## APPENDIX E2

## TYPE C MATERIAL QA/QC TEST RESULTS



				PARTICLE SIZE	ANALYSIS REPORT	
PROJECT:		DCP-1/	DCP-5		SAMPLE NO:	SA01 to SA53
ADDRESS:		Meliadi			SAMPLE DESCRIPTION:	
PROJECT NO	<b>)</b> :	E14103	230-01,	Task 23	Type C (20 mm minus)	
UP TO DATE	:	May 15		By: Tetra Tech	Overall Material Average, (%)	
CLIENT:		Agnico	Eagle		NAT. MOISTURE CONT (%).:	
					Test Req'ments = 1 sample/5	00 m3 production
ATTENTION:		Duy Ng	juyen			
PARTICLE	PERCE					
SIZE, mm	PASSI	NG				100
		-				90
		$\neg$				
						80
						70
		-	,,			· , , , , , , , , , , , , , , , , , ,
			PERCENT PASSING		200/	60
			ASS			50
			<u>F</u>			
20	100.		H		200	40
12.5	87.	<u>'</u>	ER(			30
5	62.9	<del>-</del>	•		acool .	
0.63	33.2					20
0.08	6.9	i			,	10
						0
				. 80	83	20 20
				0.08	PARTICLE SIZE (mr	
<u> </u>					PARTICLE SIZE (IIII	II)
Remarks:	All s	samples	taken f	from Meliadine Esker.		
Type C grada	ation sp	ecs as p	er Geot	echnical Specificatio	ns Rev 1 Table 3 (Tetra Tech, N	lovember 9, 2016)
Reviewed by	:					

Data presented hereon is for the sole use of the The testing services reported herein have been performed by an Tetra Tech EBA technician to recognized industry stipulated client. Tetra Tech EBA is not responsible, nor standards, unless otherwise noted. No other warranty is made. These data do not include or represent any interpretation can be held liable, for use made of this report by any or opinion of specification compliance or material suitability. Should engineering interpretation be required, Tetra Tech other party, with or without the knowledge of Tetra Tech EBA will provide it upon written request.

EBA.

## SIEVE ANALYSIS REPORT

Washed Sieve: ASTM C136 and C117

Project No.:	Meliadine Gold Project
Droinet	E4.4402220.04.022

Project: E14103230-01.023

Client: Agnico Eagle Mines Ltd

Attention:

Description: SAND, some gravel, trace silt, brown

Source: Meliadine Project, Dike Construction

Supplier:
Sample Location: Type C Stockpile

Specification:

Email:

Sample No.: Type C Sample No 1

Date Received: October 26, 2016

Sampled by: Dike QC Team

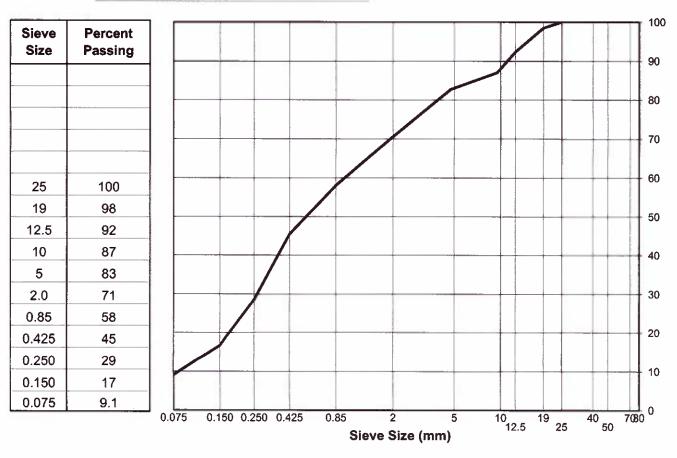
Date Tested: October 26, 2016

Tested by: JH Office: Edmonton

Moisture Content (as received): 3.0%

No. Crushed Faces: Two (2) or Three (3)

By Particle Mass:



Remarks:

Reviewed By:

A=

P.Eng.

Data presented hereon is for the sole use of the stipulated client. Tetra Tech EBA is not responsible, nor can be held liable, for use made of this report by any other party, with or without the knowledge of Tetra Tech EBA. The testing services reported herein have been performed to recognized industry standards, unless noted. No other warranty is made. These data do not include or represent any interpretation or opinion of specification compliance or material suitability. Should engineering interpretation be required, Tetra tech EBA will provide it upon written request.

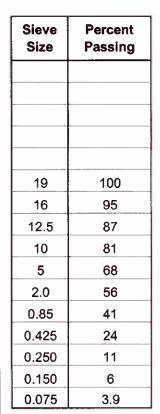


## SIEVE ANALYSIS REPORT

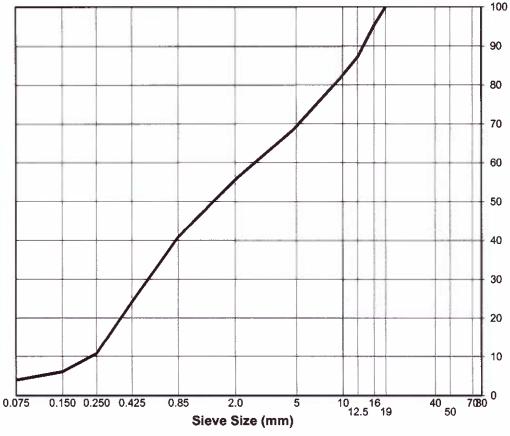
Washed Sieve: ASTM C136 and C117

Project No.:	Meliadine Gold Project
Project:	E14103230-01.023
Client:	Agnico Eagle Mines Ltd
Attention:	
Email:	
Description:	SAND, gravelly, trace silt, grey
Source:	Meliadine Project, Dike Construction
Supplier:	
Sample Loca	ition: Type C Stockpile

Type C Sample No 2 Sample No.: Date Received: November 21, 2016 Dike QC Team Sampled by: November 23, 2016 Date Tested: Tested by: MC Office: Edmonton 2.1% Moisture Content (as received): No. Crushed Faces: Two (2) or Three (3) By Particle Mass:



Specification:



Remarks:

Reviewed By: \_\_

P.Eng.



			F	PARTICLE SI	ZE ANA	LYSIS	REPC	RT					
PROJECT:	Meliadine	Dik	e Cor	struction	SAMP	LE NO:					SA02	2	
					SAMP	LE DES	CRIPT	ON:	<b>20</b> n	nm mi	nus		
					_				sam	pled f	rom be	elt	
ADDRESS:	Meliadine	• Min	е		_								
PROJECT NO	D: <u>E1410323</u>	30-01			MOIST	TURE CO	ONT.:				7.1%	o O	
DATE SAMP	LED: Oct 22	2/16		By: TW	_								
CLIENT:	Agnico E	agle			BULK	REL DE	NSITY:				n/a		
ATTENTION:					BULK	REL. DE	ENSITY	(SSD):			n/a		
					APPAI	RENT RE	EL. DEI	NSITY:			n/a		
					ABSO	RPTION	:				n/a		
					_								
PARTICLE	PERCENT		100						,				
SIZE	PASSING	ì							/ /	<i>i</i>			
			90					/	//			++-	
			80					/	/ i				
20	100		80					/	/   /				
12.5	84	ì	70					/ /	/ <i>i</i>			++	
10	75						/		/				
5	56	SING	60				/	//				++-	
2.5	40	PERCENT PASSING	50			/		/					
		Ë	30			/		/					
0.63	24	RCE	40				//					++	
		"					/						
0.00	5	ì	30	ļ.		//						+++	
80.0	<b>5</b>		20			/							
					/								
			10								_	++	
			0	2 2	က	2	2	0 2	rů .	25	20	20	<u> </u>
				0.2	0.63	1.25	2.5	~	12.	N N	Ŋ	100	150 200
		L				PART	TCLE SIZ	ZE (mm)					
Remarks:	20 mm m	inus ŗ	oartic	e size distributio	n limits sh	nown							
	-												
Reviewed by						P.E	na —						<u> </u>



PROJECT:	Meliadine	e Dike	e Cor	struction	SAMPL	E NO:			SA03	
					SAMPL	E DESCRI	PTION:	20 mm r	ninus	
					_			sampled	from be	lt
ADDRESS:	Meliadine	e Min	е		_					
PROJECT NO	D: <u>E141032</u> 3	30-01			MOIST	IRE CONT	.:		5.4%	
DATE SAMP	LED: Oct 2	2/16		By: TW	_					
CLIENT:	Agnico E	agle			BULKR	EL DENSI	TY:		n/a	
ATTENTION:					BULKR	EL. DENS	TY (SSD):		n/a	
					APPARI	ENT REL. I	DENSITY:		n/a	
					ABSOR	PTION:			n/a	
PARTICLE	PERCENT									
SIZE	PASSING		100					./ /		
<u> </u>			90				/			
			50				/			
			80					+/ $+$		
20	100		70				//	//		
12.5	68		70				/	//		
10 5	55 36	NG	60			/		/		
2.5	26	ASSI				//				
		PERCENT PASSING	50				//			
0.63	15	CEI	40				///			
		PEF			,	/				
			30		/	//				
80.0	3		20							
			20							
			10							
			0	2 15		2.5	5 10	2.5 20 25	50	0 0
				0.2	0.63	_		2 44	ν, γ	100
						PARTICLE	SIZE (mm)			
Remarks:	20 mm m	inus p	articl	e size distributio	n limits sho	wn				



PROJECT:	Meliadin	e Dike	e Const	ruction		IPLE NO:	SCRIPTION	:	20 mm		SA04 IS		
					<u> </u>				sampl			lt	
ADDRESS:	Meliadin	e Min	е										
PROJECT N	O: <u>E141032</u>	30-01			MO	STURE C	ONT.:				8.7%		
DATE SAMP	LED: Oct 2	2/16		By: TW									
CLIENT:	Agnico E	agle			BUL	K REL DE	ENSITY:				n/a		
ATTENTION:	<u> </u>				BUL	K REL. D	ENSITY (S	SD):			n/a		
					APF	ARENT R	EL. DENSI	TY:			n/a		
					ABS	ORPTION	۱:				n/a		
PARTICLE	PERCENT	П											
SIZE	PASSING		100								T		
<u> </u>			90					_/					
			30					//	$i \mid \cdot$				
			80 —					//	/		_		
20	100						//		i				
12.5	87		70				//		/				
10	80	၂ မွ	60				//	/	<u>'</u>				
5 2.5	63 46	IISS)					.1 /	/					
2.5	40	PERCENT PASSING	50			/	////	/			_		+-
0.63	27	EN EN	40			/ /							
		PER	40		/		/						
			30		//	/ /	<u> </u>						
0.08	4												
			20								+		
		1	10										
			<sub>0</sub> L										
				0.2	0.63	1.25	2.5	10	20	<b>6</b> 7	50	100	150
					5		TICLE SIZE (r	nm)					
Remarks:	20 mm m	inus r	particle:	size distribu	tion limits	shown							
			2										



PROJECT:	Meliadin	e Dike	e Construction	SAMP	LE NO:			SA05	
				 SAMP	LE DESCRIPTION	: 20	mm min	us	
						sa	mpled fro	om belt	
ADDRESS:	Meliadin	e Min	ie						
PROJECT N	O: <u>E141032</u>	30-01		MOIST	TURE CONT. :			6.0%	
DATE SAMP	LED: Oct 2	2/16	By: TV	<u> </u>					
CLIENT:	Agnico E	agle		BULK	REL DENSITY:			n/a	
ATTENTION:	<u> </u>			BULK	REL. DENSITY (S	SD):		n/a	
				APPA	RENT REL. DENSI	ΓY:		n/a	
				ABSO	RPTION:			n/a	
PARTICLE	PERCENT								
SIZE	PASSING		100				7		
OILL	. 7.000		90						
						/   /	<i>i</i>		
			80			<del>/    /</del> /			
20	100				/	<b> </b>   <b> </b>			
12.5	74		70		/	//			
10 5	63 45	NG	60		/	//			
2.5	34	PERCENT PASSING							
	<u> </u>	<del> </del>	50						
0.63	23	CE	40	<u> </u>	/ /				
		PEF							
			30	_//					
0.08	5		20						
			20	_//					
			10						
			00	3 5	2.5	10	20 25	50 75 100	9 9
			0.2	0.315	~	•	00	5 7 10	150
					PARTICLE SIZE (r	nm)			
Remarks:	20 mm m	inus p	particle size distri	oution limits sl	hown				



			F	PARTICLE SI	ZE ANA	LYSIS I	REPO	RT					
PROJECT:	Meliadine	e Dik	e Cor	nstruction	SAMPL	LE NO:					SA06	វ	
					SAMP	LE DESC	CRIPTI	ON:	<b>20</b> r	nm miı	nus		
					_						rom be	elt	
ADDRESS:	Meliadine	∍ Min	ıe		<u>-</u>								
PROJECT NO	O: E1410323	30-01			MOIST	URE CO	NT.:				5.5%	,	
DATE SAMPI	LED: Oct 24	4/16		By: TW	_								
CLIENT:	Agnico E	agle			_ BULK	REL DEN	NSITY:				n/a		
ATTENTION:	:				BULK	REL. DEI	NSITY	(SSD):			n/a		
					_ APPAF	RENT RE	L. DEN	ISITY:			n/a		
					_ ABSOF	RPTION:					n/a		
PARTICLE	PERCENT	П											
SIZE	PASSING	<sub>i</sub>	100				$\overline{}$	$\overline{}$	1	1		<del></del>	$\neg \neg \mid$
0122	1 700	,	90							/  <u> </u>			
		<sub>i</sub>	90					/	Ţį			$\top$	$\Box$
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		1	_					// /	j				
12.5	85	<sub>i</sub>	70					<del>                                     </del>	<del> </del> /			++-	+
10	74	NG NG	60				/_		/				$\perp \! \! \perp \! \! \mid \! \mid$
5 2	54 40	ASSI	. 1			/	1	/ /					
	40	PERCENT PASSING	50			_//		//	+			++-	+
0.63	25	GEN	40			<u> </u>							
		PER	40				/						
		,	30		//	//	-	-	+	+		++	+
0.08	6	,											
		,	20						+			+	$\pm 11$
		,	10						$\perp$				
		,	1										
		,	0	40				:- 0			$\frac{1}{2}$	:	
		,		0.2	0.63	~	2	10	12.5	20	20	75 100	150
		ı 🖳				PARTI	ICLE SIZ	:E (mm)					
Remarks:	20 mm m	inus r	partic	cle size distributio	on limits sh	nown							
ı <del></del>													
Reviewed by	<i> </i> :					P.En	ng.						



PROJECT:	Meliadin	e Dik	e Cor	nstruction	SAMPLE	E NO:					SA07		
			<del></del>	,	SAMPLE		RIPTION	l:	20 mi	m min			
			-		-					led fro		lt	
ADDRESS:	Meliadin	e Min	e		-								
PROJECT N	O: E141032	30-01			MOISTU	RE CON	NT. :				6.3%		
DATE SAMP	PLED: Oct 2	24/16		By: TW	_								
CLIENT:	Agnico E	Eagle			BULK R	EL DEN	SITY:				n/a		
ATTENTION:	:				BULK R	EL. DEN	ISITY (S	SD):			n/a		
					APPARE	ENT REL	DENSI	TY:			n/a		
					_ ABSORF	PTION:					n/a		
PARTICLE	PERCENT	П											
SIZE	PASSING		<sup>100</sup> [						1				$\neg \neg$
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		1	90					/	i				
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		]					/		i				
12.5	84	41	70						/				
10 5	74 54	<u>မ</u> ှု	60			<u> </u>	/	/ /			-		$\perp$
2	39	ASS	J			//		/					
<del>-</del>			50			//		<b>,</b>					+
0.63	24	PERCENT PASSING	40				_/_						$\perp$
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0.08	5	41	20		//								Ш
	<del></del>	41	20		_//								
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		]		0.2	0.63	_	i CLE SIZE (I		1 "	(A	י נו	10	15
	<u> </u>	] [					LE SIZE (I	тті					
Remarks:	20 mm m	ıinus r	oarticl	le size distributio	n limits sho	wn							
Reviewed by	J:					P.Eng	<b>j</b> .						



					CLE S				REPO	RT							
PROJECT:	Meliadine	Dik	e Cons	truction	on		MPLE				-			SA08	3		
						_ SA	MPLE	DES	CRIPTI	ON:		mm r					_
						_					sar	npled	d fro	m be	elt		
ADDRESS:	Meliadine	Min	е			_											
PROJECT NO:	E1410323	0-01				_ MC	DISTU	RE CO	NT.:				,	5.0%	)		
DATE SAMPLE	D: Oct 25	/16		By:	TW	_											
CLIENT:	Agnico Ea	agle				_ BU	ILK RE	EL DEI	NSITY:					n/a			
ATTENTION:						BU	ILK RE	EL. DE	NSITY	(SSD):				n/a			
						AP	PARE	NT RE	L. DEN	ISITY:				n/a			
						AE	SORF	TION:						n/a			
											-						
_	PERCENT		100 —														_
SIZE	PASSING										/	/					
			90 —							<del>  /</del>		<del>/    </del>		+			+
										/ /	<b>,</b>						
			80							//	/ i						11
12.5	84		70							<i>i</i>	/ //						41
10	72	l _							//	/							
5	50	PERCENT PASSING	60 —							//		++		+			+
2	38	ASS						/		//							
			50					/		/							11
0.63	24	CE	40				_/_		//	1							4
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			30 —			/		/						+			+
80.0	5		00				,/										
$\vdash$			20	/			/										11
<u> </u>			10											_		_	41
			0		10									_			-
					0.2	0.63	, t	5	2.5	10	12.5	20 25		20	75 100	150	200
					J			PARTI	CLE SIZ	Œ (mm)							
Remarks:	20 mm mi	nus p	oarticle	size d	istributi	on limi	ts shov	vn									
Reviewed by:								P.Ge									



						ZE AN			REPC	RT						
PROJECT:	Meliadine	Dik	e Con	struction	on	_	IPLE N				_			A09		
						_ SAN	IPLE	DESC	RIPTI	ON:		mm n				
						=					sa	mpled	fron	n be	lt	
ADDRESS:	Meliadine					_										
	D: <u>E1410323</u>	<del>80-01</del>				_ MOI	STURI	E CO	NT. :				8	.4%		
DATE SAMPI	LED: Oct 26	6/16		Ву:	TW	_										
CLIENT:	Agnico E	agle				BUL	K REL	_ DEN	ISITY:					n/a		
ATTENTION:						BUL	K REL	DEI	NSITY	(SSD):			ı	n/a		
						APP	AREN	T RE	L. DEI	NSITY:			ı	n/a		
						ABS	ORPT	ION:					ı	n/a		
		_														
PARTICLE	PERCENT		100 <b>г</b>													$\overline{}$
SIZE	PASSING										/	i				
-			90							<del>  /</del>		/				
			80							//		<b>,</b>				
			00							//	/					
12.5	89		70								-/-					+
10	83	(7)									1					
5	67	PERCENT PASSING	60													
2	52	PAS	50							/						
		Į.								/						
0.63	33	RCE	40				//		/							
		F						/								
0.00	4		30					/								
0.08	4		20		///		/									
			_,			/	,									
			10													+
			0 [		2 2	က	.25	ц С	n	2 0	75.	20 25	ç	000	0 0	
					0.2	0.63	~				12.5	00		Ω 1	100	150 200
							l	PARTI	CLE SIZ	ZE (mm)						
Remarks:	20 mm mi	inus p	oarticle	e size di	istributio	on limits	showr	า								
		_													_	_
Reviewed by	':	_						P.En	a		_		_	_		

			P	ARTIC	CLE S	IZE A	NAL'	YSIS	REPO	RT						
PROJECT:	Meliadine	Dik	e Cons	truction	on	_ S	AMPLE	NO:					SA	.10		
						_ s	AMPLE	DES	CRIPTI	ON:	20 ı	nm m	inus			
											san	npled	from	belt		
ADDRESS:	Meliadine	Min	е			_										
PROJECT N	O: E1410323	0-01				М	OISTU	RE CO	NT. :				7.1	%		
DATE SAMP	LED: Oct 27	7/16		By:	TW											
CLIENT:	Agnico E	agle				В	JLK RI	EL DEI	NSITY:				n/	a ′a		
ATTENTION	:					_ в	JLK RI	EL. DE	NSITY	(SSD):			n/	<u></u>		
									L. DEN	. ,			n/	 'a		
							SORF						n/			
PARTICLE	PERCENT		100 _													
SIZE	PASSING		100								/	/				
			90								1					
										/	/ /					
			80							//	1					$\exists \sqcup$
12.5	88		70							//	!					
10	78								/		}'					
5	60	₽ S	60								/					
2	46	PERCENT PASSING						/		/						
	-	I P	50					//		/						1
0.63	28	Se	40				/		/							
		PER				٠,	//		/							
			30			/		/								
0.08	6						/									
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			<sub>0</sub> L													—
					0.2	Č		C7:	2.5	10	12.5	20 25	50	75	3 6	20 - 30
					0	`	- `	PART	ICLE SIZ	Œ (mm)						
Remarks:	20 mm mi	nus	particle	size d	istribut	ion lim	its sho	wn								
Reviewed by	<b>/</b> :							P.Er	ng.							



PROJECT:	Meliadine	. Dik					NAL) MPLE		REPO	RT				SA11		
PROJECT.	Wellaume	; DIK	e Cons	ucue	JII	_			CRIPTI	ON.	20	mm ı				
						_ 3A	WIPLE	DES	SKIPII	ON:					14	
						_					sa	mple	a troi	n be	IT	
ADDRESS:	Meliadine															
	O: <u>E1410323</u>					_ MC	DISTU	RE CO	NT. :				•	5.1%		
DATE SAMP				By:	TW	_										
CLIENT:	Agnico E	agle				_ BU	LK RE	EL DEN	NSITY:					n/a		
ATTENTION	: <u> </u>					_ BU	LK RE	L. DE	NSITY	(SSD):				n/a		
						_ AP	PARE	NT RE	L. DEN	ISITY:				n/a		
						_ AB	SORP	TION:						n/a		
	·															
PARTICLE			100							1		, I				
SIZE	PASSING										//	$i \mid \cdot$				
			90							/		!		_		
										//	/					
			80							//	j					
12.5	91		70							//	/					
10	82								/							
5	64	PERCENT PASSING	60											+	$\vdash$	+
2	49	ASS								/						
		=	50					//		/						
0.63	30	l e	40					<u>/</u>	/	1						
		PER				_			/							
			30												$\vdash$	+
0.08	5				//		,	•								
			20				/							-		
			10	//												
			10		7-1											
			<sub>0</sub> L													
					0.2	0.63	7	, i	2.5	10	12.5	20 25		50	100	150 200
					0	O	7	-	ICLE SIZ		_				~	← (V
		<u> </u>								• /						
Remarks:	20 mm m	inus	particle	size d	istribut	on limi	s shov	vn								
-																
Reviewed by	<b>/</b> :							P.Er	ng.							

