Jake Choi Chemistry 10 Separation of Mixtures Lab Flowchart (Period 4) Sam Lee Container 1. Record the number assigned to the container (Recording) Electronic alance 2. Measure the total mass of the mixture initially including the container 6 Using the electronic balance (Measuring) 3. Empty the container and measure the mass of the empty container to obtain the exact mass of the mixture (Measuring) (Magnet 4. Use a magnet to separate the Iron Filings from the mixture (Magnetism) IGA Filings 5. Measure the mass of the Iron Filings (Measuring) 6. Pour water into the mixture (Solubilizing) Stirring rod 7. Let the salt totally dissolve in the water by stirring the mixture using a stir bar (Solubilizing) 8. Scoop up the substance floating on top of the solution, which is naphthalene, Using a scoopula (Sorting) Nater 9. Use the gravimetric filtration system to separate the saltwater and sand with a funnel and a filter paper and naphthalene and saltwater (gravimetric filtration) Scopula Naphthalene 10. Measure the mass of sand and the mass of naphthalene with an electronic balance (Measuring) 11. Heat the saturater until the water completely evaporates using a hot plate (Evaporation) 388 12. Measure the mass of salt remaining using the electronic balance (Measuring) Naphthalene 13. Check if the sum of each substance is equal to the mass Naphthalene of the whole mixture measured initially (Confirmation, check) *k*-Funnel Data Table attached on the back side

-Hot plate

N. M. Sont C. CMIL Sam Les Expected Mass of the Substances from the Separation Lab THE MAN Measured Mass (g) Philip Substances 3.01 Iron Filings 0.49 Naphthalene -painting ant 4.59 Sand 2.21 Sodium Chloride (NaCl) 17.08 Initial mass of the mixture including the onfet v container container 6.78 19/11/22 Mass of the empty container 10.3 Initial mass of the mixture 1 (before experiment) mixture (Magnetism) 10.3 Final mass of the mixture (after experiment) Herswing) 5. Measure the

Average Percent Error Between the Expected Mass and Actual Mass

	Substances	Measured Mass (g)	Actual Mass (g)	Percent Error (%)	Average Percent Error (%)	
the mixture using a	Iron Filings	3.010	2.930	2.730	13.560	and size
	Naphthalene	0.490	0.734	33.243		
	Sand	4.590	4.693	2.195		
in which is	Sodium Chloride	2.210	1.904	16.071		

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