



North Carolina Department of Environment and Natural Resources

Dexter R. Matthews, Director

Division of Waste Management

Michael F. Easley, Governor
William G. Ross Jr., Secretary

July 22, 2008

MEMORANDUM

TO: Hanna Assefa, Industrial Hygienist
Superfund Section, Inactive Hazardous Sites Branch (IHSB)

FROM: Ginny Henderson, Hydrogeologist
Superfund Section, IHSB

RE: Health Risk Evaluation Request
APAC-Castle Hayne
New Hanover County
Site I.D. # NONCD0002779

This sample was collected from a non-drinking water supply well located at 4901 N. College Road., in Castle Hayne, New Hanover Co. This sample was collected on June 25, 2008 by the IHSB personnel to determine if the supply well was still impacted by chlorinated compounds. Because this sample was collected from a water supply well, the IHSB requests a health risk evaluation and a recommendation for the continued use of this well. This information will be provided to the well user. The following table summarizes the detected compounds and the corresponding concentrations and the portion of the laboratory analytical report associated with this sample is attached.

Compound	Units	Concentration
Vinyl chloride	µg/L	2.7
Chloroethane	µg/L	0.86
1,1-dichloroethene	µg/L	0.46
1,1-dichloroethane	µg/L	2.1
Cis-1,2-dichloroethene	µg/L	0.57
Iron	µg/L	7100
Manganese	µg/L	760

If you have questions, please contact me at (910) 796-7340.

Attachment

NC DWQ Laboratory Section Results

County: NEW HANOVER
 River Basin:
 Report To: WIROUST
 Collector: G HENDERSON
 Region: WIRO
 Sample Matrix: GROUNDWATER
 Loc. Type: WATER SUPPLY
 Emergency Yes/No
 COC Yes/No: YES



Sample ID: AB31973
 PO Number #: 8G0786
 Date Received: 06/26/2008
 Time Received: 07:45
 Labworks LoginID: MMATHIS
 Date Reported: 7/17/08
 Report Generated: 07/17/2008

VisitID

Loc. Descr.: BARNHILL

QC 7/18/08

Location ID: <u>1HSBNONCD0002779</u>	Collect Date: <u>06/25/2008</u>	Collect Time: <u>10:15</u>	Sample Depth
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Sample Qualifiers and Comments



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JUL 21 2008

BY: _____

Routine Qualifiers

For a more detailed description of these qualifier codes refer to www.dwqlab.org under Staff Access

- | | |
|--|---|
| <p>A-Value reported is the average of two or more determinations</p> <p>B1-Countable membranes with <20 colonies; Estimated</p> <p>B2- Counts from all filters were zero.</p> <p>B3- Countable membranes with more than 60 or 80 colonies; Estimated</p> <p>B4-Filters have counts of both >60 or 80 and < 20; Estimated</p> <p>B5-Too many colonies were present; too numerous to count (TNTC)</p> <p>J2- Reported value failed to meet QC criteria for either precision or accuracy; Estimated</p> <p>J3-The sample matrix interfered with the ability to make any accurate determination; Estimated</p> <p>J6-The lab analysis was from an unpreserved or improperly chemically preserved sample; Estimated</p> <p>N1-The component has been tentatively identified based on mass spectral library search and has an estimated value</p> | <p>N3-Estimated concentration is < PQL and >MDL</p> <p>NE-No established PQL</p> <p>P-Elevated PQL due to matrix interference and/or sample dilution</p> <p>Q1-Holding time exceeded prior to receipt at lab.</p> <p>Q2- Holding time exceeded following receipt by lab</p> <p>PQL- Practical Quantitation Limit-subject to change due to instrument sensitivity</p> <p>U- Samples analyzed for this compound but not detected</p> <p>X1- Sample not analyzed for this compound</p> |
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LAB

