

How Your Heating Source Affects Your Health

**By Alex Greer, Sara Jacobs, Alyssa Northrop, Rachel
Stevenson, & Jessica Trethewey**

Problem: Which heating source or combination of heating sources (Natural gas/ Fire places & Natural gas/ Wood stoves/ Wood stoves Natural gas) produces the most indoor V.O.C. pollutants?

Hypothesis: Homes with wood stoves will have a higher amount of target compounds than any other heating source.

Procedure: Obtain the heating source information for each sample site, and then compare the heating source to the amount of indoor pollutants. Average all of the target compounds and compare results, not including the outliers.

RESULTS

(Average Total V.O.C.'s)

Natural Gas: 32191.3 ng/m³

Wood Stove(s): 38594.7 ng/m³

Natural Gas & Fire Place: 23713.85 ng/m³

Wood Stoves & Natural Gas: 16873.45 ng/m³

***Fireplace & Wood Stove & Natural Gas: 42529 ng/m³**

*** Not used because there was only one sample.**

CONCLUSION

From all of the sample sites that were tested, wood stoves produced the highest amount of indoor V.O.C. pollutants. Natural gas ended up having almost as many V.O.C.'s as wood stoves.