

ORC TECHNICAL BULLETIN # 1.2.1

Oxygen Release Compound, ORC[®]

Cost Comparison - Mechanical Treatment Methods

Site Description

Location	Midwestern State
Plume Width	60 feet
Plume Area	9,146 sq. feet
Depth to GW	6 feet
Depth to Contaminated Zone	11 feet
Porosity	.3
GW Velocity	0.1 ft/day
Peak BTEX Load	25 ppm

The site is assumed to be developed with roads, sewers, and already installed 220 volt/3 phase power available at no additional cost for installations, permits, electrical distribution, or equipment (for those treatment methods requiring sewer or electricity). In addition, it is assumed that no buildings or general area fencing are required, but above-ground process equipment is fenced.

Cost Comparisons

System Installation	ORC Source Treatment	ORC Oxygen Barrier	Air Sparging w/SVE	Pump & Treat
ORC	\$51,120	\$5,700	\$-0-	\$-0-
ORC Bore Holes*	11,168	17,681	-0-	-0-
Labor/Materials	5,220	16,798	39,535	40,098
Capital Equipment	-0-	-0-	46,999	84,612
Subtotal	\$67,508	\$40,179	\$86,534	\$124,710
Monitoring	11,055	33,165	40,200	40,200
System Maintenance**	6,900	34,200	32,100	152,400
Total System Cost	\$85,463	\$107,544	\$158,834	\$317,310

* Direct - push bore holes with ORC slurry used for source treatment. Completed monitoring wells with replaceable ORC socks used for oxygen barrier.

**The ORC source treatment assumes site closure in one year while site closure for the other treatments is three years. System maintenance is the cost of additional ORC applications and operating costs for air sparging and pump and treat.

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