



Client: Menzel Lake Gravel
Address: P.O. Box 1494
Marysville, WA 98270
Attn: Rob Hild
Revised On: _____

Date: July 1, 2025
Project #: Q.C. - Menzel Lake Gravel - 2025
Project #: 25B026
Sample #: B25-0399
Date sampled: June 27, 2025
Control No: 7012025

As requested and authorized by the Client, MTC has performed the following test(s) on the sample number referenced above. The testing was performed in accordance with current, applicable AASHTO, ASTM, and/or WSDOT standards, which are referenced on the correlating test report pages. The results obtained in our laboratory are as detailed below and/or on the following pages:

	Test(s) Performed:	Test Results		Test(s) Performed:	Test Results
X	Sieve Analysis	Pass / See Attached Report		Sulfate Soundness	
	Proctor			Bulk Density & Voids	
	Sand Equivalent			WSDOT Degradation	
	Fracture Count			LA Abrasion	
	Moisture Content			Cation Exchange Capacity	
	Specific Gravity, Coarse				
	Specific Gravity, Fine				
	Hydrometer Analysis				
	Atterberg Limits				

If you have any questions concerning the test results, the procedures used, or if we can be of any further assistance please call the number below and ask to speak with your Project Manager or the Laboratory Manager.

Alex Eifrig

Respectfully Submitted,
 Alex Eifrig
 WABO Supervising Laboratory Technician



Sieve Report

Project: Q.C. - Menzel Lake Gravel - 2025 Project #: 25B026 Client: Menzel Lake Gravel Source: Menzel Lake Gravel Pit / 3/4" washed drain rock material Sample#: B25-0399	Date Received: 27-Jun-25 Sampled By: Client Date Tested: 30-Jun-25 Tested By: Z. Romney Control No.: 7012025	Unified Soil Classification System, ASTM D-2487 GP, Poorly graded Gravel, Crushed Sample Color: Gray-Brown
--	---	---

Method(s) ASTM D-2216, ASTM D-2419, ASTM D-4318, ASTM D-5281			
Specifications 2024 WSDOT 9-03.12(4) Backfill for Drains Sample Meets Specs ? Yes	$D_{(65)} = 9.573$ mm $D_{(10)} = 10.021$ mm $D_{(15)} = 10.468$ mm $D_{(30)} = 11.809$ mm $D_{(50)} = 14.045$ mm $D_{(60)} = 15.303$ mm $D_{(90)} = 19.349$ mm Dust Ratio = 11/17	% Gravel = 99.1% % Sand = 0.6% % Silt & Clay = 0.3% Liquid Limit = n/a Plasticity Index = n/a Sand Equivalent = n/a Fracture %, 1 Face = n/a Fracture %, 2+ Faces = n/a	Coeff. of Curvature, $C_C = 0.91$ Coeff. of Uniformity, $C_U = 1.53$ Fineness Modulus = 7.03 Plastic Limit = n/a Moisture %, as sampled = n/a Req'd Sand Equivalent = n/a Req'd Fracture %, 1 Face = n/a Req'd Fracture %, 2+ Faces = n/a

Method(s) ASTM C-136, ASTM D-6913, ASTM C-117					
Sieve Size		Actual Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs	
US	Metric			Max	Min
12.00"	300.00		100%		
10.00"	250.00		100%		
8.00"	200.00		100%		
6.00"	150.00		100%		
4.00"	100.00		100%		
3.00"	75.00		100%		
2.50"	63.00		100%		
2.00"	50.00	100%	100%		
1.75"	45.00		100%		
1.50"	37.50		100%		
1.25"	31.50		100%		
1.00"	25.00	100%	100%	100.0%	99.0%
3/4"	19.00	89%	89%	100.0%	80.0%
5/8"	16.00		66%		
1/2"	12.50	38%	38%	40.0%	0.0%
3/8"	9.50	4%	4%	4.0%	0.0%
1/4"	6.30		2%		
#4	4.75	0.9%	1%		
#8	2.36	0.7%	1%		
#10	2.00	0.7%	1%		
#16	1.18	0.6%	1%		
#20	0.850		1%		
#30	0.600	0.5%	0%		
#40	0.425	0.4%	0%		
#50	0.300	0.4%	0%		
#60	0.250		0%		
#80	0.180		0%		
#100	0.150	0.3%	0%		
#140	0.106		0%		
#170	0.090		0%		
#200	0.075	0.3%	0.3%	2.0%	0.0%

Copyright Spears Engineering & Technical Services PS, 1996-98
 All results apply only to actual locations and materials tested. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

Comments: Sample meets 2024 WSDOT 9-03.12(4) backfill for drains gradation specification requirements.

Reviewed by: Alex Eifrig
 Alex Eifrig
 WABO Supervising Laboratory Technician