



December 22, 2023

Will Wenzloff
Hillsboro School District
4901 SE Witch Hazel Road
Hillsboro, Oregon 97123

Via email: wenzlofw@hsd.k12.or.us

Regarding: Drinking Water Sampling Report
West Union Elementary School
Hillsboro, Oregon
PBS Project 23440.174

Dear Mr. Wenzloff:

On December 13 and 15, 2023, PBS Engineering and Environmental (PBS) collected drinking water samples at West Union Elementary School in Hillsboro, Oregon. The sampling was conducted in response to complaints of a sulfur odor in drinking water supplied by the on-site well. Sulfur odors in well water can result from naturally occurring chemical reactions in the soil, and by sulfur bacteria in the groundwater, well, or plumbing system. Though rare, a sulfur smell can also be caused by sewage or other pollutants entering the groundwater. Although it may not be aesthetically pleasing, water with low levels of naturally occurring sulfur is generally considered safe to drink.

Prior to sampling by PBS, the District had the well and water distribution system treated with chlorine to kill any potential sulfur bacteria. The system was then thoroughly flushed.

To demonstrate that the sulfur odor was not being caused by water pollution, PBS collected samples from four water distribution sites inside the school, and one sample from the wellhead, which were analyzed for total coliforms and *Escherichia coli* (E. coli). One additional sample was collected from the wellhead and analyzed for nitrate. Testing for total coliforms and E. coli is normally done once per quarter from one location inside the school and annually from the wellhead. Testing for nitrate is normally done annually from the wellhead. Total coliforms and E. Coli were not present, and nitrate was not detected in any of the samples collected and analyzed.

PBS subsequently collected samples from the same four water distribution sites inside the school, and one sample from the wellhead, which were analyzed for sulfate, a measure of the sulfur content in drinking water. The Oregon Health Authority has not established a Maximum Contamination Limit (MCL) for sulfate, but includes sulfate on a list of secondary standards with a recommended maximum concentration of 250 milligrams per liter (mg/L). Sulfate concentrations in the samples collected and analyzed ranged from 2.5 mg/L to 3.0 mg/L; well below the recommended maximum concentration of 250 mg/L.

All samples were delivered under chain of custody documentation to Alexin Analytical Laboratories in Tigard, Oregon. Laboratory analysis reports are attached.

Based on the analytical results of the water sampling described above, PBS concludes that the drinking water supplied by the on-site well at West Union Elementary School is safe for human consumption. PBS recommends periodic follow-up sampling to demonstrate the long-term efficacy of the chlorine treatment and to confirm that concentrations of total coliforms, E. coli, nitrate, and sulfate remain at their present low levels.

Please feel free to contact me at 503.935.5484 or dale.voeller@pbsusa.com if you have any questions or comments about this report.

Sincerely,

 Digitally signed by
Dale Voeller, CHMM,
CSP
Date: 2023.12.22
14:33:29 -08'00'

Dale Voeller, CHMM, CSP
Senior Project Manager

Attachment: Laboratory Analytical Results



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13035 SW Pacific Hwy
Tigard, OR 97223
Tel.: (503) 639-9311 Fax: (503) 684-1588

ANALYSIS REPORT

Reported: 12/20/2023
Received: 12/13/2023
Sampled By: Stefan Rankin
Work Order: 3347020

C **PBS Engineering & Environmental**
L Attn: Dale Voeller
I 4412 SW Corbett
E Portland OR, 97239
N Phone: (503) 248-1939
T

Project:
Project # : 23440.174
PWSID # :

Sampling Location: West Union E.S.
Sample Matrix: Well Water

Lab Number

	Code	Method	Units	Result	MRL	EPA MCL	Analysis Date/ Time
3347020-06	Sample Name: 006 - Well Sampled: 12/13/23 9:56						
<i>Inorganics</i>							
A Nitrate as N	1040	EPA 300.0	mg/L	ND	0.100	10	12/13/23 15:47



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Work Order: 3347020

C L I E N T **PBS Engineering & Environmental**

Attn: Dale Voeller
4412 SW Corbett
Portland OR, 97239
Phone: (503) 248-1939

Project:

Project # : 23440.174

PWSID # :

Sampling Location: West Union E.S.

