County: N/A

Name of Water System: N/A

Sample Type:  Distribution  Entry Point  Special/Non-compliance

Facility ID No (if Distribution): Sample Point:

Facility ID No (if Entry Point): Sample Point:

Location Where Collected: Bingham Raw Water

Collected By: Jay Baker  
(Please Print)

Collection Date

10/18/10  
(MM/DD/YY)

Collection Time

11:20 am  
(Specify AM or PM)

Mail Results to (water system representative):

Envirochem  
6602 Windmill Way  
Wilmington, NC 28405

Phone#: (910) 392-0223

Fax#: (910) 392-4424

Responsible party's email: N/A

LABORATORY ID #: 3 7 7 9 2

SAMPLE UNSATISFACTORY

RESAMPLE REQUIRED

CONTAM CODE	CONTAMINANT	METHOD CODE	REQUIRED REPORTING LIMIT (R.R.L.)	NOT DETECTED (i.e. < R.R.L.) (X)	QUANTIFIED RESULTS 1,2	ALLOWABLE LIMIT
1791	Chrysotile	<u>1</u> <u>7</u> <u>2</u>	0.2 MFL	<input checked="" type="checkbox"/>	< 0.17	MFL 7.0 MFL
1792	Amphibole	<u>1</u> <u>7</u> <u>2</u>	0.2 MFL	<input checked="" type="checkbox"/>	< 0.17	MFL 7.0 MFL
1094	Total Asbestos	<u>1</u> <u>7</u> <u>2</u>	0.2 MFL	<input checked="" type="checkbox"/>	< 0.17	MFL 7.0 MFL

Notes: <sup>1</sup> MFL = Million Fibers per Liter > 10 µm.

<sup>2</sup> If result exceeds allowable limit, the laboratory must fax analytical results to the State within 48 hours.

	DATE:	TIME:
ANALYSES BEGUN:	10/20/2010 (MM/DD/YY)	10:15 AM (Specify AM or PM)
ANALYSES COMPLETED:	10/28/2010 (MM/DD/YY)	1:15 PM (Specify AM or PM)

Laboratory Log #: 291006856

COMMENTS: ID# 26332 10-10502

Certified By:

  
(Print and sign name)  
Essie Spencer

Laboratory should Mail Results to:

Public Water Supply Section - State Data Entry, 1634 Mail Service Center, Raleigh, NC 27609-1634  
Fax: 919.715.6637

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Environmental Chemists  
 Address : 6602 Windmill Way  
 Wilmington, North Carolina 28405  
 Contact: Mr. Ray Porter  
 Project: Radiochemistry Analytical

Report Date: November 12, 2010

Client Sample ID: #26332      Project: EVCM00110  
 Sample ID: 265137001      Client ID: EVCM001  
 Matrix: Drinking Water (Potable)  
 Collect Date: 18-OCT-10 11:20  
 Receive Date: 21-OCT-10  
 Collector: Client

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
<b>Rad Gamma Spec Analysis</b>											
<i>Cesium 134 "As Received"</i>											
Cesium-134	U	ND	+/-3.29	4.45		pCi/L		KXG3 11/08/10 1023	1042357		1
<b>Rad Gas Flow Proportional Counting</b>											
<i>GFPC, Sr89&amp;90 in Drinking Water EPA 905.0 "As Received"</i>											
Strontium-89	U	ND	+/-2.09	3.93	10.0	pCi/L		JXR1 11/09/10 1204	1042714		2
Strontium-90	U	ND	+/-0.567	1.99	2.00	pCi/L					
<i>Gross Alpha/Beta in Drinking Water EPA 900.0 "As Received"</i>											
Alpha	U	ND	+/-2.06	2.81	3.00	pCi/L		LYL1 11/03/10 1521	1042080		3
Beta		4.12	+/-2.03	2.84	4.00	pCi/L					
<i>Iodine-131 in Drinking Water "As Received"</i>											
Iodine-131	HU	ND	+/-1.92	3.54	1.00	pCi/L		KSD1 11/09/10 2032	1042712		4
<i>Radium-228 in Drinking Water EPA 904.0 "As Received"</i>											
Radium-228	U	ND	+/-0.295	0.473	1.00	pCi/L		AYB1 11/04/10 1344	1042709		5
<b>Rad Liquid Scintillation Analysis</b>											
<i>Tritium in Drinking Water EPA 906.0 "As Received"</i>											
Tritium	U	ND	+/-324	518	1000	pCi/L		EXK2 11/07/10 1842	1044309		6
<b>Rad Radium-226</b>											
<i>Radium-226 in Drinking Water EPA 903.1 (De-emanati "As Received"</i>											
Radium-226		0.503	+/-0.333	0.478	1.00	pCi/L		KSD1 11/01/10 1955	1040898		7

**The following Analytical Methods were performed**

Method	Description	Analyst Comments
1	EPA 901.1	
2	EPA 905.0	<i>Don't have Reps by limit</i>
3	EPA 900.0	
4	EPA 902.0/SM 7500-I B	
5	EPA 904.0/ EPA 9320	
6	EPA 906.0	
7	EPA 903.1	

Surrogate/Tracer recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Yttrium Carrier	GFPC, Sr89&90 in Drinking Water EPA 905.0 "As Received"			95.1	(25%-125%)



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Environmental Chemists  
Address : 6602 Windmill Way  
  
