

type	name	label	hint	relevant	calculation
start	start				
end	end				
today	today				
simserial	simserial				
subscriberid	subscriberid				
deviceid	deviceid				
integer	sample_id	Sample ID number			
select_one	field_sampler_names	Choose the field sampling team.			
collection_team	field_sampler_names_other	You said other. Please enter the names of the field team that collected this sample.		\$(field_sampler_names) = 'other'	
text	date_collected	Date sample collected			
select_one	tester_name	Lab tester name			
testing_team	tester_name_other	You said other. Please enter the names of the field team that did the sieve testing of this sample.		\$(tester_name) = 'other'	
text	date_analysis	Date of lab analysis			
note	weigh_sieves_top	Please take the masses of the sieves you will use for the TOP sample.			
integer	mass_4_75_sieve_top	What is the mass of the 4.75mm sieve?			
integer	mass_2_36_sieve_top	What is the mass of the 2.36mm sieve?			
integer	mass_1_18_sieve_top	What is the mass of the 1.18mm sieve?			
integer	mass_0_6_sieve_top	What is the mass of the 0.6mm sieve?			
integer	mass_0_425_sieve_top	What is the mass of the 0.425mm sieve?			
integer	mass_0_3_sieve_top	What is the mass of the 0.3mm sieve?			
integer	mass_0_15_sieve_top	What is the mass of the 0.15mm sieve?			
integer	mass_0_075_sieve_top	What is the mass of the 0.075mm sieve?			
integer	mass_bottom_pan_top	What is the mass of the bottom pan?			
note	weigh_sieves_bottom	Please take the masses of the sieves you will use for the bottom sample.			
integer	mass_4_75_sieve_bottom	What is the mass of the 4.75mm sieve?			
integer	mass_2_36_sieve_bottom	What is the mass of the 2.36mm sieve?			
integer	mass_1_18_sieve_bottom	What is the mass of the 1.18mm sieve?			
integer	mass_0_6_sieve_bottom	What is the mass of the 0.6mm sieve?			
integer	mass_0_425_sieve_bottom	What is the mass of the 0.425mm sieve?			
integer	mass_0_3_sieve_bottom	What is the mass of the 0.3mm sieve?			
integer	mass_0_15_sieve_bottom	What is the mass of the 0.15mm sieve?			
integer	mass_0_075_sieve_bottom	What is the mass of the 0.075mm sieve?			
integer	mass_bottom_pan_bottom	What is the mass of the bottom pan?			
note	top_sample_note	Sample A: Top sample			
integer	mass_beginning_top	Mass of Entire TOP Sample (straight from the bag) at the beginning of the test	This should be as close as possible to 500g (please be careful to measure this correctly, but if you cannot get exactly 500g, enter the actual mass).		
integer	mass_4_75_top	What is the mass of the sample in the 4.75mm sieve?	Include the mass of the sieve.		
calculate	mass_4_75_top_soil_retained	Mass of soil retained in 4.75mm sieve			\$(mass_4_75_top) - \$(mass_4_75_sieve_top)
note	mass_4_75_top_soil_retained_note	The 4.75mm top sieve had \$(mass_4_75_top_soil_retained)g of soil in it.			
note	Mass_4_75_top_soil_retained_fail	STOPI This measurement shows the full sieve having less mass than the empty sieve. REDO THIS MEASUREMENT.		\$(mass_4_75_top_soil_retained) < -1	
integer	mass_2_36_top	What is the mass of the sample in the 2.36mm sieve?	Include the mass of the sieve.		
calculate	mass_2_36_top_soil_retained	The 2.36mm top sieve had \$(mass_2_36_top_soil_retained)g of soil in it.			\$(mass_2_36_top) - \$(mass_2_36_sieve_top)
note	mass_2_36_top_soil_retained_note	STOPI This measurement shows the full sieve having less mass than the empty sieve. REDO THIS MEASUREMENT.		\$(mass_2_36_top_soil_retained) < -1	
integer	mass_1_18_top	What is the mass of the sample in the 1.18mm sieve?	Include the mass of the sieve.		
calculate	mass_1_18_top_soil_retained	The 1.18mm top sieve had \$(mass_1_18_top_soil_retained)g of soil in it.			\$(mass_1_18_top) - \$(mass_1_18_sieve_top)
note	mass_1_18_top_soil_retained_note	STOPI This measurement shows the full sieve having less mass than the empty sieve. REDO THIS MEASUREMENT.		\$(mass_1_18_top_soil_retained) < -1	
integer	mass_0_6_top	What is the mass of the sample in the 0.6mm sieve?	Include the mass of the sieve.		
