



ECS Midwest, LLC

1125 Valley Belt Road
Brooklyn Heights, OH 44131
2167417007
2167417011

LETTER OF TRANSMITTAL

October 8, 2023

Trihydro Corporation

Cincinnati, OH 45241

ATTN: Kelly Birkenhauer, PG, CP

RE: **Trihydro - 601 Longworth RAP, Dayton, OH**

ECS Job # **67:3183**

Permits:

Location: **1125 Valley Belt Road
Brooklyn Heights, OH 44131**

Field Reports For your use As requested

CC:

ENCL:

This is an automated report generated when Soils lab tests were approved for the current project's below-listed lab tests:

- Sampled from GT-1 (3-5') / Sample D4S-1: Standard Proctor
- Sampled from GT-1 (15-17') / Sample D4S-2: Standard Proctor
- Sampled from GT-2 (3-5') / Sample D4S-3: Standard Proctor
- Sampled from GT-2 (15-17') / Sample D4S-4: Standard Proctor

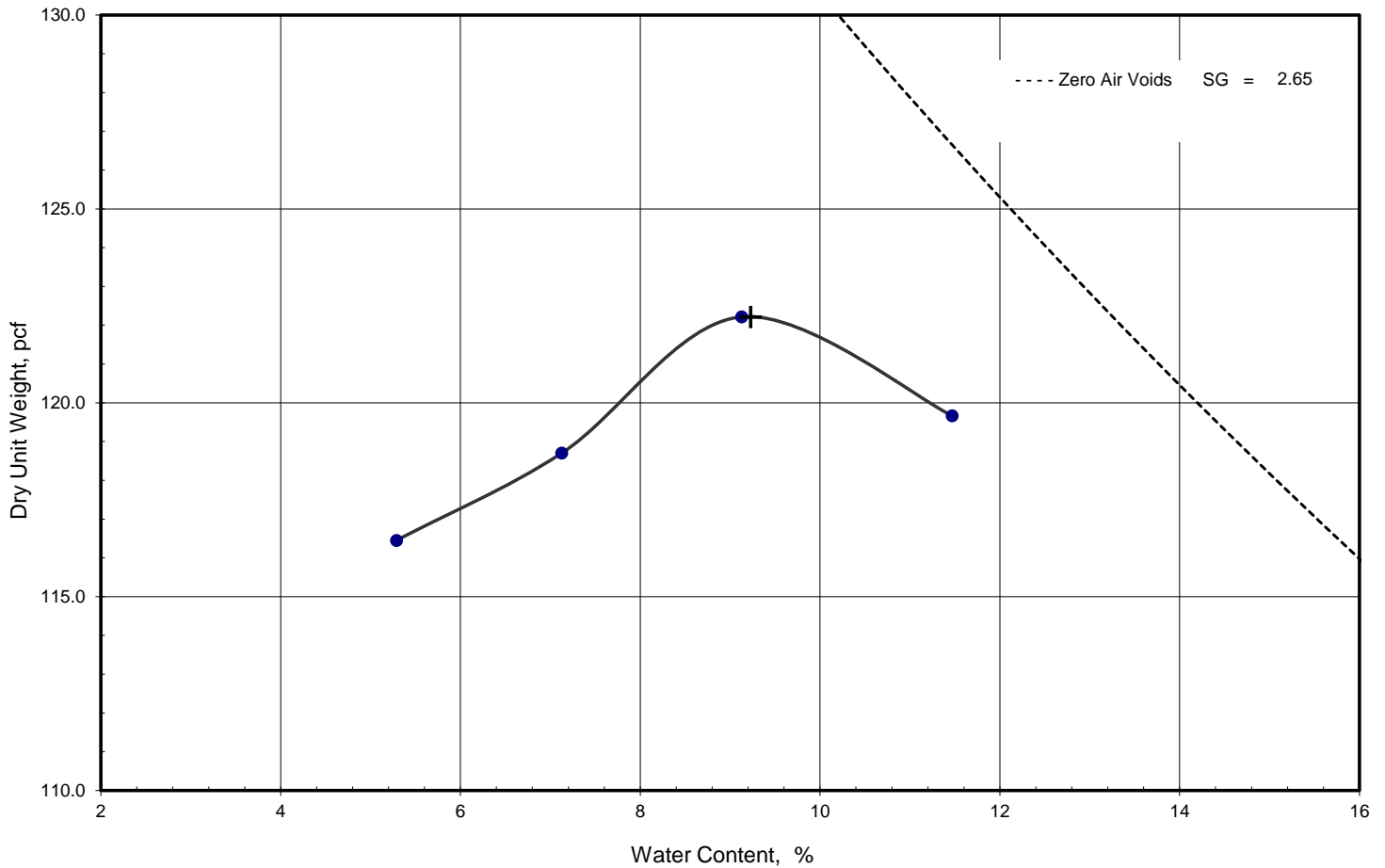
David Potoma, P.E.
Construction Materials Dept. Manager

