Our Creek & Well Water Filtration System

We use both mountain creek and well water (for redundancy when our mountain creek sometimes goes dry in late summer) for our remote southern Oregon homestead domestic, fire suppression and irrigation water use. What herein follows is a detailed description and photos of our self-constructed mountain creek and well water filtration system.

An electrical switch located in our shop is used to easily and simply select either our mountain creek water source or our well water source by providing power to either an electric submersible 1 HP pump located in a mountain creek water storage tank or to an electric submersible 1 HP pump located in a well water Reverse Osmosis (RO) treated water storage tank. This mountain creek water (one of three mountain creeks on our property) is pristine except for potential biological germicidal risk. However, the untreated water from our ***45 GPM Well*** is unusable, low quality water that contains naturally occurring very high levels of arsenic, boron, chloride and sodium. At the time, several residential water filtration experts didn't think it would be cost effective or even feasible to treat our well water to an acceptable level. However, our blue water sailing experience, which gave us a knowledge of sailboat desalination systems, came to our rescue! And this blue water sailing experience was also put to good use for modifying our ***"Los Gatos Casita" Travel Trailer*** too!

Both our mountain creek water and our well water are brought into our shop water filtration system to provide redundant water sources. Our mountain creek water is first pumped from the mountain creek at a slow flow rate of 1.06 GPM or 1531 GPD into three concrete underground storage tanks that are connected to each other providing a 7,500 gallon total capacity using a non-electric ***Landis Hydraulic Ram Pump*** that we helped initially design and now manufacture. Given the relatively low flow rate used to fill these mountain creek water storage tanks, these tanks were sized to provide a sufficient "bulge" in the system to enable having a much higher flow rate from these mountain creek water storage tanks for short durations as needed for our remote southern Oregon domestic, fire suppression and irrigation water use. This mountain creek water is then pumped to our shop water filtration system using an electric 1 HP submersible pump located in one of these mountain creek water storage tanks as controlled by our shop water filtration system water source switch and large bladder tank pressure switch (which also protects and turns OFF this pump if the water level in tank gets low). The large bladder tank in our shop provides the water pressure for our remote southern Oregon homestead. Our shop water filtration system downstream of this large bladder tank provides medium sediment (25 micron), medium carbon blocks (20 and 10 micron) and Ultraviolet Germicidal Irradiation (UVGI) treatment. For additional redundancy, all the drinking water faucets in our remote southern Oregon homestead also provide fine sediment (5 micron), fine carbon block (5 micron), domestic water pressure (40-60 PSI) Reverse Osmosis (RO) treatment and UVGI treatment.

To address the aforementioned more problematic well water quality issues, our well water FIRST undergoes dedicated treatment PRIOR to going to our shop water filtration system. In simple terms and in the order of basic well water treatment steps, this treatment consists of coarse/medium sediment treatment (75/25 micron), aeration and venting to remove 120 PSI saturated hydrogen sulfide gas (produced by naturally occurring and harmless bacteria and having a rotten egg smell), medium sediment treatment (20 micron), fine sediment treatment (5 micron), high pressure (800 PSI) RO treatment, additional fine sediment treatment (5 micron), and finally arsenic removal treatment.

The well water filtration system consists of an electric 1 HP submersible pump located 240 feet down the well; a 55 gallon plastic water aeration tank; a sailboat ***Sea Water Pro RO System***; a 2,500 gallon concrete underground RO water storage tank; an electric 1 HP submersible pump in this 2,500 gallon RO water storage tank; several sediment filters, float switches in the 55 gallon water aeration tank and in the 2,500 gallon RO water storage tank; multiple low/high water level switches in the 55 gallon water aeration tank and 2,500 gallon RO water storage tank; a small bladder tank; a water flow rate and totalizer meter; various ball and globe valves used to isolate components or to control the flow rates and associated pressures within the system and an ***Apex Whole House Arsenic Removal System***. There is a control system that uses solid state relays to control the operation of the electric 1 HP submersible well pump and the low and high pressure RO system pumps while providing triple fail-safe redundancy to ensure the tanks fed by these pumps won't ever over or under fill. There is an alarm system to provide security for our well pump house along with system status

annunciation to our remote southern Oregon homestead security system via both battery backed-up radio and underground fiber optic cable communication.

Well water is first pumped from the well through a course (75/25 micron) sediment filter at a globe valve controlled flow rate and pressure into the 55 gallon water aeration tank as controlled by a primary float switch and secondary low/high water level redundancy fail-safe switches located in the 55 gallon water aeration tank. A specially designed showerhead-like component in the 55 gallon water aeration tank accomplishes the actual aeration function to remove the 120 PSI saturated hydrogen sulfide gas which is then vented outside to the atmosphere. The 55 gallon water aeration tank then gravity feeds the well water to the high pressure (800 PSI) RO system, which uses a medium (20 micron) sediment filter and a fine (5 micron) sediment filter prior to the RO membranes, which then fills the 2,500 gallon RO water storage tank at a slow 40 GPH (0.66 GPM) rate as controlled by a primary float switch and secondary high water level redundancy fail-safe switches located in the 2,500 gallon RO water storage tank. Given this relatively low RO water flow rate, the 2,500 gallon RO water storage tank was sized to provide a sufficient "bulge" in the system to enable providing much higher flow rates from this tank for short durations as needed for our remote southern Oregon homestead domestic and irrigation water use. The low pressure (15 PSI) RO system boost pump is first turned ON by the control system and then the high pressure (800 PSI) RO system main pump is then subsequently turned ON by the control system about 30 seconds later to ensure this main pump has sufficient water and sufficient pressure to prevent pump cavitation and potential failure.

