Uncertainty Analysis for EEM 3: Soil Vapor Extraction
Emission Rate for Benzene from Gasoline-Contaminated Soil

Variable parameters are in bold:
Assumptions:

Q =	85	m^3/min	vapor extraction rate

Equations used:
ER (g/sec) = (Cg)(Q/60)(10^-6)
Cg (ug/m^3) = [(Ps)(Mw)(10^9)]/[(R)(Ts)]

Additional Parameters:

Pa=	95.2	mm Hg	vapor pressure of benzene at ambient temp. (298K)
Ps=	77.1	mmHg	vapor pressure of benzene at soil temp. (293K)
Mw=	78	g/g-mol	molecular weight
Ta=	298	degrees K	ambient temperature
Ts=	293	degrees K	soil temperature

Point Estimates Using the Above Parameters/Equations:

ER=	0.466	g/sec	total emission rate