REQUEST FOR PROPOSALS
Engineering Design Services
Tatamagouche Wastewater Treatment Plant Expansion
Project #2605-1485

ADDENDUM #2

April 14, 2026

1. Additional Site Visit

An additional site visit has been scheduled for Tuesday, April 21, 2026, from 10am to 11am, at the Tatamagouche Wastewater Treatment Plant, 45 Creamery Road, Tatamagouche, NS. Bidders are not required to pre-register for this visit. Anyone visiting the site at this time will have an opportunity to view the plant and discuss with our operations staff.

2. Flood Mapping

Bidders are invited to view the following link to recent provincial flood mapping to understand future potential climate impacts on the Tatamagouche Wastewater Treatment Plant:

https://nsgi.novascotia.ca/chm

3. Contract/Form of Agreement

The Municipality does not have a standard form of agreement for consulting services. The Request for Proposals as well as the Proposal from the successful proponent will serve as the contract. The successful proponent may also choose to submit their own agreement for consulting services for consideration by the Municipality upon project award.

4. Budget

Proponents should present the budget as deemed necessary to complete the scope of design work. There is no stipulated budget tied to this Request for Proposals. Council's 5-year capital budget includes $1M for the construction of the expansion, however we expect this number to be updated via the design process.

5. Septage Hauling

The Municipality does not wish to consider allowing septage receiving at the Tatamagouche Wastewater Treatment plant despite the original design intent. The design for the expansion will not include an allowance for receiving and treating septage from private systems.

6. The Schedule

The proposed schedule in the Request for Proposals is meant as a guide. Where proponents deem necessary, they may present a modified schedule along with rationale. The schedule has been set with the goal of obtaining funding with a shovel ready project, pending announcement of major infrastructure funding programs. Deadlines for the programs are yet to be determined by the Province and the Federal Government. Dates for the suggested 50% and 90% design submissions are to be determined by the proponents.

7. RFP Document

No new RFP document has been issued – the original document still applies.

8. Geotechnical

A geotechnical report from 1998 is attached for reference.

9. Digestion

Digestion at the plant consists mainly of aeration and we are achieving minimal digestion. During the day, both digester tanks are aerated. Holding time is maximum 3 days. At night the air is turned off and supernatant is decanted from one of the 2 tanks. We ship 3 loads of sludge per week from the Tatamagouche Wastewater Treatment Plant to our central dewatering facility in Lower Truro.

Please be reminded:

All requests for additional information or clarifications regarding this Request for Proposals shall be directed to the following Municipal Contact Person:

Michelle Boudreau, P.Eng
Director of Public Works
Municipality of the County of Colchester
1 Church Street
Truro, NS B2N 3Z5

Tel: 902-897-3189
Email: mboudreau@colchester.ca

END OF ADDENDUM #2

REPORT ON

Geotechnical Investigation
Tatamagouche Sewage Treatment Facility
Tatamagouche, Nova Scotia

Prepared For:

Horner Associates Limited
89 Queen Street
Truro, Nova Scotia B2N 2B2

Prepared By:

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FILE: (21) 0155-047.1
DATE: January 19, 1998

ADI GROUP

ADI Limited
Engineering, Consulting,
Procurement and Project Management

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TABLE OF CONTENTS

1.0 INTRODUCTION

This report provides the observations and recommendations developed from a subsurface investigation completed at the site of the proposed waste water treatment facility in Tatamagouche, Nova Scotia.

The investigation was comprised of the excavation of three test pits in the general area of the proposed facilities and a limited laboratory testing program completed on samples of the soils obtained during the investigation.

2.0 BACKGROUND

We understand that an upgrade is planned for the existing waste water treatment plant located in the Village of Tatamagouche. The upgrade is to consist of a new main building, oxidation ditch, clarifier tank, and related facilities. These facilities are to be constructed with a significant portion of their mass below the existing site grade. The main building and associated wet well is to be located in a low lying area that is to be built up using engineered fill.

3.0 SITE DESCRIPTION

3.1 Site Description

The site is located in the Village of Tatamagouche, adjacent the estuary of the Waughs River. The site is accessed via a gravel road adjacent the abandoned railway line. There is an existing waste water treatment facility on the site. The site is bounded to the north by the estuary and to the south by the abandoned railway line. The property of Howard Lefresne is located to the east (livestock pasture) and there is a feed mill facility to the west.

