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was left over after and what was left over was the limiting reactant. The limiting reactant turned out to be the iron, both through math and observations, as copper was all that was left after. All of the iron would have reacted to form iron(II) sulfate, leaving behind copper. The calculated theoretical yield was 2.28g of copper. We ended up with a final weight of 2.12g, making for a 95.2% yield. Some possible errors that may have affected our results are some copper(II) sulfate that was left unreacted, interacted iron filings stuck on the beaker and stirring rod, the tape on the beaker partially burned off reducing the mass, and accidentally decanting off some of the reactants or copper. If I were to to the lab again, I would use an amount of reactant close to what is required so that there are less unreacted reagents left over, I wouldn’t use tape, and I would make sure everything gets reacted fully, not stuck to the beaker or stirring rod. The percent yield tells me that some of the product was lost or never created. There was less copper left in the beaker than there could have been. Our methods were not thorough or careful enough to get perfect results and our results are only as good as the scale we mass it it and how complete our reaction was.

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