

**004 - OPEN MATERIAL STORAGE AREAS, SAND MINING OPERATIONS, DISTRICT ENGINEERING ESTIMATE, INCLUDES 'NATURAL MOISTURE CONTENT OF SOILS'.**

**CALCULATION METHODS**

$$E_a = A \times [(E_{Fa} \times D_a) + (E_{Fi} \times D_i)] \times C_i \times (1 - e)$$

$$E_h = A \times [(E_{Fa} \times D_a) / H] \times C_i \times (1 - e)$$

**NOTES:**

- Open material storage fugitive emission control methods and efficiencies must be identified in the database if applicable. Emission factors assume "uncontrolled" releases.
- TSP and PM10 factors are based on Section 8.19 (9/85) of AP-42. The newer estimation procedures in the fifth edition of AP-42 are not currently used due to excessive data requirements.
- Trace metal default concentrations are based on local test results 1991 - 1996. Use site specific data if available.
- TSP emission factors are 13.2 lbs/active day and 3.5 lbs/inactive day.
- PM10 emission factors are 6.5 lbs/active day and 1.7 lbs/inactive day.

POLLUTANT	Default Composition	EPA REFERENCE	AP-42	(UNITS)	COMMENTS
	(ppmw)	DOCUMENT	FACTOR		
NOX					
CO					
SOX					
TOG					
ROG					
TSP	NA	AP-42, Section 8.19 (9/85) factors used.			TSP factors = 13.2 lbs/acre/active day & 3.5 lbs/acre/inactive day
PM10	1,000,000	AP-42, Section 8.19 (9/85) factors used.			PM10 factors = 6.5 lbs/acre/active day & 1.7 lbs/acre/inactive day
ALUMINUM	20,000				Based on local test results (Profile 3 - 7/96).
ARSENIC	6				Based on local test results (Profile 3 - 7/96).
BIARIUM	160				Based on local test results (Profile 3 - 7/96).
BERYLLIUM	1				Based on local test results (Profile 3 - 7/96).
CADMIUM	1				Based on local test results (Profile 3 - 7/96).
CHROMIUM HEXAVALENT	0				Based on local test results. No Cr+6 detected in any samples analyzed.
CHROMIUM NONHEXAVALENT	34				Based on local test results (Profile 3 - 7/96).
COBALT	13				Based on local test results (Profile 3 - 7/96).
COPPER	72				Based on local test results (Profile 3 - 7/96).
LEAD	19				Based on local test results (Profile 3 - 7/96).
MANGANESE	315				Based on local test results (Profile 3 - 7/96).
MERCURY	0				Based on local test results. No mercury detected in any samples analyzed.
NICKEL	20				Based on local test results (Profile 3 - 7/96).
SELENIUM	1				Based on local test results (Profile 3 - 7/96).
SILICA, CRYSTALLINE	100,000				Based on local test results (Profile 3 - 7/96).
ZINC	85				Based on local test results (Profile 3 - 7/96).