

CUSTOMGAS

SOLUTIONS



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To whom it may concern,

We have concluded saturation testing of a "FINAL FILTER®" filled with the "SULFUR MAGNET™" supplied to us by Standard H2, Inc. and have the following results to report.

The filter supplied for testing was a "SULFUR MAGNET FINAL FILTER" with an effective length of 6". The gross weight prior to testing was 216.58 grams with a net weight of Sulfur Magnet media of 16.95 grams. The saturation was achieved by flowing cylinder mixtures ranging from 2000-5000 ppm hydrogen sulfide in nitrogen through the filter slowly over time. Based on our measurements, the increase in gross filter weight was 4.70 grams indicating the removal and capture of 9.40 grams of sulfur while releasing 4.70 grams of oxygen in the exchange reaction of transforming H₂S into H₂O. This equates to a saturation capacity of 55.4% of H₂S based upon the initial weight of the media, which is significantly higher than any other sulfur removal media known to be available.

The filter unit used in the current study was challenged with a 1-2 ml/min constant flow of 2000-5000 ppm Hydrogen Sulfide in Nitrogen after having been purged with dry nitrogen over 12-16 hours. Subsequently, after the saturation flow challenge, the filter was again purged with dry nitrogen for 12-16 hours to remove any residual water vapor. All testing was performed at room temperature.

Please feel free to contact me with any questions or requests.

Best Regards,

Signed: *Stephen Vaughan* (electronic)

Date: 2-Feb-2025

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