



Meliadine Project Fresh Water Intake, Pumping Station and Pipeline

**As-Built Report and Drawings
(Construction Summary)
6515-692-163-REP-002**

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

Prepared by:
Agnico Eagle Mines Limited – Meliadine Division

February 2019

TABLE OF CONTENTS

1	INTRODUCTION	4
2	SUMMARY OF THE CONSTRUCTION.....	5
2.1	Site Location Plan.....	5
2.2	Freshwater Intake Description.....	5
2.2.1	Intake Location and Concept	5
2.3	Pumping Station	6
2.3.1	General	6
2.3.2	Suction Line and Strainer.....	6
2.3.3	Piping	6
2.3.4	Controls.....	6
2.4	Pipeline	7
2.4.1	Above-ground Pipelines.....	7
2.4.2	Sub-marine suction line and strainer	7
2.5	Construction pad (on Meliadine Lake shore).....	7
2.5.1	Earth Work Construction Material	8
2.6	Testing and Inspection	8
2.7	Construction Schedule	8
2.8	Field Decisions	9
3	PHOTOGRAPHS AND DRAWINGS	10

LIST OF FIGURES

Figure 1 – Location of Meliadine Freshwater Intake	4
--	---

LIST OF TABLES

Table 1 - Earthwork material quantities for the construction of the fresh water intake area.....	8
Table 2 - Construction Milestones for the Fresh Water Intake System.....	9

LIST OF APPENDICES

Appendix A: Photographs

Appendix B: Drawings and Technical Specifications

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 permanent fresh water intake, pumping station and associated pipelines into Meliadine Lake. Included in this report:

- Summary of the construction
- Summary of field decisions and mitigation measures implemented during construction (including list of deficiencies detected during construction)
- Photographs of the infrastructure
- Drawings

2 SUMMARY OF THE CONSTRUCTION

2.1 Site Location Plan

The permanent freshwater intake installation is located next to the temporary freshwater intake in Meliadine Lake, north east of the industrial site. Figure 1 shows the location of the freshwater intake.

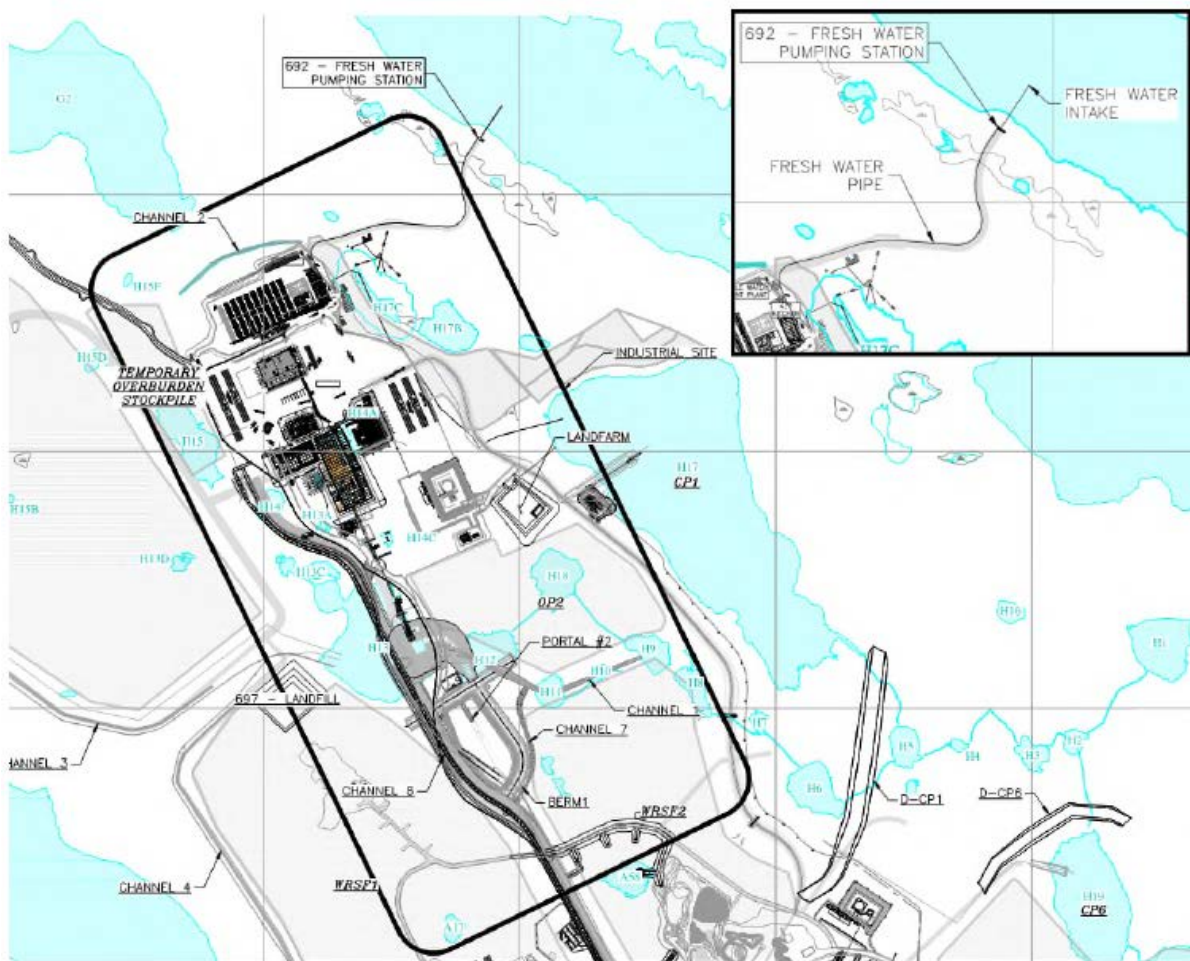


Figure 1 –Location of the Freshwater Intake in Meliadine Lake

2.2 Freshwater Intake Description

2.2.1 Intake Location and Concept

Fresh water for site use is pumped from Meliadine Lake. The fresh water intake consists of a 90 m long HDPE pipe of 300 mm of diameter, laying on the bottom of the lake. It is held in place by weights. The

submerged end of the intake pipeline is raised to avoid any entrained sediments. The facility includes measures to avoid the entrainment of fish in the intake or the impingement of the fish on any screens.

2.3 Pumping Station

2.3.1 General

Fresh water is pumped from Meliadine Lake to the Process Plant, mainly. Part of the fresh water pumped is directed to the Freshwater Treatment Plant, to be treated and then used as potable water for the whole site. The pumping station is located on the shore of Meliadine Lake. A unique suction line is installed in Meliadine Lake, completed with a fish strainer (Appendix A).

Two pumps are installed in the pumping station: one operates while the second one is stand-by, in case of a failure of the operation pump. The flowrate is approximately 131.5 m³/hr and 3156 m³/day.

All mechanical and electrical pumping station equipment is housed in a heated and insulated enclosure. Electrical equipment (control panel, junction boxes, VFD/soft starters, etc.) are separated from the mechanical equipment (e.g. pumps, isolation valves, piping, piping accessories, etc.) by a wall and each room has its own access door. The enclosure has been designed following the site information and design coefficients (temperature, wind load, snow load, etc.) to resist to the Nunavut climatic conditions. The enclosure is installed on a leveled coarse compacted gravel surface. All surfaces are painted to ensure corrosion resistance over the years of operation.

2.3.2 Suction Line and Strainer

The suction line is made of HDPE piping of 300 mm diameter and 90 m in length. The section of the suction line from the pumping station to the water in Meliadine Lake is insulated and heat traced to prevent freezing. The section of the suction line going through the ice during winter is insulated and heat traced. The suction line is held in place by ballasts.

The suction line ends with a fish strainer that consists, as per design, of a mesh of ½"-13R representing an expanded metal thickness of 0.225 inch and a diamond opening of the short way (SWO) of 0.325 inch (8 mm) and long way of opening (LWO) of 0.875 inch (22 mm). The % of open area was calculated according to Department of Fisheries and Ocean's (DFO) Freshwater Intake End-of-Pipe Fish Screen Guidelines. The strainer suction point is raised by 1 m from the bottom of Meliadine Lake to avoid pumping sediments from the bottom of the lake. Refer to drawing P1803211-0201 in Appendix B for more details.

2.3.3 Piping

Piping manifold inside the pumping station is made of steel with Victaulic connections for easy dismantlement during maintenance operations. All piping was hydrostatically tested at the manufacturing facility to insure tightness.

2.3.4 Controls

The pumping station control is intended to keep a constant water pressure in the line going from the pumping station to the arctic corridor. That pressure is kept by varying the pump speed with a variable speed drive (VSD). The pump speed setpoint is determined by the pressure transducer on the line at

the output of the pump. Also, a flowmeter is installed on the line at the output close to the pump. Refer to the P&ID drawing 65-692-205-200 presented in Appendix B for more details. There is a local PLC in the pumping station to connect and control all instruments and equipment. There is also a local HMI for local operation. The PLC is connected to the process plant control system via a fiber optic network and parameters and control can be accessible anywhere.

2.4 Pipeline

The pumping station for the fresh water intake transfer water through a total of approximately 1712 m of pipes. The fresh water from the Meliadine Lake is pumped to the Process Plant. The sub-marine portion of the suction line that connects the fresh water intake to the pumping station has a length of 90 m. A pipeline of 978 m connects the pumping station with the facilities, at the Camp Complex. From the Camp, the piping runs inside Arctic Corridors on approximately 644 m, to reach the Process Plant. At the Process Plant, the fresh water is received by the Fire Water Tank. Sections of the pipelines are insulated and/or heat traced when necessary.

2.4.1 Above-ground Pipelines

There is 978 m long of above-ground pipeline that is made with 200 mm of diameter HDPE pipe. The above-ground pipeline lies directly on the tundra along the access road to the Pumping Station. Before the installation of the pipeline, no sharp stones that could cause a risk of tears and premature wear were required to be removed. Since the pipeline is water tight, no hazards or disturbances are expected after installation. After the complete installation and prior to the pumping station commissioning, a service test was performed to confirm the water tightness of the pipeline.

2.4.2 Sub-marine suction line and strainer

The sub-marine portion of the suction line has a length of 90 m and is made of 300 mm diameter HDPE pipe. A construction and service pad was built on the water intake shore, at a distance of approximately 13.5 meters from the High Water Mark, to provide a flat area where material could be stored before being assembled and where heavy equipment could circulate, thus limiting at its minimum the disturbance of the land around the construction area. See section 2.5 of this report for details about the construction pad.

The suction line sections were assembled on the shore, with the fish strainer and the ballasts. The suction line was deployed on the water, where it floated as it was full of air. Once the suction line was located correctly, it was flooded, to sink into its final position. The lake bed was not disturbed by any mechanical works and no machinery entered the water. See Appendix B for alignment of suction line and strainer.

2.5 Construction pad (on Meliadine Lake shore)

To minimize land disturbance during construction, a construction pad was built close to the Meliadine Lake shore. This area will further be used as an operation and maintenance pad for the pipeline and fresh water intake. The main purpose of the pad was to define a limited area of work for shore activities, reducing the risks for environmental or health and safety issues. Since the pumping station is installed at approximately 13.5 m from the Meliadine Lake High Water Mark, this pad is located within 31m of the Meliadine Lake shore, refer to drawing 65-692-142-200-R0 in Appendix B for the exact location. The location of the pad and its proximity to the edge of the water allowed safe access to the lake and

installation of the submerged section of pipeline as well as the fresh water intake. Drawing 65-692-142-200-R0 (2 of 2) in Appendix B shows an overview of the pipeline and fresh water intake system.

No archaeological sites have been documented near the construction site.

2.5.1 Earth Work Construction Material

The granular material required for the access and construction pad consisted of well-graded 600 mm minus esker material sourced from Meliadine Esker. The material was placed and compacted in accordance with the Technical Specifications for Civil Earthworks (Tetra Tech, 2017). All material used for the construction pad were non-acid and non-metal leaching.

The table below presents the earthwork material quantities for the construction of the fresh water intake area.

Table 1 Earthwork material quantities for the construction of the fresh water intake area

Item	Pad
Class A borrow material from Esker (0-600 mm) (m ³)	292
Total Fill Material Volume (m³)	292

2.6 Testing and Inspection

Prior to start up, the full length of above-ground pipelines were tested for leaks at fusion weld and flange joints. When leaks were found, the joint were be re-welded or re-torqued and the hydrostatic test redone from the beginning. Service tests were as well conducted at the Pumping Station.

All tests were done according to ASTM F2620, Standard Practice for Heat Fusion Joining of Polyethylene Pipe and Fittings, ASTM F2164, Standard Practice for Field Leak Testing of Polyethylene (PE) Pressure Piping System Using Hydrostatic Pressure.

After start up, an annual inspection, performed by AEM personal, was done to ensure pipeline integrity.

2.7 Construction Schedule

Construction activities at the Meliadine fresh water intake system were conducted in July and August 2018. All works in Meliadine Lake were completed by August 8th 2018. The start-up of the fresh water intake system began in mid-September 2018.

Construction was completed according to the milestones dates shown in Table 2.1.

Table 2 Construction Milestones for the Fresh Water Intake System

Items	Date
Earthworks for Construction pad	July 3-27, 2018
Installation of Pumping Station	August 9, 2018
Installation of Piping between Camp and Pumping Station	8" pipe from Pumping Station to temporary 4" line: July 24th, 2018 to July 31st, 2018 Tie-in to temporary 4" line: September 24th, 2018 Tie-in to 8" line and camp: December 14th, 2018 to December 16th, 2018
Installation of Piping between Pumping Station and edge of Lake	July 28, 2018 to August 6, 2018
Installation of sub-marine piping	August 7, 2018
Installation of suction (intake) at bottom of Lake	August 7, 2018
Instrumentation and controls	August 9, 2018 to September 30, 2018
Pre-commissioning	September 25, 2018
Commissioning	End of September, 2018

2.8 Field Decisions

During construction, a deficiency was noted and addressed: the fire panel in the pumping station were in French. This deficiency did not affect the performance of the Fresh Water Intake System.

3 PHOTOGRAPHS AND DRAWINGS

Pictures are available in Appendix A and show the Fresh Water Intake System under construction. Drawings are available at Appendix B.