Wilmington, North Carolina 28405  
Contact: Mr. Ray Porter  
Project: Radiochemistry Analytical

Report Date: November 12, 2010

Client Sample ID: #26332  
Sample ID: 265137001

Project: EVCM00110  
Client ID: EVCM001

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Strontium Carrier	GFPC, Sr89&90 in Drinking Water EPA 905.0 "As Received"						74.6			(25%-125%)	
Potassium Iodate Carrier	Iodine-131 in Drinking Water "As Received"						68.5			(25%-125%)	
Yttrium Carrier	Radium-228 in Drinking Water EPA 904.0 "As Received"						71.1			(25%-125%)	
Barium Carrier	Radium-228 in Drinking Water EPA 904.0 "As Received"						107			(25%-125%)	



Analytical & Consulting Chemists

# ENVIRONMENTAL CHEMISTS, INC

NC DENR: DWQ CERTIFICATION # 94 NCDHHS: DLS CERTIFICATION # 37729

6602 Windmill Way Wilmington, NC 28405

OFFICE: 910-392-0223 FAX 910-392-4424

## COLLECTION AND CHAIN OF CUSTODY

CLIENT: Mckim & Creed - Raleigh PROJECT NAME: UNC - Bingham REPORT NO: 10-10502  
 ADDRESS: \_\_\_\_\_ CONTACT NAME: Kevin Eberle, P.E. PO NO: \_\_\_\_\_  
 REPORT TO: \_\_\_\_\_ PHONE/FAX: \_\_\_\_\_  
 COPY TO: \_\_\_\_\_ E-MAIL: \_\_\_\_\_

Sampled By: J. B. Cole SAMPLE TYPE: I = Influent, E = Effluent, W = Well, ST = Stream, SO = Soil, SL = Sludge, Other: \_\_\_\_\_

Sample Identification	Collection			Sample Type	Composite or Grab	Container (P or G)	Chlorine mg/L	LAB ID NUMBER	PRESERVATION							ANALYSIS REQUESTED	
	Date	Time	Temp						NONE	HCL	H2SO4	HNO3	NaOH	TBHQ	OTHER		
<u>UNC - Bingham</u>	<u>12/17/10</u>	<u>1120</u>	<u>16.9°C</u>		<u>C</u>	<u>P</u>		<u>24332</u>									<u>see attached list</u>
<u>Low Water well</u>					<u>C</u>	<u>P</u>											
					<u>G</u>	<u>G</u>											
<u>pH = 7.07 @ 114</u>					<u>C</u>	<u>P</u>											
					<u>G</u>	<u>G</u>											
					<u>C</u>	<u>P</u>											
					<u>G</u>	<u>G</u>											
					<u>C</u>	<u>P</u>											
					<u>G</u>	<u>G</u>											
					<u>C</u>	<u>P</u>											
					<u>G</u>	<u>G</u>											
					<u>C</u>	<u>P</u>											
					<u>G</u>	<u>G</u>											
					<u>C</u>	<u>P</u>											
					<u>G</u>	<u>G</u>											

NOTICE - DECHLORINATION: Samples for Ammonia, TKN, Cyanide, Phenol and Bacteria must be dechlorinated (0.2 ppm or less) in the field at the time of collection. See reverse for instructions

Transfer	Relinquished By:	Date/Time	Received By:	Date/Time
1.				
2.				

Temperature when Received: 3.1°C Accepted: \_\_\_\_\_ Rejected: \_\_\_\_\_ Resample Requested: \_\_\_\_\_  
 Delivered By: JBC Received By: Kevin Eberle Date: 12/17/10 Time: 3:25 p  
 Comments: \_\_\_\_\_ TURNAROUND: \_\_\_\_\_





Analytical & Consulting Chemists

# Environmental Chemists, Inc.

6602 Windmill Way • Wilmington, North Carolina 28405  
(910) 392-0223 Phone • (910) 392-4424 Fax  
[EChemW@eml.com](mailto:ECHEM@eml.com)

NCDENR: DWQ Certificate #94, DLS Certificate #37729

## NEW WELL INORGANIC CHEMICAL ANALYSIS

Note: All information must be supplied for plan review credit.

WATER SYSTEM ID #: \_\_\_\_\_ County: \_\_\_\_\_

Name of Water System: UNC - Bingham

Sample Type:  Source for Plan Review

Location Where Collected: Lombardo Property

(Note: Compliance sample **MUST** be collected at the entry point.)

Location Code: N/A Collection Date Collection Time

Collected By: Jay Baker 10/18/10 1210 PM  
(Please Print) (MM/DD/YY) (Specify AM or PM)

Mail Results to (water system representative):

**McKIM & CREED - RALEIGH**  
1730 Varsity Drive Suite 500  
Raleigh, NC 27606  
Attn: Kevin Eberle, P.E

Phone #: ( ) \_\_\_\_\_

Fax #: ( ) \_\_\_\_\_

\*NOTE: Please complete portion above double line on Page 2.