			F	PARTIC	CLE S	IZE	ANAL'	YSIS F	REPO	RT						
PROJECT:	Meliadine	Dik	e Cor	struction	on	_ s	SAMPLE	NO:					5	SA12	!	
						_ s	SAMPLE	DESC	CRIPTI	ON:	20	mm	minu	s		
											sa	mple	d fro	m be	elt	
ADDRESS:	Meliadine	Min	е													
PROJECT N	O: <u>E141032</u> 3	<b>30-01</b>				^	IOISTU	RE CO	NT.:				7	7.6%		
DATE SAMP	LED: Nov 0	1/16		By:	TW											
CLIENT:	Agnico E	agle					BULK RI	EL DEN	NSITY:					n/a		
ATTENTION:						_ E	BULK RI	EL. DE	NSITY	(SSD):				n/a		
							PPARE	NT RE	L. DEN	ISITY:				n/a		
							BSORF	TION:						n/a		
PARTICLE	PERCENT		100					T	1							
SIZE	PASSING										/ /	<i>(</i>				
			90							/	$\mathcal{L}$	/				
										/ /	/ ;	'				
20	100		80							//	i					
12.5	89		70							//	//					$\perp \perp \mid$
10	79	1							//		/					
5	63	PERCENT PASSING	60					,	//	/						+
2	49	ASS	50					//		/						
			50				,			/						
0.63	30		40				//		/							
		l Ä					.//									
	_		30					/								+
0.08	5		20													
			20	.//												
			10													+
			0		2 2		<u>ო</u> .	Ω '	Ω	s 0	2	20		0	2 C	
					0.2		0.63	<del></del>	.vi		12.5	20		20	100	150
								PARTI	CLE SIZ	Œ (mm)						
Remarks:	20 mm m	inus p	oarticl	e size d	istribut	ion lin	nits show	wn								
Reviewed by	,.							P.En	na -							



			PART	ICLE SI	ZE ANAL	YSIS	REPORT				
PROJECT:	Meliadine	Dike	Construc	tion	SAMPL	E NO:			SA13	3	
					SAMPL	E DES	CRIPTION:	20 mm	minus (T	ype C	Mat.)
					_				d from b		
ADDRESS:	Meliadine	Gold	Project, I	NU.	_			-			
PROJECT N	O: E1410323		•		- MOISTU	JRE CO	NT. :		11.0%	6	
DATE SAMP	LED: Nov	02/16	Bı	/: TW	_						
CLIENT:	Agnico E				- BULK R	EL DEI	NSITY:		n/a		
ATTENTION					- BULK R	EL. DE	NSITY (SSD):		n/a		
		<u> </u>			_		L. DENSITY:		n/a		
					ABSOR	PTION:			n/a		
					_						
PARTICLE	PERCENT	1	00								
SIZE	PASSING							/ /i			
			90				/	/ /			
			80					$  \   \ ' \   \  $			
20	100		80					/			
12.5	93		70					<del>                                     </del>			
10	85	ا ر						<b>,</b> ∤			
5	72	PERCENT PASSING	60								
2	58	PAS	50			//	/				
		Ë									
0.63	33	RCE	40								+
		1 —	20			/					
0.08	4		30			/					
0.00	-		20		/	•					
			10								
				0.2	0.63	.25	2.5	12.5 20 25	50	75	150 200
				0.6	0	_	ICLE SIZE (mm)	←		~	7 2
							(······)				
Remarks:	20 mm m	nus pa	rticle size	distribution	n limits sho	wn					
-											
Reviewed by						D Fr					



			P	ARTIC	LE SI	ZE A	NAL	/SIS I	REPO	RT							
PROJECT:	Meliadine	Dik	e Con	structio	n	SA	MPLE	NO:					9	SA14			
						SA	MPLE	DESC	CRIPTI	ON:	20	mm r	ninu	s (Ty	уре С	Mat.	<u> </u>
											Sai	mple	d fro	m be	elt .		
ADDRESS:	Meliadine	Gol	d Pro	ject, NU													
PROJECT N	O: E1410323	0-01				MC	ISTU	RE CO	NT.:				į	5.3%			
DATE SAMP	LED: Nov	03/16	5	By:	TW												
CLIENT:	Agnico E	agle	Mines	Ltd.		– BU	LK RE	EL DEN	NSITY:					n/a			
ATTENTION	: Mr. Duy N	lguy	en			– BU	LK RE	EL. DE	NSITY	(SSD):				n/a			
						– AP	PARE	NT RE	L. DEN	ISITY:				n/a			
						_ _ AB	SORF	TION:						n/a			
		_															_
PARTICLE	PERCENT		100 г									<b>A</b>					
SIZE	PASSING										/ /	i					
			90									<del>/      </del>		-		+	
			80							1	<u> </u>						
20	100									//	/						
12.5	89		70									+			$\vdash$	+	
10	83	(2)									<u> </u>						
5	69	PERCENT PASSING	60											+		+	
2	54	PAS	50							/							
		Ε								/							
0.63	33	RCE	40				//		/			+			$\vdash$	+	
		H				.//		/									
0.08	13		30					/									
0.00	13		20				/							_			
			10											+		+	
			ا ٥														
			0 -		0.315	33	75		c.5	10	2:2	20 25		50	100	150	,
				C	0.3	0.63	-	-		` 'E (mm)	7				. 7	7 6	į
								FARII	OLE SIZ	. <b>-</b> (111111)							╝
Remarks:	20 mm mi	nus	oarticle	e size dis	stributio	on limit	s shov	vn									_
																	_
-																	
Reviewed by	<b>/</b> :							P.En	ıg.								



			P	ARTICI	LE SI	ZE AI	NALY	'SIS I	REPO	RT						
PROJECT:	Meliadine	Dik	e Con	struction	า	SAI	MPLE	NO:					8	SA15		
						SAI	MPLE	DESC	CRIPTI	ON:	20	mm ı	minu	s (Ty	/pe C	Mat.)
											Sa	mple	d fro	m be	elt	
ADDRESS:	Meliadine	Gol	d Pro	ject, NU.												
PROJECT N	O: E1410323	0-01				МО	ISTU	RE CO	NT.:				4	1.2%		
DATE SAMP	LED: Nov	05/16	5	By:	TW											
CLIENT:	Agnico E	agle	Mine	s Ltd.		- BU	LK RE	L DEN	NSITY:					n/a		
ATTENTION	: Mr. Duy N	lguy	en			- BU	LK RE	L. DE	NSITY	(SSD):				n/a		
						- API	PARE	NT RE	L. DEN	ISITY:				n/a		
						AB	SORP	TION:						n/a		
		_														
PARTICLE	PERCENT		100													
SIZE	PASSING										/ /	i				
			90									<del>/    </del>		+		+
			80							/	<u> </u>					
20	100		00							/ <b>/</b>	/					
12.5	86		70							//	<del>-  </del>			$\vdash$		
10	80	(2)							//		<u>,                                    </u>					
5	66	PERCENT PASSING	60							/						
2	53	PAS	50					//		/				_		
		F								/						
0.63	37	RCE	40						/					+		
		1 2	00					/								
0.08	18		30					/								
0.00	10		20				/							_		
				//		'										
			10											+		
			0													
			0 .	0	0.315	33	25		ر. د.ک	10	5.5	20 25		50	100	150
				C	0.3	0.63	-	-	N CLE SIZ		7			I	. 7	7
								FARII	OLE SIZ	. <b>-</b> (111111)						
Remarks:	20 mm mi	nus	oarticl	e size dis	tributio	on limit	s shov	vn								
Reviewed by	<b>/</b> :							P.En	ıg.							



			F	PARTIC	LE SI	ZE ANA	LYSIS	REPOR	RT					
PROJECT:	Meliadine	Dik	e Cor	structio	n	SAMP	LE NO:					SA16	<u>;</u>	
						SAMP	LE DES	CRIPTIO	N:	20 m	m min	us (Ty	уре С	Mat.)
						_				Sam	pled fr	om be	∍lt	
ADDRESS:	Meliadine	Gol	d Pro	ject, NU		_								
PROJECT N	O: E1410323	0-01				MOIST	URE CO	NT. :				4.9%	ı	
DATE SAMP	LED: Nov	06/16	6	By:	TW	_								
CLIENT:	Agnico E	agle	Mine	s Ltd.		BULK	REL DEI	NSITY:				n/a		
ATTENTION	: Mr. Duy N	lguy	en			- BULK	REL. DE	NSITY (	SSD):			n/a		
						APPAI	RENT RE	L. DENS	SITY:			n/a		
						ABSO	RPTION:					n/a		
		_												
PARTICLE	PERCENT		100							/ /				$\neg \neg$ $ $
SIZE	PASSING								/	'   <b>/</b> j				
			90						_/	/ /				
			80						//	i				
20	100		00						//	$\parallel / \parallel$				
12.5	88		70							<del>-  </del>			++	
10	82	l o						///		.1				
5	68	PERCENT PASSING	60						_/					
2	52	PAS	50						/				$\perp \perp$	
		Ä						1	<b>'</b>					
0.63	33	RCE	40					//						+
		=	20				/							
0.08	23		30				/							
0.00			20		//		/						$\perp \perp$	
				/		/								
			10											
			0	1										
			U .		0.315	0.63	.25	2.5	10	2.5	25	50	75	150
				C	0.3	0.6	~	∾ ICLE SIZE		.,			7	1;
							i Alvii	.OLL GIZE						
Remarks:	20 mm m	nus	oarticl	e size dis	stributio	n limits sl	nown							
Reviewed by	<b>/</b> :						P.Er	ng.						



			P/	ARTICI	_E SI	ZE ANAL	YSIS	REPORT					
PROJECT:	Meliadine	e Dik				SAMPL					SA1	7	
						SAMPL	E DES	CRIPTION:	20	mm m	inus (T	уре С	Mat.)
						_			Sa	mpled	from b	elt	
ADDRESS:	Meliadine	Gol	d Proje	ect, NU.		-							
PROJECT N	O: E1410323					MOIST	JRE CO	NT. :			8.0%	 o	
DATE SAMP			3	By:	TW	•							
CLIENT:	Agnico E					BULK F	REL DEI	NSITY:			n/a		
ATTENTION						-		NSITY (SSD)			n/a		
	<u></u>	- <u>5</u> -,				-		L. DENSITY:			n/a		
1						ABSOR					n/a		
PARTICLE	PERCENT		100 _										
SIZE	PASSING		100										
			90 –						4/	<u>/</u>		+	
									/   !	'			
			80 –					//	+++				+
20	100		70 –						!				
12.5 10	94 87		70										
5	69	2	60 –										+
2	53	PERCENT PASSING					//						
	- 55	T P/	50					/					+
0.63	36	l en	40					//					
		l H	٠٠										
		-	30				//					++	++
0.08	19						-						
			20										
			10			. – –							
			"   -		, -								
			0										
				0.0	0.315	0.63	1.25	2, 5, 5,	12.5	20 25	50	75 100	150 200
					0	J	PART	ICLE SIZE (mm)					
Domorto	20	ـــا	orticle	oizo dia	tributia	n limita ab	214/2						
Remarks:	ZU M	iiius	oai iicie	SIZE UIS	เมเมนแด	n limits sho	JWII						
Reviewed by	<b>/</b> :						P.Er	ng.					



PROJECT:	Meliadin	e Dike	e Con	struction	SAMP	LE NO:			SA18	<b>;</b>
					SAMP	LE DESCRII	PTION:	20 mm r	ninus (T <u>)</u>	ype C Mat.
					<u> </u>			Sample	d from be	elt
ADDRESS:	Meliadin	e Gol	d Pro	ject, NU.	_					
PROJECT NO	D: <u>E141032</u>	30-01			_ MOIST	URE CONT.	:		4.5%	ı
DATE SAMPI	LED: Nov	08/16	<u> </u>	By: TW	_					
CLIENT:	Agnico E	agle	Mines	Ltd.	BULK	REL DENSI	Υ:		n/a	
ATTENTION:	Mr. Duy I	Nguye	en		BULK	REL. DENSI	TY (SSD):		n/a	
					APPAF	RENT REL. D	ENSITY:		n/a	
					ABSO	RPTION:			n/a	
Ī										
PARTICLE	PERCENT		100					/ /		
SIZE	PASSING							/   <b>/</b>		
			90				/	///		
			80				/	$\int i$		
20	100						j	/ ;		
12.5	84		70				//	<del>- /</del>		
10	73	၂ ဖ				/	′   /	/		
5	52	PERCENT PASSING	60				//			
2	40	PA	50			//	//			
0.00	20	H				/				
0.63	29	ERC	40							
		-	30		_/					
0.08	7									
			20							
			10							
			o l							
				0.2	0.63	1.25	5 01	2.5 20 25	20	100
				o o	0	~	SIZE (mm)	~		<i> </i>
		<b>L</b>								<del></del>
Remarks:	20 mm m	inus p	particl	e size distributi	on limits sh	nown				



		<b>5</b>	_		044517	- 110					0110		
PROJECT:	Meliadin	e Dike	e Con	struction	SAMPLE						SA19		
					SAMPLE	DESC	CRIPTI	ON:		m mini		-	<u>Mat.</u> )
					_				Sam	oled fro	om be	lt	
ADDRESS:	Meliadin			ject, NU.	_								
PROJECT NO					_ MOISTU	RE CO	NT. :				5.4%		
DATE SAMP	-	09/16		By: TW	_								
CLIENT:	Agnico E	agle	Mines	s Ltd.	_ BULK R	EL DEN	ISITY:				n/a		
ATTENTION:	Mr. Duy	Nguy	en		_ BULK R	EL. DEI	NSITY	(SSD):			n/a		
					_ APPARE	NT RE	L. DEN	NSITY:			n/a		
					ABSOR	PTION:					n/a		
DARTIO E	DEDOENT												
PARTICLE SIZE	PERCENT PASSING		100						/ /				$\lnot\lnot$ $I$
SIZE	FASSING	<b>                                     </b>	00					/	'				
			90					/	//				
			80					/	/ /				
20	100	11						1/	$ \cdot '$				
12.5	83		70				,	/ /	/				+
10	72	၂၂ <sub>စ</sub>	60				/		/				
5	51	  -  SSIN	60			/		//					
2	39	Ă	50			/		//					$\perp \parallel \parallel$
2.00		H			/			./					
0.63	28	PERCENT PASSING	40				/						+
		-	30				ĺ						
0.08	7	<b>                                     </b>	30			/							
0.00			20			1						-	+
		11			/								
			10										+
		]	0										
		]	Ū	0.2	0.63	1.25	7.5	10	20 20	25	50	£ 00	150
				0 8:0	0.0			ZE (mm)	7			=	5 7
		J ∟				IANII	OLL 312	-L (IIIII)					
Remarks:	20 mm m	inus p	oarticl	le size distributio	on limits sho	wn							
Reviewed by	<i>r</i> :					P.En	ıg.						



			P	PARTICLE	SIZ	E ANAL	YSIS.	REPO	ORT					
PROJECT:	Meliadine	Dike	e Con	struction		SAMPL	E NO:					SA20	)	
	-					SAMPL	E DES	CRIPT	ION:	20 m	m min	us (T	уре С	Mat.)
										Sam	pled fr	om be	elt	
ADDRESS:	Meliadine	Gol	d Pro	ject, NU.										
PROJECT N	O: <u>E1410323</u>	0-01				MOIST	JRE CC	ONT.:				9.4%	)	
DATE SAMP	LED: Nov	10/16	<u> </u>	By: TV	<u>v                                      </u>									
CLIENT:	Agnico E	agle	Mine	s Ltd.		BULK F	REL DE	NSITY	:			n/a		
ATTENTION:	: Mr. Duy N	lguy	en			BULK F	REL. DE	ENSITY	(SSD):			n/a		
						APPAR	ENT RE	EL. DEI	NSITY:			n/a		
						ABSOR	PTION	:				n/a		
	1	_												
PARTICLE			100							/ /				<del></del>
SIZE	PASSING									/				
			90						/	//			++	
			80						//	/ i				
20	100		00							$^{\prime}\mid ^{\prime}_{\prime}\mid$				
12.5	86		70							<i>i</i>			++	
10	79	(2)						1/		/				
5	66	SINC	60											+
2	51	PERCENT PASSING	50						/					
		Ä	00						/					
0.63	35	RCE	40					_/						
		=					/	/						
0.08	6		30				/							
0.06	6		20				1							
						/								
			10											+
			0 1	8	15		.25	2.5	5 01	rci Č	25	50	100	 
				0.2	0.315	0.63	_			12		47	10	150
							PAKI	ICLE SI	ZE (mm)					
Remarks:	20 mm mi	nus p	articl	e size distril	bution	limits sho	own							
·														
Reviewed by	<i>r</i> -						P.E	na						



			F	PARTICLE SI	ZE ANAL	YSIS R	REPOF	RT					
PROJECT:	Meliadine	∍ D <u>ik</u>	e Cor	nstruction	SAMPLE	E NO:					SA21		
					SAMPLE	E DESC	RIPTIO	N:	20 m	nm min	us (Ty	pe C	Mat.)
					<u>-</u> _					pled fr			
ADDRESS:	Meliadine	. Gol	d Prc	oject, NU.	_	· <del>-</del>							
PROJECT NO	O: E1410323	<b>30-01</b>	.023		MOISTU	RE CON	۱T. :				10.0%	D	
DATE SAMP	LED: Nov	12/16	6	By: IM	_								
CLIENT:	Agnico Ea	agle	Mine	s Ltd.	BULK R	EL DEN	SITY:				n/a		
ATTENTION:	: Mr. Duy N	1guy	en		BULK R	EL. DEN	SITY (	SSD):			n/a		
					APPARE	NT REL	DENS	SITY:			n/a		
					_ ABSORF	PTION:					n/a		
PARTICLE	PERCENT												
SIZE	PASSING		100							1			$\neg \neg \bot$
0.22			90						!				
			00						<i>j</i>				
			80					/	1				+
20	100		70					$^{\prime}$	/,				
12.5	95		70						/				
5	81	NG NG	60				/		<u> </u>			-	
	- 01	ASS				//		/					
		<del> </del>	50			/		,	+				
0.63	40	PERCENT PASSING	40				_/						
		PEI				/	/						
2.22			30			//			+				+
0.08	6		20			1							
			20		/								
			10	/					-			+-	+
			0										
			0	0.2	53	.25	ن ر <del>ن</del>	0 1	رن در در	25	50	100	150
	<u> </u>			0.2	0.63	~	¹ CLE SIZE		72 .	4.4	4, ,	, ,	15
						1 /1111		. (111111)					
Remarks:													
Reviewed by	<i></i>					P.Eng	g.						



			PAF	RTICLE S	IZE ANA	LYSIS	REPOR	Т				
PROJECT:	Meliad	ine Dik	e Constr	uction	SAMPI	LE NO:				SA	22	
					SAMPI	LE DES	CRIPTION	N:	20 mm	minus (	Туре С	Mat.)
									Sample	d from	belt	
ADDRESS:	Meliad	ine Gol	d Projec	t, NU.	_							
PROJECT N	O: <u>E1410</u>	3230-01	.023		MOIST	URE CO	NT.:			9.9	%	
DATE SAMP	LED: No	ov 13/16	<u> </u>	By: IM								
CLIENT:	Agnico	Eagle	Mines Lt	d.	BULK	REL DE	NSITY:			n/	а	
ATTENTION:	Mr. Du	y Nguy	en		BULK	REL. DE	NSITY (S	SD):		n/	а	
					APPAF	RENT RE	L. DENSI	ITY:		n/	а	
					ABSOI	RPTION:				n/	а	
PARTICLE	DEDCEN	- 11										
SIZE	PERCENT PASSING		100						/ /			$\neg \neg \bot$
SIZL	1 Addition	$\exists \sqcup$	00					/	//			
		<b>-</b>	90					//	<i>i</i>			
			80					//	/			
20	100						/		/			
12.5	90		70						/			
		_   ១	60					/	/			
5	71	PERCENT PASSING						/				
		-   ¥	50				/	/				
0.63	40	—  <u> </u>										
0.03	70	<b>-</b>    ₩	40		//		/					
		٦١ -	30		//							
0.08	6											
			20									
			10	/ _								
		41	10	.——								
		41	۰ ــــــ									
		$\dashv$		0.2	0.63	1.25	2.5	10	20 25 25	50	75 100	150 200
		$\dashv$		0	J	PART	ICLE SIZE (	(mm)				
Remarks:	Sample	—	.00									
iveillai ko.	Sample	ou al ZZ	.00.									
Reviewed by	/:					P.Er	na.					



				PARTICLE SIZ			REPO	RI					
PROJECT:	Meliadine	<u>∍ Dike</u>	e Con	nstruction	SAMP	LE NO:					SA23		
					SAMP	LE DES	CRIPTI	ON:	<b>20</b> m	m min	nus (Ty	/pe C	Mat.)
					_				Sam	pled fr	om be	elt	
ADDRESS:	Meliadine	e Gol	d Pro	ject, NU.	_								
PROJECT NO	D: E1410323	30-01	.023		MOIST	TURE CO	NT. :				5.1%		
DATE SAMPL	_ED: Nov	14/16		By: IM	-								
CLIENT:	Agnico E	agle	Mine		BULK	REL DEI	NSITY:				n/a		
ATTENTION:					-	REL. DE			-		n/a		
		<u>-3-7</u>			_	RENT RE		-			n/a		
					-	RPTION:		.0			n/a		
					. 7.200						, a		
PARTICLE	PERCENT	П	400										
SIZE	PASSING		100						/ /				
			90					/	<b>/</b> /i				
		<u> </u>						/	/!				
		i	80					<i>i</i>	<del>/                                    </del>				+
20	100							/ /	Į į				
12.5	83		70				/		/				
		ပ္ခ	60				/		/				
5	51	SSII				/		/ /					
		I PA	50			/		//					
0.63	23	PERCENT PASSING				/							
0.03	23	ER	40				/						
			30										
0.08	5												
			20		/	<i>'</i>							+
					/								
			10										+
			0										
			0 .	0.2		.25	2.5	10	5	25	50	75	150
				0.2	0.63	_			7	• • •	47	, 5	15 7
		i L				PARI	ICLE SIZ	.E (mm)					
Remarks:	Sampled	at 17:	:00.										
Reviewed by:	_					P.Er	2 00						



PROJECT NO: E1 DATE SAMPLED: CLIENT: Ag ATTENTION: Mr  PARTICLE PERC SIZE PASS  20 10 12.5 8: 5 7: 0.63 3:	Nov 1 gnico Ea Ir. Duy N	0-01. 17/16 agle I	By: Mines Ltd.		MOISTU BULK RI BULK RI	EL DENS			minus (T ed from b 8.2% n/a n/a n/a	6
PROJECT NO: E1 DATE SAMPLED: CLIENT: Ag ATTENTION: Mr  PARTICLE PERC SIZE PASS  20 10 12.5 8 5 7  0.63 3	Nov 1 gnico Ea Ir. Duy N	0-01. 17/16 agle I	By: Mines Ltd. en		BULK RI BULK RI APPARE	EL DENS EL. DENS ENT REL.	SITY: SITY (SSD):		8.2% n/a n/a n/a	elt
PROJECT NO: E1 DATE SAMPLED: CLIENT: Ag ATTENTION: Mr  PARTICLE PERC SIZE PASS  20 10 12.5 8 5 7  0.63 3	Nov 1 gnico Ea Ir. Duy N	0-01. 17/16 agle I	By: Mines Ltd. en		BULK RI BULK RI APPARE	EL DENS EL. DENS ENT REL.	SITY: SITY (SSD):		n/a n/a n/a	
PARTICLE PERCENTSIZE PASSES 5 75	Nov 1 gnico Ea Ir. Duy N	17/16 agle I	By: Mines Ltd.	IM	BULK RI BULK RI APPARE	EL DENS EL. DENS ENT REL.	SITY: SITY (SSD):		n/a n/a n/a	
Age	gnico Ea	agle I	Mines Ltd.	IM	BULK R	EL. DEN: ENT REL.	SITY (SSD):		n/a n/a	
PARTICLE PERC SIZE PASS  20 10 12.5 8 5 7 0.63 3	CENT SSING	guye	100		BULK R	EL. DEN: ENT REL.	SITY (SSD):		n/a n/a	
PARTICLE PERCENTIAL PE	CENT SSING		100		APPARE	ENT REL.			n/a	
20 10 12.5 8 5 7 0.63 3	SSING						. DENSITY:			
20 10 12.5 8 5 7 0.63 3	SSING				ABSORI	PTION:			n/a	
20 10 12.5 8 5 7 0.63 3	SSING									
20 10 12.5 8 5 7 0.63 3	SSING									
12.5 8 5 7 0.63 3			90			1		/ /		
12.5 8 5 7 0.63 3					$\longrightarrow$			/ //		
12.5 8 5 7 0.63 3			l					/ /		
12.5 8 5 7 0.63 3			80	+ +				<del>                                     </del>		
0.63 3	^^		70				//	//		
0.63 3	38		"				//	<i>j</i>		
0.63 3	73	SING	60							
		PAS	50							
		F	50				./			
0.08 7	35	PERCENT PASSING	40			+				
0.08 7		2								
0.00	7		30							
			20			1				
			///							
			10	-						+++
			ا ا							
				0.2	0.63	1.25	5 10	2.5	20 20	75 100 150
				o o	0 .	~	LE SIZE (mm)	_		, , ,
Remarks: Sa	ampled a	+ 10:								
Remarks: Sa	ampled a	1 19.0	00.							