3.2 Topography

The topography of the site generally slopes down from the east to the west. There is a low lying area (area of a peat bog) in the west quadrant of the site which is the location of the proposed main building and wet well. At the contact between the low lying area and the higher topography associated with the existing facilities is a brook which crosses the site from south to north.

3.3 Bedrock Geology

A review of the provincial bedrock geology maps indicates that the site area is underlain by rocks of the Pictou and Stellarton Groups. The rocks typically consist of red and green sandstone, siltstone, shale, conglomerates and coal.

3.4 Surficial Geology

A review of the Nova Scotia Department of Mines and Energy Map 88-14, Surficial Geology of the Cumberland, Colchester and Pictou Counties indicates that the site is located in the area of the contact between the Eatonville-Hants Till and the marine deposits. The till is typically composed of reddish brown silty sand. The marine deposits typically consist of fine sand, silt and clay and the deposits are typically overlain by peat and organics.

4.0 INVESTIGATION PROCEDURES

4.1 Field Investigation

The field work was completed on November 27, 1997 when three test pits were excavated using a 214 JCB rubber tired backhoe. The test pits were excavated to a minimum depth of 2.1 meters and terminated in the underlying bedrock. The test pits were logged by a geotechnical technologist from our Halifax office who obtained representative samples of the soil encountered in the test pits. The locations of the test pits were determined by measuring from the existing waste water treatment facility and are shown on Figure 1, Test Pit Location Plan, provided by Horner Associates Limited.

The respective locations of the existing and proposed facilities on the site are shown on the plan. An elevation survey of the ground surface elevations at the test pits was not included in the investigation. Therefore, the depths shown on the test pits are referenced to the ground surface as 0.0 meters.

4.2 Laboratory Investigation

A limited laboratory investigation was completed on samples obtained during the field investigation to determine the physical characteristics of the overburden soils underlying the site. The laboratory tests included a grain size analysis and Atterberg Limits test, and a series of three moisture content determination tests. The results of the laboratory tests, with the grain size analysis curve, are provided in the Summary of Laboratory Test Data, included in Appendix A.

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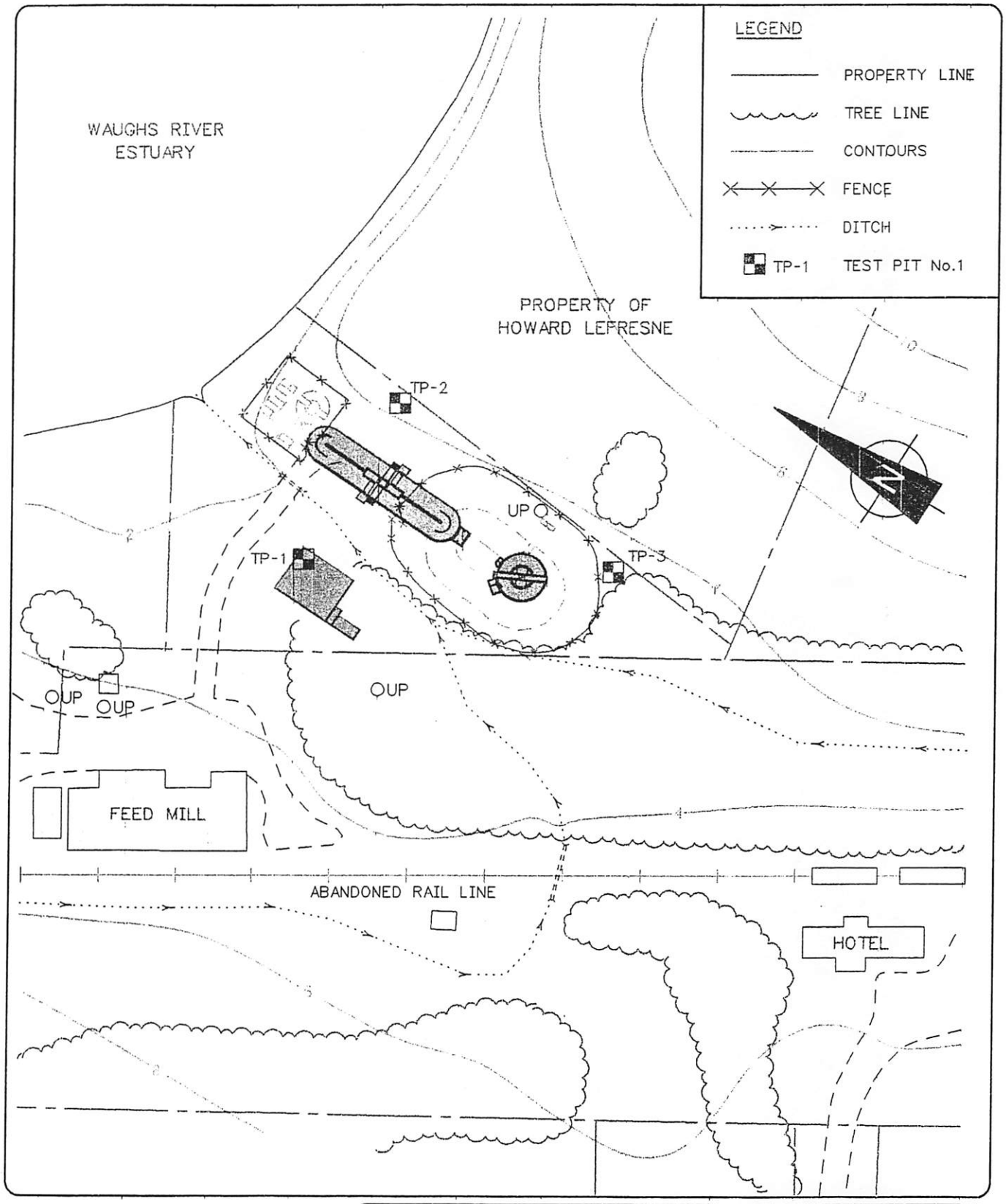

