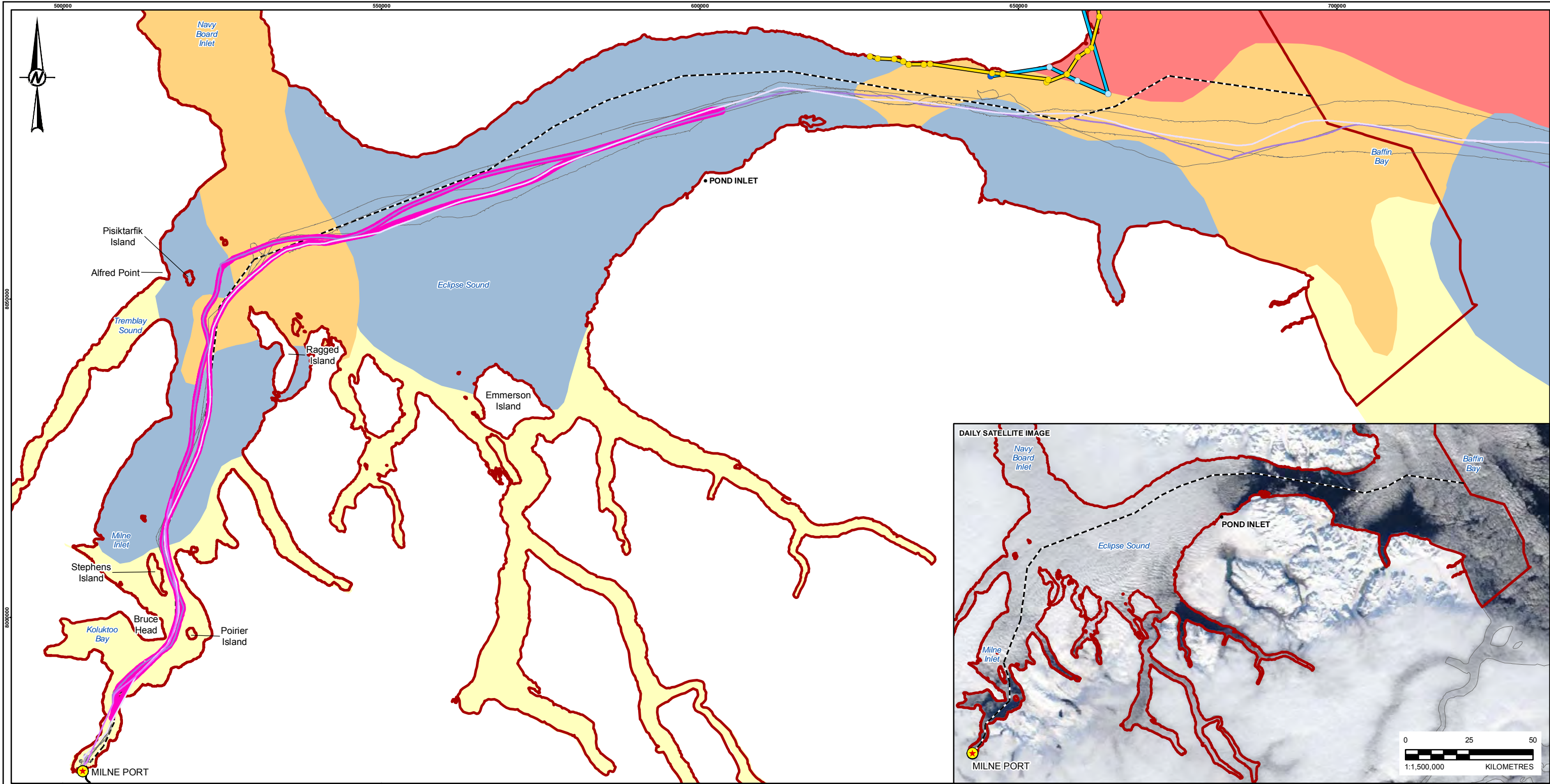


ATTACHMENT 1

Daily Locations of Narwhal in
relation to Vessel Traffic and Ice
Conditions (29 September -
17 October 2018)

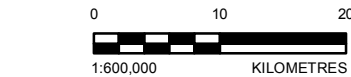


- LEGEND**
- COMMUNITY
 - ☼ MILNE PORT
 - NARWHAL GPS LOCATIONS**
 - NW22 (MM02-760) FASTLOC GPS LOCATION
 - NW21 (MM02-763) ARGOS LOCATIONS**
 - CLASS 1 (~ERROR 500 m < 1500 m)
 - CLASS 2 (~ERROR 250 m < 500 m)
 - NARWHAL TRACKS**
 - NW22 (MM02-760) FASTLOC GPS LOCATION
 - NW21 (MM02-763) ARGOS LOCATIONS (CLASSES 3, 2, AND 1)
 - BOTNICA SHIP TRACK
 - MILNE INLET TOTE ROAD
 - - - NOMINAL SHIPPING ROUTE
 - PROJECT VESSEL SHIP TRACKS**
 - GOLDEN ICE
 - NORDIC ORION
 - NORDKAP
 - NS YAKUTIA
 - ATLANTIC RAVEN
 - MARINE MAMMAL REGIONAL STUDY AREA
 - ICE CONCENTRATION**
 - < 1/10
 - 1-3/10
 - 4-6/10
 - 7-8/10
 - 9-10/10



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REFERENCE(S)
ICE CONCENTRATION OBTAINED FROM CANADIAN ICE SERVICE, GOVERNMENT OF CANADA. DAILY ICE CHARTS – APPROACHES TO RESOLUTE BAY. ACCESSED NOVEMBER 23, 2018. GEOGRAPHIC NAMES, POPULATED PLACE, AND PROVINCIAL BOUNDARY DATA OBTAINED FROM GEOGRATIS, © DEPARTMENT OF NATURAL RESOURCES CANADA. ALL RIGHTS RESERVED. WE ACKNOWLEDGE THE USE OF IMAGERY PROVIDED BY SERVICES FROM NASA'S GLOBAL IMAGERY BROWSE SERVICES (GIBS), PART OF NASA'S EARTH OBSERVING SYSTEM DATA AND INFORMATION SYSTEM (EOSDIS).
PROJECTION: UTM ZONE 17 DATUM: NAD 83

PROJECT
MARY RIVER PROJECT - PHASE 2 PROPOSAL

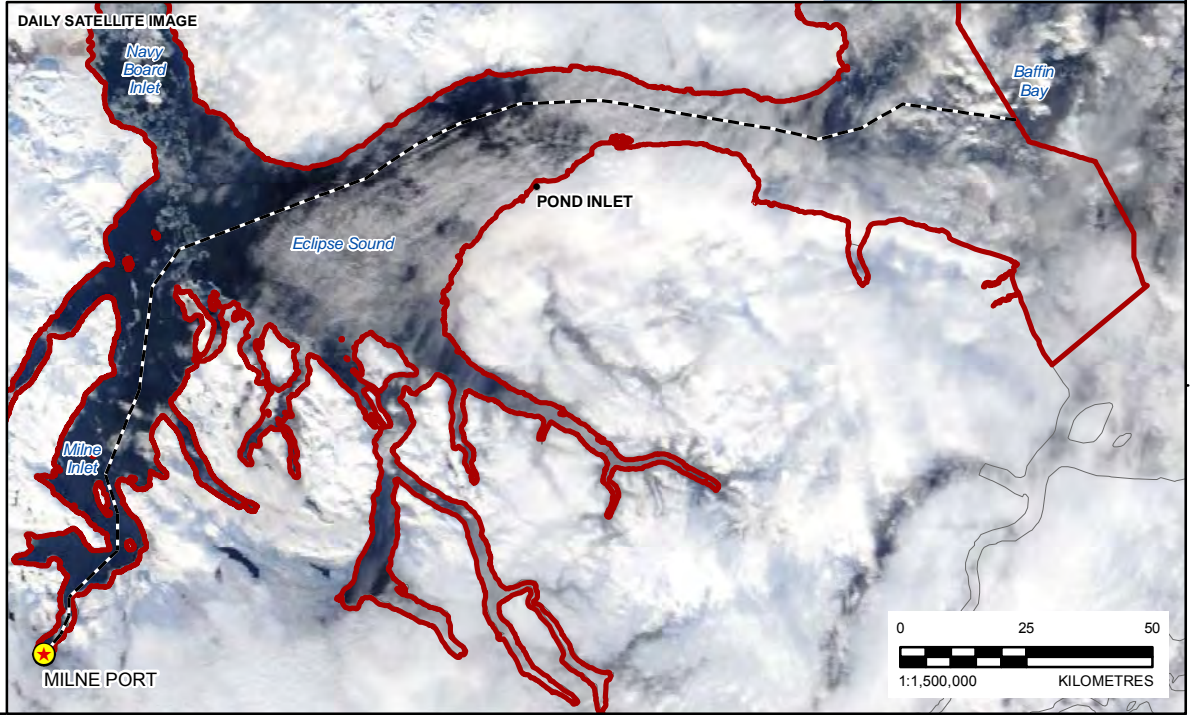
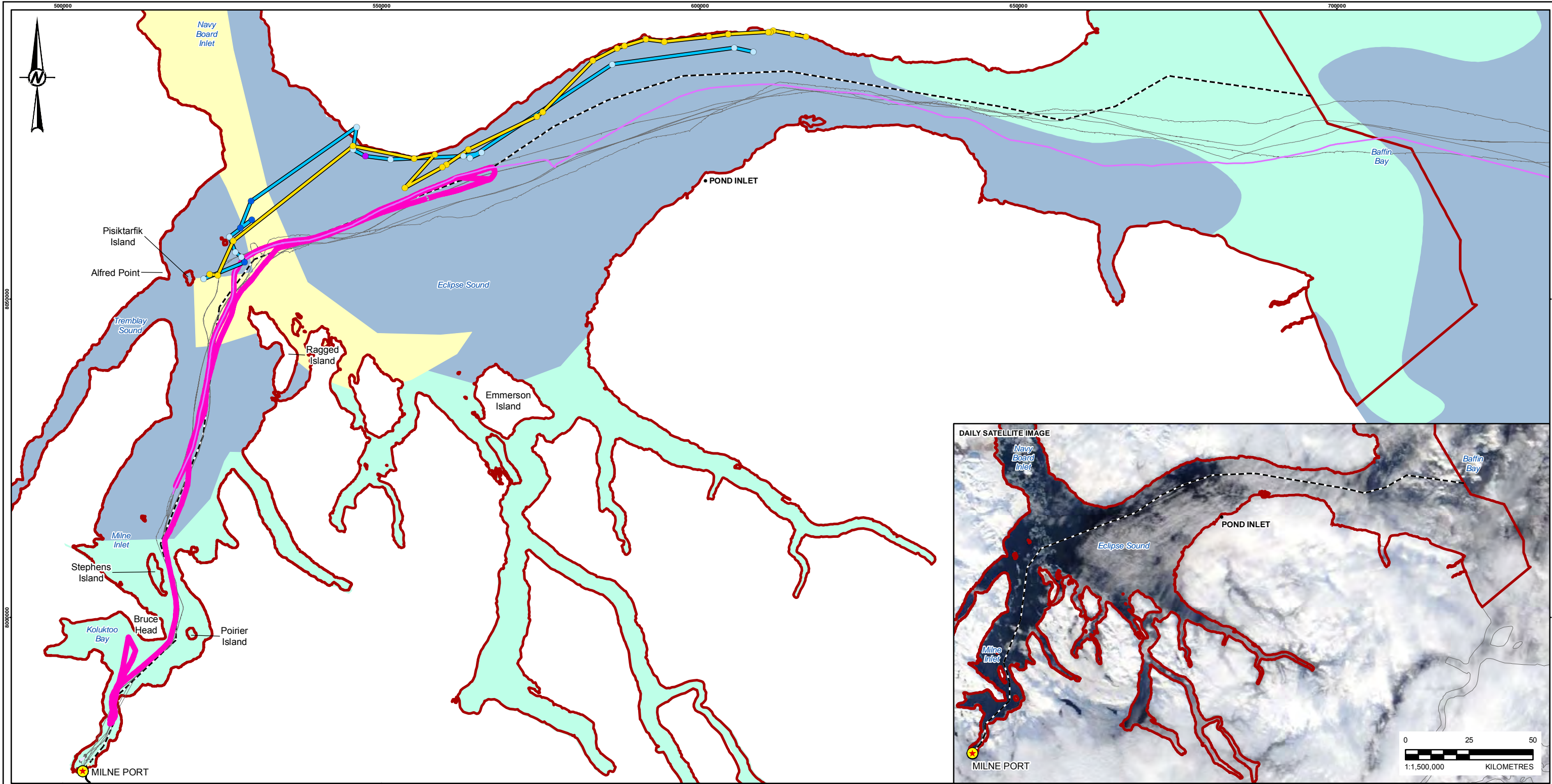
TITLE
DAILY LOCATIONS OF NARWHAL IN RELATION TO VESSEL TRAFFIC AND ICE CONDITIONS - FALL - SEPTEMBER 29, 2018 (UTC)