PROJECT:	Meliadine	Dike	e Construction	ZE ANALY SAMPLE		LIONI		SA25	<u>;</u>	
				SAMPLE		RIPTION:	20 mm m			Mat.)
				_	2200.		Sampled			
ADDRESS:	Meliadine	Gold	d Project, NU.	_			Gumpiou		<u> </u>	
PROJECT NO:			•	– Moistuf	E CON	IT ·		12.4%		
DATE SAMPLE	-			_ 111010101	L OON	••••		12.7/	<u>,                                      </u>	
CLIENT:			Mines Ltd.	– BULK RE	I DEN	SITV.		n/a		
ATTENTION:				_				n/a		
ATTENTION.	Mr. Duy N	guye	en en	_		ISITY (SSD): DENSITY:	-			
				_ APPAREI		DENSITY:		n/a n/a		
				_ ADSURF	IION.			II/a		
PARTICLE	PERCENT									
SIZE	PASSING		100							$\Box$
			90				///			
			80				+/+			++
20	100									
12.5	91		70			//	J'			
5	72	DN D	60			//	/			
5	12	PERCENT PASSING				/				
		T P/	50							++
0.63	38	CEN	40			/				
		PER	40							
			30	//	/				++	
80.0	7									
			20	_//						+
			10							
<b>-</b>			0							
			0.2	0.63	2.5	5 10	12.5 20 25	20	75 100	150 200
			0	- `		LE SIZE (mm)				
Pomoriso: C	ompled at 40:	00 '	Lovers of charge notes	l in atackaile						
Remarks: S	ampied at 19	.UU. L	Layers of snow noted	по втоскрпе.						

Data presented hereon is for the sole use of the stipulated client. Tetra Tech EBA is not responsible, nor can be held or without the knowledge of Tetra Tech EBA.



		PARTICLE SI	ZE ANALYSIS REPORT	
PROJECT: Me	eliadine Dik	e Construction	SAMPLE NO:	SA26
_			SAMPLE DESCRIPTION:	20 mm minus (Type C Mat.)
_				Sampled from stockpile
ADDRESS: Me	eliadine Gol	ld Project, NU.	<u> </u>	
PROJECT NO: E1	14103230-01.	.023	MOISTURE CONT. :	11.5%
DATE SAMPLED:	Nov 17/16	6 By: IM	- -	
CLIENT: Ag	gnico Eagle	Mines Ltd.	BULK REL DENSITY:	n/a
ATTENTION: Mr	r. Duy Nguye	en	BULK REL. DENSITY (SSD):	n/a
<u> </u>			_ APPARENT REL. DENSITY:	n/a
<u> </u>			_ ABSORPTION:	n/a
PARTICLE PERO	~ENT			
SIZE PASS		100		<del>/ /                                    </del>
OILL III		90		
		90		<u> </u>
		80		
	00			
12.5 9	00	70		<del> </del>
5 6	57 B	60		
	ASS.			
		50		
0.63 3	PERCENT PASSING	40		
	<u>  </u>	30		
0.08 7	7	20		
			/	
		10		
		0.2	0.63 1.25 2.5 5	12.5 20 25 50 75 100 150
		0.6	PARTICLE SIZE (mm)	0
Remarks: Sa	mpled at 19:	9:00. Layers of snow n	oted in stockpile.	
Remarks: Sa	ampled at 19:	:00. Layers of snow r	oted in stockpile.	



PROJECT:	Meliadin	e Dike	e Const	ructio	n	SAN	PLE N	Ю:						SA	27		
						- San	PLE D	DESC	RIPT	ION:		20 m	nm mi	nus	(Ty	pe C	Mat.
						_	_						pled				
ADDRESS:	Meliadin	e Gol	d Proje	ct, NU.		_											
PROJECT NO	): <u>E141032</u>	30-01	.023			MOI	STURE	COI	NT. :					11.	2%		
DATE SAMPL	.ED: Nov	19/16	<u> </u>	Ву:	SH	_											
CLIENT:	Agnico E	agle	Mines I	_td.		BUL	K REL	DEN	ISITY:	•				n	/a		
ATTENTION:	Mr. Duy I	Nguy	en			BUL	K REL	. DEI	NSITY	(SSD	):			n	/a		
						_	AREN		L. DEI	NSITY	<b>'</b> :				/a		
						_ ABS	ORPTI	ION:						n	/a		
PARTICLE	PERCENT	П															
SIZE	PASSING		100								,	1 /					
			90								_/_	/i			$\rightarrow$		
										/	<u> </u>	!					
	400		80							+/		1			_		
20 12.5	100 85		70							//		/					
12.3	03								/			į					
5	61	SING	60						<i>'</i>		/				$\rightarrow$		
		PAS	50					//		/							
		Ä								/							
0.63	36	PERCENT PASSING	40						/						$\dashv$		+
			20														
0.08	7		30				/										
5.55	-		20	.//			/								$\dashv$	+	
				//		/											
			10														
			ه ک														
				c	0.315	0.63	1.25	C R	C.7	2	10 5		25	50	75	100	150
					0	J	-	PARTIC	CLE SI	ZE (mm	,						
Remarks:																	
itomarks.																	
-																	



PROJECT:	Meliadine	Dike	e Con	structio	on	S	AMPLE	E NO:						SA	28		
						 	AMPLE	E DESC	CRIPT	ION:		20 m	m mi	nus (	Тур	e C	Mat.)
													pled f				
ADDRESS:	Meliadine	Gol	d Proj	ect, NU	J.												
PROJECT NO:	E1410323	80-01	.023			M	OISTU	RE CO	NT.:					9.2	%		
DATE SAMPLE	D: <u>Nov</u>	19/16	<u> </u>	By:	SH												
CLIENT:	Agnico E	agle	Mines	Ltd.		B	ULK R	EL DEN	NSITY:	:				n/	а		
ATTENTION:	Mr. Duy N	lguy	en			B	ULK R	EL. DE	NSITY	(SSD	<b>)</b> ):			n/	а		
						A	PPARE	NT RE	L. DEI	NSITY	<b>'</b> :			n/	a		
						A	BSORI	PTION:						n/	a		
PARTICLE P	ERCENT	1															
	ASSING		<sup>100</sup> [									1			$\top$		$\Box$
0			90								/						
										,	./	<b>/</b> [					
			80							+/		//			+	+	+
20	100		70							/		!					
12.5	78		70						/			/					
5	54	NG NG	60						/	_/	/				+		$\perp$
	01	PERCENT PASSING						//		/ /	/						
		ΑF	50					/		/							
0.63	28	RCE	40				/		/						+		$\perp$
		PE				_/	//	,	/								
0.00			30			//		/							+		+
0.08	5		20												$\perp$		
							/										
			10												+		+
			0														
			0 -		0.2	)	0.63	1.25	2.5	2	10		25	50	75	00	150
					0	5	o.	_	ICLE SI		,	:				_	- v
										•							
Remarks:																	



			P	ARTIC	LE SI	ZE ANAL	YSIS	REPO	RT					
PROJECT:	Meliadir	e Dik	e Con	structio	n	SAMPL	E NO:					SA29	)	
						SAMPL	E DES	CRIPTIC	ON:	20 m	m min	us (Ty	/pe C	Mat.)
						-	Sam	pled at	fter belt	(mixe	d by lo	ader)		
ADDRESS:	Meliadir	e Gol	d Proj	ect, NU										
PROJECT N	O: <u>E141032</u>	30-01	.023			MOIST	JRE CO	NT.:				11.9%	D	
DATE SAMP	LED: Nov	19/16	<u> </u>	Ву:	SH									
CLIENT:	Agnico I	Eagle	Mines	Ltd.		BULK	REL DEI	NSITY:				n/a		
ATTENTION	: Mr. Duy	Nguy	en			BULK	REL. DE	NSITY	(SSD):			n/a		
						APPAR	ENT RE	L. DEN	ISITY:			n/a		
						ABSOR	PTION:					n/a		
PARTICLE	PERCENT	П												
SIZE	PASSING		<sup>100</sup> [							/ /				$\neg \neg \bot$
- OILL	17.00	11	90						/	///				
		11	30						//	j				
			80							1/				-
20	100	_							/	i				
12.5	93	41	70					//		/				
5	74	၂၂ ဗွ	60					//		/				
3	74	PERCENT PASSING							/					
		¥	50						,					
0.63	39		40			//		/						
							٠	/						
		41	30				//							
80.0	7	41	20			/	1							
		-	20			_//								
		-	10	//										
		11	_ [											
			0 L	(	7 15		.25	2.5	ი 0	ri Ö	25	50	100	9 9
				C	0.315	0.63	_			2 .,	· · ·	4,	, 1	150
		┚╚					FARI	ICLE SIZ	<u>- (11111)</u>					
Remarks:														
Reviewed by	<i>r</i> :						P.Er	na.						



PROJECT:	Meliadin	∍ Dik∈	e Cor	struction	SAMPL	E NO:			SA30	)	
					SAMPL	E DESCRIP	TION:	20 mm	minus (Ty	уре С Ма	<u></u> ıt.)
					<u>_</u>	Sample	d after belt				
ADDRESS:	Meliadine	∍ Gol	d Pro	ject, NU.	_						
PROJECT NO	O: E1410323	30-01	.023		MOIST	URE CONT.	:		11.1%	<u>′о                                    </u>	
DATE SAMPI	LED: Nov	21/16	<u>,                                      </u>	By: SH	_						
CLIENT:	Agnico E	agle	Mine	s Ltd.	_ BULK F	REL DENSIT	Υ:		n/a		
ATTENTION:	Mr. Duy N	\guy(	∍n		_ BULK F	REL. DENSI	TY (SSD):		n/a		
					_ APPAR	ENT REL. D	ENSITY:		n/a		
					_ ABSOR	PTION:			n/a		
PARTICLE	PERCENT	П									—
SIZE	PASSING		100					1 /			$\neg \mid$
0122	17.00		90					///			_
			50				//	<b>/</b>   <u>i</u>			
			80				<del>-                                     </del>	+/+			+ $ $
20	100		70				//				
12.5	91		/0					7			$\prod  $
5	66	NG NG	60			- //		<del></del>			+
							/				
		l F	50				//				71
0.63	37	PERCENT PASSING	40			<u> </u>	/				
		H H									
0.08	7		30			/					$\dagger$
0.00			20			1					
				.//	/						
			10	/	-	_		+++			+
			0								╛╽
			•	0.2	0.63	1.25	5 01	2.5 20 25	20	75 100 150	8
				0.:	Ö	PARTICLE		÷		~ ~	7
Remarks:											—
											—



			P	ARTICLE	SIZ	E ANAL	YSIS	REPO	RT					
PROJECT:	Meliadine	Dike	Cons	struction		SAMPLE	NO:					SA31		
						SAMPLE	DES	CRIPTI	ON:	20 m	m min	us (Ty	уре С	Mat.)
							Sam	pled a	fter belt	(mixe	d by lo	oader)		
ADDRESS:	Meliadine	Gol	d Proj	ect, NU.										
PROJECT N	O: <u>E1410323</u>	3 <b>0-</b> 01.	.023			MOISTU	RE CO	NT. :				4.5%	ı	
DATE SAMP	LED: Nov	23/16	<u> </u>	By: SH	/IM									
CLIENT:	Agnico E	agle l	Mines	Ltd.		BULK R	EL DEI	NSITY:				n/a		
ATTENTION:	Mr. Duy N	lguye	en			BULK R	EL. DE	NSITY	(SSD):			n/a		
						APPARE	NT RE	L. DEN	ISITY:			n/a		
						ABSORI	PTION:					n/a		
DARTIOLE	DEDOENT													
PARTICLE SIZE	PERCENT PASSING		100 Г							/ /				$\neg \neg$
SIZE	1 4001140		00						/	′   <i> </i> /				
			90						/	<b>/</b> //				
			80						$\parallel / \parallel$	//			$\vdash$	+
20	100								/	/ ;				
12.5	79		70							/				+
		ā	60					/		/				Ш
5	45	PERCENT PASSING					/	·	///					
		T PA	50				/		//					
0.63	22	N	40			/								
		)ER(	40			/								
		-	30										++	+
0.08	6				1		· ·							
			20			//								
			10		<u></u>	-1							$\perp \! \! \perp$	<u> </u>
			<sub>0</sub> L		رم					10 6	. 10			
				0.2	0.315	0.63	<del>-</del>	7		12.5	22	50	100	150
							PART	ICLE SIZ	Œ (mm)					
Remarks:										_	_		_	
,														
Reviewed by	<i>r</i> :						P.Er	ng.						

PROJECT:	Meliadine		PARTICLE SIZ	SAMPLE N		SA32 20 mm minus (Type	C Mat \
					Sampled after beli		C IVIAL.)
ADDRESS:	Meliadine	Gold Pro	oject, NU.				
PROJECT NO	O: <u>E1410323</u>	0-01.023		MOISTUR	E CONT. :	10.3%	
DATE SAMP	LED: Nov	23/16	By: SH/IM				
CLIENT:	Agnico E	agle Mine	es Ltd.	BULK REL	DENSITY:	n/a	
ATTENTION:	Mr. Duy N	lguyen		BULK REL	DENSITY (SSD):	n/a	
					T REL. DENSITY:	n/a	
				ABSORPT	ION:	n/a	
PARTICLE	PERCENT						
SIZE	PASSING	100					
J.L.L		90					
						<b>/</b>   i	
		80					
20	100						
12.5	91	70				<u>'</u>	
5	67	<b>9</b> 60				/	
<u>3</u>	07	PERCENT PASSING					
		<b>6</b> 50			// //		
0.63	34	GE 40					
		PER					
		30			/		
0.08	6	20					
		20					
		10					
		0	2 15	.63	2.5	2.5 20 25 25 25 25 25 25 25 25 25 25 25 25 25	
			0.2	0 1		12.5 20 25 25 50 50 75	100
					PARTICLE SIZE (mm)		
Remarks:							
Reviewed by	,.				P.Eng.		

			Р	ARTICLE	SIZE	E ANAL	YSIS	REPO	RT					
PROJECT:	Meliadine	Dik	e Con	struction		SAMPLE	NO:					SA3	3	
						SAMPLE	DES	CRIPTI	ON:	Тур	e C - 2	20 mm	l .	
							San	npled f	rom Da	yshift	Stock	pile		
ADDRESS:	Meliadine	Gol	d Pro	ject, NU.										
PROJECT NO	O: <u>E1410323</u>	30-01	.023			MOISTU	RE CC	NT.:				7.5%	<u>/</u>	
DATE SAMP	-			By: SH/	<u>IM</u>									
CLIENT:	Agnico E	agle	Mines	Ltd.		BULK R	EL DE	NSITY:				n/a	1	
ATTENTION:	Mr. Duy N	lguy	en			BULK R						n/a		
İ						APPARE			NSITY:			n/a		
						ABSORI	PTION:	;				n/a	<u>t</u>	
PARTICLE	PERCENT													
SIZE	PASSING		100							/	<u>/</u>			
			90							///	<u> </u>			
									/ /	<b>/</b> !				
			80						<i>'</i>	<del>                                     </del>				
20 12.5	100 87		70						/ /	!				
12.5	01		. •					//						
5	55	PERCENT PASSING	60					, /	//	/			++-	
		-AS	50				/		//					
		Į.	30				,		/					
0.63	23	RCE	40		+	/		/					++	+
		H	20											
0.08	4		30				/							
	-		20			//							++	
					1									
			10	/										
			<sub>0</sub> [											
				0.2	0.315	0.63	1.25	2.5	10	12.5	20 25	50	75 100	150 200
					0	J		ICLE SIZ		-				
Remarks:		_												
Reviewed by	<u> </u>		_				P.Er	na			_			

			F	PARTICLE SIZ	ZE ANAL	YSIS I	REPOR	Т				
PROJECT:	Meliadin	e Dik	e Cor	nstruction	SAMPL	E NO:				SA3	34	
					SAMPL	E DES	CRIPTION	N:	Type C	- 20 mm	1	
						Sam	pled afte	er belt				
ADDRESS:	Meliadin	e Gol	d Pro	oject, NU.	•							
PROJECT NO	O: <u>E141032</u>	30-01	.023		MOISTU	IRE CO	NT.:			6.79	%	
DATE SAMP	LED: Nov	26/16	6	By: SH					,			
CLIENT:	Agnico E	agle	Mine	s Ltd.	BULK R	EL DE	NSITY:			n/a	ì	
ATTENTION:	Mr. Duy	Nguy	en		BULK R	EL. DE	NSITY (S	SSD):		n/a	ì	
					APPARI	ENT RE	L. DENS	ITY:		n/a	ì	
					ABSOR	PTION:				n/a	1	
PARTICLE	DEDCENT	П										
SIZE	PERCENT PASSING		100									$\neg \neg \bot$
SIZE	1 Addito	11	90					/	/			
		11	90					/	<b>/</b> i			
		]	80					///	1		++	
20	100	]					,	/ /	i'			
12.5	82		70						,			
		၂၂ မွ	60				/	/ /	1		$\perp \perp$	
5	53	PERCENT PASSING				/		//				
		}	50			/		/				
0.63	24	11 8	40		/		//					
		]	40									
		]  _	30			/					++	
0.08	4	41	20									
		-	20									
			10		. – '						+	
		11										
		11	0	2, 2	· · · · · · · · · · · · · · · · · · ·	10	o o	0 10	0 40			
		]		0.2	0.63	_	<b>%</b>	10 12 5	20 25 25	50	75 100	150
						PART	ICLE SIZE (	(mm)				
Remarks:												
-												
Reviewed by	/:					P.Er	ng.					



PROJECT:	Meliadine	Dike	e Const	ruction	l	SAM	PLE NO:					SA35	<u>;                                    </u>	
						SAM	PLE DES	CRIPTI	ON:	Type	C - 20	mm		
						_	Sar	npled f	rom Day	shift S	tockp	ile		
ADDRESS:	Meliadine	Gol	d Proje	ct, NU.		_								
PROJECT NO:	E1410323	0-01	.023			MOIS	TURE C	ONT.:				8.0%	)	
DATE SAMPLE	D: Nov	26/16	<u> </u>	By: S	SH/IM	_								
CLIENT:	Agnico E	agle	Mines L	.td.		BUL	REL DE	NSITY:				n/a		
ATTENTION:	Mr. Duy N	lguye	en			BUL	REL. DI	ENSITY	(SSD):			n/a		
						APP	RENT R	EL. DEN	NSITY:			n/a		
						ABS	RPTION	:				n/a		
						-								
	ERCENT		100	ı	- 1	-				<u> </u>				
SIZE F	PASSING									/ <b>/</b> i				
			90 —						/	/ !				
			00						/ /	/ / /				
20	100		80						//	1				
12.5	87		70						///	1/				
12.0		1.						//		<i> </i>				
5	62	PERCENT PASSING	60											+
		AS	50 —				/		/					
		Ë	30						/					
0.63	31	SCE	40 —					/						
0.00			30				_/							+
80.0	6		20		//		/							
			20											
			10									_		
			-											
			0 —	01	Ŋ		10	10	ر د د	ر ا	10		10 0	
				0.2	0.315	0.63	1.25	7	~	12	25	20	100	150 200
							PAR	FICLE SIZ	ZE (mm)					
Remarks:														
	-													



			F	PARTICL	E SI	ZE A	NAL'	YSIS I	REPO	RT						
PROJECT:	Meliadin	e Dik	e Cor	nstruction		SA	MPLE	NO:					SAS	36		
						SA	MPLE	DESC	CRIPTI	ON:	Ту	oe C - 2	20 mm	ı		
								Sam	pled N	lovemb	er 29	N/S				
ADDRESS:	Meliadine	e Gol	d Pro	ject, NU.		_										
PROJECT N	O: <u>E141032</u> 3	30-01	.023			_ мс	DISTU	RE CO	NT.:				7.1	%		
DATE SAMP	LED: Nov	29/16	6	By: S	H/IM	_										
CLIENT:	Agnico E	agle	Mine	s Ltd.		BU	LK R	EL DEN	NSITY:				n/a	a		
ATTENTION:	Mr. Duy I	Nguy	en			BU	LK R	EL. DE	NSITY	(SSD):			n/a	a		
						AP	PARE	NT RE	L. DEN	ISITY:			n/a	a		
						_ AB	SORF	PTION:					n/a	a		
PARTICLE	PERCENT	П														$\neg$
SIZE	PASSING		100													1
0			90								/ /					
			00							/ /	/!					
			80							/	//					$\  \ $
20	100		70							///	i					
12.5	82		70						/		/					
5	50	NG NG	60						/					$\perp$		$\  \ $
		PERCENT PASSING	<b>5</b> 0					/		//						
			50				,	/		/						11
0.63	24	  CEI	40				_/_		//					$\perp$		$\  \ $
		H				_/	, '									
0.08	4		30					/								11
0.08	4		20				/									
				//			/									
			10	/												11
			0													
			Ů	0.2	0.315	0.63	L	ς, i	7.5	5 0	12.5	20 25	20	75	150	8
				3	0.:	Ö	•	_	CLE SIZ		<del>-</del>			~	~	.N
D										. ,						
Remarks:																—
Reviewed by	<i>r</i> :							P.En	ng.							

without the knowledge of Tetra Tech EBA.



			Р	ARTICI	LE SI	ZE AN	ALYSIS	REP	ORT					
PROJECT:	Meliadine	Dike	e Con	struction	n	SAM	PLE NO	•				SA37		
						SAM	PLE DE	SCRIPT	ION:	Туре	C - 20	mm		
						_	Sa	mpled	from Be	lt				
ADDRESS:	Meliadine	Gol	d Pro	ject, NU.		_								
PROJECT NO	O: <u>E1410323</u>	0-01	.023			MOIS	STURE C	ONT.:				14.3%	)	
DATE SAMPI	LED: Nov	30/16	<u> </u>	By:	SH/IM	_								
CLIENT:	Agnico E	agle	Mines	Ltd.		BUL	K REL D	ENSITY	<b>:</b>			n/a		
ATTENTION:	Mr. Duy N	lguye	en			BUL	K REL. [	ENSIT	(SSD):			n/a		
						-	ARENT F		NSITY:			n/a		
						ABS	ORPTIO	N:				n/a		
PARTICLE	PERCENT	1												
SIZE	PASSING		100							1				o
0			90							/ /				
			30						1	j				
			80							1 1				++11
20	98		70							i				
12.5	91		/0					//		/				
5	76	S <sub>N</sub>	60					//						+
		PERCENT PASSING	50					·						
			50						/					
0.63	43	3CE	40				/	/	• 1					+
		E						/						
0.08	6		30											
0.08	0		20		//		/							<u>Ш</u> I
				1/		/								
			10											+
			٥											
			-	0	0.315	0.63	.25	2.5	5 01	12.5	25	50	90	150
					0.	o.	~	RTICLE S		_			_	- 2
Damasil -									. ,					
Remarks:														
Reviewed by	,.						D	Eng.						

without the knowledge of Tetra Tech EBA.

