

APPENDIX D2

ENGINEERING CHANGE NOTICES (ECNS)

**AGNICO EAGLE**

MELIADINE GOLD MINE PROJECT

ENGINEERING CHANGE NOTICE

Contract No: OL-459893-L

Contract Title: Block 007 - Water Management Infrastructure

Contractor: Tetra Tech EBA Inc.

Date: 10-Nov-16

ECN No: 6515-C-235-007-ECN-001_RA

ECN Title: Revision 1 for Construction Specifications of D-CP1 and D-CP5

ECN Description:

We have updated the construction specifications (from Revision 0 into Revision 1) for D-CP1 and D-CP5 to include additional information for clarification:

- 1) Add a new section for dike instrumentation installation
- 2) Add additional details for material preparation and placement for Nearly-Saturated Backfill
- 3) Add additional details for liner QC/QA testing and reporting for the liner installation

Justification:

To add more details and increase clarifications for construction specifications of D-CP1 and D-CP5

List of Deleted, Revised or Added Documents (Add a page to list more if needed)

Item	Document Number	Rev
1	6515-E-132-007-132-SPT-002	R1
1	6515-E-132-007-132-SPT-003	R1

Item	Document Number	Rev

Potential Impacts:On Schedule: Yes ☒ No ☐On Cost: Yes ☒ No ☐

Action Record	TITLE	NAME	Signature	Date
Prepared by:	Package Engineer			
Reviewed by:	Lead Discipline	Duy Nguyen		
Accepted by:	Engineering Manager	Daniel Seguin		
Accepted by:	Project Manager	Jean Routhier		

Notes:

1	Contractor has 10 days to return the Impact on Cost (on the attached Price Breakdown) and Schedule			
2	Contractor is not to proceed with any work until authorized to do so			
Contractor Acknowledgment				
Received by:	Contractor Repres.			

Attachments Forming Part of This Specification:

Section	Rev.	Title of Section
General Specification Section		
6515-C-235-007-230-MTX-001	R2	Documents and Drawings Index
6515-C-235-007-230-SOW-001	R2	Summary of Work
6515-E-132-007-132-SPT-002	R1	Specifications for Dike D-CP1
6515-E-132-007-132-SPT-003	R1	Specifications for Dike D-CP5
6515-C-235-007-230-VDT-001	R1	Vendor Data Requirements Table

Standard Datasheet Section

N/A

Standard Specification Section

Drawing No.	Rev.	Title
6515-GGD-03	R0	Site Information and Design Coefficients
6515-000-133-VDR-001	R0	Vendor Data Requirements

Drawings Forming Part of This Specification:

Drawing No.	Rev.	Title
65-685-230-204	R1	D-CP1 GENERAL LOCATION PLAN
65-685-230-205	R1	D-CP1 KEY TRENCH AND DIKE LAYOUT PLAN
65-685-230-206	R1	D-CP1 PROFILES
65-685-230-207	R1	D-CP1 THERMAL COVER LAYOUT PLAN AND PROFILES
65-685-230-208	R1	D-CP1 TYPICAL SECTIONS AND QUANTITIES
65-685-230-209-01	R1	D-CP1 SECTIONS STATION 0+025 TO 0+200
65-685-230-209-02	R1	D-CP1 SECTIONS STATION 0+225 TO 0+400
65-685-230-209-03	R1	D-CP1 SECTIONS STATION 0+400 TO 0+575
65-685-230-210	R1	D-CP1 DOWNSTREAM WATER COLLECTION CHANNEL AND SUMP LAYOUT PLAN AND PROFILES
65-685-230-211	R1	D-CP1 INSTRUMENTATION PLAN AND DETAILS FOR GROUND TEMPERATURE CABLES
65-685-230-212	R1	D-CP1 INSTRUMENTATION PLAN AND DETAILS FOR GROUND TEMPERATURE CABLES AND SETTLEMENT SURVEY MONUMENT POINTS
65-685-230-213	R1	D-CP1 TYPICAL DETAILS
65-685-230-214	R0	D-CP5 GENERAL LOCATION PLAN
65-685-230-215	R0	D-CP5 KEY TRENCH AND DIKE LAYOUT PLAN

