



Meliadine Project Horizontal Fuel Storage Tanks

**As-Built Report and Drawings
(Construction Summary)
6515-244-163-REP-001**

In Accordance with Water License 2AM-MEL1631 (Part D, item 3)

Prepared by:
Agnico Eagle Mines Limited – Meliadine Division

March 2019

TABLE OF CONTENTS

1	INTRODUCTION	4
2	SUMMARY OF THE CONSTRUCTION.....	5
2.1	Site Location	5
2.2	Installation.....	5
2.2.1	Construction Genset System	6
2.2.2	Mine Ventilation and Heating System.....	6
2.3	Construction Schedule	6
2.4	Field Decisions and Mitigation Measures.....	7
3	PHOTOGRAPHS AND DRAWINGS	8

LIST OF FIGURES

Figure 1 – Location of Meliadine Horizontal Fuel Storage Tanks	5
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LIST OF APPENDICES

Appendix A: Photographs

Appendix B: Drawings

1 INTRODUCTION

Agnico Eagle Mines Limited (Agnico Eagle) is developing the Meliadine Project (the Project), a gold mine located approximately 25 km north from Rankin Inlet, and 80 km southwest from Chesterfield Inlet in the Kivalliq Region of Nunavut. Situated on the western shore of Hudson Bay, the Project site is located on a peninsula between the east, south, and west basins of Meliadine Lake (63°1'23.8" N, 92°13'6.42"W) on Inuit Owned Land. The area is accessible from the all-weather gravel road linking the existing exploration camp with Rankin Inlet.

As required by Water License A No. 2AM-MEL1631 – Agnico Eagle Mines Limited for the Meliadine Gold Project (Part D, Item 3), this report summarizes the construction work of the two (2) horizontal fuel storage tanks systems that support facilities such as the underground mine ventilation and heating system as well as the construction genset system.

Included in this report:

- Summary of the construction
- Field decisions and mitigation measures
- Photographs of the infrastructure
- Drawings

2 SUMMARY OF THE CONSTRUCTION

2.1 Site Location

The two (2) horizontal fuel storage tanks systems are respectively located at the underground mine ventilation and heating system (bottom red circle), and at the construction genset system (top red circle) (Figure 1). The complete general arrangement of the area is available at Appendix B.

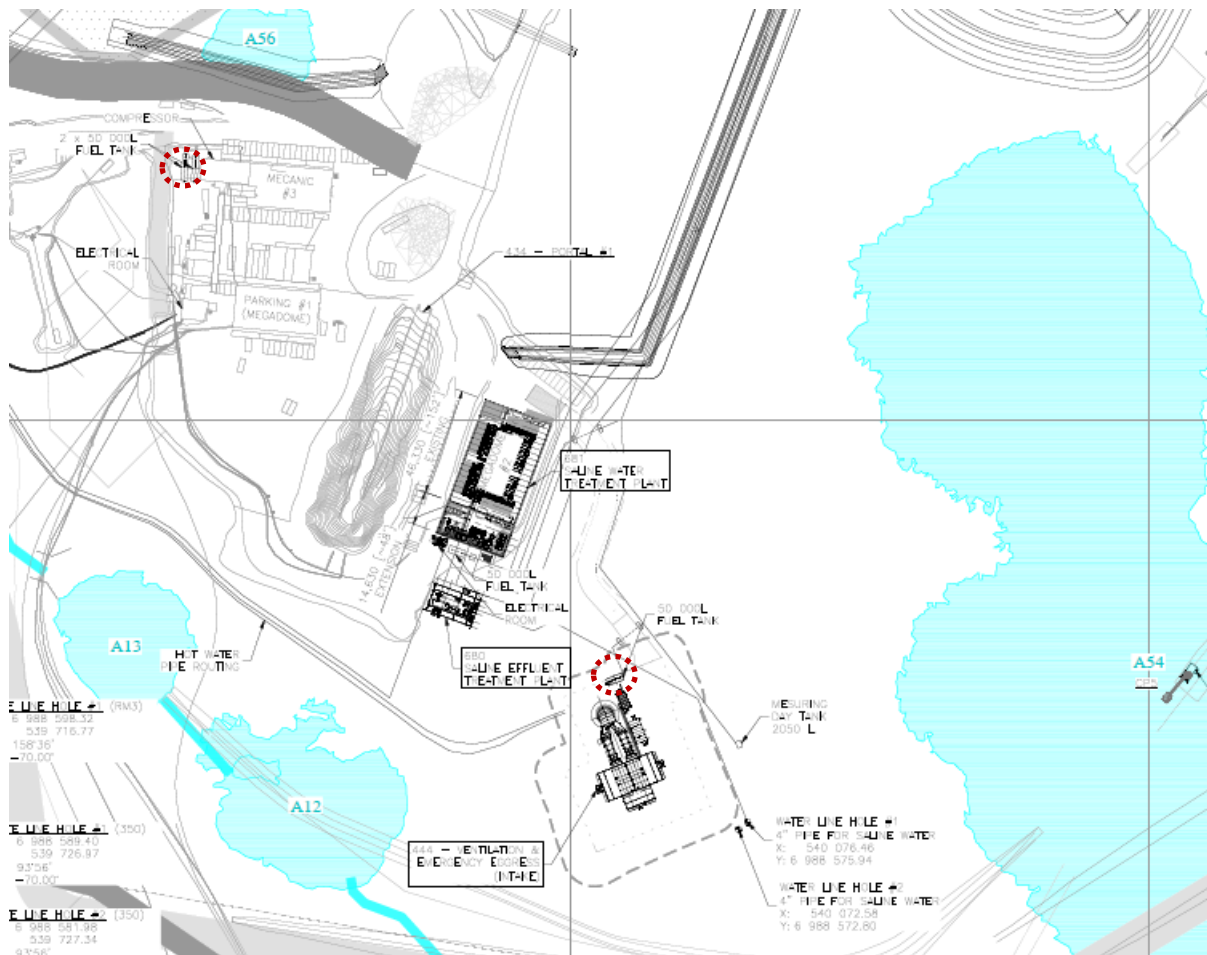


Figure 1 –Location of the Horizontal Fuel Storage Tank Systems (red circles)

2.2 Installation

The initial proposed arrangement presented in the design report for each system was based on six (6) double-walled storage tanks having a capacity of 50,000 Liters each. However, the final arrangements count only one (1) and two (2) double-walled 50,000 Liter tanks, respectively at the underground mine ventilation and heating system, and at the construction genset system.

All applicable codes and standards listed in the related and approved Design Report¹ have been observed:

- Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations (SOR/2008-197).
- Canadian Council of Ministers of the Environment – Code of Practice (CCME PN1326).
- National Fire Code of Canada (NFCC)
- Canadian Standards Association (CSA B139)

2.2.1 Construction Genset System

The fuel storage system installed at the construction genset is equipped with two (2) 50,000 Liter horizontal tanks connected to a pumping station which transfers the fuel to the facility.

The tanks are connected to a common suction line going to the pumping station. The suction line of each tank is coming from the top of the tank and is equipped with a manual 3-way valve as well as an anti-siphon valve. This arrangement ensures that fuel is drawn from only one (1) tank at a time. The anti-siphon valves are in closed position and will be activated only while the fuel pump is running. In case of a system failure, the anti-siphon valves close automatically eliminating the risk of spillage from the tanks.

The tanks are refueled individually as they are not interconnected, meaning that fuel level cannot balance between tanks.

2.2.2 Mine Ventilation and Heating System

The fuel storage system installed at the mine ventilation and heating system is equipped with one (1) 50,000 Liter horizontal tank which serves as a day-tank for fuel that is transferred from the Portal 1 Mine Site Fuel Farm to the underground ventilation and heating system. As there is only one (1) tank, an automatic 2-way valve and an anti-siphon valve were installed on the suction line that supplies the mine's heating and ventilation system. The anti-siphon valve prevents spillage from the tank in case of pipe failure.

2.3 Construction Schedule

During spring 2017, in order to secure the fuel supply at the construction genset until the site's main power plant was commissioned, the two (2) horizontal fuel storage tanks were installed.

During fall 2017, the horizontal fuel storage tank at the underground mine ventilation and heating system was installed.

¹ WSP, March 2017. Design Report for Horizontal fuel storage tanks system and pumping stations.

2.4 Field Decisions and Mitigation Measures

As mentioned in section 2.2 of this report, the initial proposed arrangement presented in the design report for each system was based on six (6) double-walled ULC S601 storage tanks having a capacity of 50,000 Liters each. However, the final arrangements count only one (1) and two (2) ULC S601 double-walled 50,000 Liter tanks, respectively at the underground mine ventilation and heating system, and at the construction genset system. This difference with the design is explained by the fact that the actual need for storage at both sites was lower than anticipated.

In the initial design of both horizontal fuel storage tank systems, the suction line of each tank was to be equipped with a fail-safe motorized valve. At the construction genset, instead of a motorized valve, a manual 3-way valve at the common output pipe was installed which ensures that only one (1) tank supplies the facility at a time. The 3-way valve is considered reliable as it must be operated manually by an operator who can shut down the fuel transfer at any time to prevent a spill.

3 PHOTOGRAPHS AND DRAWINGS

Pictures of the horizontal fuel storage tanks are available in Appendix A.

Drawings are available at Appendix B.

Appendix A
Photographs of Horizontal Fuel Tanks
(All photos were taken in April 2018)



Photo 1 Mine Ventilation and Heating System Horizontal Fuel Storage Tank (looking towards the ventilation system (north-west); yellow pipeline connects the Mine Site Fuel Farm to the horizontal tank)



Photo 2 Mine Ventilation and Heating System Horizontal Fuel Storage Tank (looking towards Portal 1 and Mine Site Fuel Farm (south-east))

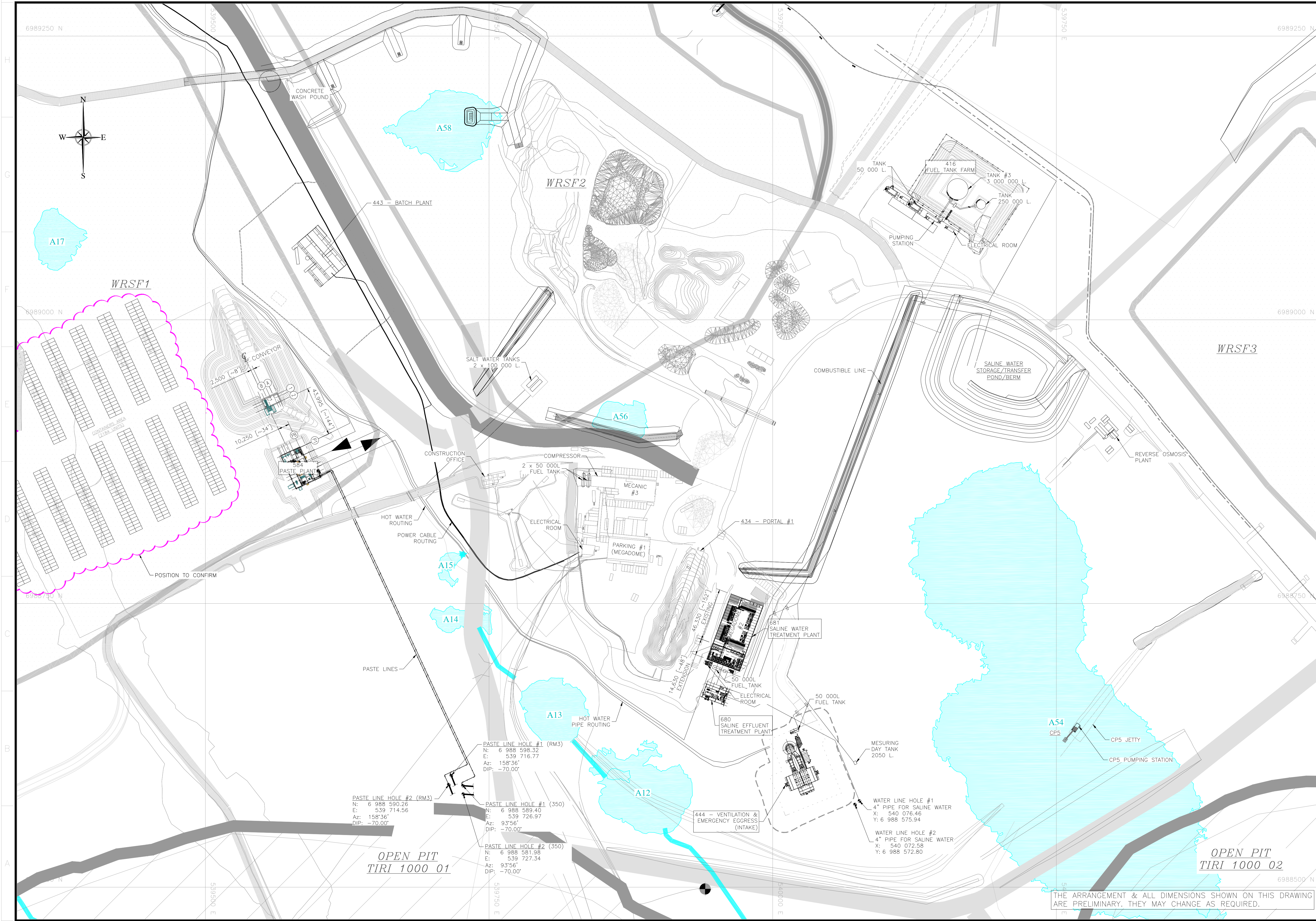


Photo 3 Construction Genset Horizontal Fuel Storage Tanks (looking west)



Photo 4 Construction Genset Horizontal Fuel Storage Tanks (looking south-east)

Appendix B
Drawings of Horizontal Fuel Tanks



PLAN CLÉ
KEY PLAN

WSP

1075, 3^e AVENUE EST
VAL-D'OR (QUÉBEC) CANADA J9P 0J7
TÉL. : 819 825-4274 | TÉLÉC. : 819 824-1514 | WWW.WSPGROUP.COM
REV. 151-06440-40

NOTES GÉNÉRALES / GENERAL NOTES

LEGEND

- ARCHEOLOGICAL SITE MITIGATED
- ARCHEOLOGICAL SITE STAKED
- ARCHEOLOGICAL SITE NOT MITIGATED
- WORKING POINT

**POUR CONSTRUCTION
FOR CONSTRUCTION**

AGNICO EAGLE DATE : 2019-03-19

L'INFORMATION CI-CONTENUE EST LA PROPRIÉTÉ DE AGNICO EAGLE LTD. ET DOIT ÊTRE RETOURNÉE, SUR DEMANDE, SANS AUTORIZATION ÉCRITE, PRÉALABLE, À L'ÉCHELON DE L'USAGER À PARTIR DUQUEL ELLE A ÉTÉ FOURNIE. L'INFORMATION CI-CONTENUE EST PRÉLIMINAIRE. DES MODIFICATIONS PEUVENT ÊTRE NÉCESSAIRES AVANT LA CONSTRUCTION. AGNICO EAGLE LTD. ASSUME AUCUNE RESPONSABILITÉ EN CE QUI CONCERNE L'UTILISATION DE L'INFORMATION CI-CONTENUE. L'USAGER S'ENGAGE À S'ASSURER QUE L'INFORMATION CI-CONTENUE EST ADÉQUATE À SES BESOINS ET À LA SÉCURITÉ DE SON PROJET. AGNICO EAGLE LTD. ASSUME AUCUNE RESPONSABILITÉ EN CE QUI CONCERNE L'UTILISATION DE L'INFORMATION CI-CONTENUE. L'USAGER S'ENGAGE À S'ASSURER QUE L'INFORMATION CI-CONTENUE EST ADÉQUATE À SES BESOINS ET À LA SÉCURITÉ DE SON PROJET.

DESSINS EN RÉFÉRENCE / REFERENCE DRAWINGS

TITRE / TITLE	# DWG
INDUSTRIAL SITE - GROUND LEVELING / FINISHED GRADE ELEVATION	65-000-230-207_RD

AGNICO EAGLE

REV.	DATE	DESCRIPTION	PAR/REV	APP.	CLIENT
4	2019-03-19	GENERAL UPDATE	I.G.	O.P.	
3	2018-10-26	GENERAL UPDATE	I.G.	O.P.	
2	2018-05-18	ISSUED FOR CONSTRUCTION	I.G.	O.P.	
1	2017-12-20	ISSUED FOR CONSTRUCTION	I.G.	O.P.	
0	2017-09-19	ISSUED FOR CONSTRUCTION	I.G.	O.P.	

REVISIONS

TITRE / TITLE
AGNICO EAGLE - MELIADINE DIVISION
000 - GENERAL
210 - GENERAL ARRANGEMENT
INDUSTRIAL SITE - PORTAL #1
PLAN VIEW

DESSINÉ PAR DRAWN BY	DATE DATE
ISABELLE GILBERT	2015-06-10

VERIFIÉ PAR CHECKED BY	DATE DATE
OLIVIER PERREAULT, P. Eng.	2015-06-23

APPROUVÉ PAR APPROVED BY	DATE DATE
OLIVIER PERREAULT, P. Eng.	2017-09-19

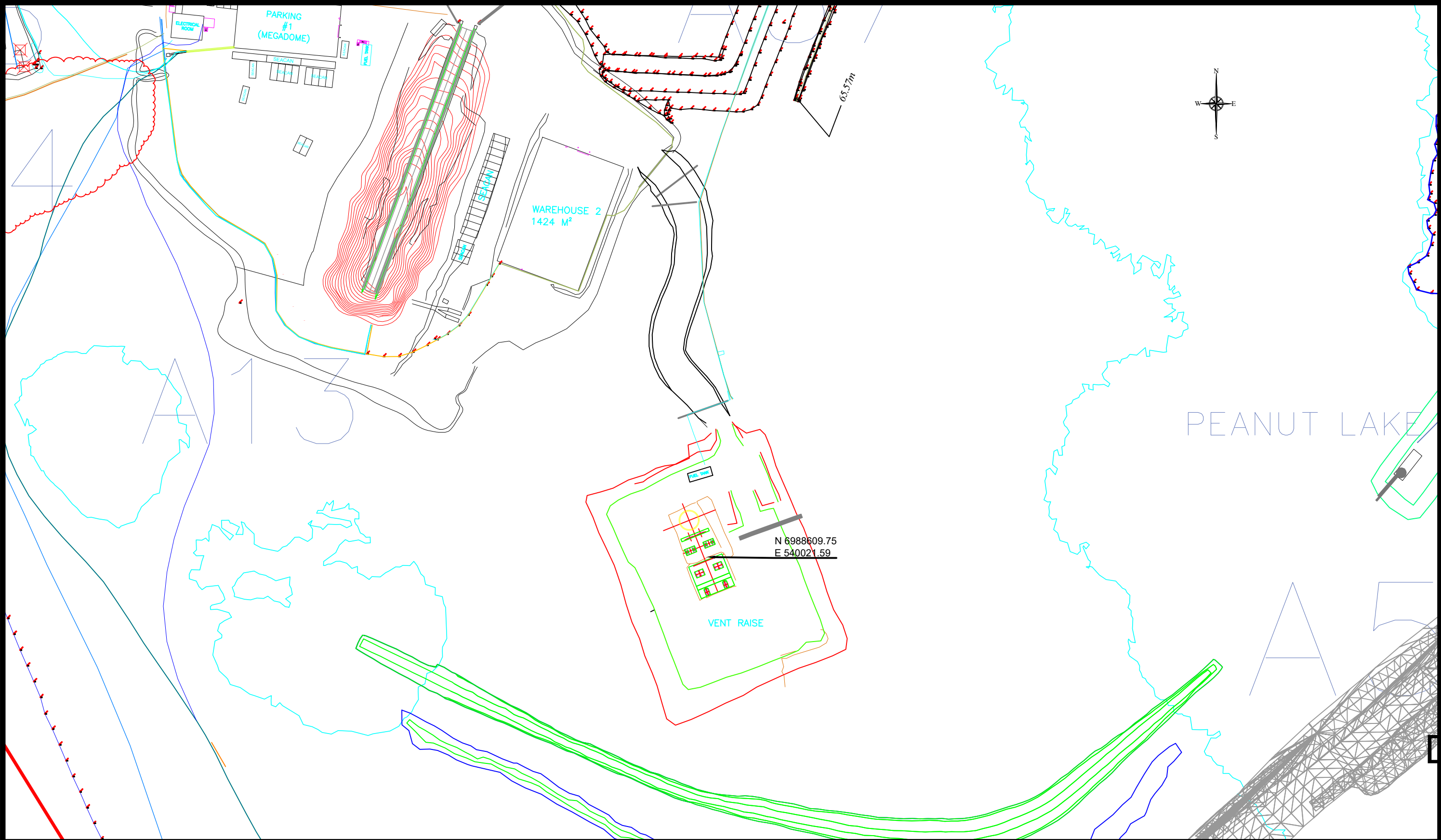
ÉCHELLE
SCALE 1:1500

DATE 2015-06-10

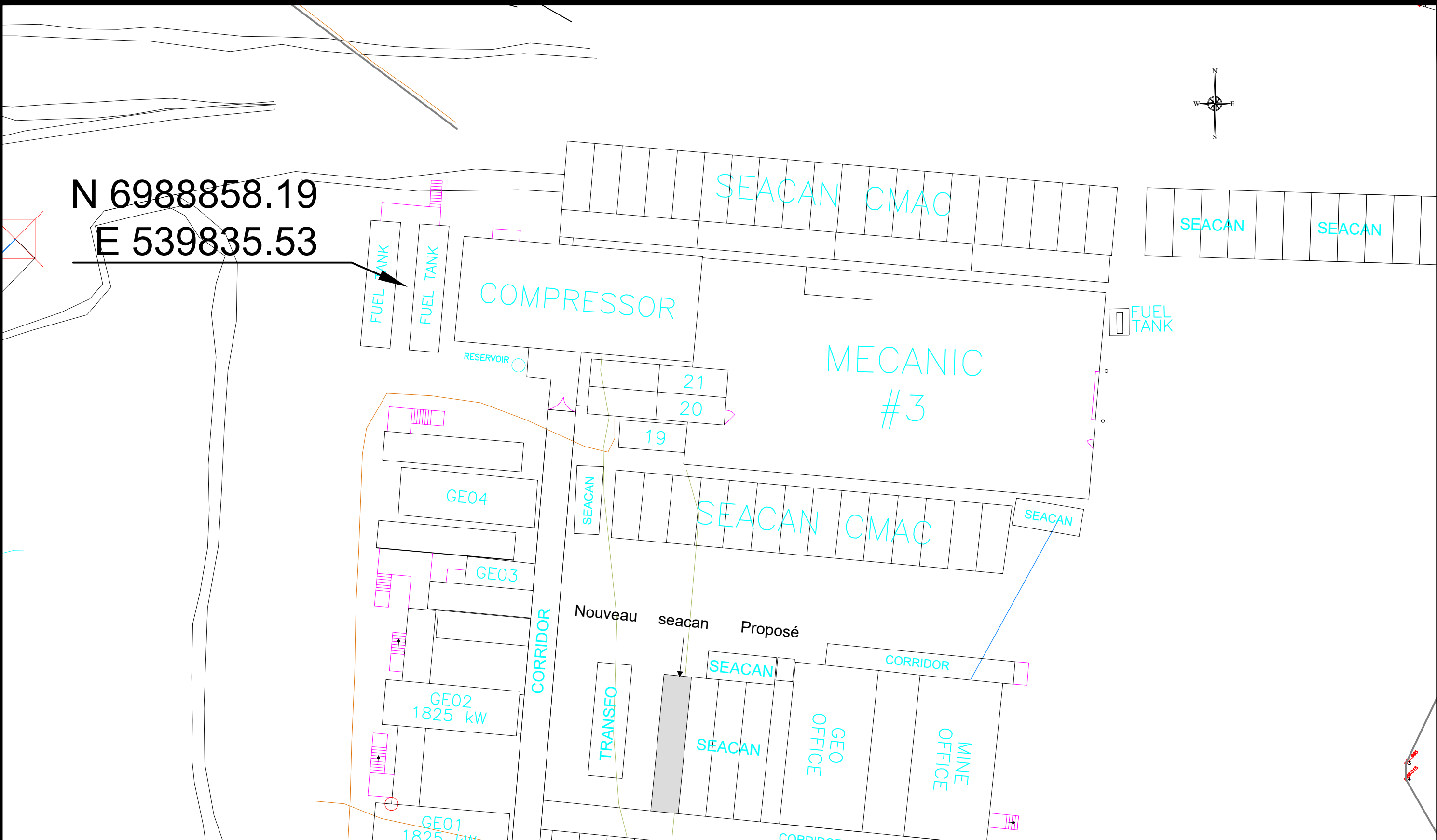
NO. DESIGN
DRAWING NO. 65-000-210-200

NO. PROJET PROJECT NO.	REVISION	FEUILLE / SHEET
6515	4	5 / 7

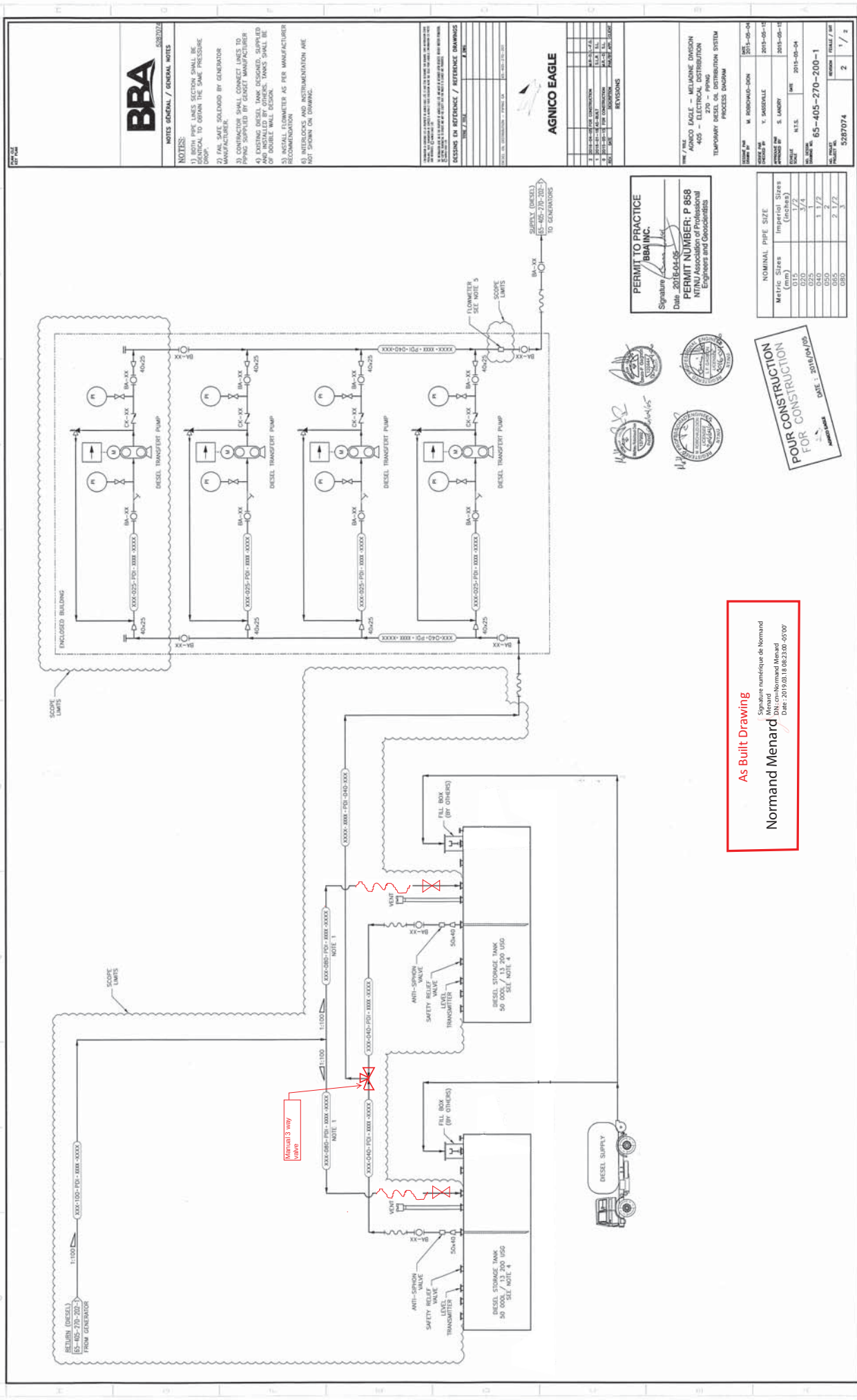
THE ARRANGEMENT & ALL DIMENSIONS SHOWN ON THIS DRAWING ARE PRELIMINARY. THEY MAY CHANGE AS REQUIRED.



	Système de Coord.: NAD83 UTM15	No plan: 65-405-142-200-R1-ABD	AB-244 VENT RAISE	AGNICO EAGLE	Date des travaux : 2018-04	Dessiné par: Y.HAMEL
	Echelle: NA				Date d'envoi : 2018-05-21	Approuvé par: Hamel Arp.



	Système de Coord.: NAD83 UTM15	No plan: 65-405-142-200-R1-ABD	AB-405 FUEL TANK GENSET PORTAL 1	AGNICO EAGLE	Date des travaux : 2018-04	Dessine par: Y. HAMEL
	Echelle: NA				Date d'envoi : 2018-05-21	Approuvé par: Hamel Arp.



- NOTES:**
- 1) CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS.
 - 2) FILL RATE SOLELY BY GENERATOR MANUFACTURER.
 - 3) CONTRACTOR SHALL CONNECT LINES TO PUMP AND TANKS AS PER MANUFACTURER'S INSTRUCTIONS.
 - 4) PUMP AND TANKS SHALL BE SUPPLIED AND INSTALLED BY OTHERS. TANKS SHALL BE OF DOUBLE WALL DESIGN.
 - 5) INSTALL THERMISTERS AS PER MANUFACTURER'S RECOMMENDATION.
 - 6) REVISIONS AND INSTRUMENTATION ARE NOT SHOWN ON DRAWING.

REVISIONS:

NO.	DESCRIPTION	DATE
1	ISSUED FOR PERMIT	2015-05-04
2	REVISED PERMIT	2015-05-04
3	REVISED PERMIT	2015-05-04
4	REVISED PERMIT	2015-05-04
5	REVISED PERMIT	2015-05-04
6	REVISED PERMIT	2015-05-04
7	REVISED PERMIT	2015-05-04
8	REVISED PERMIT	2015-05-04
9	REVISED PERMIT	2015-05-04
10	REVISED PERMIT	2015-05-04

AGNICO EAGLE

REVISIONS

NO.	DESCRIPTION	DATE
1	ISSUED FOR PERMIT	2015-05-04
2	REVISED PERMIT	2015-05-04
3	REVISED PERMIT	2015-05-04
4	REVISED PERMIT	2015-05-04
5	REVISED PERMIT	2015-05-04
6	REVISED PERMIT	2015-05-04
7	REVISED PERMIT	2015-05-04
8	REVISED PERMIT	2015-05-04
9	REVISED PERMIT	2015-05-04
10	REVISED PERMIT	2015-05-04

AGNICO EAGLE - MELANIE DIVISION
405 - ELIOT
270 - PPMG
TEMPORARY DIESEL OIL DISTRIBUTION SYSTEM
PROCESS DIAGRAM

REVISIONS

NO.	DESCRIPTION	DATE
1	ISSUED FOR PERMIT	2015-05-04
2	REVISED PERMIT	2015-05-04
3	REVISED PERMIT	2015-05-04
4	REVISED PERMIT	2015-05-04
5	REVISED PERMIT	2015-05-04
6	REVISED PERMIT	2015-05-04
7	REVISED PERMIT	2015-05-04
8	REVISED PERMIT	2015-05-04
9	REVISED PERMIT	2015-05-04
10	REVISED PERMIT	2015-05-04

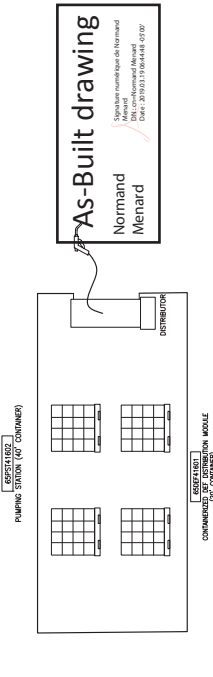
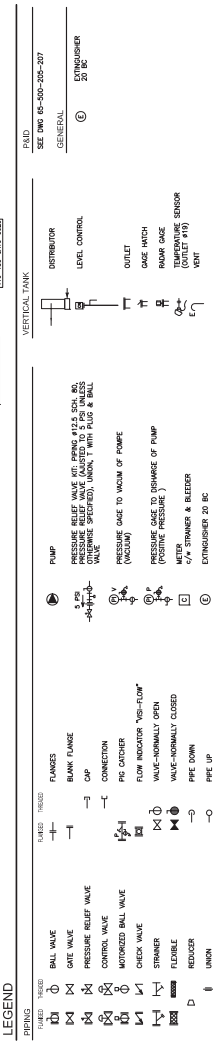
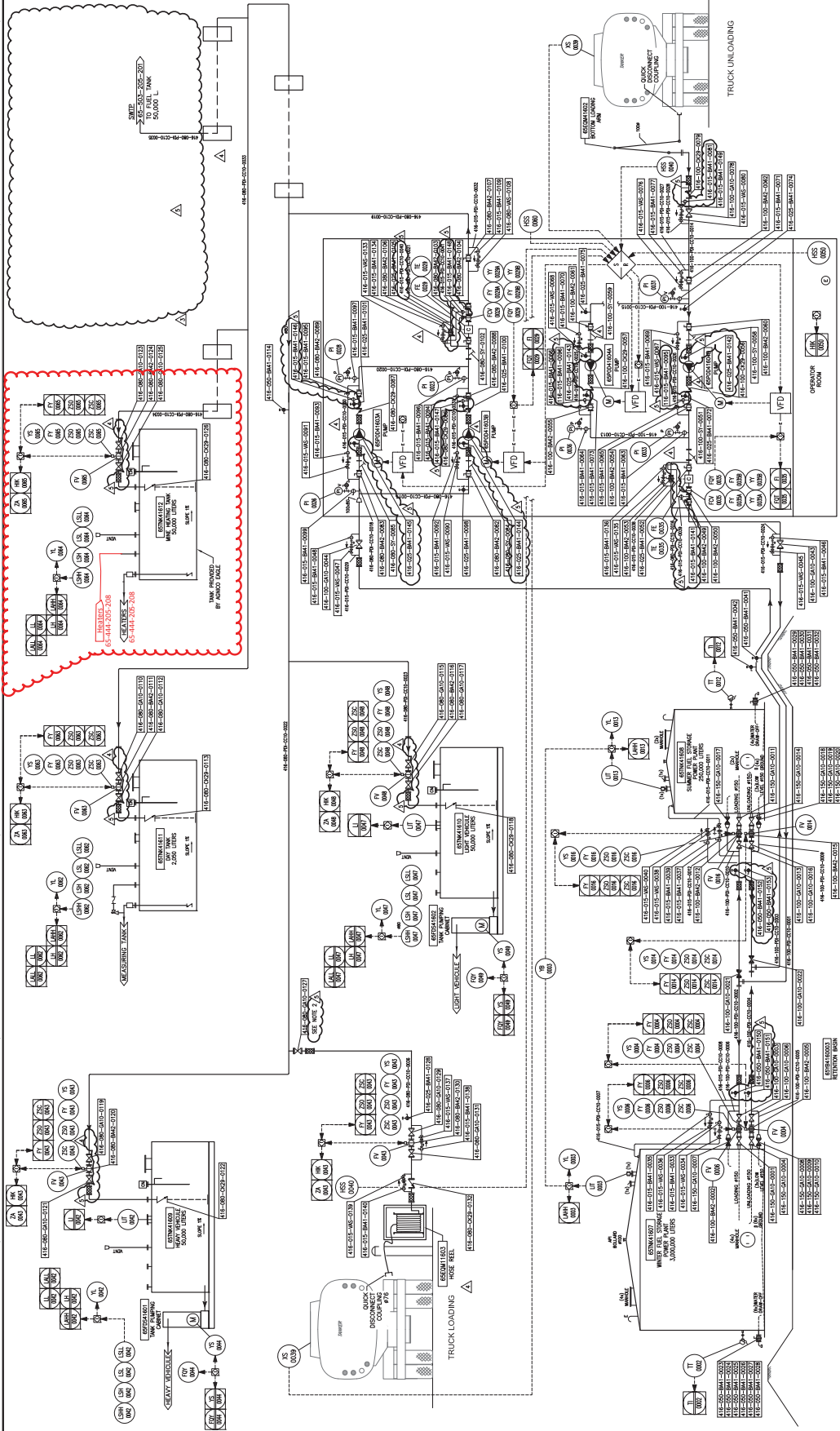
PERMIT TO PRACTICE
BBA INC.
Signature: [Signature]
Date: 2015-04-05
PERMIT NUMBER: P 858
NTNU Association of Professional Engineers and Geoscientists

NOMINAL PIPE SIZE

Metric Sizes	Imperial Sizes
0.15	1/2
0.20	3/4
0.25	1
0.30	1 1/2
0.35	2
0.40	2 1/2
0.45	3

POUR CONSTRUCTION FOR CONSTRUCTION
DATE: 2015-04-05

As Built Drawing
Signature: Normand Menard
Normand Menard
Date: 2019-03-18 08:23:00 -0500



WSP
WATKINS & PARTNERS
INCORPORATED
100-100-000-000-000-000
TEL: 416-291-1111
WWW.WSP.COM

NOTES GÉNÉRALES / GENERAL NOTES

1. REPLACE DRAWING 65-416-205-200
2. ALL TANKS MUST BE INSTALLED HORIZONTALLY
3. ALL TANKS TO BE INSTALLED HORIZONTALLY

AGNICO EAGLE

AGNICO EAGLE - MELANIE DIVISION
416 - FUEL TANK FARM
FUEL DISTRIBUTION (PORTAL #1)
FLOW DIAGRAM

REVISIONS

NO.	DATE	DESCRIPTION
1	2017-05-28	ISSUED FOR CONSTRUCTION
2	2017-05-28	ISSUED FOR CONSTRUCTION
3	2017-05-28	ISSUED FOR CONSTRUCTION
4	2017-05-28	ISSUED FOR CONSTRUCTION
5	2017-05-28	ISSUED FOR CONSTRUCTION

DATE / DATE
2017-05-28

PROJECT NO.
65-416-205-200

REVISION
5

SCALE
1/1