



Final Report

Red, Wine, and Blues Event *E. Coli* Outbreak July 2019

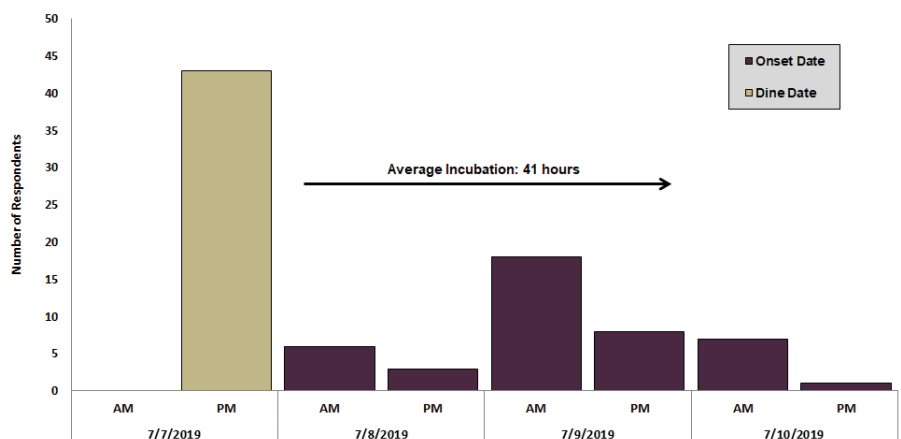
EXECUTIVE SUMMARY

- On July 12, 2019, Clark County Public Health (CCPH) was alerted of a potential foodborne illness outbreak associated with the Red, Wine, and Blues event held at Confluence Winery on July 7, 2019. The initial report, submitted to CCPH by the caterer (Farrar's Bistro), included multiple attendees and staff who fell ill with gastrointestinal (GI) illness in the days following the event.
- CCPH began environmental and epidemiological investigations on July 12, 2019 to confirm the presence of an outbreak, ascertain the source of illness, and prevent further transmission.
- Results from the epidemiological investigation identified 43 event attendees who reported GI illness, characterized by diarrhea and abdominal cramping. An additional 11 attendees were interviewed and did not report illness.
- Specimen collection and testing was conducted for 15 ill attendees by several clinical laboratories, the WA State Public Health Lab (PHL), and Centers for Disease Control and Prevention (CDC). The results of this testing detected three types of *E. coli* as the infectious agents associated with this outbreak (enterotoxigenic, enteroaggregative, and enteropathogenic *E. coli*, or ETEC, EAEC, and EPEC).
- Environmental investigation into food preparation processes revealed and corrected several public health concerns with both the winery and the food preparation processes for the event. Most notably, some of the pork served was from a whole roasted pig, initially cooked at a private residence on July 4, 2019. Major food safety issues were identified in the submitted preparation and storage procedures.
- Environmental and epidemiologic evidence suggest illnesses were associated with food served and consumed at the event, primarily the pulled pork; however, the source of contamination was unable to be definitively established.

I. Overview of Reported Illnesses

CCPH's Communicable Disease (CD) team conducted interviews with 54 event attendees. Of these, 43 individuals met the case definition for inclusion as a primary case, reporting vomiting and/or diarrhea in the 5 days after attending the event. A majority of cases (33) were Clark County residents; the remaining cases lived in 5 other counties across three states. Average illness incubation for the outbreak was 41 hours, with an average duration of 5.7 days*. **Figure 1** describes the dine and onset dates of all identified cases.

Figure 1: Illness by Onset Date/Time and Case Status, Red, Wine, and Blues Event *E. Coli* Outbreak, 2019



*For cases that were still ill at time of interview (58%), illness duration was calculated from 16:00 on interview date; therefore, reported average duration is likely an underestimate.

II. Illness Profile and Laboratory Confirmation

Among the 43 cases, the most commonly cited symptoms were diarrhea, abdominal cramps, and fatigue (**Figure 2**).