PROJECT NO.
1663724

CONTROL
30000-05

REV.
A

FIGURE
A-1



LEGEND

- COMMUNITY
- ☀ MILNE PORT
- NARWHAL GPS LOCATIONS**
- NW22 (MM02-760) FASTLOC GPS LOCATION
- NW21 (MM02-763) ARGOS LOCATIONS**
- CLASS 1 (~ERROR 500 m < 1500 m)
- CLASS 2 (~ERROR 250 m < 500 m)
- CLASS 3 (~ERROR < 250 m)
- NARWHAL TRACKS**
- NW22 (MM02-760) FASTLOC GPS LOCATION
- NW21 (MM02-763) ARGOS LOCATIONS (CLASSES 3, 2, AND 1)
- BOTNICA SHIP TRACK
- MILNE INLET TOTE ROAD

- NOMINAL SHIPPING ROUTE
- PROJECT VESSEL SHIP TRACK - PREVIOUS 2 DAYS
- PROJECT VESSEL SHIP TRACKS**
- BULK (ORE) CARRIERS**
- GOLDEN ICE
- NORDIC ORION
- NS YAKUTIA
- GENERAL CARGO VESSELS**
- ATLANTIC RAVEN
- MARINE MAMMAL REGIONAL STUDY AREA

ICE CONCENTRATION

- < 1/10
- 1-3/10
- 4-6/10
- 7-8/10
- 9-10/10



CLIENT
BAFFINLAND IRON MINES CORPORATION

CONSULTANT

0 10 20
1:600,000 KILOMETRES

YYYY-MM-DD	2019-09-26
DESIGNED	MF
PREPARED	AA
REVIEWED	AA
APPROVED	PR

REFERENCE(S)
ICE CONCENTRATION OBTAINED FROM CANADIAN ICE SERVICE, GOVERNMENT OF CANADA, DAILY ICE CHARTS – APPROACHES TO RESOLUTE BAY, ACCESSED NOVEMBER 23, 2018, GEOGRAPHIC NAMES, POPULATED PLACE, AND PROVINCIAL BOUNDARY DATA OBTAINED FROM GEOGRATIS, © DEPARTMENT OF NATURAL RESOURCES CANADA. ALL RIGHTS RESERVED. WE ACKNOWLEDGE THE USE OF IMAGERY PROVIDED BY SERVICES FROM NASA'S GLOBAL IMAGERY BROWSE SERVICES (GIBS), PART OF NASA'S EARTH OBSERVING SYSTEM DATA AND INFORMATION SYSTEM (EOSDIS).
PROJECTION: UTM ZONE 17 DATUM: NAD 83

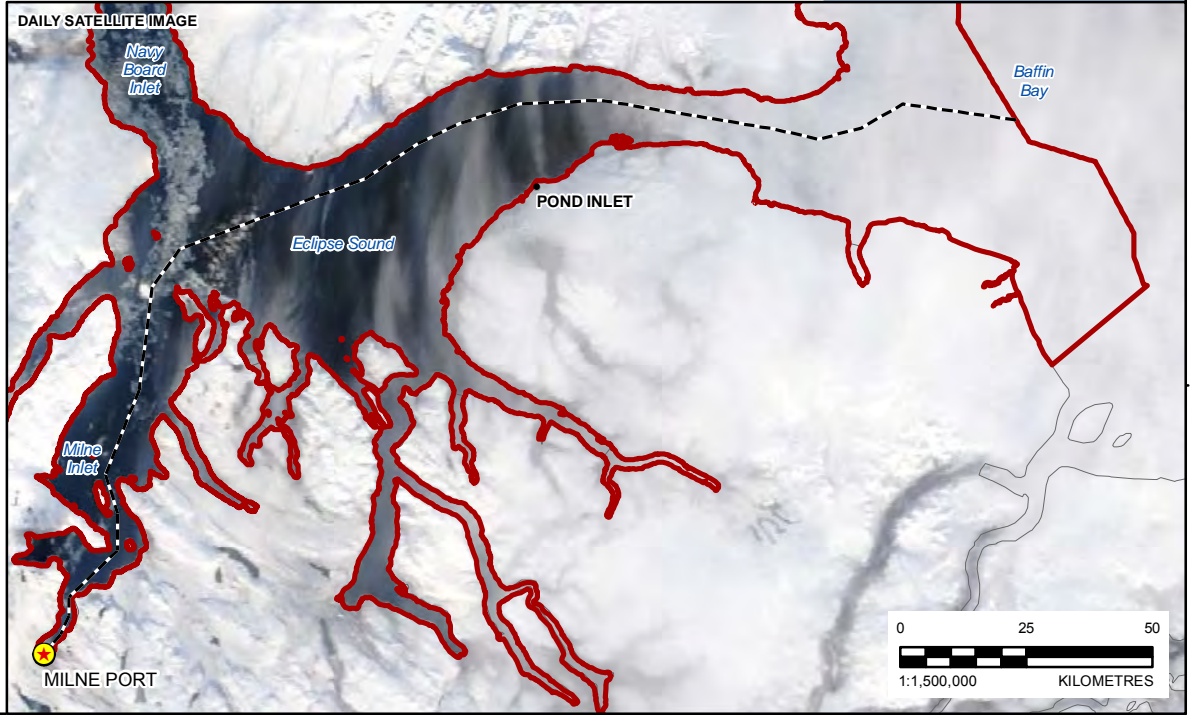
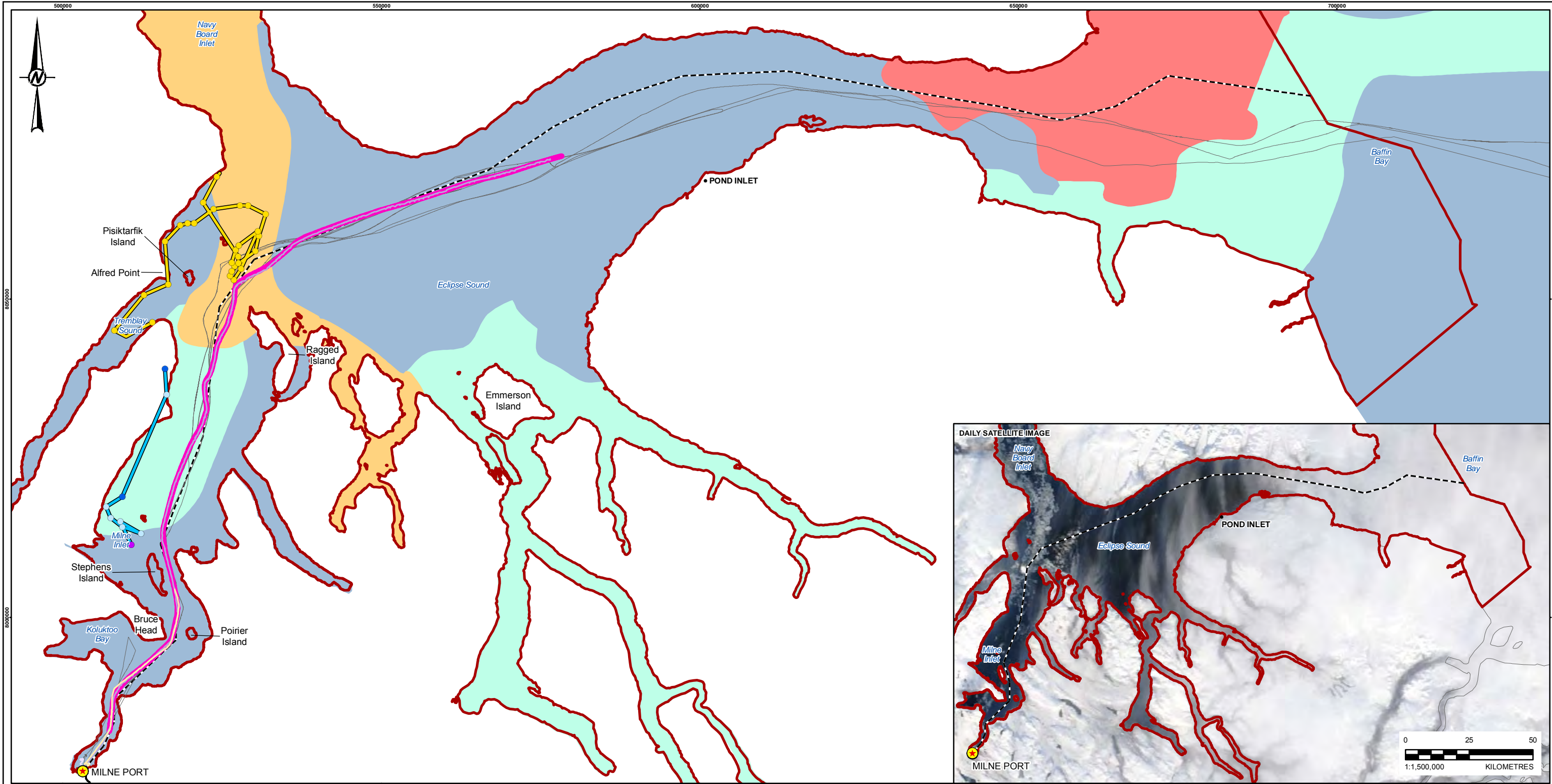
PROJECT
MARY RIVER PROJECT - PHASE 2 PROPOSAL