calculate	mass_0_6_top_soil_retained	The 0.6mm top sieve had \$(mass_0_6_top_soil_retained)g of soil in it.			\$(mass_0_6_top) - \$(mass_0_6_sieve_top)
note	mass_0_6_top_soil_retained_note	STOPI This measurement shows the full sieve having less mass than the empty sieve. REDO THIS MEASUREMENT.		\$(mass_0_6_top_soil_retained) < -1	
integer	mass_0_425_top	What is the mass of the sample in the 0.425mm sieve?	Include the mass of the sieve.		
calculate	mass_0_425_top_soil_retained	The 0.425mm top sieve had \$(mass_0_425_top_soil_retained)g of soil in it.			\$(mass_0_425_top) - \$(mass_0_425_sieve_top)
note	mass_0_425_top_soil_retained_note	STOPI This measurement shows the full sieve having less mass than the empty sieve. REDO THIS MEASUREMENT.		\$(mass_0_425_top_soil_retained) < -1	
integer	mass_0_3_top	What is the mass of the sample in the 0.3mm sieve?	Include the mass of the sieve.		
calculate	mass_0_3_top_soil_retained	The 0.3mm top sieve had \$(mass_0_3_top_soil_retained)g of soil in it.			\$(mass_0_3_top) - \$(mass_0_3_sieve_top)
note	mass_0_3_top_soil_retained_note	STOPI This measurement shows the full sieve having less mass than the empty sieve. REDO THIS MEASUREMENT.		\$(mass_0_3_top_soil_retained) < -1	
integer	mass_0_15_top	What is the mass of the sample in the 0.15mm sieve?	Include the mass of the sieve.		
calculate	mass_0_15_top_soil_retained	The 0.15mm top sieve had \$(mass_0_15_top_soil_retained)g of soil in it.			\$(mass_0_15_top) - \$(mass_0_15_sieve_top)
note	mass_0_15_top_soil_retained_note	STOPI This measurement shows the full sieve having less mass than the empty sieve. REDO THIS MEASUREMENT.		\$(mass_0_15_top_soil_retained) < -1	
integer	mass_0_075_top	What is the mass of the sample in the 0.075mm sieve?	Include the mass of the sieve.		
calculate	mass_0_075_top_soil_retained	The 0.075mm top sieve had \$(mass_0_075_top_soil_retained)g of soil in it.			\$(mass_0_075_top) - \$(mass_0_075_sieve_top)
note	mass_0_075_top_soil_retained_note	STOPI This measurement shows the full sieve having less mass than the empty sieve. REDO THIS MEASUREMENT.		\$(mass_0_075_top_soil_retained) < -1	
integer	mass_0_top	What is the mass of the remaining sample in the bottom pan?	Include the mass of the sieve.		
calculate	mass_0_top_soil_retained	The 0 top sieve had \$(mass_0_top_soil_retained)g of soil in it.			\$(mass_0_top) - \$(mass_bottom_pan_top)
note	mass_0_top_soil_retained_note	STOPI This measurement shows the full sieve having less mass than the empty sieve. REDO THIS MEASUREMENT.		\$(mass_0_top_soil_retained) < -1	
note	Mass_0_top_soil_retained_fail	STOPI This measurement shows the full sieve having less mass than the empty sieve. REDO THIS MEASUREMENT.			

						$$(mass\_4\_75\_top\_soil\_retained) + $(mass\_2\_36\_top\_soil\_retained) + $(mass\_1\_18\_top\_soil\_retained) + $(mass\_0\_6\_top\_soil\_retained) + $(mass\_0\_425\_top\_soil\_retained) + $(mass\_0\_3\_top\_soil\_retained) + $(mass\_0\_15\_top\_soil\_retained) + $(mass\_0\_075\_top\_soil\_retained) + $(mass\_0\_top\_soil\_retained)$
calculate	mass_soil_top	Total mass of soil retained top sample				
note	mass_soil_top_note	The top sample, adding up all of the samples after sieving, retained \$(mass_soil_top)g of soil.				
calculate	mass_loss_top_sample					$$(mass\_beginning\_top) - $(mass\_soil\_top)$
calculate	percentage_mass_loss_top_sample					$$(mass\_loss\_top\_sample) \div $(mass\_beginning\_top) * 100$
		Your sample lost \$(mass_loss_top_sample)g during sieving, which is \$(percentage_mass_loss_top_sample)% of the total. If this is more than 2%, this is not acceptable and you must redo the testing.				
