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 **Old Dominion**  
UTILITY SERVICES, INC.  
A Subsidiary of American States Utility Services, Inc.

# 2013 WATER QUALITY REPORT

 **Old Dominion**  
UTILITY SERVICES, INC.  
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*An Ongoing Commitment to the Communities We Serve*



### Protecting and Preserving Your Drinking Water

We are pleased to present the following 2013 Water Quality Report, which contains information about testing completed in your water system through December 2013.

Old Dominion Utility Services, Inc. (ODUS) takes seriously its job as the guardian of the drinking water quality and the service we provide to our customers. ODUS is regulated by the state and federal government, and we are proud to say the quality of your water continually meets all drinking water standards.

Daily, ODUS industry professionals take water samples to monitor quality at approved sites throughout the distribution system. If there is an instance of a sample exceeding a drinking water standard, we are required to notify you quickly and take action to restore normal service.

We pride ourselves on our strong customer service culture that comes from industry knowledge and relationships built in the water industry. Our representatives are available around the clock to answer questions and address any water concerns, day or night.

On behalf of all of us at Old Dominion Utility Services, Inc., thank you for providing us the opportunity to serve those who serve. If you have any questions about this report, please call our Customer Service Center at 757-888-0484.

Sincerely,



Robert Sprowls  
President and Chief Executive Officer  
Old Dominion Utility Services, Inc.



Susan Miller  
Utility Manager  
Old Dominion Utility Services, Inc.

### Source Water Assessment

The Hampton Roads Planning Commission has completed a Source Water Assessment of the Newport News Waterworks' water sources in 2001-02. The surface water sources were rated as relatively high in susceptibility to contamination (one reason it's important for water treatment), while the deep groundwater wells were rated as low in 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, an inventory of known land use activities of concern, a susceptibility explanation chart, and term definitions. The report is available by contacting the Newport News Waterworks, the Virginia Department of Health, or the Hampton Roads Planning Commission.



### If You Have Questions – Contact Us

#### About drinking water quality:

Call the U.S. Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

#### About local drinking water quality:

- (at Joint Base Langley-Eustis formerly Fort Eustis) call Susan Miller at (757) 888-0485
- Newport News Waterworks, Customer Service at 926-1000, Monday through Friday, 8 a.m. to 5 p.m.
- Or call the Virginia Department of Health Office of Drinking Water at (757) 683-2000 (vdh.virginia.gov/ODW)



#### About this report:

Call Susan Miller at (757) 888-0485

Decisions about your drinking water are made at Newport News City Council meetings. Meetings are held on the second and fourth Tuesdays of each month at 7:00 p.m. and the public is invited to attend. Consult the City Council web site at: [www.nngov.com/city-council](http://www.nngov.com/city-council).

**Spanish** - Este informe contiene información muy importante sobre su agua beber. Tradúzcalo o hable con alguien que lo entienda bien.

This water quality report has been reviewed by the Virginia Department of Health.

## Measurements

Water is sampled and tested throughout the year.

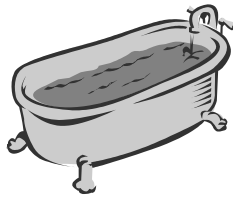
### Contaminants are measured in:

- Parts per million (ppm) or milligrams per liter (mg/L),
- Parts per billion (ppb) or micrograms per liter (µg/L),
- Parts per trillion (ppt) or nanograms per liter (ng/L),
- Nephelometric Turbidity Units (NTU) – A measurement of the clarity of water. Turbidity in excess of 5 NTU is noticeable to the average person.
- Picocuries per liter (pCi/L) – A measurement of radioactivity in water.

*If this is difficult to imagine, think about these comparisons:*

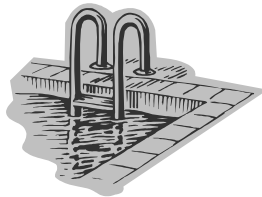
#### Parts per million:

3 drops in 42 gallons  
(large bathtub)



#### Parts per billion:

1 drop in 14,000 gallons  
(average swimming pool)



#### Parts per trillion:

1 drop in 14,000,000 gallons  
(average lake)



## About Old Dominion Utility Services, Inc.

Old Dominion Utility Services, a subsidiary of American State Utility Services (NYSE: AWR), is the company managing the water and wastewater systems at JBLE formerly Fort Eustis.