NC DWQ Laboratory Section Results

Sample ID **AB31973**

Location ID: **1HSBNONCD0002779**
 Loc. Descr.: **BARNHILL**
 Visit ID

Collect Date: **06/25/2008**
 Collect Time: **10:15**

CAS #	Analyte Name	PQL	Result	Qualifier	Units	Analyst/Date	Approved By /Date
	Sample temperature at receipt by lab		2.4		°C	HPARKER	MMATHIS
	Method Reference					6/26/08	6/27/08
MET							
7440-22-4	Ag by ICPMS	5.0	5.0	U	ug/L	SGOSS	ESTAFFORD
	Method Reference EPA 200.8					7/1/08	7/17/08
7429-90-5	Al by ICP	50	66		ug/L	DSTANLEY	ESTAFFORD
	Method Reference EPA 200.7					7/1/08	7/17/08
7440-38-2	As by ICPMS	5.0	5.0	U	ug/L	SGOSS	ESTAFFORD
	Method Reference EPA 200.8					7/1/08	7/17/08
7440-38-3	Ba by ICP	10	48		ug/L	DSTANLEY	ESTAFFORD
	Method Reference EPA 200.7					7/1/08	7/17/08
7440-70-2	Ca by ICP	0.10	140		mg/L	DSTANLEY	ESTAFFORD
	Method Reference EPA 200.7					7/1/08	7/17/08
7440-43-9	Cd by ICPMS	1.0	1.0	U	ug/L	SGOSS	ESTAFFORD
	Method Reference EPA 200.8					7/1/08	7/17/08
7440-47-3	Cr by ICPMS	10	10	U	ug/L	SGOSS	ESTAFFORD
	Method Reference EPA 200.8					7/1/08	7/17/08
7440-50-8	Cu by ICPMS	2.0	2.1		ug/L	SGOSS	ESTAFFORD
	Method Reference EPA 200.8					7/1/08	7/17/08
7440-48-4	Fe by ICP	50	7100		ug/L	DSTANLEY	ESTAFFORD
	Method Reference EPA 200.7					7/1/08	7/17/08
7439-97-6	Hg 245.1	0.2	0.20	U	ug/L	ESTAFFORD	ESTAFFORD
	Method Reference EPA 245.1					7/1/08	7/17/08
7440-09-7	K by ICP	0.10	2.5		mg/L	DSTANLEY	ESTAFFORD
	Method Reference EPA 200.7					7/1/08	7/17/08
7439-95-4	Mg by ICP	0.10	6.5		mg/L	DSTANLEY	ESTAFFORD
	Method Reference EPA 200.7					7/1/08	7/17/08
7439-96-5	Mn by ICP	10	760		ug/L	DSTANLEY	ESTAFFORD
	Method Reference EPA 200.7					7/1/08	7/17/08
7440-23-4	Na by ICP	0.10	11		mg/L	DSTANLEY	ESTAFFORD
	Method Reference EPA 200.7					7/1/08	7/17/08
7440-02-0	Ni by ICPMS	10	10	U	ug/L	SGOSS	ESTAFFORD
	Method Reference EPA 200.8					7/1/08	7/17/08
7439-92-1	Pb by ICPMS	10	10	U	ug/L	SGOSS	ESTAFFORD
	Method Reference EPA 200.8					7/1/08	7/17/08
7782-49-2	Se by ICPMS	5.0	5.0	U	ug/L	SGOSS	ESTAFFORD
	Method Reference EPA 200.8					7/1/08	7/17/08

NC DWQ Laboratory Section Results

Sample ID **AB31973**

Location ID: **1HSBNONCD0002779**

Collect Date: **06/25/2008**

Loc. Descr.: **BARNHILL**

Collect Time: **10:15**

Visit ID

CAS #	Analyte Name	PQL	Result	Qualifier	Units	Analyst/Date	Approved By /Date
7440-66-6	Zn by ICPMS Method Reference EPA 200.8	10	10	U	ug/L	SGOSS 7/1/08	ESTAFFORD 7/17/08
VOL							
	Volatile Organics In liquid Method Reference EPA5030/624/8260		<u> TITLE </u>		ug/L	ATERRY 6/26/08	RKELLING 7/8/08
75-78-1	Dichlorodifluoromethane Method Reference EPA5030/624/8260	1.0	Not detected		ug/L	ATERRY 6/26/08	RKELLING 7/8/08
74-87-3	Chloromethane Method Reference EPA5030/624/8260	0.50	Not detected		ug/L	ATERRY 6/26/08	RKELLING 7/8/08
75-01-4	Vinyl Chloride Method Reference EPA5030/624/8260	0.50	2.7	J2	ug/L	ATERRY 6/26/08	RKELLING 7/8/08
74-83-9	Bromomethane Method Reference EPA5030/624/8260	0.50	Not detected		ug/L	ATERRY 6/26/08	RKELLING 7/8/08
75-00-3	Chloroethane Method Reference EPA5030/624/8260	0.50	0.86	J2	ug/L	ATERRY 6/26/08	RKELLING 7/8/08
75-69-4	Trichlorofluoromethane Method Reference EPA5030/624/8260	0.50	Not detected		ug/L	ATERRY 6/26/08	RKELLING 7/8/08
75-35-4	1,1-Dichloroethene Method Reference EPA5030/624/8260	0.25	0.46		ug/L	ATERRY 6/26/08	RKELLING 7/8/08
75-09-2	Methylene Chloride Method Reference EPA5030/624/8260	10	Not detected		ug/L	ATERRY 6/26/08	RKELLING 7/8/08
156-60-5	trans-1,2-Dichloroethene Method Reference EPA5030/624/8260	0.25	Not detected		ug/L	ATERRY 6/26/08	RKELLING 7/8/08
1634-04-4	Methyl Tert-Butyl Ether Method Reference EPA5030/624/8260	0.25	Not detected		ug/L	ATERRY 6/26/08	RKELLING 7/8/08
75-34-3	1,1-Dichloroethane Method Reference EPA5030/624/8260	0.25	2.1		ug/L	ATERRY 6/26/08	RKELLING 7/8/08
156-59-4	cis-1,2-Dichloroethene Method Reference EPA5030/624/8260	0.25	0.57		ug/L	ATERRY 6/26/08	RKELLING 7/8/08
74-97-5	Bromochloromethane Method Reference EPA5030/624/8260	0.25	Not detected		ug/L	ATERRY 6/26/08	RKELLING 7/8/08
67-66-3	Chloroform Method Reference EPA5030/624/8260	0.25	Not detected		ug/L	ATERRY 6/26/08	RKELLING 7/8/08
590-20-7	2,2-Dichloropropane Method Reference EPA5030/624/8260	0.25	Not detected		ug/L	ATERRY 6/26/08	RKELLING 7/8/08
107-06-2	1,2-Dichloroethane Method Reference EPA5030/624/8260	0.25	Not detected		ug/L	ATERRY 6/26/08	RKELLING 7/8/08