

## SVE Pilot Testing Workplan Guidance

The SVE Pilot Testing Workplan shall be reviewed and signed by a NM PE. The SVE pilot test shall be conducted under the direct supervisory control of a NM PE, which does not necessarily mean “on-site”. This document is meant as guidance and is intended to be modified as appropriate.

SVE pilot test workplans should include the following:

- Brief narrative description of:
  - the pilot testing unit:
    - Blower specs (including brand, type, motor size, operational RPMs, and respective performance curves for vacuum operation)
    - Vapor treatment strategy
  - Instrumentation used to measure vacuum/pressure
    - manometers/U tubes or
    - vacuum/pressure gauges
  - Instrumentation typically used to measure flow include but is not limited to:
    - Pitot tube with a differential pressure gauge and chart or calculation as appropriate to convert to flow
    - Direct reading differential pressure flow meters ( with readings in acfm) or
    - Variable area flow meters (e.g rotameters) that measure scfm directly
  - Instrumentation used to measure temperature
  - Instrumentation used to measure absolute pressure (not barometric pressure corrected to sea level)
  - Methodology for measuring concentrations of VOCs include a description of field screening and laboratory methodologies, frequency of sampling, sample collection protocol, and sampling locations.
  - Methodology for measuring concentrations of fixed gases include same as described for VOCs above.
  - Pilot testing protocol:
    - Wells to be tested
    - Construction of new SVE test and observation well(s): including drilling methods and well materials.
    - Parameters to be measured including frequency and interval between recordings/measurements
    - Duration of pilot tests
    - Step testing description
    - Data recording/strategy (e.g. hand recording, data logger, etc.)
  - Supplemental fuel use information if appropriate
  - Health and safety planning with consideration to public safety and site security (including temporary fencing and lighting if appropriate).
- A Process and Instrumentation Diagram (P&ID) of pilot testing unit depicting the following:
  - Piping
  - Moisture/vapor separator tank
  - Blower
  - Vapor treatment
  - Sampling locations
  - Supplemental fuel source
  - Flow meters, vacuum and temperature gauges
  - Power source
- Indicate on P&ID where measurements will be taken, including but not limited to the following:
  - Well effluent concentrations (field instrument measurements and bag or canister samples for lab analysis)

- Temperature pre- extraction blower (well effluent temperature)
  - Test well effluent flow
  - Test well vacuum
  - Dilution flow
  - Applied vacuum at blower inlet if conducting a multi-well SVE pilot test.
  - Fixed gases effluent vapor concentrations
- Plan view of the site depicting SVE test wells and observation wells.
- Cross-section schematic depicting screened intervals for test well and observation wells in relation to the subsurface contamination and geology including current ground water levels.
- Field Data Sheet (See SVE Pilot Testing Reporting Requirements guidance document for details.)