Nicholas Jackson
CMT Project Coordinator

Disclaimer

1. This report (and any attachments) shall not be reproduced except in full without prior written approval of ECS.
2. The information in this report relates only to the activities performed on the report date.
3. Where appropriate, this report includes statements as to compliance with applicable project drawings, and specifications for the activities, performed on this report date.
4. Incomplete or non-conforming work will be reported for future resolution.
5. The results of samples and/or specimens obtained or prepared for subsequent laboratory testing will be presented in separate reports/documents.

**Laboratory Compaction Characteristics of Soil
Using Standard Effort**



Optimum Moisture Content	9.2	%
Maximum Dry Unit Weight	122.2	pcf
Cumulative material retained on:		
3/4 in. sieve	2.3	%
3/8 in. sieve		%
#4 sieve		%

Preparation		
Type of rammer		
Test Specification / Method	ASTM D698-12e2-method B	
Specific gravity - D854 water pycnometer	2.65	Historical
Coarse Aggregate Specific Gravity -	2.61	Historical

Soil Description	Nat. Moist. %	Liquid Limit	Plasticity Index	% < #200	USCS	AASHTO
Brown Sand, little gravel, trace silt.						

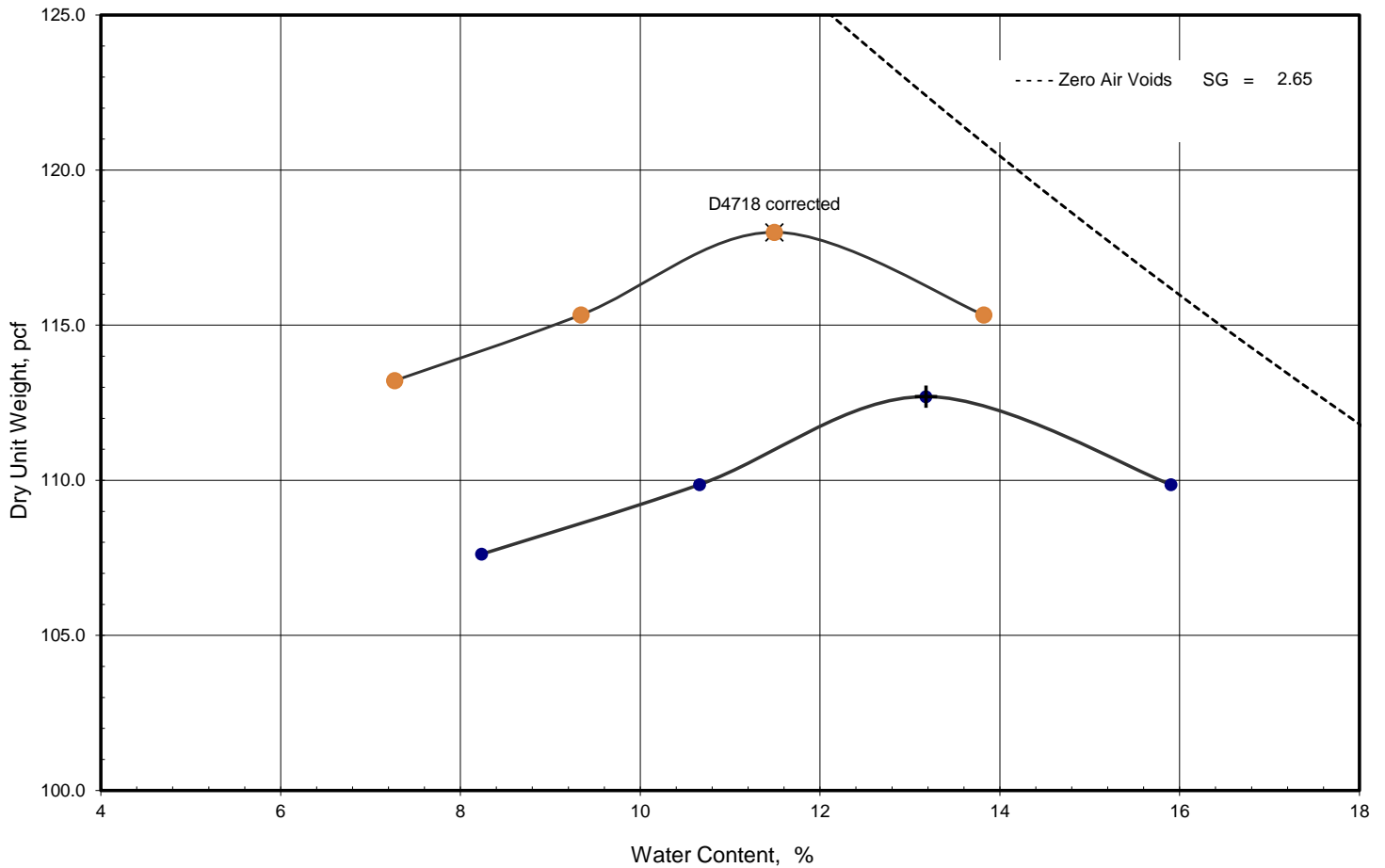
Project: Trihydro - 601 Longworth RAP, Dayton, OH	Project No.: 67:3183
Client: Trihydro Corporation	Depth (ft.): 15 - 17
Sample / Source GT-1 (15-17')	Sample No.: D4S-2
Test Reference/No.:	Date Reported: 10/6/2023