Documents and Drawings Index

Agnico Eagle Mines Limited: Meliadine Project
 6515-C-235-007-MTX-001
 Civil Works – Water Management

65-685-230-216	R0	D-CP5 PROFILES
65-685-230-217	R0	D-CP5 THERMAL COVER LAYOUT PLAN AND PROFILES
65-685-230-218	R0	D-CP1 TYPICAL SECTIONS AND QUANTITIES
65-685-230-219-01	R0	D-CP5 SECTIONS STATION 0+030 TO 0+170
65-685-230-219-02	R0	D-CP5 SECTIONS STATION 0+170 TO 0+310
65-685-230-220	R0	D-CP5 INSTRUMENTATION PLAN AND DETAILS FOR GROUND TEMPERATURE CABLES
65-685-230-221	R0	D-CP5 INSTRUMENTATION PLAN AND DETAILS FOR GROUND TEMPERATURE CABLES AND SETTLEMENT SURVEY MONUMENT POINTS
65-685-230-222	R0	D-CP5 TYPICAL DETAILS
65-000-230-212	R3	CIVIL WORKS 2016 – PLAN VIEW
65-417-230-207	RA	JETTY CP1 – PLAN / CROSS SECTION
65-417-230-208	RA	JETTY CP5 – PLAN / CROSS SECTION
65-695-265-200	R4	PUMPING STATION CP1 – PLAN, ELEVATION, DETAILS
65-695-265-203	R4	PUMPING STATION CP5 – PLAN, ELEVATION, DETAILS

2016-11-10	2	For review	G. Zhang	G. Zhang	G. Zhang	
2016-08-26	1	For Review	M. Ricard	G. Zhang	G. Zhang	D. Nguyen
2016-06-13	0	For Tender	M. Ricard	G. Zhang	G. Zhang	S. Guay
Date	Rev.	Status	Prepared By	Checked By	Approved By	Approved By
						Client

END OF SECTION

**AGNICO EAGLE****MELIADINE GOLD MINE PROJECT****ENGINEERING CHANGE NOTICE**

Contract No: OL-459893-L

Contract Title: Block 007 - Water Management Infrastructure

Contractor: Tetra Tech EBA Inc.

Date: 10-Nov-16

ECN No:

6515-C-235-007-ECN-002_RA

ECN Title:

Design Change of Dike Liner Key-in Detail at Crest for D-CP1 and D-CP5

ECN Description:

In the meeting with Luciano and Duy on October 28, 2016, Luciano suggested some changes to avoid sharp corners of the liner in anchoring the liner over the dike crest. As directed, we have prepared two drawings (see attached) to show the proposed design changes for your review:

- 1) Proposed dike crest design change No.1 for D-CP1.
- 2) Proposed dike crest design change No.1 For D-CP5.

Justification:

As suggested by the extremal reviewer (Luciano), minor changes to the dike liner key-in at crest were made to avoid sharp corners of the liner in anchoring the liner over the dike crest.

List of Deleted, Revised or Added Documents (Add a page to list more if needed)

Item	Document Number	Rev
1	Proposed Design Change No1 for D-CP1	RA
1	Proposed Design Change No1 for D-CP5	RA

Item	Document Number	Rev

Potential Impacts:

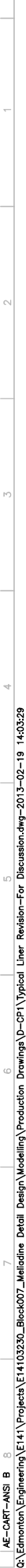
On Schedule:

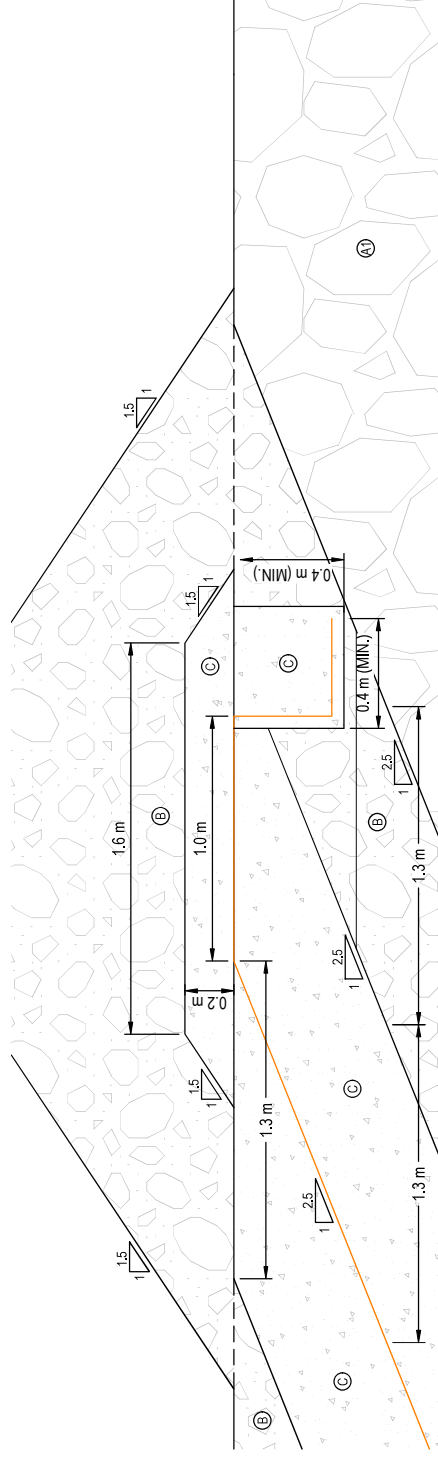
Yes ☒No ☐On Cost: Yes ☒No ☐

Action Record	TITLE	NAME	Signature	Date
Prepared by:	Package Engineer	Gordon Zhang		Nov. 14, 2016
Reviewed by:	Lead Discipline	Duy Nguyen	Duy Nguyen	
Accepted by:	Engineering Manager	Daniel Seguin		
Accepted by:	Project Manager	Marcel Beaudoin		

Notes:

1	Contractor has 10 days to return the Impact on Cost (on the attached Price Breakdown) and Schedule		
2	Contractor is not to proceed with any work until authorized to do so		
Contractor Acknowledgment			
Received by:		Contractor Repres.	

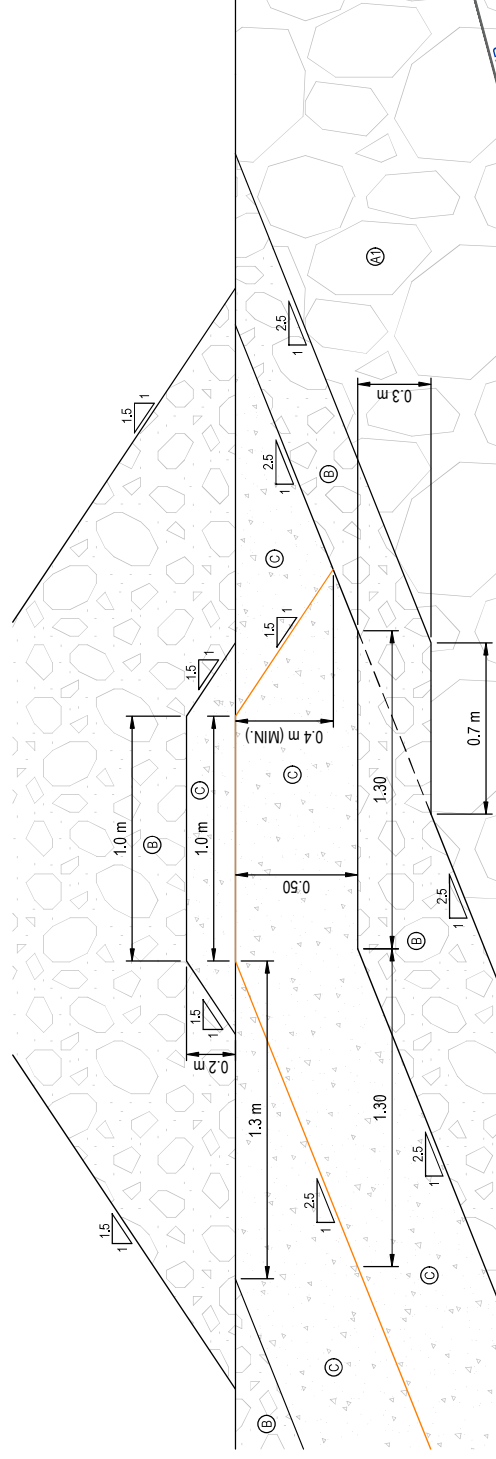




TYPICAL LINER KEY-IN AT CREST - PREVIOUS DESIGN

NOT TO SCALE

4
218 (65-685-230-222 R0)