			F	PARTICLE S	SIZE	ANAL	/SIS I	REPO	RT					
PROJECT:	Meliadine	Dik	e Cor	nstruction	;	SAMPLE	NO:				;	SA38		
					_ ;	SAMPLE	DESC	CRIPTIC	ON:	Туре	C - 20	mm		
							Sam	pled fr	om Belt					
ADDRESS:	Meliadine	Gol	d Pro	ject, NU.										
PROJECT N	O: <u>E1410323</u>	0-01	.023		ı	MOISTU	RE CO	NT. :			1	13.3%	1	
DATE SAMP	LED: Dec	02/16	5	By: SH/II	<u> </u>									
CLIENT:	Agnico E	agle	Mine	s Ltd.	'	BULK R	EL DEN	NSITY:				n/a		
ATTENTION:	Mr. Duy N	lguy	en			BULK RE						n/a		
					_	APPARE			SITY:			n/a		
					_ ′	ABSORF	TION:					n/a		
PARTICLE	PERCENT	Т												
SIZE	PASSING		100							/ /				o
			90						/	///				
										j				
			80						,	11		+		+
20	100		70						/	ļ <i>i</i>				
12.5	91		70					/		}'				
5	80	PERCENT PASSING	60					/		/				
		ASS	50				/		/					
		F	30				′		/					
0.63	48	RCE	40			//		/						
		H					/							
0.08	6		30		/		/							
0.00			20			/								
				1		. + _								
			10											
			0											
				0.2	5	0.63	, (	ري د	c 0t	20	25	50	100	150 200
					•	0 7	-	CLE SIZ		•				"
Remarks:														
. tomains.														
Reviewed by	/:						P.En	na.					_	



			Р	ARTICL	E SIZ	ZE A	NAL	/SIS I	REPC	RT							
PROJECT:	Meliadine	Dike	e Con	struction		SA	MPLE	NO:					;	SA39	)		
						SA	MPLE	DES	CRIPTI	ON:	T	/pe C	- 20	mm			
								Sam	pled f	rom Be	elt						_
ADDRESS:	Meliadine	Gol	d Pro	ject, NU.		•											
PROJECT NO	D: <u>E1410323</u>	0-01	.023			MC	ISTU	RE CO	NT.:		_		1	3.8%	ó		_
DATE SAMPI	LED: Dec	03/16	<u> </u>	By: IN	1/SH						_						_
CLIENT:	Agnico E	agle	Mines	Ltd.		BU	LK R	EL DEI	NSITY:		_			n/a			_
ATTENTION:	Mr. Duy N	lguy	en			BU	LK R	EL. DE	NSITY	(SSD)	: _			n/a			_
										NSITY:	_			n/a			_
						AB	SORF	TION:			_			n/a			_
PARTICLE	PERCENT	T															٦
SIZE	PASSING		100												$\overline{1}$		
0			90									/					
			00							//		$j \mid \cdot \mid$					
			80							/		/		+	++		
20	100		70							/	$   _{i}$						
12.5	94		70						/		\						
5	82	S <sub>N</sub>	60						/								
		PERCENT PASSING						/		/							
		ΑÞ	50					/		/							
0.63	57	CEI	40		$\mathcal{L}$		_/_		/								
		PEF				_/	, '	./									
0.00			30					/									
0.08	6		20	//			_/										
			10	/													
			0														
			Ü	0.2	0.315	0.63	ц	C !	2.5	2 2	12.5	20		20	100	150 200	
				0	0.8	0	7	_		ZE (mm)					<del>-</del>	← Q	
										()							ل
Remarks:	Sampled a	at 02:	00 (N	ight shift)													_
																	_
Reviewed by								P.Er									_

without the knowledge of Tetra Tech EBA.



		Dile		ICLE SIZ			REPORT	Γ		0.4	10	
PROJECT:	Meliadine	DIKE	Construc	tion	SAMPLE		DIDTION	ı	T 0	SA4		
					SAMPLE		RIPTION		Type C -	20 mm	1	
4555500						Sam	pled from	1 Beit				
ADDRESS:			d Project, I	NU.	MOIOTII	DE 001						
	O: <u>E1410323</u>				MOISTU	RE COI	NI.:			14.4	<u>-%</u>	
DATE SAMP	-			r: IM								
CLIENT:			Mines Ltd.		BULK R					n/a		
ATTENTION:	Mr. Duy N	guye	en				NSITY (SS	-		n/a		
							L. DENSI	TY:		n/a		
					ABSORF	TION:				n/a	ì	
PARTICLE	PERCENT											$\overline{}$
SIZE	PASSING		100									$\neg \Box$
0.22	7,00,110		90						/			
			90					/	i			
			80					$^{\prime}+$	1			
20	100						//		i			
12.5	97		70						/			
		ō	60		/		/	/	1			
5	95	PERCENT PASSING				/		/				
		l PA	50	$-\!$		/						-
0.63	77	ËN			/							
0.03	,,	ER(	40		/		/					
		"	30		/							
0.08	6			<b>/</b>		/						
			20								_	
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			10	.——								
			。 <u> </u>									
			-	0.2	0.63	57: 57:		10 12 5	20 22	20	75	150
				0.8	· ·	_	` CLE SIZE (n		<u>-</u>		~	- 0
Remarks:	Sampled a	at 03:	00 (Night s	hift)								
Reviewed by	<i>,</i> .					P Fn	a					

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				PARTICLE S			KEPU	KI				
PROJECT:	Meliadine	Dike	e Con	struction		PLE NO:				SA		
					_ SAN	IPLE DES				- 20 mn	n	
						Sar	mpled fr	om stoc	kpile			
ADDRESS:	Meliadine			ject, NU.	_							
	O: <u>E1410323</u>				MOI	STURE CO	ONT.:			6.7	'%	
DATE SAMP				By: SH								
CLIENT:	Agnico E			s Ltd.		K REL DE				n/		
ATTENTION	: Mr. Duy N	lguye	en			K REL. DI		-		n/		
						ARENT R		ISITY:		n/		
	-				_ ABS	ORPTION	l:			n/	a	
PARTICLE	PERCENT	$\overline{}$										
SIZE	PASSING		100									<del></del> 1
SIZL	1 Additio		00					/	<i>'</i>			
			90					!/	1			
			80					///	/			
20	100							//	$\parallel$ / $\parallel$			
12.5	92		70				./		/			
		ပ္	60					ļ.,	/			
5	69	PERCENT PASSING	60			,	//	/				
		- PA	50					/				
0.63	31						/	/				
0.63	31	ERC	40				//					
		-	30		_//							
0.08	5		30			//						
	-		20			/						
					/							
			10	/								
			0									
			-	0.2	0.63	1.25	2.5	2 10	2.5	20	75 100	150
				5	0		TICLE SIZ		<del>-</del>		~	- 2
								`,				
Remarks:	Sampled	at 02:	:00 (N	light shift)								
Reviewed by	<i>j</i> -					P.E	na					

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PROJECT:	Meliadine	Dike	e Constructio	n	SAMPLE	NO.			SA43	
	Wichadine	DIK	, constructio	<u> </u>		DESCR	IPTION:	Type C	- 20 mm	
					OAMI EL		ed from u/s			
ADDRESS:	Moliodino	Cal	d Drainat NII			Sampi	eu mom u/s	туре С п	116t ~0+200	@ D-CF3
PROJECT NO:			d Project, NU	<u> </u>	MOISTI	RE CON	<b>.</b>		11.5%	
				18/18/	WOISTO	RE CON	1.:		11.5%	
DATE SAMPLED				ww						
CLIENT:			Mines Ltd.			EL DENS			n/a	
ATTENTION:	Mr. Duy N	guye	en				SITY (SSD):		n/a	
							DENSITY:		n/a	
					ABSOR	PTION:			n/a	
DARTIOLE D	EDOENT	_								
	ERCENT ASSING		100					/ /		
SIZE P	ASSING							'   <b>/</b> !		
			90				/	/ /		
			80					$\downarrow i \downarrow \downarrow$		
20	100									
12.5	88		70				/			
		(7)					/	,∤		
5	73	PERCENT PASSING	60							
		AS	50			/	/			
1.25	63	Ę				/	/			
0.63	48	RCE	40				/			
0.315	48	PE			/					
0.2	48		30	/		/				
0.08	15		20							
			20 / _/ `							
			10		. –					
			0		~		10 0	0 0 10		
			C	0.2 0.315	0.63	1.25	5 10	12.5 20 25 25	50	100 150 200
				0		PARTICL	.E SIZE (mm)			
Remarks:	Sampled for	rom i	u/s Type C fille	et ~0+28	80 @ D-CP	 5				
itelliains.	Jampied II	JIII (	ars rype o ille	U⊤∠U	0 @ D-OF					
•										



			P	ARTICLE	SIZE A	NALYS	SIS RE	PORT				
PROJECT:	Meliadine	Dike	e Con	struction	SA	MPLE N	<b>O</b> :			SA	44	
					SA	MPLE C	DESCR	PTION:	20 mm	minus	(Type C	Mat.)
	<u></u>					_			Sampl	ed from	belt	
ADDRESS:	Meliadine	Gol	d Pro	ject, NU.								
PROJECT N	O: <u>E1410323</u>	0-01			МС	ISTURE	CONT	<b>.</b> :		8.5	5%	
DATE SAMP	LED: Apr 2	29/17		By: TW								
CLIENT:	Agnico E	agle	Mines	s Ltd.	BU	LK REL	DENSI	TY:		n/	'a	
ATTENTION	: Mr. Duy N	lguye	en		BU	LK REL	. DENS	ITY (SSD):		n/	'a	
					AP	PARENT	ΓREL.	DENSITY:		n/	'a	
					AB	SORPTI	ON:			n/	'a	
	ı .	_										
PARTICLE			100									<u> </u>
SIZE	PASSING								/ /i			
			90					/	//			
			80					/	/ i			
20	100							1/	/   /			
12.5	86		70						<u> </u>			
10	76	l o						/ /	/			
5	61	PERCENT PASSING	60					/				
2	49	PAS	50				//	/				
								, '				
0.63	36	ERC	40									
		=	20				/					
0.08	7		30									
	-		20			/						
				///	/							
			10									
			ا ٥									
			Ū	0.2	0.315	.25	2.5	5 10	12.5 20 26	20	75 100	150
				S	0.	_		E SIZE (mm)	<del>-</del>		~	- 2
								. 7				
Remarks:	20 mm mi	nus p	articl	e size distribu	ution limit	s shown						
Reviewed by	<i>j</i> .					I	P.Ena.					

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			P	ARTICLI	E SIZ	E ANAL	YSIS	REPC	ORT					
PROJECT:	Meliadine	Dike	e Con	struction		SAMPL						SA4		
						SAMPL	E DES	CRIPT	ION:	<b>20</b> n	nm miı	nus (T	ype C	Mat.)
										San	pled f	rom b	elt	
ADDRESS:	Meliadine	Gol	d Proj	ject, NU.										
PROJECT N	O: <u>E1410323</u>	0-01				MOIST	URE CC	NT.:				7.8%	)	
DATE SAMP	LED: Apr 2	29/17		By: IN	<u> </u>									
CLIENT:	Agnico E	agle	Mines	Ltd.		BULK F	REL DE	NSITY:	:			n/a		
ATTENTION:	: Mr. Duy N	lguy	en			BULK F	REL. DE	NSITY	(SSD):			n/a		
					_	APPAR	ENT RE	EL. DEI	NSITY:			n/a		
						ABSOR	RPTION:	:				n/a		
PARTICLE	PERCENT		100 г			1				,	4			
SIZE	PASSING									/ /	<i>"</i>			
			90							//				
									/	/ i				
20	100		80						//	1,				
12.5	87		70						//	_/				
10	81	_								1				
5	64	PERCENT PASSING	60											
2	52	AS	50						/					
		Ę	50						/					
0.63	41	RCE	40					//						
		F						/						
			30				//							
80.0	7		20			/								
			20			_//								
			10	//										
			F											
			0 L	01	ις		Ю	10	٠ 0	ر ک	) N	0	10 C	
				0.2	0.315	0.63	~	2.5	~	12.	70 72 72	20	100	150 200
							PART	ICLE SI	ZE (mm)					
Remarks:	20 mm mi	nus r	oarticle	e size distri	ibution	limits sh	own							
Reviewed by	<u></u>						P.Eı	na.						

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			F	PARTIC	CLE S	SIZE	ANAL	YSIS	REPC	RT					
PROJECT:	Meliadine	Dike	e Cor	structi	on	S	AMPLE	E NO:					SA4	7	
						s	AMPLE	E DES	CRIPTI	ON:	20 m	m mir	nus (T	ype (	C Mat.)
											Sam	pled fi	om b	elt	
ADDRESS:	Meliadine	Gol	d Pro	ject, N	U.										
PROJECT N	O: E1410323	0-01				N	IOISTU	RE CC	ONT.:				10.99	%	
DATE SAMP	LED: Apr	30/17		Ву:	IM										
CLIENT:	Agnico E	agle	Mine	s Ltd.		B	ULK R	EL DE	NSITY:				n/a		
ATTENTION:	Mr. Duy N	lguye	en			B	ULK R	EL. DE	NSITY	(SSD):			n/a		
							PPARE	NT RE	EL. DEN	NSITY:			n/a		
							BSOR	PTION	•				n/a		
	DEDOENT	_													
PARTICLE SIZE	PERCENT PASSING		100								/ /			$\overline{\top}$	
SIZE	PASSING										'				
			90							/	1/i				
			80							//	//				
20	100									/	<b>/</b>   /				
12.5	80		70						,	/	1			+++	
10	66	g	00						//		/				
5	50	NISS	60					,		//					
2	42	PA.	50					/		//				++	
0.63	31	PERCENT PASSING					/			./					
0.63	31	ERC	40				//		/					+++	
		-	30			1		/							
0.08	5		50		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			/							
			20				//							++	
				//											
			10	/											
			0												
					0.2	<u>0</u>	0.63	.25	2.5	10	2.5	25	20	75	150 200
						j.	0	~	ICLE SIZ		<del>-</del>			<b>,</b>	` ' ' '
D							at at a t		n. e	Park 1					
Remarks:							rticle siz			limits sh	own				
				<u> </u>	ampie	u on iv	igni on	nt at UZ	00						
Reviewed by	r							P F	na						

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PROJECT:	Meliadin	e Dike	e Cor	struction	SAMPLE	E NO:			SA4	6	
					SAMPLE	DESCRI	PTION:	20 mm	minus (T	ype C I	Mat.)
					_			Sample	ed from b	elt	
ADDRESS:	Meliadin	e Gol	d Pro	ject, NU.	_	•					
PROJECT N	O: E141032	30-01			MOISTU	RE CONT.	:		12.69	<b>%</b>	
DATE SAMP	LED: May	01/17	,	By: TW	_						
CLIENT:	Agnico E	agle	Mine	s Ltd.	BULK REL DENSITY: BULK REL. DENSITY (SSD):				n/a		
ATTENTION:	Mr. Duy I	Nguy	en					n/a			
					APPARE	ENT REL. D	ENSITY:		n/a		
					ABSORI	PTION:			n/a		
PARTICLE	PERCENT PASSING		100								$\neg \neg$
SIZE	PASSING						١,	/			
			90				/	/ /			$\Box$
			80				//	1		$\perp \perp$	
20	100							$\parallel i' \parallel \parallel$			
12.5	90		70					/		+	+
10	84	<u>ა</u>	60				.	/			
5	71	SSIN	60				/				
2	62	PERCENT PASSING	50			/	/_				
0.63	49				/ /						
0.03	43	ERC	40								
		"	30		/	//					
0.08	7										
			20							_	+
			40								
			10								
			0								Ш ∣
				0.2	0.63	1.25	5 01	20 25	50	75	150 200
				Ö	S		SIZE (mm)	•		•	`
Damari	20		ادائست	a alma allatulla. Ca	باج جانمسال من						
Remarks:				e size distributio er than the maxi			of 10% spo	ocified			
THO IIIOISIUI E	COINCIN OF 12.	U /U IS	riigiil	a alan ale maxi	mani moisil	aro contont	<u>σι το /υ σρο</u>	onica.			

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			F	PARTICLE SIZ	ZE ANAL	YSIS RE	PORT			
PROJECT:	Meliadine	Dike	e Con	nstruction	SAMPLE	NO: DESCRII	PTION.	20 mm n	SA49 ninus (Type C	Mat )
	-				- SAIVIFLE	: DESCRII	PTION.		I from belt	<u>Mat.</u> j
ADDRESS:	Meliadine	- Gol	d Dro	viact NII	-			Sampled	Hom ben	
PROJECT NO				jeci, No.	- MOISTU	RE CONT.			5.6%	
DATE SAMP				By: TW	_ 11101010	NE 0011	•		J.0 /0	
CLIENT:	Agnico E				- BULK R	EL DENSIT	<b>ΓV</b> ·		n/a	
ATTENTION:				<u>s Etu.</u>	_	EL. DENSI			n/a	
A	· · · · · · · · · · · · · · · · · · ·	<u>'9~, '</u>	<del></del>		_	NT REL. D	-		n/a	
	-				ABSORF		)LITO	-	n/a	
PARTICLE	PERCENT		100							
SIZE	PASSING							·/ //		
			90					//		+
	ı		90					/ /		
20	100	80				//	1,			
12.5	87		70				//	/  -		$\perp \parallel \parallel$
10	79	(5						/		
5	63	SINC	60							+
2	50	PAS	50			//	//			
		PERCENT PASSING					/			
0.63	38	ERCI	40			<u> </u>	/			+
	1	<b>a</b>	20			/				
0.08	9		30			/				
0.00			20			1				+
					/					
			10							
			0							
				0.2	0.63	2.5	5 10	2.5 20 25	50 75 100	150
				- o	0 .	~	SIZE (mm)	<del>-</del>	`	
	22		C.I	P. (2) (2.	P 20 - 10 -					
Remarks:	20 mm mi	nus p	artici	le size distributio	n limits sho	wn				
Reviewed by						P Eng				

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PROJECT:		Dike	Construction		SAMPL	E NO:				ç	SA50		
					SAMPL		CRIPT	ION:	20 mn	n minu			Mat )
					<b>O</b> 7					led fro			<u></u> ,
ADDRESS:	Meliadine (	Gold	d Project, NU.						- Cump	<u></u>			
PROJECT NO:			a i rojeci, iic.		MOISTU	IRF CC	NT ·				2.4%		
DATE SAMPLEI			By: TW		WOIOT C				-		-1-70		
CLIENT:	Agnico Ea				BULK R	EI DE	NCITV:	i			n/a		
ATTENTION:	Mr. Duy No				BULK R						n/a		
ATTENTION.	Wir. Duy Ng	juye	<del>;</del> 11		APPARI								
					ABSOR			NSII Y:			n/a n/a		
					ABSUR	PHON	•				II/a		
PARTICLE P	ERCENT												
SIZE P	ASSING		100						/ /				$\Box$
			90					/	///				
								/	/ !				
			80					//					
20	100							///	j				
12.5	90		70						-/				
10	82	9	60				/		/				
5	60	PERCENT PASSING											
2	41	ГРА	50			/		//					
0.63	23	Ä			· /·			./					
0.03	23	ERC	40		/		//						
		Δ.	30		/	//							
0.08	8			/		/							
			20		//								+
					-								
			10										
			المسلم										
			0.2	0.315	0.63	1.25	2.5	10	2.5	25	20	100	150 200
			0	0.3	0.		N ICLE SI		7			Ť	- Z
						· AIN	.522 012	()					
Remarks:	20 mm min	us p	article size distrib	ution	limits sho	wn							

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			F	PARTICLE SIZ	ZE ANAL	YSIS R	EPORT			
PROJECT:	Meliadine	∍ Dik	e Cor	nstruction	SAMPLE	E NO:			SA51	
					SAMPLE	E DESCI	RIPTION:	20 mm m	ninus (Type C I	Mat.)
					_ _			Sampled	from belt	
ADDRESS:	Meliadine	∍ Gol	d Pro	ject, NU.						
PROJECT N	O: E1410323	30-01			MOISTU	RE CON	IT. :		14.1%	
DATE SAMP	LED: May	10/17	7	By: TW	_					
CLIENT:	Agnico E				BULK REL DENSITY:			n/a		
ATTENTION:					BULK REL. DENSITY (SSD):				n/a	
					_		DENSITY:		n/a	
					- ABSORF	PTION:			n/a	
PARTICLE	PERCENT		100			<del></del>		1 1		<u> </u>
SIZE	PASSING							' /i		
			90					<del>/                                    </del>		+HI
			80					/		
20	100		80				//	//		
12.5	93		70				/	/  -		+
10	87	()						/		
5	78	SINC	60							+
2	73	PAS	50			//	//			
		PERCENT PASSING			'   ,	/	//			
0.63	63	RCE	40			+	/			+
0.08	8		30			//				
0.00	0		20			1				$\perp \parallel \parallel$
					/					
			10							
				-						
			0	0.2		2.5	5 10	2.5 20 25	50 75 100	150
				0.2	0.63	~		7	7 7 2	15
						PARTIC	LE SIZE (mm)			
Remarks:	20 mm m	inus ŗ	particl	le size distributio	on limits sho	wn				
Reviewed by	<i>r</i> :					P.Ena	1.			

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PROJECT:	Meliadine	e Dik				ZE ANAI	E NO:				SAS		
						SAMPL	E DES	CRIPT	ION:	20 mm	minus (	Туре С	Mat.)
						-							
ADDRESS:	Meliadine			ect, NU.	1							.,	
	O: <u>E1410323</u>					MOIST	URE CO	ONT.:			1.4	%	
DATE SAMP				By:	<u>IM</u>	-				-			
CLIENT:	Agnico E	agle	Mines	Ltd.		BULK	REL DE	NSITY	:		n/a	3	
ATTENTION:	Mr. Duy N	lguy	en			BULK	REL. DE	ENSITY	' (SSD):		n/a	3	
						APPAR	ENT R	EL. DE	NSITY:		n/a	3	
						ABSOF	RPTION	:			n/a	<b>a</b>	
PARTICLE	PERCENT		100 <b>г</b>							/ /			-
SIZE	PASSING								],	/			
			90						/	///			+
			80						//	/ i			
20	100		80						/	/   /			
12.5	85		70						/ /				
10	73							/	/	/			
5	43	PERCENT PASSING	60					,	1//				-
2	24	AS	50				/						
		Ę	50				/						
0.63	14	RCE	40			/		1					
		F						///					
			30				//						
80.0	5		20										
			20	/		. //							
			10										
			<sub>0</sub> L		. 10		10	10	10 0	10 0 12		10 0	
				0	0.315	0.63	1.25	2.5	10	12.5 20 25 25	50	75 100	150
					J		PART	TICLE SI	ZE (mm)				
Remarks:	20 mm mi	nus r	narticle	size die	tributio	n limits sh	own						
Romai Ro.	Sampled f						O 4411						
	Note - Pro												
Reviewed by				<u>-</u>	<b>•</b>		P.E	na.					