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Engineering, Consulting, Procurement and Project Management

Charlottetown, Moncton, Saint John, Ottawa, Vancouver
Sydney, St.John's, Halifax, Fredericton and Salem, NH

Proj. SEWAGE TREATMENT PLANT STUDY
VILLAGE OF TATAMAGOUCHE

Dwg. TEST PIT LOCATION PLAN

Proj. No.	155-047.1
Dwg. No.	FIGURE 1
Last Modified By: PFM	Dwg Chk. By: BAM
Date Last Modified: 97.12.02	Rev. 0

5.0 SUBSURFACE CONDITIONS

5.1 Stratigraphy Overview

The detailed stratigraphy encountered at the test pit locations is shown on the test pit logs in Appendix A. Stratigraphically, the overburden soils encountered in the test pits can be summarized as follows:

- topsoil or peat bog overlying
- clayey silt, some sand, to silt with clay, trace sand (Till) overlying
- mudstone bedrock

5.2 Topsoil

A stratum of brown, organic, silty sand (topsoil) with a rootmat was encountered in Test Pit Nos. 2 and 3. The topsoil and rootmat layer was 200 and 100 mm thick in Test Pit Nos 2 and 3 respectively. The topsoil was characterized as dry to damp based on visual examination in the field.

In Test Pit No.1, a stratum of saturated, silty organics (peat bog) was encountered at the ground surface and extended to a depth of 700 mm.

5.3 Clayey Silt, Some Sand (Till)

Underlying the peat bog and topsoil/rootmat in all of the test pits was a stratum of clayey silt, some sand (Till). This stratum was 0.8, 0.7 and 1.1 m thick in Test Pit Nos. 1, 2, and 3 respectively. Scattered sandstone cobbles were encountered in the stratum in Test Pit No. 3.

The till has a consistency judged to be firm to stiff based on visual examination and the level of effort associated with the excavation of the test pits.

The results of the moisture content tests were 16, 22 and 39 percent for the three samples tested. The moisture content test result from Test Pit No.1 (39 percent) was associated with the presence of the saturated organics in the peat bog directly overlying the till stratum.

A single grain size analysis test was completed on the sample of the till obtained from Test Pit No.1. The test yielded 0 percent gravel, 22 percent sand and 78 percent fines (silt and clay).

The result of the Atterberg Limit test completed on a sample of the till from Test Pit No.3 yielded a Plastic Limit of 21.7 and a Liquid Limit of 26.5, thereby yielding a Plasticity Index of 4.8.

5.4 Bedrock

Bedrock was encountered in all of the test pits. The bedrock was comprised of reddish brown mudstone. The bedrock was encountered at depths of 1.5, 0.9, and 1.2 meters below ground surface, in Test Pit Nos. 1, 2, and 3 respectively. All of the test pits were terminated in the bedrock.