Appendix A
Photographs of Fresh Water Intake System during construction

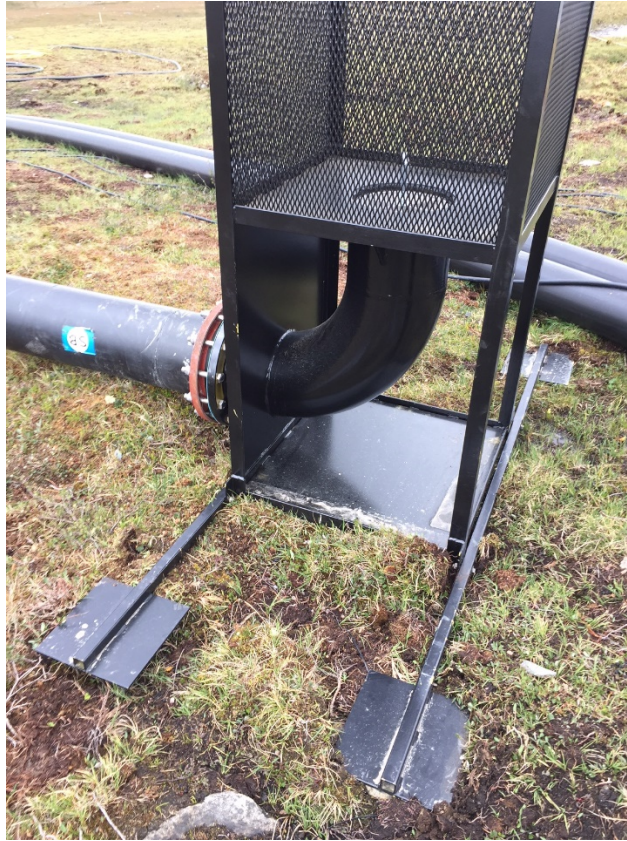


Photo 1 Meliadine's fresh water intake with fish screen



Photo 2 Meliadine's fresh water intake fish screen mesh



Photo 3 Installation of suction line and fresh water intake in Meliadine Lake

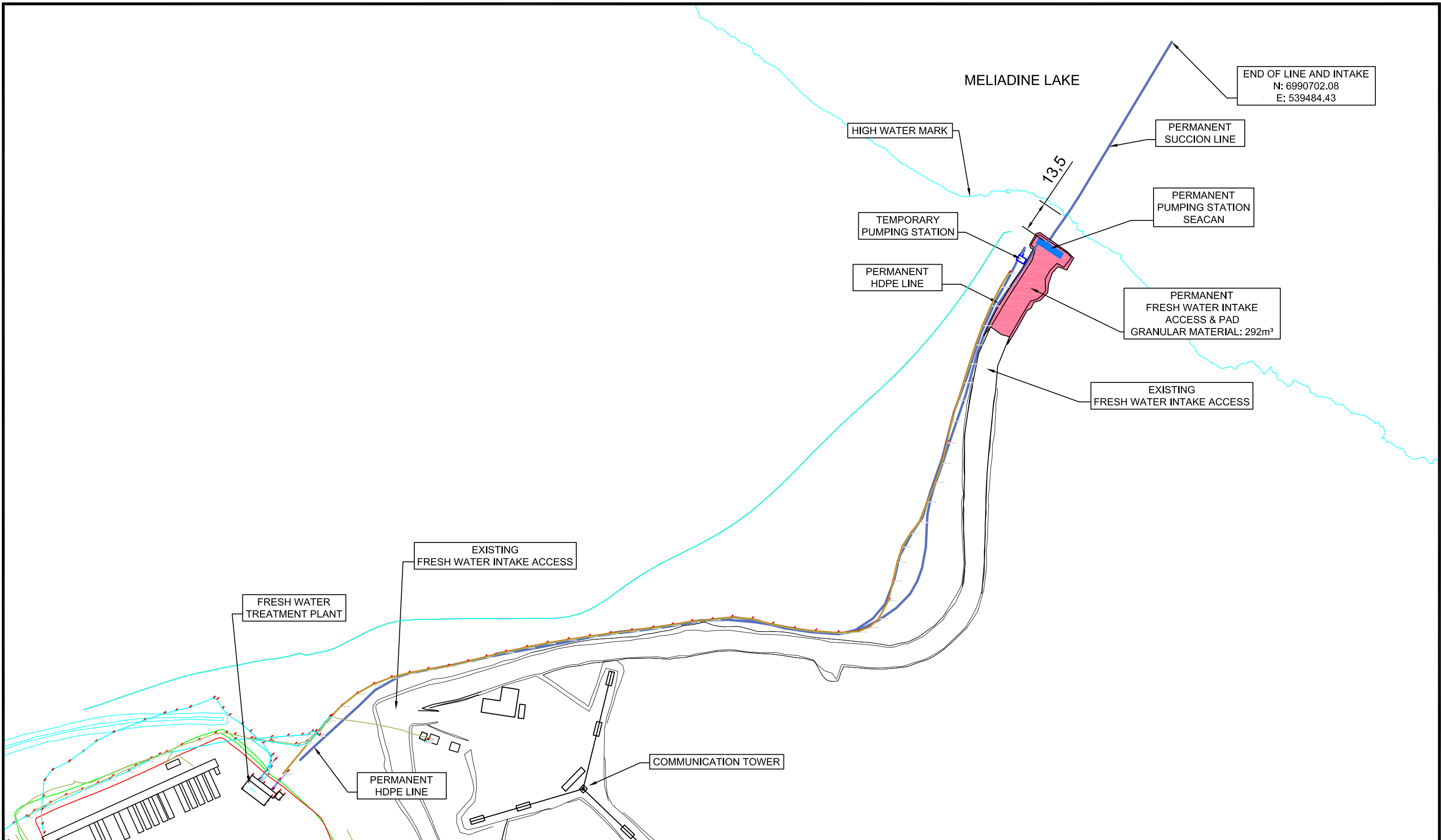


Photo 4 Meliadine's fresh water intake insulated and heat traced piping



Photo 5 Meliadine Fresh Water Pumping Station

Appendix B
As-Built Drawings & Technical Specifications
of Fresh Water Intake System



Système de Coord.:
NAD83 UTM15
Echelle:
1:1500

No plan:

65-692-142-200-RO_ABD_Fresh Water Intake

692 - FRESH WATER INTAKE
AS-BUILT DRAWING (2of2)

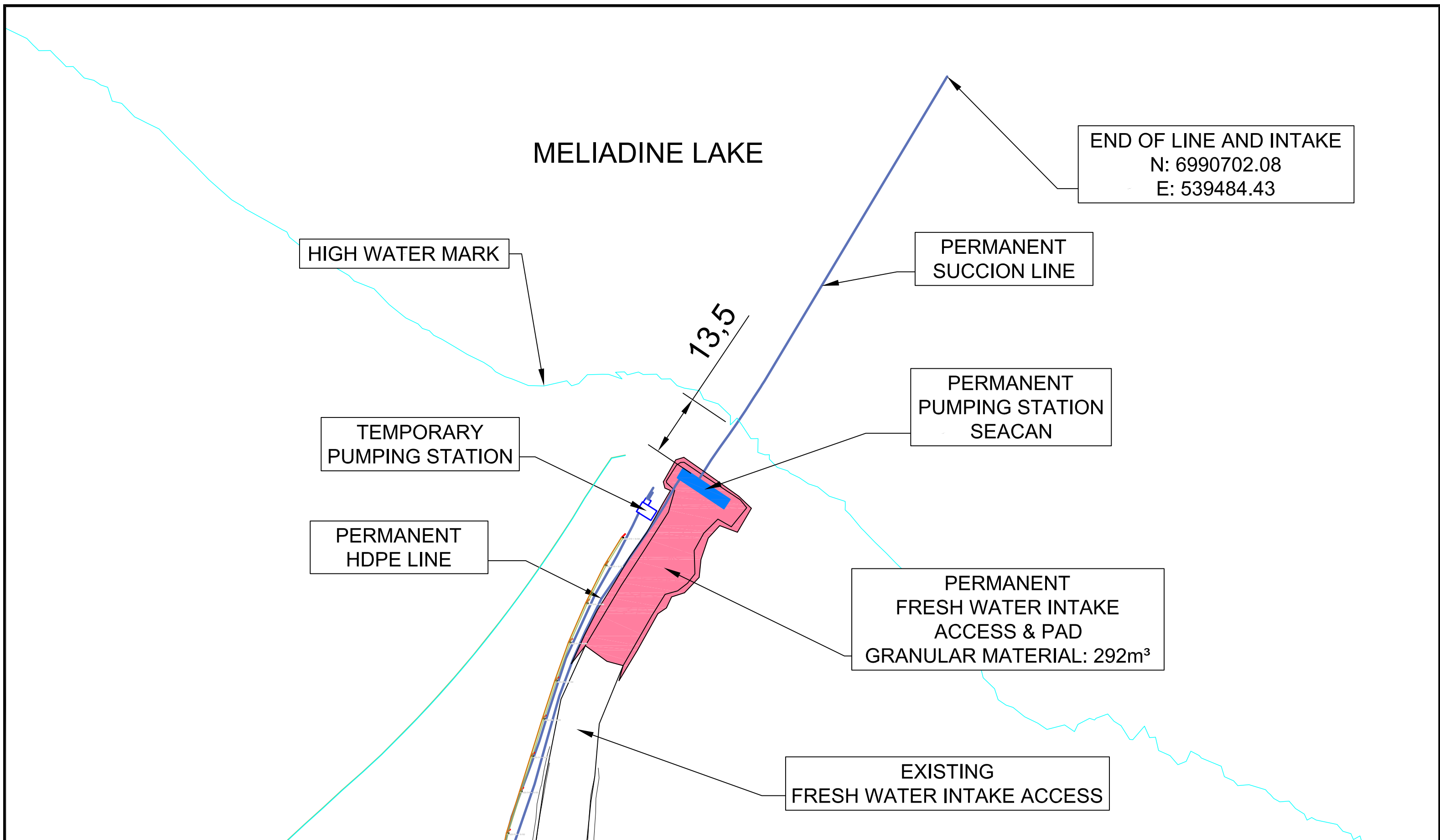
AGNICO EAGLE

Date des travaux :
2018

Date d'envoi :
2019-01-21

Dessine par:
JF Landreville

Approuve par:
Hamel Arp.



MELIADINE LAKE

END OF LINE AND INTAKE
N: 6990702.08
E: 539484.43

HIGH WATER MARK

PERMANENT
SUCCION LINE

TEMPORARY
PUMPING STATION

PERMANENT
PUMPING STATION
SEACAN

PERMANENT
HDPE LINE

PERMANENT
FRESH WATER INTAKE
ACCESS & PAD
GRANULAR MATERIAL: 292m³

EXISTING
FRESH WATER INTAKE ACCESS

13,5



Système de Coord.:
NAD83 UTM15
Echelle:
1:750

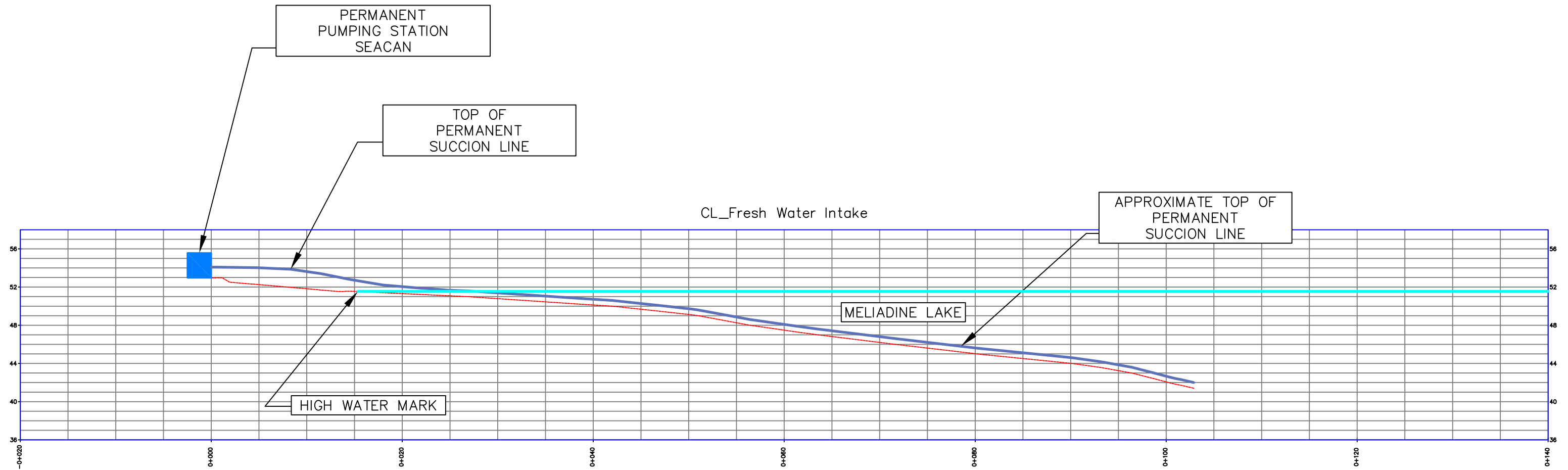
No plan:
65-692-142-200-RO_ABD_Fresh Water Intake

692 - FRESH WATER INTAKE
AS-BUILT DRAWING

AGNICO EAGLE

Date des travaux :
2018
Date d'envoi :
2018-11-20

Dessine par:
JF Landreville
Approuve par:
Hamel Arp.



Système de Coord.:
NAD83 UTM15

Echelle:
1:400

No plan:

65-692-142-200-R0_ABD_Fresh Water Intake

692 - FRESH WATER INTAKE SUCCION LINE CROSS-SECTION

AGNICO EAGLE

Date des travaux :
2018

Date d'envoi :
2018-11-24

Dessine par:
JF Landreville

Approuve par:
Hamel Arp.



Vendor Document Status

AGNICO EAGLE

1

☐ Proceed to next submission and status.

2

☐ Proceed with exceptions as noted to next submission and status.

3

☐ Do not proceed.
Revise as noted and resubmit next submission and status.

4

☒ Complete, no further submission required.

By:

Date:

Review and authorization to fabricate are only for general conformance with the design concept of the Project as expressed in the Contract Documents. Sole responsibility for the accuracy and completeness of this document, including but not limited to dimensions and quantities, remains with the Supplier/Contractor. Agnico Eagle does not warrant the accuracy or completeness of any of the information contained herein, nor does Agnico Eagle authorize or approve any construction means, methods, techniques, sequences or any safety precautions or procedures.