In total, 15 attendees submitted stool specimens for testing during the outbreak investigation, 8 of which were sent to the WA State PHL and CDC laboratory for identification. Early clinical laboratory results were negative for many of the most common enteric pathogens, including salmonella, shigella, norovirus, and shiga toxin-producing *E. coli*, among others. Based on illness profile and associated negative test results, a non-shiga toxin-producing *E. coli* was established as a possible outbreak agent. A positive test for enterotoxigenic, enteroaggregative, and enteropathogenic *E. coli* (ETEC, EAEC, and EPEC) was first reported to CCPH on July 18, 2019; these agents were subsequently detected in several additional cases tested at both commercial and public health laboratories.

The illness profile associated with this outbreak, including incubation, duration, and symptom profile are consistent with the three identified non-shiga toxin-producing *E. coli* species¹.

Figure 2: Case Symptom Profile

Symptom	Cases	%
Diarrhea	43	100%
Abdominal Cramps	38	90%
Fatigue	31	74%
Nausea	22	51%
Headache	17	45%
Myalgia	20	49%
Chills	14	34%
Fever	11	28%
Bloody Diarrhea	6	14%
Vomiting	1	2%

III. Epidemiological Investigation—Descriptive Analysis

Initial reports by event organizers estimated approximately 50 attendees at the event; however, no complete guest list was kept for the event. As a result, it is possible that additional cases or controls were unidentified.

Interviews were attempted with all event attendees for which telephone contact information could be obtained. Attendees were identified through interview of dining partners or event organizers, as well as

through self report. A post on the CCPH Facebook page was published on July 17, encouraging attendees to reach out to the Communicable Disease team for interview.

A descriptive analysis was conducted utilizing the information obtained in attendee interviews. Information on event exposures was collected and attack rates analyzed in both ill (case) and well (control) populations, the results of which are found in **Figure 3**.

According to this analysis, the exposure with the largest attack rate deviance between ill and well attendees was consumption of the BBQ pulled pork sandwich served at the event. 95% of interviewees who fell ill reported eating the pulled pork, compared to just 27% of well diners.

Figure 3: Exposures Reported by Ill and Well Event Attendees

Exposure	Ill (n=43)		Well (n=11)		Attack Rate Difference (%)
	N	%	N	%	
Brioche bun	41	95%	2	18%	77%
BBQ Pork	41	95%	3	27%	68%
Potato chips	37	88%	4	36%	52%
Cole slaw	28	65%	3	27%	38%
Pickled red onions	15	38%	0	0%	38%
Used glass cups	19	73%	3	38%	36%
Pickled jalapenos	18	42%	1	9%	33%
Watermelon	25	60%	3	27%	32%
Frittered onions	17	40%	1	9%	30%
Wine	35	81%	7	64%	18%
Contact with goats	0	0%	0	0%	0%
Contact with horses	3	7%	1	9%	-2%
Contact with dogs	21	50%	6	55%	-5%
Used restroom	21	50%	6	55%	-5%
Water from venue	21	49%	6	55%	-6%
Used plastic cups	18	69%	7	88%	-18%
Cookies	10	29%	4	50%	-21%
Blueberries	9	27%	5	50%	-23%

IV. Epidemiological Investigation—Cohort Study

Initial discussions with staff and attendees estimate about 50 people were at the event, indicating high interview capture; therefore, a cohort study was conducted to establish the relative risk between ill and well attendees by potential exposure. 95% confidence intervals were used to determine significance of the resulting relative risks for each exposure. Detailed results of this analysis can be found in **Figure 4**.

This study found three exposures significantly correlated with illness. The pulled pork sandwich (bun and pork) had the strongest association with illness (RR 5.2 and 3.5, respectively), while potato chips resulted in a significant but lower relative risk.

Potential limitations of this study include:

- ⇒ **Incomplete attendance list:** Because a complete list of event attendees was not kept, interviews could only be completed among those who actively reached out to CCPH, or whose attendance and contact information was confirmed and provided by another interviewee. While estimates indicate high interview capture among attendees, potential bias may exist among those who reported their illness to the health department, or who communicated more actively with other attendees following the event.
- ⇒ **Recall bias:** Interviews were conducted with attendees between 5 and 17 days following the event. While a systematic interview form was used with simple, yes/no question format, interviewees may not have been able to accurately recall information provided in their survey responses, or question interpretation may have varied between respondents.

