

INVITATION TO BID- revised
CITY OF WOODLAND 2021 WTP LAGOON CLEANING PROJECT
SMA-22-013

The following project will be accomplished as a **SMALL WORKS PROJECT** and will be subject to prevailing wage laws.

Proposals for furnishing all materials, labor and equipment for the following described work will be received by the City of Woodland Public Works Office at 230 Davidson Avenue, Woodland, WA 98674 or by electronic mail at myklebustk@ci.woodland.wa.us. Bids will be accepted until 4:00 PM on Friday, May 27, 2022.

PROJECT NAME: 2022 LAGOON CLEANING PROJECT

PROJECT DESCRIPTION: Project consists of pumping and properly disposing of iron sludge (low odor, high staining, concentrated gel form) from the City of Woodland's Water Treatment Plant lagoons (2). The successful bidder will be required to coordinate with the Water Treatment Plant Superintendent on isolating and pumping down of lagoons as much as possible prior to the start of work so that the concentrated sludge can be handled. Any remaining clean water shall be pumped by contractor to the lagoon in service. The successful bidder will also be responsible for supplying the necessary truck; the driver may need additional help with hose handling and filling of the truck. The work site will accommodate drop boxes and all other necessary equipment. Sludge needs to be disposed of in accordance with Washington Administrative Code (WAC) 173.350, Solid Waste Handling Standards. Contractor will provide owner with information on how the disposal site meets WAC 173-350 prior to the contractor beginning work on-site.

Attached is site map and plan view. Current test results are attached.

Current COVID-19 protocols shall be followed.

The issuing office for contract documents is City of Woodland Public Works, PO Box 9, Woodland, WA 98674, (360) 225-7999. Contact Todd Douglas, Water Treatment Plant Superintendent, at (360) 225-6174 for questions or to arrange a site visit.

All proposals must be submitted on the Bid Proposal Form that is being furnished. Work shall be completed within fifteen (15) working days after receipt of permission to proceed.

State Sales Taxes -- the provisions of Section 1-07.2(2) - Rule 170 – apply to this project. The Contractor shall include Washington State Retail Sales Taxes on the full contract price.

All construction and material, unless otherwise specified, shall be in accordance with the 2018 Standard Specifications and Standard Plans for Road, Bridge and Municipal Construction as prepared by the Washington State Department of Transportation and as amended under Amendments to the Standard Specifications, and the American Public Works Association, and the City of Woodland Engineering Standards for Construction.

The CITY OF WOODLAND reserves the right to cancel this request or reject any and all bids received or to waive any minor formalities of this call if in the judgment of the City Council the best interest of the City would be served.

BID PROPOSAL FORM

TO: City of Woodland
230 Davidson Avenue
PO Box 9
Woodland, Washington 98674

FROM: Bidder _____
Address _____

Telephone _____
E-Mail _____

The undersigned, as bidder, declares that we will contract with the City of Woodland to do everything necessary to complete the 2022 Lagoon Cleaning as presented.

If our BID is accepted, we agree to sign a Certification of Compliance with Wage Payment Statues, provide Employment Security Department account standing, to sign an Affidavit of Compliance for E-Verify, and to provide the required evidence of insurance within five (5) working days after receiving written notice of the contract award.

We further agree, if our BID is accepted to so plan the work and to prosecute it with such diligence that all of the work shall be completed within the period stated. We understand that the City of Woodland reserves the right to reject any or all bids and to determine which proposal is, in the judgment of the City of Woodland, the lowest responsible bid, and which proposal, if any, should be accepted in the best interests of the City of Woodland and that the City of Woodland also reserves the right to waive any informalities in any proposal or bid.

We further state that we have not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding regarding such contract.

Bidder agrees that the work will be completed within fifteen (15) working days after notice to proceed is received from the City of Woodland.

We propose to perform the work at the prices listed in the following bid schedule(s):

Notes:

- (1) Sales taxes shall be paid on the full contract price.
- (2) The City reserves the right to adjust the scope of this work to match available funds.
- (3) The City reserves the right to reject any or all bids.
- (4) Below a list of items required to complete the project. It is the contractor's responsibility to complete the project scope to all required standards and specifications.

