

Client: Aquipor technologies
Project: Aquipor Investigation
Contact: Greg Johnson
Cast date: 8/18/2025

AET Project No: P-0041956
AET Project Mgr.: J. Tanesi
Technician: D. Quinn
Approved By: J. Tanesi
Report Date: 10/13/2025

TEST RESULTS of ASTM C642,
 DENSITY, ABSORPTION, AND VOIDS in HARDENED CONCRETE

Mix ID	Control	Aquipor
Oven-Dry Mass in Air (A), g	1741.0	1546.0
Saturated Surface-Dry Mass after Immersion (B), g	1849.0	1671.0
Saturated Surface-Dry Mass after Immersion and Boil (C), g	1850.0	1676.0
Apparent Mass in Water after Immersion and Boiling (D), g	1084.0	984.0
Bulk Density, Dry (g_1), Mg/m ³	2.27	2.23
Bulk Density, After Immersion, g/cm ³	2.41	2.41
Bulk Density, After Immersion and Boil, g/cm ³	2.42	2.42
Apparent Density (g_2), Mg/m ³	2.65	2.75
Absorption, After Immersion, %	6.2	8.1
Absorption, After Immersion and Boil, %	6.3	8.4
Volume of Permeable Pore Space, %	14.2	18.8
Wet Unit Weight, lb/ft ³	150.7	151.1

Notes:

1. 4 by 8 in. cylinders were cast on August 18, 2025. tests were performed at 28 days.
2. The test results represent the specimen tested and the method specified.
3. 1 g/cm³ = 1 Mg/m³.



REPORT OF HEAT OF HYDRATION

Project:
AquiPor Investigation

Reported To:
AquiPor Technologies
4118 E 33rd Ave.
Spokane, WA 99223

AET Project No.: P-0041956

Attn: Greg Johnson
Date: May 27, 2025

INTRODUCTION

This report presents the results of laboratory work performed by our firm on a powder sample you identified as “AquiPor Technologies 25/3/31.” Dr. Jussara Tanesi, Principal Engineer, American Engineering Testing, submitted the sample to the Chemistry Laboratory on April 11, 2025. The scope of our work was limited to the determination of the heat of hydration of the sample in accordance with ASTM C1702 at test ages 3 and 7 days.

TEST RESULTS

<u>Sample Identification</u>	<u>Average Heat of Hydration, kJ/kg [cal/g]</u>	
	<u>3 Days</u>	<u>7 Days</u>
Aqui Por Technologies 25/3/31	6 [1]	11 [3]

TEST PROCEDURES

Laboratory testing was performed on May 1, 2025, and subsequent dates. The mass of paste used for testing was 75 grams (50 grams powder + 25 grams water). Testing was performed in triplicate using a Calmetrix i-Cal 8000 HPC isothermal calorimeter to determine the heat of hydration at 3 and 7 days in accordance with ASTM C1702-17, “Standard Test Method for Measurement of Hydration of Hydraulic Cementitious Materials Using Isothermal Conduction Calorimetry,” Method B - External Mixing. The calorimeter was calibrated on January 17, 2021, and its performance was verified with the analysis of Cement and Concrete Reference Laboratory (CCRL) reference cement.



REPORT OF CHEMICALLY BOUND WATER

Project:
AquiPor Investigation

Reported To:
AquiPor Technologies
4118 E 33rd Ave
Spokane, WA 99223

AET Project No.: P-0041956

Attn: Greg Johnson
Date: May 15, 2025

INTRODUCTION

This report presents the results of laboratory work performed by our firm on one (1) sample submitted by Jussara Tanesi, American Engineering Testing, Inc., on your behalf on April 11, 2025. The scope of our work was limited to documenting the chemically bound water content of the sample in accordance with ASTM C1897, Method B.

