GREEN VALLEY/RUSSELL COUNTY P.S.A.
P.O. BOX 359
SWORDS CREEK, VA. 24649
276-991-0200

To: ALL WATER CUSTOMERS

FROM: HARVEY HART
RUSSELL COUNTY P.S.A.

RE: ANNUAL DRINKING WATER QUALITY REPORT

PWSID # 1167250

This Annual Drinking Water Quality Report for calendar year 2013 is designed to inform you about your drinking water quality. Our goal is to provide you with a safe and dependable supply of drinking water, and we want you to understand the efforts we make to protect your water supply. The quality of your drinking water must meet state and federal requirements administered by the Virginia Department of Health (VDH).

I am pleased to report that our drinking water is safe to drink and meets federal and state requirements.

If you have any questions about this report or your water utility, please contact Harvey Hart at 276-991-0200.

GENERAL INFORMATION
Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include: (1) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife. (2) Inorganic contaminants, such as salts and metals, which can be naturally-occuring or results from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming. (3) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses. (4) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems. (5) Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities. In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

SOURCE OF YOUR DRINKING WATER
Groundwater with treatment by chlorination, from drilled wells located:
Well 27A located in lot 27.
Well 30C located in lot 30.

The Virginia Department of Health conducted a source water assessment of our system during 2002. All wells were determined to be of high susceptibility to contamination using the criteria developed by the state in its approved Source Water Assessment Program. The assessment report consists of maps showing the source water assessment area and

an inventory of known land use activities of concern. The report is available by contacting your water system representative at the phone number or address given elsewhere in this drinking water quality report.

For the months of June, 2013 through December, 2013 water was purchased from the Town of Lebanon.

DEFINITIONS
Contaminants in your drinking water are routinely monitored according to Federal and State regulations. The table on the next page shows the results of our monitoring for the period of January 1st to December 31st, 2013. In the table and elsewhere in this report you will find many terms and abbreviations you might not be familiar with. The following definitions are provided to help you better understand these terms:

Action Level – the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Maximum Contaminant Level, or MCL - the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal, or MCLG - the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Non-detects (ND) - lab analysis indicates that the contaminant is not present

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in $10,000.

Parts per billion (ppb) or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.

Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.

Action Level - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Maximum Residual Disinfectant Level Goal or MRDLG – the level of drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Maximum Residual Disinfectant Level or MRDL – the highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

GREEN VALLEY

For the months of June, 2013 through December, 2013 water was purchased from the Town of Lebanon.

Microbiological Contaminants

Contaminant Units	MCLG	MCL	No. Samples Indicating presence of Bacteria	Violation	Month	Typical Source of Contamination
Total Coliform	0	2 positive monthly samples	1	No	November, 2013	Naturally present in the environment

Regulated Contaminants

Contaminant (units)	MCLG	MCL	Level Detected	Violation (Y/N)	Range	Date of Sample	Typical Source of Contamination
Trihalomethanes (ppb)	N/A	80	59	N	N/A	2013	By-product of drinking water disinfection

Haloacetic Acids (ppb)	NA	60	30	N	N/A	2013	By-product of drinking water disinfection
Nitrate (ppm)	10	10	1.03	N	0.91 – 1.03	2013	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Barium (ppm)	2	2	0.19	N	0.048 – 0.19	2011 + 2013	Discharge of drilling waste; Discharge from metal refineries; Erosion of natural deposits
Alpha emitters (pCi/l)	0	15	2.5	N	0.5 – 2.5	2009 + 2011	Erosion of natural deposits
Combined radium (pCi/L)	0	5	1.3	N	0.8 – 1.3	2009 + 2011	Erosion of natural deposits
Chlorine (ppm)	4.0	4.0	0.72	N	0.45 – 1.57	2013	Water additives to control microbes
Turbidity (NTU)	0	TT, 1 NTU max	0.05	N	N/A	2013	Soil runoff
		TT,<0.3 NTU 95% of time	100 %	N	N/A		
Total Organic Carbon	NA	TT, MET when > or = 1	1.0	N	1.0 – 1.0	2013	Naturally present in the environment
Fluoride (ppm)	4	4	0.57	N	N/D – 0.57	2011 + 2013	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories

Lead and Copper Contaminants

Contaminant (units)	MCLG	Action Level	90th Percentile	Date of Sample	# of Sample Sites Exceeding Action Level	Typical source of Contamination
Lead (ppb)	0	AL = 15	7	2013	0	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	1.3	AL = 1.3	0.140	2013	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

No violations in 2013.

The water quality results in the tables above are from testing done in 2013. The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data in the above tables, though accurate, is more than one year old.

The U.S. Environmental Protection Agency sets MCL's at very stringent levels. In developing the standards EPA assumes that the average adult drinks 2 liters of water each day throughout a 70-year life span. EPA generally sets MCLs at levels that will result in no adverse health effects for some contaminants or a one-in-ten-thousand to one-in-a-million chance of having the described health effects for other contaminants.

ADDITIONAL HEALTH INFORMATION

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Russell County Public Service Authority is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 15 to 30 seconds or until it becomes cold or reaches a steady temperature before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.