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			PARTICI E SI	ZE ANALYSIS REPORT			
PROJECT:	Meliadine	Dike C	Construction	SAMPLE NO:	SA53		
				SAMPLE DESCRIPTION:	20 mm minus (Type C Mat.)		
ADDRESS:	_		Project, NU.	MOISTURE CONT.	2.40/		
PROJECT NO: DATE SAMPLE			By: IM	MOISTURE CONT. :	2.1%		
CLIENT:	Agnico Ea			BULK REL DENSITY:	n/a		
ATTENTION:	Mr. Duy N			BULK REL. DENSITY (SSD):	n/a n/a		
		<u>J., j.</u>		APPARENT REL. DENSITY:			
				ABSORPTION:	n/a		
DARTIO E L	EDOENT						
	PERCENT   PASSING	10	0				
OIZE .	7.00	9	0				
				/	V		
		8	0	<del>                                     </del>			
20 12.5	100 92	7	0	//	<u> </u>		
10	82				}'		
5	59		0				
2	37	PERCENT PASSING	0				
0.63	20	Ä					
0.63	20	ERC 4	0				
		ı —	0				
0.08	6						
		2	0				
		1	0				
			2 5	2.5 - 2.5 - 5 - 5	2.5 20 25 25 50 00 60		
			0.2	0.63 PARTICLE SIZE (mm)	12.5 20 25 50 75 100 150 200		
Remarks:			ticle size distributio	n limits shown			
	Sampled f		during dayshift				
Reviewed by:	NOIG - PIC	<del>Juuceu</del>	during daystill	P.Eng.			

		P	ARTICI E SIZ	ZE ANALYSIS	REPORT			
PROJECT:	Meliadine	e Dike Con		SAMPLE NO:	itel oiti	S	A54	
				SAMPLE DES	CRIPTION:	20 mm minus	s (Type C Mat.)	
ADDRESS:		Gold Proj	ect, NU.		. N. <del>-</del>			
PROJECT NO			D. IM	MOISTURE CO	ONI.:	2	2.1%	
DATE SAMPI CLIENT:		<u>16/17</u> agle Mines	By: IM	BULK REL DE	NCITV.			
ATTENTION:		_	Ltu.	BULK REL. DE		n/a n/a n/a		
ATTENTION.	Wil. Duy I	<del>iguye</del> ii	_	APPARENT RE	, ,			
	-			ABSORPTION:			n/a n/a	
			_			,		
PARTICLE	PERCENT	100 -						
SIZE	PASSING				],	<i>'</i>		
		90				/ /		
		80			//	<i>i</i>		
20	100							
12.5	94	70				<del> </del>		
10	88	<b>9</b> 60				/		
5 2	70 47	PERCENT PASSING 00			. / /			
2	41	50			//			
0.63	26	CEN 40		//				
		PER						
		30						
0.08	8	20						
		20						
		10						
		0						
			0.2	0.63	2.5	2.5 20 25	50 75 100 150 200	
			0.6	0 -	ICLE SIZE (mm)	←	a	
	00		-1 - P. (9 - 2)		. ,			
Remarks:			size distribution	n limits shown				
-		from Stockp oduced du	ள <u>e</u> ring dayshift					
Reviewed by		244004 44	y aayoiiiit	P.Er	na			



		F	PARTICLE SIZ	ZE ANALYSIS	REPORT		
PROJECT:	Meliadine	e Dike Cor	struction	SAMPLE NO:	:		SA55
				SAMPLE DE	SCRIPTION:	20 mm mini	us (Type C Mat.)
ADDRESS:	Meliadine	e Gold Pro	viact NII				
PROJECT NO			gect, NO.	MOISTURE C	ONT .		2.7%
DATE SAMPI			Dv. IM	WOISTORE	JONT		2.1 /0
CLIENT:		18/17	By: IM	BULK REL D	ENGITY.		n/a
		agle Mine	S Ltu.		_	-	
ATTENTION:	Mr. Duy N	nguyen		•	ENSITY (SSD):		n/a
				•	REL. DENSITY:		n/a
				ABSORPTIO	N:		n/a
PARTICLE	PERCENT						
SIZE	PASSING	100				/ /	
		90				/	
						<b> /</b>	
		80			<del>                                     </del>	///	
20	100				/	<b>/</b>   <i>i</i>	
12.5	82	70			//	/	
10	71	<b>9</b> 60				/	
5 2	49 35	SSII			./		
2	33	PERCENT PASSING					
0.63	22						
5.55		40 40					
		30					
0.08	8						
		20					
		10					
		0					
			0.2	0.63	2.5	20 20 25	50 75 100 150 200
			ó	0 +	RTICLE SIZE (mm)	`	
Damas' -	00			a Basita al			
Remarks:			e size distribution	n iimits shown			
		from Stock					
		oduced at	uring nightshift				
Reviewed by	:			P.1	Eng.		

Reviewed by:



			P	ARTICLI	= 517	Έ ΔΝΔΙ	VSIS	REPOR	т				
PROJECT:	Meliadine	e Dik				SAMPL	E NO:	CRIPTIO		20 mm		\56 (Type (	C Mat.)
ADDRESS:	Meliadine 0: E1410323			ject, NU.		MOIST	JRE CO	NT. :			2.8	8%	
DATE SAMP	LED: <u>May</u>	19/1	7	By: IN									
CLIENT:	Agnico E	agle	Mines	Ltd.		BULK F	REL DEI	NSITY:			n	/a	
ATTENTION	Mr. Duy N	lguy	en			BULK F	REL. DE	NSITY (S	SSD):		n	/a	
						APPAR	ENT RE	L. DENS	ITY:		n	/a	
						ABSOR	PTION:				n	/a	
DADTIOL E	DEDOENT	_											
PARTICLE SIZE	PERCENT PASSING		<sup>100</sup> [							/ /		-	
SIZE	PASSING								/				
			90							1/1			
			80						_/_	<i>∐i</i>			
20	100								/	<b>//</b> /			
12.5	71		70		_					<i>  </i> ;			
10	58	ی						//		<u>'</u>			
5	36	NS.	60				/		//				
2	26	PAS	50				//		//			$\perp$	
		PERCENT PASSING					/	_/′	/				
0.63	18	RCE	40		_			///					
		=	20				/						
0.08	5		30		/		///						
0.00			20									$\perp$	
				/									
			10										
			o										
			0 -	0.2	15	93	.25	2.5	10	2.5 20 25	50	75	150
				0	0.315	0.63	_	∾ ICLE SIZE	,	_	~	., 5	7 7
							FARI	IOLE SIZE	(11111)				
Remarks:				e size distri	butior	n limits she	own						
	Sampled												
	Note - Pro	oduc	ed du	ring daysl	nift								
Reviewed by	<i>r</i> :						P.Er	ng.					



PROJECT:  ADDRESS: PROJECT NO DATE SAMPI CLIENT: ATTENTION:	Meliadine D: E1410323 LED: May Agnico E	e Dike Construction e Gold Project, NU. 30-01 20/17 By: IN	MOISTURE CONT. : 20 mm minus (T	ype C Mat.)
			APPARENT REL. DENSITY: n/a ABSORPTION: n/a	
PARTICLE	PERCENT	100		
SIZE	PASSING	100		
		90		
		80		
20	100		$  \cdot   \cdot   \cdot   \cdot   \cdot   \cdot   \cdot   \cdot   \cdot   \cdot$	
12.5	78	70		
10	65	<b>9</b> 60	/ //	
5	43	PERCENT PASSING  00  00		
2	29	50		
0.63	18			
0.03	10	04 ERC		
		30		
0.08	5			
		20		
		10		
		0.2	0.315 0.63 1.25 10 12.5 20 20 25 25	75 100 150 200
			PARTICLE SIZE (mm)	T T 7
		l [		
Remarks:		inus particle size distr	ribution limits shown	
-		from Stockpile		
	Note - Pr	oduced during days	hift	
Reviewed by	<b>':</b>		P.Eng.	



MOISTURE-DENSITY RELATIONSHIP (Proctor) REPORT									
### T	ASTM D698 (Standard Pro	ctor)							
Project:	Meliadine Gold Project	Sample No.:	Type C, Sa	imple No 1					
Project No.:	E14103230-01.023	Sampled By:	Dike QC To	eam					
Client:	Agnico Eagle Mines Ltd	Date Received:	7-Mar-17						
Attention:		Test Date:	9-Mar-17						
E-mail:		Test By:	MA						
Source:	Meliadine Project, Dike Construction	Test Method:	С	(Manual)					
Sample Loca	ation: Type C Stockpile								
Sample Des	cription: SAND, some gravel, trace silt, brown								
2300 2300 2100 2100 1900 1500 1400 1300 0	Optimum As Receiv	Dry Density: Moisture Content: ved Moisture Content: (19 mm Retained):  Zero Air Voids Gs: 2.70	2138 7.4 3.0 0	5 kg/m³ % % %					
Remarks:									
	Reviewed	Ву:А	5	P.Eng.					



	MOISTURE-DENSITY RELATION	SHIP (Proctor) REPORT			-
	ASTM D698 (Standa	rd Proctor)			
Project:	Meliadine Gold Project	Sample No.:	Type C	C, Sam	ple No 2
Project No.:	E14103230-01.023	Sampled By:	Dike Q	C Tea	m
Client:	Agnico Eagle Mines Ltd	Date Received:	7-Mar-	17	
Attention:		Test Date:	9-Mar-	17	
E-mail:		Test By:	MA		
Source:	Meliadine Project, Dike Construction	Test Method:	C	(1	Manual)
Sample Loca	tion: Type C Stockpile				
Sample Desc	cription: SAND, some gravel, trace silt, brown	1			
2300 2200 2100 2000 1800 1500 1500 1300 0	Opti As 8 Ove	Zero Air Voids Gs: 2.70		<b>2085 8.1</b> 2.1 0	kg/m³ % %
	Moisture Content (%	o)			
Remarks:		(Ca.1) 12.17			
	Revie	ewed By:	5		P.Eng.



#### MOISTURE-DENSITY RELATIONSHIP (Proctor) REPORT ASTM D698 Standard Project: Meliadine Dike Construction Sample No.: **SA01** TW Client: Agnico Eagle Sampled By: Sample Date: October 23, 2016 Attention: Project No.: E14103230-01 Test Date: October 23, 2016 Description: 20mm minus Preparation: Moist Source: On-Site Stockpile Compaction: Manual 2400 2300 Maximum Dry Density: 2220 kg/m<sup>3</sup> 2200 **Optimum Moisture Content:** 8.5 % As Received Moisture Content: 5.0 % 2100 Oversize (+20 mm) Retained: % Corrected Density: % 2000 Dry Density (kg/m³) Corrected Moisture: 8.5 % 1900 1700 Zero Air Voids Gs: 2.80 1600 1500 1400 1300 10 **Moisture Content (%)** Remarks: Reviewed By: -- C.E.T.



#### MOISTURE-DENSITY RELATIONSHIP (Proctor) REPORT ASTM D698 Standard Project: Meliadine Dike Construction Sample No.: **SA02** Client: Agnico Eagle Sampled By: TW Sample Date: Attention: Duy Nguyen November 8, 2016 Project No.: E14103230-01 Test Date: November 8, 2016 Description: Type C (20mm agg.) Preparation: Moist Source: Compaction: Crusher Manual 2400 2300 Maximum Dry Density: 2080 kg/m<sup>3</sup> 2200 **Optimum Moisture Content:** 12.5 % As Received Moisture Content: % 2100 Oversize (+ mm) Retained: % Corrected Density: 2080 % 2000 Dry Density (kg/m³) 12.5 Corrected Moisture: % 1900 1700 Zero Air Voids Gs: 2.80 1600 1500 1400 1300 10 **Moisture Content (%)** Remarks: Reviewed By: -- C.E.T.



#### **MOISTURE-DENSITY RELATIONSHIP (Proctor) REPORT** ASTM D698 Standard Meliadine Dike Construction **SA03** Project: Sample No.: Client: Sampled By: Agnico Eagle IM Attention: Sample Date: November 30, 2016 Duy Nguyen Project No.: E14103230-01.023 Test Date: November 30, 2016 Preparation: Description: Type C (20 mm agg.) Moist Source: Compaction: Crusher Manual 2400 2300 Maximum Dry Density: 2040 kg/m<sup>3</sup> 2200 **Optimum Moisture Content:** 11.0 % As Received Moisture Content: 14.3 % 2100 Oversize (+ mm) Retained: % Corrected Density: % 2000 Dry Density (kg/m3) Corrected Moisture: 11.0 % 1900 1800 1700 Zero Air Voids 1600 Gs: 2.70 1500 1400 1300 15 **Moisture Content (%)** Remarks: Same material used for Sieve Sample SA37 Reviewed By: -- C.E.T.



#### **MOISTURE-DENSITY RELATIONSHIP (Proctor) REPORT** ASTM D698 Standard Project: Meliadine Dike Construction Sample No.: **SA04** Client: Agnico Eagle Sampled By: $\mathsf{TW}$ Attention: Sample Date: March 29, 2017 Duy Nguyen Project No.: E14103230-01 Test Date: March 29, 2017 Description: Type C (20mm agg.) Preparation: Moist Source: Stockpile Compaction: Manual 2400 2300 Maximum Dry Density: 2250 kg/m³ 2200 Optimum Moisture Content: 8.5 % As Received Moisture Content: % 2100 Oversize (+ mm) Retained: % Corrected Density: 2080 % 2000 Dry Density (kg/m³) 8.5 Corrected Moisture: % 1900 1800 1700 Zero Air Voids 1600 Gs: 2.70 1500 1400 1300 10 **Moisture Content (%)** Remarks: Reviewed By: C.E.T.



#### MOISTURE-DENSITY RELATIONSHIP (Proctor) REPORT ASTM D698 Standard SA07 Project: Meliadine Dike Construction Sample No.: Client: Agnico Eagle Sampled By: TW Sample Date: Attention: Duy Nguyen May 1, 2017 Project No.: E14103230-01 Task 023 Test Date: May 1, 2017 Description: Type C (20mm minus) Preparation: Moist Source: Type C Stockpile Compaction: Manual 2400 2300 Maximum Dry Density: 2150 kg/m<sup>3</sup> 2200 **Optimum Moisture Content:** 8.0 % As Received Moisture Content: 12.7 % 2100 Oversize (+ mm) Retained: % Corrected Density: % 2000 Dry Density (kg/m³) Corrected Moisture: % 1900 Zero Air Voids 1600 Gs: 2.70 1500 1400 1300 10 30 **Moisture Content (%)** Remarks: Reviewed By: -- C.E.T.



ample No.	Date Tested	Moisture Content (%)	Sample Source
SA01	22-Oct-16	9.3	sampled from belt
SA02	22-Oct-16	7.1	sampled from belt
SA03	22-Oct-16	5.4	sampled from belt
SA04	22-Oct-16	8.7	sampled from belt
SA05	22-Oct-16	6.0	sampled from belt
SA06	24-Oct-16	5.5	sampled from belt
SA07	24-Oct-16	6.3	sampled from belt
SA08	25-Oct-16	5.0	sampled from belt
SA09	26-Oct-16	8.4	sampled from belt
SA10	27-Oct-16	7.1	sampled from belt
SA11	29-Oct-16	6.1	sampled from belt
SA12	1-Nov-16	7.6	sampled from belt
SA13	2-Nov-16	11.0	sampled from belt
SA14	3-Nov-16	5.3	sampled from belt
SA15	5-Nov-16	4.2	sampled from belt
SA16	6-Nov-16	4.9	sampled from belt
SA17	7-Nov-16	8.0	sampled from belt
SA18	8-Nov-16	4.5	sampled from belt
SA19	9-Nov-16	9.4	sampled from belt
SA20	10-Nov-16	9.4	sampled from belt
SA21	12-Nov-16	10.0	sampled from belt
SA22	13-Nov-16	9.9	sampled from belt
SA23	14-Nov-16	5.1	sampled from belt
SA24	17-Nov-16	8.2	sampled from belt
SA25	17-Nov-16	12.4	sampled from stockpile
SA26	17-Nov-16	11.5	sampled from stockpile
SA27	19-Nov-16	11.2	sampled from stockpile
SA28	19-Nov-16	9.2	sampled from stockpile
SA29	19-Nov-16	11.9	sampled from belt
SA30	21-Nov-16	11.1	sampled from belt
SA31	23-Nov-16	4.5	sampled from belt
SA32	23-Nov-16	10.3	sampled from belt
SA33	26-Nov-16	7.5	sampled from stockpile
SA34	26-Nov-16	6.7	sampled from belt
SA35	26-Nov-16	8.0	sampled from stockpile
SA36	29-Nov-16	7.1	sampled from belt
SA37	30-Nov-16	14.3	sampled from belt
SA38	2-Dec-16	13.3	sampled from belt
SA39	3-Dec-16	13.8	sampled from belt
SA40	5-Dec-16	14.4	sampled from belt
SA41	11-Mar-17	6.7	sampled from stockpile
SA42	12-Mar-17	8.2	sampled from belt
SA43	18-Apr-17	11.5	sampled from spread
SA44	29-Apr-17	8.5	sampled from belt
SA45	29-Apr-17	7.8	sampled from belt
SA46	30-Apr-17	6.9	sampled from belt
SA47	30-Apr-17	10.9	sampled from belt
SA48	1-May-17	12.6	sampled from belt
SA49	1-May-17	5.6	sampled from belt

SA50	9-May-17	2.4	sampled from belt
SA51	10-May-17	14.1	sampled from belt
SA52	14-May-17	1.4	sampled from belt
SA53	15-May-17	2.1	sampled from stockpile
SP1	16-Jan-17	15.3	Sampled from stockpile at Mix Pit
SP2	16-Jan-17	15.5	Sampled from stockpile at Mix Pit
SP3	16-Jan-17	8.4	Sampled from North Crusher Stockpile
SP4	16-Jan-17	5.6	Sampled from North Crusher Stockpile
SP5	16-Jan-17	4.2	Sampled from North Crusher Stockpile
SP6	16-Jan-17	6.4	Sampled from North Crusher Stockpile
SP7	16-Jan-17	5.7	Sampled from North Crusher Stockpile
SP8	16-Jan-17	5.3	Sampled from North Crusher Stockpile
SP9	16-Jan-17	16.3	Sampled from Middle Crusher Stockpile, North End
SP10	16-Jan-17	6.2	Sampled from Middle Crusher Stockpile, North End
SP11	16-Jan-17	6.9	Sampled from South Crusher Stockpile
SP12	16-Jan-17	9.4	Sampled from South Crusher Stockpile
SP13	16-Jan-17	8.2	Sampled from South Crusher Stockpile
SP14	16-Jan-17	13.3	Sampled from East Crusher Stockpile
SP15	16-Jan-17	8.7	Sampled from East Crusher Stockpile
SP16	18-Jan-17	6.3	Sampled from Type K Mixing Station
SP17	18-Jan-17	6.8	Sampled from Type K Mixing Station
SP18	18-Jan-17	7.3	Sampled from Type K Mixing Station
SP19	29-Jan-17	10.2	Sampled from reject pile North of Type F Mixing Station
SP20	29-Jan-17	16.9	Sampled from reject pile North of Type F Mixing Station
SP21	29-Jan-17	16.3	Sampled from reject pile North of Type F Mixing Station
SP22	30-Jan-17	7.7	Sampled from stockpile North of Type F Mixing Station
SP23	30-Jan-17	6.3	Sampled from stockpile North of Type F Mixing Station
SP24	31-Jan-17	7.7	Sampled from stockpile used for Type F
SP25	31-Jan-17	7.0	Sampled from stockpile used for Type F
SP26	1-Feb-17	8.2	Sampled from stockpile North of Type F Mixing Station
SP27	11-Feb-17	6.7	Dike D-CP1 fillet zone Station 0+300, -0.3 m
SP28	11-Feb-17	7.4	Dike D-CP1 fillet zone Station 0+340, -0.3 m
SP29	11-Feb-17	6.9	Dike D-CP1 fillet zone Station 0+380, -0.3 m
SP30	16-Mar-17	8.3	Dike D-CP1 first lift over liner Station 0+425
SP31	5-Apr-17	8.2	Recyled Type C from Stockpile
SP32	5-Apr-17	9.0	Recyled Type C from Stockpile
SP33	5-Apr-17	9.1	Recyled Type C from Stockpile
SP34	7-Apr-17	9.2	Recyled Type C from Stockpile
SP35	7-Apr-17	11.8	Recyled Type C from Stockpile
SP36	8-Apr-17	11.4	Recyled Type C from Stockpile
SP37	8-Apr-17	11.5	Recyled Type C from Stockpile
SP38	9-Apr-17	9.2	Recyled Type C from Stockpile
SP39	9-Apr-17	8.6	Recyled Type C from Stockpile
SP40	2-May-17	8.2	Sampled from Type C Stockpile 1
SP41	2-May-17	7.9	Sampled from Type C Stockpile 1
SP42	2-May-17	9.3	Sampled from Type C Stockpile 5
SP43	2-May-17	16.2	Sampled from Type C Stockpile 3 - Material Rejected
SP44	2-May-17	19.8	Sampled from Type C Stockpile 3 - Material Rejected
SP45	5-May-17	6.9	Sampled from Type C stockpile floor
SP46	5-May-17	6.5	Sampled from Type C stockpile floor
SP47	5-May-17	8.4	Sampled from Type C stockpile floor
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SP48	13-May-17	5.4	Sampled from Type C stockpile
SP49	13-May-17	4.2	Sampled from Type C stockpile
SP50	13-May-17	3.3	Sampled from Type C stockpile
SP51	13-May-17	4.0	Sampled from Type C stockpile

Average Moisture Content	8.6%



Table E2.2: Froz	Table E2.2: Frozen / In-situ Single Point Proctors for Type C Material												
Date/Shift	Material Type	Sample	Mass of Soil in Mold (g)	Mold Volume (cm2)	(Compacted	Mass of Weight Soil and Tare (g)		Mass of Dry Soil and Tare (g)	Moisture Content (%)	Dry Density (kg/m3)	Comments		
Nov 26, 2016 / NS	Type C	SA01	4056.8	2122.5	1911	3701.3	1650.9	3568.8	6.9	1788			
Mar 5, 2017 / DS	Type C	SA02	3844.0	2122.5	1811	410.8	15.8	382.6	7.7	1682	Type C stockpile at Type F mixing station		
Mar 7, 2017 / DS	Type C	SA03	3712.0	2122.5	1749	417.0	16.7	383.7	9.1	1603	Type C stockpile at Type F mixing station		
Mar 11, 2017 / DS	Type C	SA04	3874.0	2122.5	1825	670.6	16.9	629.3	6.7	1710	Type C stockpile at Type F mixing station		
Mar 12, 2017 / DS	Type C	SA05	3794.0	2122.5	1788	361.5	15.8	332.5	9.2	1638	Type C stockpile at Type F mixing station		
April 5, 2017 / NS	Type C	SA06	3858.9	2122.5	1818	3509.4	1651.2	3377.4	7.6	1689	Type C used at DCP5 for U/S fillet		
April 17, 2017 / DS	Type C	SA07	3890.0	2122.5	1833	5508.0	1634.0	5130.0	10.8	1654	Type C used at DCP 5 for U/S fillet between Stations 0+210 and 0+270		
April 18, 2017 / DS	Type C	SA08	3694.0	2122.5	1740	4334.0	690.0	3934.0	12.3	1549	Sampled from U/s Type C fillet at D-CP5; Station ~0+280		
April 30, 2017 / NS	Type C	SA09	3759.0	2126.6	1768	3562.5	695.5	3281.6	10.9	1594	Sampled from crusher belt		