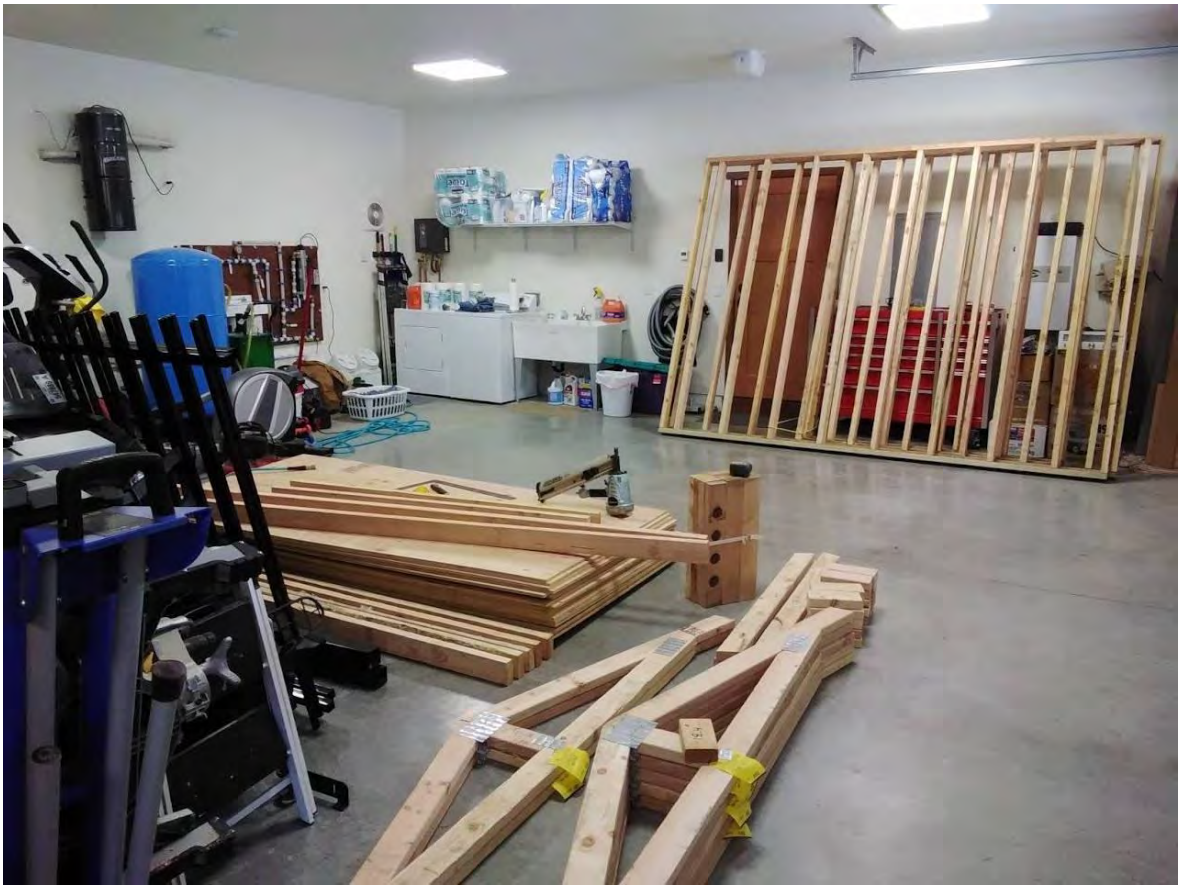
An electric 1 HP submersible pump in the 2,500 gallon RO water storage tank, as controlled by our shop water filtration system water source switch and large bladder tank pressure switch (which also protects and turns OFF this pump if the water level in tank gets low) located in our shop, then first provides this RO water to a fine (5 micron) sediment filter, then provides this RO water to the arsenic removal system at a globe valve controlled 12 GPM flow rate which is appropriate for its ***Metsorb*** arsenic removal media, then provides RO and arsenic filtered water to the small bladder tank located in our well pump house and then provides this RO and arsenic filtered water to the large bladder tank located about 500 feet away in our shop. Interestingly, ***Metsorb*** was invented at ***Stevens Institute of Technology*** where ***Bob*** completed his undergraduate engineering degree prior to his ***35 year career at Boeing***. The small bladder tank in our well pump house is used to maintain and provide well pump house water pressure for backwashing the arsenic removal media and for backwashing the high pressure (800 PSI) RO system membranes on a programmed schedule. The water flow rate and totalizer meter in our well pump house is used to determine when our well pump house sediment filters and high pressure (800 PSI) RO system high pressure (800 PSI) main pump oil (which is NSF approved) need to be changed.