BASE BID PROPOSAL:

Item No.	Project Work Description	Quantity	Units	Unit Price	Total Price
1.	Pumping and proper disposal of Water Treatment Plant lagoon sludge	2	Each	\$	\$
	Subtotal Work:			\$	
	Sales Tax @ 7.9 %:			\$	
	Grand Total Bid (Subtotal + Sales Tax):			\$	

BIDDER'S ADDRESS: Notice of acceptance of this bid or requests for additional information should be addressed to the undersigned at the address stated below.

NON-COLLUSION DECLARATION: I, by signing the proposal, hereby declare, under penalty of perjury under the laws of the United States that the following statements are true and correct:

1. That the undersigned person(s), firm, association or corporation has (have) not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with the project or which this proposal is submitted.
2. That by signing the signature page of this proposal, I am deemed to have signed and have agreed to the provisions of this declaration.

NOTES:

1. This proposal form is not transferable and any alteration of the firm's name entered hereon without prior permission from the Public Works Director will be cause for considering the proposal irregular and subsequent rejection of the bid.

SIGNATURE:

Date: _____

Proper Name of Bidder

Contractor's License Number: _____

City of Woodland License Number: _____

By: _____

Address: _____

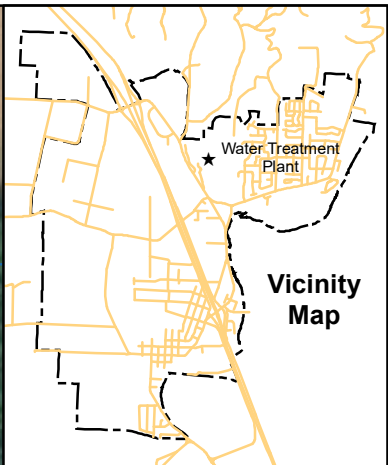
_____ City State Zip



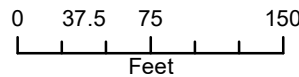
Lagoon #1
- 58' x 118' x 7.5 ' Deep

Lagoon #2
- 58' x 118' x 7.5 ' Deep

SCOTT HILL RD



2022 Lagoon Cleaning Project
Woodland Water Treatment Plant
130 Scott Hill Road





May 24, 2022

Service Request No:K2205353

Todd Douglas
Woodland, City of
130 Scott Hill Road
Woodland, WA 98674

Laboratory Results for: Lagoon Analysis

Dear Todd,

Enclosed are the results of the sample(s) submitted to our laboratory May 17, 2022
For your reference, these analyses have been assigned our service request number **K2205353**.

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 3360. You may also contact me via email at Cody.Graves@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Cody Graves
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Client: Woodland, City of
Project: Lagoon Analysis
Sample Matrix: Sludge, Solid

Service Request: K2205353
Date Received: 05/17/2022

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Two sludge, solid samples were received for analysis at ALS Environmental on 05/17/2022. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

A handwritten signature in black ink, appearing to read "C. Secant", is written over a horizontal line.

Approved by _____

Date 05/24/2022



SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

CLIENT ID: Lagoon 1	Lab ID: K2205353-001					
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic	0.03	J	0.03	0.10	mg/L	6010C
Selenium	0.04	J	0.03	0.20	mg/L	6010C

CLIENT ID: Lagoon 2	Lab ID: K2205353-002					
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Analyte	Results	Flag	MDL	MRL	Units	Method
Arsenic	0.06	J	0.03	0.10	mg/L	6010C
Cadmium	0.002	J	0.002	0.050	mg/L	6010C
Selenium	0.05	J	0.03	0.20	mg/L	6010C



Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Client: Woodland, City of
Project: Lagoon Analysis

Service Request:K2205353

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2205353-001	Lagoon 1	5/17/2022	0845
K2205353-002	Lagoon 2	5/17/2022	0845