5.5 Groundwater

The groundwater table was not encountered to the depth of excavation of the test pits. Some seepage was encountered in Test Pit No.1. The seepage originated from the overlying peat bog.

6.0 DISCUSSIONS AND RECOMMENDATIONS

6.1 Site Preparation

The topsoil and rootmat should be stripped from the area of the proposed oxidation ditch and the clarifier. This material can be stockpiled on-site for use in general landscaping of the finished site.

The full depth of the silty organics in the peat bog should be stripped from the area of the proposed pumping station building. In addition, the upper 300 mm of the soft, wet, disturbed till should be removed down to the firm to stiff material.

It is understood that the design elevations for the finished facilities require that the ground elevation for the area of the proposed main building must be raised by approximately 3 meters. It is understood that it is intended to use engineered fill for this purpose.

It is recommended that the engineered fill consist of well graded, non frost-susceptible, granular material having a gradation in accordance with the Type 2 material specified by the Nova Scotia Department of Transportation and Public Works.

The fill should be placed in controlled lifts having a maximum thickness of 300 mm, and compacted to a minimum of 100 percent of the materials Standard Proctor Maximum Dry Density, using suitably sized compaction equipment. The limits of the fill should extend beyond the edge of the footing a minimum of 1 meter at the elevation of the underside of the

foundations for the building. It is anticipated that the engineered fill will develop a stable slope in the order of 2.5:1 (horizontal:vertical).

It is recommended that the exposed surfaces and slopes of the engineered fill be covered with grass and appropriate vegetation to protect against potential erosion.

6.2 Excavations

It is understood that the design elevations associated with the construction of the oxidation ditch will require an excavation approximately 1.8 meters deep. The design elevations associated with the construction of the clarifier indicate that an excavation extending to a depth of approximately 3.5 meters will be required at this location.

Test Pit No. 2 in the general area of the proposed oxidation ditch indicates that the required excavation depth of approximately 1.8 meters will encounter the underlying mudstone bedrock. Similarly, Test Pit No. 3 in the general area of the proposed clarifier indicates that the required excavation depth of approximately 3.5 meters will encounter the underlying mudstone bedrock.

The mudstone bedrock was excavated to depths in the order of 1.5 meters during the test pit investigation using a rubber tired backhoe. It is anticipated that suitably sized "high-hoe" excavating equipment will be capable of advancing excavations in the bedrock to greater depths. Should the mudstone bedrock become more competent with depth, it is anticipated that hydraulic rock breaking equipment will be satisfactory in advancing the excavations to the required depths.

Excavations in the overburden soils and bedrock on the site should be undertaken in accordance with the regional and provincial authorities codes of practice and safety.

6.3 Foundations

The soil and bedrock conditions encountered on the site are considered satisfactory for the use of conventional concrete spread footings as the preferred foundation option.

6.3.1 Oxidation Ditch and Clarifier

The proposed waste water treatment facilities can be supported on conventional spread footings, founded on the natural, undisturbed till soil, and designed for an allowable bearing capacity of 150 kPa. This allowable bearing capacity presumes that softened or disturbed till has been removed prior to the construction of the foundations.

The exposed surface of the till should be proofrolled with a vibratory smooth drum roller to provide a satisfactory base for foundation support. Soft areas should be over-excavated and backfilled under controlled conditions with approved engineered fill, such as that described above in Section 6.1.

Exposure of the till to precipitation and runoff will result in softening of the soil surface. Placement of a lean concrete mud slab or layer of compacted engineered fill would protect the founding surfaces from these concerns. For precast units, a sand levelling course over the concrete mud slab would be appropriate.

6.3.2 Main Building

Conventional spread footing foundations placed on the engineered fill at the building site can be designed using an allowable bearing capacity of 150 kPa.

For the wet well component of the building, it is understood that it is intended to found the base of the wet well on a layer of granular fill placed on the undisturbed till. A review of the test pit log for the building site suggests that the design elevation will be at, or near, the contact between the till and the underlying bedrock. Therefore, for uniformity, it is suggested that consideration be given to excavating to the bedrock surface and using the engineered fill to build up to the design underside of the wet well. The use of the engineered fill material described in Section 6.1, placed in accordance with the recommendations provided, is recommended.

