Quality Water Report 2014 City of Moro, Oregon

We're pleased to present to you this year's Annual Quality Water Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Our water source is:

* *City Hall Well; City Hall Well draws from the 3rd aquifer at 500' and pumps 200 GPM.*
* *Hart Well; Hart Well draws from the 2nd aquifer at 280' and pumps 49 GPM.*
* *Cemetery Well; Cemetery Well draws from the deep basalt (3rd) aquifer at 400 GPM.*

None of the Wells are treated with Chlorine.

*We're pleased to report that our drinking water is safe and meets federal and state requirements.
*This report shows our water quality and what it means.
*If you have any questions about this report or concerning your water utility, please contact **the City of Moro 541-565-3535 or John English 541-340-9651.**
*We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on **first Tuesday of each month at 7:00P.M. at City Hall. City of Moro** routinely monitors for constituents in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1st, 2013 to December 31st, 2014. As water travels over the land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk.

Definitions:
*In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:
**Non-Detects (ND)* - laboratory analysis indicates that the constituent 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.
**Action Level* - the concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow.
**Treatment Technique (TT)* - (mandatory language) a treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
**Maximum Contaminant Level* - (mandatory language) The "Maximum Allowed" (MCL) is 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* - (mandatory language) The "Goal"(MCLG) is 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.

TEST RESULTS

Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants						
1. Total Coliform Bacteria 12 routine samples 0 repeat samples	N	Total		0	presence of coliform bacteria in 5% of monthly samples	Naturally present in the environment *Cemetery Well Construction *Disturbance of the ground *Re-samples all OK
2. Fecal coliform and *E.coli* 12 routine samples 0 repeat samples	N	E.coli		0	a routine sample and repeat sample are total coliform positive, and one is also fecal coliform or *E. coli* positive	Human and animal fecal waste
3. Turbidity				n/a	TT	Soil runoff
Radioactive Contaminants						
4. Beta/photon emitters			mrem/yr	0	4	Decay of natural and man-made deposits
5. Alpha emitters			pCi/l	0	15	Erosion of natural deposits

6. Combined radium			pCi/1	0	5	Erosion of natural deposits
Inorganic Contaminants						
7. Antimony			ppb	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
8. Arsenic	N	.0007	ppb	n/a	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
9. Asbestos			MFL	7	7	Decay of asbestos cement water mains; erosion of natural deposits
10. Barium	N	.0054	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
11. Beryllium			ppb	4	4	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
12. Cadmium			ppb	5	5	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
13. Chromium			ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
14. Copper	N	.0275 .0823 .01520 .0898	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
15. Cyanide			ppb	200	200	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
16. Fluoride	N	0.249	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
17. Lead	N	ND	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
18. Mercury (inorganic)			ppb	2	2	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
19. Nitrate (as Nitrogen)	N	1.42 3.91 2.09	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
20. Nitrite (as Nitrogen)	N	4.27	ppm	1	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
21. Selenium			ppb	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
22. Thallium			ppb	0.5	2	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories
Synthetic Organic Contaminants including Pesticides and Herbicides						
23. 2,4-D			ppb	70	70	Runoff from herbicide used on row crops
24. 2,4,5-TP (Silvex)			ppb	50	50	Residue of banned herbicide
25. Acrylamide				0	TT	Added to water during sewage/wastewater treatment
26. Alachlor			ppb	0	2	Runoff from herbicide used on row crops
27. Atrazine			ppb	3	3	Runoff from herbicide used on row crops
28. Benzo(a)pyrene (PAH)			nanograms/l	0	200	Leaching from linings of water storage tanks and distribution lines
29. Carbofuran			ppb	40	40	Leaching of soil fumigant used on rice and alfalfa
30. Chlordane			ppb	0	2	Residue of banned termiticide
31. Dalapon			ppb	200	200	Runoff from herbicide used on rights of way
32. Di(2-ethylhexyl) adipate			ppb	400	400	Discharge from chemical factories
33. Di(2-ethylhexyl) phthalate			ppb	0	6	Discharge from rubber and chemical factories