D-CP1 Type C Material Field Density Testing (Nuclear Densometer) Summary

Date	Density Test #	Tech	Probe Depth (mm)		Densometer) S Depth from OG (m)	Wet Density (kg/m3)	Moisture Content (%)	Dry Density (kg/m3)	Single Point Frozen Proctor Dry Density - SPFPDD (kg/m3)	% SPFPDD	Standard Proctor Maximum Dry Density - SPMDD (kg/m3)	% SPMDD	Comments
l-Feb-17	1	SH	150	0+420	0.2	1976	6.6	1834	1685	108.8	2100	87.3	Top of Type C u/s fillet (below liner, below Type F hinge point lifts)
l-Feb-17	2	SH	150	0+440	0.2	1934	6.5	1815	1685	107.7	2100	86.4	Top of Type C u/s fillet (below liner, below Type F hinge point lifts)
l-Feb-17	3	SH	150	0+460	0.2	1967	6.7	1844	1685	109.4	2100	87.8	Top of Type C u/s fillet (below liner, below Type F hinge point lifts)
8-Feb-17	4	TW	150	0+512	0.85	1577	10.8	1423	1685	84.5	2100	67.8	5th lift the the Type C u/s fillet (below liner, conducted for Sand Cone Test) Frozen.
8-Feb-17	5	TW	150	0+510	0.85	1635	10.5	1480	1685	87.8	2100	70.5	5th lift the the Type C u/s fillet (below liner, conducted for Sand Cone Test) Frozen.
8-Feb-17 8-Feb-17	6 7	TW	150 150	0+511 0+567	0.85 0.85	1520 1603	10.5 9.4	1376 1465	1685 1685	81.7 86.9	2100 2100	65.5 69.8	5th lift the the Type C u/s fillet (below liner, conducted for Sand Cone Test) Frozen.  5th lift the the Type C u/s fillet (below liner, conducted for Sand Cone Test) Frozen.
3-Feb-17	8	TW	150	0+565	0.85	1564	9.4	1405	1685	84.9	2100	68.1	5th lift the the Type C u/s fillet (below liner, conducted for Sand Cone Test) Frozen.
3-Feb-17	9	TW	150	0+566	0.85	1583	8.7	1457	1685	86.5	2100	69.4	5th lift the the Type C u/s fillet (below liner, conducted for Sand Cone Test) Frozen.
9-Mar-17	10	TW	200	0+519	0.2	1797	5.8	1699	1685	100.8	2100	80.9	Final lift of Type C material u/s fillet, frozen
9-Mar-17	11	TW	200	0+520	0.2	1796	6.6	1685	1685	100.0	2100	80.2	Final lift of Type C material u/s fillet, frozen
9-Mar-17	12	TW	200	0+521	0.2	1837	6.2	1729	1685	102.6	2100	82.3	Final lift of Type C material u/s fillet, frozen
2-Mar-17	13	TW	200	0+531	0.2	1814	6.8	1698	1685	100.8	2100	80.9	Final lift of Type C material u/s fillet, frozen
-Mar-17	14	TW	200	0+531	0.2	1784	6.8	1670	1685	99.1	2100	79.5	Final lift of Type C material u/s fillet, frozen
-Mar-17 -Mar-17	15 16	TW	150 200	0+532 0+530	0.2 0.2	1747 1792	6.1 6.5	1647 1683	1685 1685	97.7 99.9	2100 2100	78.4 80.1	Final lift of Type C material u/s fillet, frozen Final lift of Type C material u/s fillet, frozen
-Mar-17 -Mar-17	17	TW	200	0+530	0.2	1784	5.7	1689	1685	100.2	2100	80.4	Final lift of Type C material u/s fillet, frozen
-Mar-17	18	TW	200	0+570	0.2	1780	6.1	1680	1685	99.7	2100	80.0	Final lift of Type C material u/s fillet, frozen
-Mar-17	19	TW	200	0+571	0.2	1760	5.8	1663	1685	98.7	2100	79.2	Final lift of Type C material u/s fillet, frozen
-Mar-17	20	TW	200	0+570	0.2	1759	6.2	1656	1685	98.3	2100	78.9	Final lift of Type C material u/s fillet, frozen
3-Mar-17	21	TW	200	0+260	1.45	1783	8.3	1646	1685	97.7	2100	78.4	3rd lift of the D/S Fillet -frozen
8-Mar-17	22	TW	200	0+280	1.45	1807	7.8	1677	1685	99.5	2100	79.9	3rd lift of the D/S Fillet -frozen
8-Mar-17	23	TW	200	0+300	1.45	1788	7.2	1668	1685	99.0	2100	79.4	3rd lift of the D/S Fillet -frozen
8-Mar-17	24	TW	200	0+370	1.15	1794	6.6	1683	1685	99.9	2100	80.1	4th lift of the D/S Fillet -frozen
-Mar-17 -Mar-17	25 26	TW	200 200	0+400 0+420	1.15 1.15	1742 1762	6.5 5.6	1636 1669	1685 1685	97.1 99.1	2100 2100	77.9 79.5	4th lift of the D/S Fillet -frozen  4th lift of the D/S Fillet -frozen
-Mar-17 -Mar-17	27	TW	200	0+420	1.15	1762	7.2	1658	1685	98.4	2100	79.5 79.0	4th lift of the D/S Fillet -irozen  4th lift of the D/S Fillet. Used as a control strip (8 passes with 10t) -frozen
-Mar-17	28	TW	200	0+450	1.15	1779	6.8	1665	1685	98.8	2100	79.3	4th lift of the D/S Fillet. Used as a control strip (0 passes with 10t) -frozen
Mar-17	29	TW	200	0+450	1.15	1812	6.9	1696	1685	100.7	2100	80.8	4th lift of the D/S Fillet. Used as a control strip (16 passes with 10t) -frozen
Mar-17	30	IM	200	0+360	0 (O.G)	1861	6.1	1754	1685	104.1	2100	83.5	7th Lift of D/S Fillet - Min. 8 Passes with CS563E 10t - Frozen.
Mar-17	31	IM	200	0+340	0 (O.G)	1848	6.6	1733	1685	102.8	2100	82.5	7th Lift of D/S Fillet - Min. 8 Passes with CS563E 10t - Frozen.
-Mar-17	32	IM	200	0+320	0 (O.G)	1789	9.7	1631	1685	96.8	2100	77.7	7th Lift of D/S Fillet - Min. 8 Passes with CS563E 10t - Frozen.
-Mar-17	33	TW	200	0+460	0 (O.G)	1823	7.2	1700	1685	100.9	2100	81.0	7th Lift of D/S Fillet - Min. 8 Passes with CS563E 10t - Frozen.
-Mar-17	34	TW	200	0+485	0 (O.G)	1854	6.2	1746	1685	103.6	2100	83.1	7th Lift of D/S Fillet - Min. 8 Passes with CS563E 10t - Frozen.
<u>-Mar-17</u> -Mar-17	35 36	TW	200 200	0+520 0+528	0 (O.G) 0 (O.G)	1844 1911	7.3 5.1	1718 1819	1685 1685	102.0 108.0	2100 2100	81.8 86.6	7th Lift of D/S Fillet - Min. 8 Passes with CS563E 10t - Frozen.  7th Lift of D/S Fillet - Min. 8 Passes with CS563E 10t - Frozen.
-Mar-17	37	WW	200	0+326	0 (O.G)	1823	6.1	1718	1685	100.0	2100	81.8	7th Lift of D/S Fillet - Min. 8 Passes with CS563E 10t - Frozen.
-Mar-17	38	WW	200	0+280	0 (O.G)	1676	6.4	1574	1685	93.4	2100	75.0	7th Lift of D/S Fillet - Min. 8 Passes with CS563E 10t - Frozen.
-Apr-17	39	TW	200	1+466	65.5 elev	1799	8.5	1658	1685	98.4	2100	79.0	4th lift of Type C material on U/S slope (below liner) -Frozen
-Apr-17	40	TW	200	1+490	65.5 elev	1833	9.5	1674	1685	99.3	2100	79.7	4th lift of Type C material on U/S slope (below liner) -Frozen
-Apr-17	41	TW	200	1+490	65.5 elev	1803	9.5	1647	1685	97.7	2100	78.4	4th lift of Type C material on U/S slope (below liner) -Frozen
-Apr-17	42	TW	200	1+490	65.5 elev	1796	8.9	1649	1685	97.9	2100	78.5	4th lift of Type C material on U/S slope (below liner) -Frozen
-Apr-17	43	TW	200	1+490	65.5 elev	1810	9.3	1656	1685	98.3	2100	78.9	4th lift of Type C material on U/S slope (below liner) -Frozen
-Apr-17	44	TW	200	1+510	65.5 elev	1809	9.6	1651	1685	98.0	2100	78.6	4th lift of Type C material on U/S slope (below liner) -Frozen
-Apr-17 -Apr-17	45 46	TW	200 200	1+360 1+400	63.5 elev 63.5 elev	1788 1841	9.0 9.8	1640 1677	1685 1685	97.4 99.5	2100 2100	78.1 79.8	1st lift of Type C on U/S slope (below liner) -Thawing 1st lift of Type C on U/S slope (below liner) -Thawing
-Apr-17	47	TW	200	1+460	65.8 elev	1914	8.2	1769	1685	105.0	2100	84.2	5th lift of Type C on U/S slope (below liner -Thawing
-Apr-17		IM	200	1+455		1844	9.2	1689	1685	100.2	2100	80.4	Material Frozen, adequate and consistent compactive effort applied
-Apr-17	49	IM	200	1+425	64.3 elev	1664	9.4	1521	1685	90.3	2100	72.4	Material Frozen, adequate and consistent compactive effort applied
-Apr-17	50	IM	200	1+423	64.3 elev	1801	9.8	1640	1685	97.3	2100	78.1	Material Frozen, adequate and consistent compactive effort applied
-Apr-17	51	IM	200	1+405	64 elev	1814	7.7	1684	1685	100.0	2100	80.2	Material Frozen, adequate and consistent compactive effort applied
Apr-17	52	IM	200	1+345	63.1 elev	1792	9.3	1640	1685	97.3	2100	78.1	Material Frozen, adequate and consistent compactive effort applied
Apr-17		IM TM	200	1+300	62.8 elev	1669	10.1	1516	1685	90.0	2100	72.2	Material Frozen, adequate and consistent compactive effort applied
Apr-17 Apr-17	54 55	TW	200 200	1+315 1+290	63.88 elev 63.88 elev	1820 1866	8.8 9.6	1673 1703	1685 1685	99.3 101.0	2100 2100	79.7 81.1	Material Frozen, adequate and consistent compactive effort applied  Material Frozen, adequate and consistent compactive effort applied
Apr-17 Apr-17	56	TW	200	1+290	63.55 elev	1823	9.6	1662	1685	98.6	2100	79.1	Material Frozen, adequate and consistent compactive effort applied  Material Frozen, adequate and consistent compactive effort applied
Apr-17	57	TW	200	1+218	63.55 elev	1825	9.8	1662	1685	98.6	2100	79.1	Material Frozen, adequate and consistent compactive effort applied
Apr-17	58	IM	200	1+475	65.4 elev	1839	9.3	1683	1685	99.9	2100	80.1	Material Frozen, adequate and consistent compactive effort applied
Apr-17		IM	200	1+410	65.1 elev	1749	7.6	1625	1685	96.5	2100	77.4	Material Frozen, adequate and consistent compactive effort applied
Apr-17	60	IM	200	1+430	65.15 elev	1918	8.9	1761	1685	104.5	2100	83.9	Material Frozen, adequate and consistent compactive effort applied
Apr-17 Apr-17	61 62	IM TW	200 200	1+335 1+200	64.9 elev 63.86 elev	1833 1791	8.0 7.3	1697 1669	1685 1685	100.7 99.1	2100 2100	80.8 79.5	Material Frozen, adequate and consistent compactive effort applied  Material Frozen, adequate and consistent compactive effort applied
Apr-17 Apr-17	63	TW	200	1+200	63.86 elev	1835	9.3	1679	1685	99.1	2100	79.5 79.9	Material Frozen, adequate and consistent compactive effort applied  Material Frozen, adequate and consistent compactive effort applied
Apr-17 Apr-17	64	TW	200	1+515	65.7 elev	1770	8.3	1634	1685	97.0	2100	77.8	Material Frozen, adequate and consistent compactive effort applied
Apr-17	65	TW	200	1+450	65.7 elev	1866	7.8	1731	1685	102.7	2100	82.4	Material Frozen, adequate and consistent compactive effort applied
Apr-17	66	IM	200	1+085	65.9 elev	1845	7.7	1713	1685	101.7	2100	81.6	Material Frozen, adequate and consistent compactive effort applied
Apr-17		IM	200	1+065	66.5 elev	1842	8.6	1696	1685	100.7	2100	80.8	Material Frozen, adequate and consistent compactive effort applied
May-17		IM	200	1+230	67.5 m	2138	3.5	2066	1685	122.6	2100	98.4	Top lift of Type C under liner
	69	IM	200	1+255	67.5 m	2162	3.6	2087	1685	123.9	2100	99.4	Top lift of Type C under liner
May-17 May-17		IM	200	1+280	67.5 m	2127	4.9	2028	1685	120.3	2100	96.6	Top lift of Type C under liner

### Dike D-CP1 Type C Material Sand Cone Tests Summary

Date	Material Type	Station	Dry Density (Densometer Avg.) (kg/m3)	(% Avg.)	Bentonite placed (g)	Bentonite Bulk Density (kg/m3)	Pit Volume (m3)	(g)	Soil Bulk Density (kg/m3)	Moisture Content (%)	Soil Dry Density (kg/m3)	Comments
23-Feb-17	Type C	0+565	1426.3	10.6	3642	1056	0.00345	5412	1569.2	11.9	1402.3	TW-Type C Material was frozen
23-Feb-17	Type C	0+510	1451	9.1	4908	1056	0.00465	8132	1749.7	9.4	1599.3	TW-Type C Material was frozen
19-Mar-17	Type C	0+520	1704	6.2	5480	1056	0.00519	11268	2171.4	7.6	2018.0	TW/IM- Type C Material was frozen
22-Mar-17	Type C	0+530	1675	6.6	4868	1056	0.00461	8778	1904.2	8.1	1761.5	TW/FN- Type C Material was frozen
23-Mar-17	Type C	0+570	1672	5.95	5092	1056	0.00482	9772	2027	7.3	1888.7	TW- Type C Material was frozen
26-Apr-17	Type C	1+490	1660	9	3090	1064	0.00290	6446.0	2220	10.5	2008.7	TW- 4th lift of Type C on U/S slope (below liner) Elev. 65.5m approx.

# **APPENDIX E3**

## TYPE F MATERIAL QA/QC TEST RESULTS



Table E3.1: Moisture Content Results for Bentonite Augmented Material - Type F									
Sample No.	Date Tested	<b>Moisture Content (%)</b>	Sample Source						
SA01	29-Jan-17	8.2	20 mm minus mixed with bentonite						
SA02	30-Jan-17	7.2	20 mm minus mixed with bentonite						
SA03	31-Jan-17	8.4	20 mm minus mixed with bentonite						
SA04	31-Jan-17	7.4	20 mm minus mixed with bentonite						
SA05	1-Feb-17	8.0	20 mm minus mixed with bentonite						
SA06	18-Feb-17	6.4	20 mm minus mixed with bentonite						

Average Moisture Content	7.6%



Table E3.2: Froze	able E3.2: Frozen / In-situ Single Point Proctors for Type F Material										
Date/Shift	Material Type	Sample	Mass of Soil in Mold (g)	Mold Volume (cm3)	Compacted	Soil and Tare (a)	Mass of Tare (g)	Mass of Dry Soil and Tare (g)	Moisture Content (%)	Dry Density (kg/m3)	Comments
Nov 20, 2016 / NS	Type F	SA01	3847.6	2122.5	1813	4024.1	1643.7	3850.6	7.9	1681	
Nov 26, 2016 / NS	Type F	SA02	3879.6	2122.5	1828	1961.1	681.6	1839.4	10.5	1654	
Jan 31, 2017 / DS	Type F	SA03	3662.3	2122.5	1725	2690.7	696.7	2536.2	8.4	1592	
Jan 31, 2017 / DS	Type F	SA04	3712.4	2122.5	1749	2675.5	694.8	2539.3	7.4	1629	
Jan 31, 2017 / NS	Type F	SA05	3704.5	2122.5	1736	2783.5	693.2	2629.5	8.0	1608	
Feb 1, 2017 / DS	Type F	SA06	3707.0	2122.4	1747	2965.8	697.6	2814.9	7.1	1631	
Feb 1, 2017 / NS	Type F	SA07	3704.5	2122.5	1736	2783.5	693.2	2629.5	8.0	1608	
March 14, 2017 / DS	Type F	SA08	3865.4	2122.5	1821	160.2	4.3	148.2	8.3	1681	Mixing station - sampled from batch after mixing
April 10, 2017 / DS	Type F	SA09	3804.0	2122.5	1792	1438.6	690.3	1363.0	11.2	1611	

# Dike D-CP1 Type F Material Density Tests by Densometer Summary Results

DINC D OI I	Typo I III	dicital Delibity	TOOLO D	1								
Date	Density Tes	Probe Depth (mm)	Station	Depth from OG (m)		Moisture Content (%)	Doncity		% SPFPDD	Standard Proctor Maximum Dry Density - SPMDD (kg/m3)	% SPMDD	Comments
Dec 3/16	001	150	0+110	1.8	1765	8.8	1622	1632	99.4	Not Tested	Not Tested	SH - Top of Type F below liner - frozen
Dec 3/16	002	150	0+117	1.8	1881	5.5	1783	1632	109.2	-	-	SH - Top of Type F below liner - frozen
Dec 3/16	003	150	0+155	1.8	1919	6.3	1805	1632	110.6	-	-	IM - Top of Type F below liner - frozen
Dec 3/16	004	150	0+140	1.8	1896	6.4	1782	1632	109.2	-	-	IM - Top of Type F below liner - frozen
Dec 3/16	005	150	0+125	1.8	1886	6.3	1774	1632	108.7	-	-	IM - Top of Type F below liner - frozen
Dec 11/16	006	150	0+245	-	1833	6.0	1729	1632	106.0	-	-	IM - Top of Type F at U/S hinge point below liner - Frozen
Dec 11/16	007	150	0+260	-	1862	6.3	1752	1632	107.3	-	-	IM - Top of Type F at U/S hinge point below liner - Frozen
Dec 11/16	008	150	0+275	-	1893	5.9	1788	1632	109.5	-	-	IM - Top of Type F at U/S hinge point below liner - Frozen
Feb 20/17	009	200	0+545	G	1734	7.3	1616	1632	99.0	-	-	TW- Top of Type F (below liner) SPMDD based on single point proctor avgFrozen
Feb 20/17	010	200	0+555	G	1727	7.5	1607	1632	98.4	-	-	TW- Top of Type F (below liner) SPMDD based on single point proctor avgFrozen
Feb 20/17	011	200	0+575	G	1802	7.6	1675	1632	102.6	-	-	TW- Top of Type F (below liner) SPMDD based on single point proctor avgFrozen
Feb 20/17	012	200	0+515	G	1879	8.7	1729	1632	105.9	-	-	TW- Top of Type F (below liner) SPMDD based on single point proctor avgFrozen
March 06/17	013	100	0+284		1790	7.8	1660	1632	101.7	-	-	TW- First lift of Type F fillet (above liner) between 0+290 & 0+313Frozen
March 06/17	014	100	0+285		1788	6.5	1679	1632	102.9	-	-	TW- First lift of Type F fillet (above liner) between 0+290 & 0+313Frozen
March 06/17	015	100	0+286		1782	6.8	1669	1632	102.2		-	TW- First lift of Type F fillet (above liner) between 0+290 & 0+313Frozen
March 06/17	016	150	0+304		1834	7.2	1711	1632	104.8	-	-	TW- Second lift of Type F fillet (above liner) between 0+290 & 0+313Frozen
March 06/17	017	150	0+305		1821	7.1	1700	1632	104.2	-	-	TW- Second lift of Type F fillet (above liner) between 0+290 & 0+313Frozen
March 06/17	018	150	0+305		1795	6.5	1685	1632	103.3	-	-	TW- Second lift of Type F fillet (above liner) between 0+290 & 0+313Frozen
March 22/17	019	150	0+542	G	1817	5.9	1716	1632	105.1	-	-	TW- Top of Type F hingepoint (below liner) between 0+525 & 0+545 -Frozen
March 22/17	020	150	0+542	G	1802	6.4	1694	1632	103.8	-	-	TW- Top of Type F hingepoint (below liner) between 0+525 & 0+545 -Frozen
March 22/17	021	150	0+543	G	1822	5.5	1727	1632	105.8	_	-	TW- Top of Type F hingepoint (below liner) between 0+525 & 0+545 -Frozen
March 22/17	022	150	0+543	G	1827	6.3	1719	1632	105.3	_	_	TW- Top of Type F hingepoint (below liner) between 0+525 & 0+545 -Frozen
Waron 22, 17	022	100	0.0.0		1021	0.0	17.10	1002	100.0			111 Top of Type I Timigepoint (solett inter) settreen e toze a e to te i trazen
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### Dike D-CP1 Type F Sand Cone Density Tests Summary

Date	Material Type	Dry Density (Densometer Avg.) (kg/m3)		(9)	, ,	Pit Volume (m3)	Soil weight (g)	Soil Bulk Density (kg/m3)	(%)	Soil Dry Density (kg/m3)	Comments
6-Mar-17 6-Mar-17 22-Mar-17	Type F Type F Type F	1669 1699 1714	7	4282 5682 5074	1056 1056 1056	0.0041	8386	2068.1 1910.2 2010.9	5.9 4.0 7.3	1952.9 1836.7 1874.0	
6-Mar-17	Type F	1699	6.9 6	5682	1056	0.0054	10278	1910.2	4.0	1836.7	
22-Mar-17	Type F	1714	6	5074	1056	0.0048	9662.0	2010.9	7.3	1874.0	
							<u> </u>				
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# **APPENDIX E4**

### TYPE H MATERIAL QA/QC TEST RESULTS



Sample No.	Date Tested	<b>Moisture Content (%)</b>	Sample Source
SA01	22-Oct-16	4.1	Sampled from Type H stockpile
SA02	22-Oct-16	3.7	Sampled from Type H stockpile
SA03	26-Oct-16	3.3	Sampled from Type H stockpile
SA04	26-Oct-16	3.3	Sampled from Type H stockpile
SA05	01-Dec-16	10.2	Sampled from Type H stockpile
SA06	09-Dec-16	11.2	Sampled from Type H stockpile
SA07	10-Dec-16	12.6	Sampled from Type H stockpile - rejected
SA08	11-Dec-16	9.2	Sampled from Type H stockpile
SA09	11-Dec-16	11.1	Sampled from Type H stockpile
SA10	12-Dec-16	11.3	Sampled from Type H stockpile
SA11	04-Apr-17	11.5	Sampled from Type H stockpile
SA12	04-Apr-17	15.6	Sampled from Type H stockpile - rejected
SA13	06-Apr-17	12.9	Sampled from recycled Type H stockpile - rejected
SA14	06-Apr-17	9.4	Sampled from Type H stockpile
SA15	19-Apr-17	14.1	Sampled from Type H stockpile
SA16	19-Apr-17	2.5	Sampled from Type H stockpile - rejected
SA17	19-Apr-17	10.2	Sampled from Type H stockpile
SA18	20-Apr-17	8.1	Sampled from Type H stockpile
SA19	21-Apr-17	15.8	Sampled from Type H stockpile - rejected
SA20	22-Apr-17	10.5	Sampled from Type H stockpile
SA21	23-Apr-17	9.2	Sampled from Type H stockpile
SA22	26-Apr-17	8	Sampled from Type H stockpile
SA23	27-Apr-17	12.2	Sampled from Type H stockpile
SA24	02-May-17	7.2	Sampled from Type H stockpile
SA25	03-May-17	3.7	Sampled from Type H stockpile
SA26	04-May-17	3.4	Sampled from Type H stockpile
SA27	05-May-17	3.4	Sampled from Type H stockpile
SA28	18-May-17	3.3	Sampled from Type H stockpile
SA29	19-May-17	5.6	Sampled from Type H stockpile
SA30	20-May-17	4.7	Sampled from Type H stockpile
SA31	01-Jun-17	5.3	Sampled from Type H stockpile
SA32	01-Jun-17	4.2	Sampled from Type H stockpile

Average Moisture Content	8.2%
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#### MOISTURE-DENSITY RELATIONSHIP (Proctor) REPORT ASTM D698 Standard Project: Meliadine Dike Construction Sample No.: **SA01** TW Client: Agnico Eagle Sampled By: Sample Date: October 23, 2016 Attention: Project No.: E14103230-01 Test Date: October 23, 2016 Description: 75mm minus Preparation: Moist Source: On-Site Stockpile Compaction: Manual 2400 2300 Maximum Dry Density: 2150 kg/m<sup>3</sup> 2200 **Optimum Moisture Content:** 9.0 % As Received Moisture Content: 6.2 % 2100 Oversize (+20 mm) Retained: 40 % Corrected Density: 2320 % 2000 Dry Density (kg/m³) Corrected Moisture: 5.8 % 1900 1700 Zero Air Voids Gs: 2.80 1600 1500 1400 1300 10 **Moisture Content (%)** Remarks: Reviewed By: -- C.E.T.

