

Report #1

Gravimetric Water Content Test

Report by

[]

Experiment Date [- - 20]

Submission Due Date [- - 20]

[This report contains the following outlines

1. The title;
2. Measurements and calculations;
3. Discussion &
4. References]

[This work was supervised by

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Note for student: please do not write below this line

Report was marked by _____

Maximum attainable mark _____

Report's mark _____

Notes for student (if any):

Name..... Group No..... Date Time.....

Description of Soil

This test is conducted in accordance with **ASTM D2216** "Standard Test Method for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass".

1. Please place in the appropriate place

	Trial no.	1	2	3	4	5
Type of test specimen:	Disturbed					
	Intact					
For intact specimens: does test specimen contain more than one layer?	No					
	Yes*					
Are there any material excluded from the test specimen?	No					
	Yes*					
Water content of the specimen is measured to the nearest:	1 %					
	0.1 %					
Temperature of drying is 110±5°C:	Yes					
	No*					

2. Measurements and calculations

Trial No.	Mass of container(g) M_c	Mass of container and wet specimen (g) M_{cws}	Mass of container and oven dry specimen (g) M_{cs}	Water content w%
1				
2				
3				
4				
5				

Calculations (ASTM D2216):

$$w = [(M_{cws} - M_c) / (M_{cs} - M_c)] \times 100 = \frac{M_w}{M_s} \times 100 \quad (1)$$

where:

- w = water content, %,
- M_{cws} = mass of container and wet specimen, g,
- M_{cs} = mass of container and oven dry specimen, g,
- M_c = mass of container, g,
- M_w = mass of water ($M_w = M_{cws} - M_{cds}$), g, and
- M_s = mass of solid particles ($M_s = M_{cds} - M_c$), g.

* Please give more details in your discussion section below