There are multiple check valves and back flow preventers located in our shop to ensure that our mountain creek water and our well water can never be cross contaminated. There are multiple pressure relief valves located in our well pump house and in our shop to ensure that the system components and associated plumbing can never be damaged by experiencing an over-pressure event above design limits. There is a water leak detector in our well pump house to shut down ALL pumps if a water leak is detected. In addition to the triple fail-safe redundancy, there is a ***Flood Vent*** in our well pump house to ensure a flood failure can never result in the water level becoming high enough to reach the electrical system. Furthermore, the control system also uses 12VDC for all the tank float switches and low/high water level redundancy fail-safe switches. Our well pump house is well-constructed, well-insulated and well-sealed and uses an electric 500 watt heater to ensure system components and associated plumbing are not exposed to freezing temperatures. Our well water is now very high quality water that is typical of RO filtered bottled water.

Bob Borst
CEO & Principal Engineer
Borst Engineering & Construction LLC

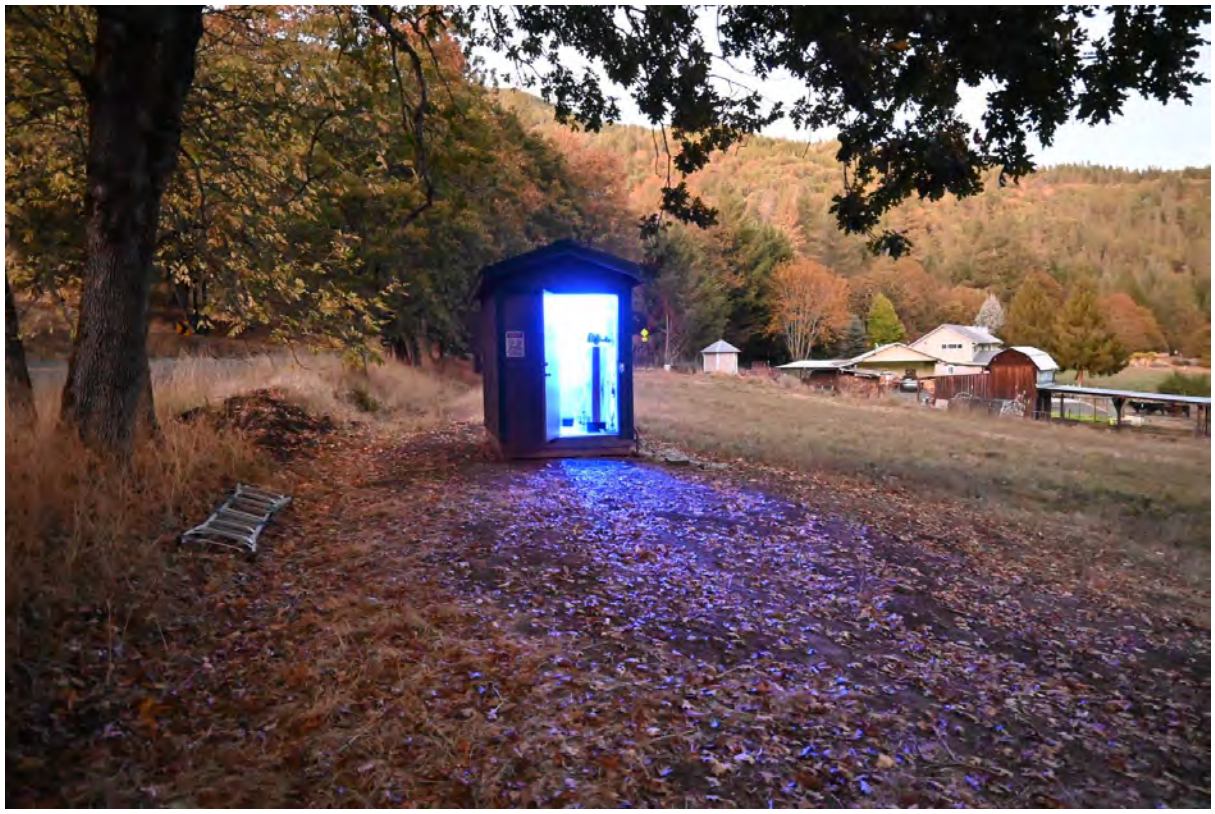