Office / Lab	Address	Office Number / Fax
ECS Midwest LLC - Cleveland	1125 Valley Belt Road Brooklyn Heights, OH 44131	(216)741-7007 (216)741-7011

Tested by	Checked by	Approved by	Date Received	Remarks
nmlkovich	nmlkovich	nmlkovich		

Laboratory Compaction Characteristics of Soil Using Standard Effort



Optimum Moisture Content	13.2	%
Maximum Dry Unit Weight	112.7	pcf
Corrected Opt. Moisture Content	11.5	%
Corrected Max. Dry Density	118.0	pcf
Cumulative material retained on:		
3/4 in. sieve	9.8	%
3/8 in. sieve	14.8	%
#4 sieve		%

14.76 % retained on 3/8 in. sieve.

Preparation	
Type of rammer	
Test Specification / Method	ASTM D698-12e2-method B
Specific gravity - D854 water pycnometer	2.65 Historical
Coarse Aggregate Specific Gravity -	2.61 Historical

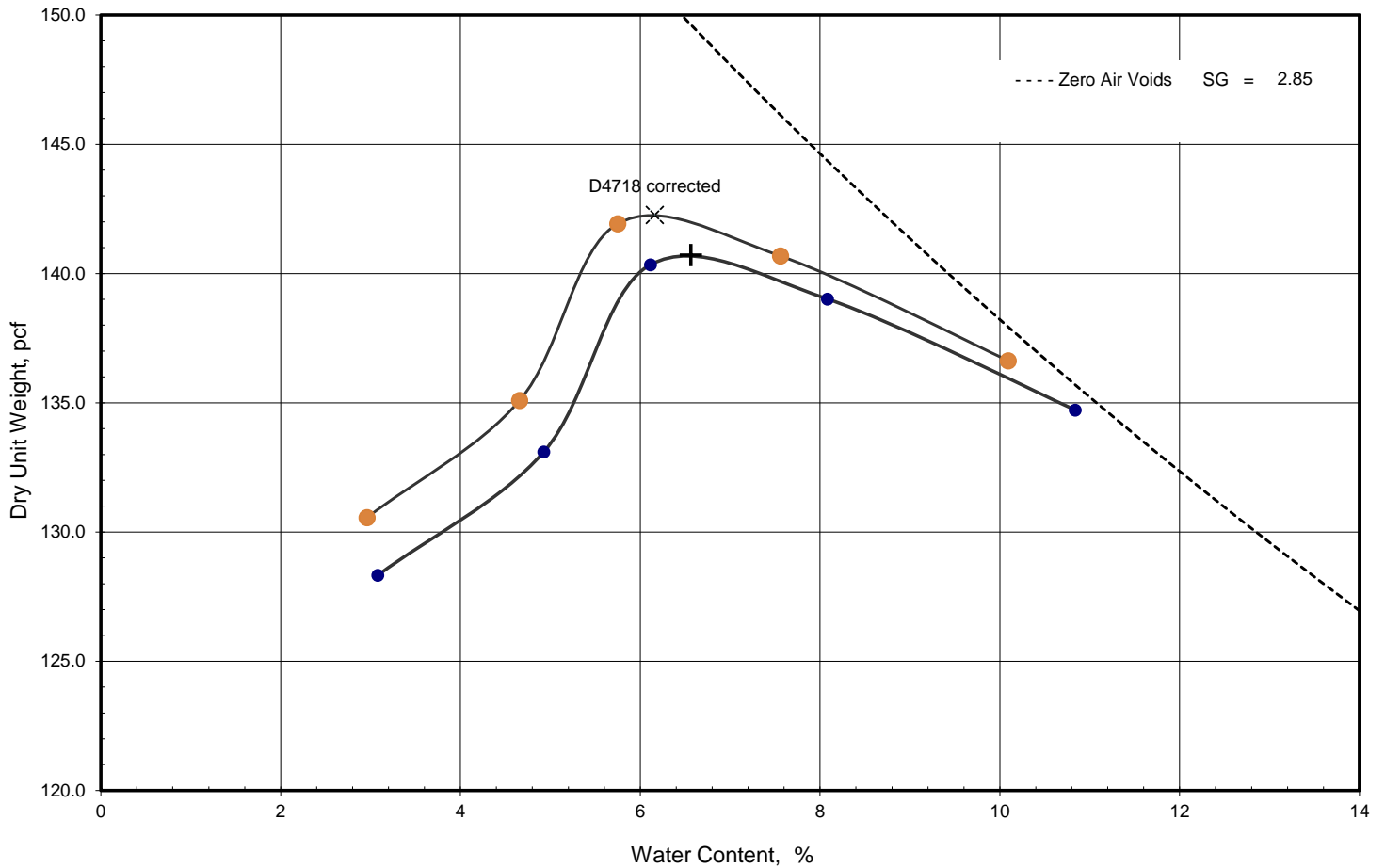
Soil Description	Nat. Moist. %	Liquid Limit	Plasticity Index	%< #200	USCS	AASHTO
Brown Silty Sand, little gravel, trace concrete, slag, brick, glass, organics.						