TYPICAL LINER KEY-IN AT CREST - REVISED DESIGN

NOT TO SCALE

4 218

NOTE:
ADDITIONAL MATERIAL 'C' CROSS-SECTIONAL AREA = 0.330 m²
ADDITIONAL MATERIAL 'B' CROSS-SECTIONAL AREA = 0.110 m²

NE PAS UTILISER
POUR CONSTRUCTION
NOT FOR CONSTRUCTION

DATE : 2016-10-28

 **HUSCO**

[illegible]




MELIADINE GOLD MINE PROJECT

ENGINEERING CHANGE NOTICE

ECN Title: Design Change of Dike D-CP1 Over-Liner Bedding (replacing a zone of Type C with Type F)

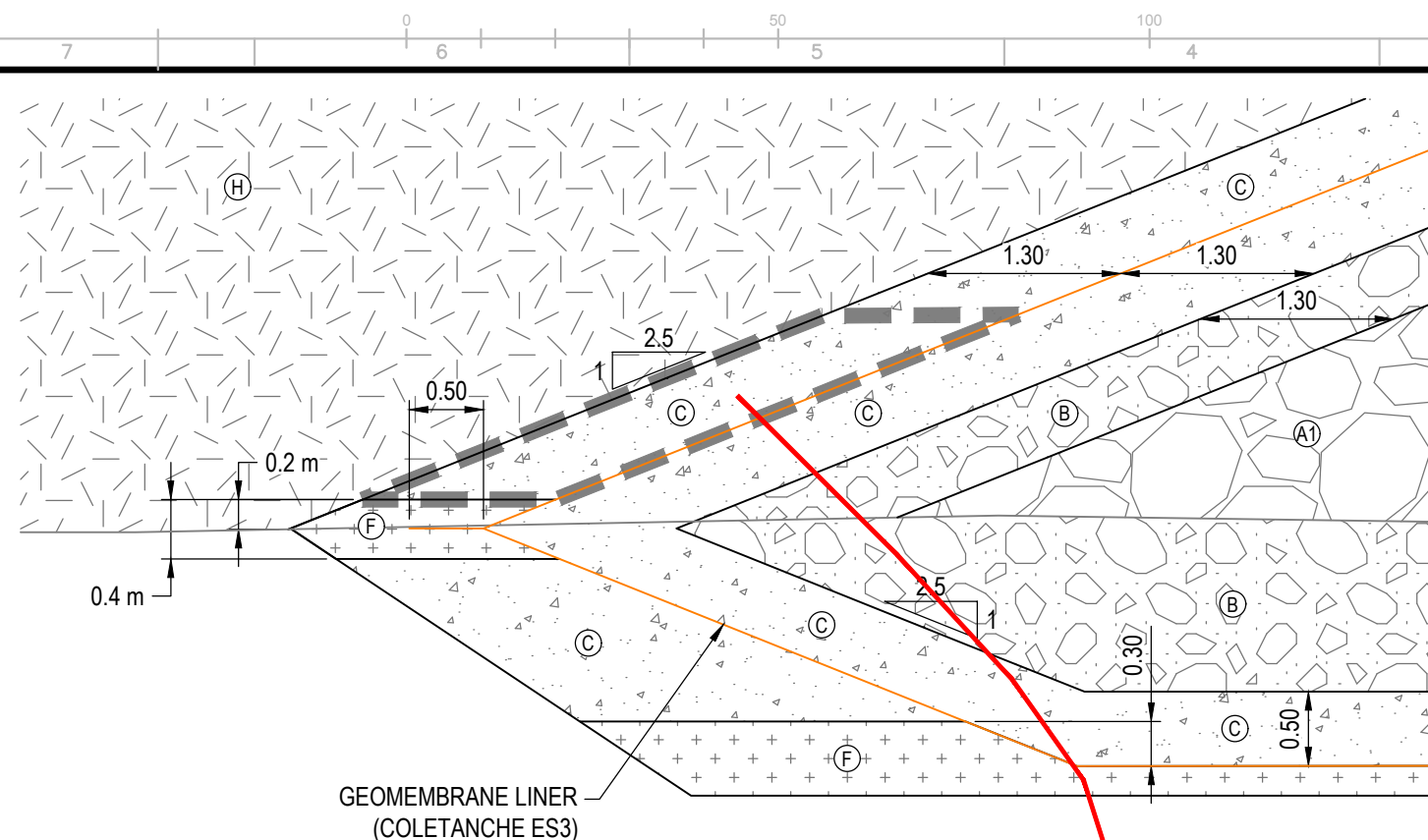
[illegible]