Figure 4: Cohort Study*			
Exposure	Relative Risk	95% CI	
Brioche Bun	5.2	1.5	18.4
BBQ Pork	3.5	1.3	9.2
Potato Chips	2.4	1.1	5.3
Pickled Jalapenos	4.6	0.7	30.8
Frittered Onions	4.3	0.6	29.2
Cole Slaw	2.4	0.9	6.4
Watermelon	2.2	0.8	5.9
Used Glass Cup	1.9	0.7	4.9
Wine	1.3	0.8	2
Water	0.9	0.5	1.7
Dog Contact	0.9	0.5	1.7
Used Restroom	0.9	0.5	1.7
Horse Contact	0.8	0.09	6.7
Used Plastic Cup	0.8	0.5	1.1
Cookies	0.6	0.2	1.4
Blueberries	0.5	0.2	1.3

**Note: Two exposures (pickled onions and goat contact) were excluded from this analysis due to null denominators.*

V. Environmental Investigation

CCPH's Environmental Public Health (EPH) program began investigation on July 12, 2019, contacting Farrar's Bistro, the food establishment that catered the event. Initial reports indicated that all food served at the event was prepared at the Farrar's kitchen, and were all regular menu items routinely served at the restaurant. No reports of illness associated with Farrar's had been received in the previous 6 months.

On July 15, additional interviews with Confluence Winery management revealed several food safety risks with operations, including a lack of handwashing facilities near the restroom and food service areas, the close proximity of farm animals to the event tent, glassware cleaning completed at the owners' private residence, and drinking water served from the facility's garden hose. A site visit was completed at the winery on July 17, during which cleaning and permitting requirements were discussed and water samples were collected for bacterial and nitrates testing. The results of these samples were reported on July 24 and were negative for fecal coliforms and e.coli. Nitrates were present within acceptable ranges.

Continued discussions and a July 15 site visit with Farrar's revealed that some of the pulled pork served at the event was not prepared using the restaurant's normal processes; rather, it was made using leftovers from another catered event on July 4, during which a whole roasted pig was cooked and served at the client's private residence. Major food safety issues were identified in the submitted procedure for the whole roast pig, including inadequate temperature monitoring, improper cooling in a home refrigerator, and storage at room temperature for several hours. EPH verified that there were no leftovers from the event, and restaurant leadership agreed to refrain from conducting catering activities involving whole roasted pig.

Interviews were conducted with workers involved with preparations for the event. No staff reported illness prior to the event, although several did fall ill in the days after attending the event.

VI. Conclusion

Based on evidence collected throughout the outbreak investigation, the likely exposure source in the outbreak was identified as a food item served during the event, most significantly the pulled pork sandwich. While the association between this exposure and illness is notable, the investigation was unable to collect and test food samples, and is therefore unable to definitively confirm the source of illness.

Environmental cleaning, education provided to cases and to food workers, and follow up outreach to attendees and event organizers allowed for sufficient management of this outbreak.

TECHNICAL NOTES

Complaint ID: CO0021771

Case Definition: Any individual who developed gastrointestinal illness, including vomiting and/or diarrheal illness, within 5 days after attending the Red, Wine, and Blues event on July 7, 2019.

Diarrheal Illness: Three or more loose stools within a 24 hour period.

Outbreak Codes: CCPH-19-0276

Data Analysis: All data was managed and analyzed using Microsoft Excel and SAS 9.4. For symptom and exposure variables, denominators exclude individuals who were not asked or reported "unknown" to the corresponding question. Percentage calculations were done using the resulting denominator and therefore may vary.

REFERENCES

Escherichia coli. Centers for Disease Control and Prevention (CDC). Last reviewed July 1, 2019. <https://wwwnc.cdc.gov/travel/yellowbook/2020/travel-related-infectious-diseases/escherichia-coli-diarrheagenic>

Site Visit Notes from Farrar's Bistro on 7/15/19

People Present: Debbie (Owner of Sixth Avenue Bistro & Farrar's Bistro), Wes (Head Chef at Farrar's Bistro), Ben (Sous Chef at Farrar's Bistro), Nate (Head Chef at Sixth Avenue Bistro), Brigitte Bashaw (CCPH), Alyssa Payne (CCPH)

Red Wine & Blues Event Menu & Preparation Steps

- **BBQ Pulled Pork**

Procedure at Sixth Avenue Bistro where 2nd batch of pulled pork was from:

Received from FSA → Cold-held in walk-in → Cut, seasoned, seared → Braised in for 3.4 to 4 hours with beer, apple cider vinegar and BBQ Rub Recipe for seasoning → Pulled apart and shredded to cool in 2-inch shallow pan in walk-in → portioned into bags to be reheated per order in chef base.