Project: Trihydro - 601 Longworth RAP, Dayton, OH Client: Trihydro Corporation Sample / Source GT-1 (3-5) Test Reference/No.:	Project No.: 67:3183 Depth (ft.): 3 - 5 Sample No.: D4S-1 Date Reported: 10/6/2023
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	ECS Midwest LLC - Cleveland	1125 Valley Belt Road Brooklyn Heights, OH 44131	(216)741-7007 (216)741-7011

Tested by	Checked by	Approved by	Date Received	Remarks
nmlkovich	nmlkovich	nmlkovich		

Laboratory Compaction Characteristics of Soil Using Standard Effort



Optimum Moisture Content	6.6	%
Maximum Dry Unit Weight	140.7	pcf
Corrected Opt. Moisture Content	6.2	%
Corrected Max. Dry Density	142.3	pcf
Cumulative material retained on:		
3/4 in. sieve	8.2	%
3/8 in. sieve		%
#4 sieve		%

8.17 % retained on 3/4 in. sieve.

Preparation	
Type of rammer	
Test Specification / Method	ASTM D698-12e2-method C
Specific gravity - D854 water pycnometer	2.85 Historical
Coarse Aggregate Specific Gravity -	2.61 Measured

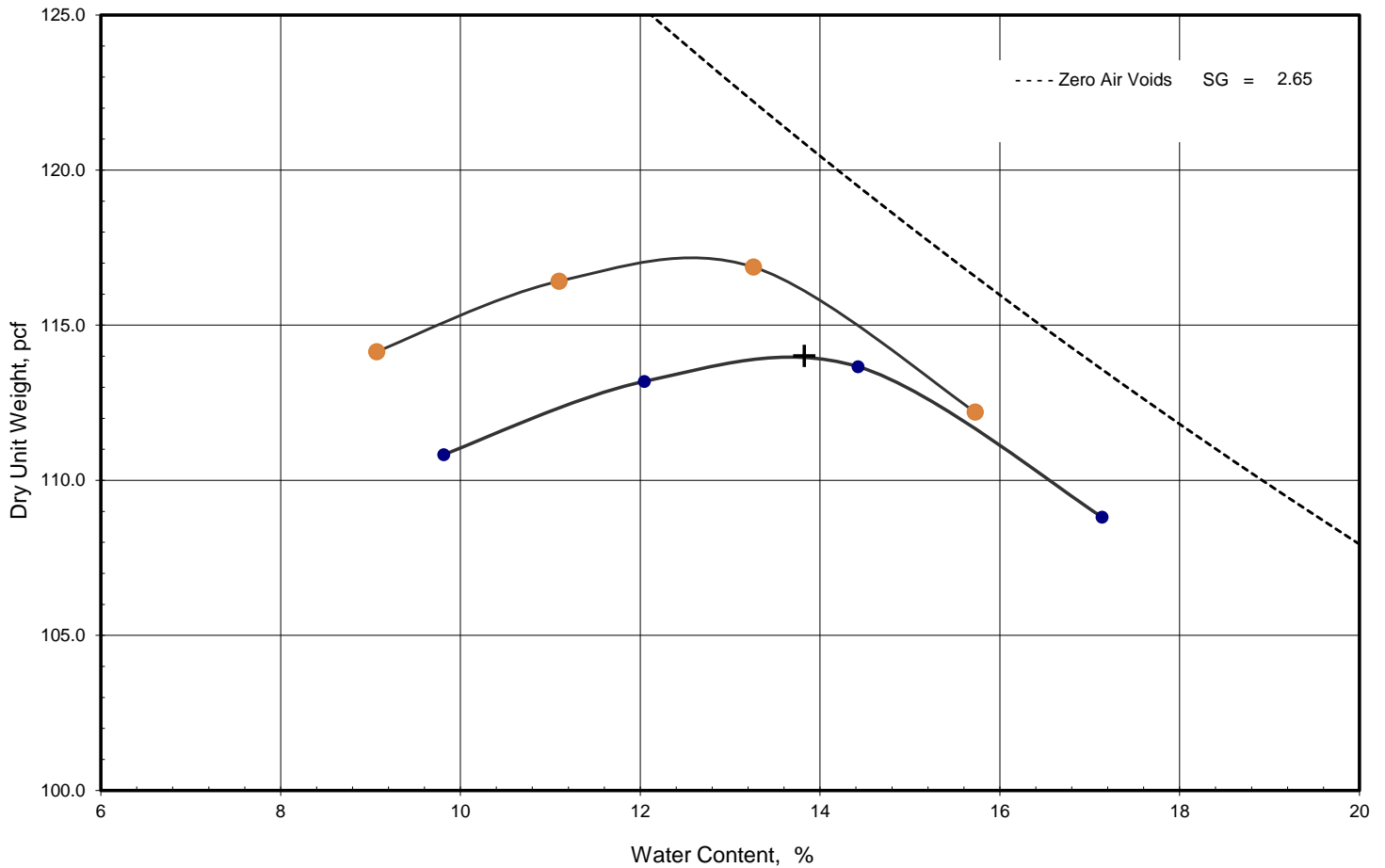
Soil Description	Nat. Moist. %	Liquid Limit	Plasticity Index	%< #200	USCS	AASHTO
Brown Gravelly Sand, trace silt.						

Project: Trihydro - 601 Longworth RAP, Dayton, OH Client: Trihydro Corporation Sample / Source GT-2 (15-17) Test Reference/No.:	Project No.: 67:3183 Depth (ft.): 15 - 17 Sample No.: D4S-4 Date Reported: 10/6/2023