LABORATORY ID #: **3 7 7 2 9**

SAMPLE UNSATISFACTORY

RESAMPLE REQUIRED

CONTAM CODE	CONTAMINANT	METHOD CODE	REQUIRED REPORTING LIMIT (R.R.L.)	NOT DETECTED (i.e. < R.R.L.) (X)	QUANTIFIED RESULTS*	ALLOWABLE LIMIT
1005	Arsenic	EPA 200.8	0.005 mg/L	X	_____ mg/L	0.010 mg/L
1010	Barium	EPA 200.8	0.400 mg/L	X	_____ mg/L	2.000 mg/L
1015	Cadmium	EPA 200.8	0.001 mg/L	X	_____ mg/L	0.005 mg/L
1020	Chromium	EPA 200.8	0.020 mg/L	X	_____ mg/L	0.100 mg/L
1022	Copper	EPA 200.8	0.050 mg/L	X	_____ mg/L	1.300 mg/L
1024	Cyanide	EPA 335.4	0.050 mg/L	X	_____ mg/L	0.200 mg/L
1025	Fluoride	EPA 300.0	0.100 mg/L	<input type="checkbox"/>	<b>0.2</b> mg/L	4.000 mg/L
1028	Iron	EPA 200.7	0.060 mg/L	X	_____ mg/L	0.300 mg/L
1030	Lead	EPA 200.8	0.003 mg/L	X	_____ mg/L	0.015 mg/L
1031	Magnesium	EPA 200.7	1.0 mg/L	<input type="checkbox"/>	<b>14.3</b> mg/L	N/A
1032	Manganese	EPA 200.8	0.010 mg/L	<input type="checkbox"/>	<b>0.032</b> mg/L	0.050 mg/L
1035	Mercury	EPA 245.1	0.0004 mg/L	X	_____ mg/L	0.002 mg/L
1036	Nickel	EPA 200.8	0.100 mg/L	X	_____ mg/L	N/A
1040	Nitrate	SM 4500 NO <sub>3</sub> E	1.00 mg/L	X	_____ mg/L	10.00 mg/L
1041	Nitrite	SM 4500 NO <sub>2</sub> B	0.10 mg/L	X	_____ mg/L	1.00 mg/L

\*Note: Concentrations for Lead and Copper are action levels, not MCLs.

# 26335 10-10502



Analytical & Consulting Chemists

**Environmental Chemists, Inc.**

6602 Windmill Way • Wilmington, North Carolina 28405  
 (910) 392-0223 Phone • (910) 392-4424 Fax  
[EChemW@aol.com](mailto:EChemW@aol.com)

NCDENR: DWQ Certificate #94, DLS Certificate #37729

**NEW WELL INORGANIC CHEMICAL ANALYSIS**

(Continued)

Note: All information must be supplied for plan review credit.

WATER SYSTEM ID #: \_\_\_\_\_

Collection Date

Collection Time

Location Code: Lombardo Property

10/18/10  
(MM/DD/YY)

12:10 PM  
(Specify AM or PM)

LABORATORY ID #: **37729**

CONTAM CODE	CONTAMINANT	METHOD CODE	REQUIRED REPORTING LIMIT (R.R.L.)	NOT DETECTED (i.e. < R.R.L.) (X)	QUANTIFIED RESULTS*	ALLOWABLE LIMIT
1045	Selenium	EPA 200.8	0.010 mg/L	X	_____ mg/L	0.050 mg/L
1052	Sodium	EPA 200.7	1.0 mg/L	<input type="checkbox"/>	<u>32.4</u> mg/L	N/A
1055	Sulfate	EPA 300.0	15.0 mg/L	X	_____ mg/L	250.0 mg/L
1074	Antimony	EPA 200.8	0.003 mg/L	X	_____ mg/L	0.006 mg/L
1075	Beryllium	EPA 200.8	0.002 mg/L	X	_____ mg/L	0.004 mg/L
1085	Thallium	EPA 200.8	0.001 mg/L	X	_____ mg/L	0.002 mg/L
1915	Total Hardness	SM 2340 C	1.0 mg/L	<input type="checkbox"/>	<u>121.</u> mg/L	N/A
1927	Alkalinity	SM 2320 B	1.0 mg/L	<input type="checkbox"/>	<u>176.</u> mg/L	N/A
1930	Total Dissolved Solids	SM 2540 C	10.0 mg/L	<input type="checkbox"/>	<u>200.</u> mg/L	500.0 mg/L
2920	Total Organic Carbon (TOC)	SM 5310 B	1.0 mg/L	X	_____ mg/L	N/A
2922	Ultraviolet Absorption 254 (UV254)	SM 5910 B	1.0 cm <sup>-1</sup>	X	_____ m <sup>-1</sup>	N/A
2919	Dissolved Organic Carbon	SM 5310 B	1.0 mg/L	X	_____ mg/L	N/A
1004	Bromide	EPA 300.1	0.010 mg/L	X	_____ mg/L	N/A
1011	Bromate	EPA 300.1	0.0050 mg/L	X	_____ mg/L	0.010 mg/L
-	Calcium Hardness	SM 3500 Ca D	N/A	<input type="checkbox"/>	<u>106.</u> mg/L	N/A
-	Chlorite	EPA 300.1	0.01 mg/L	X	_____ mg/L	N/A

\*Note: Concentrations for Lead and Copper are action levels, not MCLs.

	<b>DATE:</b>	<b>TIME:</b>
<b>ANALYSES BEGUN:</b>	<u>10/19/10</u>	<u>1520</u>
<b>ANALYSES COMPLETED:</b>	<u>11/05/10</u>	<u>1923</u>

Laboratory Log #: 26335 Certified By: BARBARA J. FIELD Barbara J. Field  
(print and signature)

COMMENTS: \_\_\_\_\_ REPORT # 10-10502



Environmental Chemists, Inc.

6602 Windmill Way • Wilmington, North Carolina 28405

(910) 392-0223 Phone • (910) 392-4424 Fax

ECHEM@AOL.COM

NCDENR: DWQ Certificate #94, DLS Certificate #37729

VOLATILE ORGANIC CHEMICALS (VOCs) ANALYSIS

Note: All information must be supplied for compliance credit.

WATER SYSTEM ID #: \_\_\_\_\_ County: \_\_\_\_\_

Name of Water System: UNC- Bingham

Sample Type:  Entry Point  Special/Non-compliance

Location Where Collected: Lombardo Property

Facility ID No. \_\_\_\_\_

Sample Point: \_\_\_\_\_

Collected By: Jay Baker

(Please Print)

Collection Date

Collection Time

10/18/10

1210

(MM/DD/YY)

(Specify AM or PM)

McKIM & CREED - RALEIGH

1730 Varsity Drive Suite 500

Raleigh, NC 27606

Attn: Kevin Eberle, P.E

Phone #: (\_\_\_\_) \_\_\_\_\_

Fax #: (\_\_\_\_) \_\_\_\_\_

LABORATORY ID #: 37729

SAMPLE UNSATISFACTORY

RESAMPLE REQUIRED

CONTAM CODE	CONTAMINANT	METHOD CODE	REQUIRED REPORTING LIMIT (R.R.L.)	NOT DETECTED (i.e. < R.R.L.) (X)	QUANTIFIED RESULTS*	ALLOWABLE LIMIT
2378	1,2,4-Trichlorobenzene	502.2	0.0005 mg/L	X	_____ mg/L	0.07 mg/L
2380	Cis-1,2-Dichloroethylene	502.2	0.0005 mg/L	X	_____ mg/L	0.07 mg/L
2955	Xylenes (Total)	502.2	0.0005 mg/L	X	_____ mg/L	10.00 mg/L
2964	Dichloromethane	502.2	0.0005 mg/L	X	_____ mg/L	0.005 mg/L
2968	o-Dichlorobenzene	502.2	0.0005 mg/L	X	_____ mg/L	0.60 mg/L
2969	p-Dichlorobenzene	502.2	0.0005 mg/L	X	_____ mg/L	0.075 mg/L
2976	Vinyl Chloride	502.2	0.0005 mg/L	X	_____ mg/L	0.002 mg/L
2977	1,1-Dichloroethylene	502.2	0.0005 mg/L	X	_____ mg/L	0.007 mg/L
2979	Trans-1,2-Dichloroethylene	502.2	0.0005 mg/L	X	_____ mg/L	0.10 mg/L
2980	1,2-Dichloroethane	502.2	0.0005 mg/L	X	_____ mg/L	0.005 mg/L
2981	1,1,1-Trichloroethane	502.2	0.0005 mg/L	X	_____ mg/L	0.20 mg/L
2982	Carbon Tetrachloride	502.2	0.0005 mg/L	X	_____ mg/L	0.005 mg/L
2983	1,2-Dichloropropane	502.2	0.0005 mg/L	X	_____ mg/L	0.005 mg/L
2984	Trichloroethylene	502.2	0.0005 mg/L	X	_____ mg/L	0.005 mg/L
2985	1,1,2-Trichloroethane	502.2	0.0005 mg/L	X	_____ mg/L	0.005 mg/L
2987	Tetrachloroethylene	502.2	0.0005 mg/L	X	_____ mg/L	0.005 mg/L
2989	Chlorobenzene	502.2	0.0005 mg/L	X	_____ mg/L	0.10 mg/L
2990	Benzene	502.2	0.0005 mg/L	X	_____ mg/L	0.005 mg/L
2991	Toluene	502.2	0.0005 mg/L	X	_____ mg/L	1.00 mg/L
2992	Ethylbenzene	502.2	0.0005 mg/L	X	_____ mg/L	0.70 mg/L
2996	Styrene	502.2	0.0005 mg/L	X	_____ mg/L	0.10 mg/L

\*Note: If result exceeds allowable limit, the laboratory must fax analytical results to the State within 48 hours.

	DATE:	TIME:
ANALYSES BEGUN:	<u>10/23/10</u>	<u>1707</u>
ANALYSES COMPLETED:	<u>10/26/10</u>	<u>1700</u>

Laboratory Log #: 26335 Certified By: BONNIE FIELDS

COMMENTS: \_\_\_\_\_ Report # 10-10502

Laboratory should Mail Results to:

Public Water Supply Section, Attn: Data Entry, 1634 Mail Service Center, Raleigh, NC 27699-1634

Fax: 919.715.6637



**Environmental Chemists, Inc.**  
 6602 Windmill Way • Wilmington, North Carolina 28405  
 (910) 392-0223 Phone • (910) 392-4424 Fax  
 EChemW@aol.com

**NCDENR: DWQ Certificate #94, DLS Certificate #37729**

**PESTICIDES AND SYNTHETIC ORGANIC CHEMICALS (SOCs) EXTENDED**

Note: All information must be supplied for compliance credit.

**WATER SYSTEM ID #:** \_\_\_\_\_ **County:** \_\_\_\_\_

**Name of Water System:** UNC- Bingham

**Sample Type:**  Entry Point  Special/Non-compliance

**Location Where Collected:** Lombardo Property

**Facility ID No.** \_\_\_\_\_

**Sample Point:** \_\_\_\_\_

**Collected By:** Jay Baker  
(Please Print)

<u>Collection Date</u>	<u>Collection Time</u>
<u>10/18/10</u> <small>(MM/DD/YY)</small>	<u>1210</u> <small>(Specify AM or PM)</small>

**Mail Results to (water system representative):**

**McKIM & CREED – RALEIGH**  
**1730 Varsity Drive Suite 500**  
**Raleigh, NC 27606**  
**Attn: Kevin Eberle, P.E**

**Phone #:** (\_\_\_\_) \_\_\_\_\_

**Fax #:** (\_\_\_\_) \_\_\_\_\_

NOTE: Please complete portion above double line on Page 2

**LABORATORY ID #:** 37729  **SAMPLE UNSATISFACTORY**  **RESAMPLE REQUIRED**

CONTAM CODE	CONTAMINANT	METHOD CODE	REQUIRED REPORTING LIMIT (R.R.L.)	NOT DETECTED (i.e. < R.R.L.) (X)	QUANTIFIED RESULTS*	ALLOWABLE LIMIT
-	Diquat	EPA 549.2	2.0	X	_____ µg/L	N/A
-	Endothall	EPA 548.1	10	X	_____ mg/L	N/A
-	Glyphosate	EPA 547	25	X	_____ mg/L	N/A

\*Note: If result exceeds allowable limit, the laboratory must fax analytical results to the State within 48 hours. **LAB # 26332 REPORT # 10-10502**

	<b>DATE:</b>	<b>TIME:</b>
<b>ANALYSES BEGUN:</b>	<u>10/21/10</u>	<u>1404</u>
<b>ANALYSES COMPLETED:</b>	<u>10/28/10</u>	<u>2314</u>

**Laboratory Log #:** 26335

**Certified By:** BARBARA FERRARO  
(Print and sign name)

**COMMENTS:** \_\_\_\_\_ **REPORT # 10-10502**



**PESTICIDES AND SYNTHETIC ORGANIC CHEMICALS (SOCs) ANALYSIS**

Note: All information must be supplied for compliance credit.

WATER SYSTEM ID #: \_\_\_\_\_ County: \_\_\_\_\_

Name of Water System: UNC- Bingham

Sample Type:  Entry Point  Special/Non-compliance

Location Where Collected: Lombardo Property

Facility ID No. \_\_\_\_\_

Sample Point: \_\_\_\_\_

Collected By: Jay Baker  
(Please Print)

Collection Date	Collection Time
<u>10/18/10</u> <small>(MM/DD/YY)</small>	<u>1210</u> <small>(Specify AM or PM)</small>

Mail Results to (water system representative):

**McKIM & CREED – RALEIGH**  
**1730 Varsity Drive Suite 500**  
**Raleigh, NC 27606**  
**Attn: Kevin Eberle, P.E**

Phone #: (\_\_\_\_) \_\_\_\_\_

Fax #: (\_\_\_\_) \_\_\_\_\_

NOTE: Please complete portion above double line on Page 2

LABORATORY ID #: 37729

SAMPLE UNSATISFACTORY

RESAMPLE REQUIRED

CONTAM CODE	CONTAMINANT	METHOD CODE	REQUIRED REPORTING LIMIT (R.R.L.)	NOT DETECTED (i.e. < R.R.L.) (X)	QUANTIFIED RESULTS*	ALLOWABLE LIMIT
2005	Endrin	EPA 508.1	0.00001 mg/L	X	_____ mg/L	0.002 mg/L
2010	Lindane	EPA 508.1	0.00002 mg/L	X	_____ mg/L	0.0002 mg/L
2015	Methoxychlor	EPA 508.1	0.0001 mg/L	X	_____ mg/L	0.04 mg/L
2020	Toxaphene	EPA 508.1	0.001 mg/L	X	_____ mg/L	0.003 mg/L
2031	Dalapon	EPA 515.1	0.001 mg/L	X	_____ mg/L	0.2 mg/L
2035	Di(2-ethylhexyl)adipate	EPA 525.2	0.0006 mg/L	X	_____ mg/L	0.4 mg/L
2036	Oxamyl(vydate)	EPA 531.1	0.002 mg/L	X	_____ mg/L	0.2 mg/L
2037	Simazine	EPA 508.1	0.00007 mg/L	X	_____ mg/L	0.004 mg/L
2040	Picloram	EPA 515.1	0.0001 mg/L	X	_____ mg/L	0.5 mg/L
2041	Dinoseb	EPA 515.1	0.0002 mg/L	X	_____ mg/L	0.007 mg/L
2042	Hexachlorocyclopentadiene	EPA 508.1	0.0001 mg/L	X	_____ mg/L	0.05 mg/L
2046	Carbofuran	EPA 531.1	0.0009 mg/L	X	_____ mg/L	0.04 mg/L
2050	Atrazine	EPA 508.1	0.0001 mg/L	X	_____ mg/L	0.003 mg/L
2051	Alachlor	EPA 508.1	0.0002 mg/L	X	_____ mg/L	0.002 mg/L
2065	Heptachlor	EPA 508.1	0.00004 mg/L	X	_____ mg/L	0.0004 mg/L

\*Note: If result exceeds allowable limit, the laboratory must fax analytical results to the State within 48 hours. LAB # 26335 REPORT # 10-10502



**PESTICIDES AND SYNTHETIC ORGANIC CHEMICALS (SOCs) ANALYSIS**  
**(continued)**

Note: All information must be supplied for compliance credit.

**WATER SYSTEM NO.** \_\_\_\_\_

**Name of Water System:** Lombardo Property

**Facility ID No.** \_\_\_\_\_

**Sample Point:** \_\_\_\_\_

<u>Collection Date</u>	<u>Collection Time</u>
<u>10/18/10</u> <small>(MM/DD/YY)</small>	<u>1210</u> <small>(Specify AM or PM)</small>

CONTAM CODE	CONTAMINANT	METHOD CODE	REQUIRED REPORTING LIMIT (R.R.L.)	NOT DETECTED (i.e. < R.R.L.) (X)	QUANTIFIED RESULTS*	ALLOWABLE LIMIT
2067	Heptachlor Epoxide	EPA 508.1	0.00002 mg/L	X	-----	0.0002 mg/L
2105	2,4-D	EPA 515.1	0.0001 mg/L	X	-----	0.07 mg/L
2110	2,4,5-TP (Silvex)	EPA 515.1	0.0002 mg/L	X	-----	0.05 mg/L
2274	Hexachlorobenzene	EPA 508.1	0.0001 mg/L	X	-----	0.001 mg/L
2039	Di(2-ethylhexyl)phthalate	EPA 525.2	0.00132 mg/L	X	-----	0.006 mg/L
2306	Benzo(a)pyrene	EPA 525.2	0.00002 mg/L	X	-----	0.0002 mg/L
2326	Pentachlorophenol	EPA 515.1	0.00004 mg/L	X	-----	0.001 mg/L
2383	PCB's (as decachlorobiphenol)	EPA 508.1	0.0001** mg/L	X	-----	0.0005 mg/L
2931	DBCP	EPA 504.1	0.00002 mg/L	X	-----	0.0002 mg/L
2946	Ethylene Dibromide (EDB)	EPA 504.1	0.00001 mg/L	X	-----	0.00005 mg/L
2959	Chlordane	EPA 508.1	0.0002 mg/L	X	-----	0.002 mg/L

\*Note: If result exceeds allowable limit, the laboratory must fax analytical results to the State within 48 hours.

\*\*Note: R.R.L. (mg/L) for PCB screening are as follows: Aroclor 1016 - 0.00008, Aroclor 1221 - 0.02, Aroclor 1232 - 0.0005, Aroclor 1242 - 0.0003, Aroclor 1248 & 1254 - 0.0001, Aroclor 1260 - 0.0002

	<u>DATE:</u>	<u>TIME:</u>
<b>ANALYSES BEGUN:</b>	<u>10/18/10</u>	<u>1200</u>
<b>ANALYSES COMPLETED:</b>	<u>10/25/10</u>	<u>1500</u>

**Laboratory Log #:** 26335

**Certified By:** BARBARA FERRO Barbara Ferro  
(Print and sign name)

**COMMENTS:** \_\_\_\_\_ **REPORT # 10-10502**



ANALYTICAL & CONSULTING CHEMISTS

# Environmental Chemists, Inc.

6602 Windmill Way • Wilmington, NC 28405  
(910) 392-0223 (Lab) • (910) 392-4424 (Fax)  
710 Bowsertown Road • Manteo, NC 27954  
(252) 473-5702

NC DENR: DWQ CERTIFICATE #94. DLS CERTIFICATE #37729

## MICROBIOLOGY

Water System ID #:

County:

Name of Water System: McKim & Creed - Raleigh

Sample Type: Special

Location: Lombardo Property

Facility ID:

Sample Point:

Collection Date:

Collection Time:

10/18/2010

12:10:00 PM

Collected by: Jay Baker

Mail Results to (water system representative)

Phone Number:

1730 Varsity Drive #500

Fax Number:

Raleigh NC 27606

Free Chlorine Residual: mg/L

Total Chlorine Residual mg/L

LABORATORY ID #: 37729

Repeat Samples Required from Client

Resample Required from Client

<u>CONTAMINANT</u>	<u>METHOD CODE</u>	<u>QUANTIFIED RESULTS</u>	<u>ANALYSES BEGUN</u>	<u>ANALYSES COMPLETED</u>
LABORATORY LOG #:	10-26335			
Heterotrophic Bacteria	SM 9215B	27est cfu/ml	10/18/2010 16:15	10/20/2010 17:00
LABORATORY LOG #:	10-26335A			
E. Coli	M-ColiBlue 24 (MF)	<1est Colonies/100mL	10/18/2010 14:00	10/19/2010 15:30
Fecal Coliform	SM 9222D MF	<1est Colonies/100mL	10/18/2010 14:00	10/19/2010 15:30
Total Coliform	SM 9222B	2est Colonies/100mL	10/18/2010 14:00	10/19/2010 15:30

Comment:

Reviewed by:

*Jim Perice*

*Rhonda Stokes*

Sample Number 10-26335A

REPORT #: 2010-10502



Consulting Chemists

### Environmental Chemists, Inc.

6602 Windmill Way • Wilmington, North Carolina 28405

(910) 392-0223 Phone • (910) 392-4424 Fax

EChemW@aol.com

NCDENR: DWO Certificate #94. DLS Certificate #37729

## TTHM/HAA5 - Disinfection Byproducts Analysis

Note: All information must be supplied for compliance credit.

Water System ID#: \_\_\_\_\_ County: \_\_\_\_\_  
Name of Water System: UNC - Bingham

Sample Type:  Maximum Chlorine Residence  Distribution  Special/Non-compliance

Location Where Collected: Lombardo Property  
(Note: sample MUST be collected from Maximum Chlorine Residence or Distribution sites)

Location Code: \_\_\_\_\_ Collection Date: 10/18/10 Collection Time: 1210 PM  
Collected By: Jay Baker (MM/DD/YY) (Specify AM or PM)

Mail Results to (water system representative):  
McKim & Creed - Raleigh Attn: Kevin Eberle, P.E. Telephone No: (910) 223-4698  
1730 Varsity Drive Suite 500 Fax No: (910) 223-7728  
Raleigh, NC 27606 Responsible person's email: \_\_\_\_\_@\_\_\_\_\_

Laboratory ID#: 37729  SAMPLE UNSATISFACTORY  RESAMPLE REQUIRED

	CONTAM CODE	CONTAMINANT	METHOD CODE			REQUIRED REPORTING LIMIT (R.R.L.)		LESS THAN R.R.L (X)	QUANTIFIED RESULTS*						ALLOWABLE LIMIT	
			2	1	7	0.001	mg/L		-	.	-	-	-	mg/L	0.080	mg/L
TTHM ANALYSIS	2941	Chloroform	2	1	7	0.001	mg/L	X	-	.	-	-	-	mg/L	0.080	mg/L
	2942	Bromoform	2	1	7	0.001	mg/L	X	-	.	-	-	-	mg/L	0.080	mg/L
	2943	Bromodichloromethane	2	1	7	0.001	mg/L	X	-	.	-	-	-	mg/L	0.080	mg/L
	2944	Chlorodibromomethane	2	1	7	0.001	mg/L	X	-	.	-	-	-	mg/L	0.080	mg/L
	2950	Total Trihalomethanes	2	1	7	0.001	mg/L	X	-	.	-	-	-	mg/L	0.080	mg/L
HAA5 ANALYSIS	2450	Monochloroacetic Acid	2	5	3	0.002	mg/L	X	-	.	-	-	-	mg/L	0.060	mg/L
	2451	Dichloroacetic Acid	2	5	3	0.001	mg/L	X	-	.	-	-	-	mg/L	0.060	mg/L
	2452	Trichloroacetic Acid	2	5	3	0.001	mg/L	X	-	.	-	-	-	mg/L	0.060	mg/L
	2453	Monobromoacetic Acid	2	5	3	0.001	mg/L	X	-	.	-	-	-	mg/L	0.060	mg/L
	2454	Dibromoacetic Acid	2	5	3	0.001	mg/L	X	-	.	-	-	-	mg/L	0.060	mg/L
	2456	Total Haloacetic Acids	2	5	3	0.002	mg/L	X	-	.	-	-	-	mg/L	0.060	mg/L

\* Note: If result exceeds allowable limit, the laboratory must fax analytical results to the State within 48 hours.

	DATE:	TIME:
Analysis Begun:	<u>10/20/2010</u>	<u>1300</u>
Analysis Completed:	<u>10/26/2010</u>	<u>1700</u>

Laboratory Log #: 26335

Certified By: Barbara Tipton  
(Print and Sign Name)

COMMENTS: \_\_\_\_\_ Report # 10-10502  
Bottle ID # \_\_\_\_\_



**Environmental Chemists, Inc.**

6602 Windmill Way • Wilmington, North Carolina 28405

(910) 392-0223 Phone • (910) 392-4424 Fax

[EChemW@aol.com](mailto:EChemW@aol.com)

**NCDENR: DWQ Certificate #94, DLS Certificate #37729**

**UNREGULATED ORGANIC CHEMICALS ANALYSIS**

Note: All information must be supplied for compliance credit.

WATER SYSTEM ID #: \_\_\_\_\_ County: \_\_\_\_\_

Name of Water System: UNC – Bingham

Sample Type:  Entry Point  Special/Non-compliance

Location Where Collected: Lombardo Property

Facility ID No. \_\_\_\_\_

Sample Point: \_\_\_\_\_

Collected By: Jay Baker

Collection Date	Collection Time
<u>10/18/10</u>	<u>12:10 PM</u>

McKim & Creed – Raleigh Attn: Kevin Eberle, P.E.

1730 Varsity Drive Suite 500

Raleigh, NC 27606

Phone #: ( ) \_\_\_\_\_

Fax #: ( ) \_\_\_\_\_

LABORATORY ID #: 37729  SAMPLE UNSATISFACTORY  RESAMPLE REQUIRED

CONTAMINANT	METHOD CODE	QUANTIFIED RESULTS
2,3,7,8 – TCDD	1613	< 0.0100 ng/L

	DATE:	TIME:
ANALYSES BEGUN:	<u>10/26/10</u>	<u>0800</u>
ANALYSES COMPLETED:	<u>11/04/10</u>	<u>1343</u>

Laboratory Log #: 26335 Certified By: BARBARA FIELD Barbara Field

COMMENTS: \_\_\_\_\_

**Report # 10-10502**

**Laboratory should Mail Results to:**

Public Water Supply Section, Attn: Data Entry, 1634 Mail Service Center, Raleigh, NC 27699-1634

Fax: 919.715.6637

# EMSL Analytical, Inc.

1101 Aviation Parkway, Suite A.  
Morrisville, NC 27560  
(919) 465-3900

## ASBESTOS ANALYSIS

Note: All information must be supplied for compliance credit.

WATER SYSTEM ID #: N/A

County: N/A

Name of Water System: N/A

Sample Type:  Distribution  Entry Point  Special/Non-compliance

Facility ID No (if Distribution): Sample Point:

Facility ID No (if Entry Point): Sample Point:

Location Where Collected: Lombarde Property

Collected By: Jay Baker  
(Please Print)

<b>Collection Date</b> 10/18/10 (MM/DD/YY)	<b>Collection Time</b> 12:10 pm (Specify AM or PM)
--	--

<b>Mail Results to (water system representative):</b>	
Envirochem 6602 Windmill Way Wilmington, NC 28405	Phone#: (910) 392-0223 Fax#: (910) 392-4424  Responsible party's email: N/A

LABORATORY ID #: 3 7 7 9 2

SAMPLE UNSATISFACTORY

RESAMPLE REQUIRED

CONTAM CODE	CONTAMINANT	METHOD CODE	REQUIRED REPORTING LIMIT (R.R.L.)	NOT DETECTED (i.e. < R.R.L.) (X)	QUANTIFIED RESULTS 1,2	ALLOWABLE LIMIT
1791	Chrysotile	<u>1 7 2</u>	0.2 MFL	<input checked="" type="checkbox"/>	< 0.17 MFL	7.0 MFL
1792	Amphibole	<u>1 7 2</u>	0.2 MFL	<input checked="" type="checkbox"/>	< 0.17 MFL	7.0 MFL
1094	Total Asbestos	<u>1 7 2</u>	0.2 MFL	<input checked="" type="checkbox"/>	< 0.17 MFL	7.0 MFL

Notes: <sup>1</sup> MFL = Million Fibers per Liter > 10 µm.

<sup>2</sup> If result exceeds allowable limit, the laboratory must fax analytical results to the State within 48 hours.

	<b>DATE:</b>	<b>TIME:</b>
<b>ANALYSES BEGUN:</b>	10/20/2010 (MM/DD/YY)	10:15 AM (Specify AM or PM)
<b>ANALYSES COMPLETED:</b>	10/28/2010 (MM/DD/YY)	12:45 PM (Specify AM or PM)

Laboratory Log #: 291006856

Certified By:

  
(Print and sign name)  
Essie Spencer

COMMENTS: ID# 26335 10-10502



# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Environmental Chemists  
Address : 6602 Windmill Way  
  
Wilmington, North Carolina 28405  
Contact: Mr. Ray Porter  
Project: Radiochemistry Analytical

Report Date: November 12, 2010

Client Sample ID: #26335  
Sample ID: 265137002

Project: EVCM00110  
Client ID: EVCM001

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Strontium Carrier	GFPC, Sr89&90 in Drinking Water EPA 905.0 "As Received"						87.0			(25%-125%)	
Potassium Iodate Carrier	Iodine-131 in Drinking Water "As Received"						75.7			(25%-125%)	
Yttrium Carrier	Radium-228 in Drinking Water EPA 904.0 "As Received"						74.8			(25%-125%)	
Barium Carrier	Radium-228 in Drinking Water EPA 904.0 "As Received"						90.9			(25%-125%)	



Analytical & Consulting Chemists

# ENVIRONMENTAL CHEMISTS, INC

NCDENR: DWQ CERTIFICATION # 94 NCDHHS: DLS CERTIFICATION # 37729

6602 Windmill Way Wilmington, NC 28405

OFFICE: 910-392-0223 FAX 910-392-4424

## COLLECTION AND CHAIN OF CUSTODY

CLIENT: Mekin & Creed PROJECT NAME: UAC - Bingham REPORT NO: 10-10502  
 ADDRESS: \_\_\_\_\_ CONTACT NAME: Kevin Ehrle P.E. PO NO: \_\_\_\_\_  
 REPORT TO: \_\_\_\_\_ PHONE/FAX: \_\_\_\_\_  
 COPY TO: \_\_\_\_\_ E-MAIL: \_\_\_\_\_

Sampled By: J Baker

SAMPLE TYPE: I = Influent, E = Effluent, W = Well, ST = Stream, SO = Soil, SL = Sludge, Other:

Sample Identification	Collection			Sample Type	Composite or Grab	Container (P or G)	Chlorine mg/L	LAB ID NUMBER	PRESERVATION							ANALYSIS REQUESTED	
	Date	Time	Temp						NONE	HCL	H2SO4	HNO3	NaOH	THO	OTHER		
Lambert Property	10/10/10	1200	16.7°C		C	P		26335									
pH: 7.24					G	G											
					C	P											
					G	G											
					C	P											
					G	G											
					C	P											
					G	G											
					C	P											
					G	G											
					C	P											
					G	G											
					C	P											
					G	G											

NOTICE - DECHLORINATION: Samples for Ammonia, TKN, Cyanide, Phenol and Bacteria must be dechlorinated (0.2 ppm or less) in the field at the time of collection. See reverse for instructions

Transfer	Relinquished By:	Date/Time	Received By:	Date/Time
1.				
2.				

Temperature when Received: 3.0°C Accepted: \_\_\_\_\_ Rejected: \_\_\_\_\_ Resample Requested: \_\_\_\_\_  
 Delivered By: JBA Received By: [Signature] Date: 10/10/10 Time: 3:45 p  
 Comments: \_\_\_\_\_ TURNAROUND: \_\_\_\_\_