



LEWKOWICH ENGINEERING ASSOCIATES  
LTD.  
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1900 Boxwood Road  
Nanaimo BC V9S 5Y2

Date Received: 06-JUN-19  
Report Date: 13-JUN-19 17:43 (MT)  
Version: FINAL

Client Phone: 250-756-0355

## Certificate of Analysis

Lab Work Order #: L2286700  
Project P.O. #: NOT SUBMITTED  
Job Reference: F2412-279  
C of C Numbers:  
Legal Site Desc: 5109 Athol Street, Port Alberni, BC

Joanne Lee  
Account Manager

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# ALS ENVIRONMENTAL ANALYTICAL REPORT

	<b>Sample ID</b>	<b>Description</b>	<b>Sampled Date</b>	<b>Sampled Time</b>	<b>Client ID</b>
	L2286700-1	Solid	05-JUN-19	13:00	BROWN PAINT ON WOOD EXTERIOR TRIM (XRF#4)
	L2286700-2	Solid	05-JUN-19	13:00	WHITE PAINT ON WOOD EXTERIOR SIDING (XRF#5)
<b>Grouping</b>	<b>Analyte</b>				
<b>SOIL</b>					
<b>TCLP Metals</b>	Lead (Pb)-Leachable (mg/L)				
	1.84	222			

## Reference Information

### Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
<b>MET-TCLP-CCMS-VA</b>	Soil	Metals by ICPMS (TCLP)	EPA 1311/6020A
<p>This analysis is carried out in accordance with the extraction procedure outlined in "Test Methods for Evaluating Solid Waste - Physical/Chemical Methods Volume 1C" SW-846 EPA Method 1311, published by the United States Environmental Protection Agency (EPA). In summary, the sample is extracted at a 20:1 liquid to solids ratio for 16 to 20 hours using either extraction fluid #1 (glacial acetic acid, water and sodium hydroxide) or extraction fluid #2 (glacial acetic acid), depending on the pH of the original sample. The extract is then filtered through a 0.6 to 0.8 micron glass fibre filter. Instrumental analysis of the digested extract is by collision cell inductively coupled plasma - mass spectrometry (modified from EPA Method 6020A).</p>			

\*\* ALS test methods may incorporate modifications from specified reference methods to improve performance.

*The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:*

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

### Chain of Custody Numbers:

#### GLOSSARY OF REPORT TERMS

*Surrogate - A compound that is similar in behaviour to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.*

*mg/kg - milligrams per kilogram based on dry weight of sample.*

*mg/kg wwt - milligrams per kilogram based on wet weight of sample.*

*mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight of sample.*

*mg/L - milligrams per litre.*

*< - Less than.*

*D.L. - The reported Detection Limit, also known as the Limit of Reporting (LOR).*

*N/A - Result not available. Refer to qualifier code and definition for explanation.*

*Test results reported relate only to the samples as received by the laboratory.*

**UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.**

*Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.*



## Quality Control Report

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Client: LEWKOWICH ENGINEERING ASSOCIATES LTD.  
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Nanaimo BC V9S 5Y2

Contact: Laurie Clark

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
<b>MET-TCLP-CCMS-VA</b>	<b>Soil</b>							
Batch	R4664037							
WG3071621-1 MB								
Lead (Pb)-Leachable			<0.25		mg/L		0.25	12-JUN-19

# Quality Control Report

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## Legend:

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Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

## Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

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The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