CHAIN OF CUSTODY
124056

001

SR# 12205353
COC Set ___ of ___
COC# _____

1317 South 13th Ave, Kelso, WA 98626 Phone (360) 577-7222 / 800-695-7222 / FAX (360) 636-1068
www.alsglobal.com

Project Name LAGOON ANALYSIS		Project Number:		NUMBER OF CONTAINERS	14D	28D	180D						Remarks
Project Manager TODD GRAVES					EPA 1311 / TCLP	7470A / Hg TCLP	8010C / Metals TCLP	1	2	3	4	5	
Company CITY OF WOODLAND													
Address P.O. BOX 9 WOODLAND WA, 98674													
Phone # 360-225-6174		email DOUGLST@CI.WOODLAND.WA.US											
Sampler Signature 		Sampler Printed Name TODD DOUGLAS											
CLIENT SAMPLE ID	LABID	SAMPLING Date	Time	Matrix									
1. LAGOON 1		5/17/22			1	X	X	X					
2. LAGOON 2		5/17/22			1	X	X	X					
3.													
4.													
5.													
6.													
7.													
8.													
9.													
10.													

Report Requirements <input type="checkbox"/> I. Routine Report: Method Blank, Surrogate, as required <input type="checkbox"/> II. Report Dup., MS, MSD as required <input type="checkbox"/> III. CLP Like Summary (no raw data) <input type="checkbox"/> IV. Data Validation Report <input type="checkbox"/> V. EDD	Invoice Information P.O.# <u>31847</u> Bill To: <u>CITY OF WOODLAND</u>	Circle which metals are to be analyzed Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg
	Turnaround Requirements <input type="checkbox"/> 24 hr. <input type="checkbox"/> 48 hr. <input type="checkbox"/> 5 Day <input type="checkbox"/> Standard	Special Instructions/Comments: INVESTIGATIVE

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature 	Signature 	Signature 	Signature 	Signature	Signature
Printed Name TODD DOUGLAS	Printed Name Mike Taylor	Printed Name ALS	Printed Name AG	Printed Name	Printed Name
Firm CITY OF WOODLAND	Firm ALS	Firm ALS	Firm ALS	Firm	Firm
Date/Time 5/17/22 8:50	Date/Time 5/17/22 08:50	Date/Time 5/17/22 12:30	Date/Time 5/17/22 12:30	Date/Time	Date/Time

PM CG

Cooler Receipt and Preservation Form

Client City of Woodland Service Request K22 05353
Received: 5/17/22 Opened: 5/17/22 By: AP Unloaded: 5/17/22 By: AP

- 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
<u>6.1</u>	<u>7.6</u>	<u>1102</u>	<u>124056</u>				

4. Was a Temperature Blank present in cooler? NA Y N If yes, notate 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 # below 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 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA Y N Under filled 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
RUSH										

Notes, Discrepancies, Resolutions: Writing on labels smeared / it is not legible
no way to differentiate between lagoon 1 & lagoon 2
1/13/22 Able to make out impressions from pen tip on labels, I did Lagoon 1 & Lagoon 2 Page of
both collected 5/17/22 @ 0845.



Miscellaneous Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

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/bsdw/labservice.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.

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.

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Woodland, City of
Project: Lagoon Analysis/

Service Request: K2205353

Sample Name: Lagoon 1
Lab Code: K2205353-001
Sample Matrix: Sludge, Solid

Date Collected: 05/17/22
Date Received: 05/17/22

Analysis Method
6010C
7470A

Extracted/Digested By
JHINSON
JHINSON

Analyzed By
AMCKORNEY
JHINSON

Sample Name: Lagoon 2
Lab Code: K2205353-002
Sample Matrix: Sludge, Solid

Date Collected: 05/17/22
Date Received: 05/17/22

Analysis Method
6010C
7470A

Extracted/Digested By
JHINSON
JHINSON

Analyzed By
AMCKORNEY
JHINSON



Sample Results

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Metals

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Woodland, City of
Project: Lagoon Analysis
Sample Matrix: Sludge, Solid
Sample Name: Lagoon 1
Lab Code: K2205353-001

Service Request: K2205353
Date Collected: 05/17/22 08:45
Date Received: 05/17/22 12:30
Basis: NA