First batch of pork served at Red, Wine, and Blues event was prepared at a private catered event on July 4th, that food worker Dean will be emailing that procedure separately.

Pork was served by Debbie onsite at the winery event, held in a chaffer dish and sterno portioned with tongs.

- **Brioche bun**

Purchased from store.

- **BBQ sauce - Prepared at Farrar's Bistro**

Prepared at Farrar's Bistro, obtained photo of procedure.

Deviation from written procedure is it is simmered from 1 hour and used within 4 days.

- **Cole slaw w/ oil and vinegar (no mayo) - Prepared at Farrar's Bistro**

Obtained photo of procedure on site.

Green onions were reported to be rinsed

Obtained photo of cabbage mix used.

- **Pickled jalapenos - Prepared at Farrar's Bistro**

Obtained photo of pickling brine procedure on site.

Jalapenos are purchased raw from FSA → *not rinsed* shredded w/ mandolin → pickling brine added over jalapenos in two inch pan → cooled in walk-in uncovered

- **Pickled red onions - Prepared at Farrar's Bistro**

Obtained photo of pickling brine procedure on site

Red onions are purchased raw from FSA → butt ends cut off and cut in half before peeled *not rinsed* → chopped into slivers → pickling brine added over onions in two inch pan → cooled in walk-in uncovered

- **Frittered onions - Prepared at Farrar's Bistro**

Obtained photo of wing flour procedure.

Site Visit Notes from Farrar's Bistro on 7/15/19

People Present: Debbie (Owner of Sixth Avenue Bistro & Farrar's Bistro), Wes (Head Chef at Farrar's Bistro), Ben (Sous Chef at Farrar's Bistro), Nate (Head Chef at Sixth Avenue Bistro), Brigitte Bashaw (CCPH), Alyssa Payne (CCPH)

Onions are purchased raw from FSA → butt ends cut off and cut in half before peeled *not rinsed* → chopped into slivers → soaked in buttermilk → dredged in wing flour → fried at approximately 20 orders at time and held at room temperature until consumed

- **Homemade potato chips- Prepared at Farrar's Bistro**

Obtained photo of premade frozen potato chips.

Potato chips fried from frozen → BBQ rub seasoning added → held at room temperature until consumed

- **Watermelon (not washed, purchased from FSA)- Prepared at Farrar's Bistro**

Received from FSA → quartered *not rinsed* sliced into 50 slices → held at room temperature at Red, Wine, and Blues event until consumed

Additional Notes & Observations:

- Debbie served the BBQ pulled pork, brioche bun, BBQ sauce, potato chips, and watermelon for individuals on a single plate and all other menu items were self-served in dishes to the side with tongs for each.
- Debbie reported she had a clear view of the self-service area to monitor.
- All food was consumed or discarded from July 7th event.
- Pork was reheated from a batch leftover from a private catered event and was cooked on premise at that event.
- Pork was reheated on stove at Farrar's Bistro until "boiling" (no temperatures reported taken or recorded)
 - o Covered with foil and transported in car with no temperature control.
 - o Placed in a round chaffer dish over sterno at event.
- Food service at Red, Wine, and Blues event was from 1 to 6 PM
 - o Ran out of pork at 4:30 PM where more pork was delivered from Sixth Ave Bistro by Dean who stopped at Farrar's on way to event to add BBQ sauce, pork was reheated at Sixth Ave Bistro. No temperature reported as being taken or recorded.

