



Leaching Environment Assessment Framework (LEAF)

What is LEAF Testing?

LEAF is a collection of four leaching test methods developed to identify detailed characteristic leaching behaviours of various solid materials including soils, wastes and construction materials.

These tests, using **USEPA methods SW846 1313, 1314, 1315 and 1316** are designed to provide aqueous extracts that represent the partitioning of compounds from solid to liquid under various mechanisms of interaction – i.e. actively, mechanical, passive, chemical or all of these.

Testing Methodology for LEAF

In recent years, the Department of Environment Regulation (DER) in Western Australia released an Environmental Standard on leachate testing.

The document provides a comprehensive approach to leachate testing in order to assess potentially harmful chemical constituents that may be leaching from solid waste derived materials. LEAF testing is therefore more ideal for this type of assessment because it provides a more rigorous and more relevant approach to the currently used TCLP/ASLP methodology.



NATA Accredited for LEAF Testing



Accreditation Number 2901

The National Association of Testing Authorities (NATA) is the authority that provides independent assurance of technical competence through a proven network of best practice industry experts for customers who require confidence in the delivery of their products and services.

As a leading laboratory, we are fully accredited and qualified to perform testing for LEAF.

With **NATA Accreditation**, you have the confidence that you are partnering with a laboratory that will provide you with quality results. Contact us today to find out more.

1

USEPA SW846 1313 – Parallel Leach

The solid is sized and then tumbled (for ≥ 24 hours) at various pH levels e.g. pH 2, 4, 5.5, 7, 8, 9, 10.5, 12 and 13.

2

USEPA SW846 1314 – Column Leach

The solid is sized and packed into a column.

Eluent is very slowly percolated through the column and volumes of the resulting eluent are collected periodically and analysed for the target analytes.

3

USEPA 1315 – Monolith Leach

This method is aimed for monolithic or compacted granular material, typically cement based or stabilised materials.

The solid is emerged in eluate for various periods of time. Estimates of the diffusivity of target analytes from the monolith can be gained.

4

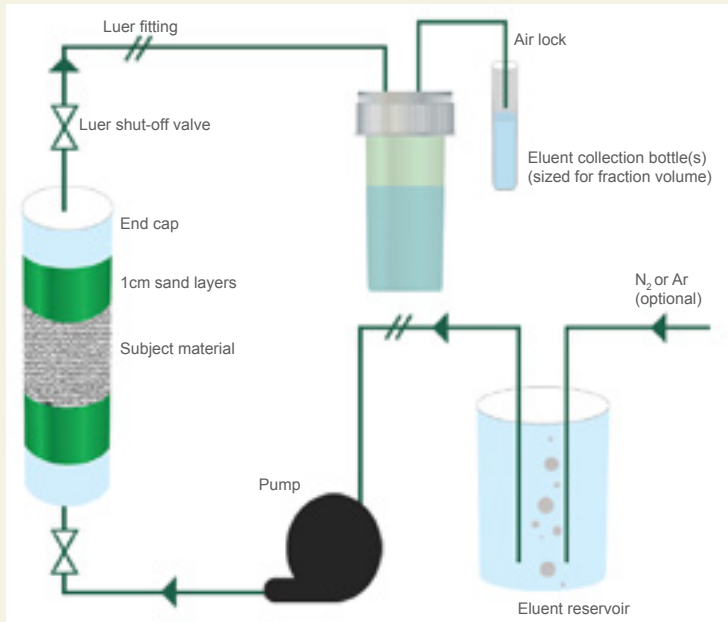
USEPA 1316 – Parallel Leach

Solid is sized and tumbled end over end at varying liquid to solid (L/S) ratios.

The ratios can vary from 10:1 to 1:2 for liquid to solid respectively.



LEAF Testing at Envirolab Services



Envirolab is **NATA Accredited** for LEAF testing.

However, as the procedures are relatively time consuming, a discussion with our laboratory team is required prior to sample submission.

This will ensure the most appropriate method(s) and subsequent analysis of the resulting eluates.

For further information or if you require LEAF testing, call **1300 424 344**

Quality customer service is our prime objective. Our experience, together with state-of-the-art facilities ensure that you are provided with a fast turnaround of results.

Most important of all, you have a dedicated team. For further information, [Simon Mills](#) and [Todd Lee](#) are ready to answer questions and assist with your testing requirements.

Contact your closest Envirolab laboratory today



envirolab.com.au



1300 424 344



enquiries@envirolab.com.au

Great Science. Great Service.