CASE

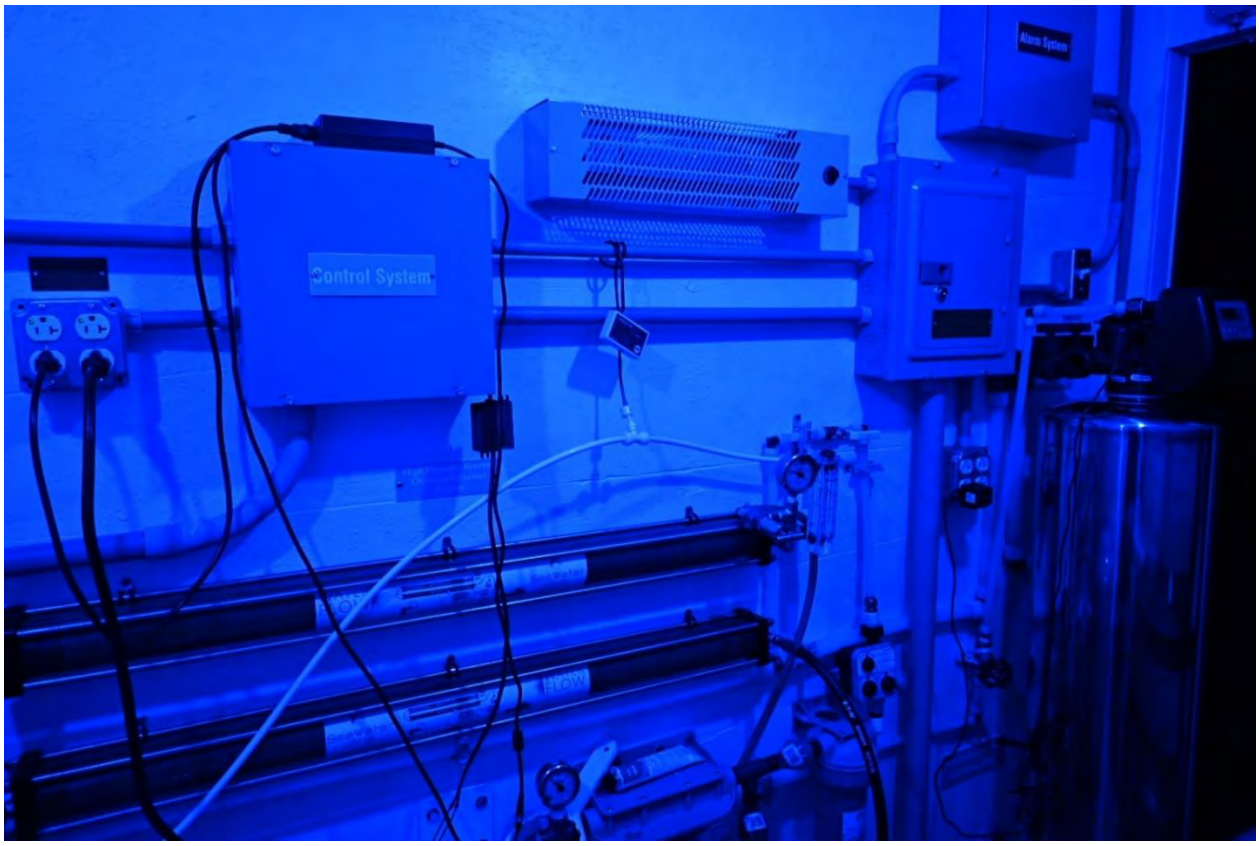

CASE

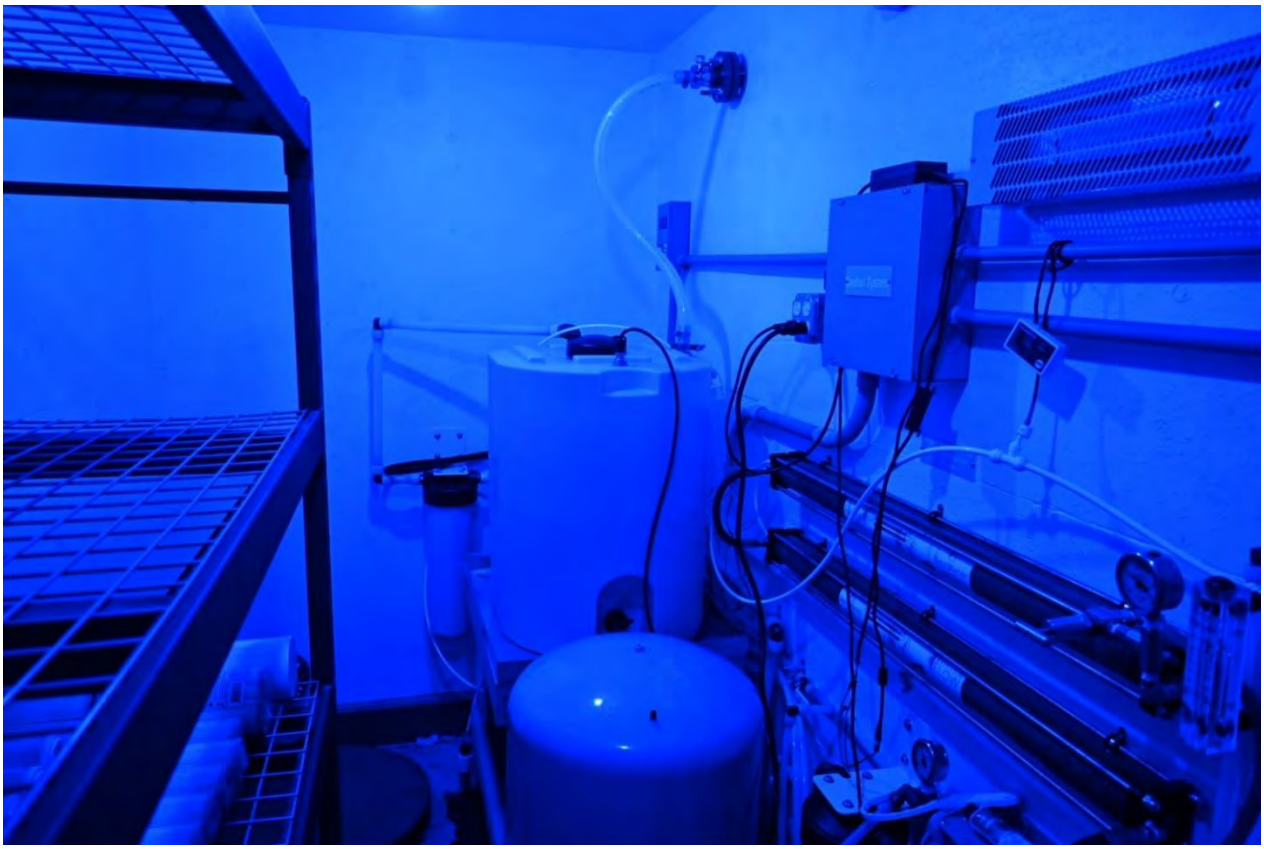



DANGER
EXPLOSION &
FIRE HAZARD
NO SMOKING OR
OPEN FLAMES
DANGER
H2S MAY BE
PRESENT


NOTICE




Control System
Alarm System




VIQUA


Well
Creek

NEILSON RESEARCH CORPORATION

Neilson Research Corporation
245 S Grape St
Medford, OR 97501
TEL: (541) 770-5678 FAX: (541) 770-2901
Website: www.nrclabs.com

Analytical Report

WO#: **22110584**
Date Reported: **11/18/2022**

Borst Residence
19000 E Evans Creek Rd
Rogue River , OR 97537

Lab ID: 22110584-01
Collection Date: 11/11/2022 10:00:00 AM
Received Date: 11/11/2022 12:00:00 PM

Sample Information:

19000 E Evans Creek Rd
Rogue River, OR 97537

Client Sample ID: Top 35
Sample Collector: RGB
Matrix: DRINKING WATER
Source: Well-Treated
Sample Location: Kitchen

Top 35 Analysis™

Analyses	Method	NELAP Status	Result	Qual	DF	RL	Units	EPA Limit	Date Analyzed	Analyst
Aluminum	E200.7	A	ND		1	0.0200	mg/L	0.0500-0.200	11/14/22 20:59	CSB
Antimony	E200.8	A	ND		1	0.000500	mg/L	0.00600	11/15/22 20:34	KMF
Arsenic	E200.8	A	ND		1	0.00100	mg/L	0.0100	11/15/22 20:34	KMF
Barium	E200.8	A	ND		1	0.00200	mg/L	2.00	11/15/22 20:34	KMF
Beryllium	E200.7	A	ND		1	0.00200	mg/L	0.00400	11/14/22 20:59	CSB