Agnico Eagle No. 6515-S-265-095-265-SPD-0001 R: Sub001

DOCUMENT FOR INFORMATION

SECTION A
0001
Echelle/Scale: 1/2" = 1'-0"

ELEVATION MAN DOOR SIDE
Echelle/Scale: 1/2" = 1'-0"

PROFIL REAR
Echelle/Scale: 1/2" = 1'-0"

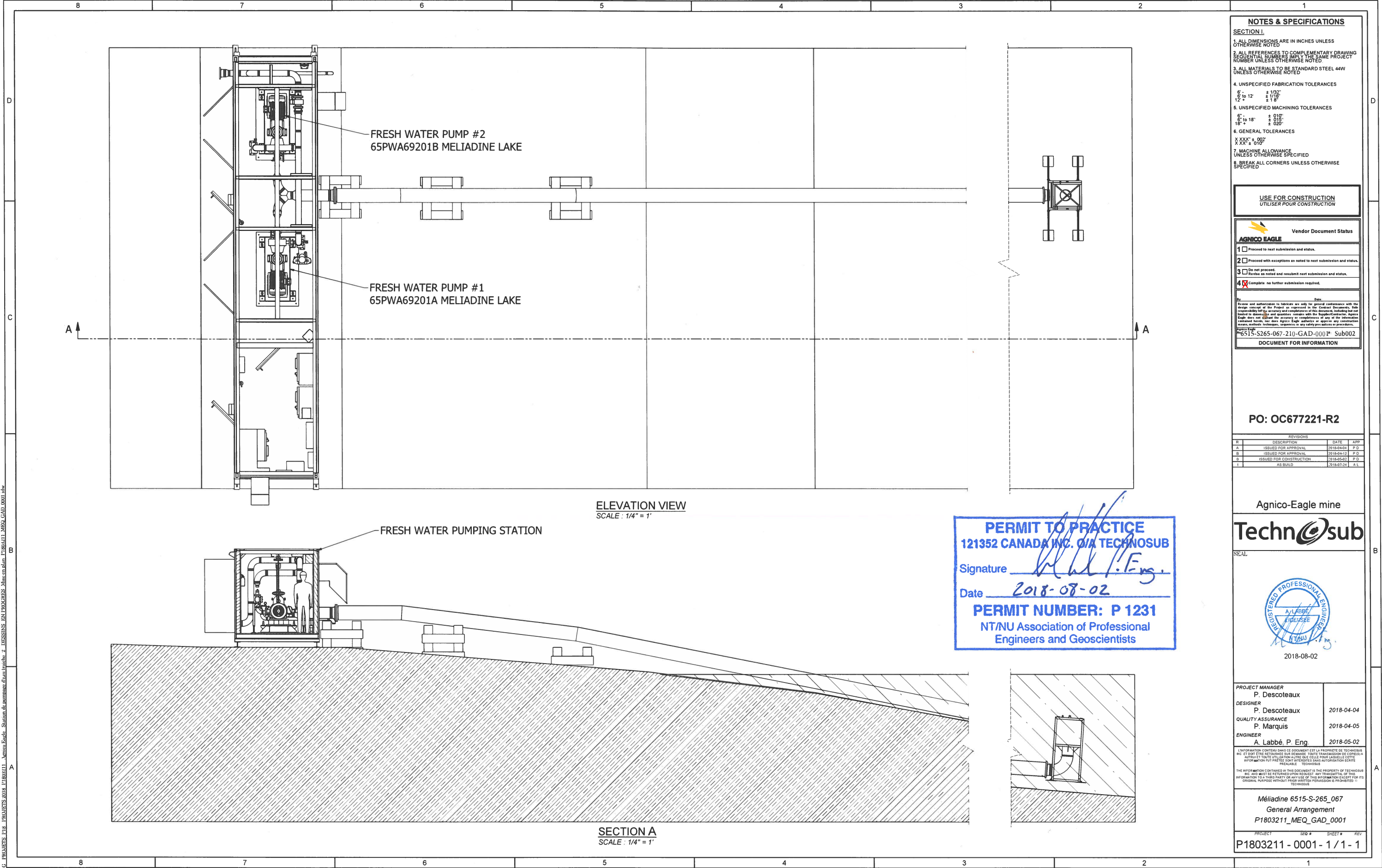
ELEVATION PUMP OUTLET SIDE
Echelle/Scale: 1/2" = 1'-0"

TEL QUE CONSTRUIT
(AS BUILT)
DATE : 2018-08-13

REV	DATE	DESCRIPTION	INT.	INIT.
2	2018-08-13	AS BUILT	C.F.	A.L.
1	2018-06-08	PUMP OUTLET SIDE MODIFICATION	C.F.	A.L.
0	2018-05-22	FOR CONSTRUCTION	C.F.	A.L.
A	2018-05-15	ISSUED FOR APPROBATION	C.F.	

Techn@sub

CLIENT:	AGNICO EAGLE	
MELIADINE		
PROJET/PROJECT:	CP3 & CP4 DIESEL PUMPS	
TITRE/TITLE:	DETAILS DRAWING CONTAINER	
CONÇU PAR/DESIGNED BY:	M. BERGERON	INT.
DESSIN PAR/DRAWN BY:	C. FLUET, Jr. Eng.	INT.
VÉRIFIÉ PAR/CHECKED BY:	C. FLUET, Jr. Eng.	INT.
APPROUVÉ PAR/APPROVED BY:	A. LABBÉ, P. Eng.	INT.
ÉCHELLE/SCALE:	AS SHOWN	DATE DE CRÉATION/CREATION DATE: 2018-05-11
# DE PROJET/PROJECT #:	P1805011	
# DE DESSIN/DRAWING #:	P1805011-1001	REVISION 2



NOTES & SPECIFICATIONS
SECTION I
1. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.
2. ALL REFERENCES TO COMPLEMENTARY DRAWING SEQUENTIAL NUMBERS IMPLY THE SAME PROJECT NUMBER UNLESS OTHERWISE NOTED.
3. ALL MATERIALS TO BE STANDARD STEEL 44W UNLESS OTHERWISE NOTED.
4. UNSPECIFIED FABRICATION TOLERANCES
6" ± 1/32"
6" to 12" ± 1/16"
12" ± 1/8"
5. UNSPECIFIED MACHINING TOLERANCES
6" ± 0.010"
6" to 18" ± 0.015"
18" ± 0.020"
6. GENERAL TOLERANCES
X XXX" ± .002"
X XX" ± .010"
7. MACHINE ALLOWANCE UNLESS OTHERWISE SPECIFIED
8. BREAK ALL CORNERS UNLESS OTHERWISE SPECIFIED

USE FOR CONSTRUCTION
UTILISER POUR CONSTRUCTION

Vendor Document Status
AGNICO EAGLE
1 ☐ Proceed to next submission and status.
2 ☐ Proceed with exceptions as noted to next submission and status.
3 ☐ Do not proceed.
4 ☒ Complete no further submission required.
By: _____ Date: _____
Review and authorization to fabricate are only for general conformance with the design concept of the Project as expressed in the Contract Documents. The design engineer is not responsible for the accuracy or completeness of the information contained herein, nor does Agnico Eagle authorize or approve any construction means, methods, techniques, sequences or any safety procedures or procedures.
Agnico Eagle
6515-S265-067-210-GAD-0001# Sub002
DOCUMENT FOR INFORMATION

PO: OC677221-R2

REVISIONS			
R	DESCRIPTION	DATE	APP
A	ISSUED FOR APPROVAL	2018-04-04	P.D.
B	ISSUED FOR APPROVAL	2018-04-12	P.D.
D	ISSUED FOR CONSTRUCTION	2018-05-02	P.D.
1	AS BUILT	2018-07-24	A.L.

Agnico-Eagle mine
Technosub
SEAL

2018-08-02

PROJECT MANAGER	
P. Descoteaux	

DESIGNER	
P. Descoteaux	2018-04-04

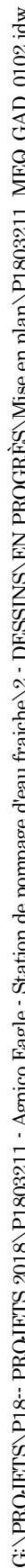
QUALITY ASSURANCE	
P. Marquis	2018-04-05

ENGINEER	
A. Labbé, P. Eng.	2018-05-02

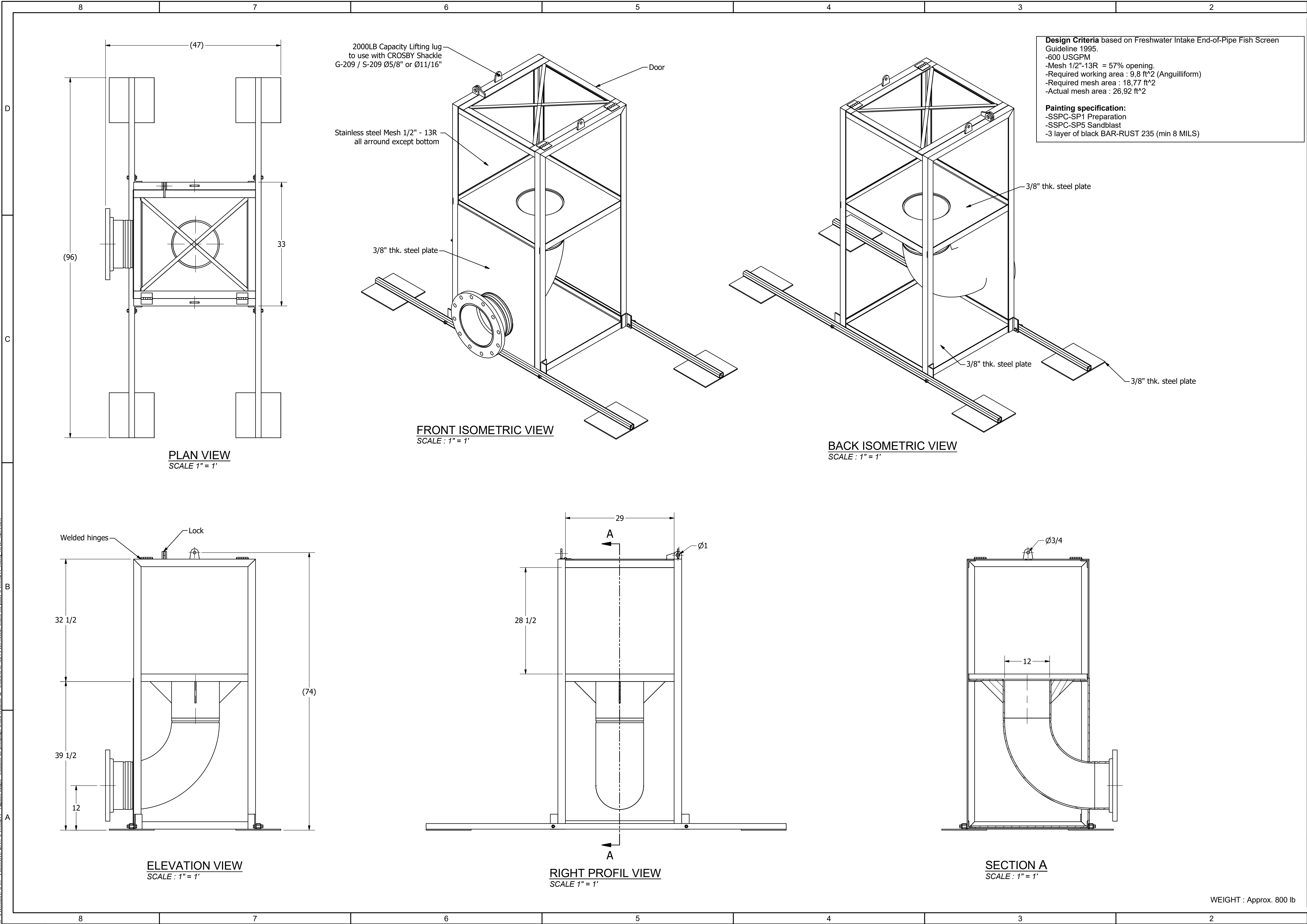
L'INFORMATION CONTENUE DANS CE DOCUMENT EST LA PROPRIÉTÉ DE TECHNOSUB INC. ET DOIT ÊTRE RETENUE À LA DEMANDE. TOUTE TRANSMISSION DE COPIES À AUTRE QUE L'UTILISATION AUTRE QUE CELLE POUR LAQUELLE CETTE INFORMATION FUT PRÉPARÉE CONSTITUE VIOLATION DE LA LOI SUR LA PROTECTION DES RENSEIGNEMENTS PERSONNELS. TECHNOSUB INC. AND MUST BE RETURNED UPON REQUEST. ANY TRANSMISSION OF THIS INFORMATION TO A THIRD PARTY OR ANY USE OF THIS INFORMATION EXCEPT FOR ITS ORIGINAL PURPOSE WITHOUT PRIOR WRITTEN PERMISSION IS PROHIBITED. TECHNOSUB
Méliadine 6515-S-265_067
General Arrangement
P1803211_MEQ_GAD_0001
PROJECT: _____ SEQ: _____ SHEET: _____ REV: _____
P1803211 - 0001 - 1 / 1 - 1

G:\PROJECTS\1718\171803211_Agnico Eagle - Station de pompage (Cour) finale - 2 - DRESSING EN PROGRES - Mise en plan 171803211_MEQ_GAD_0001.dwg





C:\PROJETS\18- PROJETS 2018\1802211 - Agnico Eagle - Station de pompage d'eau fraîche\2 - DESSINS EN PROGRES\Mise en plan\1803211_MEQ_GAD_0201.dwg



NOTES & SPECIFICATIONS

SECTION I.

1. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

2. ALL REFERENCES TO COMPLEMENTARY DRAWING SEQUENTIAL NUMBERS IMPLY THE SAME PROJECT NUMBER UNLESS OTHERWISE NOTED.

3. ALL MATERIALS TO BE STANDARD STEEL 44W UNLESS OTHERWISE NOTED.

4. UNSPECIFIED FABRICATION TOLERANCES

6" to 12" ± 1/32"

12" ± 1/16"

12" ± 1/8"

5. UNSPECIFIED MACHINING TOLERANCES

6" to 18" ± 0.10"

18" ± 0.15"

18" ± 0.20"

6. GENERAL TOLERANCES

XXXX ± .002"

XXX ± .010"

7. MACHINE ALLOWANCE UNLESS OTHERWISE SPECIFIED.

8. BREAK ALL CORNERS UNLESS OTHERWISE SPECIFIED.

USE FOR CONSTRUCTION
UTILISER POUR CONSTRUCTION

Vendor Document Status

1 ☐ Proceed to next submission and status.

2 ☐ Proceed with exceptions as noted to next submission and status.

3 ☐ Do not proceed. Review as noted and resubmit next submission and status.

4 ☒ Complete, no further submission required.

By: _____ Date: _____

Review and authorization to fabricate are only for general conformance with the design concept of the Project as expressed in the Contract Documents. Sole responsibility for the accuracy and completeness of this document, including but not limited to dimensions and quantities, remains with the Supplier/Contractor. Agnico Eagle does not warrant the accuracy or completeness of any of the information contained herein, nor does Agnico Eagle authorize or approve any construction means, methods, techniques, sequences or any safety precautions or procedures.

Agnico Eagle
No. 6515-S-265-067-210-GAD-0004 R Sub002

DOCUMENT FOR INFORMATION

PO: OC677221-R2

REVISIONS			
R	DESCRIPTION	DATE	APP
A	ISSUED FOR APPROVAL	2018-04-11	P.D.
0	ISSUED FOR CONSTRUCTION	2018-04-10	P.D.
1	AS BUILT	2018-07-24	A.L.