TEST RESULTS

Table 1 – Chemically Bound Water Content – Cured at 40 °C for 7 Days

<u>Sample Identification</u>	<u>Bound Water</u>	<u>Grams per 100 Grams of Dried Paste</u>	
		<u>Average Bound Water</u>	<u>Bound Water Corrected</u>
AET-4576303.0100	4.18 3.75	3.96	2.90

TEST PROCEDURES

Laboratory testing was performed on April 11, 2025, and subsequent dates in accordance with ASTM C1897-20, “Standard Test Method for Measuring the Reactivity of Supplementary Cementitious Materials by Isothermal Calorimetry and Bound Water Measurements.” The sample was tested in duplicate, conditioned at 40°C, and mixed in a blender with potassium solution at 1600r/min. Results presented in Table 1 are reported on a dry weight 40 °C basis.



TSS Results

Simulated Storm Number	Influent Concentration (mg/L)			Effluent Concentration (mg/L)			Removal Efficiency (%)		
	Sample 1	Sample 2	Average	Paver 2	Paver 3	Average	Paver 2	Paver 3	Average
1	33.6	0.2	16.9	0.7	13.6	7.2	95.7	19.5	57.7
2	5.4	1.3	3.4	0.7	20	10.4	79.1	-457	-188.9
3	74.5	214	144.3	4.1	1.8	2.9	97.2	98.8	98.0
4	123	104	113.5	3.7	4.6	4.2	96.7	95.9	96.3
Tests 3 & 4 Average	128.9			3.9	10.9	3.5	96.9	97.4	97.2

