



ALS Environmental
ALS Group USA, Corp
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October 16, 2024

Analytical Report for Service Request No: K2410226

Chris McGhee
Dale McGhee & Sons Well Drilling
4409 Pleasant Hill Road
Kelso, WA 98626

RE: BQS611 Next to 8301 Lewis River Rd

Dear Chris,

Enclosed are the results of the sample(s) submitted to our laboratory September 27, 2024
For your reference, these analyses have been assigned our service request number **K2410226**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3303. You may also contact me via email at Karla.Smith@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Karla Smith
Project Manager



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General Chemistry

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjllabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdwlabservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA


Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.



Chain of Custody

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 DALE MCGHEE & SONS WELL DRILLING 4409 Pleasant Hill Road Kelso, WA 98626 (360) 423-8493 Fax (360) 423-9194 office@dalemcgheewelldrilling.com		CHAIN of CUSTODY															Page 1 of 1					
		Client: Dale McGhee & Sons Well Drilling, Inc.					Project: Drinking Water Project ID: <u>K2110726</u>										Lab Work No.					
		Address: 4409 Pleasant Hill Road Kelso WA 98626					Water System: Private <input checked="" type="checkbox"/> Public <input type="checkbox"/>		Circle Group: A or B			K15 _____										
		Telephone No.: 360-423-8493					Must complete if Public Water System: PWS Name/ID: <u>WA</u> OR _____ Routine Compliance _____ Post Treatment/Finished _____ Unknown _____ Single Source _____ Combined Sources _____ Distribution _____															
		Project Manager: Amanda Juell					County: Cowlitz Investigative _____ Other _____ Confirmation _____															
Sample I.D.	Sample Date	Sample Time	Source No.	Specific Sample Location:	No. of Containers	(+/-) Total Coli. / E. Coli SM 9223 B	Total Coli. / E. Coli Quanti-tray	Arsenic	Nitrate	EXTENDED I-Chem	STANDARD SHARED WELL I-CHEM	Mercury 245.1	Fluoride	Lead	Manganese	Zinc	Nitrite	Iron	pH	Hardness	Total Dissolved Solids	Comments
WELL ID BQS611 NEXT TO 8301 LEWIS RIVER ROAD ARIEL, WA 98603	9-27	2PM		WELL HEAD	3	X				X												
Sample Received Intact: Yes No		Temperature received: _____ Ice _____ No ice _____																				
Relinq. by sampler (Sign & Print Name)		Received by (Sign & Print Name)				Date				Time												
Relinquished by		Received by				Date				Time												
Relinquished by		Received by				Date				Time												
Relinquished by		Received by laboratory				Date				Time												
Turn Around Time:																						
Standard TAT (15 Bda) _____																						
RUSH TAT (5 Bda) _____																						

PM KS

Cooler Receipt and Preservation Form

Client McGhee Service Request K2416226
Received: 9/27/24 Opened: 9/27/24 By: NP Unloaded: 9/27/24 By: NP

1. Samples were received via? **USPS** **Fed Ex** **UPS** **DHL** **PDX** **Courier** **Hand Delivered**
2. Samples were received in: (circle) **Cooler** **Box** **Envelope** **Other** NA
3. Were custody seals on coolers? **NA** Y N If yes, how many and where? _____
If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp indicate with "X"	PM Notified If out of temp	Tracking Number NA	Filed