Boron	E200.7	A	2.08		1	0.0500	mg/L		11/14/22 20:59	CSB
Cadmium	E200.8	A	ND		1	0.000500	mg/L	0.00500	11/15/22 20:34	KMF
Calcium	E200.7	A	ND		1	1.00	mg/L		11/14/22 20:59	CSB
Chloride	E300.0	A	ND		1	0.500	mg/L	250	11/11/22 17:55	KN
Chromium	E200.8	A	ND		1	0.00200	mg/L	0.100	11/15/22 20:34	KMF
Copper	E200.8	A	ND		1	0.00200	mg/L	1.30	11/15/22 20:34	KMF
Fluoride	E300.0	A	ND		1	0.200	mg/L	4.00	11/11/22 17:55	KN
Hardness, Total (As CaCO3)	A2340B	A	ND		1	6.62	mg/L	250	11/14/22 20:59	CSB
Iron	E200.7	A	ND		1	0.0150	mg/L	0.300	11/14/22 20:59	CSB
Lead	E200.8	A	ND		1	0.000500	mg/L	0.0150	11/15/22 20:34	KMF
Lithium	E200.7	A	ND		1	0.100	mg/L		11/16/22 18:19	KHG
Magnesium	E200.7	A	ND		1	1.00	mg/L		11/14/22 20:59	CSB
Manganese	E200.8	A	ND		1	0.00500	mg/L	0.0500	11/15/22 20:34	KMF
Molybdenum	E200.8	A	ND		1	0.00100	mg/L		11/15/22 20:34	KMF
Nickel	E200.8	A	ND		1	0.00100	mg/L	0.100	11/15/22 20:34	KMF

QUALIFIERS

*	Value exceeds Maximum Contaminant Level.	C1	Sample container temperature is out of limit as specified at testcode
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MI	Recovery outside control limits due to Matrix Interference
ND	Not Detected at the Reporting Limit	PL	Permit Limit
R	RPD outside accepted recovery limits		