Toxicity Characteristics Leachate Procedure (TCLP)
TCLP Metals

Pre-Prep Method: EPA 1311

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	0.03 J	mg/L	0.10	0.03	5	05/24/22 12:05	05/23/22	
Barium	6010C	ND U	mg/L	2.0	0.5	5	05/24/22 12:05	05/23/22	
Cadmium	6010C	ND U	mg/L	0.050	0.002	5	05/24/22 12:05	05/23/22	
Chromium	6010C	ND U	mg/L	0.050	0.010	5	05/24/22 12:05	05/23/22	
Lead	6010C	ND U	mg/L	0.050	0.020	5	05/24/22 12:05	05/23/22	
Mercury	7470A	ND U	mg/L	0.0010	0.0001	1	05/24/22 11:40	05/23/22	
Selenium	6010C	0.04 J	mg/L	0.20	0.03	5	05/24/22 12:05	05/23/22	
Silver	6010C	ND U	mg/L	0.050	0.004	5	05/24/22 12:05	05/23/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Woodland, City of
Project: Lagoon Analysis
Sample Matrix: Sludge, Solid
Sample Name: Lagoon 2
Lab Code: K2205353-002

Service Request: K2205353
Date Collected: 05/17/22 08:45
Date Received: 05/17/22 12:30
Basis: NA

Toxicity Characteristics Leachate Procedure (TCLP)
TCLP Metals

Pre-Prep Method: EPA 1311

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	0.06 J	mg/L	0.10	0.03	5	05/24/22 12:17	05/23/22	
Barium	6010C	ND U	mg/L	2.0	0.5	5	05/24/22 12:17	05/23/22	
Cadmium	6010C	0.002 J	mg/L	0.050	0.002	5	05/24/22 12:17	05/23/22	
Chromium	6010C	ND U	mg/L	0.050	0.010	5	05/24/22 12:17	05/23/22	
Lead	6010C	ND U	mg/L	0.050	0.020	5	05/24/22 12:17	05/23/22	
Mercury	7470A	ND U	mg/L	0.0010	0.0001	1	05/24/22 11:46	05/23/22	
Selenium	6010C	0.05 J	mg/L	0.20	0.03	5	05/24/22 12:17	05/23/22	
Silver	6010C	ND U	mg/L	0.050	0.004	5	05/24/22 12:17	05/23/22	



QC Summary Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com



Metals

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Woodland, City of
Project: Lagoon Analysis
Sample Matrix: Sludge, Solid
Sample Name: Method Blank
Lab Code: KQ2208265-01

Service Request: K2205353
Date Collected: NA
Date Received: NA
Basis: NA

Toxicity Characteristics Leachate Procedure (TCLP)
TCLP Metals

Pre-Prep Method: EPA 1311

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	ND U	mg/L	0.10	0.03	5	05/24/22 12:00	05/23/22	
Barium	6010C	ND U	mg/L	2.0	0.5	5	05/24/22 12:00	05/23/22	
Cadmium	6010C	ND U	mg/L	0.050	0.002	5	05/24/22 12:00	05/23/22	
Chromium	6010C	ND U	mg/L	0.050	0.010	5	05/24/22 12:00	05/23/22	
Lead	6010C	ND U	mg/L	0.050	0.020	5	05/24/22 12:00	05/23/22	
Mercury	7470A	ND U	mg/L	0.0010	0.0001	1	05/24/22 11:36	05/23/22	
Selenium	6010C	0.05 J	mg/L	0.20	0.03	5	05/24/22 12:00	05/23/22	
Silver	6010C	ND U	mg/L	0.050	0.004	5	05/24/22 12:00	05/23/22	

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QA/QC Report

Client: Woodland, City of
Project: Lagoon Analysis
Sample Matrix: Sludge, Solid

Service Request: K2205353
Date Collected: 05/17/22
Date Received: 05/17/22
Date Analyzed: 05/24/22
Date Extracted: 05/23/22

Matrix Spike Summary
TCLP Metals

Sample Name: Lagoon 1
Lab Code: K2205353-001
Analysis Method: 7470A
Prep Method: Method