34. Dibromochloropropane			nanograms/l	0	200	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards
35. Dinoseb			ppb	7	7	Runoff from herbicide used on soybeans and vegetables
36. Diquat			ppb	20	20	Runoff from herbicide use
37. Dioxin [2,3,7,8-TCDD]			picograms/l	0	30	Emissions from waste incineration and other combustion; discharge from chemical factories
38. Endothall			ppb	100	100	Runoff from herbicide use
39. Endrin			ppb	2	2	Residue of banned insecticide
40. Epichlorohydrin				0	TT	Discharge from industrial chemical factories; an impurity of some water treatment chemicals
41. Ethylene dibromide			nanograms/l	0	50	Discharge from petroleum refineries
42. Glyphosate			ppb	700	700	Runoff from herbicide use
43. Heptachlor			nanograms/l	0	400	Residue of banned termiticide
44. Heptachlor epoxide			nanograms/l	0	200	Breakdown of heptachlor
45. Hexachlorobenzene			ppb	0	1	Discharge from metal refineries and agricultural chemical factories
46. Hexachlorocyclo-pentadiene			ppb	50	50	Discharge from chemical factories
47. Lindane			nanograms/l	200	200	Runoff/leaching from insecticide used on cattle, lumber, gardens
48. Methoxychlor			ppb	40	40	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock
49. Oxamyl [Vydate]			ppb	200	200	Runoff/leaching from insecticide used on apples, potatoes and tomatoes
50. PCBs [Polychlorinated biphenyls]			nanograms/l	0	500	Runoff from landfills; discharge of waste chemicals
51. Pentachlorophenol			ppb	0	1	Discharge from wood preserving factories
52. Picloram			ppb	500	500	Herbicide runoff
53. Simazine			ppb	4	4	Herbicide runoff
54. Toxaphene			ppb	0	3	Runoff/leaching from insecticide used on cotton and cattle
Volatile Organic Contaminants						
55. Benzene			ppb	0	5	Discharge from factories; leaching from gas storage tanks and landfills
56. Carbon tetrachloride			ppb	0	5	Discharge from chemical plants and other industrial activities
57. Chlorobenzene			ppb	100	100	Discharge from chemical and agricultural chemical factories
58. o-Dichlorobenzene			ppb	600	600	Discharge from industrial chemical factories
59. p-Dichlorobenzene			ppb	75	75	Discharge from industrial chemical factories
60. 1,2 - Dichloroethane			ppb	0	5	Discharge from industrial chemical factories
61. 1,1 - Dichloroethylene			ppb	7	7	Discharge from industrial chemical factories
62. cis-1,2-ichloroethylene			ppb	70	70	Discharge from industrial chemical factories
63. trans - 1,2 - Dichloroethylene			ppb	100	100	Discharge from industrial chemical factories
64. Dichloromethane			ppb	0	5	Discharge from pharmaceutical and chemical factories
65. 1,2-Dichloropropane			ppb	0	5	Discharge from industrial chemical factories
66. Ethylbenzene			ppb	700	700	Discharge from petroleum refineries

67. Styrene			ppb	100	100	Discharge from rubber and plastic factories; leaching from landfills
68. Tetrachloroethylene			ppb	0	5	Leaching from PVC pipes; discharge from factories and dry cleaners
69. 1,2,4 -Trichlorobenzene			ppb	70	70	Discharge from textile-finishing factories
70. 1,1,1 - Trichloroethane			ppb	200	200	Discharge from metal degreasing sites and other factories
71. 1,1,2 -Trichloroethane			ppb	3	5	Discharge from industrial chemical factories
72. Trichloroethylene			ppb	0	5	Discharge from metal degreasing sites and other factories
73. TTHM [Total trihalomethanes]			ppb	0	100	By-product of drinking water chlorination
74. Toluene			ppm	1	1	Discharge from petroleum factories
75. Vinyl Chloride			ppb	0	2	Leaching from PVC piping; discharge from plastics factories
76. Xylenes			ppm	10	10	Discharge from petroleum factories; discharge from chemical factories

Microbiological Contaminants:

(1) Total Coliform. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.

(2) Fecal coliform/E.Coli. Fecal coliforms and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely compromised immune systems.

(8) Arsenic. Erosion of natural deposits; runoff from orchards, glass and electronic production wastes.

(10) Barium. Discharge of drilling wastes; discharge from metal refineries erosion of natural deposits

(14) Copper. Copper is an essential nutrient, but some people who drink water-containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water-containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's disease should consult their personal doctor.

(16) Fluoride. Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Children may get mottled teeth.

(17) Lead, Infants and children who drink water-containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

(19) Nitrate. Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

(20) Nitrite. Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Nitrate and Nitrite in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate and Nitrite levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (1-800-426-4791