

SILICA CHALLENGES OVER THE PAST 50 YEARS

BOB WHEELER, PE, DEE, FAIHA
NIOSH USPHS CAPTAIN [RET]
IEHC, LTD

IMPINGER SAMPLING OF SAND BLASTING OPERATION - US ARMY

RESPIRABLE DUST CYCLONES
DEVELOPED BY
MSHA AND MSA

1960'S



NIOSH AND MSHA

**MULTIPLE SAMPLES - SAME COAL MINE
REFERENCE SILICA FOR X-RAY DIFFRACTION
LONG WALL SAMPLING**

1970'S



SILICA SAMPLING IN URANIUM AND OIL SHALE

NEW LABORATORY ANALYSES METHODS
BY US BOM, NIOSH AND MSHA

1980'S



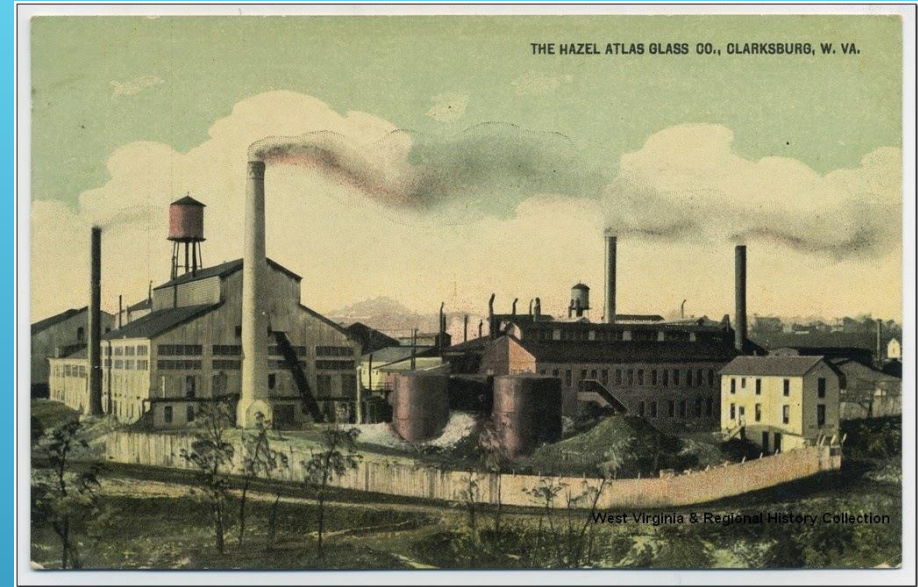
SILICA SAMPLING IN

**GLASS PLANTS
FOUNDRIES**

STEEL MILLS

CLAY MINES

1990'S



SILICA SAMPLING IN

FLAT GLASS

FIBERGLASS

FOUNDRIES

SURFACE COAL MINES

2000'S



SILICA SAMPLING

REPAIR OF GLASS PLANT

FRACKING GAS AND OIL WELLS

OFF LOADING SILICA RAIL CARS

2010'S