NELAP NELAP A Accredited in accordance with NELAP ORELAP 100016, OR-028

Original

NEILSON RESEARCH CORPORATION

Neilson Research Corporation
245 S Grape St
Medford, OR 97501
TEL: (541) 770-5678 FAX: (541) 770-2901
Website: www.nrclabs.com

Analytical Report

WO#: **22110584**
Date Reported: **11/18/2022**

Borst Residence
19000 E Evans Creek Rd
Rogue River , OR 97537

Lab ID: 22110584-01
Collection Date: 11/11/2022 10:00:00 AM
Received Date: 11/11/2022 12:00:00 PM

Sample Information:

19000 E Evans Creek Rd
Rogue River, OR 97537

Client Sample ID: Top 35
Sample Collector: RGB
Matrix: DRINKING WATER
Source: Well-Treated
Sample Location: Kitchen

Top 35 Analysis™

Analyses	Method	NELAP Status	Result	Qual	DF	RL	Units	EPA Limit	Date Analyzed	Analyst
Nitrogen, Nitrate	E300.0	A	ND	C1	1	0.200	mg/L	10.0	11/11/22 17:55	KN
Nitrogen, Nitrite	E300.0	A	ND	C1	1	0.0500	mg/L	1.00	11/11/22 17:55	KN
pH	A4500-H+B	A	6.45		1	0.10	pH Units	6.50-8.50	11/11/22 17:26	JRL
Potassium	E200.7	A	ND		1	1.00	mg/L		11/14/22 20:59	CSB
Selenium	E200.8	A	ND		1	0.00100	mg/L	0.0500	11/15/22 20:34	KMF
Silica	E200.7	A	ND		1	2.14	mg/L		11/14/22 20:59	CSB
Silver	E200.8	A	ND		1	0.00100	mg/L	0.100	11/15/22 20:34	KMF
Sodium	E200.7	A	ND		1	1.00	mg/L	200	11/14/22 20:59	CSB
Specific Conductance	A2510B	A	7.12	C1	1	1.00	µmhos/cm		11/11/22 17:26	JRL
Sulfate	E300.0	A	ND	C1	1	0.500	mg/L	250	11/11/22 17:55	KN
Thallium	E200.8	A	ND		1	0.000500	mg/L	0.00200	11/15/22 20:34	KMF
Turbidity	A2130	A	ND	C1	1	0.100	NTU	1.00-5.00	11/11/22 17:29	JRL
Uranium	E200.8	A	ND		1	0.000100	mg/L	0.0300	11/15/22 20:34	KMF
Vanadium	E200.8	A	ND		1	0.00500	mg/L		11/15/22 20:34	KMF
Zinc	E200.7	A	ND		1	0.0500	mg/L	5.00	11/14/22 20:59	CSB

QUALIFIERS

*	Value exceeds Maximum Contaminant Level.	C1	Sample container temperature is out of limit as specified at testcode
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MI	Recovery outside comtrol limits due to Matrix Interference
ND	Not Detected at the Reporting Limit	PL	Permit Limit
R	RPD outside accepted recovery limits		

NELAP NELAP A Accredited in accordance with NELAP ORELAP 100016, OR-028

Original

Neilson Research Corporation

245 South Grape Street, Medford, Oregon 97501 541-770-5678 Fax 541-770-2901

Analysis Report ORELAP 100016 EPA OR00028

Robert and Gayle Borst
14748 SE 185th Place
Renton, WA 98058

Lab Order: **1207005**
NRC Sample ID: **1207005-01A**
Collection Date: **7/2/2012 7:30:00 AM**
Received Date: **7/2/2012 8:35:00 AM**
Reported Date: **10/2/2014 9:10:01 AM**

Sample Information:

19000 E Evans Creek Rd

Rogue River, OR 97537

Client Sample ID: Well
Collectors Name: R. Borst
Sample Location: Well
Source: Well

