

V01 - SOIL VAPOR EXTRACTION PROCESSES, GASOLINE MITIGATION, OUTLET QUANTIFIED AS METHANE AFTER CONTROLS

CALCULATION METHODS

$E_a = U_a \times \text{PPMV}_a \times \text{MW} \times C_i \times k$

$E_h = U_h \times \text{PPMV}_m \times \text{MW} \times C_i \times k$

NOTES:

- A calculation procedure Molecular Weight = 16 lbs/lb mole (Methane) is used in the for quantifying total organic outlet emissions.
- Must match calculation procedure reference compound to outlet concentration reference compound to correctly estimate emissions.
- Material composition is used as outlet speciation profile. Adjust the weight % of each compound for changes due to the control device if necessary.
- Use site specific outlet speciation information where available. Outlet ppmv measurements must reference the same compound (molecular weight) as the calculation method selected.
- Annual and maximum hourly outlet concentrations may decrease over time with mitigation of the contaminant source.
- The following emission factors are for the C_i portion of the above equation where C_i speciates the exhaust concentration by weight percent.

POLLUTANT	District Emission Factor	REFERENCE	AP-42	(UNITS)	COMMENTS
	(weight percent)	DOCUMENT	FACTOR		
NOX					
CO					
SOX					
TOG	100.00%	District Engineering Estimates			Assume all outlet ROG = TOG for gasoline contaminated site
ROG	100.00%	District Engineering Estimates			
TSP					
PM10					
BENZENE	1.00%				Based on the liquid speciation profile for reformulated gasoline.
ETHYL BENZENE	1.60%				Based on the liquid speciation profile for reformulated gasoline.
FORMALDEHYDE					
HEXANE	1.80%				Based on the liquid speciation profile for reformulated gasoline.
LEAD					
METHYL TERT BUTYL ETHER	11.00%				Based on the liquid speciation profile for reformulated gasoline.
TOLUENE	8.00%				Based on the liquid speciation profile for reformulated gasoline.
2,2,4-TRIMETHYLPENTANE	0.80%				Based on the liquid speciation profile for reformulated gasoline.
XYLENES	2.40%				Based on the liquid speciation profile for reformulated gasoline.