Foundations placed on the intact, undisturbed bedrock can be designed using an allowable bearing capacity of 500 kPa.

In consideration that the major portion of the building will be placed on engineered fill, and that the associated wet well will be founded on the underlying till or bedrock, there is a minor potential that cracking will develop in the concrete slab on grade and foundations of the building. While the cracking is expected to be of a minor, cosmetic nature, it is suggested that consideration be given to installing control joints at the interface between the wet well and the remainder of the building to mitigate the development of cracks.

6.4 Slabs on Grade

The natural till, underlying bedrock, or engineered fill, will provide a satisfactory base for the construction of slabs on grade carrying conventional floor loads. Additional reinforcement and design consideration may be required for higher loads associated with machinery such as compressors or pumps.

In accordance with the recommendations provided in Section 6.3, the exposed till surface should be proofrolled to provide a satisfactory subgrade surface. A 150 mm thick layer of approved, free draining, non frost-susceptible, granular soil consisting of well graded sand and gravel, would be acceptable as a base on which to construct the slab. The sand and gravel should be compacted to a minimum of 100 percent of the materials Standard Proctor Maximum Dry Density.

6.5 Dewatering

Based on the results of the investigation, dewatering is not anticipated to be required. However, the presence of the peat bog and the stream crossing the site indicates that surface runoff could be substantial. Careful consideration of the requirements associated with surface drainage is warranted.

6.6 Backfill

It is understood that the wet well will be approximately 3 to 4 meters deep. The structure will therefore require a significant height of backfill against the perimeter walls. It is anticipated that the backfill will consist of the free-draining, granular, engineered fill described above in Section 6.1.

It is recommended that the engineered backfill be placed and compacted to a minimum of 100 of the materials Standard Proctor Maximum Dry Density for the full height of placement. In the area within 1 meter of the wet well wall, the compaction criteria should be reduced to 95 percent of the Proctor Density. The design of the walls of the wet well should consider the induced stresses from the compaction effort.

Subject to the desired and anticipated service conditions of the below ground facilities, consideration should be given to waterproofing membranes and waterstops for all concrete work.

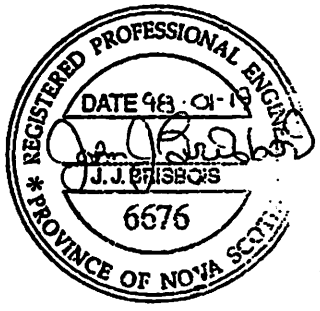
7.0 CLOSURE

All comments and recommendations contained in this report are intended for general guidance in the design and construction of the proposed facilities.

The comments and recommendations contained in this report are provided based on the information and data obtained during the investigation. The level of assurity afforded the comments and recommendations must consider the information sources from which they are developed.

The information provided on the test pit logs is applicable for the investigation hole locations only. Conditions between and beyond the hole locations can be expected to vary.

This report has been prepared by ADI Limited for the account of Horner Associates Limited and their authorized agents. Any use of this report by third parties or any reliance or decisions based on it are the responsibility of the third parties.



APPENDIX A

Test Pit Record Sheets

Summary of Laboratory Test Data
Grain Size Analysis Curve

Project: WWTP Geotechnical Investigation	Client: W.N. Horner & Associates	TEST PIT NO: TP-1
Location: Tatamagouche, NS		PROJECT NO: 21-0155-047.1
START DATE: 97/11/27		

SAMPLE TYPE: ROCK CORE | CONE TEST | SPLIT SPOON | SHEAR VANE | SHELBY TUBE | GRAB SAMPLE

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SUBSURFACE DESCRIPTION	DEPTH (m)
0.0			Peat bog, silty organics, saturated, very soft.	0.0
1.0		1	TILL Clayey Silt, some sand, brown, moist, firm to stiff (upper 300 mm of stratum saturated, very soft).	1.0
2.0		2	BEDROCK Mudstone, reddish brown, friable.	2.0
			End of test pit at 2.1 m depth. Note: Water seepage into test pit from peat bog.	
3.0				3.0
4.0				4.0
5.0				5.0