Agnico-Eagle Mine

Technosub

SEAL

2018-08-02

PROJECT MANAGER	P. Descoteaux	
DESIGNER	P. Descoteaux	2018-03-30
QUALITY ASSURANCE	P. Marquis	2018-04-05
ENGINEER	A. Labbé, P. Eng.	2018-05-02

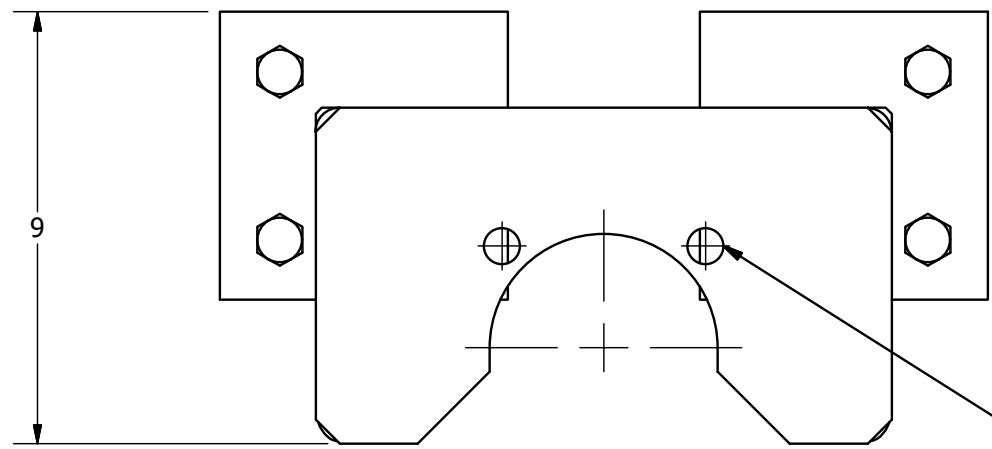
L'INFORMATION CONTENUE DANS CE DOCUMENT EST LA PROPRIÉTÉ DE TECHNOSUB INC. ET DOIT ÊTRE RETOURNÉE SUR DEMANDE. TOUTE TRANSMISSION DE COPIES À AUTRE QUE L'UTILISATION AUTRE QUE CELLE POUR LAQUELLE CETTE INFORMATION FUT PRÊTÉE SONT INTERDITES SANS AUTORISATION ÉCRITE. PIÉGEABLE © TECHNOSUB

THE INFORMATION CONTAINED IN THIS DOCUMENT IS THE PROPERTY OF TECHNOSUB INC. AND MUST BE RETURNED UPON REQUEST. ANY TRANSMISSION OF THIS INFORMATION TO A THIRD PARTY OR ANY USE OF THIS INFORMATION EXCEPT FOR ITS ORIGINAL PURPOSE WITHOUT PRIOR WRITTEN PERMISSION IS PROHIBITED. © TECHNOSUB

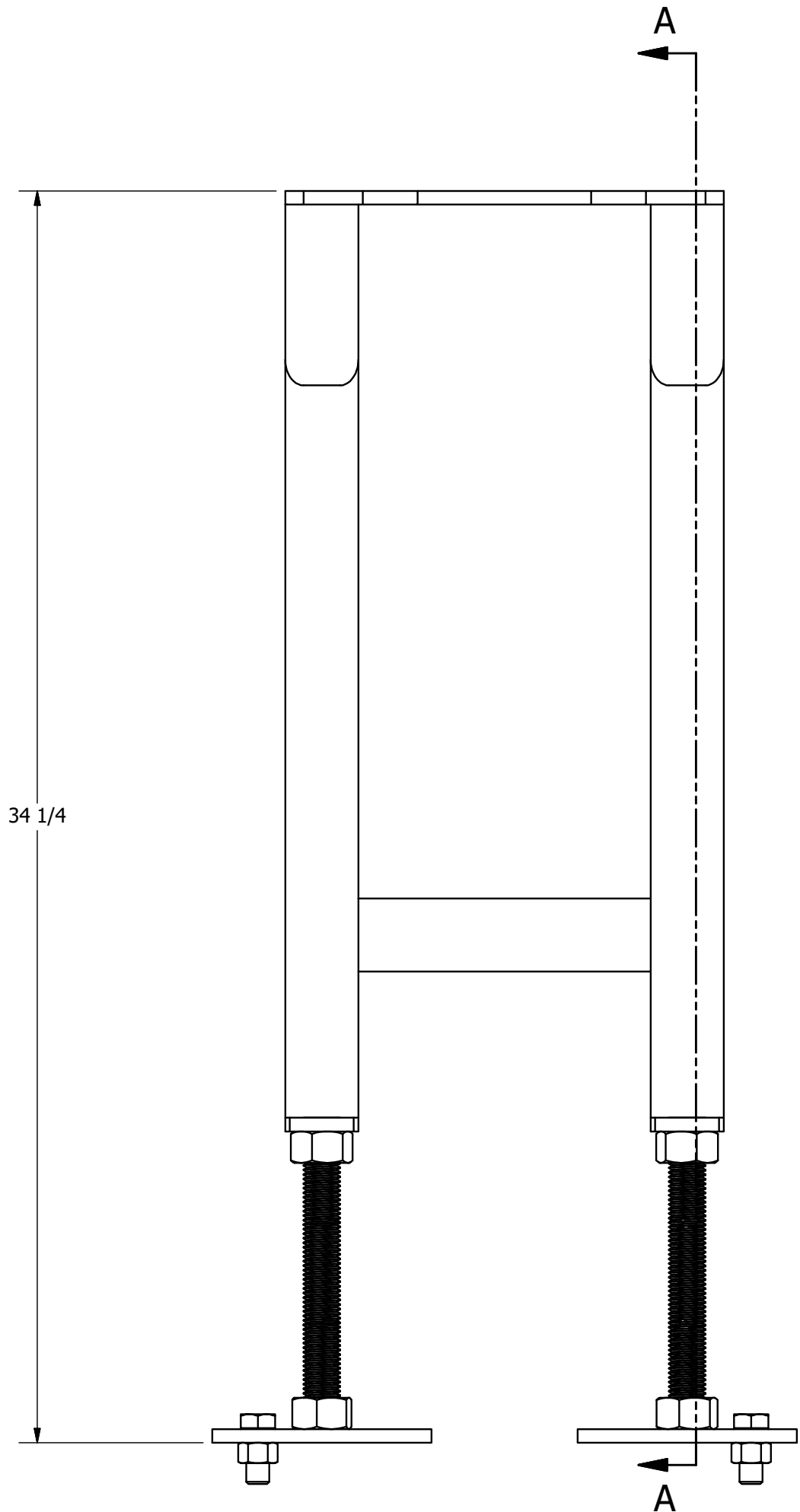
Meliadine 6515-S-265-067
Freshwater intake strainer GA
P1803211_MEQ_GAD_0201

PROJECT	SEQ. #	SHEET #	REV.
P1803211 - 0201 - 1 / 1 - 1			

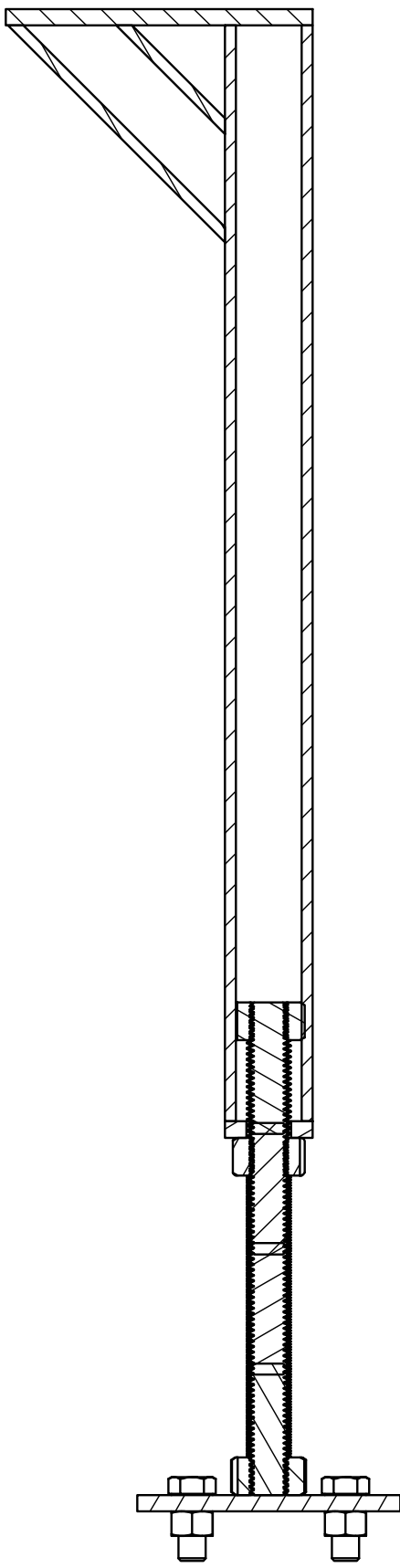
WEIGHT : Approx. 800 lb



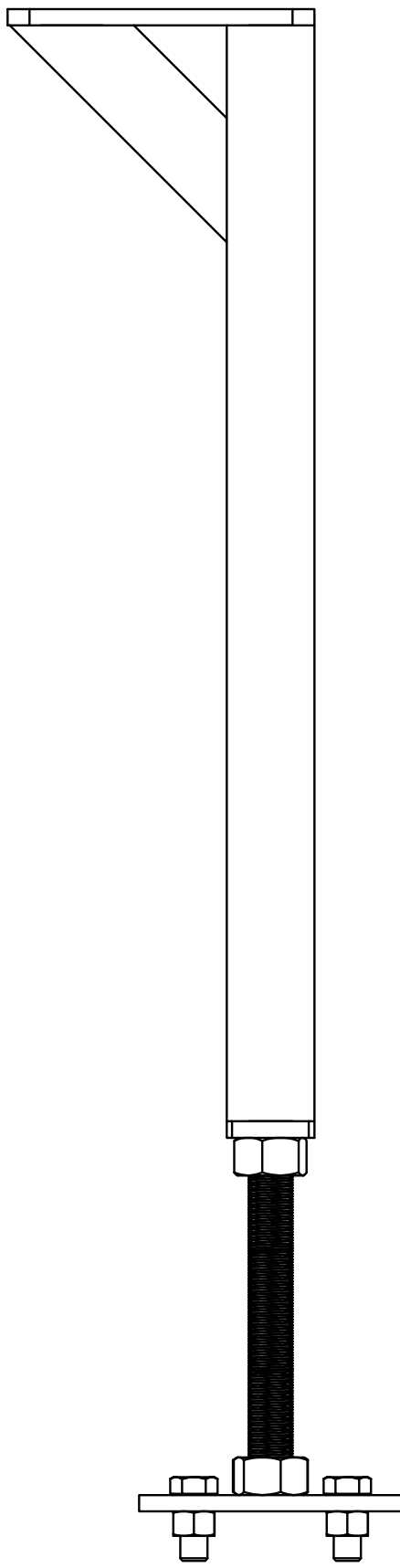
PLAN VIEW
SCALE 3" = 1'



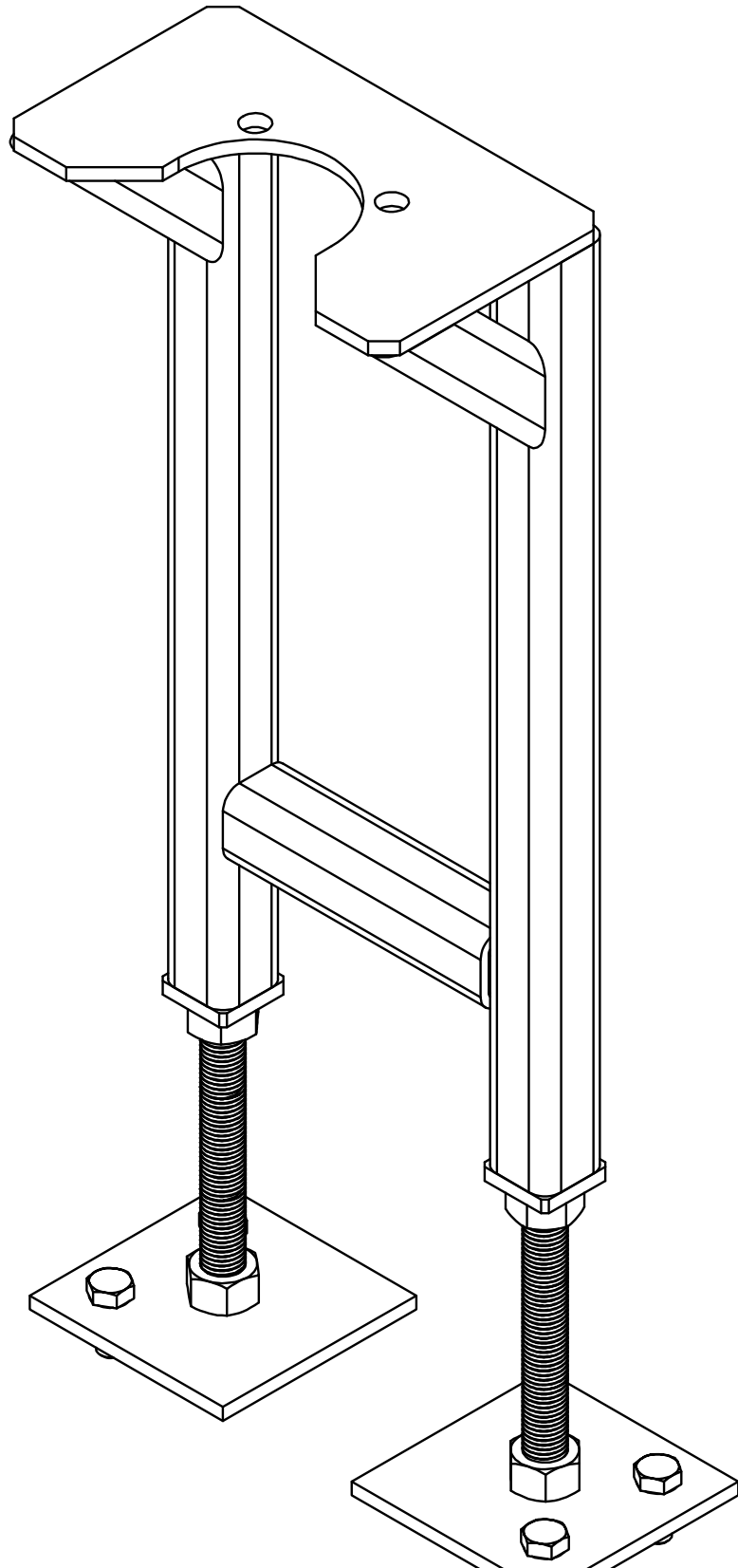
ELEVATION VIEW
SCALE : 3" = 1'



SECTION A
SCALE : 3" = 1'



RIGHT PROFIL VIEW
SCALE 3" = 1'



ISOMETRIC VIEW
SCALE 3" = 1'

NOTES & SPECIFICATIONS

SECTION I.

1. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

2. ALL REFERENCES TO COMPLEMENTARY DRAWING SEQUENTIAL NUMBERS IMPLY THE SAME PROJECT NUMBER UNLESS OTHERWISE NOTED.

3. ALL MATERIALS TO BE STANDARD STEEL 44W UNLESS OTHERWISE NOTED.

4. UNSPECIFIED FABRICATION TOLERANCES

6" ± 1/32"

6" to 12" ± 1/16"

12" ± 1/8"

5. UNSPECIFIED MACHINING TOLERANCES

6" ± 0.10"

6" to 18" ± 0.15"

18" ± 0.001"

6. GENERAL TOLERANCES

X.XXX" ± .002"

X.XX" ± .010"

7. MACHINE ALLOWANCE UNLESS OTHERWISE SPECIFIED.

8. BREAK ALL CORNERS UNLESS OTHERWISE SPECIFIED.

USE FOR CONSTRUCTION

UTILISER POUR CONSTRUCTION

AGNICO EAGLE

Vendor Document Status

1 ☐ Proceed to next submission and status.

2 ☐ Proceed with exceptions as noted to next submission and status.

3 ☐ Do not proceed. Revise as noted and resubmit next submission and status.

4 ☒ Complete, no further submission required.

By: Review and authorization to fabricate are only for general conformance with the design concept of the Project as expressed in the Contract Documents. Sole responsibility for the accuracy and completeness of this document, including but not limited to dimensions and quantities, remains with the Supplier/Contractor. Agnico Eagle does not warrant the accuracy or completeness of any of the information contained herein, nor does Agnico Eagle authorize or approve any construction means, methods, techniques, sequences or any safety practices or procedures.

Date:

Agnico Eagle

6515-S-265-067-210-GAD-0007 R Sub002

DOCUMENT FOR INFORMATION

PO: OC677221-R2

REVISIONS			
R	DESCRIPTION	DATE	APP
A	ISSUED FOR APPROVAL	2018-04-04	P.D.
0	ISSUED FOR CONSTRUCTION	2018-05-02	P.D.
1	AS BUILT	2018-07-24	A.L.

Agnico-Eagle Mine

Technosub

SEAL

REGISTERED PROFESSIONAL ENGINEER

A. LABBÉ

LICENSÉE

2018-08-02

PROJECT MANAGER

P. Descoteaux

DESIGNER

P. Descoteaux

2018-04-19

QUALITY ASSURANCE

P. Marquis

2018-04-19

ENGINEER

A. Labbé, P. Eng.

2018-05-02

L'INFORMATION CONTENUE DANS CE DOCUMENT EST LA PROPRIÉTÉ DE TECHNOSUB INC. ET DOIT ÊTRE RETOURNÉE SUR DEMANDE. TOUTE TRANSMISSION DE COPIE(S) À AUTRUI ET TOUTE UTILISATION AUTRE QUE CELLE POUR LAQUELLE CETTE INFORMATION FUT PRÉTÉE SONT INTERDITES SANS AUTORISATION ÉCRITE PRÉALABLE DE TECHNOSUB.

THE INFORMATION CONTAINED IN THIS DOCUMENT IS THE PROPERTY OF TECHNOSUB INC. AND MUST BE RETURNED UPON REQUEST. ANY TRANSMISSION OF THIS INFORMATION TO A THIRD PARTY OR ANY USE OF THIS INFORMATION EXCEPT FOR ITS ORIGINAL PURPOSE WITHOUT PRIOR WRITTEN PERMISSION IS PROHIBITED. © TECHNOSUB

Méliadine 6515-S-265-067

Valve support Drawing

P1803211_MEQ_GAD_0501

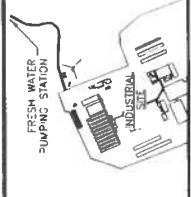
PROJECT

SEQ #

SHEET #

REV.

P1803211 - 0501 - 1 / 1 - 1



475 DE L'AVENUE EST
MONTREAL QUEBEC CANADA H3C 2P7
TEL: 514-273-0721 / TELECO 514-273-1541 / WWW.WSCGROUP.COM
51-06440-10

NOTES GÉNÉRALES / GENERAL NOTES

NOTE: THE VENDOR SHALL REFER HIMSELF TO THE EQUIPMENT SPECIFICATIONS AND THE SCOPE OF WORK OF THE 6515-S-265-067 FRESH WATER PUMP STATION FOR DETAIL RELATED TO THIS DESIGN.

POUR CONSTRUCTION

DATE : 2018-06-05

APPROVED

12. **NAME** _____
 13. **ADDRESS** _____
 14. **CITY** _____
 15. **STATE** _____
 16. **ZIP** _____
 17. **PHONE** _____
 18. **FAX** _____
 19. **E-MAIL** _____
 20. **DATE** _____
 21. **SIGNATURE** _____
 22. **PRINT NAME** _____
 23. **PRINT ADDRESS** _____
 24. **PRINT CITY** _____
 25. **PRINT STATE** _____
 26. **PRINT ZIP** _____
 27. **PRINT PHONE** _____
 28. **PRINT FAX** _____
 29. **PRINT E-MAIL** _____
 30. **PRINT DATE** _____
 31. **PRINT SIGNATURE** _____
 32. **PRINT NAME** _____
 33. **PRINT ADDRESS** _____
 34. **PRINT CITY** _____
 35. **PRINT STATE** _____
 36. **PRINT ZIP** _____
 37. **PRINT PHONE** _____
 38. **PRINT FAX** _____
 39. **PRINT E-MAIL** _____
 40. **PRINT DATE** _____
 41. **PRINT SIGNATURE** _____
 42. **PRINT NAME** _____
 43. **PRINT ADDRESS** _____
 44. **PRINT CITY** _____
 45. **PRINT STATE** _____
 46. **PRINT ZIP** _____
 47. **PRINT PHONE** _____
 48. **PRINT FAX** _____
 49. **PRINT E-MAIL** _____
 50. **PRINT DATE** _____
 51. **PRINT SIGNATURE** _____
 52. **PRINT NAME** _____
 53. **PRINT ADDRESS** _____
 54. **PRINT CITY** _____
 55. **PRINT STATE** _____
 56. **PRINT ZIP** _____
 57. **PRINT PHONE** _____
 58. **PRINT FAX** _____
 59. **PRINT E-MAIL** _____
 60. **PRINT DATE** _____
 61. **PRINT SIGNATURE** _____
 62. **PRINT NAME** _____
 63. **PRINT ADDRESS** _____
 64. **PRINT CITY** _____
 65. **PRINT STATE** _____
 66. **PRINT ZIP** _____
 67. **PRINT PHONE** _____
 68. **PRINT FAX** _____
 69. **PRINT E-MAIL** _____
 70. **PRINT DATE** _____
 71. **PRINT SIGNATURE** _____
 72. **PRINT NAME** _____
 73. **PRINT ADDRESS** _____
 74. **PRINT CITY** _____
 75. **PRINT STATE** _____
 76. **PRINT ZIP** _____
 77. **PRINT PHONE** _____
 78. **PRINT FAX** _____
 79. **PRINT E-MAIL** _____
 80. **PRINT DATE** _____
 81. **PRINT SIGNATURE** _____
 82. **PRINT NAME** _____
 83. **PRINT ADDRESS** _____
 84. **PRINT CITY** _____
 85. **PRINT STATE** _____
 86. **PRINT ZIP** _____
 87. **PRINT PHONE** _____
 88. **PRINT FAX** _____
 89. **PRINT E-MAIL** _____
 90. **PRINT DATE** _____
 91. **PRINT SIGNATURE** _____
 92. **PRINT NAME** _____
 93. **PRINT ADDRESS** _____
 94. **PRINT CITY** _____
 95. **PRINT STATE** _____
 96. **PRINT ZIP** _____
 97. **PRINT PHONE** _____
 98. **PRINT FAX** _____
 99. **PRINT E-MAIL** _____
 100. **PRINT DATE** _____
 101. **PRINT SIGNATURE** _____
 102. **PRINT NAME** _____
 103. **PRINT ADDRESS** _____
 104. **PRINT CITY** _____
 105. **PRINT STATE** _____
 106. **PRINT ZIP** _____
 107. **PRINT PHONE** _____
 108. **PRINT FAX** _____
 109. **PRINT E-MAIL** _____
 110. **PRINT DATE** _____
 111. **PRINT SIGNATURE** _____
 112. **PRINT NAME** _____
 113. **PRINT ADDRESS** _____
 114. **PRINT CITY** _____
 115. **PRINT STATE** _____
 116. **PRINT ZIP** _____
 117. **PRINT PHONE** _____
 118. **PRINT FAX** _____
 119. **PRINT E-MAIL** _____
 120. **PRINT DATE** _____
 121. **PRINT SIGNATURE** _____
 122. **PRINT NAME** _____
 123. **PRINT ADDRESS** _____
 124. **PRINT CITY** _____
 125. **PRINT STATE** _____
 126. **PRINT ZIP** _____
 127. **PRINT PHONE** _____
 128. **PRINT FAX** _____
 129. **PRINT E-MAIL** _____
 130. **PRINT DATE** _____
 131. **PRINT SIGNATURE** _____
 132. **PRINT NAME** _____
 133. **PRINT ADDRESS** _____
 134. **PRINT CITY** _____
 135. **PRINT STATE** _____
 136. **PRINT ZIP** _____
 137. **PRINT PHONE** _____
 138. **PRINT FAX** _____
 139. **PRINT E-MAIL** _____
 140. **PRINT DATE** _____
 141. **PRINT SIGNATURE** _____
 142. **PRINT NAME** _____
 143. **PRINT ADDRESS** _____
 144. **PRINT CITY** _____
 145. **PRINT STATE** _____
 146. **PRINT ZIP** _____
 147. **PRINT PHONE** _____
 148. **PRINT FAX** _____
 149. **PRINT E-MAIL** _____
 150. **PRINT DATE** _____
 151. **PRINT SIGNATURE** _____
 152. **PRINT NAME** _____
 153. **PRINT ADDRESS** _____
 154. **PRINT CITY** _____
 155. **PRINT STATE** _____
 156. **PRINT ZIP** _____
 157. **PRINT PHONE** _____
 158. **PRINT FAX** _____
 159. **PRINT E-MAIL** _____
 160. **PRINT DATE** _____
 161. **PRINT SIGNATURE** _____
 162. **PRINT NAME** _____
 163. **PRINT ADDRESS** _____
 164. **PRINT CITY** _____
 165. **PRINT STATE** _____
 166. **PRINT ZIP** _____
 167. **PRINT PHONE** _____
 168. **PRINT FAX** _____
 169. **PRINT E-MAIL** _____
 170. **PRINT DATE** _____
 171. **PRINT SIGNATURE** _____
 172. **PRINT NAME** _____
 173. **PRINT ADDRESS** _____
 174. **PRINT CITY** _____
 175. **PRINT STATE** _____
 176. **PRINT ZIP** _____
 177. **PRINT PHONE** _____
 178. **PRINT FAX** _____
 179. **PRINT E-MAIL** _____
 180. **PRINT DATE** _____
 181. **PRINT SIGNATURE** _____
 182. **PRINT NAME** _____
 183. **PRINT ADDRESS** _____
 184. **PRINT CITY** _____
 185. **PRINT STATE** _____
 186. **PRINT ZIP** _____
 187. **PRINT PHONE** _____
 188. **PRINT FAX** _____
 189. **PRINT E-MAIL** _____
 190. **PRINT DATE** _____
 191. **PRINT SIGNATURE** _____
 192. **PRINT NAME** _____
 193. **PRINT ADDRESS** _____
 194. **PRINT CITY** _____
 195. **PRINT STATE** _____
 196. **PRINT ZIP** _____
 197. **PRINT PHONE** _____
 198. **PRINT FAX** _____
 199. **PRINT E-MAIL** _____
 200. **PRINT DATE** _____
 201. **PRINT SIGNATURE** _____
 202. **PRINT NAME** _____
 203. **PRINT ADDRESS** _____
 204. **PRINT CITY** _____
 205. **PRINT STATE** _____
 206. **PRINT ZIP** _____
 207. **PRINT PHONE** _____
 208. **PRINT FAX** _____
 209. **PRINT E-MAIL** _____
 210. **PRINT DATE** _____
 211. **PRINT SIGNATURE** _____
 212. **PRINT NAME** _____
 213. **PRINT ADDRESS** _____
 214. **PRINT CITY** _____
 215. **PRINT STATE** _____
 216. **PRINT ZIP** _____
 217. **PRINT PHONE** _____
 218. **PRINT FAX** _____
 219. **PRINT E-MAIL** _____
 220. **PRINT DATE** _____
 221. **PRINT SIGNATURE** _____
 222. **PRINT NAME** _____
 223. **PRINT ADDRESS** _____
 224. **PRINT CITY** _____
 225. **PRINT STATE** _____
 226. **PRINT ZIP** _____
 227. **PRINT PHONE** _____
 228. **PRINT FAX** _____
 229.

BESSINS EN REFERENCE / REFERENCE DRAWINGS

TIME / hr	A (%)
0	
1	
2	
3	
4	
5	



AGNICO EAGLE

LINE	DATE	DESCRIPTION	AMOUNT	PAID	BY	DATE	AMOUNT
2	2018-06-05	ADD BALLAST					
1	2018-06-01	ISSUED FOR CONSTRUCTION					
0	2018-01-24	ISSUED FOR TRAILER					

REVISIONS

FIGURE 1 / TITLE
AGNICO EAGLE - MELLIADINE DIVISION
692 - FRESH WATER PUMPING STATION
210 - GENERAL ARRANGEMENT
PLAN VIEW

ISSUE DATE BY	DATE
ISABELLE ALBERT	2015-11-30
APPROVED BY	
BERTRAND FORTIN, P. Eng.	2018-06-01
APPROVED BY	
BERTRAND FORTIN, P. Eng.	2018-06-01
INDICATED	DATE
	2015-11-30

65-692-210-203

PROJECT NO.	REVISION	FOLIO / SH
6515	2	1 / 1

McElroy Joint Report

Reference Number 1176076

Job Details

Joint Number 40
Joint Time 2018-07-28 11:51:35 GMT
Job melliadine promec
Operator stephen pepin

Fusion Machine

Machine Name McELROY
Machine Model T500 MF
Piston Area 6.01 in²

Pipe Specifications

Pipe Material PE4710
Pipe Size 12 " DIPS
Wall Thickness DR 17

Pressures

Drag Pressure	Interfacial	Gauge
156 psi		
Bead Up	75 psi	534 psi
Heat Soak	0 psi	156 psi
Fuse	75 psi	534 psi
Cool	0 psi	0 psi

Fusion Specification

Fusion Type	Butt Fusion	
Fusion Specification	ASTM F2620	
Bead Time	0 seconds	
Bead Size	3/8"	
Heat/Soak Time	209 seconds	
Fuse Time	512 seconds	
Open/Close Time	15 seconds	
Cool Time	0 seconds	
	Minimum	Maximum
Bead Up	458 psi	609 psi
Heat Soak	0 psi	156 psi
Fuse	458 psi	609 psi
Cool	0 psi	0 psi

External Heater Temperatures

	Side A	Side B
One	425 F	425 F
Two	425 F	425 F
Three	425 F	425 F
Four	425 F	425 F

GPS Location

	Latitude	Longitude
2018/07/28 16:55:46		
UTC	63°2'34.0"N	92°13'14.1"W

Logged Data Summary

Number of Data Points 224
Total Fusion Time 244 seconds
Maximum Recorded Pressure 363 psi

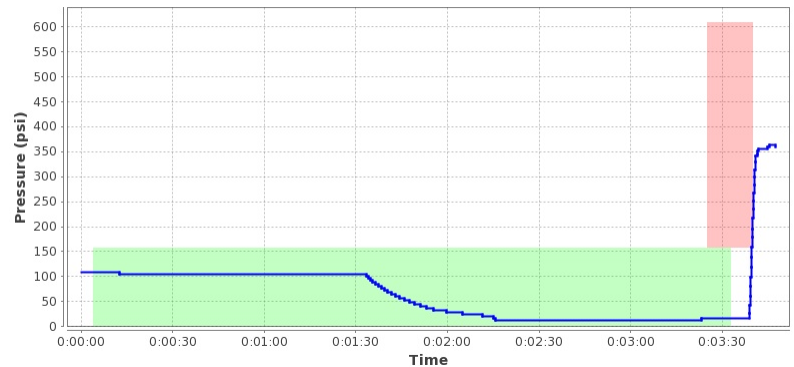
Device Information

DataLogger Serial Number MDL5-1111
Calibration Date 2018-06-21
Firmware Version v5.1
Software Version v1.0.8
Software Product Name DL5m

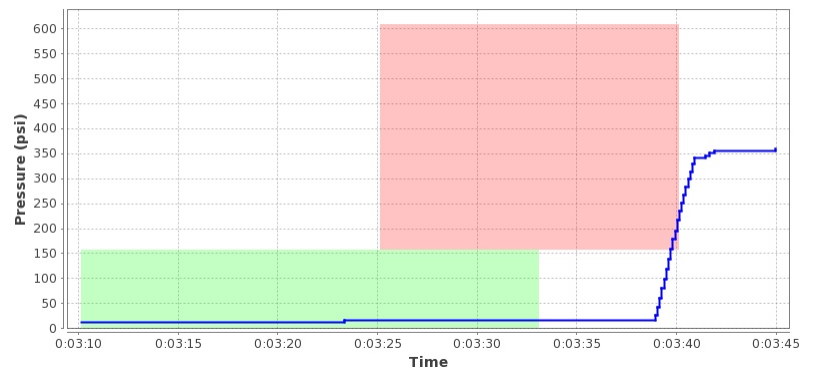
Data Source

File Name \\My Documents\\Joint Reports\\DL5 2018-07-28 at 11-51-35 Joint
40 Job melliadine promec by stephen pepin.DL5
Upload Time 2018-10-22 15:14:18 GMT

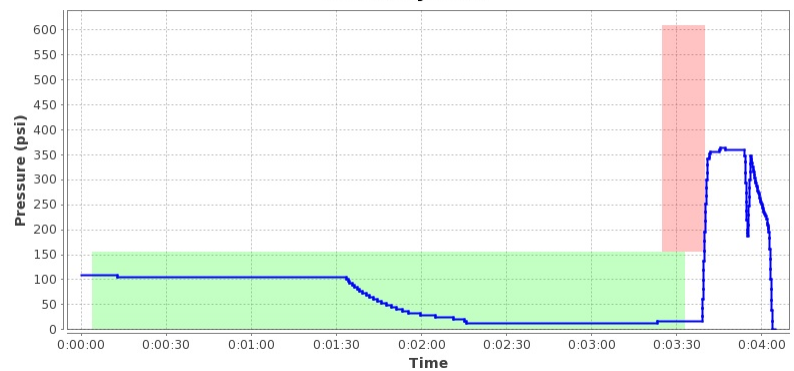
Front-end Plot



Heater Removal Plot



Summary Plot



Notes

12 " DR17 tuyaux isoler dans l'eau

McElroy Joint Report

Reference Number 1176077

Job Details

Joint Number 41
Joint Time 2018-07-28 11:57:51 GMT
Job melliadine promec
Operator stephen pepin

Fusion Machine

Machine Name McELROY
Machine Model T500 MF
Piston Area 6.01 in²

Pipe Specifications

Pipe Material PE4710
Pipe Size 12 " DIPS
Wall Thickness DR 17

Pressures

Drag Pressure	Interfacial	Gauge
0 psi		
Bead Up	75 psi	378 psi
Heat Soak	0 psi	0 psi
Fuse	75 psi	378 psi
Cool	0 psi	0 psi

Fusion Specification

Fusion Type Butt Fusion
Fusion Specification ASTM F2620
Bead Time 0 seconds
Bead Size 3/8"
Heat/Soak Time 209 seconds
Fuse Time 512 seconds
Open/Close Time 15 seconds
Cool Time 0 seconds

	Minimum	Maximum
Bead Up	302 psi	453 psi
Heat Soak	0 psi	0 psi
Fuse	302 psi	453 psi
Cool	0 psi	0 psi

External Heater Temperatures

	Side A	Side B
One	425 F	425 F
Two	425 F	425 F
Three	425 F	425 F
Four	425 F	425 F

GPS Location

	Latitude	Longitude
2018/07/28 17:02:57 UTC	63°2'33.9"N	92°13'14.1"W

Logged Data Summary

Number of Data Points 750
Total Fusion Time 5373 seconds
Maximum Recorded Pressure 432 psi

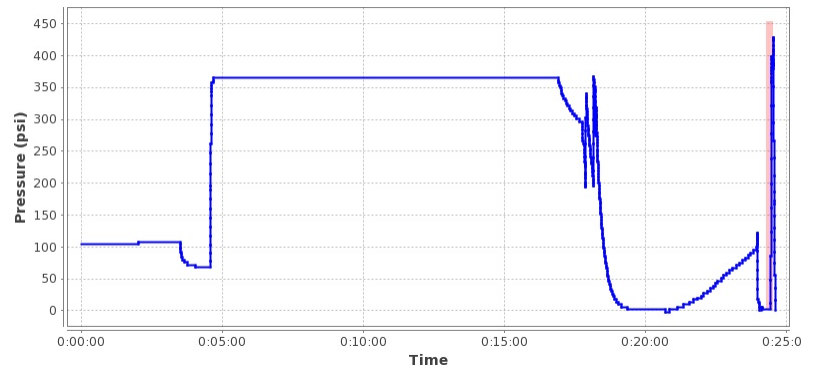
Device Information

DataLogger Serial Number MDL5-1111
Calibration Date 2018-06-21
Firmware Version v5.1
Software Version v1.0.8
Software Product Name DL5m

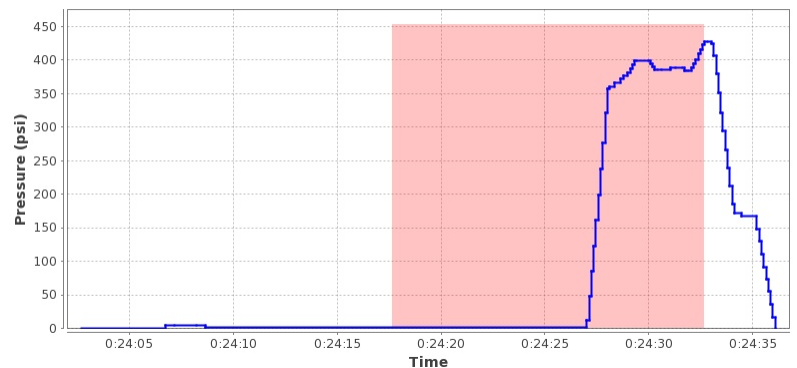
Data Source

File Name \My Documents\Joint Reports\DL5 2018-07-28 at 11-57-51 Joint
41 Job melliadine promec by stephen pepin.DL5
Upload Time 2018-10-22 15:14:20 GMT

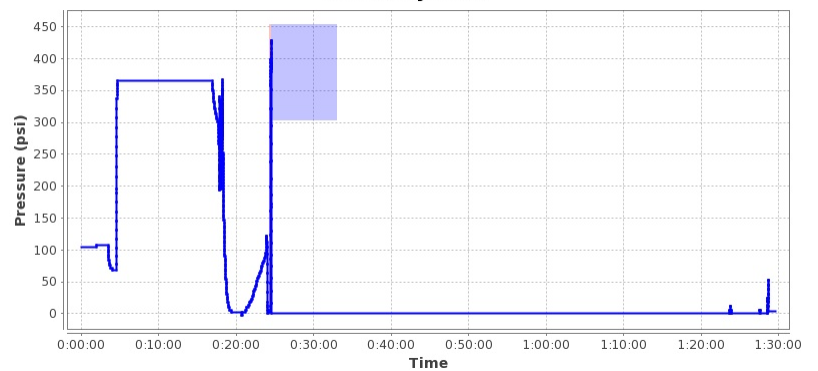
Front-end Plot



Heater Removal Plot



Summary Plot



Notes

12 " DR17 tuyaux isoler dans l'eau

McElroy Joint Report

Reference Number 1176078

Job Details

Joint Number 42
Joint Time 2018-07-28 13:45:46 GMT
Job melliadine promec
Operator stephen pepin

Fusion Machine

Machine Name McELROY
Machine Model T500 MF
Piston Area 6.01 in²

Pipe Specifications

Pipe Material PE4710
Pipe Size 12 " DIPS
Wall Thickness DR 17

Pressures

Drag Pressure	1 psi	Interfacial	Gauge
Bead Up	75 psi	379 psi	
Heat Soak	0 psi	1 psi	
Fuse	75 psi	379 psi	
Cool	0 psi	0 psi	

Fusion Specification

Fusion Type Butt Fusion
Fusion Specification ASTM F2620
Bead Time 0 seconds
Bead Size 3/8"
Heat/Soak Time 209 seconds
Fuse Time 512 seconds
Open/Close Time 15 seconds
Cool Time 0 seconds

	Minimum	Maximum
Bead Up	303 psi	454 psi
Heat Soak	0 psi	1 psi
Fuse	303 psi	454 psi
Cool	0 psi	0 psi

External Heater Temperatures

	Side A	Side B
One	422 F	422 F
Two	423 F	423 F
Three	422 F	422 F
Four	423 F	423 F

GPS Location

	Latitude	Longitude
2018/07/28 18:50:52 UTC	63°2'33.7"N	92°13'14.7"W

Logged Data Summary

Number of Data Points 84
Total Fusion Time 794 seconds
Maximum Recorded Pressure 375 psi

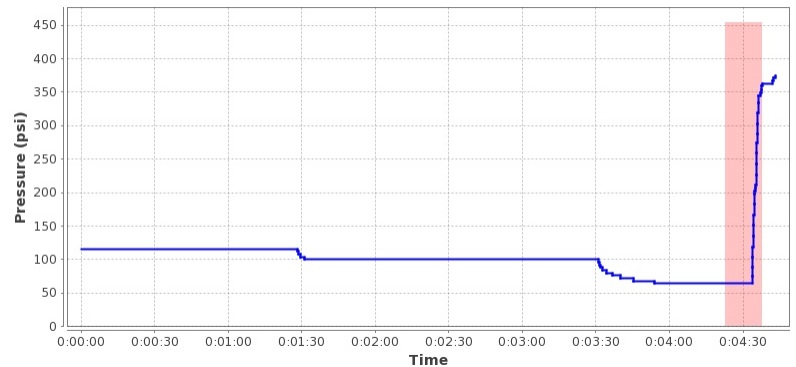
Device Information

DataLogger Serial Number MDL5-1111
Calibration Date 2018-06-21
Firmware Version v5.1
Software Version v1.0.8
Software Product Name DL5m

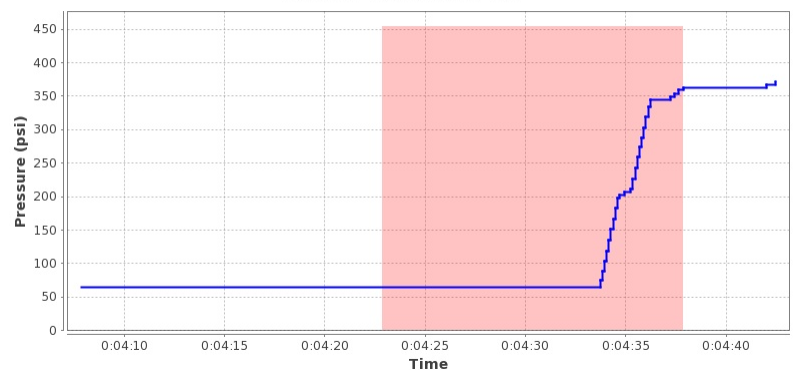
Data Source

File Name \\My Documents\\Joint Reports\\DL5 2018-07-28 at 13-45-46 Joint
42 Job melliadine promec by stephen pepin.DL5
Upload Time 2018-10-22 15:14:22 GMT

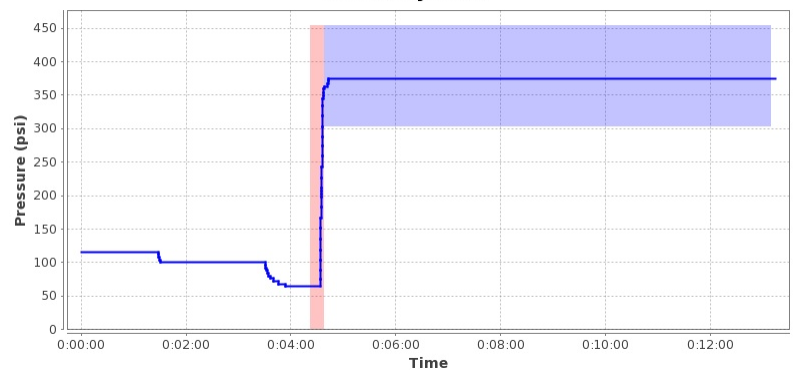
Front-end Plot



Heater Removal Plot



Summary Plot



Notes

12 " DR17 tuyaux isoler dans l'eau

McElroy Joint Report

Reference Number 1176079

Job Details

Joint Number 43
Joint Time 2018-07-28 14:20:35 GMT
Job melliadine promec
Operator stephen pepin

Fusion Machine

Machine Name McELROY
Machine Model T500 MF
Piston Area 6.01 in²

Pipe Specifications

Pipe Material PE4710
Pipe Size 12 " DIPS
Wall Thickness DR 17

Pressures

Drag Pressure	341 psi	Interfacial	Gauge
Bead Up	75 psi	719 psi	
Heat Soak	0 psi	341 psi	
Fuse	75 psi	719 psi	
Cool	0 psi	0 psi	

Fusion Specification

Fusion Type Butt Fusion
Fusion Specification ASTM F2620
Bead Time 0 seconds
Bead Size 3/8"
Heat/Soak Time 209 seconds
Fuse Time 512 seconds
Open/Close Time 15 seconds
Cool Time 0 seconds

	Minimum	Maximum
Bead Up	643 psi	794 psi
Heat Soak	0 psi	341 psi
Fuse	643 psi	794 psi
Cool	0 psi	0 psi

External Heater Temperatures

	Side A	Side B

GPS Location

	Latitude	Longitude
2018/07/28 19:25:43 UTC	63°2'33.3"N	92°13'15.0"W

Logged Data Summary

Number of Data Points 114
Total Fusion Time 748 seconds
Maximum Recorded Pressure 413 psi

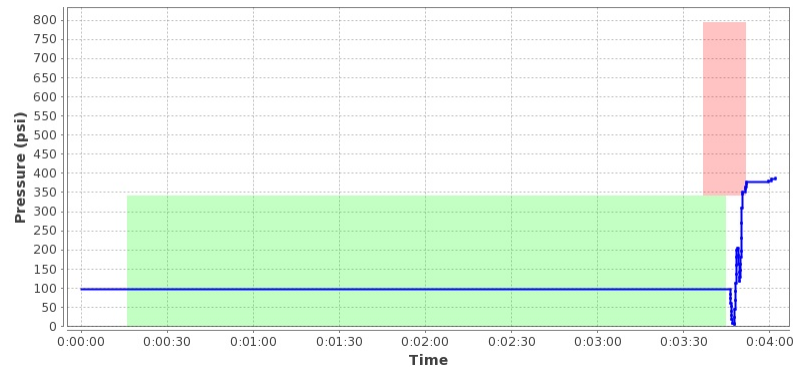
Device Information

DataLogger Serial Number MDL5-1111
Calibration Date 2018-06-21
Firmware Version v5.1
Software Version v1.0.8
Software Product Name DL5m

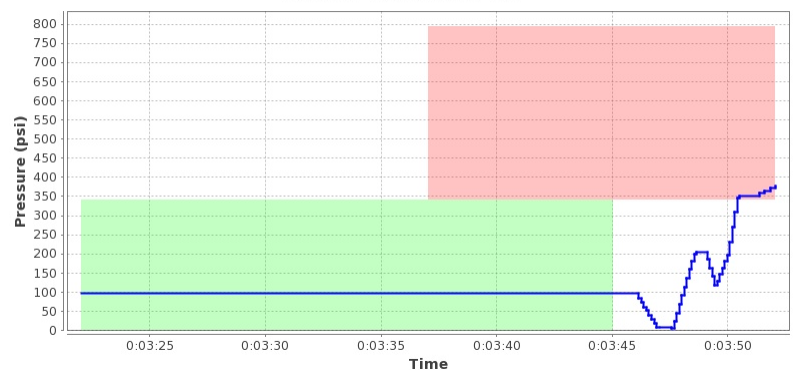
Data Source

File Name \My Documents\Joint Reports\DL5 2018-07-28 at 14-20-35 Joint
43 Job melliadine promec by stephen pepin.DL5
Upload Time 2018-10-22 15:14:23 GMT

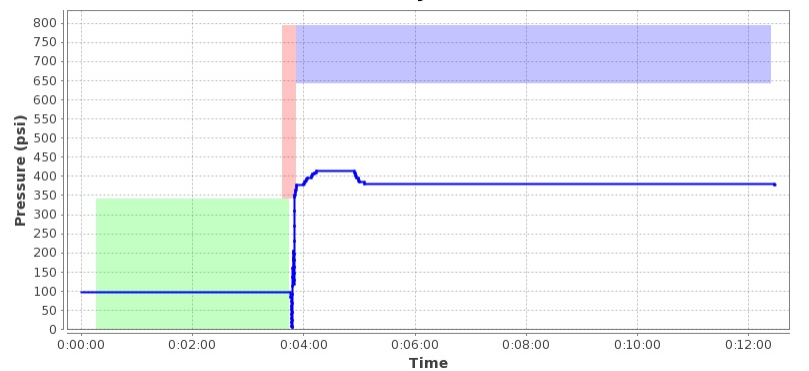
Front-end Plot



Heater Removal Plot



Summary Plot



Notes

12 " DR17 tuyaux isoler dans l'eau

McElroy Joint Report

Reference Number 1176080

Job Details

Joint Number 44
Joint Time 2018-07-28 14:54:26 GMT
Job melliadine promec
Operator stephen pepin

Fusion Machine

Machine Name McELROY
Machine Model T500 MF
Piston Area 6.01 in²

Pipe Specifications

Pipe Material PE4710
Pipe Size 12 " DIPS
Wall Thickness DR 17

Pressures

Drag Pressure	329 psi	Interfacial	Gauge
Bead Up	75 psi	707 psi	
Heat Soak	0 psi	329 psi	
Fuse	75 psi	707 psi	
Cool	0 psi	0 psi	

Fusion Specification

Fusion Type	Butt Fusion	Fusion Specification	ASTM F2620
Bead Time	0 seconds	Bead Size	3/8"
Heat/Soak Time	209 seconds	Fuse Time	512 seconds
Open/Close Time	15 seconds	Cool Time	0 seconds
	Minimum		Maximum
Bead Up	631 psi		782 psi
Heat Soak	0 psi		329 psi
Fuse	631 psi		782 psi
Cool	0 psi		0 psi

External Heater Temperatures

	Side A	Side B
GPS Location		

GPS Location

	Latitude	Longitude
2018/07/28 19:59:34 UTC	63°2'32.9"N	92°13'15.2"W

Logged Data Summary

Number of Data Points 84
Total Fusion Time 834 seconds
Maximum Recorded Pressure 381 psi

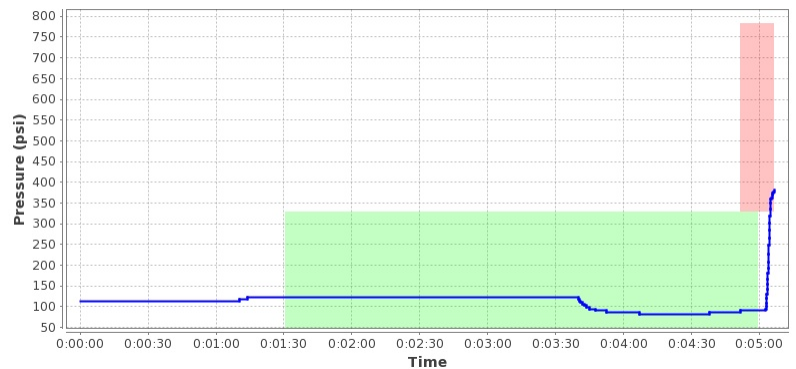
Device Information

DataLogger Serial Number MDL5-1111
Calibration Date 2018-06-21
Firmware Version v5.1
Software Version v1.0.8
Software Product Name DL5m

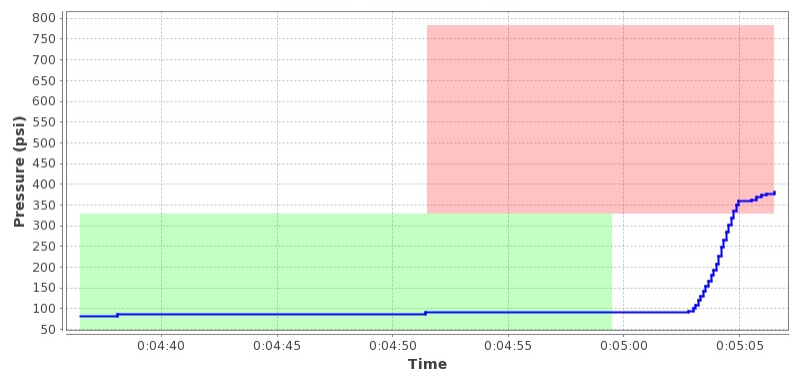
Data Source

File Name \My Documents\Joint Reports\DL5 2018-07-28 at 14-54-26 Joint
44 Job melliadine promec by stephen pepin.DL5
Upload Time 2018-10-22 15:14:24 GMT

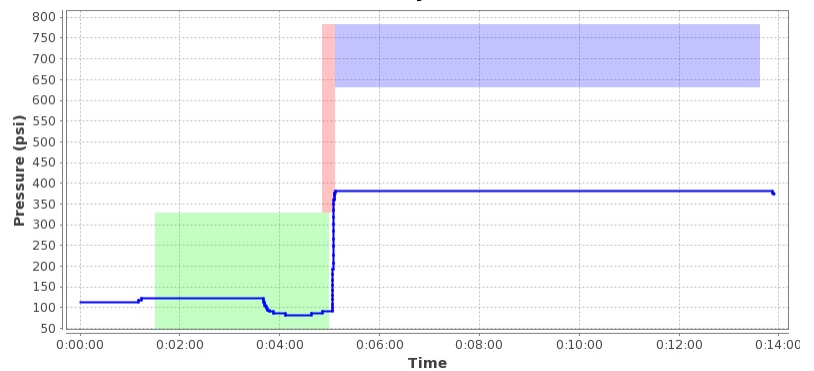
Front-end Plot



Heater Removal Plot



Summary Plot



Notes

12 " DR17 tuyaux isoler dans l'eau

McElroy Joint Report

Reference Number 1176081

Job Details

Joint Number 45
Joint Time 2018-07-28 16:15:24 GMT
Job melliadine promec
Operator stephen pepin

Fusion Machine

Machine Name McELROY
Machine Model T500 MF
Piston Area 6.01 in²

Pipe Specifications

Pipe Material PE4710
Pipe Size 12 " DIPS
Wall Thickness DR 17

Pressures

Drag Pressure	341 psi	Interfacial	Gauge
Bead Up	75 psi	719 psi	
Heat Soak	0 psi	341 psi	
Fuse	75 psi	719 psi	
Cool	0 psi	0 psi	

Fusion Specification

Fusion Type Butt Fusion
Fusion Specification ASTM F2620
Bead Time 0 seconds
Bead Size 3/8"
Heat/Soak Time 209 seconds
Fuse Time 512 seconds
Open/Close Time 15 seconds
Cool Time 0 seconds

	Minimum	Maximum
Bead Up	643 psi	794 psi
Heat Soak	0 psi	341 psi
Fuse	643 psi	794 psi
Cool	0 psi	0 psi

External Heater Temperatures

	Side A	Side B

GPS Location

	Latitude	Longitude
2018/07/28 21:20:32 UTC	63°2'32.5"N	92°13'15.5"W

Logged Data Summary

Number of Data Points 104
Total Fusion Time 854 seconds
Maximum Recorded Pressure 377 psi

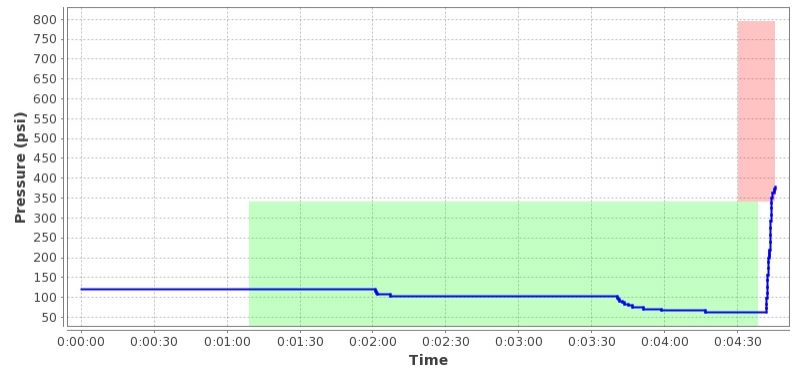
Device Information

DataLogger Serial Number MDL5-1111
Calibration Date 2018-06-21
Firmware Version v5.1
Software Version v1.0.8
Software Product Name DL5m

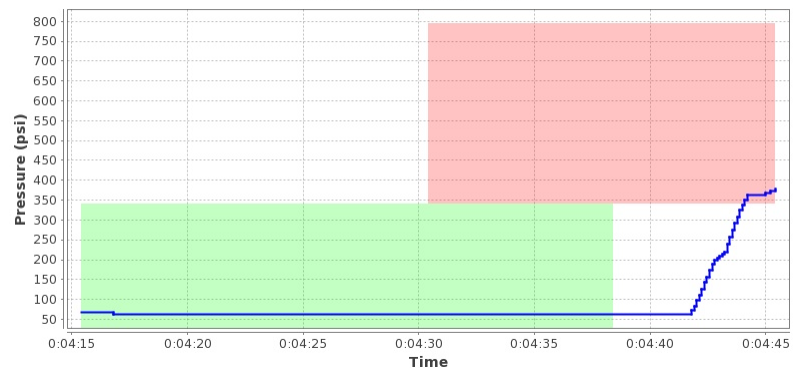
Data Source

File Name \My Documents\Joint Reports\DL5 2018-07-28 at 16-15-24 Joint
45 Job melliadine promec by stephen pepin.DL5
Upload Time 2018-10-22 15:14:25 GMT

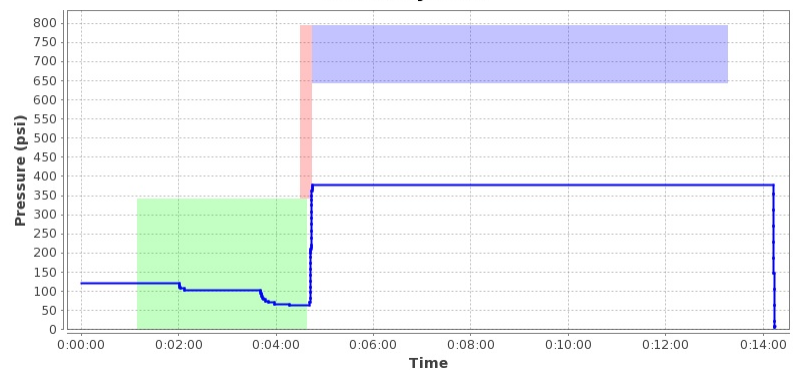
Front-end Plot



Heater Removal Plot



Summary Plot



Notes

12 " DR17 tuyaux isoler dans l'eau

McElroy Joint Report

Reference Number 1176082

Job Details

Joint Number 46
Joint Time 2018-07-28 16:45:32 GMT
Job melliadine promec
Operator stephen pepin

Fusion Machine

Machine Name McELROY
Machine Model T500 MF
Piston Area 6.01 in²

Pipe Specifications

Pipe Material PE4710
Pipe Size 12 " DIPS
Wall Thickness DR 17

Pressures

Drag Pressure	66 psi	Interfacial	Gauge
Bead Up		75 psi	444 psi
Heat Soak		0 psi	66 psi
Fuse		75 psi	444 psi
Cool		0 psi	0 psi

Fusion Specification

Fusion Type Butt Fusion
Fusion Specification ASTM F2620
Bead Time 0 seconds
Bead Size 3/8"
Heat/Soak Time 209 seconds
Fuse Time 512 seconds
Open/Close Time 15 seconds
Cool Time 0 seconds

	Minimum	Maximum
Bead Up	368 psi	519 psi
Heat Soak	0 psi	66 psi
Fuse	368 psi	519 psi
Cool	0 psi	0 psi

External Heater Temperatures

	Side A	Side B

GPS Location

	Latitude	Longitude
2018/07/28 21:50:40 UTC	63°2'32.1"N	92°13'15.6"W

Logged Data Summary

Number of Data Points 80
Total Fusion Time 852 seconds
Maximum Recorded Pressure 380 psi

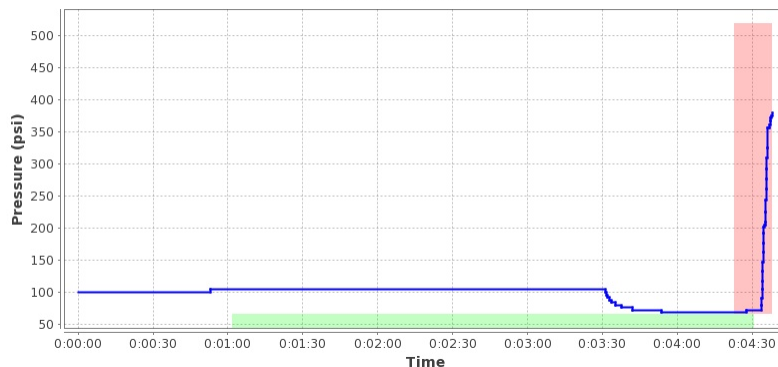
Device Information

DataLogger Serial Number MDL5-1111
Calibration Date 2018-06-21
Firmware Version v5.1
Software Version v1.0.8
Software Product Name DL5m

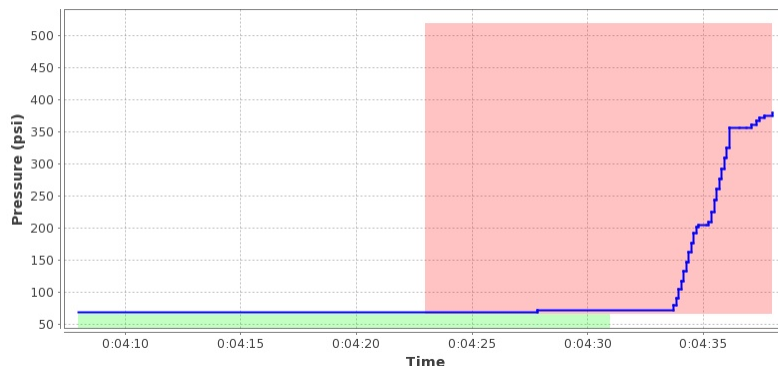
Data Source

File Name \My Documents\Joint Reports\DL5 2018-07-28 at 16-45-32 Joint
46 Job melliadine promec by stephen pepin.DL5
Upload Time 2018-10-22 15:14:26 GMT

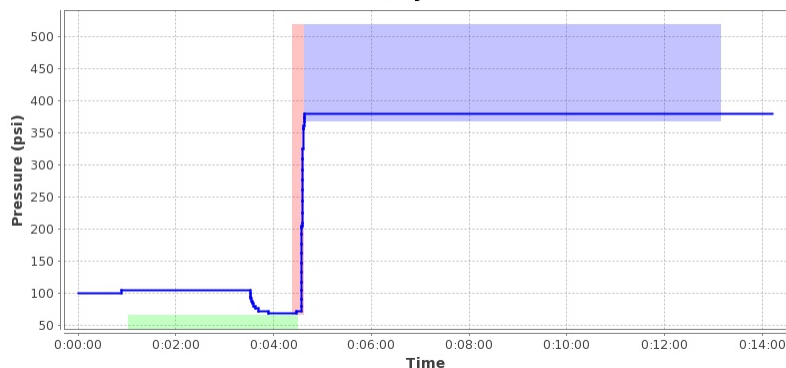
Front-end Plot



Heater Removal Plot



Summary Plot



Notes

12 " DR17 tuyaux isoler dans l'eau



AGNICO EAGLE

VENDOR DOCUMENT STATUS

CLIENT
PROJECT

AGNICO-EAGLE
MELIADINE

PACKAGE
PACKAGE TITLE

6515-S-265-067
Fresh Water Pumping Station

P.O

OC-677221



AGNICO EAGLE

Vendor Document Status

- 1 ☐ Proceed to next submission and status.
- 2 ☐ Proceed with exceptions as noted to next submission and status.
- 3 ☐ Do not proceed.
Revise as noted and resubmit next submission and status.
- 4 ☒ Complete, no further submission required.

By:

Date:

Review and authorization to fabricate are only for general conformance with the design concept of the Project as expressed in the Contract Documents. Sole responsibility for the accuracy and completeness of this document, including but not limited to dimensions and quantities, remains with the Supplier/Contractor. Agnico Eagle does not warrant the accuracy or completeness of any of the information contained herein, nor does Agnico Eagle authorize or approve any construction means, methods, techniques, sequences or any safety precautions or procedures.

Agnico Eagle

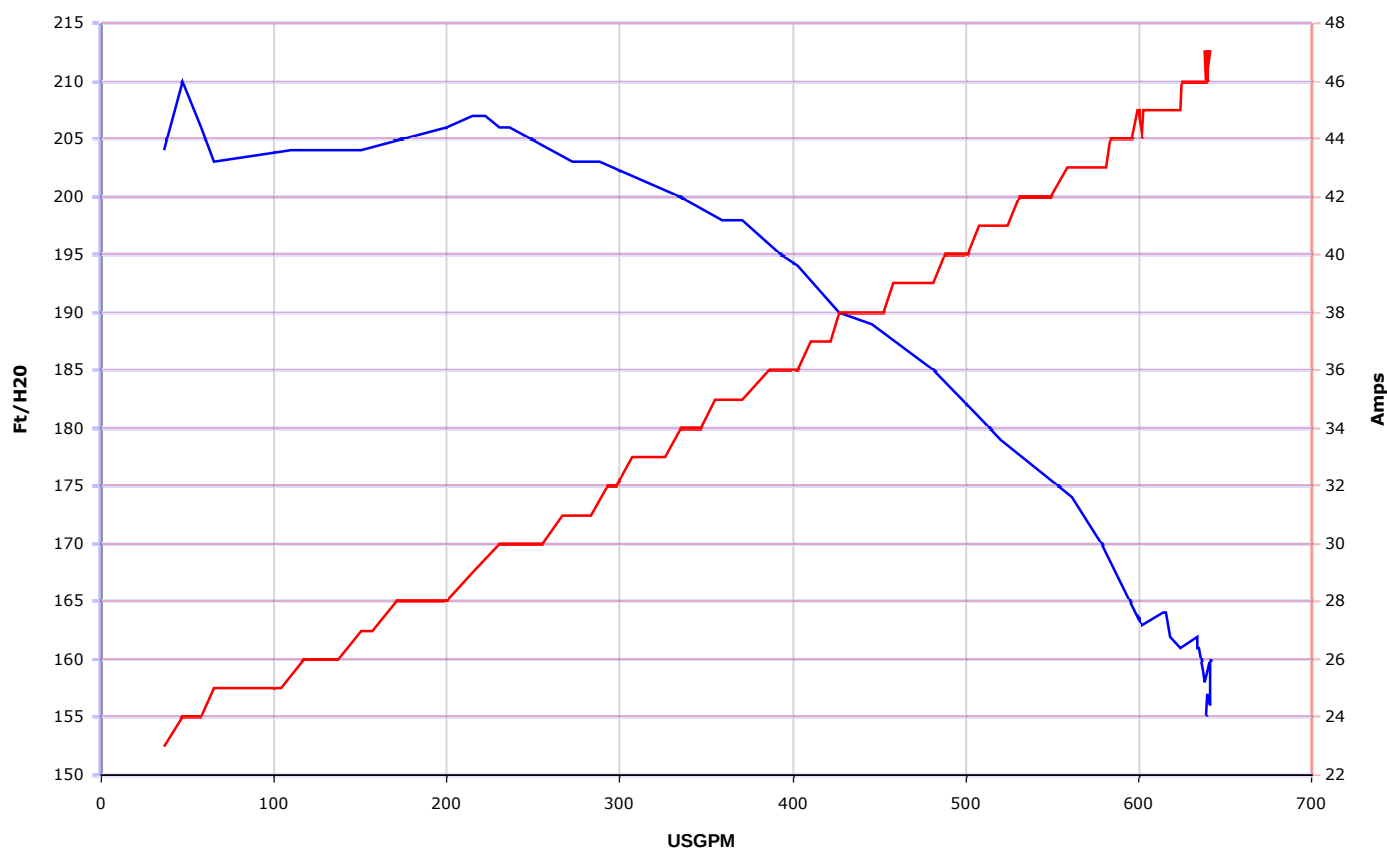
No. 6515-S-265-067-141-TES-0004

R: 001

DOCUMENT FOR INFORMATION

TEST DE PERFORMANCE

Bon de travail	MWO13810	Puissance (HP)	60
Client		Vitesse (R.P.M.)	1800
Marque	Technosub	Tension nominal (V)	575
Modèle	4TSH	Courant nominal (A)	54.7
Numéro de série	18-2548	Fréquence (Hz)	60
Diamètre de la ligne (")	4	Mécanicien	Simon F.
Test d'isolation (MΩ)	INFINI	Résistance de phase (Ω)	0.40 /0.40 /0.40
Diode testée	Non		
Date du test	4 Jun. 2018		



Pression max.(Ft H2O)	213	Débit max.(USGPM)	641
Courant max.(Amps)	47		
Note client			
Connecteur vérifié : Non Câble vérifié : Non Information vérifiée : Oui Rotation vérifiée : Oui			

4TSHAP

STANDARD HIGH HEAD AUTO PRIME



Shown with optional modular trailer kit

Technosub® Standard High Head Auto Prime pumps are specifically designed to effectively handle a wide range of liquids in applications such as liquid transfer, wash down, fire protection, fracking and jetting where high heads and pressure are required.

Technosub Standard High Head Auto Prime pumps provide a dependable, highly efficient solution in a completely automatic priming pump.

The model 4TSHAP is capable of achieving maximum flows of 1375 gpm (312 m³/h) and maximum total head of 380' (115 m), with solids handling up to 5/8" (15 mm) in diameter.

The standard 4TSHAP is powered by a water-cooled, 4-cylinder diesel engine. Alternative drives are available, including other diesel engines or electric motor options.

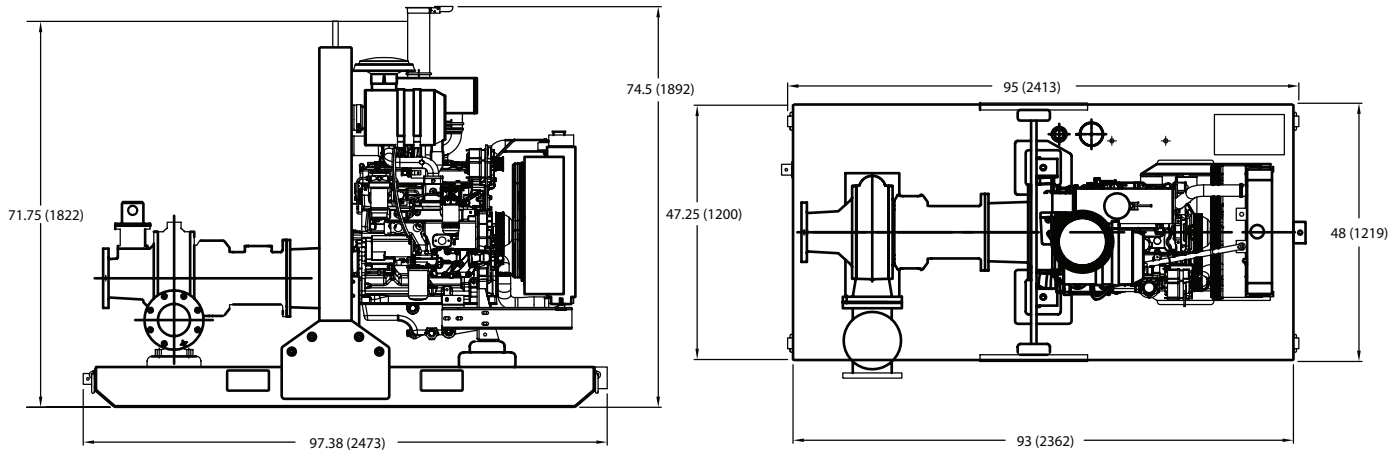
FEATURES

- Technosub's rugged, heavy duty pumps are engineered specifically for portable application
- Fully automatic priming system allows the pump to prime and re-prime while running
- Compressor-fed, venturi priming system provides rapid, reliable priming
- Mechanical seal with biodegradable glycol quench allows the pump to start and run dry
- Non-return valve uses only a single moving part to allow full flow with minimal restriction
- Pump casings are hydrostatically tested to 50 psig (345 kPa) above the peak casing design pressure
- Standard engine control panel provides preset emergency shutdown protection and allows the addition of automatic level control
- Skid-mounted formats with tie downs, lifting bail, and fork pockets

OPTIONS

- Fuel tanks for extended run times and/or remote location
- Modular trailer kit
- Trailer brakes and lights
- Sound attenuated enclosure
- Hose racks, accessory containers and other custom features available
- Wide range of suction and discharge fittings including Technosub's own "QD" Quick Disconnect fittings and accessories

4TSHAP STANDARD HIGH HEAD AUTO PRIME



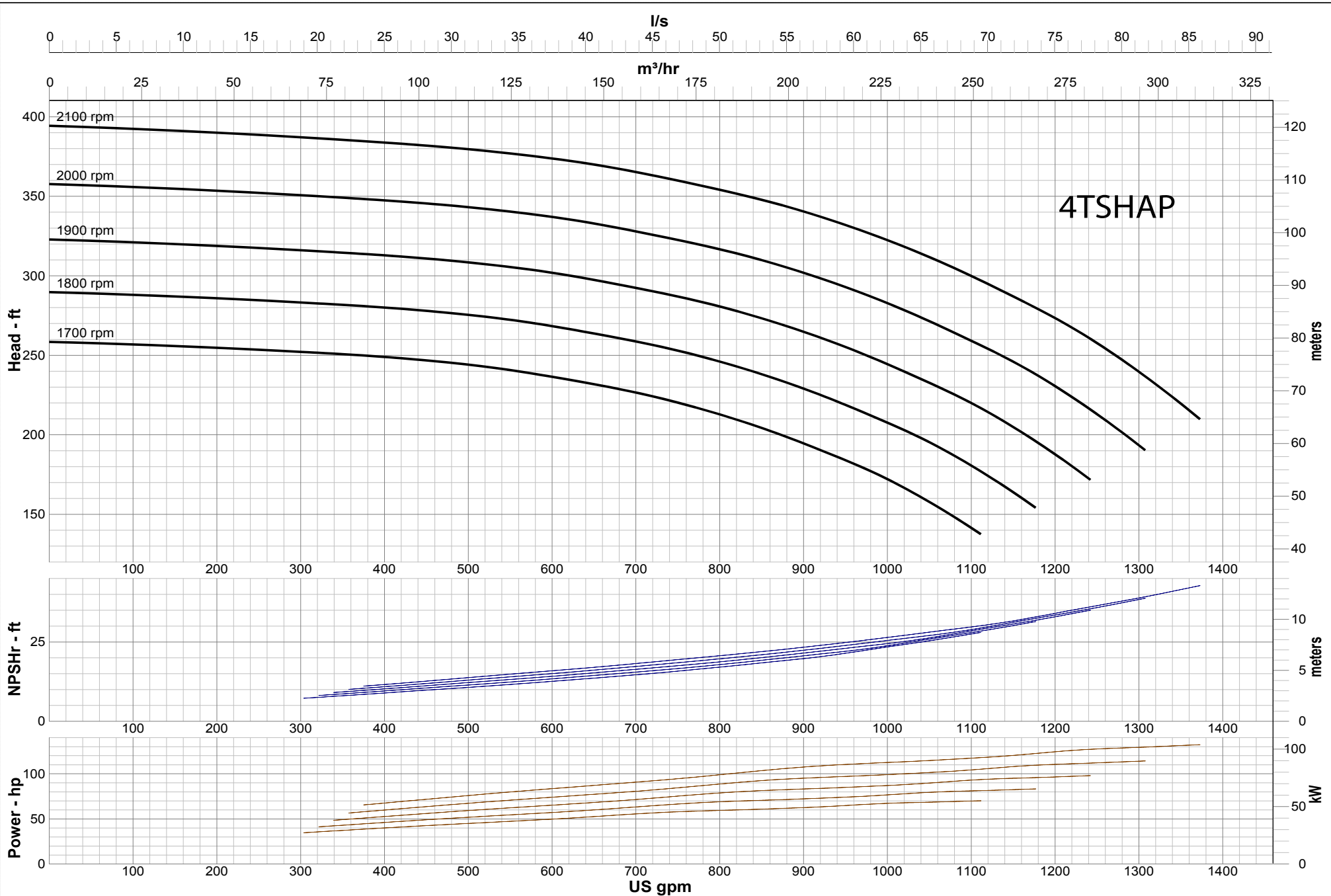
SPECIFICATIONS

- **Connections:** 4" x 3" (100 mm x 75 mm) ANSI Flanges
- **Maximum Pump Speed:** 2100 rpm
- **Maximum Flow:** 1375 gpm (312 m³/h)
- **Maximum Head:** 380' (115 m)
- **Maximum Static Priming Lift:** 28' (8.5 m)
- **Water Temperature Limit:** 160° F (70° C)
- **Solids Handling Capability:** 5/8" (15 mm)
- **Maximum Casing Pressure:** 200 psig (1379 kPa)
- **Fuel Tank:** 110 gallons (416 liters)

PUMP MATERIALS

- **Casing:** Cast Iron (CD4MCu is an option)
- **Impeller:** CD4MCu
- **Wear Rings:** CD4MCu and 316 SS
- **Bearing Housing:** Cast Iron
- **Bearing Lubrication:** Grease
- **Shaft:** 431 Stainless Steel
- **Seal:** Silicon Carbide on Silicon Carbide
- **Chassis/Fuel Cell:** Steel
- **Non-Return Valve:** Nitrile Fitted Cast Iron

Specifications and illustrations are subject to revision without notice. Technosub is not liable for any consequential, incidental or indirect damages relating to these specifications.



SPECIFICATIONS

Technosub
Standard High Head
Pump Model: 4TSHAP
Speed: 1700 - 2100 rpm
Impeller Diameter: 16 in

- **Connections:** 4" x 3" (200 x 150 mm) ANSI
- **Flanges Maximum Pump Speed:** 2100 rpm
- **Maximum Flow:** 1375 gpm (312 m³/h)
- **Maximum Head:** 380' (115 m)
- **Maximum Static Priming Lift:** 28' (8.5 m)
- **Solids Handling Capability:** 5/8" (15 mm)

Technosub
 INDUSTRIAL PUMPS
 DEWATERING SOLUTIONS

1 866 797-3300

1156 Larivière avenue, Rouyn-Noranda QC Canada J9X 4K8
T 819 797-3300 F 819 797-3060 info@technosub.net

TECHNOSUB.NET