Event Specific Items:

- Consumer advisory not needed for rent.
- Restroom hand wash – none, hand sanitizer only
- Work hand wash – none
- Cold-Holding: 2 white (5 gallon) buckets w/ lids and ice were used to transport cole slaw, back-up BBQ sauce, coleslaw dressing
- Foods had about ice to about ~2/3rds to the level of the food item in the container. Not iced during service, small bowls were used with extras stored in buckets.
- No leftovers were cooled.
- Hot-holding was done with chaffer dishes and sterno

Site Visit Notes from Farrar's Bistro on 7/15/19

People Present: Debbie (Owner of Sixth Avenue Bistro & Farrar's Bistro), Wes (Head Chef at Farrar's Bistro), Ben (Sous Chef at Farrar's Bistro), Nate (Head Chef at Sixth Avenue Bistro), Brigitte Bashaw (CCPH), Alyssa Payne (CCPH)

- No dishes were washed on site.
- Sanitizer bucket was used and made 3x's throughout food service

Site Visit Notes from Confluence Winery on 7/17/19, 1400

People Present: Greg Weber (Owner of Confluence Winery), Jae Weber (Owner of Confluence Winery), Brigitte Bashaw (CCPH), Alyssa Payne (CCPH)

Confluence Site Visit Notes:

1. Tent (Obtained photos)

- a. Cleaned?

Tables, chairs, door handle to tasting room all reported to be cleaned.

- b. Obs.

Tent is burlap, hanging lights from tent, tables throughout, adjacent to barn and house.

2. Pouring Areas (obtained photos)

- a. How many?

One, tasting room was used during event.

- b. What Wine offered that night?

2017 chardonnay, 2015 cab franc, 2015 syrah, 2015, cab sav

- c. Cleaned?

Floors, tabletops, door handles on inside.

- d. Obs.

Took Photos.

- Facility only has a permit with Washington LCB, no other permits with CCPH or WSDA
- Wine is direct to consumer onsite at the winery
- Wine is not in any stores, is in restaurants occasionally, recently did event at Pearson Air Museum, sometimes served at Sunlight Supply Amphitheater, was served in VIP tent at 4th of July Fairgrounds fireworks show
- Currently not being sold or served anywhere else besides winery.

3. Catering Set-Up

- a. Where located?

At front of tent on the North side on granite table top covered by tent.

- b. Obs.

Took photos.

4. Farm Animals

- a. Where located?

Adjacent to tasting room (2 horses and 2 goats), took photos

Owners have 3 dogs and French bull dog is allowed to be in tasting room area and tent

- b. Obs.

Observed pet paste in pen near wine barrel storage, took photos.

5. Restrooms

- a. Cleaned?

Toilet seat, handles, walls, sanitizer dispenser

Site Visit Notes from Confluence Winery on 7/17/19, 1400

People Present: Greg Weber (Owner of Confluence Winery), Jae Weber (Owner of Confluence Winery), Brigitte Bashaw (CCPH), Alyssa Payne (CCPH)

- b. Where located?

Took photos, immediately adjacent to tasting room and farm animal pen.

- c. Obs.

Took photo. Schulzy brand next to tasting room. Not been serviced since 6/25, no hand wash set-up.

6. Where glassware cleaned and water obtained?

- a. Dishwashers? What type?

2 residential dishwashers inside home kitchen took photos.

Wine club members are allowed to use glass, has about 50 glasses that are stored in bottle storage area (took photos).

Red, Wine, and Blues event plastic cups were available for water and non -wine club members and 150 cups were used.

Water in dispenser was obtained from kitchen faucet. Ran out and then obtained water from garden hose in front yard (took photos)

Ice was from Fairgrounds Chevron.

- b. Sampled? Where?

Bacterial water sample was obtained from kitchen sink faucet.

7. Septic System

- a. Where located?

Took photos, next to home, drain field is field in front of animal pen.

- b. Obs.

Did not observe any signs of a failing system, last inspected last year.

8. Water Well

- a. Sampled? Where?

Sampled at garden hose directly next to well, sampled for bacteria and nitrates.

- b. Where located?

Central landscaped island in middle of driveway.

- c. Obs.

Well looked to be in good condition and not obvious signs of potential points of contamination.

Lawn is reportedly not fertilized per Jae.