ODUS's experience and resources should give you peace of mind. You can count on reliable water services, quality drinking water, and unsurpassed response to your questions.

Since 1929, AWR and its family of companies have provided water to communities throughout the United States. For over 75 years, we've been installing and maintaining complex structures consisting of thousands of miles of pipelines, numerous wells and pumping stations, reservoirs, and wastewater systems.

You can find our companies in California, Texas, Maryland, North Carolina, South Carolina, and Virginia. AWR provides water to 1 out of every 30 people in California, electricity to a resort mountain community in California and management of water and wastewater systems at other military installations in the United States.

Our trained personnel have thousands of years of combined experience and are certified to work the various aspects of water and wastewater systems. Our water testing procedures allow us to meet or exceed the water quality regulations set in place by the U.S. Environmental Protection Agency and the Virginia Department of Health to deliver quality, wholesome water to you -- our customers.

Managing the daily operations for ODUS at JBLE is Susan Miller, Utilities Manager. Susan is a seasoned professional with over 25+ years of experience in the water industry. She has worked in all phases of water treatment and distribution.

All the men and women at ODUS are committed to meeting the needs of JBLE. The water system at JBLE undergoes a comprehensive infrastructure analysis to determine what areas need repair, replacement or new facilities.

We're here to give you peace of mind - water when you need it and unsurpassed service. For questions on your water service, please contact Susan at (757) 888-0485.

## Definitions

### Action Level (AL)

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

### Maximum Contaminant Level (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 (MCLG)

The level of a contaminant in drinking water below which there is not known or expected risk to health. MCLGs allow for a margin of safety.

### Maximum Residual Disinfectant Level (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.

### Maximum Residual Disinfectant Level Goal (MRDLG)

The level of a 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 contamination.

### Primary Drinking Water Standard (PDWS)

MCLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

### Secondary Maximum Contaminant Level (SMCL)

Secondary Maximum Contaminant Levels are non-enforceable guidelines regulating contaminants that may cause cosmetic or aesthetic effects. These contaminants are not considered a risk to human health at the SMCL. Secondary MCLs are set to manage the odor, taste and appearance of drinking water.

### Secondary Maximum Contaminant Level Goal (SMCLG)

Secondary Maximum Contaminant Level Goals have not been established.

### Treatment Technique (TT)

A required process intended to reduce the level of a substance in drinking water.

## Distribution System Water Quality - Monitored by Old Dominion Utility Services

Disinfection Byproducts and Disinfectant Residuals (units)	PRIMARY MCL (MRDL)	MCLG	Range of Detection	Highest 4-Quarterly Average	Meets EPA Standard?	Likely Source
Chloramines [as Cl <sub>2</sub> ] (mg/L)	4	4	0.22 - 4.0	1.96	Yes	Water additive to control microbes
HAA5 [Total of five Haloacetic Acids] (ug/L)	60	n/a	ND - 8	6	Yes	Byproduct of drinking water chlorination
THMs [Total of four Trihalomethanes] (ug/L)	80	n/a	5.8 - 21.3	14	Yes	Byproduct of drinking water chlorination
Inorganic Constituents (units) Tested in 2012. Not required again until 2015.	ACTION LEVEL	MCLG	Range of Detection	90th % Level	Meets EPA Standard?	Notes
Copper (mg/L)	1.3	1.3	0.008 - 0.227	0.159	Yes	The likely source of copper is corrosion of household plumbing systems.
Lead (ug/L)	15	0	ND - 2	ND	Yes	The likely source of lead is corrosion of household plumbing systems.
Unregulated Contaminant Monitoring Rule 3****			Range of Detection	Average Level		Notes
Total Chromium (ug/L)			0.29 - 0.37	0.33		Naturally occurring. Chromium used to make stainless steel.
Hexavalent Chromium Cr-6 (dissolved) (ug/L)			0.07 - 0.16	0.11		Naturally occurring. Chromium used to make stainless steel.
Strontium (ug/L)			85.7 - 115	98.5		Naturally occurring. Used in some Televisions.
Vanadium (ug/L)			0.8 - 1.1	0.93		Naturally occurring. Metal used in automotive industry.
Chlorate (ug/L)			414 - 511	471		Naturally occurring. Disinfection by-product, Agricultural defoliant.

n/a = not applicable  
 ND = not detected, below minimum report level.  
 \* Compliance is based on a running four-quarter average. The range is the individual monthly ratio from both water treatment plants. TOC has no adverse health effects, but can be a critical component in the formation of disinfection by-products.  
 \*\* Tested for in 2010 - not required to test again until 2016.  
 \*\*\* Water systems that collect 40 or more samples per month can have no more than 5% positive samples. Newport News Waterworks had 2 positive samples out of 2,195 samples collected in calendar year 2013.  
 \*\*\*\* Unregulated contaminant monitoring helps EPA to determine where certain contaminants occur and whether the Agency should consider regulating those contaminants in the future.