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Halifax, Nova Scotia

LOGGED BY: BAM	COMPLETION DEPTH: 2.1 m
REVIEWED BY: JJB	COMPLETE: 97/11/27
Fig. No: 1	Page 1 of 1

97/01/13 02:43PM

Project: WWTP Geotechnical Investigation	Client: W.N. Horner & Associates	TEST PIT NO: TP-2
Location: Tatamagouche, NS		PROJECT NO: 21-0155-047.1
START DATE: 97/11/27		

SAMPLE TYPE ■ ROCK CORE ⊘ CONE TEST ⊠ SPLIT SPOON ☰ SHEAR VANE ▥ SHELBY TUBE ▮ GRAB SAMPLE

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SUBSURFACE DESCRIPTION	DEPTH (m)
0.0			Grass, topsoil, rootmat.	0.0
	▮	1	TILL Clayey Silt, some sand, some mudstone fragments, damp to moist, firm to stiff.	
1.0			BEDROCK Mudstone, reddish brown, friable.	1.0
2.0				2.0
			End of test pit at 2.4 m depth. Note: Test pit was dry on completion.	
3.0				3.0
4.0				4.0
5.0				5.0

ADI NOLAN DAVIS INC. Halifax, Nova Scotia	LOGGED BY: BAM	COMPLETION DEPTH: 2.4 m
	REVIEWED BY: JJB	COMPLETE: 97/11/27
	Fig. No: 2	Page 1 of 1

Project: WWTP Geotechnical Investigation	Client: W.N. Horner & Associates	TEST PIT NO: TP-3
Location: Tatamagouche, NS		PROJECT NO: 21-0155-047.1
START DATE: 97/11/27		

SAMPLE TYPE ■ ROCK CORE ⊘ CONE TEST ⊠ SPLIT SPOON ☰ SHEAR VANE ▯ SHELBY TUBE ▮ GRAB SAMPLE

DEPTH (m)	SAMPLE TYPE	SAMPLE NO	SUBSURFACE DESCRIPTION	DEPTH (m)
0.0			Grass, topsoil, rootmat.	0.0
	▮	1	TILL Clayey Silt, some sand, occasional sandstone cobble, brown, damp to moist, firm to stiff.	
1.0			BEDROCK Mudstone, reddish brown, friable.	1.0
2.0			End of test pit at 2.1 m depth. Note: Test pit was dry on completion.	2.0
3.0				3.0
4.0				4.0
5.0				5.0

ADI NOLAN DAVIS INC.
Halifax, Nova Scotia

LOGGED BY: BAM	COMPLETION DEPTH: 2.1 m
REVIEWED BY: JJB	COMPLETE: 97/11/27
Fig. No: 3	Page 1 of 1

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ADI Nolan Davis

SUMMARY OF LABORATORY TEST DATA

Client: W.N. Horner & Associates				Project: Geotechnical Investigation						Location: Tatamagouche, NS					Sheet 1 of 1
Sample Data			Description of Soil Texture	Specific Gravity	Bulk Unit Weight	Buoyant Unit Weight	Natural Water Content	Consistency Limits			Mechanical Analysis				Unified Soil Classification
Test Pit No.	Sample No.	Depth of Sample (m)						Liquid Limit	Plastic Limit	Plasticity Index	Clay Size <0.002 mm	Silt Size 0.002 - 0.06 mm	Sand Size 0.06 - 2.0 mm	Gravel Size 2 - 50 mm	
				G_s	δ	δ'	W_n	W_L	W_P	I_P	%	%	%	%	
1	1	0.7-1.0	Clayey SILT some sand				39				78		22	0	
2	1	0.3-0.6					22								
3	1	0.5-1.0					16	26.5	21.7	4.8					

ADI Limited — Grain Size Analysis

Project No. :	21-0155-047.1
Client :	W.N.Horner & Associates
Location :	Tatamagouche, NS
Field Sample:	TP 1 Sa.1
Lab Sample No.:	25
Date Rec'd :	97-11-26
Date Tested :	97-11-27
Technician :	BAM
Method :	ASTM-C136

% Gravel (+5.00mm):	0.0
% Sand (5.00 - .080mm):	21.6
% Fines (-0.80mm):	78.4

Soil Classification: Clayey SILT some sand
(ASTM-D2488)

Sieve Size (mm)	% Passing
50	100.0
40	100.0
28	100.0
20	100.0
14	100.0
10	100.0
5	100.0
2.5	98.2
1.25	96.1
0.63	94.2
0.315	92.1
0.15	87.3
0.08	78.4