

CONCRETE, SAND, AND GRAVEL WORKSHEET

North Dakota Department of Transportation, Materials & Research

SFN 2455 (9-2019)

Project	PCN
Submitted By	Date Received

GRAVEL

Pit Location	
Owner	
Sampled From	
Date Sampled	Field Sample Number
Lab Number	Size Number
Soundness % Loss - AASHTO T-104 Tested By	
Specific Gravity - ND T-85 Tested By	
% Absorption - ND T-85 Tested By	
L.A. Abrasion (Grad.)% Loss - AASHTO T-96 Tested By	
Wt. Rodded lb./c.f. (kg/m³) - AASHTO T-19 Tested By	
% Moisture - ND T-255 Tested By	

(mm)	Ret.	Wt. Ret.		% Ret.	% Pass	ND Spec.
		Non-Cum.	Cum.			
100	4"					
90	3 1/2"					
75	3"					
63	2 1/2"					
50	2"					
37.5	1 1/2"					
25.0	1"					
19.0	3/4"					
16.0	5/8"					
12.5	1/2"					
9.5	3/8"					
4.75	No. 4					
2.36	No. 8					
Minus No. 8						
Wt. Check						
Original Wt.						
Fineness Modulus						
ND T-27 Tested By				Tech ID		

SAND

Pit Location	
Owner	
Sampled From	
Date Sampled	Field Sample Number
Lab Number	
Soundness % Loss - AASHTO T-104 Tested By	
Specific Gravity - ND T-84 Tested By	
% Absorption - ND T-84 Tested By	
Color - AASHTO T-21 Tested By	
Wt. Loose lb./c.f. (kg/m³) - AASHTO T-19 Tested By	
% Moisture - ND T-255 Tested By	

(mm)	Ret.	Wt. Ret.		% Ret.	% Pass	ND Spec.
		Non-Cum.	Cum.			
9.5	3/8"					
4.75	No. 4					
2.36	No. 8					
2.00	No. 10					
1.18	No. 16					
600µm	No. 30					
425µm	No. 40					
300µm	No. 50					
150µm	No. 100					
75µm	No. 200					
Minus No 200 (75µm)						
Original Wt.						
Wt. After Wash						
Wash Loss						
Wt. Check						
Fineness Modulus						
ND T-11 Tested By				Tech ID		
ND T-27 Tested By				Tech ID		

District

Date	Testing Lab Supervisor
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Weight of Plus No. 4 Fraction
Weight of Total Sample

COARSE AGGREGATE		LAB. NO.
Grams in Plus 4 Fraction		Maximum % by Weight of the Plus No. 4 Fraction
		% by Wt.
	A. Shale	0.7
	B. Iron oxide particles	4.0*
	C. Lignite and and other coal.	0.5
	D. Soft particles exclusive of items a, b, c (includes clay and other friable material).	2.5
	E. Thin or elongated pieces (maximum thickness less than 1/4 the maximum width, or maximum length more than three times the maximum width).	15.0
NDDOT 3 Tested By:		
	F. Dry weight before washing - Dry weight after washing - Material passing No. 200 sieve % of total sample	1.0
ND T-11 Tested By		Tech ID

*Note: For small repairs and for bridge deck overlays, the maximum iron oxide particles shall be 2.0%.

FINE AGGREGATE		LAB. NO.
		Maximum % by Weight
		% by Wt.
(a)	Lightweight pieces in aggregate ———	2
ND T-113 Tested By		Tech ID
<input type="checkbox"/> Approved <input type="checkbox"/> Not Approved		