Potential Impacts:	
On Schedule: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	On Cost: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

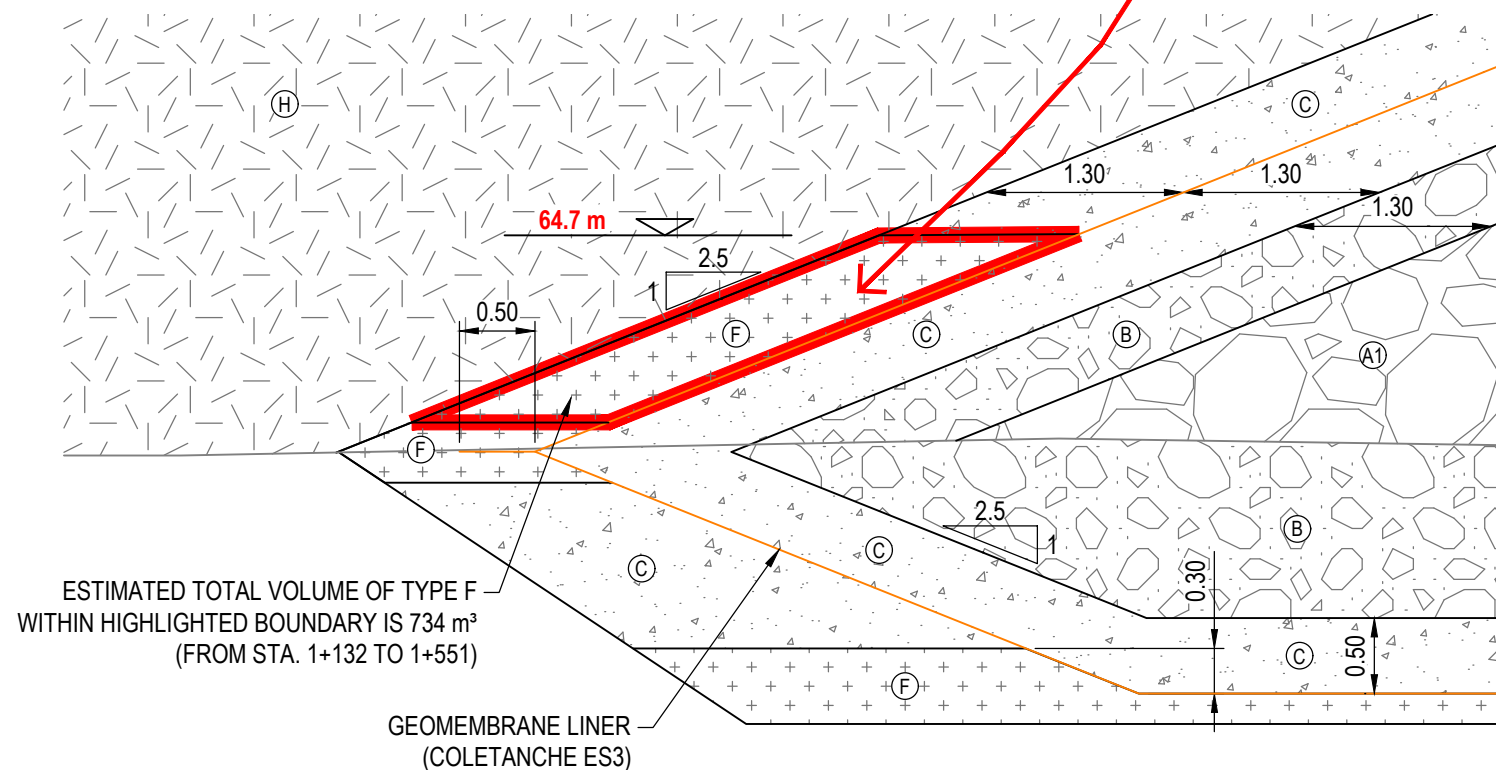
Action Record	TITLE	NAME	Signature	Date
Prepared by:	Package Engineer	Gordon Zhang		17-Apr-17
Reviewed by:	Lead Discipline	Duy Nguyen		
Accepted by:	Engineering Manager	Daniel Seguin		
Accepted by:	Project Manager	Marcel Beaudoin		