Data presented hereon is for the sole use of the stipulated client. Tetra Tech EBA is not responsible, nor can be held liable, for use made of this report by any other party, with or without the knowledge of Tetra Tech EBA. The testing services reported herein have been performed to recognized industry standards, unless noted. No other warranty is made. These data do not include or represent any interpretation or opinion of specification compliance or material suitability. Should engineering interpretation be required, Tetra Tech EBA will provide it upon written request.



#### MOISTURE-DENSITY RELATIONSHIP (Proctor) REPORT **ASTM D698 Standard** Project: Meliadine Dike Construction Sample No.: SA02 Client: Agnico Eagle Sampled By: TW Attention: Sample Date: March 26, 2017 Project No.: E14103230-01 Test Date: March 26, 2017 Description: 75 mm minus (Type H Material) Preparation: Moist Source: On-Site Stockpile Compaction: Manual 2400 Maximum Dry Density: 1980 kg/m<sup>3</sup> 2200 **Optimum Moisture Content:** 10.0 % As Received Moisture Content: 8.9 % 2100 Oversize (+20 mm) Retained: 35 % Corrected Density: 2170 % 2000 Dry Density (kg/m3) Corrected Moisture: 6.9 % 1900 1800 1700 Zero Air Voids Gs: 2.80 1600 1500 1400 1300 10 30 **Moisture Content (%)** Remarks: Sampled from Type H material stockpile produced in December 2016 Reviewed By: -C.E.T.

Data presented hereon is for the sole use of the stipulated client. Tetra Tech EBA is not responsible, nor can be held liable, for use made of this report by any other party, with or without the knowledge of Tetra Tech EBA. The testing services reported herein have been performed to recognized industry standards, unless noted. No other warranty is made. These data do not include or represent any interpretation or opinion of specification compliance or material suitability. Should engineering interpretation be required, Tetra Tech EBA will provide it upon written request.



# MOISTURE-DENSITY RELATIONSHIP (Proctor) REPORT ASTM D698 Standard

Project: Meliadine Dike Construction

Wellading Blice Constituent

Agnico Eagle

Project No.: E14103230-01 Task 023

Description: 75 mm minus (Type H Material)

Source: On-Site Stockpile

Client:

Attention:

Sample No.: SA03

Sampled By: TW

Sample Date: April 27, 2017

Test Date: April 27, 2017

kg/m³

%

%

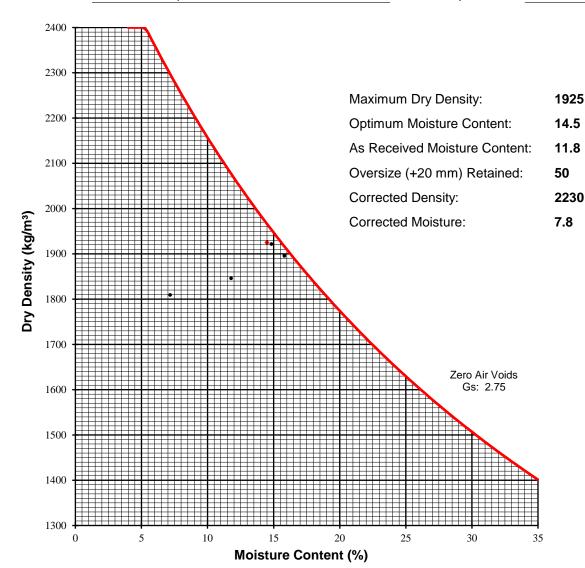
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Preparation: Moist

Compaction: Manual



Remarks: Sampled from Type H material stockpile produced on April 27, 2017

Reviewed By: — C.E.T.

#### **MOISTURE-DENSITY RELATIONSHIP (Proctor) REPORT** ASTM D698 Standard Project: Meliadine Dike Construction Sample No.: **SA04** Client: Agnico Eagle Sampled By: $\mathsf{TW}$ Sample Date: Attention: May 10, 2017 Project No.: E14103230-01 Test Date: May 11, 2017 Description: 75 mm minus (Type H Material) Preparation: Moist Source: On-Site Stockpile Compaction: Manual 2400 2300 Maximum Dry Density: 1950 kg/m³ 2200 **Optimum Moisture Content:** 8.4 % As Received Moisture Content: 11.8 % 2100 Oversize (+20 mm) Retained: 40 % Corrected Density: 2180 % 2000 Dry Density (kg/m³) Corrected Moisture: 5.4 % 1900 1800 1700 Zero Air Voids 1600 Gs: 2.70 1500 1400 1300 10 **Moisture Content (%)**

Remarks: Sampled from Type H material stockpile

Reviewed By: — C.E.T.



Table E4.2: Froz	ole E4.2: Frozen / In-situ Single Point Proctors for Type H Material											
Date/Shift	Material Type	Sample	Mass of Soil in Mold (g)	Mold Volume (cm3)		Mass of Weight Soil and Tare (g)		Mass of Dry Soil and Tare (g)	Moisture Content (%)	Dry Density (kg/m3)	Oversize Corrected Dry Density (kg/m3)	Comments
March 26, 2017 DS	Type H	SA01	3510.0	2122.5	1654	4010.3	703.3	3748.0	8.6	1523	1789	Sampled from Stockpile
March 28, 2017 DS	Type H	SA02	3614.0	2122.5	1703	3605	706.3	3346.0	9.8	1551	1814	Sampled from Stockpile

Dike D-CP1 Type H Material Density Tests by Densometer Summary Results

DIKE D-CI	Type II Mat	enal Density	l CSIS D					<u> </u>				
Date	Density Test #	Probe Depth (mm)	Station	Depth from OG (m)	Wet Density (kg/m3)	Moisture Content (%)	Dry Density (kg/m3)	Single Point Frozen Proctor Dry Density - SPFPDD (kg/m3)	% SPFPDD	Standard Proctor Maximum  Dry Density - SPMDD  (kg/m3)	% SPMDD	Comments
26-Mar-17	1.000	200	0+499		1764	11.7	1579	1789	88.3	2172.0	72.7	TW- Second lift of Type H Material in the ice wedge between 0+495 & 0+513
26-Mar-17	2.000	200	0+500		1732	12.1	1545	1789	86.4	2172.0	71.1	TW- Second lift of Type H Material in the ice wedge between 0+495 & 0+513
26-Mar-17	3.000	200	0+495		1828	9.8	1665	1789	93.1	2172.0	76.7	TW- Second lift of Type H Material in the ice wedge between 0+495 & 0+513
26-Mar-17	4.000	200	0+505		1832	11.5	1643	1789	91.8	2172.0	75.6	TW- Second lift of Type H Material in the ice wedge between 0+495 & 0+513
26-Mar-17	5.000	200	0+455		1839	11.2	1654	1789	92.4	2172.0	76.1	TW- Final lift of Type H Material in the ice wedge between 0+435 & 0+455
26-Mar-17	6.000	200	0+449		1879	12.7	1667	1789	93.2	2172.0	76.8	TW- Final lift of Type H Material in the ice wedge between 0+435 & 0+455
26-Mar-17	7.000	200	0+442		1830	11.6	1640	1789	91.7	2172.0	75.5	TW- Final lift of Type H Material in the ice wedge between 0+435 & 0+455
26-Mar-17	8.000	200	0+437		1818	14.3	1591	1789	88.9	2172.0	73.2	TW- Final lift of Type H Material in the ice wedge between 0+435 & 0+455
10-May-17	9.000	200	1+160		1996	6.6	1872	1789	104.7	2172.0	86.2	TW- 2nd lift of Type F Material (overliner) Control Strip-12 full passes
10-May-17	10.000	200	1+180		1982	6.8	1856	1789	103.7	2172.0	85.4	TW- 2nd lift of Type F Material (overliner)
16-May-17	11.000	200	1+500	64.9	2006	5.6	1900	1789	106.2	2200.0	86.3	
16-May-17	12.000	200	1+450	64.8	1994	5.7	1886	1789	105.4	2200.0	85.7	
16-May-17	13.000	200	1+400	64.8	2027	7.2	1891	1789	105.7	2200.0	85.9	
21-May-17	14.000	200	1+520	66.2	2119	4.5	2028	1789	113.3	2200.0	92.2	
21-May-17	15.000	200	1+475	65.7	2128	4.0	2046	1789	114.4	2200.0	93.0	
21-May-17	16.000	200	1+425	65.7	2168	3.4	2097	1789	117.2	2200.0	95.3	
21-May-17	17.000	200	1+375	65.6	2103	7.6	1954	1789	109.2	2200.0	88.8	
21-May-17	18.000	200	1+320	65.6	2119	5.2	2014	1789	112.6	2200.0	91.6	
21-May-17	19.000	200	1+320	G	2166	9.9	1971	1789	110.2	2200.0	89.6	
Zi May II	10.000	200	11020		2100	0.5	1071	1700	110.2	2200.0	00.0	
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Dike D-CP1 Type H Sand Cone Density Tests Summary

Date	Material Type	Station	Dry Density (Densometer Avg.) (kg/m3)	Densometer Moisture Content (% Avg.)	Bentonite placed (g)	Bentonite Bulk Density (kg/m3)	Pit Volume (m3)	Soil weight (g)	Soil Bulk Density (kg/m3)	Moisture Content (%)	Soil Dry Density (kg/m3)	Comments
26-Mar-17	Туре Н	0+500	1608	11.3	3652	1056	0.0035	7972	2305.2	8	2134.4	
	+		+									
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			+									
			+									

# APPENDIX E5

### TYPE K MATERIAL QA/QC TEST RESULTS



### MOISTURE CONTENT TEST RESULTS

**ASTM D2216** 

Project: Meliadine Project, NU Borehole No.: Dike D-CP1 Type K Material

Project No.: E14103230.01-023 Date Tested: Nov/Dec 2016, Jan 2017

Client: Agnico Eagle Mines Ltd. Tested By: SH/IM

Attention: Mr. Duy Nguyen Page:

Date	Sample Number	Moisture Content (%)	Comments
11/26/2016	K1	19.8	Sampled from DCP1 mixing station
11/26/2016	K2	20.2	Sampled from DCP1 mixing station
11/27/2016	K3	13.8	Sampled from crusher mixing station
11/27/2016	K4	12.8	Sampled from crusher mixing station
11/27/2016	K5	14.6	Sampled from crusher mixing station
11/27/2016	K6	15.1	Sampled from crusher mixing station
11/28/2016	K7	16.7	Sampled from crusher mixing station
11/29/2016	K8	10.4	Sampled in key trench at 0+160
11/29/2016	K9	20.2	Sampled from DCP1 mixing station
11/30/2016	K10	17.4	Sampled in key trench at 0+200
11/30/2016	K11	15.9	Sampled in key trench at 0+205
12/1/2016	K12	17.3	Sampled in key trench at 0+145 -2.30
12/2/2016	K13	15.9	Sampled in key trench at 0+210 -2.45
12/2/2016	K14	19.1	Sampled in key trench at 0+160 -2.1 m
12/3/2016	K15	16.2	Sampled in key trench at 0+280
12/5/2016	K16	22.4	Sampled in key trench at 0+280 -1.8 m
12/5/2016	K17	25.9	Sampled in key trench at 0+285, -1.8 m
1/17/2017	K20	14.2	Sample from DCP-1 mixing station
1/18/2017	K21	16.8	Sample from DCP-1 mixing station
1/18/2017	K22	17.8	Sample from DCP-1 mixing station
1/18/2017	K23	17.9	Sample from DCP-1 mixing station

Non-standard sample size	Reviewed By:	P.Eng
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# **D-CP1 Type K Material Densities and Water Saturation Summary**

Note: Densities and saturation are based on Nuclear Gauge results which may not be accurate for frozen aggregate

Date	Density Test #	Probe Depth (mm)	Station	Depth from OG (m)	Wet Density (kg/m3)	Moisture Content (%)	Dry Density (kg/m3)	SPMDD (kg/m3)	% SPMDD	Water Saturation (%)	Comments		
Nov 27/16	001	200	0+125	2.28	1677	11.3	1507	2020	74.6	38.5	IM - Frozen - Placed during previous shift.		
lov 27/16	002	200	0+120	2.34	1642	12.6	1458	2020	72.2		IM - Frozen - Placed during previous shift.		
lov 27/16	003	200	0+115	2.37	1591	11.0	1433	2020	71.0	33.6	IM - Frozen - Placed during previous shift.		
lov 27/16	004	200	0+110	2.32	1646	10.5	1490	2020	73.7	34.9	IM - Frozen - Placed during previous shift.		
lov 27/16	005	200	0+105	2.3	1711	12.4	1522	2020	75.4	43.3	IM - Frozen - Placed during previous shift.		
Nov 27/16	006	150	0+135	2.56	2054	17.0	1756	2020	86.9	85.3	IM - Control Strip - 6 passes. Unfrozen to Partially frozen		
lov 27/16	007	150	0+135	2.56	2008	16.3	1727	2020	85.5	78.1	IM - Control Strip - 12 passes. Unfrozen to partially frozen		
lov 29/16	800	100	0+102	2.1	1969	18.8	1657	2020	82.0	80.7	IM - Partially Frozen.		
ov 29/16	009	200	0+102	2.1	1853	18.7	1561	2020	77.3	69.2	IM - Partially Frozen.		
lov 29/16	010	100	0+105	2.12	1982	18.7	1670	2020	82.7	81.8	IM - Partially Frozen.		
lov 29/16	011	100	0+105	2.12	1973	19.5	1651	2020	81.7	82.9	IM - Control strip (after 6 passes). Partially Frozen.		
lov 29/16	012	100	0+105	2.12	1970	17.5	1677	2020	83.0	77.4	IM - Control strip - after 12 passes. Partially Frozen.		
ov 29/16	013	100	0+105	2.25	2030	19.8	1694	2020	83.9		IM - Control strip - additional 4 passes w/ 10 tonne. Partially Frozen.		
lov 29/16	014	100	0+115	2.25	1997	22.1	1636	2020	81.0	91.7	IM - 6 Passes with 10 tonne. Partially Frozen.		
ov 30/16	015	150	0+105	2.25	2041	19.3	1711	2020	84.7		SH - 6 passes with 10 tonne. Partially frozen		
ov 30/16	016	150	0+119	2.25	1960	19.9	1635	2020	80.9		SH - 6 passes with 10 tonne. Partially frozen		
ov 30/16	017	150	0+175	2.08	1978	17.3	1686	2020	83.5		IM - Partially Frozen.		
ov 30/16	018	150	0+175	2.08	2009	19.0	1688	2020	83.6		IM - Partially Frozen. Offset 4 m D/S		
ov 30/16	019	150	0+173	2.07	2091	18.4	1766	2020	87.4		IM - Partially Frozen.		
ov 30/16	020	150	0+173	2.07	2016	14.9	1755	2020	86.9		IM - Partially Frozen.		
ov 30/16	021	150	0+173	2.07	2118	15.6	1832	2020	90.7		IM - Partially Frozen.		
ov 30/16	022	150	0+175	2.02	2066	18.8	1739	2020	86.1		IM - Partially Frozen.		
ov 30/16	023	150	0+175	2.02	2117	17.7	1799	2020	89.0		IM - Partially Frozen. Offset 4 m U/S		
ov 30/16	024	150	0+180	2.09	2169	16.7	1859	2020	92.0		IM - Partially Frozen.		
ov 30/16	025	150	0+190	2.09	1936	22.3	1583	2020	78.4		IM - Partially Frozen.		
ec 1/16	026	150	0+135	2.3	1978	15.8	1708	2020	84.6		SH - Moist surface, somewhat compact		
ec 1/16	027	150	0+155	2.3	1885	23.4	1528	2020	75.6		SH - Wet surface. Not compact. Requested more passes		
ec 1/16	028	150	0+175	2.3	2052	21.1	1694	2020	83.9		SH - Moist surface, compact		
ec 1/16 ec 1/16	029	150	0+175	2.3	1898	24.3	1527	2020	75.6		SH - Tested after area re-packed		
Dec 1/16	030	150	0+133	2.25	1951	24.2	1571	2020	77.8	90.9	IM - Recommended slight reduction in water for compaction.		
ec 1/16 ec 1/16	030	150	0+215	2.25	1890	25.6	1505	2020	74.5		IM - Recommended slight reduction in water for compaction.		
ec 1/16 ec 1/16	031	150	0+215	2.25	1878	25.9	1492	2020	73.8		IM - Recommended slight reduction in water for compaction.		
ec 1/16	032	150	0+225		1947	15.6	1684	2020	83.4		IM - >10 passes with CS563 10 ton packer		
	033		0+240	2.1	1947			2020	79.5	69.8	·		
ec 1/16	034	150 150	0+230	2.1 2.2	1973	22.9 27.0	1605	2020			IM - >10 passes with CS563 10 ton packer IM - >10 passes with CS563 10 ton packer		
ec 1/16							1537		76.1				
ec 1/16	036	150	0+210	2.2	1946	23.8	1572	2020	77.8		IM - >10 passes with CS563 10 ton packer		
ec 2/16	037	150	0+110	2.1	1938	19.4	1623	2020	80.4		IM - >10 passes w/CS563 - unable to pound pin past 150 mm2°C when placed		
ec 2/16	038	150	0+100	2.1	1993	19.4	1669	2020	82.6		IM - >10 passes w/CS563 - unable to pound pin past 150 mm2°C when placed		
ec 2/16	039	100	0+95	2.1	1800	16.4	1546	2020	76.6		IM - >10 passes w/CS563 - unable to pound pin past 100 mm2°C when placed		
ec 2/16	040	150	0+120	2.1	1966	17.7	1670	2020	82.7		IM - >10 passes w/CS563 - unable to pound pin past 100 mm2°C when placed		
ec 2/16	041	150	0+130	2.1	1984	17.8	1684	2020	83.4		IM - >10 passes w/CS563 - unable to pound pin past 150 mm2°C when placed		
ec 2/16	042	150	0+140	2.1	1890	16.2	1627	2020	80.5		IM - >10 passes w/CS563 - unable to pound pin past 150 mm2°C when placed		
ec 2/16	043	150	0+160	2.1	1896	16.8	1623	2020	80.4		IM - >10 passes w/CS563 - unable to pound pin past 150 mm2°C when placed		
ec 2/16	044	100	0+150	2.1	1816	19.4	1521	2020	75.3	67.6	IM - >10 passes w/CS563 - unable to pound pin past 100 mm2°C when placed		
ec 4/16	045	150	0+203	2	1943	23.6	1572	2020	77.8	88.8	IM - >8 passes w/CS563. Material just above 0°C when placed		
ec 4/16	046	150	0+212	2	1948	22.3	1593	2020	78.9	86.6	IM - >8 passes w/CS563. Material just above 0°C when placed		
ec 4/16	047	150	0+220	2	1925	22.6	1570	2020	77.7		IM - >8 passes w/CS563. Material just above 0°C when placed		
ec 4/16	048	150	0+227	1.9	1960	18.7	1651	2020	81.7		IM - >8 passes w/CS563. Material just above 0°C when placed		
ec 4/16	049	200	0+210	1.8	1922	27.6	1506	2020	74.6		IM - >8 passes w/CS563. High moisture content discussed with KSL		
ec 4/16	050	200	0+220	1.8	1877	29.4	1451	2020	71.8		IM - >8 passes w/CS563. High moisture content discussed with KSL		
ec 5/16	051	100	0+280	1.8	1793	23.8	1448	2020	71.7		IM - > 8-10 passes with CS563, trace to some gravel, awaiting proctor		
ec 5/16	052	100	0+280	1.8	1745	24.2	1405	2020	69.6		IM - > 8-10 passes with CS563, trace to some gravel, awaiting proctor		
ec 5/16	053	100	0+286	1.8	1769	28.6	1376	2020	68.1		IM - > 8-10 passes with CS563, trace to some gravel, awaiting proctor		
ec 5/16	054	100	0+285	1.8	1748	30.6	1338	2020	66.3		IM - > 8-10 passes with CS563, trace to some gravel, awaiting proctor		
ec 5/16	055	100	0+291	1.8	1849	23.5	1497	2020	74.1	79.0	IM - > 8-10 passes with CS563, trace to some gravel, awaiting proctor		
ec 5/16	056	100	0+298	1.8	1880	21.3	1550	2020	76.7	77.5	IM - > 8-10 passes with CS563, trace to some gravel, awaiting proctor		

# **APPENDIX E6**

KEY TRENCH BASE MATERIAL JAR AND MOISTURE CONTENT TEST RESULTS



### TABLE E6: DIKE D-CP1 KEY TRENCH JAR TEST SUMMARY RESULTS

	DINE D-CPT N		Survey Data Jar Test Results									
Sample #	Date Tested	Sample Type	Approx. Station	Sample Depth (m)	Height of Supernatant Water (mm)	Height of Saturated Sediment (mm)	Percentage of Excess Supernatant Water in Thawed Soil Sample (by volume) (%)	Moisture Content (%)	Bulk Density (kg/m3)	Ice Content Description	Material Acceptance	Soil Description
1	29-Oct-16	Disturbed	0+011	1.82	48	82	36.9			Icy Soil	Not Acceptable	
2	29-Oct-16	Disturbed	0+047	1.35	37	30	55.2			Icy Soil	Not Acceptable	
3	29-Oct-16	Disturbed	0+100	1.57	65	63	50.8			Icy Soil	Not Acceptable	
4	29-Oct-16	Disturbed	0+159	1.31	52	70	42.6	72.4		Icy Soil	Not Acceptable	
5	29-Oct-16	Disturbed	0+209	1.20						No Sample Obtained		
6	29-Oct-16	Disturbed	0+252	1.47	10	95	9.5	27.1		Ice-Saturated Soil	Acceptable	
7	29-Oct-16	Disturbed	0+294	1.58						No Sample Obtained		
8	29-Oct-16	Disturbed	0+349	1.96	15	57	20.8	38.0		Ice-Rich Soil	Not Acceptable	
9	29-Oct-16	Disturbed	0+398	1.51	20	75	21.1	58.3		Ice-Rich Soil	Not Acceptable	
10	29-Oct-16	Disturbed	0+448	1.69	10	95	9.5	2.7		Ice-Saturated Soil	Acceptable	
11	29-Oct-16	Disturbed	0+496	1.43	7	78	8.2	16.3		Ice-Saturated Soil	Acceptable	
12	29-Oct-16	Disturbed	0+546	1.52	23	95	19.5	35.1		Ice-Rich Soil	Not Acceptable	
13	04-Nov-16	Disturbed	0+022	1.81	0	75	0.0	9.2		Not Ice-Saturated	Not Acceptable	
14	04-Nov-16	Disturbed	0+032	1.71	3	45	6.3	11.3		Ice-Saturated Soil	Acceptable	
15	04-Nov-16	Disturbed	0+043	1.37	16	80	16.7	42.4		Ice-Rich Soil	Not Acceptable	
16	04-Nov-16	Disturbed	0+053	1.52	0	60	0.0	8.3		Not Ice-Saturated	Not Acceptable	
17	04-Nov-16	Disturbed	0+063	1.63	0	90	0.0	8.5		Not Ice-Saturated	Not Acceptable	
18	04-Nov-16	Disturbed	0+073	1.61	0	115	0.0	11.7		Not Ice-Saturated	Not Acceptable	
19	04-Nov-16	Disturbed	0+083	1.68	0	120	0.0	5.4		Not Ice-Saturated	Not Acceptable	
20	04-Nov-16	Disturbed	0+094	1.62	0	165	0.0	7.5		Not Ice-Saturated	Not Acceptable	
21	05-Nov-16	Disturbed	0+013	1.82	4	63	6.0	14.1		Ice-Saturated Soil	Aceptable	
22	05-Nov-16	Disturbed	0+026	1.77	28	30	48.3	66.9		Icy Soil	Not Acceptable	
23	05-Nov-16	Disturbed	0+032	1.69	34	36	48.6	69.7		Icy Soil	Not Acceptable	
24	06-Nov-16	Disturbed	0+050	1.58	9	50	15.3	24.6		Ice-Rich Soil	Not Acceptable	
25	06-Nov-16	Disturbed	0+059	1.02	28	42	40.0	123.1		Icy Soil	Not Acceptable	
26	06-Nov-16	Disturbed	0+068	1.79	47	28	62.7	100.7		Icy Soil	Not Acceptable	
27	06-Nov-16	Disturbed	0+077	1.83	18	41	30.5	44.1		Icy Soil	Not Acceptable	
28	06-Nov-16	Disturbed	0+086	1.49	30	35	46.2	53.8		Icy Soil	Not Acceptable	
29	06-Nov-16	Disturbed	0+095	1.40	6	55	9.8	19.4		Ice - Saturated Soil	Acceptable	
30	06-Nov-16	Disturbed	0+105	1.24	0	110	0.0	4.5		Not Ice-Saturated	Not Acceptable	
31	06-Nov-16	Disturbed	0+127	1.46	6	55	9.8	26.6		Ice - Saturated Soil	Acceptable	