Sample Matrix: Well Water

Lab Number

3347020-01 Sample Name: 001 - Health Room

Sampled: 12/13/23 9:43

	Method	Result	Analysis Date/ Time
Microbiological Analysis			
A Total Coliforms	SM 9223B (colilert-18) 21st Ed.	Absent	12/13/23 13:02
A E. coli	SM 9223B (colilert-18) 21st Ed.	Absent	12/13/23 13:02

3347020-02 Sample Name: 002 - North Girls RR

Sampled: 12/13/23 9:46

	Method	Result	Analysis Date/ Time
Microbiological Analysis			
A Total Coliforms	SM 9223B (colilert-18) 21st Ed.	Absent	12/13/23 13:02
A E. coli	SM 9223B (colilert-18) 21st Ed.	Absent	12/13/23 13:02

3347020-03 Sample Name: 003 - South Boys RR

Sampled: 12/13/23 9:48

	Method	Result	Analysis Date/ Time
Microbiological Analysis			
A Total Coliforms	SM 9223B (colilert-18) 21st Ed.	Absent	12/13/23 13:02
A E. coli	SM 9223B (colilert-18) 21st Ed.	Absent	12/13/23 13:02

3347020-04 Sample Name: 004 - Kitchen

Sampled: 12/13/23 9:50

	Method	Result	Analysis Date/ Time
Microbiological Analysis			
A Total Coliforms	SM 9223B (colilert-18) 21st Ed.	Absent	12/13/23 13:02
A E. coli	SM 9223B (colilert-18) 21st Ed.	Absent	12/13/23 13:02



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ANALYSIS REPORT

Reported: 12/20/2023
Received: 12/13/2023
Sampled By: Stefan Rankin
Work Order: 3347020

C L I E N T **PBS Engineering & Environmental**

Attn: Dale Voeller
4412 SW Corbett
Portland OR, 97239
Phone: (503) 248-1939

Project:

Project # : 23440.174
PWSID # :

Sampling Location: West Union E.S.
Sample Matrix: Well Water

Lab Number

3347020-05

Sample Name: 005 - Well

Sampled: 12/13/23 9:56

	Method	Result	Analysis Date/ Time
Microbiological Analysis			
A <i>Total Coliforms</i>	SM 9223B (colilert-18) 21st Ed.	Absent	12/13/23 13:02
A <i>E. coli</i>	SM 9223B (colilert-18) 21st Ed.	Absent	12/13/23 13:02

ND = None detected at the MRL **MRL** = Minimum Reporting Limit **MCL** = Maximum Contamination Limit

A = All procedures for this analysis are accredited in accordance with NELAP standards. Lab Accreditation No. OR-100013

Approved by: _____


Adriana Gonzalez-Gray
Laboratory Director

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ANALYSIS REPORT

Reported: 12/19/2023
Received: 12/15/23 12:33
Sampled By: Stefan Rankin
Work Order: 3349009

C L I E N T **PBS Engineering & Environmental**

Attn: Dale Voeller
4412 SW Corbett
Portland OR, 97239
Phone: (503) 248-1939

Project:

PO #: 23440.174
Project #: N/A
Sampling Location: West Union E.S.
Sample Matrix: Well Water

Lab Number	Sample Name	Method	Result	Units	MRL	EPA MCL	Secondary Standard*	Analysis Date/ Time
3349009-01	001 - Health Room							
	Sampled: 12/15/23 11:11							
	Sulfate	EPA 300.0	2.8	mg/L	0.50	-	250	12/15/23 15:25
3349009-02	002 - North Girls RR							
	Sampled: 12/15/23 11:15							
	Sulfate	EPA 300.0	2.9	mg/L	0.50	-	250	12/15/23 15:42
3349009-03	003 - South Boys RR							
	Sampled: 12/15/23 11:17							
	Sulfate	EPA 300.0	2.7	mg/L	0.50	-	250	12/15/23 15:58
3349009-04	004 Kitchen Sink							
	Sampled: 12/15/23 11:19							
	Sulfate	EPA 300.0	2.5	mg/L	0.50	-	250	12/15/23 16:15
3349009-05	005 Well							
	Sampled: 12/15/23 11:26							
	Sulfate	EPA 300.0	3.0	mg/L	0.50	-	250	12/15/23 16:31

ND = None detected **MRL** = Minimum Reporting Limit **MCL** = Maximum Contamination Limit

*This is a secondary standard and has no contaminant level. This is a guideline that is associated with aesthetic effects such as staining of plumbing fixtures, tastes, and odors.

Approved by: _____

Adriana Gonzalez-Gray
Laboratory Director