

Q04 - QUARRY OPERATIONS, SAND MINING, DISTRICT ENGINEERING ESTIMATE, INCLUDES 'NATURAL MOISTURE CONTENT OF SOILS'.

CALCULATION METHODS

$Ea = Ua \times 0.05 \text{ (lbs TSP/ton material quarried)} \times EF \text{ (PPMW)} / 1000000$

$Ea = Ua \times 0.021 \text{ (lbs PM10/ton material quarried)} \times EF \text{ (PPMW)} / 1000000$

$Eh = Ea / H$

NOTES:

- Quarry 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 District engineering estimates as agreed upon in discussions with the Mineral Products Industry (1995 through 1996).
- Trace metal default concentrations are based on local source test results ~1996. Use site specific data if available.
- PM10 fraction of TSP released (42%) is based on default AP-42 assumptions as agreed upon with the Mineral Products Industry.
- AP-42 bulldozing estimates below assume 2% moisture and 7.5 % silt content in overburden (average of reported MPI values).

POLLUTANT	Default Composition	EPA REFERENCE	AP-42	(UNITS)	COMMENTS
	(ppmw)	DOCUMENT	FACTOR		
NOX					Note:
CO					AP-42 TSP and PM10 factors based on Section 11.9-6 (Coal overburden
SOX					bulldozing) are not used by District. TSP factor 0.05 is an engineering
TOG					estimate (A. Segal) and 42% PM10 fraction is a default particle size
ROG					distribution agreed to with the Mineral Products Industry in 1996.
TSP	1,000,000	AP-42, Section 11.9 factor not used.	26.0	lbs/ton	District emission factor = 0.05 lbs TSP / /ton quarried
PM10	1,000,000	AP-42, Section 11.9 factor not used.	5.8	lbs/ton	District emission factor = 0.021 lbs PM10 / ton quarried
ALUMINUM	20,000				
ARSENIC	6				NOTE:
BARIUM	160				Trace metal concentrations in fugitive dust are from local haul road
BERYLLIUM	1				analyses conducted ~1996 for AB2588 purposes.
CADMIUM	1				
CHROMIUM HEXAVALENT	0				
CHROMIUM NONHEXAVALANT	34				
COBALT					
COPPER	72				
LEAD	19				
MANGANESE	315				
MERCURY	0				
NICKEL	20				
SELENIUM	1				
SILICA, CRYSTALLINE	100,000				
ZINC	85				