TITLE
DAILY LOCATIONS OF NARWHAL IN RELATION TO VESSEL TRAFFIC AND ICE CONDITIONS - FALL - SEPTEMBER 30, 2018 (UTC)

PROJECT NO. 1663724	CONTROL 30000-05	REV. A	FIGURE A-2
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LEGEND

- COMMUNITY
- ☀ MILNE PORT
- NARWHAL GPS LOCATIONS**
- NW22 (MM02-760) FASTLOC GPS LOCATION
- NW21 (MM02-763) ARGOS LOCATIONS**
- CLASS 1 (~ERROR 500 m < < 1500 m)
- CLASS 2 (~ERROR 250 m < < 500 m)
- CLASS 3 (~ERROR < 250 m)
- NARWHAL TRACKS**
- NW22 (MM02-760) FASTLOC GPS LOCATION
- NW21 (MM02-763) ARGOS LOCATIONS (CLASSES 3, 2, AND 1)
- BOTNICA SHIP TRACK
- MILNE INLET TOTE ROAD

- NOMINAL SHIPPING ROUTE
- PROJECT VESSEL SHIP TRACK - PREVIOUS 2 DAYS
- PROJECT VESSEL SHIP TRACKS**
- BULK (ORE) CARRIERS**
- NORDIC ORION
- NS YAKUTIA
- GENERAL CARGO VESSELS**
- ATLANTIC RAVEN
- ▭ MARINE MAMMAL REGIONAL STUDY AREA

ICE CONCENTRATION

- < 1/10
- 1-3/10
- 4-6/10
- 7-8/10
- 9-10/10



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0 10 20
1:600,000 KILOMETRES

REFERENCE(S)
ICE CONCENTRATION OBTAINED FROM CANADIAN ICE SERVICE, GOVERNMENT OF CANADA. DAILY ICE CHARTS – APPROACHES TO RESOLUTE BAY. ACCESSED NOVEMBER 23, 2018. GEOGRAPHIC NAMES, POPULATED PLACE, AND PROVINCIAL BOUNDARY DATA OBTAINED FROM GEOGRATIS, © DEPARTMENT OF NATURAL RESOURCES CANADA. ALL RIGHTS RESERVED. WE ACKNOWLEDGE THE USE OF IMAGERY PROVIDED BY SERVICES FROM NASA'S GLOBAL IMAGERY BROWSE SERVICES (GIBS), PART OF NASA'S EARTH OBSERVING SYSTEM DATA AND INFORMATION SYSTEM (EOSDIS).
PROJECTION: UTM ZONE 17 DATUM: NAD 83

PROJECT
MARY RIVER PROJECT - PHASE 2 PROPOSAL

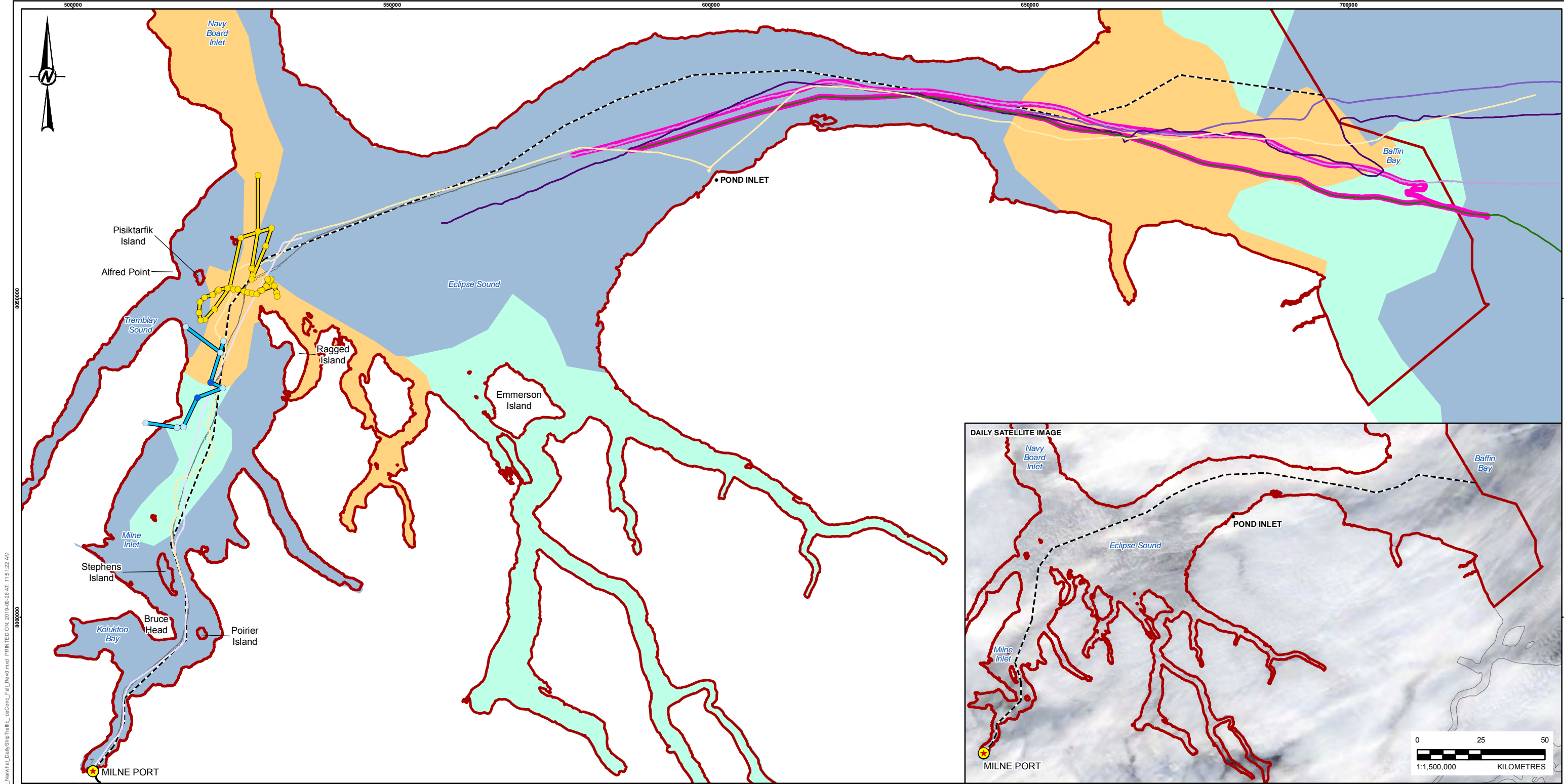
YYYY-MM-DD	2019-09-26
DESIGNED	MF
PREPARED	AA
REVIEWED	AA
APPROVED	PR

TITLE
DAILY LOCATIONS OF NARWHAL IN RELATION TO VESSEL TRAFFIC AND ICE CONDITIONS - FALL - OCTOBER 01, 2018 (UTC)

PROJECT NO.	CONTROL	REV.	FIGURE
1663724	30000-05	A	A-3

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LEGEND

- COMMUNITY
- ☀ MILNE PORT
- NARWHAL GPS LOCATIONS**
- NW22 (MM02-760) FASTLOC GPS LOCATION
- NW21 (MM02-763) ARGOS LOCATIONS**
- CLASS 1 (~ERROR 500 m < 1500 m)
- CLASS 2 (~ERROR 250 m < 500 m)
- NARWHAL TRACKS**
- NW22 (MM02-760) FASTLOC GPS LOCATION
- NW21 (MM02-763) ARGOS LOCATIONS (CLASSES 3, 2, AND 1)
- BOTNICA SHIP TRACK
- MILNE INLET TOTE ROAD
- - - NOMINAL SHIPPING ROUTE

— PROJECT VESSEL SHIP TRACK - PREVIOUS 2 DAYS

PROJECT VESSEL SHIP TRACKS

- GOLDEN OPPORTUNITY
- GOLDEN PEARL
- NORDIC ORION
- NS YAKUTIA
- GENERAL CARGO VESSELS**
- ATLANTIC RAVEN
- OIL TANKERS**
- SARAH DESGAGNES
- MARINE MAMMAL REGIONAL STUDY AREA

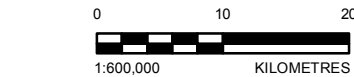
ICE CONCENTRATION

- < 1/10
- 1-3/10
- 4-6/10
- 7-8/10
- 9-10/10



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YYYY-MM-DD	2019-09-26
DESIGNED	MF
PREPARED	AA
REVIEWED	AA
APPROVED	PR

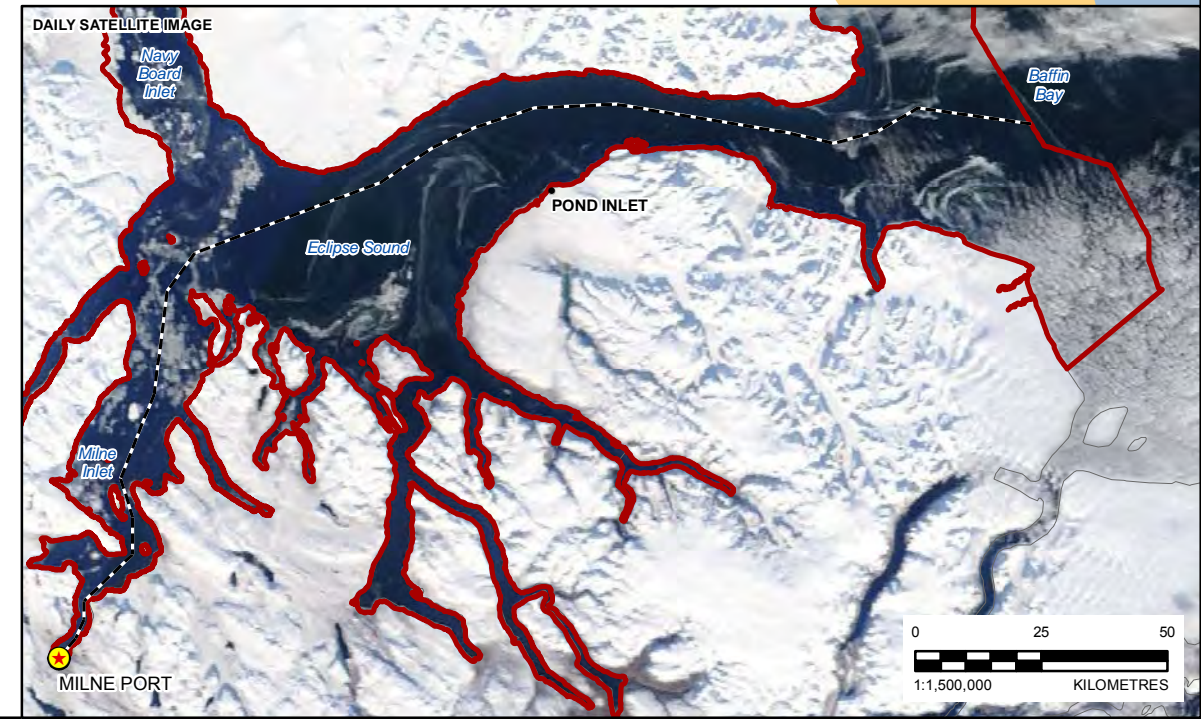
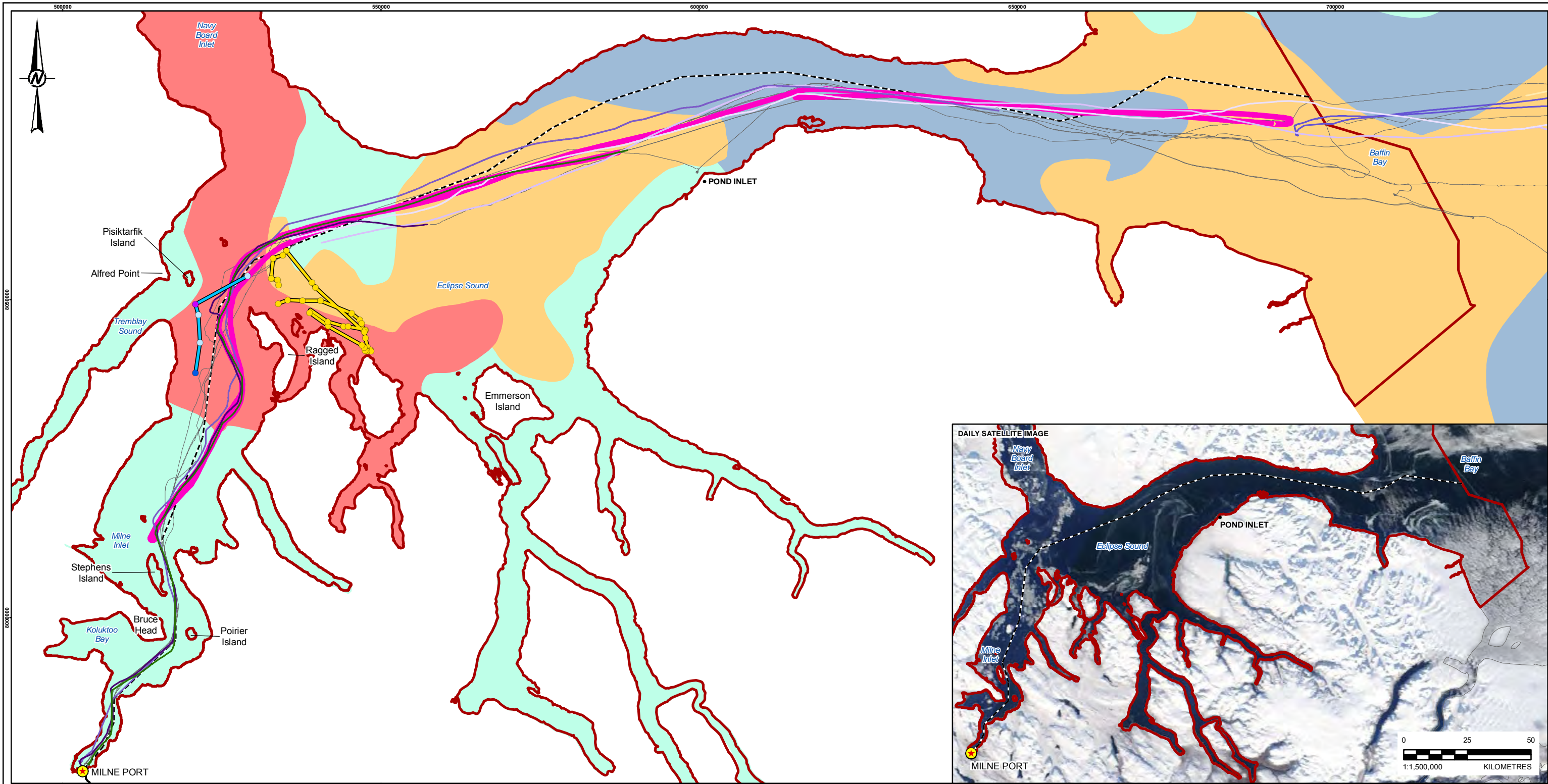
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PROJECTION: UTM ZONE 17 DATUM: NAD 83

PROJECT
MARY RIVER PROJECT - PHASE 2 PROPOSAL

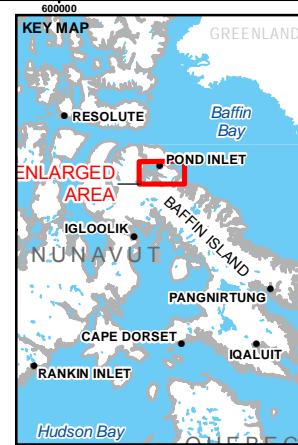
TITLE
DAILY LOCATIONS OF NARWHAL IN RELATION TO VESSEL TRAFFIC AND ICE CONDITIONS - FALL - OCTOBER 02, 2018 (UTC)

PROJECT NO.	CONTROL	REV.	FIGURE
1663724	30000-05	A	A-4

28mm IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B



- LEGEND**
- COMMUNITY
 - ☀ MILNE PORT
 - NARWHAL GPS LOCATIONS**
 - NW22 (MM02-760) FASTLOC GPS LOCATION
 - NW21 (MM02-763) ARGOS LOCATIONS**
 - CLASS 1 (~ERROR 500 m < 1500 m)
 - CLASS 2 (~ERROR 250 m < 500 m)
 - CLASS 3 (~ERROR < 250 m)
 - NARWHAL TRACKS**
 - NW22 (MM02-760) FASTLOC GPS LOCATION
 - NW21 (MM02-763) ARGOS LOCATIONS (CLASSES 3, 2, AND 1)
 - BOTNICA SHIP TRACK
 - MILNE INLET TOTE ROAD
 - NOMINAL SHIPPING ROUTE
 - PROJECT VESSEL SHIP TRACK - PREVIOUS 2 DAYS



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CONSULTANT	YYYY-MM-DD	2019-09-26
	DESIGNED	MF
	PREPARED	AA
	REVIEWED	AA
	APPROVED	PR



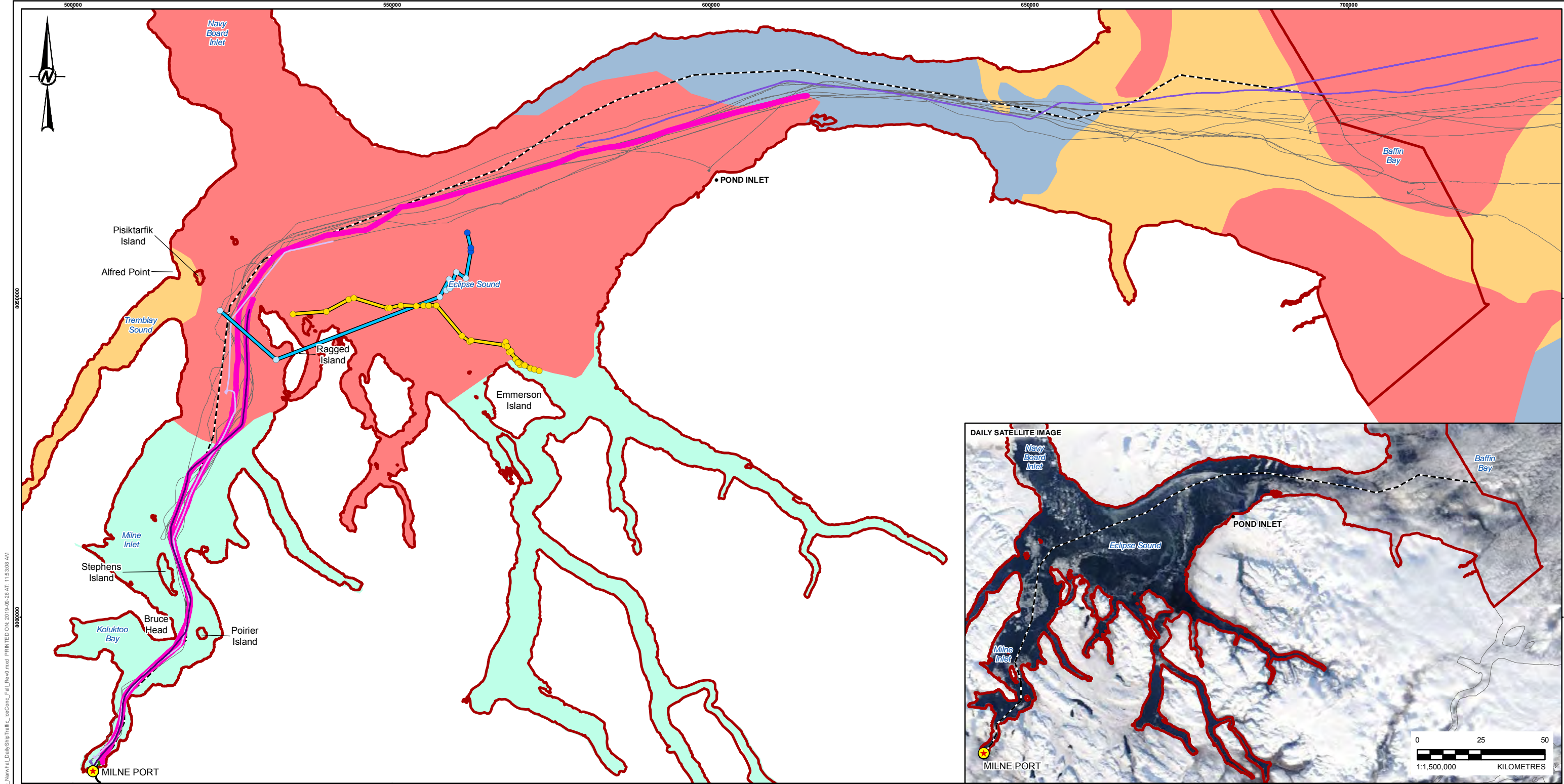
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PROJECTION: UTM ZONE 17 DATUM: NAD 83

PROJECT
MARY RIVER PROJECT - PHASE 2 PROPOSAL

TITLE	PROJECT NO.	CONTROL	REV.	FIGURE
DAILY LOCATIONS OF NARWHAL IN RELATION TO VESSEL TRAFFIC AND ICE CONDITIONS - FALL - OCTOBER 03, 2018 (UTC)	1663724	30000-05	A	A-5

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LEGEND

- COMMUNITY
- ☀ MILNE PORT
- NARWHAL GPS LOCATIONS**
- NW22 (MM02-760) FASTLOC GPS LOCATION
- NW21 (MM02-763) ARGOS LOCATIONS**
- CLASS 1 (~ERROR 500 m < < 1500 m)
- CLASS 2 (~ERROR 250 m < < 500 m)
- NARWHAL TRACKS**
- NW22 (MM02-760) FASTLOC GPS LOCATION
- NW21 (MM02-763) ARGOS LOCATIONS (CLASSES 3, 2, AND 1)
- BOTNICA SHIP TRACK
- MILNE INLET TOTE ROAD
- - - NOMINAL SHIPPING ROUTE

— PROJECT VESSEL SHIP TRACK - PREVIOUS 2 DAYS

PROJECT VESSEL SHIP TRACKS

- GOLDEN AMBER
- GOLDEN OPPORTUNITY
- GOLDEN PEARL
- NORDPOL
- OIL TANKERS
- SARAH DESGAGNES
- MARINE MAMMAL REGIONAL STUDY AREA

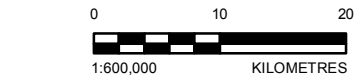
ICE CONCENTRATION

- < 1/10
- 1-3/10
- 4-6/10
- 7-8/10
- 9-10/10



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YYYY-MM-DD	2019-09-26
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PREPARED	AA
REVIEWED	AA
APPROVED	PR

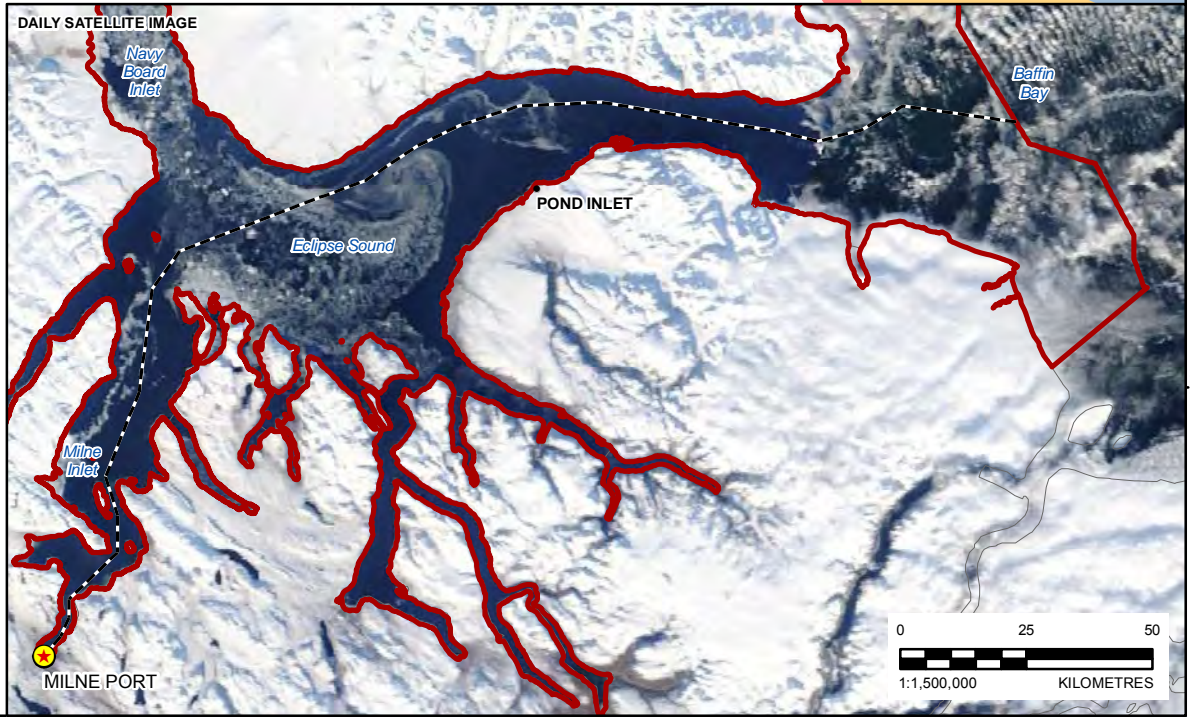
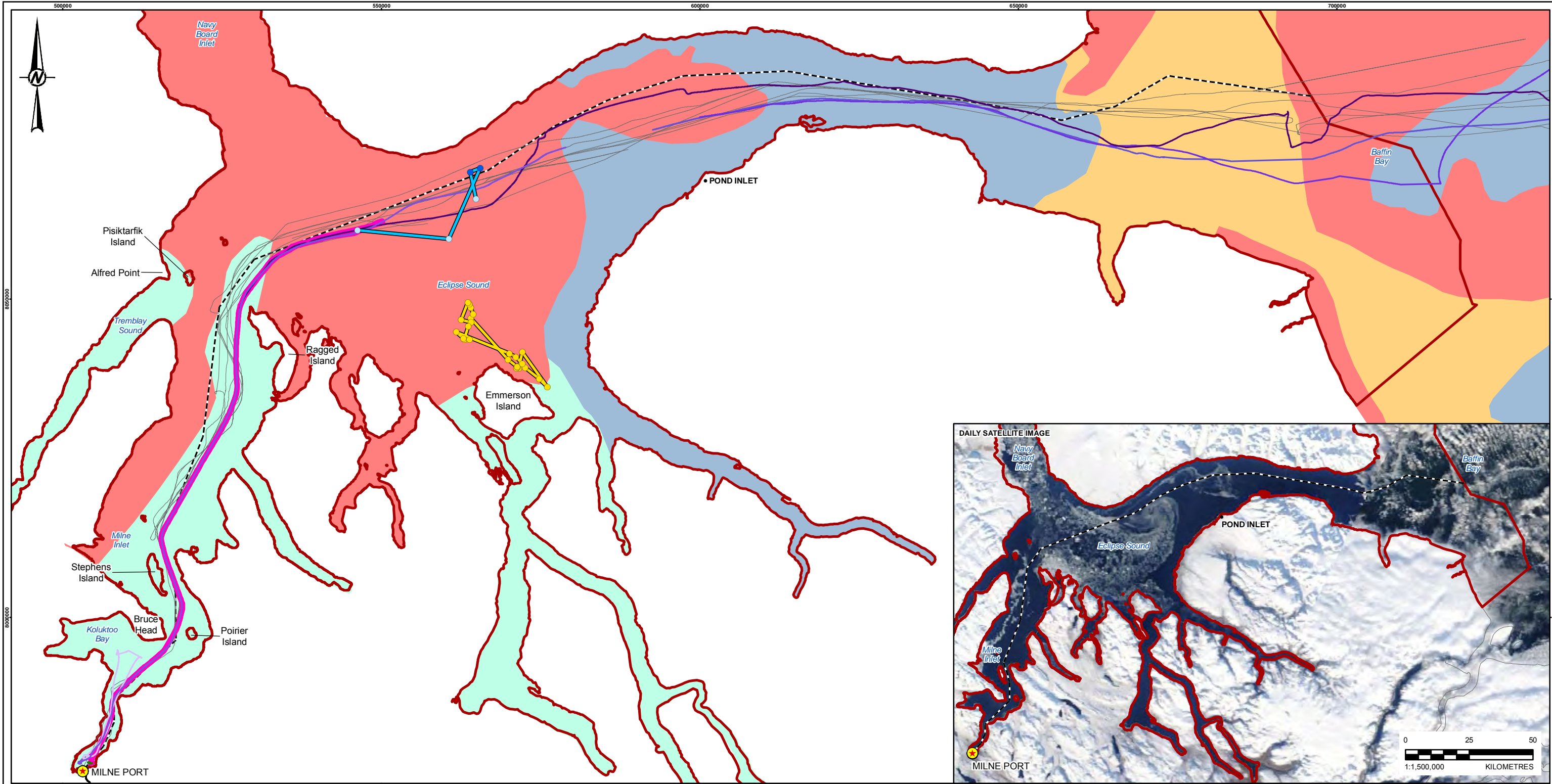
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ICE CONCENTRATION OBTAINED FROM CANADIAN ICE SERVICE, GOVERNMENT OF CANADA, DAILY ICE CHARTS – APPROACHES TO RESOLUTE BAY, ACCESSED NOVEMBER 23, 2018, GEOGRAPHIC NAMES, POPULATED PLACE, AND PROVINCIAL BOUNDARY DATA OBTAINED FROM GEOGRATIS, © DEPARTMENT OF NATURAL RESOURCES CANADA. ALL RIGHTS RESERVED. WE ACKNOWLEDGE THE USE OF IMAGERY PROVIDED BY SERVICES FROM NASA'S GLOBAL IMAGERY BROWSE SERVICES (GIBS), PART OF NASA'S EARTH OBSERVING SYSTEM DATA AND INFORMATION SYSTEM (EOSDIS).
PROJECTION: UTM ZONE 17 DATUM: NAD 83

PROJECT
MARY RIVER PROJECT - PHASE 2 PROPOSAL

TITLE
DAILY LOCATIONS OF NARWHAL IN RELATION TO VESSEL TRAFFIC AND ICE CONDITIONS - FALL - OCTOBER 04, 2018 (UTC)

PROJECT NO.	CONTROL	REV.	FIGURE
1663724	30000-05	A	A-6

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LEGEND

- COMMUNITY
- ☀ MILNE PORT
- NARWHAL GPS LOCATIONS**
- NW22 (MM02-760) FASTLOC GPS LOCATION
- NW21 (MM02-763) ARGOS LOCATIONS**
- CLASS 1 (~ERROR 500 m < 1500 m)
- CLASS 2 (~ERROR 250 m < 500 m)
- NARWHAL TRACKS**
- NW22 (MM02-760) FASTLOC GPS LOCATION
- NW21 (MM02-763) ARGOS LOCATIONS (CLASSES 3, 2, AND 1)
- BOTNICA SHIP TRACK
- MILNE INLET TOTE ROAD
- NOMINAL SHIPPING ROUTE

— PROJECT VESSEL SHIP TRACK - PREVIOUS 2 DAYS

PROJECT VESSEL SHIP TRACKS

- GOLDEN AMBER
- GOLDEN OPPORTUNITY
- GOLDEN PEARL
- NORDIC ODIN
- NORDIC OLYMPIC
- NORDPOL

OIL TANKERS

- SARAH DESGAGNES
- MARINE MAMMAL REGIONAL STUDY AREA

ICE CONCENTRATION

- < 1/10
- 1-3/10
- 4-6/10
- 7-8/10
- 9-10/10



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BAFFINLAND IRON MINES CORPORATION

CONSULTANT
GOLDER

YYYY-MM-DD
2019-09-26

DESIGNED
MF

PREPARED
AA

REVIEWED
AA

APPROVED
PR

REFERENCE(S)
ICE CONCENTRATION OBTAINED FROM CANADIAN ICE SERVICE, GOVERNMENT OF CANADA. DAILY ICE CHARTS – APPROACHES TO RESOLUTE BAY. ACCESSED NOVEMBER 23, 2018. GEOGRAPHIC NAMES, POPULATED PLACE, AND PROVINCIAL BOUNDARY DATA OBTAINED FROM GEOGRATIS, © DEPARTMENT OF NATURAL RESOURCES CANADA. ALL RIGHTS RESERVED. WE ACKNOWLEDGE THE USE OF IMAGERY PROVIDED BY SERVICES FROM NASA'S GLOBAL IMAGERY BROWSE SERVICES (GIBS), PART OF NASA'S EARTH OBSERVING SYSTEM DATA AND INFORMATION SYSTEM (EOSDIS).
PROJECTION: UTM ZONE 17 DATUM: NAD 83

PROJECT
MARY RIVER PROJECT - PHASE 2 PROPOSAL

TITLE
DAILY LOCATIONS OF NARWHAL IN RELATION TO VESSEL TRAFFIC AND ICE CONDITIONS - FALL - OCTOBER 05, 2018 (UTC)

PROJECT NO.
1663724

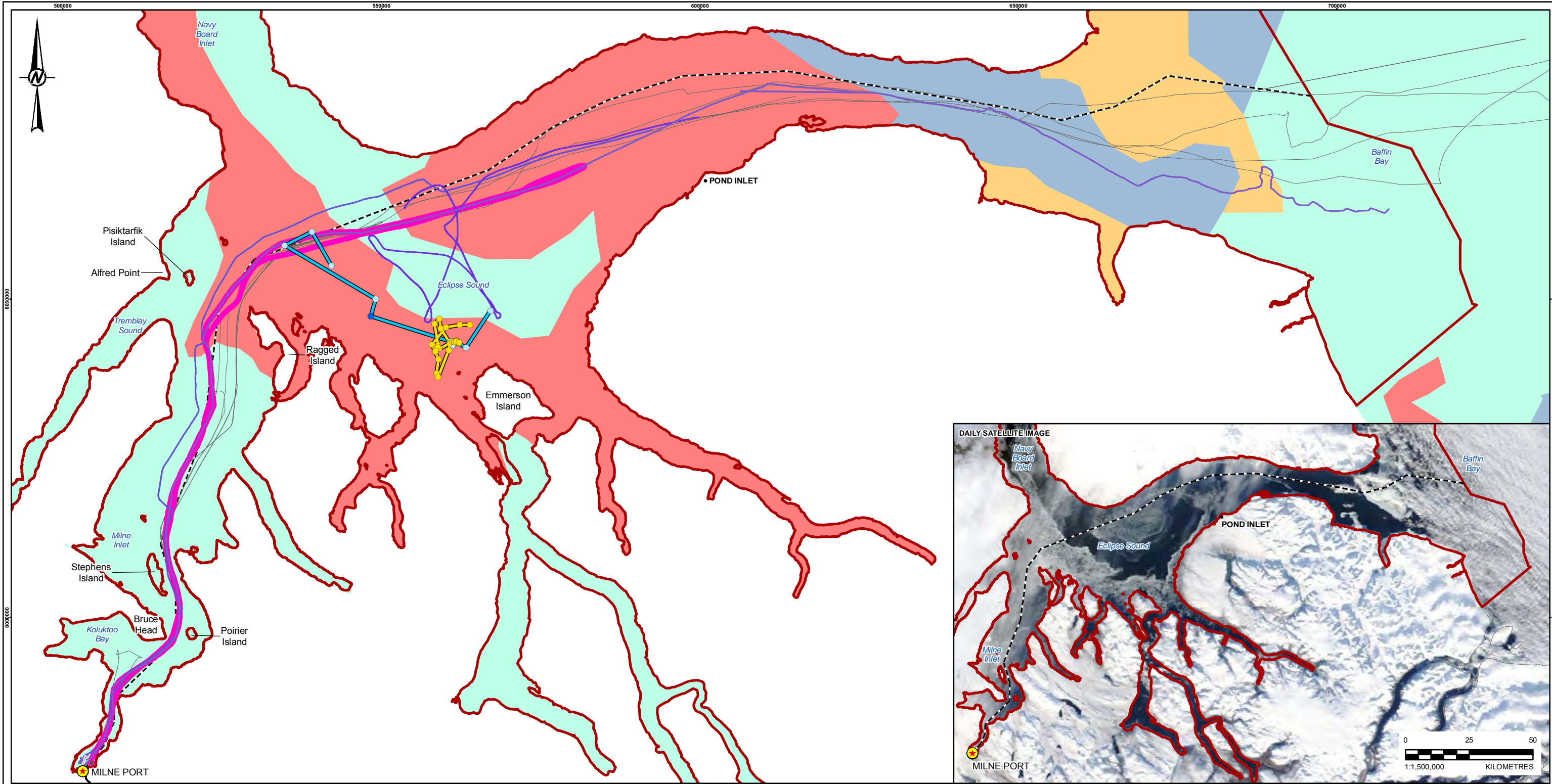
CONTROL
30000-05

REV.
A

FIGURE
A-7

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LEGEND

- COMMUNITY
- ☀ MILNE PORT
- NARWHAL GPS LOCATIONS**
- NW22 (MM02-760) FASTLOC GPS LOCATION
- NW21 (MM02-763) ARGOS LOCATIONS**
- CLASS 1 (~ERROR 500 m < 1500 m)
- CLASS 2 (~ERROR 250 m < 500 m)
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- NW22 (MM02-760) FASTLOC GPS LOCATION
- NW21 (MM02-763) ARGOS LOCATIONS (CLASSES 3, 2, AND 1)
- BOTNICA SHIP TRACK
- MILNE INLET TOTE ROAD
- - - NOMINAL SHIPPING ROUTE

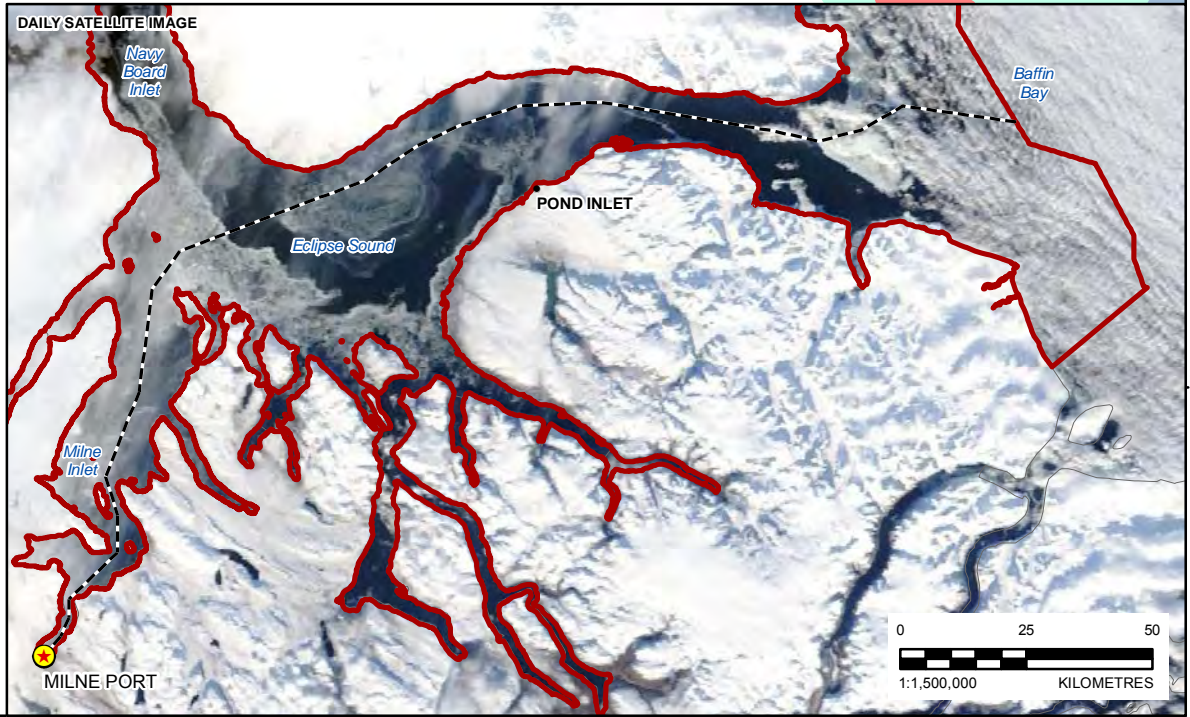
— PROJECT VESSEL SHIP TRACK - PREVIOUS 2 DAYS

PROJECT VESSEL SHIP TRACKS

- BULK (ORE) CARRIERS
- GOLDEN AMBER
- GOLDEN PEARL
- NORDIC ODIN
- NORDIC OLYMPIC
- NORDPOL
- OIL TANKERS
- SARAH DESGAGNES
- MARINE MAMMAL REGIONAL STUDY AREA

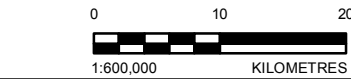
ICE CONCENTRATION

- < 1/10
- 1-3/10
- 4-6/10
- 7-8/10
- 9-10/10



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CONSULTANT



YYYY-MM-DD	2019-09-26
DESIGNED	MF
PREPARED	AA
REVIEWED	AA
APPROVED	PR

REFERENCE(S)
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PROJECTION: UTM ZONE 17 DATUM: NAD 83

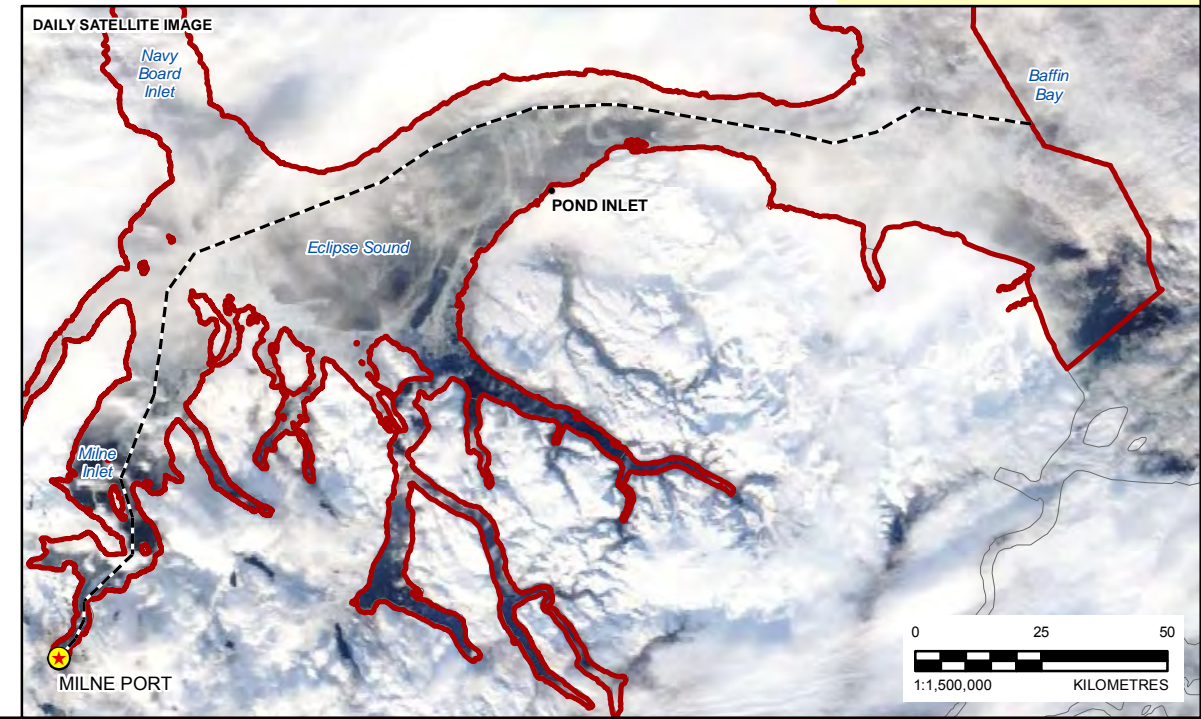
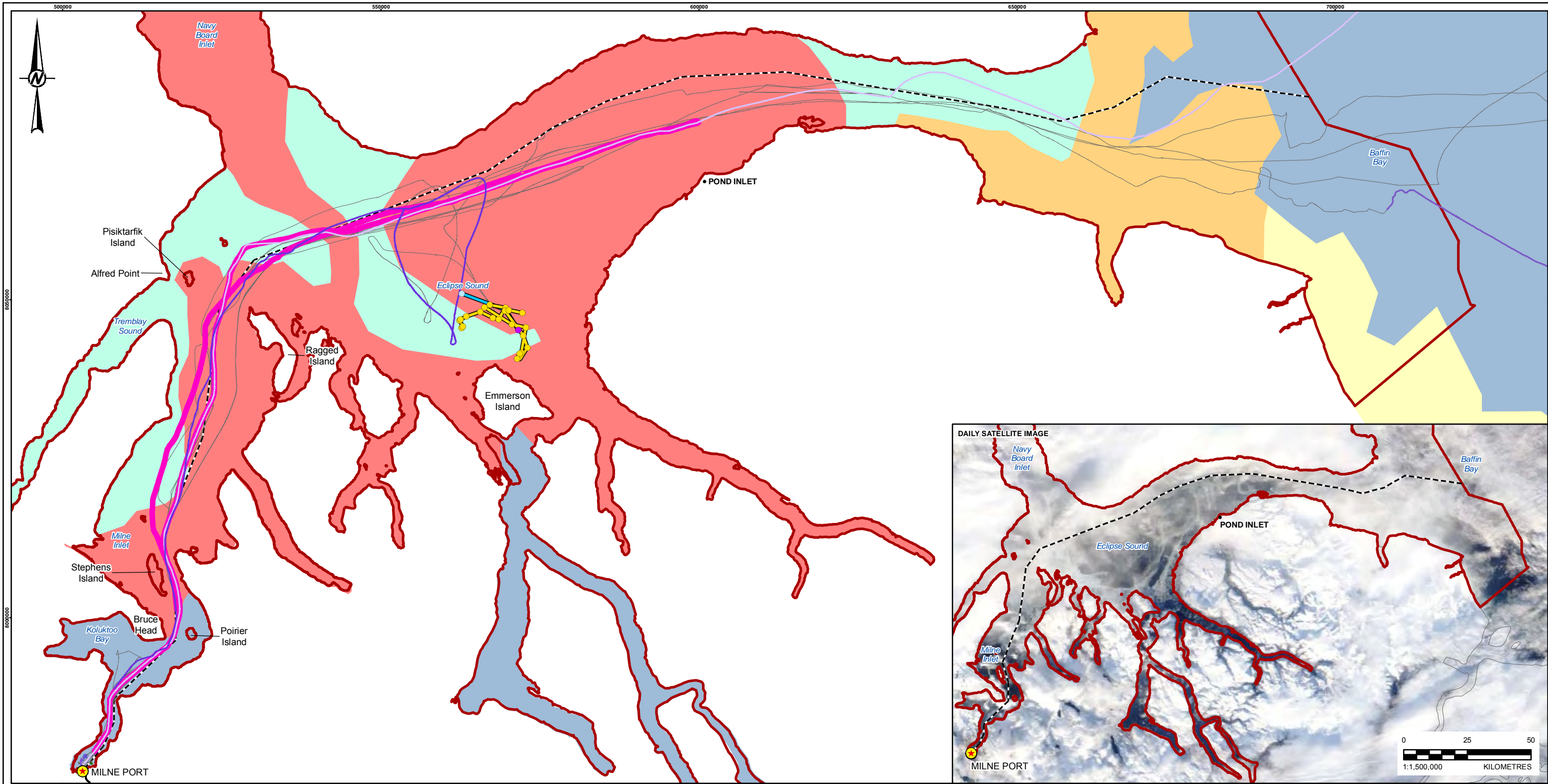
PROJECT
MARY RIVER PROJECT - PHASE 2 PROPOSAL

TITLE
DAILY LOCATIONS OF NARWHAL IN RELATION TO VESSEL TRAFFIC AND ICE CONDITIONS - FALL - OCTOBER 06, 2018 (UTC)

PROJECT NO.	CONTROL	REV.	FIGURE
1663724	30000-05	A	A-8

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LEGEND

- COMMUNITY
- ☀ MILNE PORT
- NARWHAL GPS LOCATIONS**
- NW22 (MM02-760) FASTLOC GPS LOCATION
- NW21 (MM02-763) ARGOS LOCATIONS**
- CLASS 1 (~ERROR 500 m < 1500 m)
- CLASS 3 (~ERROR < 250 m)
- NARWHAL TRACKS**
- NW22 (MM02-760) FASTLOC GPS LOCATION
- NW21 (MM02-763) ARGOS LOCATIONS (CLASSES 3, 2, AND 1)
- BOTNICA SHIP TRACK
- MILNE INLET TOTE ROAD
- NOMINAL SHIPPING ROUTE

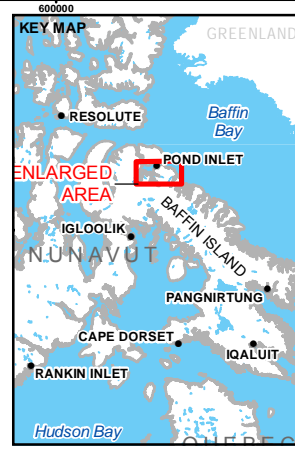
— PROJECT VESSEL SHIP TRACK - PREVIOUS 2 DAYS