Notes:	
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2	Contractor is not to proceed with any work until authorized to do so

Contractor Acknowledgment			
Received by:	Contractor Repres.		



D-CP1 TYPICAL SECTION - CURRENT DESIGN
SCALE: 1:50



D-CP1 TYPICAL SECTION - PROPOSED DESIGN CHANGE
SCALE: 1:50

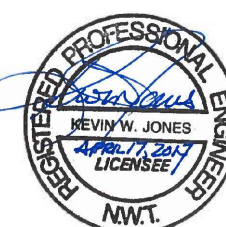
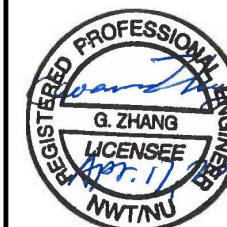
PERMIT TO PRACTICE
TETRA TECH CANADA INC.

Signature [Signature]

Date APRIL 17, 2017

PERMIT NUMBER: P 018

**NT/NU Association of Professional
Engineers and Geoscientists**



AGNICO EAGLE



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[illegible]

DESSINS EN RÉFÉRENCE/REFERENCE DRAWINGS

0	ISSUED FOR CONSTRUCTION	17-04-2017	
A	ISSUED FOR REVIEW	03-04-2017	
REV	DESCRIPTION	DATE	PAP

REVISIONS

DESSINE PAR DRAWN BY	EL	DATE	17-04-2017
VÉRIFIÉ PAR CHECKED BY	GZ		17-04-2017
APPROUVÉ PAR APPROVED BY	KJ		17-04-2017

No. PROJCT
PROJECT NO. 6515

DATE 17-04-2017

TITRE / TITLE	AGNICO EAGLE MELIADINE GOLD PROJECT
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FIGURE 1 OF DESIGN CHANGE ECN 003 FOR D-CP1

ÉCHELLE/ SCALE		FICHIER FILE .DWG	
No. DESSIN/ DRAWING NO.		REVISION	FEUILLE/SHT

Figure 1

	REVISION
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FEUILLE/SHIT
1 / 1

AE-CART-ANSI B

APPENDIX E1

TRANSITION MATERIAL PARTICLE SIZE ANALYSIS RESULTS

PARTICLE SIZE ANALYSIS REPORT

PROJECT: Meliadine Dike Construction

SAMPLE NO: SA03

SAMPLE DESCRIPTION: Type B - 150 mm Minus

Transition Rock

ADDRESS: Meliadine Gold Project, NU.

PROJECT NO: E14103230-01

MOISTURE CONT. : 1.3%

DATE SAMPLED: Nov 11/16 **By:** IM

CLIENT: Agnico Eagle Mines Ltd.