Site Visit Notes from Confluence Winery on 7/17/19, 1400

People Present: Greg Weber (Owner of Confluence Winery), Jae Weber (Owner of Confluence Winery), Brigitte Bashaw (CCPH), Alyssa Payne (CCPH)

9. Still ill? Provide stool samples at convenience.

Jae reported still being ill but feeling better. Jae and her daughter offered to submit stool samples

Additional Observations:

- Facility does not grow their own grapes for wine, obtained from Walla Walla
- Do grow pinot grapes but, aren't using in wine yet.
- Jae reports that Debbie (caterer) ran out of sterno during event and asked her if they had any. They could not recall the time this occurred.
- Requested contact information for known attendees.
- Jae and Greg asked CCPH to verify dishwasher is not commercial grade.



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2517 E. Evergreen Blvd.
Vancouver, WA 98661
360-750-0055 (Main)
360-750-0057 (FAX)

V9G0355

7/24/2019

COLIFORM BACTERIA ANALYSIS FORM		
Date Sample Collected 07/17/19	Time Sample Collected 2:35 pm	County:
Type of Water System: ☐ Group A ☐ Group B ☒ Other:		
Group A and Group B Systems - Provide Water Facilities Inventory (WFI): ID# : AD243C		
System Name: Confluence Vinyard		
Contact Person: Brigette Bashaw		
Day Phone: (360) 397-8428 ext:7273	Cell:	
Email: brigette.bashaw@clark.wa.gov	Eve. Phone:	
Send results to: Clark County Public Health Dept. Brigette Bashaw PO Box 9825, Vancouver, WA 98666-8825		
Sample Information		
Sample collected by: Brigette Bashaw		
Sample location where sample was collected: CCPH Source	Special instructions or comments:	
Type of Sample (must check only one box of #1 through #5 listed below)		
☐ 1. Routine Distribution Sample(A/P) Chlorinated: ☐ Yes ☐ No Chlorine Residual: Total: Free:	☐ 2. Repeat Sample (A/P) (from distribution system after unsat. routine) Unsatisfactory routine lab number: Unsatisfactory routine Collect Date: Chlorinated: ☐ Yes ☐ No Chlorine Residual: Total: Free:	
3. Ground Water Rule Source Sample ☐ Triggered (A/P) ☐ Assessment (A/P)		
4. Surface or GWI Raw Source Water Sample (Enumeration) ☐ E.Coli ☐ Fecal Filtered: Yes ☐ No		
☒ 5. Sample Collected for information only Investigative		
LAB USE ONLY DRINKING WATER RESULTS LAB USE ONLY		
Bacterial Density Results:	Total Coliform	<1 /100ml. E.coli <1 /100ml.
Fecal Coliform	/100ml.	HPC /1 ml.
Replacement Sample Required: ☐ TNTC ☐ Sample too old ☐ Sample Volume ☐ Damaged container ☐		
Date/Time Received: 07/17/2019 16:06 Received By: Darlene West	Lab Reference Number: V9G0355-01	
Receipt Temp C °: 13.9	Method Code: SM 9223B	
Date Reported to DOH: 07/24/19	Lab Use Only: Reviewed	
DOH Lab-Sample# 144-35501	7/18/2019 2:45:04PM EMB	