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32	06-Nov-16	Disturbed	0+133	1.28	41	34	54.7	84.2		Icy Soil	Not Acceptable	
33	06-Nov-16	Disturbed	0+152	1.52	32	38	45.7	60.8		Icy Soil	Not Acceptable	
34	06-Nov-16	Disturbed	0+163	1.72	17	49	25.8	29.6		Ice-Rich Soil	Not Acceptable	
35	06-Nov-16	Disturbed	0+168	1.56	3	73	3.9	8.3		Ice - Saturated Soil	Acceptable	
36	09-Nov-16	Disturbed	0+170	1.60	8	54	12.9	19.5		Ice-Rich Soil	Not Acceptable	
37	10-Nov-16	Disturbed	0+050	1.96	18	54	25.0	48.3		Ice-Rich Soil	Not Acceptable	
38	10-Nov-16	Disturbed	0+090	1.45	0	70	0.0	12.2		Not Ice-Saturated	Not Acceptable	
39	10-Nov-16	Disturbed	0+100	1.64	60	20	75.0	149.0		Icy Soil	Not Acceptable	
40	10-Nov-16	Disturbed	0+091	1.52	44	33	57.1	97.4		Icy Soil	Not Acceptable	
41	10-Nov-16	Disturbed	0+130	1.40	32	20	61.5	107.4		Icy Soil	Not Acceptable	
42	10-Nov-16	Disturbed	0+140	1.55	48	21	69.6	152.8		Icy Soil	Not Acceptable	
43	10-Nov-16	Disturbed	0+150	1.41	2	53	3.6	11.4		Ice-Saturated Soil	Acceptable	
44	10-Nov-16	Disturbed	0+160	1.60	35	25	58.3	83.5		Icy Soil	Not Acceptable	
45	10-Nov-16	Disturbed	0+170	1.40	0	95	0.0	7.6		Not Ice-Saturated	Not Acceptable	
46	11-Nov-16	Disturbed	0+100	1.82	15	45	25.0	29.8		Ice-Rich Soil	Not Acceptable	
47	11-Nov-16	Disturbed	0+130	1.90	11	58	15.9	20.9		Ice-Rich Soil	Not Acceptable	
48	11-Nov-16	Disturbed	0+140	1.85	32	35	47.8	70.7		Icy Soil	Not Acceptable	
49	11-Nov-16	Disturbed	0+150	1.80	28	34	45.2	59.5		Icy Soil	Not Acceptable	
50	11-Nov-16	Disturbed	0+160	1.95	34	28	54.8	84.7		Icy Soil	Not Acceptable	
51	11-Nov-16	Disturbed	0+165	1.85	31	36	46.3	65.1		Icy Soil	Not Acceptable	
52	12-Nov-16	Disturbed	0+130	1.85	5	20	20.0	27.3		Ice-Rich Soil	Not Acceptable	
53	12-Nov-16	Disturbed	0+120	1.80	14	28	33.3	39.2		Icy Soil	Not Acceptable	
54	12-Nov-16	Disturbed	0+110	1.80	25	23	52.1	75.8		Icy Soil	Not Acceptable	
55	12-Nov-16	Disturbed	0+030	2.00	0	75	0.0	8.9		Not Ice-Saturated	Not Acceptable	
56	12-Nov-16	Disturbed	0+020	1.90	0	110	0.0	4.5		Not Ice-Saturated	Not Acceptable	
57	12-Nov-16	Disturbed	0+010	1.60	0	115	0.0	11.9		Not Ice-Saturated	Not Acceptable	
58	13-Nov-16	Disturbed Core	0+095	2.05	20	30	40.0	35.7		Icy Soil	Not Acceptable	
59	13-Nov-16	Disturbed Core	0+105	2.10	20	25	44.4	47.3		Icy Soil	Not Acceptable	
60	13-Nov-16	Disturbed Core	0+115	2.10	0	60	0.0	7.1		Not Ice-Saturated	Not Acceptable	
61	13-Nov-16	Disturbed Core	0+125	2.25	0	40	0.0	11.0		Not Ice-Saturated	Not Acceptable	
62	13-Nov-16		0+135	2.70						No Sample Obtained (Bedroc	k)	
63	13-Nov-16	Disturbed Core	0+145	2.25	0	40	0.0	0.3		Not Ice-Saturated	Not Acceptable	
64	15-Nov-16	Core	0+205	1.45	95	65	59.4	75.6	1474	Icy Soil	Not Acceptable	SILT sandy some gravel to gravelly

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65	45 NL 40	<b>~</b>	0.045	4.00	40	50	44.4	70.0	4005	1. 0.7	Nechanistalle	Con CAND to a city	
	15-Nov-16	Core	0+215	1.60	40	50	44.4	70.3	1395	Icy Soil	Not Acceptable	fine SAND, trace silt	
66	15-Nov-16	Core	0+225	1.44	40	55	42.1	50.5	1318	Icy Soil	Not Acceptable	SAND some gravel, some silt	
67	15-Nov-16	Core	0+235	1.50	70	80	46.7	78.5	1656	Icy Soil	Not Acceptable	fine SAND, trace silt	
68	15-Nov-16	Disturbed Core	0+245	1.39	30	32	48.4	84.2		Icy Soil	Not Acceptable	fine SAND, some silt	
69	15-Nov-16	Core	0+255	1.30	58	68	46.0	90.3	1674	Icy Soil	Not Acceptable	SAND silty trace gravel	
70	15-Nov-16	Core	0+265	1.41	89	34	72.4	253.4	1295	Icy Soil	Not Acceptable	fine SAND, silty	
71	16-Nov-16	Disturbed Core	0+326	1.50	34	22	60.7	123.1		Icy Soil	Not Acceptable	SAND silty, gravelly	
72	16-Nov-16	Core	0+315	1.40	76	30	71.7	223.4	1012	Icy Soil	Not Acceptable	SAND, silty, trace gravel	
73	16-Nov-16	Core	0+305	1.60	14	138	9.2	25.8	2011	Ice-Saturated Soil	Acceptable	SAND, trace to some silt	
74	16-Nov-16	Disturbed Core	0+295	1.40	37	26	58.7	130.9		Icy Soil	Not Acceptable	SAND silty	
75	16-Nov-16	Disturbed Core	0+285	1.50	31	27	53.4	27.1		Icy Soil	Not Acceptable	SILT sandy, gravelly, - cobble noted	
76	16-Nov-16	Disturbed Core	0+275	1.55	39	46	45.9	82.0		Icy Soil	Not Acceptable	SAND silty	
77	17-Nov-16	Core	0+200	1.78	32	109	22.7	43.3	1401	Icy Soil	Not Acceptable	fine SAND, trace silt	
78	17-Nov-16	Core	0+220	1.80	34	44	43.6	56.8	1575	Icy Soil	Not Acceptable	SAND, silty, some gravel	
79	17-Nov-16	Disturbed Core	0+230	1.86	69	61	53.1	72.8		Icy Soil	Not Acceptable	SAND, silty, gravelly	
80	17-Nov-16	Core	0+240	1.90	76	20	79.2	340.0	1018	Icy Soil	Not Acceptable	fine SAND, some silt to silty	
81	17-Nov-16	Broken Core	0+250	1.86	59	41	59.0	59.1	1424	Icy Soil	Not Acceptable	SAND, trace silt, + cored through cobble	
82	17-Nov-16	Broken Core	0+260	1.76	69	43	61.6	140.2	1049	Icy Soil	Not Acceptable	SAND, trace silt	
83	18-Nov-16	Broken Core	0+270	1.76	49	67	42.2	69.0	1480	Icy Soil	Not Acceptable	SAND, some silt, trace gravel; fine grained sand	
84	18-Nov-16	Core	0+280	1.75	29	68	29.9	37.8	1618	Icy Soil	Not Acceptable	SAND, gravelly, some silt	
85	18-Nov-16	Broken Core	0+290	1.85	42	59	41.6	32.2	1538	Icy Soil	Not Acceptable	SAND, gravelly, some silt	
86	18-Nov-16	Disturbed Core	0+300	2.00	35	13	72.9	437.3		Icy Soil	Not Acceptable	SAND, some silt, some gravel	
87	18-Nov-16	Core	0+310	1.85	39	60	39.4	63.4	1471	Icy Soil	Not Acceptable	SAND, some silt; poorly graded fine sand	
88	18-Nov-16	Broken Core	0+320	1.84	12	120	9.1	30.2	1956	Ice-Saturated Soil	Acceptable	SAND, trace to some silt	
89	20-Nov-16	Disturbed Core	0+171	1.72	11	26	29.7	43.1		Ice-Rich Soil	Not Acceptable	SAND, silty / SILT, sandy - some gravel	
90	20-Nov-16	Disturbed Core	0+180	1.79	28	14	66.7	20.0		Icy Soil	Not Acceptable	SAND, silty / SILT, sandy - some gravel	
91	20-Nov-16	Disturbed Core	0+190	1.92	23	20	53.5	100.8		Icy Soil	Not Acceptable	SILT, some sand, trace gravel	
92	20-Nov-16	Core	0+200	1.88	19	30	38.8	48.7	1770	Icy Soil	Not Acceptable	SAND, gravelly, some silt	
93	21-Nov-16	Core	0+100	2.85	10	75	11.8	7.5	2219	Ice-Rich Soil	Not Acceptable	SAND, silty, gravelly	
94	21-Nov-16		0+120							No Sample Obtained (Bedroc	k)		
95	21-Nov-16	Disturbed Core	0+140	2.79	0	100	0.0	2.9		Not Ice-Saturated	Not Acceptable	SAND, silty, some gravel	
96	21-Nov-16	Core	0+160	2.70	5	60	7.7	11.4	2026	Ice-Saturated Soil	Acceptable	SAND, silty, trace gravel; fine sand	
97	22-Nov-16		0+170	2.25	No Sample Obtained (Bedrock)								
98	22-Nov-16		0+180	2.18	No Sample Obtained (Bedrock)								
,	22-Nov-16		0+190	2.35	No Sample Obtained (Bedrock)								



100	22-Nov-16		0+200	2.20						No Sample Obtained (Bedrock	;)	
101	22-Nov-16	Core	0+210	2.33	10	29	25.6	38.7	1184	Ice-Rich Soil	Not Acceptable	SAND, some silt
102	22-Nov-16	Core	0+220	2.34	35	30	53.8	80.1	1442	Icy Soil	Not Acceptable	SAND and SILT, some gravel
103	22-Nov-16		0+230	2.30						No Sample Obtained (Bedrock	x)	
104	22-Nov-16	Core	0+240	2.32	15	84	15.2	37.1	1987	Ice-Rich Soil	DRE/DE Acceptable	SAND, trace silt to silty
105	22-Nov-16	Core	0+250	2.29	14	53	20.9	25.6	2004	Ice-Rich Soil	DRE/DE Acceptable	SAND, silty, some gravel
106	22-Nov-16	Disturbed Core	0+260	2.20	0	60	0.0	7.9		Not Ice-Saturated	Confirmatory test required	SAND, trace to some silt - Appears to be bedrock at bottom of core
107	22-Nov-16	Disturbed Core	0+270	2.33	6	51	10.5	19.1		Ice-Saturated Soil	DRE/DE Acceptable	SAND, silty, gravelly
108	22-Nov-16	Disturbed Core	0+280	2.33	4	37	9.8	10.0		Ice-Saturated Soil	Acceptable	SAND, gravelly, silty
109	22-Nov-16	Disturbed Core	0+290	2.43	5	29	14.7	13.0		Ice-Rich Soil	DRE/DE Acceptable	SAND, silty, gravelly, - possible piece of bedrock
110	22-Nov-16	Core	0+300	2.34	0	110	0.0	13.2	1941	Not Ice-Saturated	DRE/DE Acceptable	SAND, trace silt - Appears to be bedrock at bottom of core
111	23-Nov-16	Broken Core	0+255	2.36	14	84	14.3	30.4	1187	Ice-Rich Soil	DRE/DE Acceptable	SAND, silty, some gravel
112	23-Nov-16	Core	0+265	2.33	0	150	0.0	21.1	2016	Ice-Saturated Soil	Acceptable	SAND, some silt; medium to fine grained sand
113	24-Nov-16	Core	0+355	1.38	32	20	61.5	139.5	1240	Icy Soil	Not Acceptable	SAND, trace to some silt, trace to some gravel
114	24-Nov-16	Broken Core	0+365	1.48	40	22	64.5	59.9	1666	Icy Soil	Not Acceptable	SAND (fine), some silt to silty, cored through cobble / boulder
115	24-Nov-16	Disturbed Core	0+376	1.51	25	33	43.1	57.8		Icy Soil	Not Acceptable	SAND, silty / SILT, sandy - some gravel
116	24-Nov-16	Broken Core	0+384	1.40	4	39	9.3	17.2	1900	Ice-Saturated Soil	Acceptable	SAND, some silt to silty, trace gravel
117	24-Nov-16	Core	0+395	1.40	29	96	23.2	34.7	1910	Ice-Rich Soil	Not Acceptable	SAND, some silt to silty, some gravel gravel to gravelly
118	24-Nov-16	Bedrock	0+405	1.38								
119	25-Nov-16		0+355	1.89	43	17	71.7	201.7	1239	Icy Soil	Not Acceptable	SAND silty / SILT sandy, trace to some gravel
120	25-Nov-16		0+365	1.88	44	16	73.3	205.6	1256	Icy Soil	Not Acceptable	SILT, some sand to sandy, trace gravel
121	25-Nov-16		0+375	1.89	41	38	51.9	63.6	1618	Icy Soil	Not Acceptable	SILT, some sand to sandy, some gravel to gravelly
122	26-Nov-16	Rocky	0+425	1.44								
123	26-Nov-16		0+435	1.42	35	35	50.0		1463	Icy Soil	Not Acceptable	SILT, sandy, bottom of core was rock
124	27-Nov-16	Broken Core	0+365	2.30	17	30	36.2	35.6	1760	Icy Soil	Not Acceptable	SILT, sandy, gravelly - NOTE VERY SMALL SAMPLE
125	27-Nov-16	Rocky	0+375	2.29								
126	27-Nov-16	Disturbed Core	0+385	2.27	12	32	27.3	23.3		Ice-Rich Soil	Not Acceptable	SILT, sandy, gravelly - NOTE VERY SMALL SAMPLE
127	27-Nov-16	Disturbed Core	0+395	2.39	15	24	38.5	38.3		Icy Soil	Not Acceptable	SAND (med-coarse, poorly grded), sm gravel, sm silt - VERY SMALL SAMPLE
128	27-Nov-16	Rocky	0+405	2.20								
129	28-Nov-16	Broken Core	0+457	1.35	5	66	7.0	17.6	2143	Ice Saturated Soil	Acceptable	SAND (medium to coarse, well graded), some gravel, trace silt - seashell incl.
130	28-Nov-16	Disturbed Core	0+465	1.38	11	11	50.0	61.2		Icy Soil	Not Acceptable	SAND, some silt to silty, trace gravel - NOTE VERY SMALL SAMPLE
131	28-Nov-16	Disturbed Core	0+475	1.39	8	21	27.6	27.7		Ice Rich	Not Acceptable	SAND (medium to coarse, poorly graded), some gravel, trace silt - seashell incl.
132	28-Nov-16	Disturbed Core	0+425	2.04	24	14	63.2	168.1		Icy Soil	Not Acceptable	SAND, some silt to silty, trace gravel - NOTE VERY SMALL SAMPLE

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133	28-Nov-16	Core	0+435	2.03	5	25	16.7	15.0		Ice-Rich Soil	Not Acceptable	Appears to be broken bedrock with cuttings
134	03-Dec-16	Broken Core	0+455	2.07	11	90	10.9	21.0	1977	Slightly Ice-Rich Soil	Acceptable	SAND (med to coarse), trace to some silt, trace gravel - seashells throughout
135	03-Dec-16	Broken Core	0+465	2.01	68	53	56.2	107.6	1129	Icy Soil	Not Acceptable	SAND, silty, to SILT, sandy - seashells throughout
136	03-Dec-16	Broken Core	0+475	1.94	59	58	50.4	83.9	1356	Icy Soil	Not Acceptable	SAND, silty, to SILT, sandy - seashells throughout
137	03-Dec-16	Disturbed Core	0+485	2.03	31	45	40.8	53.5	-	Icy Soil	Not Acceptable	SAND, silty, to SILT, sandy - seashells throughout
138	03-Dec-16	Disturbed Core	0+495	2.00	48	59	44.9	107.9	-	Icy Soil	Not Acceptable	SAND, silty, to SILT, sandy - seashells throughout
139	04-Dec-16	No Sample	0+455	2.25						Sample Not Taken		
140	04-Dec-16	Broken Core	0+465	2.38	0		0	24.1	2022	Not Ice-Saturated	Not Acceptable	SAND, some silt, trace gravel, organics, brown subrounded predominately coarse grained sand; large quantity (20%) shells
141	04-Dec-16	Broken Core	0+475	2.24	34	77	30.6	57.3	1709	Icy Soil	Not Acceptable	SAND, silty, trace gravel, organics, brownish grey; medium and fine grained sand with silt; 5% shells
142	04-Dec-16	Broken Core	0+485	2.26	0		0	38.5	-	Not Ice-Saturated	Not Acceptable	SILT, sandy, trace gravel, organics, grey, predominately fine sand and silt, shells (10%)
143	04-Dec-16	Broken Core	0+495	2.25	60	74	44.8	92.5	1449	Icy Soil	Not Acceptable	SILT, sandy, trace gravel, organics; brownish grey, 10% shells
144	06-Dec-16	Broken Core	0+537	1.70	0		0	13.6	-	Not Ice-Saturated	Not Acceptable	SAND - coarse, gap graded, tr. silt, tr. gravel, organics, bedrock at core bottom
145	06-Dec-16	Broken Core	0+555	1.40	33	38	46.5	57.5	-	Icy Soil	Not Acceptable	SILT, sandy (fine), some gravel to gravelly
146	06-Dec-16	Broken Core	0+567	1.50	30	61	33.0	36.9	-	Icy Soil	Not Acceptable	SILT, sandy (fine), some gravel to gravelly
147	12-Dec-16	Broken Core	0+360	2.80	24	55	30.4	31.2		Ice-Rich-Soil	Not Acceptable	SAND, silty, some gravel
148	12-Dec-16	Disturbed Core	0+333	2.80	0		0.0	10.5		Not Ice-Saturated	Not Acceptable	SAND, gravelly, silty
149	12-Dec-16	Disturbed Core	0+380	2.80	0		0.0	8.2		Not Ice-Saturated	Not Acceptable	SAND, trace to some silt
150	12-Dec-16	Disturbed Core	0+400	2.80	0		0.0	3.0		Not Ice-Saturated	Not Acceptable	SAND, silty, some gravel
151	12-Dec-16	Disturbed Core	0+420	2.80	0		0.0	8.9		Not Ice-Saturated	Not Acceptable	SAND, trace to some silt
152	12-Dec-16	Disturbed Core	0+440	2.80	4	56	6.7	13.1		Ice-Saturated Soil	Acceptable	SAND, silty, gravelly
153	12-Dec-16	Core	0+527	1.60	21	66	24.1	69.3	1477	Ice Rich	Not Acceptable	SILT, sandy / SAND silty, trace gravel, seashells throughout
154	12-Dec-16	Core	0+545	2.10	35	46	43.2	53.6	1655	Icy Soil	Not Acceptable	SAND, gravelly, silty, cored through cobble
155	12-Dec-16	Core	0+555	2.10	27	47	36.5	26.2	1864	Icy Soil	Not Acceptable	SAND, gravelly, silty, cored through cobble
156	12-Dec-16	Disturbed Core	0+565	1.97	53	79	40.2	44.8	-	Icy Soil	Not Acceptable	SILT, sandy, some gravel to gravelly
157	12-Dec-16	Disturbed Core	0+575	1.75	41	93	30.6	38.8	-	Icy Soil	Not Acceptable	SILT, sandy, some gravel to gravelly
158	17-Dec-16	Disturbed Core	0+535	2.42	35	30	53.8	101.9	-	Icy Soil	Not Acceptable	SAND, silty, to SILT, sandy
159	17-Dec-16	Disturbed Core	0+545	2.63	29	36	44.6	50.2	-	Icy Soil	Not Acceptable	SAND, silty / SILT, sandy - some gravel
160	17-Dec-16	Disturbed Core	0+555	2.62	15	55	21.4	26.4	-	Icy Soil	Not Acceptable	SAND, gravelly, silty
161	17-Dec-16	Disturbed Core	0+565	2.47	0	0	0.0	13.8	-	Not Ice-Saturated	Not Acceptable (Bulk density NA)	SAND - coarse, gap graded, tr. silt, tr. gravel
162	17-Dec-16	Disturbed Core	0+575	2.40	0	0	0.0	11.0	-	Not Ice-Saturated	Not Acceptable (Bulk density NA)	SAND, silty, trace gravel; fine sand
163	17-Jan-17	Core	0+499	1.40	5	88	5.4	35.0	1184	Ice-Saturated	Not Acceptable (high moisture content, low bulk density)	SAND, some silt to silty, some gravel gravel to gravelly
164	17-Jan-17	Core	0+525	1.47	15	70	17.6	78.0	1760	Ice Rich Soil	Not Acceptable	SILT sandy some gravel to gravelly
165	26-Jan-17	Core	0+500	1.92	40	28	58.8	178.0	1289	Icy Soil	Not Acceptable	SAND, some silt to silty, trace gravel
166	26-Jan-17	Core	0+514	1.76	19	47	28.8	278.0	1234	Ice Rich Soil	Not Acceptable	SAND, Silty, Tr Gravel
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