

SOIL TECHNOLOGY: Soil Vapor Extraction

RACER PARAMETERS	Scenario A	Scenario B	Scenario C	Scenario D
	Small Site		Large Site	
Remedial Action:	Easy	Difficult	Easy	Difficult
Media/Waste Type	Soil	Soil	Soil	Soil
Contaminant	SVOCs	SVOCs	SVOCs	SVOCs
Approach	In Situ	In Situ	In Situ	In Situ
System Definition:				
Installation Type	Vertical well	Vertical well	Vertical well	Vertical well
Soil Type	Sand Silt/Sand Clay	Silt/Silty-Clay Mixture	Sand Silt/Sand Clay	Silt/Silty-Clay Mixture
Safety Level	D	D	D	D
Surface Area of Contamination (SF)	450	450	2,700	2,700
Depth to Base of Contamination (FT)	5	5	5	5
Drilling:				
Average Well Depth (FT)	5	5	5	5
Formation Type	Unconsolidated	Unconsolidated	Unconsolidated	Unconsolidated
Safety Level	D	D	D	D
Well Diameter (IN)	2	2	2	2
Drilling Method	Hollow Stem	Hollow Stem	Hollow Stem	Hollow Stem
Well Construction Material	PVC sch. 40	PVC sch. 40	PVC sch. 40	PVC sch. 40
Avg. # of Soil Samples per Well	1	1	1	1
Soil Analytical Template	System soils-SVOC	System soils-SVOC	System soils-SVOC	System soils-SVOC
Vertical Wells:				
Extraction Well Spacing (FT)	35	22	35	22
Number of Vapor Extraction Wells	1	2	3	8
Avg. Vapor Flow Rate per Well (CFM)	15	6	15	6
Total Vapor Flow Rate (CFM)	15	12	45	48
O&M:				
Duration (YR)	2	2	2	2
Treatment Train Systems Maintenance Level	Moderate	Moderate	Moderate	Moderate
Sampling Frequency	Monthly	Monthly	Monthly	Monthly
Additional Costs:				
O&M	\$51,689	\$62,094	\$78,404	\$180,087
Remedial Design (10% or 10K)	\$10,000	\$10,000	\$10,000	\$17,125
SVE Marked-up Costs	\$18,606	\$21,442	\$64,585	\$171,253
TOTAL MARKED-UP COSTS	\$80,295	\$93,536	\$152,989	\$368,465
COST PER CUBIC FOOT	\$36	\$42	\$11	\$27
COST PER CUBIC METER	\$1,275	\$1,485	\$405	\$975
COST PER CUBIC YARD	\$944	\$1,100	\$300	\$722