Units: mg/L
Basis: NA

Matrix Spike
KQ2208392-03

<u>Analyte Name</u>	<u>Sample Result</u>	<u>Result</u>	<u>Spike Amount</u>	<u>% Rec</u>	<u>% Rec Limits</u>
Mercury	ND U	0.0047	0.0050	95	75-125

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

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QA/QC Report

Client: Woodland, City of
Project: Lagoon Analysis
Sample Matrix: Sludge, Solid

Service Request: K2205353
Date Collected: 05/17/22
Date Received: 05/17/22
Date Analyzed: 05/24/22
Date Extracted: 05/23/22

Matrix Spike Summary
TCLP Metals

Sample Name: Lagoon 1
Lab Code: K2205353-001
Analysis Method: 6010C
Prep Method: EPA 3010A

Units: mg/L
Basis: NA

Matrix Spike
KQ2208393-03

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	0.03 J	4.80	5.00	95	75-125
Barium	ND U	10.1	10.0	101	75-125
Cadmium	ND U	0.940	1.00	94	75-125
Chromium	ND U	4.97	5.00	99	75-125
Lead	ND U	4.61	5.00	92	75-125
Selenium	0.04 J	0.97	1.00	93	75-125
Silver	ND U	0.938	1.00	94	75-125

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QA/QC Report

Client: Woodland, City of
Project: Lagoon Analysis
Sample Matrix: Sludge, Solid

Service Request: K2205353
Date Collected: 05/17/22
Date Received: 05/17/22
Date Analyzed: 05/24/22

Replicate Sample Summary

TCLP Metals

Sample Name: Lagoon 1
Lab Code: K2205353-001

Units: mg/L
Basis: NA

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate Sample	Average	RPD	RPD Limit
					KQ2208392-02 Result			
Mercury	7470A	0.0010	0.0001	ND U	ND U	ND	-	20

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QA/QC Report

Client: Woodland, City of
Project: Lagoon Analysis
Sample Matrix: Sludge, Solid

Service Request: K2205353
Date Collected: 05/17/22
Date Received: 05/17/22
Date Analyzed: 05/24/22

Replicate Sample Summary
TCLP Metals

Sample Name: Lagoon 1
Lab Code: K2205353-001

Units: mg/L
Basis: NA

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate Sample	Average	RPD	RPD Limit
					KQ2208393-02 Result			
Arsenic	6010C	0.10	0.03	0.03 J	0.04 J	0.04	29 #	20
Barium	6010C	2.0	0.5	ND U	ND U	ND	-	20
Cadmium	6010C	0.050	0.002	ND U	ND U	ND	-	20
Chromium	6010C	0.050	0.010	ND U	ND U	ND	-	20
Lead	6010C	0.050	0.020	ND U	ND U	ND	-	20
Selenium	6010C	0.20	0.03	0.04 J	ND U	NC	NC	20
Silver	6010C	0.050	0.004	ND U	ND U	ND	-	20

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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QA/QC Report

Client: Woodland, City of
Project: Lagoon Analysis
Sample Matrix: Sludge, Solid

Service Request: K2205353
Date Analyzed: 05/24/22

Lab Control Sample Summary
TCLP Metals

Units:mg/L
Basis:NA

Lab Control Sample
KQ2208392-01

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Mercury	7470A	0.0047	0.0050	93	80-120

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QA/QC Report

Client: Woodland, City of
Project: Lagoon Analysis
Sample Matrix: Sludge, Solid

Service Request: K2205353
Date Analyzed: 05/24/22

Lab Control Sample Summary
TCLP Metals

Units:mg/L
Basis:NA

Lab Control Sample
KQ2208393-01

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	6010C	4.80	5.00	96	80-120
Barium	6010C	9.9	10.0	99	80-120
Cadmium	6010C	0.944	1.00	94	80-120
Chromium	6010C	4.89	5.00	98	80-120
Lead	6010C	4.60	5.00	92	80-120
Selenium	6010C	1.05	1.00	105	80-120
Silver	6010C	0.926	1.00	93	80-120