We are pleased to report to you that there were no detections of total coliforms or fecal coliforms in the Ft. Eustis monthly samples collected during calendar year 2013.

## Health Information

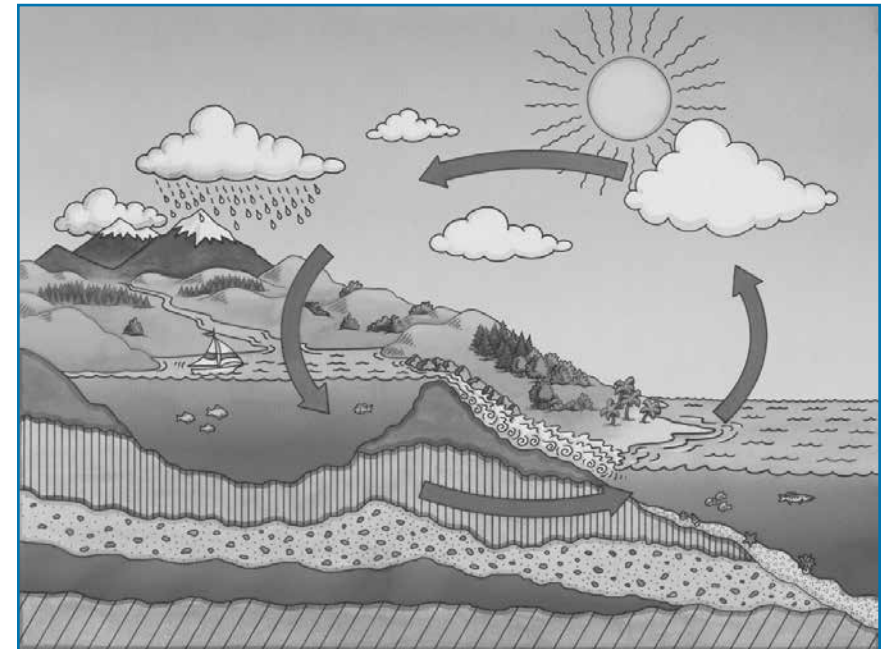
**Lead** – If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Old Dominion Utility Services, Inc. is responsible for 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 30 seconds – 2 minutes 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>.

**Sodium** – There is presently no established standard for sodium in drinking water. Water containing more than 20 mg/L should not be used as drinking water for those persons whose physician has placed them on severely restricted sodium diets. The maximum detected level was 29.6 mg/L, the average was 13.1 mg/L and the range was 4.2 – 29.6 mg/L.