TOP 35 ANALYSIS TM

Analyses	Method	NELAC Accredited	Result	Qual	MRL	Units	EPA Limit	Date Analyzed
Aluminum	EPA 200.7	A	**0.0318**		0.01	mg/L	0.05 - 0.2	7/8/2012
Antimony	EPA 200.8	A	**ND**		0.00204	mg/L	0.006	7/5/2012
Arsenic	EPA 200.8	A	**0.0474**	*	0.00102	mg/L	0.010	7/5/2012
Barium	EPA 200.8	A	**0.0249**		0.00051	mg/L	2.0	7/5/2012
Beryllium	EPA 200.7	A	**ND**		0.0002	mg/L	0.004	7/8/2012
Boron	EPA 200.7	A	**10.8**		0.05	mg/L	N.L.	7/8/2012
Cadmium	EPA 200.8	A	**ND**		0.000102	mg/L	0.005	7/5/2012
Calcium	EPA 200.7	A	**52.0**		1	mg/L	N.L.	7/8/2012
Chloride	EPA 300.0	A	**1620**	*	200	mg/L	250	7/5/2012 4:43:40 PM
Chromium	EPA 200.8	A	**ND**		0.00102	mg/L	0.1	7/5/2012
Copper	EPA 200.8	A	**0.0144**		0.00051	mg/L	1.3 AL	7/5/2012
Fluoride	EPA 300.0	A	**1.36**		0.2	mg/L	4	7/3/2012 5:48:43 PM
Hardness, Total (As CaCO3)	EPA 200.7		**140**		6.62	mg/L	250	7/8/2012
Iron	EPA 200.7	A	**0.0316**		0.015	mg/L	0.3	7/8/2012
Lead	EPA 200.8	A	**0.00823**		0.000102	mg/L	0.015 AL	7/5/2012
Lithium	EPA 200.7	A	**1.07**		0.1	mg/L	N.L.	7/8/2012
Magnesium	EPA 200.7	A	**2.43**		1	mg/L	N.L.	7/8/2012
Manganese	EPA 200.7	A	**ND**		0.02	mg/L	0.05	7/8/2012
Molybdenum	EPA 200.8	A	**0.00105**		0.00102	mg/L	N.L.	7/5/2012
Nickel	EPA 200.8	A	**0.0188**		0.00051	mg/L	0.1	7/5/2012
Nitrate Nitrogen	EPA 300.0	A	**ND**		0.2	mg/L	10	7/3/2012 5:48:43 PM
Nitrate Nitrogen	EPA 300.0	A	**ND**		0.2	mg/L	10	7/2/2012 5:47:03 PM
Nitrite Nitrogen	EPA 300.0	A	**ND**		0.05	mg/L	1	7/3/2012 5:48:43 PM
pH	SM 4500H-B	A	**8.11**		0.1	pH Units	6.5 - 8.5	7/2/2012 6:00:00 PM
Potassium	EPA 200.7	A	**4.68**		1	mg/L	N.L.	7/8/2012
Selenium	EPA 200.8	A	**0.00521**		0.00051	mg/L	0.05	7/5/2012

Notes: MRL -Minimum Reporting Limit ND - Not Detected at the MRL N.L. - No Limit
TM - Top 35 is a registered trade mark of Neilson Research Corporation, Oregon Accredited Laboratory: ORELAP 100016, OR-028
Please Note: If the test results indicate a need for water treatment or conditioning, additional testing may be required.

1

Neilson Research Corporation

245 South Grape Street, Medford, Oregon 97501 541-770-5678 Fax 541-770-2901

Analysis Report ORELAP 100016 EPA OR00028

Robert and Gayle Borst
14748 SE 185th Place
Renton, WA 98058

Lab Order: **1207005**
NRC Sample ID: **1207005-01A**
Collection Date: **7/2/2012 7:30:00 AM**
Received Date: **7/2/2012 8:35:00 AM**
Reported Date: **10/2/2014 9:10:01 AM**

Sample Information:

19000 E Evans Creek Rd

Rogue River, OR 97537

Client Sample ID: Well
Collectors Name: R. Borst
Sample Location: Well
Source: Well

TOP 35 ANALYSIS TM

Analyses	Method	NELAC Accredited	Result	Qual	MRL	Units	EPA Limit	Date Analyzed
Silica	EPA 200.7	A	**40.1**		1	mg/L	N.L.	7/8/2012
Silver	EPA 200.8	A	**ND**		0.000102	mg/L	0.1	7/5/2012
Sodium	EPA 200.7	A	**965**		20	mg/L	N.L.	7/8/2012
Specific Conductance	SM 2510B	A	**5010**		1	µmhos/cm		7/2/2012
Sulfate	EPA 300.0	A	**52.8**		5	mg/L	250	7/3/2012 5:22:17 PM
Thallium	EPA 200.8	A	**ND**		0.00051	mg/L	0.002	7/5/2012
Turbidity	SM 2130B	A	**0.762**		0.1	NTU	1	7/2/2012 4:50:00 PM
Uranium	EPA 200.8		**ND**		0.000102	mg/L	0.03	7/5/2012
Vanadium	EPA 200.8	A	**ND**		0.00051	mg/L	N.L.	7/5/2012
Zinc	EPA 200.7	A	**0.0809**		0.05	mg/L	5.0	7/8/2012

Notes: MRL -Minimum Reporting Limit ND - Not Detected at the MRL N.L. - No Limit
TM - Top 35 is a registered trade mark of Neilson Research Corporation, Oregon Accredited Laboratory: ORELAP 100016, OR-028
Please Note: If the test results indicate a need for water treatment or conditioning, additional testing may be required.

Informational Water Quality Report

Watercheck

Client:

Ordered By:
Weiser, Erik P.O. Box 105 Ross, CA 94957 ATTN: Erik Weiser

National Testing Laboratories, Ltd.
Quality Water Analysis
6571 Wilson Mills Rd
Cleveland, Ohio 44143
1-800-458-3330

Sample Number: 806168

Location:

Type of Water:
Collection Date and Time:
Received Date and Time: 5/14/2009 10:00
Date Completed:

Definition and Legend

This informational water quality report compares the actual test result to national standards as defined in the EPA's Primary and Secondary Drinking Water Regulations.

