



Technical Memo

Guidance for the use of SPLP to Develop New Jersey Site-Specific Impact to Ground Water Remediation Standards (April 24, 2013)

Updated: May 13, 2013

On April 24, 2013, NJDEP issued the most updated version of the *Guidance for the use of the Synthetic Precipitation Leaching Procedure to Develop New Jersey Site-Specific Impact to Ground Water Remediation Standard*.

This document can be found at: http://www.nj.gov/dep/srp/guidance/rs/splp_guidance.pdf

Tech Memo Sampling Summary:

Volatile organic compounds (VOC) may now be tested using the SPLP procedure. Samplers will need the following for SPLP VOC sampling:

- One (1) Terra Core kit or Three (3) 5g Encores® for TCL VOC analysis
- One (1) 25g Encore® Sampler for SPLP VOC analysis. Samples must not be preserved.
- One (1) 2oz jar for soil moisture determination
- One (1) 4 oz. jar for TOC analysis (optional add-on)

The following changes are found in the guidance:

- VOC may now be tested using the SPLP procedure. From each sampling location, the following is required:
 - One (1) Terra Core kit or Three (3) 5g Encores® are still required for total contaminant analysis (i.e. the standard TCL VOC run). Samples are either water or methanol preserved.
 - Soil samples received for direct analysis of TCL VOC will be logged in for a 7 business day TAT (IAL recommendation).
 - SPLP VOC samples will be leached within 48 hours from collection and then placed on hold, contingent on TCL VOC analysis. SPLP VOC samples may also be analyzed concurrent with the TCL VOC samples. *Please note on the Chain of Custody if the SPLP is contingent or not.*

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- SPLP Leachate samples will be analyzed by methods 8260B and/or 504.1/8011 for 1,2-Dibromoethane (EDB) and 1,2-Dibromo-3-chloropropane (DBCP).
 - If samples are from a petroleum discharge/storage area (except gasoline*), the low level methods for EDB and DBCP are not needed.
 - If samples are from a *leaded or aviation* gasoline discharge site/storage area, EDB is still required by 504.1/8011.
- Upon receiving results from the TCL VOC analysis, the laboratory must be contacted immediately to analyze or cancel the contingent SPLP VOC samples.
- Soil samples for SPLP VOC must be collected using one (1) 25g Encore® Sampler. Samples must not be preserved.
 - Within 48 hours of collection of the SPLP VOC, the sample must be leached (i.e. all SPLP samples will be leached and held until activated). The SPLP VOC leachate will have a 14 day holding time once created.
 - Samples will be analyzed by methods 8260B and 504.1/8011.
 - The same rules apply here for petroleum & gasoline site/storage area samples as listed above.
- One (1) 2oz jar is required for soil moisture determination, as usual with VOC samples.
- To facilitate the use of the NJDEP model in calculating the Field Leachate Concentration found at http://www.nj.gov/dep/srp/guidance/rs/splp_spreadsheet.xls:
 - All SPLP results will be reported in µg/l (ppb).
 - Soil sample weights will be reported in kilograms (kg) instead of milligrams (mg)
 - Leachate volumes will be reported in liters (L) instead of milliliters (mL)
- IAL will report the final pH of the leachate, the leachate volume and dry weight of the soil subsample used for each SPLP test.

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- TOC by the Lloyd Kahn method may be added as a direct soil analysis for use in the NJDEP spreadsheet to determine Field Leachate Concentration and whether the sample passes or fails the IGWSSL. An additional 4 oz. jar is necessary for this analysis.
- Default Leachate Criteria for Class II Ground Water can be found in Appendix B of the SPLP guidance.

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