note	mass_loss_top_sample_note					
note	top_fail	STOPI Your top mass difference after sieving is more than 2%. REDO THIS SAMPLE!		$$(percentage\_mass\_loss\_top\_sample) > 2$		
note	top_fail_2	STOPI Your top mass difference after sieving is more than 2%. REDO THIS SAMPLE!		$$(percentage\_mass\_loss\_top\_sample) < -2$		
note	bottom_sample_note	Sample A: bottom sample				
		This should be as close as possible to 500g (please be careful to measure this correctly, but if you cannot get exactly 500g, enter the actual mass).				
integer	mass_beginning_bottom	Mass of Entire BOTTOM Sample (straight from the bag) at the beginning of the test				
integer	mass_4_75_bottom	What is the mass of the sample in the 4.75mm sieve?	Include the mass of the sieve.			
calculate	mass_4_75_bottom_soil_retained	Mass of soil retained in 4.75mm sieve				$$(mass\_4\_75\_bottom) - $(mass\_4\_75\_sieve\_bottom)$
note	mass_4_75_bottom_soil_retained_note	The 4.75mm bottom sieve had \$(mass_4_75_bottom_soil_retained)g of soil in it.				
note	Mass_4_75_bottom_soil_retained_fail	STOPI This measurement shows the full sieve having less mass than the empty sieve. REDO THIS MEASUREMENT.		$$(mass\_4\_75\_bottom\_soil\_retained) < -1$		
integer	mass_2_36_bottom	What is the mass of the sample in the 2.36mm sieve?	Include the mass of the sieve.			
calculate	mass_2_36_bottom_soil_retained	Mass of soil retained in 2.36mm sieve				$$(mass\_2\_36\_bottom) - $(mass\_2\_36\_sieve\_bottom)$
note	mass_2_36_bottom_soil_retained_note	The 2.36mm bottom sieve had \$(mass_2_36_bottom_soil_retained)g of soil in it.				
note	Mass_2_36_bottom_soil_retained_fail	STOPI This measurement shows the full sieve having less mass than the empty sieve. REDO THIS MEASUREMENT.		$$(mass\_2\_36\_bottom\_soil\_retained) < -1$		
integer	mass_1_18_bottom	What is the mass of the sample in the 1.18mm sieve?	Include the mass of the sieve.			
calculate	mass_1_18_bottom_soil_retained	Mass of soil retained in 1.18mm sieve				$$(mass\_1\_18\_bottom) - $(mass\_1\_18\_sieve\_bottom)$
note	mass_1_18_bottom_soil_retained_note	The 1.18mm bottom sieve had \$(mass_1_18_bottom_soil_retained)g of soil in it.				
note	Mass_1_18_bottom_soil_retained_fail	STOPI This measurement shows the full sieve having less mass than the empty sieve. REDO THIS MEASUREMENT.		$$(mass\_1\_18\_bottom\_soil\_retained) < -1$		
integer	mass_0_6_bottom	What is the mass of the sample in the 0.6mm sieve?	Include the mass of the sieve.			
calculate	mass_0_6_bottom_soil_retained	Mass of soil retained in 0.6mm sieve				$$(mass\_0\_6\_bottom) - $(mass\_0\_6\_sieve\_bottom)$
note	mass_0_6_bottom_soil_retained_note	The 0.6mm bottom sieve had \$(mass_0_6_bottom_soil_retained)g of soil in it.				
note	Mass_0_6_bottom_soil_retained_fail	STOPI This measurement shows the full sieve having less mass than the empty sieve. REDO THIS MEASUREMENT.		$$(mass\_0\_6\_bottom\_soil\_retained) < -1$		
integer	mass_0_425_bottom	What is the mass of the sample in the 0.425mm sieve?	Include the mass of the sieve.			
calculate	mass_0_425_bottom_soil_retained	Mass of soil retained in 0.425mm sieve				$$(mass\_0\_425\_bottom) - $(mass\_0\_425\_sieve\_bottom)$
note	mass_0_425_bottom_soil_retained_note	The 0.425mm bottom sieve had \$(mass_0_425_bottom_soil_retained)g of soil in it.				
note	Mass_0_425_bottom_soil_retained_fail	STOPI This measurement shows the full sieve having less mass than the empty sieve. REDO THIS MEASUREMENT.		$$(mass\_0\_425\_bottom\_soil\_retained) < -1$		
integer	mass_0_3_bottom	What is the mass of the sample in the 0.3mm sieve?	Include the mass of the sieve.			