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V9G0355

7/24/2019

COLIFORM BACTERIA ANALYSIS FORM		
Date Sample Collected 07/17/19	Time Sample Collected 2:25 pm	County:
Type of Water System: ☐ Group A ☐ Group B ☒ Other:		
Group A and Group B Systems - Provide Water Facilities Inventory (WFI): ID# : AD243C		
System Name: Confluence Vinyard		
Contact Person: Brigette Bashaw		
Day Phone: (360) 397-8428 ext:7273	Cell:	
Email: brigette.bashaw@clark.wa.gov	Eve. Phone:	
Send results to: Clark County Public Health Dept. Brigette Bashaw PO Box 9825, Vancouver, WA 98666-8825		
Sample Information		
Sample collected by: Brigette Bashaw		
Sample location where sample was collected: Kitchen	Special instructions or comments:	
Type of Sample (must check only one box of #1 through #5 listed below)		
☐ 1. Routine Distribution Sample(A/P) Chlorinated: ☐ Yes ☐ No Chlorine Residual: Total: Free:	☐ 2. Repeat Sample (A/P) (from distribution system after unsat. routine) Unsatisfactory routine lab number: Unsatisfactory routine Collect Date: Chlorinated: ☐ Yes ☐ No Chlorine Residual: Total: Free:	
3. Ground Water Rule Source Sample ☐ Triggered (A/P) ☐ Assessment (A/P)		
4. Surface or GWI Raw Source Water Sample (Enumeration) ☐ E.Coli ☐ Fecal Filtered: Yes No		
☒ 5. Sample Collected for information only Investigative		
LAB USE ONLY DRINKING WATER RESULTS LAB USE ONLY		
Bacterial Density Results:	Total Coliform <1 /100ml.	E.coli <1 /100ml.
Fecal Coliform /100ml.	HPC /1 ml.	
Replacement Sample Required: ☐ TNTC ☐ Sample too old ☐ Sample Volume ☐ Damaged container ☐		
Date/Time Received: 07/17/2019 16:06	Lab Reference Number: V9G0355-02	
Received By: Darlene West	Method Code: SM 9223B	
Receipt Temp C °: 13.9	Lab Use Only: Reviewed	
Date Reported to DOH: 07/24/19	7/18/2019 2:45:04PM EMB	
DOH Lab-Sample# 144-35502		

Nitrate/Nitrite

REPORT OF ANALYSIS

Date Collected: 07/17/19	System Group Type:
Water System ID Number: AD243C	System Name: Confluence Vinyard
Lab -- Sample Number: 144-35503	County:
Sample Location: Kitchen	Source Number(s): (list all sources if blended or composited)
<u>Sample Purpose:</u> (check appropriate box) ☐ RC - Routine/Compliance (satisfies monitoring requirements) ☐ C - Confirmation (confirmation of chemical result)* ☐ I - Investigative (does not satisfy monitoring requirements) ☒ O - Other (specify-does not satisfy monitoring requirements)	Date Received: 07/17/19 Date Analyzed: 07/17/19 Date Reported: 07/24/19
<u>Sample Composition:</u> (check appropriate box) ☐ S - Single Source ☐ B - Blended (List source numbers in "Source Numbers" field) ☐ C - Composite (List source numbers in "Source Numbers" field) ☐ D - Distribution sample	<u>Sample Type:</u> ☐ Pre-Treatment/Untreated (Raw) ☐ Post-treatment (Finished) ☒ Unknown or Other Sample Collected by: Brigette Bashaw Phone Number: (360) 397-8428

Send results to:
Clark County Public Health Dept.
Brigette Bashaw
PO Box 9825, Vancouver, WA 98666-8825

Bill to:
Clark County Public Health Dept.
Accounts Payable
PO Box 9825, Vancouver, WA 98666-8825

ANALYTICAL RESULTS

DOH #	ANALYTE	DATA QUALIFIER	RESULTS	SDRL	TRIGGER	MCL	UNITS	EXCEEDS MCL? (X if Yes)	METHOD/ Initials
0020	Nitrate-N		2.5	0.5	5	10	mg/L		EPA 300.0 / PYA

NOTES:

***Confirmation:** Include the original lab number, sample number, and collection date of original sample in either comment section.

--No trigger value for combined nitrate plus nitrite.

Analyte: The name of the analyte being tested for.

Data Qualifier: A symbol or letter to denote additional information about the result.

DOH#: Department assigned analyte number.

EXCEEDS MCL (Maximum Contaminant Level): Marked if the contaminant amount exceeds the MCL under chapters 246-290 and 246-291 WAC. Please contact the department's drinking water regional office in your area to determine follow-up actions.

Method/Initials: Analytical method used./Initials of the analyst that performed the analysis.

mg/L: milligrams per liter or parts per million.

RESULT: The laboratory reported result.

SDRL (State Detection Reporting Limit): The minimum reportable detection of an analyte as established by the department.

TRIGGER: The department's drinking water response level. Systems with contaminants detected at concentrations in excess of this level may be required to take additional samples or monitor more frequently. Please contact the department's drinking water regional office in your area for further information.

ND (Not Detected): In the results column, indicates this compound was analyzed and not detected at a level greater than or equal to the SDRL.

Lab Comments: