

Table 1: Comparing Trace Constituents in FGD and Mined Gypsums to National Soil Background Levels

Trace Constituent	FGD Gypsum (ppm)	Mined Gypsum (ppm)	National Background Soil (ppm)
Antimony	2.0 – 9.1	0.02 – 0.28	<1 – 8.8
Arsenic	0.6 – 4.0	0.19 – 3.0	<0.1 - 97
Cadmium	0.2 – 1.2	<2 – 0.5	0.05 – 8.2
Chromium	1.3 – 42.0	8.7 – 30.5	1 – 2,000
Copper	1.2 – 27.9	<4 – 29.8	<1 - 700
Lead	0.8 – 12.0	All <5	<10 - 700
Lithium	<9 – 48.8*	<9 – 13.1	<5 – 140
Mercury	0.01 – 1.4	0.00044 – 0.025	<0.01 – 4.6
Molybdenum	0.5 – 12.0	All <3	<3 – 15
Nickel	0.73 – 20.1	<4 – 11.9	<5 – 700
Selenium	2.0 – 30.0	11.3 – 21.1	<0.1 – 4.3
Thallium	0.6 – 2.0	All <15	0.02 – 1.6
Vanadium	<1 – 73.2	<2 – 12.7	<7 – 500
Zinc	3.4 – 47.5	13.1 – 27.5	<5 – 2,900

* Only two samples were available

Sources: DOE (2007), EPA (2007), EPRI (2007), OSU (2006), USGS (2005)

Table 2: Levels of Selected Nutrients and Minerals in FGD and Mined Gypsums

Constituent	FGD Gypsum (% by weight)	Mined Gypsum (% by weight)
Boron	<0.0003 – 0.0042	Not available
Calcium	18.5 – 24.3	18.1 – 21.3
Iron	0.026 – 0.3	0.038 – 0.74
Magnesium	0.010 – 0.74	0.1 – 3.14
Phosphorus	0.0005 – 0.05	0.35 – 0.046
Potassium	<0.004 – 0.09	0.0076 – 0.44
Silicon	0.022 – 69.2	Not available
Sodium	0.023 – 5.8	0.35 – 0.076
Sulfur	14.9 – 20.9	12.3 – 17

Sources: DOE (2007), EPA (2007), EPRI (2007), OSU (2006)

Sources:

DOE (2007) Unpublished data. U.S. Department of Energy.

EPA (2007). Unpublished data. Office of Research and Development, U.S. Environmental Protection Agency.

EPRI (2007) Unpublished data. Electric Power Research Institute.

OSU (2006) *Gypsum for Agricultural Use in Ohio--Sources and Quality of Available Products*. Ohio State University Extension Fact Sheet, ANR-20-05. Available online at: <<http://ohioline.osu.edu/anr-fact/0020.html>>. Accessed August, 2007.

USGS (2005) *Major- and Trace-Element Concentrations in Soils from Two Continental-Scale Transects of the United States and Canada*. Open-File Report 2005-1253, U.S. Geological Survey. Available online at: <<http://pubs.usgs.gov/of/2005/1253/>>. Accessed September 13, 2007.