BULK REL DENSITY: n/a

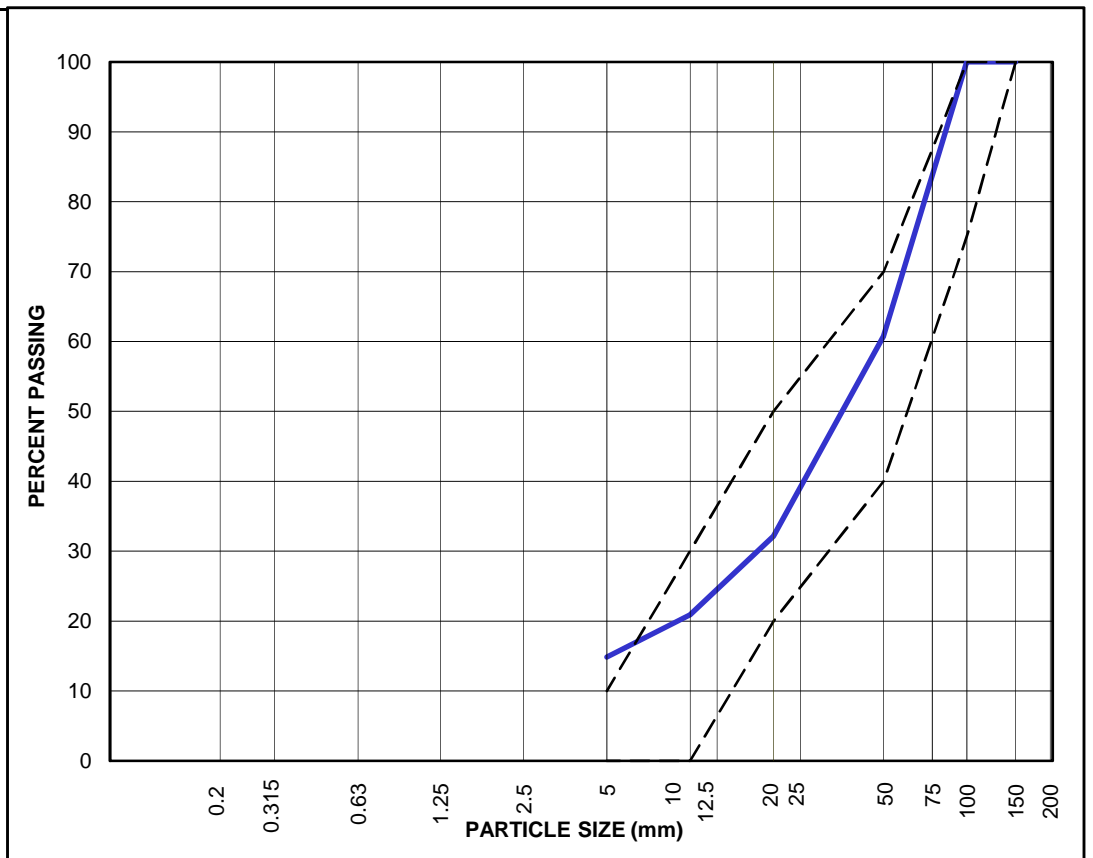
ATTENTION: Mr. Duy Nguyen

BULK REL. DENSITY (SSD): n/a

APPARENT REL. DENSITY: n/a

ABSORPTION: n/a

PARTICLE SIZE	PERCENT PASSING
150	100
100	100
50	61
20	32
10	21
5	15



Remarks: _____

Reviewed by: _____ **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 by an Tetra Tech EBA technician to recognized industry standards, unless otherwise 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.

PARTICLE SIZE ANALYSIS REPORT

PROJECT: Meliadine Dike Construction

SAMPLE NO: SA04

SAMPLE DESCRIPTION: Type B - 150 mm Minus

Transition Rock

ADDRESS: Meliadine Gold Project, NU.

PROJECT NO: E14103230-01.023

MOISTURE CONT. : 2.8%

DATE SAMPLED: Nov 13/16 **By:** IM

CLIENT: Agnico Eagle Mines Ltd.

