Important changes when sampling for Volatiles

Until now sampling of soils for the analysis of very volatile components such as benzene, toluene and chlorinated hydrocarbons was normally done with our set 04.16 soil coring kit for chemical research. With this set undisturbed core samples are obtained down in the borehole. The stainless steel sample tubes are closed completely and cooled for further transport to the laboratory. Although already existing for many years, this system has been verified in 2008 within the Promote European Technology Verification program.

However: New regulations and standards have come into force (USA-EPA Guideline 5035a_r1) or are in (ISO) preparation. Based on these new views a new no-loss soil corer has been developed. With this new sampler, the samples are much smaller (16 ml ~ 25 grams) and the coring tubes can also be hammered in stony soil. Sampling is simply done above ground from larger samplers or augers. The sampler can be used for both worldwide used sampling methods: Field conservation with methanol and
direct cooling (or even freezing).

The new guidelines are only concerned with the volatiles recovery rate and take little account of the sampling aspect. Some elements in the sampling procedure itself depend on the type of the soil sampler used, the time of exposure prior to subsampling with the volatiles corer, wind, temperature and type of volatile.