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	Office / Lab	Address	Office Number / Fax
	ECS Midwest LLC - Cleveland	1125 Valley Belt Road Brooklyn Heights, OH 44131	(216)741-7007 (216)741-7011

Tested by	Checked by	Approved by	Date Received	Remarks
nmilkovich	nmilkovich	nmilkovich		

Laboratory Compaction Characteristics of Soil Using Standard Effort




Optimum Moisture Content	13.8	%
Maximum Dry Unit Weight	114.0	pcf
	12.7	
	117.2	
Cumulative material retained on:	3/4 in. sieve	4.2 %
	3/8 in. sieve	9.2 %
	#4 sieve	%

9.22 % retained on 3/8 in. sieve.

Preparation	
Type of rammer	
Test Specification / Method	ASTM D698-12e2-method B
Specific gravity - D854 water pycnometer	2.65 Historical
Coarse Aggregate Specific Gravity -	2.61 Historical

Soil Description	Nat. Moist. %	Liquid Limit	Plasticity Index	% < #200	USCS	AASHTO
Brown Silty Sand, little gravel, trace concrete, slag, brick.						

Project: Trihydro - 601 Longworth RAP, Dayton, OH	Project No.: 67:3183
Client: Trihydro Corporation	Depth (ft.): 3 - 5
Sample / Source GT-2 (3-5')	Sample No.: D4S-3
Test Reference/No.:	Date Reported: 10/6/2023

	Office / Lab	Address	Office Number / Fax
	ECS Midwest LLC - Cleveland	1125 Valley Belt Road Brooklyn Heights, OH 44131	(216)741-7007 (216)741-7011

Tested by	Checked by	Approved by	Date Received	Remarks
nmlkovich	nmlkovich	nmlkovich		