BULK REL DENSITY: n/a

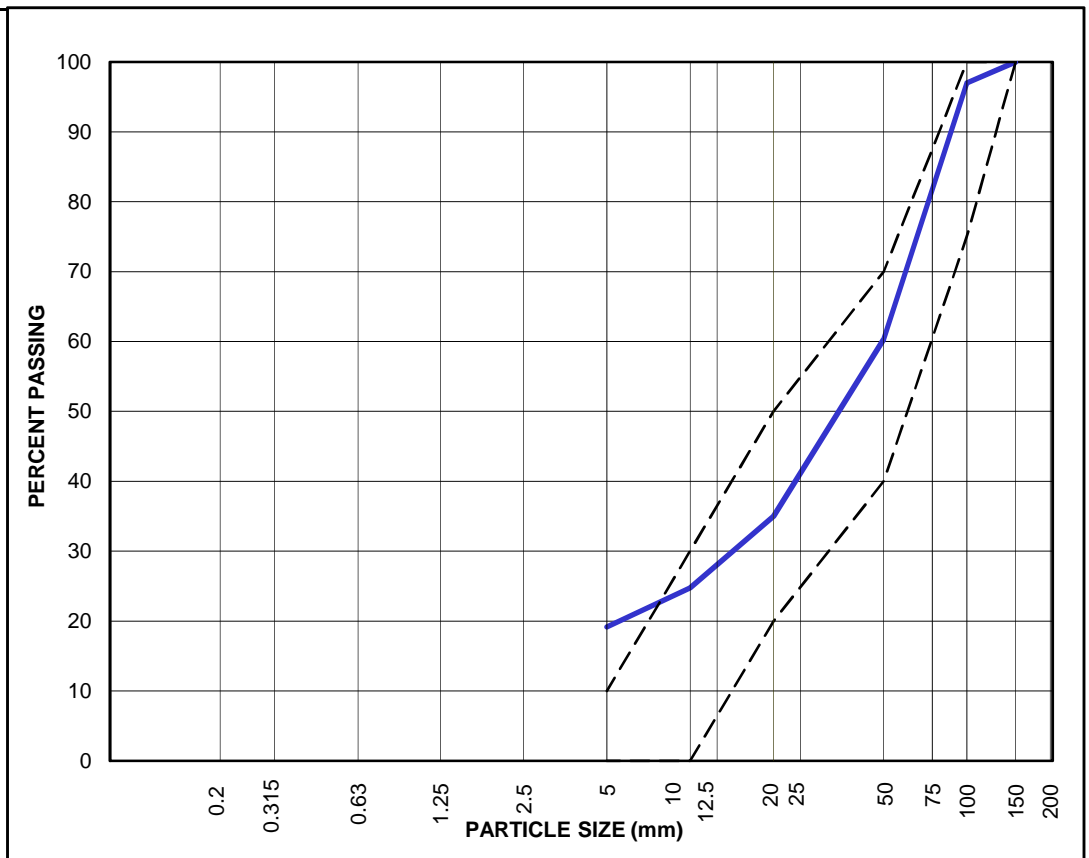
ATTENTION: Mr. Duy Nguyen

BULK REL. DENSITY (SSD): n/a

APPARENT REL. DENSITY: n/a

ABSORPTION: n/a

PARTICLE SIZE	PERCENT PASSING
150	100
100	97
50	60
20	35
10	25
5	19



Remarks: _____

Reviewed by: _____ **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 by an Tetra Tech EBA technician to recognized industry standards, unless otherwise 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.

Table E1.1: Moisture Content Results for Transition (150 mm minus) Material - Types B and B1

Sample No.	Date Tested	Moisture Content (%)	Sample Source
SA01	9-Nov-16	5.2	Sampled from Type B1 stockpile
SA02	9-Nov-16	4.3	Sampled from Type B1 stockpile
SA03	11-Nov-16	1.3	Sampled from Type B1 stockpile
SA04	13-Nov-16	2.8	Sampled from Type B1 stockpile
SA05	19-Dec-16	8.6	Sampled from Type B1 stockpile
SA06	1-Mar-17	8.1	Sampled from Type B stockpile
SA07	1-Mar-17	8.7	Sampled from Type B stockpile
SA08	2-Mar-17	7.2	Sampled from Type B stockpile
SA09	29-Mar-17	6.1	Sampled from Type B1 stockpile
SA10	30-Mar-17	6.1	Sampled from Type B1 stockpile
SA11	2-Apr-17	6.5	Sampled from Type B1 stockpile

Average Moisture Content	5.9%
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