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

August 11, 2008

Robert E. Barnhill, Jr.
REB Acquisitions, LLC
P.O. Box 1529
Tarboro, NC 27886-1529

Re: **WATER SUPPLY WELL SAMPLING RESULTS AND HEALTH RISK EVALUATION**
4901 N. College Road
Castle Hayne, New Hanover Co.
Site I.D. # NONCD0002779

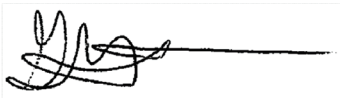
Dear Mr. Barnhill:

On June 25, 2008, personnel with the Inactive Hazardous Sites Branch (Branch) of the Division of Waste Management's Superfund Section sampled the northern supply well at the above referenced property. Previous sampling results obtained from the UST Section indicated that the well previously contained low levels of several chlorinated compounds. The most recent sampling results revealed the presence of vinyl chloride and iron above applicable standards and chloromethane, 1,1-dichloroethane, 1,1-dichloroethene, cis-1,2-dichloroethene and manganese above the method detection limits. Enclosed is a copy of the analytical results of the sampling.

Due to the presence of the contaminants, the Branch performed a Health Risk Evaluation (HRE). The HRE concluded that the water should not be used for drinking or cooking, but it can be used for other purposes. A copy of the HRE is also enclosed. The water from this supply well should be sampled at least once a year to verify that the levels of contaminants are not increasing, which could pose additional risks.

If you have questions, please contact me at (910) 796-7215.

Sincerely,



Genevieve M. Henderson, P.G.
Hydrogeologist II
Inactive Hazardous Sites Branch
Superfund Section
Division of Waste Management

Cc: IHSB WiRO file
William H. Tomlinson, President, APAC-Atlantic, Inc., 900 Ashwood Parkway, Suite 700, Atlanta, GA 30338
Barnhill Contracting, 4901 N. College Road, Castle Hayne, NC 28429

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

VisitID

Loc. Descr.: BARNHILL

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

7/18/08

Location ID:	1HSBNONCD0002779	Collect Date:	06/25/2008	Collect Time::	10:15	Sample Depth

RECEIVED
JUL 21 2008
SUPERFUND SECTION

Sample Qualifiers and Comments

RECEIVED
JUL 21 2008
BY:_____

Routine Qualifiers

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

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

LAB

NC DWQ Laboratory Section Results

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

Sample ID: AB31973
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

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

MEMORANDUM:

DATE August 8, 2008

TO: Ginney Henderson, Hydrogeologist
Inactive Hazardous Sites Program
Superfund Section

FROM: Hanna Assefa
Industrial Hygiene Consultant
Inactive Hazardous Sites Program
Superfund Section

RE: Health Risk Evaluation
APAC-Castle Hayne
4901 N College Rd
New Hanover County
NONCD0002779

The drinking water well at the subject address was sampled on June 25, 2008. During this sampling event, seven contaminants were detected in the well water. Two of the contaminants, vinyl chloride and iron, were detected at a concentration that exceeded applicable standards. 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). A health-based concentration was calculated for iron and manganese.

If contaminant concentrations exceed the applicable standards for using the water for drinking and cooking, the 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. **Based on this evaluation the water from this well should not be used for drinking or cooking. The water from this well can be used for other residential purposes**. The table below compares the detected contaminant concentrations with the applicable standards:

Sample ID	Contaminant	Concentration (ug/l)*	MCL (ug/l)	2L (ug/l)
AB31973	Vinyl Chloride	2.7	2	
	Chloroethane	0.86	NA	2800
	1,1-dichloroethene	0.46	7	
	1,1-dichloroethane	2.1	5	
	Copper	2.1	1300	
	Cis-1,2-dichloroethene	0.57	70	
	Iron	7100	NA	2500*
	Manganese	760	NA	2000*

Shaded boxes indicate a standard has been exceeded.

* Calculated health-based concentrations.