

Standby:

Record No 50508

0.5

Englobe Tech:

Joel #1

CONCRETE TEST REPORT

97 TROOP AV	E., DARTMOUTH, N	N.S. B3B 2A7 - T	EL (902) 468-6486	FAX 468-4919					
Client:			Our Project No.:		02000061.000.001				
Nova Scotia	Transportation	And Infrastruc	cture Renewal	newal Client Contract No.:		4600019710			
	6, 1672 Granville		Client PO.:						
Halifax, Nov	•		Contractor:			Marco Marit	times		
B3J 2N2			CC	:			Fax		
Attn: Krist	a Ranahan, P.Ei	ng.							
Fax									
	O1-55-02-01 - J esting	L IIsley High S	School Concrete	Email	krista.ranah	an@novasco	otia.ca	a	
Set No:	6 No.	Of Specimens	: 3			Date Cast: 2	2 Jar	2020	
Specimen	Date	Age At Test	Average	Cyl Density	Maximum	Compress		Failure	
	Tested	(Days)	Diameter(mm)	kg/m ³	Load (kN)	Strength (M		Туре	
Α	29 Jan 2020	7	102	2344	180	22.0		Α	AX
В	19 Feb 2020	28	102	2347	240	29.4		A	B
С	19 Feb 2020	28	102	2343	243	29.7		A	C
									ΕM
									F
<u>s</u>	pecified Proper	rties	Test Information Samp			ple pickup	at Site :		
Strength @	28 days(MPa):	25	Conc Temp ^o C		np (mm) 100)		ate: 23 J	an 2020
Slump (mm):	80 +/- 20	Air Temp C: -1.5 Air(%): 2.0 / 4.7 Time: 7:00						
Air (%):		6 +/- 1	Cast Time: 14:25 Cast By: MTL Rec'd Sample at					at Lab :	
Max Agg Si		20	Initial curing Temp (CSA: 15 - 25°C) Time: 8:30						
	upplier Informa	tion	Minimum: 5.6 Maximum: 18.3						
Supplier:	Metro Casey		Initial Curing Conditions :						
Batch Time Truck No.:	10.11		Inside curing box inside trailer						
Ticket No.:	39CM 103697		Test samples cast in reusable hard plastic moulds.						
	elivered: 25	(MPa)	Section: Footing						
Mix No:	C25F1D1		Location: Grid Line 1 (A-D)						
Load Vol:	8.00	m ³							
Cum Vol:	8.00	m ³	Commonto						
	Additives:		Comments:						
Heat	✓ Superplast	icizer	Field Test results reported on site.						
Silica fume	Flyash				·				
Set Retarder	Air Entraini	ment 🗹							
Water Reduce									
H2O Added	Authorized I	В			Extra	a Airs: 1			
			10			7.			

For testing conducted by this company, procedures are carried out in accordance with CSA-A23.2. Reporting of these test results constitutes a testing service only. Engineering interpretation or evaluation of test results is provided only on request. N/A - Not Applicable or Not Available Project manager: Peter Salah

CCIL CSA CERTIFIED

LABORATORY FOR TESTING



Client:

