Table 5.2Summary of Recommendations for Continued SVESWMU B-3, Camp Stanley Storage Activity, Texas

| Remedial Recommendation | Objective | Anticipated Actions | Estimated Costs |
|---|---|--|------------------------|
| Establish appropriate clean-up levels for protection of ground- water using modeling techniques. | Determine maximum VOC concentrations that can be left in soils that are protective of groundwater. | Perform simple modeling using available data to determine appropriate clean-up levels. | \$30,000 |
| Expand SVE operation to include all 18 VEWs installed at the site. | Increase removal of VOCs from SWMU B-3 using the existing treatment system. | Modify standard exemption for air emissions. Open and adjust flow from all 18 VEWs. | \$10,000 |
| 3. Conduct periodic maintenance and monitoring of SVE system performance (i.emonthly). | Improve removal efficiencies of the existing treatment system | Monitor flow & TVH removal from individual VEWs; adjust flow to improve VOC removal from critical VEWs (monthly). | \$50,000 |
| Upgrade existing blower, or add a second blower to system. | Improve extraction efficiency of the existing SVE system. | Implement SVE with a blower that has greater flow capacity and can operate at greater vacuums than existing blower. | \$10,000 |
| Install additional extraction VEWs in fractured limestone outside, but adjacent to, the main B-3 trench. | Improve VOC mass removal by improving extraction efficiency and increasing the area that is influenced by SVE. | Use of existing data to place new VEWs in limestone. Test new VEWs for improvements in VOC removal or influence. | \$50,000 |
| 6. Perform additional contaminant characterization in main trench. | Define the area south of the existing SVE system that still has VOCs above clean-up goals. Increase extraction area. | Add new VEWs south of the SVE system in a grid similar to the existing system. Collect samples for analysis. | \$50,000 |
| Evaluate the effects of rainfall on extraction efficiencies, and assess the rate that water is drained from the trench into underlying limestone. | Improve understanding of extraction efficiencies during heavy rains. Also, obtain data for refining leaching models (recommendation 1). | Collect and evaluate rainfall data and compare to extraction efficiencies and water levels in VEWs at SWMU B-3. | \$25,000 |

Basic Assumptions

- 1. Only existing data will be input into one commonly applied model to evaluate leaching from vadose soils.
- 2. One week at SWMU B-3 to monitor and adjust/optimize flow from each VEW to ensure extraction from critical VEWs. Standard exemption modification prepared as done previously.
- 3. Monthly monitoring of system operation and TVH removal with field instruments. Ten emission samples annually.
- 4. Replace existing blower with a regenerative blower with more horsepower and greater extraction potential (Gast R6).
- 5. Install twelve more VEWs at the site. No additional blower required to maintain sufficient flow from VEWs. Estimate includes costs for four weeks of system testing, and ten soil gas samples. Air rotary drilling assumed.
- 6. Install twelve more VEWs or VMPs in trench (hollow stem auger drilling), with one soil sample per borehole. Sixteen soil samples will be collected. Two weeks of system testing also included. No ITIR for analytical results included.
- 7. Install transducer in VEW(s) with data recorder to monitor rates of water level rises and drops during precipitation events. Includes trips to periodically monitor transducer performance and to download data.