1st & 2nd Simulated Event

💧 100 mg/L

3rd to 6th Simulated Event

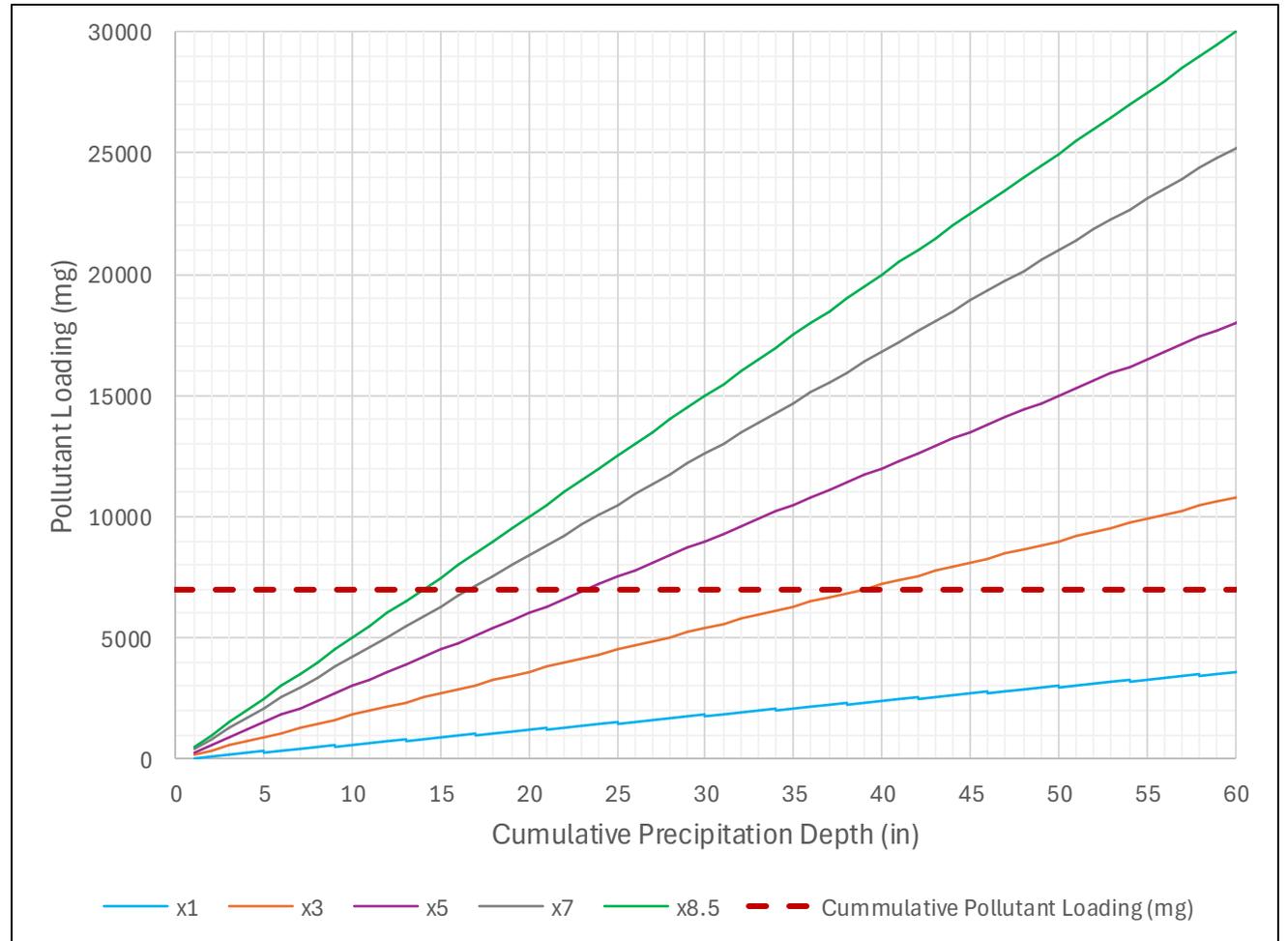
💧 300 mg/L



Pollutant Loading



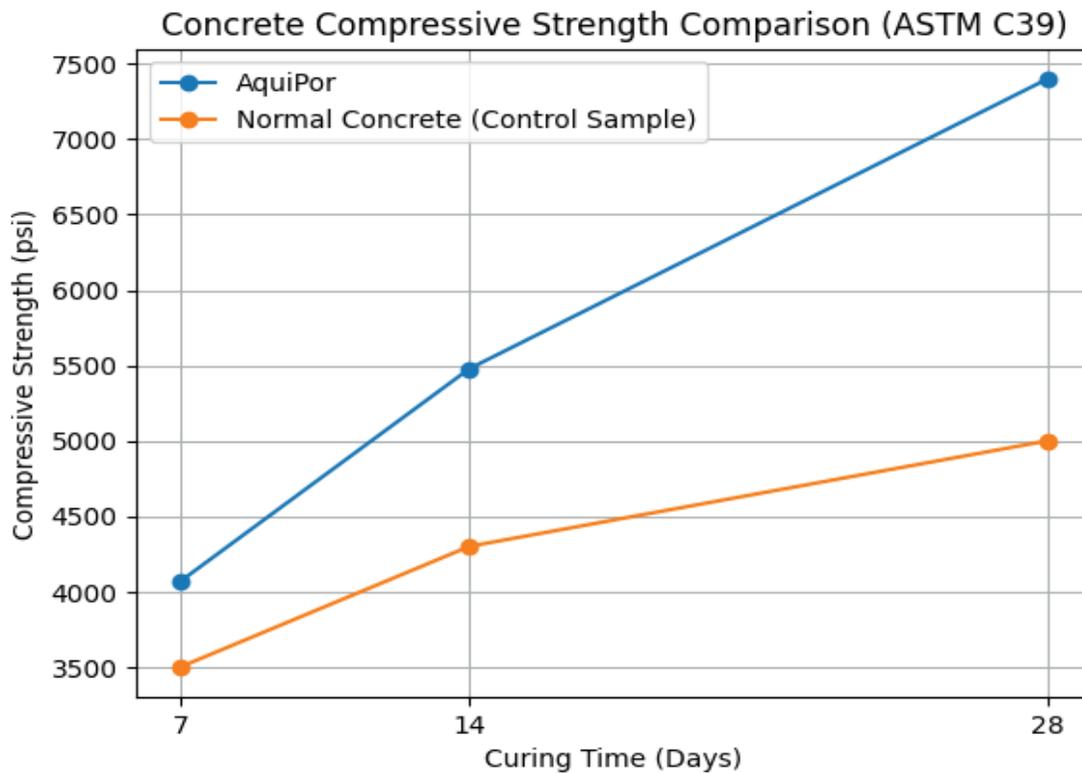
Paver 2 after 6th Simulated Event



AQUIPOR

Test Result Summary Pursuant to ASTM C39 – Concrete Compressive Strength

AquiPor's porous hydrate technology in a 6.25 sack mix (Type 1L), with a 0.43 w/c ratio, compared to an equivalent Type 1L control sample.



**In-house testing performed by ACI certified field technicians.*