Source Water Quality - Detected Contaminants Monitored by Newport News Waterworks							
Primary Standards - Health Based (units)	PRIMARY MCL	MCLG	Range of Detection	Average Level	Highest Level	Meets EPA Standard?	Likely Source
<b>Turbidity</b>							
Turbidity - Highest single measurement of the Treated Surface Water (NTU)	TT = 1.0	n/a			0.29	Yes	Soil runoff
Turbidity - Lowest Percent of all Monthly Readings less than or equal to 0.3 NTU (%)	TT = 95	n/a	0.02 - 0.29	100.00%		Yes	Soil runoff
<b>Regulated Substances</b>							
Barium (ug/L)	2000	2000	20 - 21		21	Yes	Erosion of natural deposits
Fluoride (mg/L)	4	4	0.16 - 1.20		1.20	Yes	Added to promote strong teeth
Nitrate (as Nitrogen) (mg/L)	10	10	0.036 - 0.040		0.040	Yes	Erosion of natural deposits
Nitrite (as Nitrogen) (mg/L)	1	1	0.002 - 0.003		0.003	Yes	Erosion of natural deposits
Total Organic Carbon Removal	TT	n/a	1.07 - 1.76		1.16*	Yes	Occurs naturally in the environment
Beta Photon Emitters (pCi/L)	4	0	1.8 - 1.8		1.8**	Yes	Erosion of natural deposits
<b>Microbiological</b>							
Total Coliform	<5,0%***	0	ND - 0.53%		0.53%	Yes	Occurs naturally in the environment
<b>Secondary Substance Monitoring (performed daily, weekly or monthly)</b>							
Chloride (mg/L)	250		16 - 21	18			Occurs naturally in the environment
Iron (ug/L)	300		ND - 38	6.8			Occurs naturally in the environment
Manganese (ug/L)	50		ND - 76	13.5			Occurs naturally in the environment
pH [acidity] (pH units)	6.5 - 8.5		6.9 - 8.5	7.5			Adjusted during water treatment process
Sulfate (mg/L)	500 (proposed)		34.2 - 36.9	30			Occurs naturally in the environment; also comes from the addition of treatment chemicals at the water treatment plant
Total Dissolved Solids (mg/L)	500		125 - 135	130			Occurs naturally in the environment
Zinc (mg/L)	5		0.185 - 0.211	0.198			Occurs naturally in the environment; also comes from the addition of treatment chemicals at the water treatment plant
<b>Organics - regulated at treatment plant</b>							
Chloroform (ug/L)	n/a	n/a	0.6 - 3.3	2.0		Yes	By-product of chlorination
Dichlorobromomethane (ug/L)	n/a	n/a	1.3 - 2.2	1.8		Yes	By-product of chlorination
Dibromochloromethane (ug/L)	n/a	n/a	0.8 - 0.9	0.8		Yes	By-product of chlorination

### From Where Does my Water Come?

The drinking water being delivered to you is purchased from Newport News Waterworks. The primary source of your drinking water comes from surface water. When available, water is pumped from the Chickahominy River. This water is piped and stored, prior to treatment, in five reservoirs owned and operated by Newport News Waterworks. A secondary source of your drinking water is brackish (slightly salty) groundwater pumped from deep wells in the Lee Hall area. Water from both sources (reservoir and groundwater) is separately treated and mixed together before distribution.



#### The Water Cycle:

A continuous process by which water circulates throughout the earth and atmosphere.

### Risks to Tap and Bottled Water

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. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health. 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 mean water may be a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

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 animal or human activity.

In order to ensure that tap water is safe to drink, USEPA and the Virginia Department of Health Services (VDH) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. VDH regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

#### Contaminants in Drinking Water Sources May Include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, and farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, can also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

### Safekeeping of Water Supplies and Facilities

To reduce the risk of terrorism affecting local water supplies and distribution systems, Old Dominion Utility Services is following recommendations from the Federal Bureau of Investigation, the United States Environmental Protection Agency, and the American Water Works Association. While water systems have a low relative likelihood of experiencing terrorist acts, these agencies advise that water systems should guard against unplanned physical intrusion, review emergency response plans, and increase vigilance. Old Dominion Utility Services has taken all these steps and is continuing to look for additional safety improvements.

### For People with Sensitive Immune Systems...

Some people may be more vulnerable to constituents in the water than the general population. Immuno-compromised people, such as those with cancer undergoing chemotherapy, persons who have had organ transplants, people with HIV/AIDS or other immune system disorders, some elderly persons and infants can be particularly at risk of infections. These people, or those caring for them, should seek advice about drinking water from their healthcare providers.

The US EPA and the Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the US EPA's Safe Drinking Water Hotline at (800) 426-4791 or the EPA web site at [epa.gov/safewater](http://epa.gov/safewater).

### Monitoring of Your Drinking Water

At Joint Base Langley-Eustis (JBLE formerly Fort Eustis), we monitor for the contaminant groups listed in Column 1 of the following table using EPA-approved methods. Column 2 of the table specifies the monitoring frequency for these contaminant groups.

Analyte/Contaminant Group	Monitoring Frequency
Coliform	Monthly
TTHM/HAA5	Quarterly
Copper	Every 3 years
Lead	Every 3 years

### Results of Detected Contaminants

JBLE and Newport News Waterworks constantly monitor for various contaminants in the water supply to meet all regulatory requirements. The tables list only those contaminants that had some level of detection. Many other contaminants have been analyzed but were not present or were below the detection limits of the lab equipment.

The following tables list the drinking water contaminants that were detected during the 2013 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in these tables is from testing done January 1 – December 31, 2013. The state requires JBLE to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.