Primary Standards:	Are expressed as the maximum contaminant level (MCL) which is the highest level of contaminant that is allowed in drinking water. MCLs are enforceable standards.
Secondary standards:	Are non-enforceable guidelines regulating contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor,or color) in drinking water. Individual states may choose to adopt them as enforceable standards.
Action levels:	Are defined in treatment techniques which are required processes intended to reduce the level of a contaminant in drinking water.
mg/L (ppm):	Unless otherwise indicated, results and standards are expressed as an amount in milligrams per liter or parts per million.
Minimum Detection Level (MDL):	The lowest level that the laboratory can detect a contaminant.
ND:	The contaminant was not detected above the minimum detection level.
NA:	The contaminant was not analyzed.

✓ The contaminant was not detected in the sample above the minimum detection level.

● The contaminant was detected at or above the minimum detection level, but below the standard.

▲ The contaminant was detected above the standard, which is not an EPA enforceable MCL.

✚ The contaminant was detected above the EPA enforceable MCL.

Status	Contaminant	Results	Units	National Standards		Min. Detection Level
			Microbiologicals			
	Total Coliform by P/A	Total Coliform bacteria was ABSENT, however bacteria results may be invalid due to lack of collection information or because the sample has exceeded the 30-hour holding time.				
			Inorganic Analytes - Metals			
	Aluminum	0.3	mg/L	0.2	EPA Secondary	0.1
	Arsenic	0.200	mg/L	0.01	EPA Primary	0.005
	Barium	ND	mg/L	2	EPA Primary	0.30
	Cadmium	ND	mg/L	0.005	EPA Primary	0.002
	Calcium	5.8	mg/L	--		2.0
	Chromium	ND	mg/L	0.1	EPA Primary	0.010
	Copper	0.009	mg/L	1.3	EPA Action Level	0.004
	Iron	0.419	mg/L	0.3	EPA Secondary	0.020
	Lead	ND	mg/L	0.015	EPA Action Level	0.002
	Magnesium	0.60	mg/L	--		0.10
	Manganese	ND	mg/L	0.05	EPA Secondary	0.004
	Mercury	ND	mg/L	0.002	EPA Primary	0.001
	Nickel	ND	mg/L	--		0.02
	Potassium	ND	mg/L	--		1.0
	Selenium	ND	mg/L	0.05	EPA Primary	0.020
	Silica	34.30	mg/L	--		0.05
	Silver	ND	mg/L	0.1	EPA Secondary	0.002
	Sodium	273	mg/L	--		1
	Zinc	ND	mg/L	5	EPA Secondary	0.004
			Physical Factors			
	Alkalinity (Total)	330	mg/L	--		20
	Hardness	17	mg/L	100	NTL Internal	10
	pH	8.2	pH Units	6.5 to 8.5	EPA Secondary	
	Total Dissolved Solids	840	mg/L	500	EPA Secondary	20

Status	Contaminant	Results	Units	National Standards		Min. Detection Level
▲	Turbidity	8.8	NTU	1	EPA Action Level	0.1
			Inorganic Analytes - Other			
▲	Chloride	260.0	mg/L	250	EPA Secondary	5.0
●	Fluoride	1.4	mg/L	4	EPA Primary	0.5
✓	Nitrate as N	ND	mg/L	10	EPA Primary	0.5
✓	Nitrite as N	ND	mg/L	1	EPA Primary	0.5
✓	Ortho Phosphate	ND	mg/L	--		2.0
●	Sulfate	100.0	mg/L	250	EPA Secondary	5.0
			Organic Analytes - Trihalomethanes			
✓	Bromodichloromethane	ND	mg/L	--		0.002
✓	Bromoform	ND	mg/L	--		0.004
✓	Chloroform	ND	mg/L	--		0.002
✓	Dibromochloromethane	ND	mg/L	--		0.004
✓	Total THMs	ND	mg/L	0.08	EPA Primary	0.002
			Organic Analytes - Volatiles			
✓	1,1,1,2-Tetrachloroethane	ND	mg/L	--		0.002
✓	1,1,1-Trichloroethane	ND	mg/L	0.2	EPA Primary	0.001
✓	1,1,2,2-Tetrachloroethane	ND	mg/L	--		0.002
✓	1,1,2-Trichloroethane	ND	mg/L	0.005	EPA Primary	0.002
✓	1,1-Dichloroethane	ND	mg/L	--		0.002
✓	1,1-Dichloroethene	ND	mg/L	0.007	EPA Primary	0.001
✓	1,1-Dichloropropene	ND	mg/L	--		0.002
✓	1,2,3-Trichlorobenzene	ND	mg/L	--		0.002
✓	1,2,3-Trichloropropane	ND	mg/L	--		0.002
✓	1,2,4-Trichlorobenzene	ND	mg/L	0.07	EPA Primary	0.002
✓	1,2-Dichlorobenzene	ND	mg/L	0.6	EPA Primary	0.001
✓	1,2-Dichloroethane	ND	mg/L	0.005	EPA Primary	0.001
✓	1,2-Dichloropropane	ND	mg/L	0.005	EPA Primary	0.002