4. Was a Temperature Blank present in cooler? **NA** Y N If yes, note the temperature in the appropriate column above:
If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":
5. Were samples received within the method specified temperature ranges? **NA** Y N
If no, were they received on ice and same day as collected? If not, notate the cooler # above and notify the PM. **NA** Y N
If applicable, tissue samples were received: **Frozen** **Partially Thawed** **Thawed**
6. Packing material: **Inserts** **Baggies** **Bubble Wrap** **Gel Packs** **Wet Ice** **Dry Ice** **Sleeves** _____
7. Were custody papers properly filled out (ink, signed, etc.)? **NA** **Y** N
8. Were samples received in good condition (unbroken) **NA** **Y** N
9. Were all sample labels complete (ie, analysis, preservation, etc.)? **NA** **Y** N
10. Did all sample labels and tags agree with custody papers? **NA** **Y** N
11. Were appropriate bottles/containers and volumes received for the tests indicated? **NA** **Y** N
12. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below **NA** **Y** N
13. Were VOA vials received without headspace? Indicate in the table below. **NA** Y N
14. Was C12/Res negative? **NA** Y N
15. Were samples received within the method specified time limit? If not, notate the error below and notify the PM **NA** Y N
16. Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? **NA** **Y** N Underfilled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Head- space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: _____



Drinking Water Report

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WA. State DOH Lab Number 017

Client: **Dale McGhee & Sons Well Drilling**
Project: **Next to 830 Lewis River Rd/BQS611**
Client Sample ID: **Well Head**

Date Collected : **9/27/24**
Date Received: **9/27/24**
Work Order No.: **K2410226**

Drinking Water Analytical Report

ANALYTES	MAXIMUM CONTAMINANT	RESULTS
	LEVEL (MCL) ¹ (In Parts Per Million - PPM)	(In Parts Per Million - PPM)
Arsenic	0.010 ¹	0.005
Iron	0.3 ²	14.3
Manganese	0.050 ²	0.289
Sodium	*	29.5
Zinc	5.0 ²	0.02
Chloride	250 ²	3.71
Nitrate as Nitrogen	10.0 ¹	<0.10
Sulfate	250 ²	2.28
Total Dissolved Solids	500 ²	189
Hardness	--	38.5
pH	--	9.60
Total Coliform Bacteria	**	See Bacteria Form
E.Coli Bacteria	**	See Bacteria Form

1. The Maximum Contaminant Level or MCL is the highest permissible concentration of a substance allowed in drinking water as established by the State of Washington, July 1994
 2. National Secondary Drinking Water Standard. Non-enforceable guideline for contaminants that may cause cosmetic or aesthetic effects.
- * The Washington State Board of Health has not established MCL's for this element.
** If present, this water is not suitable for drinking water.

How to Interpret your results: For analytes with an established Maximum Contaminant Level, compare the amount found in your water (results column) with the value listed in the MCL column to determine if they are below the limit. Analytes such as sodium that have no established MCL are considered "nuisance" compounds that don't necessarily pose an immediate threat to human health. Results reported with a less-than value were not detected at all above the level indicated (i.e. a result reported as <0.01 indicates the analyte was not found at a level of 0.01 parts-per-million, but may be present below that level). For results above an established MCL; bacteria failures; or concerns about levels of analytes found in your drinking water, contact your local health department for advice and available treatment options.

Approved: _____ Date _____



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1317 S. 13th Avenue, Kelso, WA 98626
SR # K2410226-001

COLIFORM BACTERIA ANALYSIS FORM

Date Sample Collected

Time Sample Collected

County

9 12 24
Month Day Year

2:50 ☐ AM ☒ PM

Cowlitz

Type of Water System (check only one box)

☐ Group A

☐ Group B

☒ Other

Private Well

Group A and Group B Systems - Provide from Water Facilities Inventory (WFI):

ID#

BQS 611

System Name: Next to 8301 Lewis River Rd

Contact Person:

Amy WA 98603

Day Phone: ()

Cell Phone: ()

Email:

Eve. Phone: ()

Send results to: (Print full name, address and zip code or email)

Dale McGhee & Sons Well Drilling, Inc.
4409 Pleasant Hill Road
Kelso, WA 98626
360-423-8493
Fax 360-423-9194

SAMPLE INFORMATION

Sample collected by (name):

AAR

Specific location where sample collected:

Special instructions or comments:

Well head

Type of Sample (check only one box)

1. ☐ Routine Distribution Sample

2. Repeat Sample (after unsat. routine)

Chlorinated: Yes ☐ No ☐

☐ Distribution System

Chlorine Residual: Total ☐ Free ☐

Unsatisfactory routine lab number:

3. Source Ground Water Rule Sample

Unsatisfactory routine collect date:

S

Chlorinated: Yes ☐ No ☐

Chlorine Residual: Total ☐ Free ☐

☐ Tagged

☐ Assessment

4. Enumeration Source Water Sample

☐ E. coli ☐ Fecal Surface GWT Springs Filtered Yes ☐ No ☐

S

5. ☒ Sample Collected for Information Only

LAB USE ONLY

DRINKING WATER RESULTS

LAB USE ONLY

☐ Unsatisfactory Total Coliform Present and

☒ Satisfactory

☐ E. coli present

☐ E. coli absent

Replacement Sample Required:

☐ Sample too old (>30 hours)

☐ TNTC

☐

Bacterial Density Results: Total Coliform ☐ /100ml. E. coli ☐ /100ml.

Fecal Coliform ☐ /100ml

HPC ☐ /100ml

Lab ID Number

Date and Time Received:

Method Code:

☒ SM 9223 B ☐ SM 9222 D ☐ Other

Date and Time Incubated:

9-27-24 16:40

Date Analyzed:

9-27-24

Date Reported:

9-30-24

DOH Lab Sample#

01702261

Lab Use Only: Added

150 ml of EDTA 9-27-24
9/30/24 JH

INTERPRETATION OF RESULTS FOR DRINKING WATER

The analysis performed on this drinking water sample is an examination for the presence of coliform organisms in the water and indicates the bacteriological quality of the sample. The presence of coliform organisms is used by health organizations worldwide as an indicator for the possible presence of other disease-causing organisms.

REPORTING OF RESULTS:

Group A Public Water Systems must report the results of Drinking Water Analysis to the State as specified in WAC 246-290-480.

SATISFACTORY RESULTS:

The absence of coliforms from any sample is satisfactory. Proper system maintenance and bacteriological monitoring should be continued routinely to ensure the safety of the water supply.

UNSATISFACTORY RESULTS:

Any coliform presence is unsatisfactory.

The presence of coliforms indicates the system is not properly protected against contamination and may be unsafe for human consumption. Unsatisfactory samples should be investigated IMMEDIATELY and repeat samples submitted. Contact your local health department or DOH Regional Office for assistance in determining the source of contamination and corrective procedures.

When fecal coliforms or E. coli are reported present in a sample the IMMEDIATE ACTION REQUIRED by a Public System is:

1. Investigate to determine the cause and correct the situation. Your local health department or DOH Regional Office can assist you.
2. Submit repeat samples as specified in WAC 246-290-480.
3. Publicly notify the users of public water systems as specified in WAC 246-290-480
4. Contact your local health department or DOH Regional Office as specified in WAC 246-290-480.

TEST UNSUITABLE:

Resample Immediately. "Confluent Growth" means bacteria have grown into a continuous mass which makes counting impossible. "TNTC" means bacteria are too numerous to count. "Excess Debris" means that particulates in the water interfere with the interpretation of test results. "Turbid Culture" means overgrowth of other bacteria can interfere with coliform analysis. If any box indicating an unsuitable test is checked, the presence of coliform bacteria could not be determined, and a new sample must be obtained for testing.

RESAMPLE:

Sample is too old: Sample to be tested must be received within 30 hours. Not in proper container: bottle to be used for testing must be purchased from a certified lab within 6 months. Insufficient volume: Sample must be at least 100 ml. If not tested: a new sample must be submitted for analysis.

FOR ADDITIONAL INFORMATION

Contact your local health department OR the laboratory where this sample was tested OR the Department of Health, Drinking Water Program Regional Office.