North Carolina Department of Environment and Natural Resources

Pat McCrory
Governor

John E. Skvarla, III
Secretary

August 6, 2014

Sent Via Email - billhammill@gmail.com

Dr. William Hammill
11745 Trails End Lane
Huntersville, NC 28078

Re: *Health Risk Evaluation*
July 1, 2014 Water Sampling Results (WSW-2-EFF)
Mecklenburg County
North Mecklenburg C&D Landfill, Solid Waste Section Permit Number 60-13
DIN 21531

Dear Dr. Hammill:

The Solid Waste Section has completed a review of your July 1, 2014 water supply well sampling results for WSW-2-EFF, your drinking water well. This monthly sampling event was conducted in response to confirmed volatile organic compound exceedances within the groundwater monitoring wells located at the adjacent North Mecklenburg Construction and Demolition (C&D) Landfill, Solid Waste Section Permit Number 60-13.

The following table summarizes what was detected within the sample collected from your water supply well. The concentration is expressed in parts per billion (ppb) or included on the Health Risk Evaluation Memo as micrograms per liter of water (µg/L).

Sample ID	Detected	Concentration (ppb)	USEPA MCL[1] (ppb)	NC 2L[2] (ppb)	Calculated Health-Based Concentration (ppb)
WSW-2-EFF	Chloromethane	1.5	**	3	**

Notes – Shaded concentration indicates applicable standards are exceeded.

[1] US EPA Maximum Contaminant Level for Drinking Water
[2] NC Administrative Code, Section 2L, Groundwater Classification and Standards
** Not applicable

Standards listed on the table used to determine if water is suitable for drinking and cooking are the Federal Drinking Water Standards (USEPA MCL), or where there is no USEPA MCL, the NC Groundwater Quality Standard (NC 2L).

Ms. Hanna Assefa, Environmental Toxicologist with the NC Division of Waste Management, reviewed and evaluated the analytical results (please see the attached Health Risk Evaluation Memos).

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At this time, based upon this evaluation, the water from this source is suitable for drinking and cooking and all other household purposes. Therefore, no restrictions on the use of this water are recommended at this time.

If additional water supply well samples are collected and if the sampling results indicate detections of constituents within your water sample(s), a NC Division of Waste Management Environmental Toxicologist would continue to review and evaluate the sampling results.

If you have any questions or concerns regarding this letter, please feel free to contact me at 919-707-8294 or by email at jaclynne.drummond@ncdenr.gov.

Sincerely,

Digitally signed by Jaclynne Drummond
DN: cn=Jaclynne Drummond, o=NC Division of Waste Management, ou=NC Solid Waste Section, email=jaclynne.drummond@ncdenr.gov, c=US
Date: 2014.08.06 09:53:26 -04'00'

Jaclynne Drummond, Compliance Hydrogeologist
Solid Waste Section, Division of Waste Management
NCDENR

cc sent via email: Michael Scott, Division of Waste Management Deputy Director
Jason Watkins, Field Operations Branch Head
Mike Griffin, Greenway Waste Solutions, LLC

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August 05, 2014

TO: Jaclynne Drummond
NC Solid Waste Section

FROM: Hanna Assefa
Environmental Toxicologist
NC Division of Waste Management

RE: Health Risk Evaluation
William Hammill Residential Well Sampling Results, WSW2-EFF
11745 Trails End Lane
Huntersville, Mecklenburg County
North Mecklenburg C& d Landfill, Solid Waste Permit Number 60-13

During this sampling event, one contaminant was detected in the well water. The standards used to determine if the water is suitable for drinking and cooking are the United States Environmental Protection Agency's Maximum Contaminant Levels (MCLs) or, if no MCLs exist, North Carolina Groundwater Standards (2L).

If any contaminant concentrations exceed applicable standards for using the water for drinking and cooking, those contaminant concentrations are further analyzed to determine if the water is suitable for other household uses, such as showering, bathing, washing dishes, flushing toilets, and hand washing. The chart below compares the detected contaminant concentrations with the applicable standards:

Sample ID	Contaminant	Concentration (ug/l)*	MCL (ug/l)	2L (ug/l)	Calculated Health-based 2L (ug/l)
PG02075-006	Chloromethane	1.5		3	

* The abbreviation ug/l stands for micrograms of contaminant per liter of water and is roughly equivalent to parts per billion.

RECOMMENDATION: The concentration of chloromethane does not exceed applicable water standards. Therefore, no restrictions on the use of this water are recommended at this time.

Volatile Organic Compounds by GC/MS

Client: **Enviro-Pro, P.C.**
Laboratory ID: **PG02075-006**
Description: **HAMMILL WSW-2-EFF**
Matrix: **Aqueous**
Date Sampled: **07/01/2014 1115**
Date Received: **07/02/2014**

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/10/2014 1737	DCS		51044

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
Acetone	67-64-1	8260B	ND		20	ug/L	1
Acrylonitrile	107-13-1	8260B	ND		20	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	ug/L	1
Bromochloromethane	74-97-5	8260B	ND		1.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	ug/L	1
Chloromethane (Methyl chloride)	**74-87-3**	**8260B**	**1.5**		**1.0**	**ug/L**	**1**
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	ug/L	1
Dibromomethane (Methylene bromide)	74-95-3	8260B	ND		1.0	ug/L	1
trans-1,4-Dichloro-2-butene	110-57-6	8260B	ND		2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	ug/L	1
Methyl iodide (Iodomethane)	74-88-4	8260B	ND		5.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	ug/L	1
1,1,1,2-Tetrachloroethane	630-20-6	8260B	ND		1.0	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	ug/L	1
Tetrahydrofuran	109-99-9	8260B	ND		5.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	ug/L	1

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the PQL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

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Description: HAMMILL WSW-2-EFF
Matrix: Aqueous
Date Sampled: 07/01/2014 1115
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Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/10/2014 1737	DCS		51044

Parameter	CAS Number	Analytical Method	Result	Q	PQL	Units	Run
1,2,3-Trichloropropane	96-18-4	8260B	ND		1.0	ug/L	1
Vinyl acetate	108-05-4	8260B	ND		5.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		84	70-130
Toluene-d8		100	70-130

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