CONCRETE TEST REPORT

02000061.000.001

97 TROOP AVE., DARTMOUTH, N.S. B3B 2A7 - TEL (902) 468-6486 FAX 468-4919

Nova Scotia Transportation And Infrastructure R PO Box 186, 1672 Granville Street			cture Renewal	Client Contract No.:		4600019710				
Halifax, Nov		e Sireel		Contractor:			Marco Maritimes			
B3J 2N2	a coolid		cc	:			Fax			
Attn: Krista	a Ranahan, P.E	ng.								
Fax										
-	O1-55-02-01 - J esting	IL IIsley High \$	School Concrete	Email	krista.ranah	an@novasco	otia.ca	a		
Set No:	7 No .	Of Specimens	s: 3			Date Cast: 2	3 Jan	2020		
Specimen	Date Tested	Age At Test (Days)	Average Diameter(mm)	Cyl Density kg/m ³	Maximum Load (kN)	Compress Strength (M		Failure Type		
Α	30 Jan 2020	7	102	2314	165	20.2		Α	AX	
В	20 Feb 2020	28	102	2321	231	28.3		A	ВД	
С	20 Feb 2020	28	102	2323	235	28.8		A		
	pecified Prope	rties		Test Information Sample pickup					at Site :	
	28 days(MPa):	25	Conc Temp ^Q C 21.0 Slump (mm) 90/100 Date							
Slump (mm): 80 +/- 20			Air Temp C: 4.0 Air(%): 2.9/4.5 Time: Cast Time: 14:10 Cast By: MTI Rec'd Sample at La					at Lab		
Air (%): Max Agg Si	70 (mm):	4 - 7	Cast Time:	14:10 Cas	t By: MTL			ate :	at Lab .	
	upplier Informa	20 ition	Initial curing Temp (CSA: 15 - 25°C) Minimum: Maximum: Time:							
Supplier:	Casey Metro		Initial Curing Conditions :							
Batch Time	: 13:21		Inside curing box inside trailer							
Truck No.:	31CM		Test samples cast in reusable hard plastic moulds.							
Ticket No.:	103725 elivered: 25	(M/D=)	Section: Strip Footings							
Mix No:	C25F1D1	(MPa)	Location: Grid	Line D (1-4)						
Load Vol:	7.45	m ³								
Cum Vol:	7.45 7.45	''' з m								
	Additives:		Comments:							
Heat Silica fume Set Retarder Water Reduce		ment 🗹	Field	d Test results i	reported on s	site.				
H2O Added	Authorized	В			Extra	a Airs: 1	Extra	Slumps:	1	
Standby: Record No 5	0.5 50531 Eng l	obe Tech: 、	Joel #1	PER	It Solch	CCIL CSA	CERT	TIFIED ORY FOR T	ESTING	

Our Project No.:



CONCRETE TEST REPORT

97 TROOP AVE., DARTMOUTH, N.S. B3B 2A7 - TEL (902) 468-6486 FAX 468-4919

			(55-) 155 5 155						
Client:				Our Project No.:		02000061.000.001			
Nova Scotia Transportation And Infrastructure Renew				Client Contract No.: 46000			00019710		
PO Box 186, 1672 Granville Street				Client PO.:					
Halifax, Nov				Contractor	:	Marco Marit	imes		
B3J 2N2			cc	:			Fax		
Attn: Krist	a Ranahan, P.E	ng.							
Fax	·								
	O1-55-02-01 - J esting	IL IIsley High S	School Concrete	Email	krista.ranah	an@novasco	tia.ca	a	
Set No:	8 No.	Of Specimens	s: 5		1	Date Cast: 23	3 Jan	2020	
Specimen		Age At Test (Days)	Average Diameter(mm)	Cyl Density kg/m ³	Maximum Load (kN)	Compressi Strength (M		Failure Type	
Α	30 Jan 2020	7	102	2346	232	28.4		Α	AX
В	20 Feb 2020	28	102	2344	295	36.1		A	BI
С	20 Feb 2020	28	102	2336	286	35.0		A	
D	19 Mar 2020	AP	102					A	
E	19 Mar 2020	AP	102						
									F
<u>s</u>	pecified Proper	rties	Test Information				Sample pickup at Site :		
Strength @	28 days(MPa):	28	Conc Temp ^o C 19.0 Slump (mm) 145			5	Date :		
Slump (mm):	125 +/- 25	Air Temp C:	4.0 Air (%): 4.5			ime :	
Air (%):		4 - 7	Cast Time:	15:20 Cas	t By: MTL			'd Sample	at Lab :
Max Agg Si	ze (mm):	20	Initial curing Temp (CSA: 15 - 25°C) Date: Time:						
<u>S</u> 1	<u>upplier Informa</u>	tion	Minimum: Maximum:						
Supplier:	Casey Metro		Initial Curing Conditions :						
Batch Time	: 14:52		Inside curing	box inside traile	r				
Truck No.: Ticket No.:	38CM		Test samples cas	st in reusable hard	d plastic moulds	is:			
	103728 elivered: 28	(MPa)	Section: Duc	tBank					
Mix No:	C27F101	, ,	Location: 1st Section : Pull Pit						
Load Vol:	8.00	m ³							
Cum Vol:	8.00	m ³							
	Additives:		Comments:						
Heat	✓ Superplast	ticizer 🗸	Field	d Test results r	reported on s	site.			
Silica fume	Flyash		Field Test results reported on site.						
Set Retarder	Air Entrain	ment 🗹							
Water Reduce	er 🗌 Accelerato	rs							
H2O Added	Authorized I	В							

Standby:

0.5

Record No 50533

Englobe Tech:

Joel 3 & 4

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CCIL CSA CERTIFIED LABORATORY FOR TESTING



Client:

CONCRETE TEST REPORT

02000061.000.001

97 TROOP AVE., DARTMOUTH, N.S. B3B 2A7 - TEL (902) 468-6486 FAX 468-4919

	a Transportation		cture Renewal Client Contract No.:			4600019710				
	6, 1672 Granville	Street		Contractor:		Able Equipment				
Halifax, Nov B3J 2N2	va Scotia					,				
	o Donahan D.F.	m.e.	CC	•			Fax			
	a Ranahan, P.E	ng.								
Fax										
	·O1-55-02-01 - J ·esting	IL IIsley High S	School Concrete	Email	krista.ranah	an@novasco	tia.ca	a 		
Set No:	29 No .	Of Specimens	s: 3			Date Cast: 1	2 Feb	2020		
Specimen	Date Tested	Age At Test (Days)	Average Diameter(mm)	Cyl Density kg/m ³	Maximum Load (kN)	Compress Strength (M		Failure Type		
Α	19 Feb 2020	7	102	2338	217	26.6		Α	AX	
В	11 Mar 2020	28	102	2335				~	BU	
С	11 Mar 2020	28	102	2336					C	
									回	
									EM	
									F	
Specified Properties			-	Test Informat	ion		Sam	ple pickup	at Site :	
Strength @	28 days(MPa):	25	Conc Temp [©] C 21 Slump (mm) 85 Date: 13 Fe					eb 2020		
Slump (mm):	80 +/- 20	Air Temp C: 1 Air(%): 5.5 Time: 10:0							
Air (%):		6 +/- 1	Cast Time: 13:41 Cast By: Englobe Rec'd Sample at Lab Date: 13 Feb 202							
Max Agg Si		20	Initial curing Temp (CSA: 15 - 25°C) Time: 11:00							
	upplier Informa	ition	Minimum: 14 Maximum: 23							
Supplier:	Casey Metro		Initial Curing Conditions :							
Batch Time			Inside curing box inside trailer							
Truck No.: Ticket No.:	38CM 104173		Test samples cast in reusable hard plastic moulds.							
	elivered: 25	(MPa)	Section:							
Mix No:	C25F1D1	, ,	Location: Walls on gridline A 12 to 14 and gridline 14 from 1 to + 1.3 m							
Load Vol:	6	m ³	towa	ards 2. Elevato	r Pad					
Cum Vol:	6	m ³	Comments:							
	Additives:		Comments.							
Heat	Superplast	ticizer	Field	d Test results r	eported on s	site.				
Silica fume	Flyash									
Set Retarder	Air Entrain	ment 🗌								
Water Reduce		rs 🗀								
H2O Added	Authorized I	В								
Standhu	0									
Standby: Record No !		obe Tech:	ΓP1	PER	7 111			TIFIED ORY FOR T	FSTING	
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Our Project No.:



Nova Scotia Transportation And Infrastructure Renewal

Client:

CONCRETE **TEST REPORT**

02000061.000.001

4600019710

97 TROOP AVE., DARTMOUTH, N.S. B3B 2A7 - TEL (902) 468-6486 FAX 468-4919

PO Box 186	PO Box 186, 1672 Granville Street				Client PO.:					
Halifax, Nov	•			Contractor	ctor: Able Equipmen		ment			
B3J 2N2			CC			Fax				
Attn: Krist	a Ranahan, P.E	ng.								
Fax										
	O1-55-02-01 - J esting	IL IIsley High S	School Concrete	Email	krista.ranah	an@novasco	tia.ca	а		
Set No:	30 No .	Of Specimens	: 5			Date Cast: 1	3 Feb	2020		
Specimen	Date Tested	Age At Test (Days)	Average Diameter(mm)	Cyl Density kg/m ³	Maximum Load (kN)	Compressi Strength (M		Failure Type		
Α	20 Feb 2020	7	102		318	38.9		А	AX	
В	12 Mar 2020	28	102						BU	
С	12 Mar 2020	28	102						C	
D	09 Apr 2020	AP	102							
E	09 Apr 2020	AP	102						ΕM	
									F	
	pecified Proper	rties	Test Information				Sample pickup at Site :			
	28 days(MPa):	30	Conc Temp [©] C 17 Slump (mm) 75				Date: 14 Feb 2020			
Slump (mm):	80 +/- 20	Air Temp [©] C:	•	•			ime: 10:3 'd Sample	-34	
Air (%): Max Agg Si	70 (mm):	No AEA	Cast Time:	13:15 Cast	t By: Engl	obe			eb 2020	
	upplier Informa	tion	Initial curing Temp (CSA: 15 - 25°C) Minimum: 15 Maximum: 24							
Supplier:	Casey Metro		Initial Curing Conditions :							
Batch Time	=		Inside curing box inside trailer							
Truck No.:	33CM		Test samples cast in reusable hard plastic moulds.							
Ticket No.:	104207		Section:							
_	livered: 30	(MPa)	Location: Four Piers: Y7-X3, Z1-W6, Y7-10, Y7-11							
Mix No:	C30F100	3								
Load Vol: Cum Vol:	2.5 2.5	m 3								
	Additives:		Comments:							
Heat	✓ Superplast	ticizer	Field	d Test results r	renorted on s	ite				
Silica fume	☐ Flyash		l loca	i rest results i	cported on a	Site.				
Set Retarder	Air Entrain	ment 🗹								
Water Reduce	er 🗌 Accelerator	rs \square								
H2O Added	☐ Authorized I	В								
04 "	2					3-00-70				
Standby:	0 50745 Engl	obo Taski i	ED4	DEDI	It Sell	CCIL CSA	CERT	TIFIED ORY FOR 1	ESTINO	
Record No	00/45 Eng i	obe Tech:	ΓP1	PER	In DIMIL	LABO	UKAI	ORT FOR	ESTING	

Our Project No.:

Client Contract No.:



Record No 50746

Englobe Tech:

TP2

CONCRETE TEST REPORT

97 TROOP AVE., DARTMOUTH, N.S. B3B 2A7 - TEL (902) 468-6486 FAX 468-4919

Client: Nova Scotia	a Transportation	And Infrastru	cture Renewal	Our Project No.: Client Contract No.:		02000061,000.001 4600019710				
	6, 1672 Granville	Street	Client PO.: Contractor:			Able Equipment				
Halifax, Nov B3J 2N2	/a Scotia		cc		•	Abic Equip	Fax			
	a Ranahan, P.E	na	00	•			гах			
Fax										
	O1-55-02-01 - Jesting	IL IIsley High S	School Concrete	Email	krista.ranah	an@novasco	otia.ca	а		
Set No:	31 No .	Of Specimens	: 3			Date Cast: 1	3 Feb	2020		
Specimen	Date Tested	Age At Test (Days)	Average Diameter(mm)	Cyl Density kg/m ³	Maximum Load (kN)	Compress Strength (M		Failure Type		
Α	20 Feb 2020	7	102		214	26.2		Α	AX	
В	12 Mar 2020	28	102					()	BU	
С	12 Mar 2020	28	102						C	
S	pecified Proper	rties	Test Information				8		0.00000	
1,000	28 days(MPa):	25	Conc Temp ^o C 16 Slump (mm) 95					ple pickup ate: 14 F	eb 2020	
Slump (mm):	80 +/- 20	Air Temp C:	1 Air(%): 5.7		Ti	ime: 10:3		
Air (%):		6 +/- 1	Cast Time:	13:33 Cas	t By : Engl	obe	Rec'd Sample at Lab:			
Max Agg Si	ze (mm):	20	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						eb 2020	
S	<u>upplier Informa</u>	tion	Minimum: 15 Maximum: 24						J	
Supplier:	Casey Metro		Initial Curing Conditions :							
Batch Time	: 12:13		Inside curing box inside trailer							
Truck No.: Ticket No.:	37CM 104206		Test samples cast in reusable hard plastic moulds.							
	elivered: 25	(MPa)	Section:							
Mix No:	C25F1D1	(IIII a)	Location: footing pads 7B, 7C, 8B, 8C. Wall on line 14 from A to 4.2m from							
Load Vol:	8.03	m ³	D							
Cum Vol:	8.03	m ³	Comments:							
	Additives:		Comments.							
Heat	Superplast	icizer	Field	Test results r	eported on s	site.				
Silica fume	☐ Flyash									
Set Retarder	Air Entrain	~ -								
Water Reduce	_									
H2O Added	Authorized I	3								
Standby:	0				2 0 0	[== ₁₁] cca	OED:	FIEIED		

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LABORATORY FOR TESTING