



# CONTAMINATION OF GROUNDWATER & SURFACE WATER BY MERCURY

Dr. Khurshid Ahmed  
[drkhurshed@hotmail.com](mailto:drkhurshed@hotmail.com)

Sidra Karim  
[Kareemsidra@yahoo.com](mailto:Kareemsidra@yahoo.com)

NCBA&E

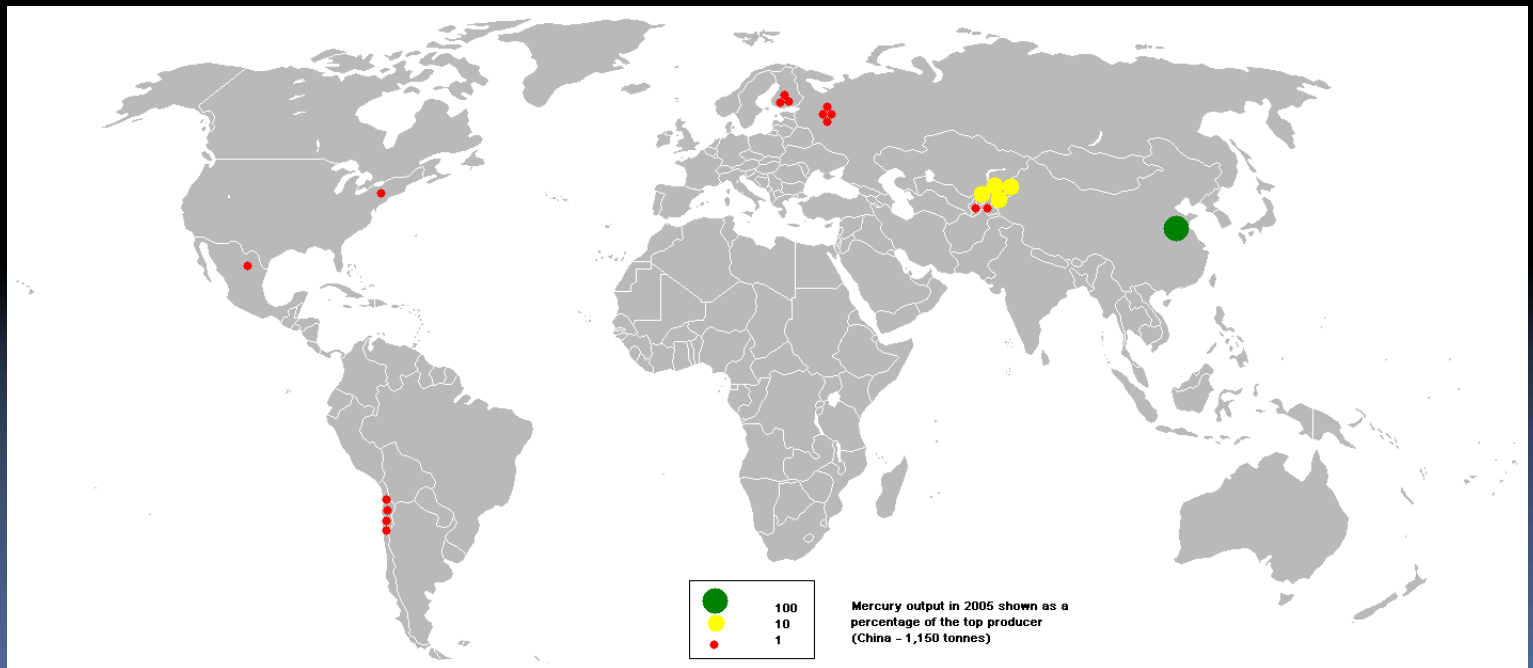
# INTRODUCTION

- Mercury is a heavy, silvery-white metal; a rather poor conductor of heat, as compared with other metals, and a fair conductor of electricity.
- A heavy, silvery d-block metal, mercury is one of six elements that are liquid at or near room temperature and pressure



# Occurrence

- Mercury is an extremely rare element in the Earth's crust, having an average crustal abundance by mass of only 0.08 parts per million (ppm)
- It is found either as a native metal (rare) or in cinnabar, corderoite, livingstonite and other minerals



# Applications

- industrial chemicals or for electrical and electronic applications
- thermometers,
- fluorescent lamps,
- Medicine
- Mercury manometer



# Mercury in the environment

- Coal fired power plants
- Smelters, Gold production(minning)
- Cement production
- Waste diposal(municipal and hazardous waste)
- Caustic soda production
- Volcanic Eruption
- Pig iron and steel production



# Mercury in Ground water

- Dissolution of minerals and ores
- Industrial effluents
- Mercury in the air eventually settles into water or onto land where it can be washed into water



# Health effects of mercury

High exposures to inorganic mercury may result in damage to the gastrointestinal tract, the nervous system, and the kidneys

- Impairment of the peripheral vision
- Disturbances in feelings, numbness) usually in the hands feet and sometimes around the mouth
- Lack of coordination of movements, such as writing
- Impairment of speech, hearing, walking;
- Muscle weakness
- Skin rashes
- Mood swing
- Memory loss
- Mental disturbance
- sensations ("pins and needles"



## ACTIVITIES ON MERCURY

and 1963 WHO international Standards for water did not mention mercury

was first mentioned in the 1971 International s, which gave the tentative upper concentration mercury as 0.001 mg/l

Guidelines also retained the guideline value for mercury of 0.001 mg/l.

预览已结束，完整报告链接和二维码如下：

[https://www.yunbaogao.cn/report/index/report?reportId=5\\_14131](https://www.yunbaogao.cn/report/index/report?reportId=5_14131)