calculate	mass_0_3_bottom_soil_retained	Mass of soil retained in 0.3mm sieve				$$(mass\_0\_3\_bottom) - $(mass\_0\_3\_sieve\_bottom)$
note	mass_0_3_bottom_soil_retained_note	The 0.3mm bottom sieve had \$(mass_0_3_bottom_soil_retained)g of soil in it.				
note	Mass_0_3_bottom_soil_retained_fail	STOPI This measurement shows the full sieve having less mass than the empty sieve. REDO THIS MEASUREMENT.		$$(mass\_0\_3\_bottom\_soil\_retained) < -1$		
integer	mass_0_15_bottom	What is the mass of the sample in the 0.15mm sieve?	Include the mass of the sieve.			
calculate	mass_0_15_bottom_soil_retained	Mass of soil retained in 0.15mm sieve				$$(mass\_0\_15\_bottom) - $(mass\_0\_15\_sieve\_bottom)$
note	mass_0_15_bottom_soil_retained_note	The 0.15mm bottom sieve had \$(mass_0_15_bottom_soil_retained)g of soil in it.				
note	Mass_0_15_bottom_soil_retained_fail	STOPI This measurement shows the full sieve having less mass than the empty sieve. REDO THIS MEASUREMENT.		$$(mass\_0\_15\_bottom\_soil\_retained) < -1$		
integer	mass_0_075_bottom	What is the mass of the sample in the 0.075mm sieve?	Include the mass of the sieve.			
calculate	mass_0_075_bottom_soil_retained	Mass of soil retained in 0.075mm sieve				$$(mass\_0\_075\_bottom) - $(mass\_0\_075\_sieve\_bottom)$
note	mass_0_075_bottom_soil_retained_note	The 0.075mm bottom sieve had \$(mass_0_075_bottom_soil_retained)g of soil in it.				
note	Mass_0_075_bottom_soil_retained_fail	STOPI This measurement shows the full sieve having less mass than the empty sieve. REDO THIS MEASUREMENT.		$$(mass\_0\_075\_bottom\_soil\_retained) < -1$		
integer	mass_0_bottom	What is the mass of the remaining sample in the bottom pan?	Include the mass of the sieve.			
calculate	mass_0_bottom_soil_retained	Mass of soil retained in 0 bottom sieve				$$(mass\_0\_bottom) - $(mass\_bottom\_pan\_bottom)$
note	mass_0_bottom_soil_retained_note	The 0 bottom sieve had \$(mass_0_bottom_soil_retained)g of soil in it.				
note	Mass_0_bottom_soil_retained_fail	STOPI This measurement shows the full sieve having less mass than the empty sieve. REDO THIS MEASUREMENT.		$$(mass\_0\_bottom\_soil\_retained) < -1$		
						$$(mass\_4\_75\_bottom\_soil\_retained) + $(mass\_2\_36\_bottom\_soil\_retained) + $(mass\_1\_18\_bottom\_soil\_retained) + $(mass\_0\_6\_bottom\_soil\_retained) + $(mass\_0\_425\_bottom\_soil\_retained) + $(mass\_0\_3\_bottom\_soil\_retained) + $(mass\_0\_15\_bottom\_soil\_retained) + $(mass\_0\_075\_bottom\_soil\_retained) + $(mass\_0\_bottom\_soil\_retained)$
calculate	mass_soil_bottom	Total mass of soil retained bottom sample				
note	mass_soil_bottom_note	The bottom sample, adding up all of the samples after sieving, retained \$(mass_soil_bottom)g of soil.				
calculate	mass_loss_bottom_sample					$$(mass\_beginning\_bottom) - $(mass\_soil\_bottom)$
calculate	percentage_mass_loss_bottom_sample					$$(mass\_loss\_bottom\_sample) \div $(mass\_beginning\_bottom) * 100$
		Your sample lost \$(mass_loss_bottom_sample)g during sieving, which is \$(percentage_mass_loss_bottom_sample)% of the total. If this is more than 2%, this is not acceptable and you must redo the testing.				
note	mass_loss_bottom_sample_note					
note	bottom_fail	STOPI Your bottom mass difference after sieving is more than 2%. REDO THIS SAMPLE!		$$(percentage\_mass\_loss\_bottom\_sample) > 2$		
note	bottom_fail_2	STOPI Your bottom mass difference after sieving is more than 2%. REDO THIS SAMPLE!		$$(percentage\_mass\_loss\_bottom\_sample) < -2$		