PROJECT VESSEL SHIP TRACKS

- GOLDEN AMBER
- GOLDEN PEARL
- NORDIC ODIN
- NORDIC OLYMPIC
- NORDPOL
- OIL TANKERS
- SARAH DESGAGNES
- MARINE MAMMAL REGIONAL STUDY AREA

ICE CONCENTRATION

- < 1/10
- 1-3/10
- 4-6/10
- 7-8/10
- 9-10/10



CLIENT
BAFFINLAND IRON MINES CORPORATION

CONSULTANT
 GOLDER

0 10 20
1:600,000 KILOMETRES

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DESIGNED	MF
PREPARED	AA
REVIEWED	AA
APPROVED	PR

REFERENCE(S)
ICE CONCENTRATION OBTAINED FROM CANADIAN ICE SERVICE, GOVERNMENT OF CANADA. DAILY ICE CHARTS – APPROACHES TO RESOLUTE BAY. ACCESSED NOVEMBER 23, 2018. GEOGRAPHIC NAMES, POPULATED PLACE, AND PROVINCIAL BOUNDARY DATA OBTAINED FROM GEOGRATIS, © DEPARTMENT OF NATURAL RESOURCES CANADA. ALL RIGHTS RESERVED. WE ACKNOWLEDGE THE USE OF IMAGERY PROVIDED BY SERVICES FROM NASA'S GLOBAL IMAGERY BROWSE SERVICES (GIBS), PART OF NASA'S EARTH OBSERVING SYSTEM DATA AND INFORMATION SYSTEM (EOSDIS).
PROJECTION: UTM ZONE 17 DATUM: NAD 83

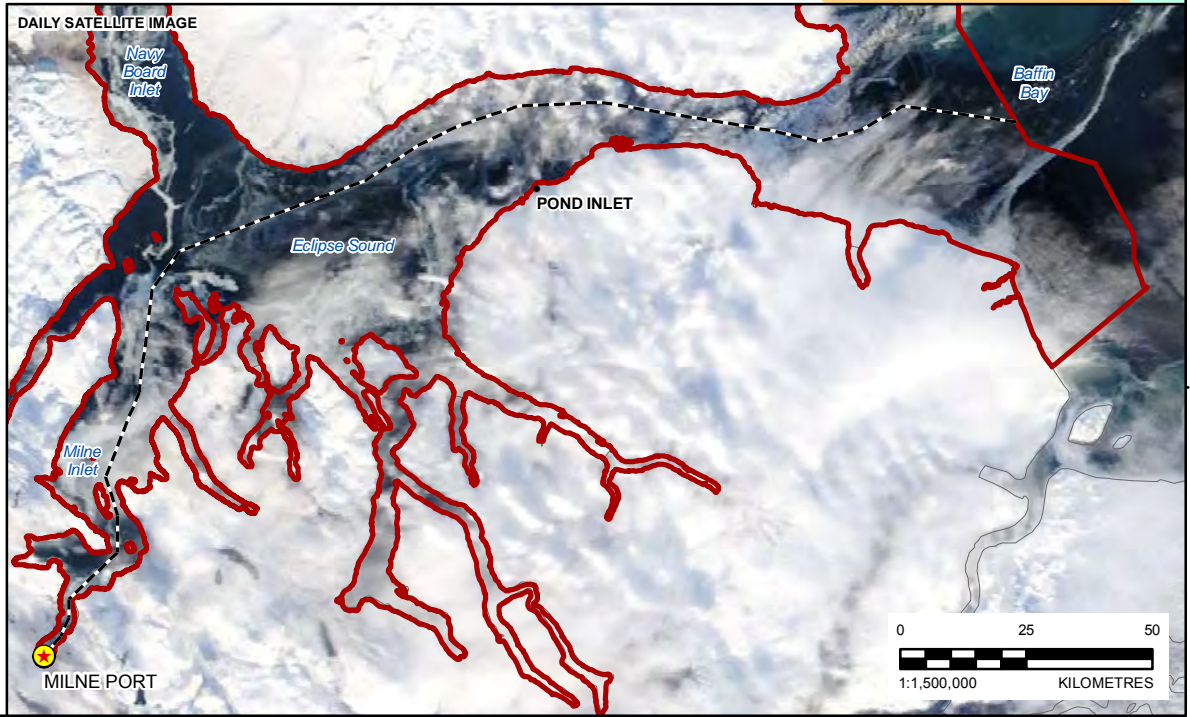
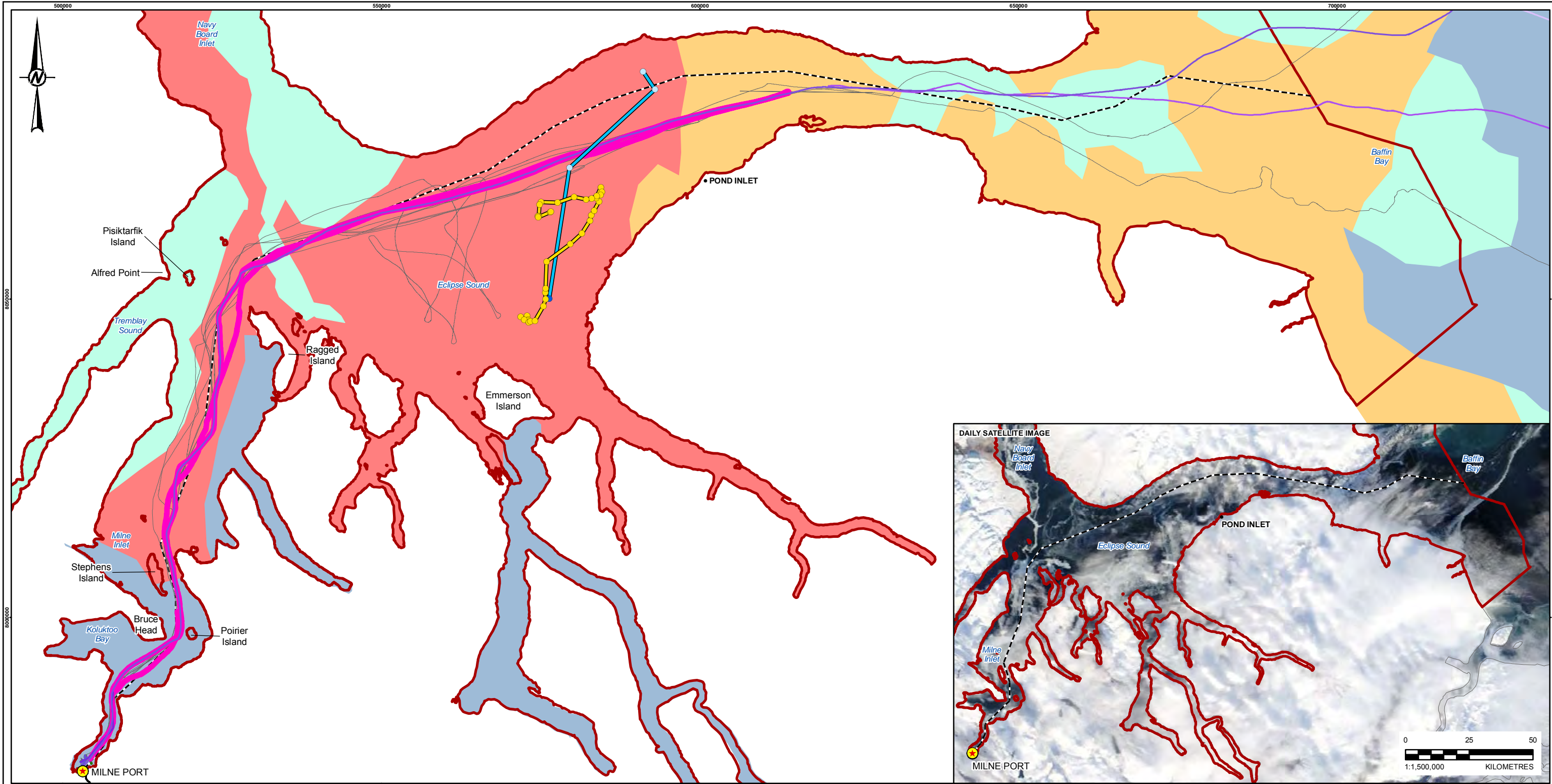
PROJECT
MARY RIVER PROJECT - PHASE 2 PROPOSAL

TITLE
DAILY LOCATIONS OF NARWHAL IN RELATION TO VESSEL TRAFFIC AND ICE CONDITIONS - FALL - OCTOBER 07, 2018 (UTC)

PROJECT NO. 1663724	CONTROL 30000-05	REV. A	FIGURE A-9
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PATH: I:\2019\663724\Mapping\NCD00000_EA_Support\2019\1663724_30000_05_FigA-11_2_Narwhal_DailyShipTraffic_iceConc_Fall_Rev0.mxd PRINTED ON: 2019-09-26 AT: 11:56:09 AM

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LEGEND

- COMMUNITY
- ☀ MILNE PORT
- NARWHAL GPS LOCATIONS**
- NW22 (MM02-760) FASTLOC GPS LOCATION
- NW21 (MM02-763) ARGOS LOCATIONS**
- CLASS 1 (~ERROR 500 m < 1500 m)
- CLASS 2 (~ERROR 250 m < 500 m)
- NARWHAL TRACKS**
- NW22 (MM02-760) FASTLOC GPS LOCATION
- NW21 (MM02-763) ARGOS LOCATIONS (CLASSES 3, 2, AND 1)
- BOTNICA SHIP TRACK
- MILNE INLET TOTE ROAD
- NOMINAL SHIPPING ROUTE

— PROJECT VESSEL SHIP TRACK - PREVIOUS 2 DAYS

PROJECT VESSEL SHIP TRACKS

- GOLDEN AMBER
- NORDIC ODIN
- NORDIC ODYSSEY
- NORDIC OLYMPIC
- NORDPOL
- OIL TANKERS**
- SARAH DESGAGNES
- ▭ MARINE MAMMAL REGIONAL STUDY AREA

ICE CONCENTRATION

- < 1/10
- 1-3/10
- 4-6/10
- 7-8/10
- 9-10/10



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CONSULTANT
 GOLDER

0 10 20
1:600,000 KILOMETRES

YYYY-MM-DD	2019-09-26
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REVIEWED	AA
APPROVED	PR

REFERENCE(S)
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PROJECTION: UTM ZONE 17 DATUM: NAD 83

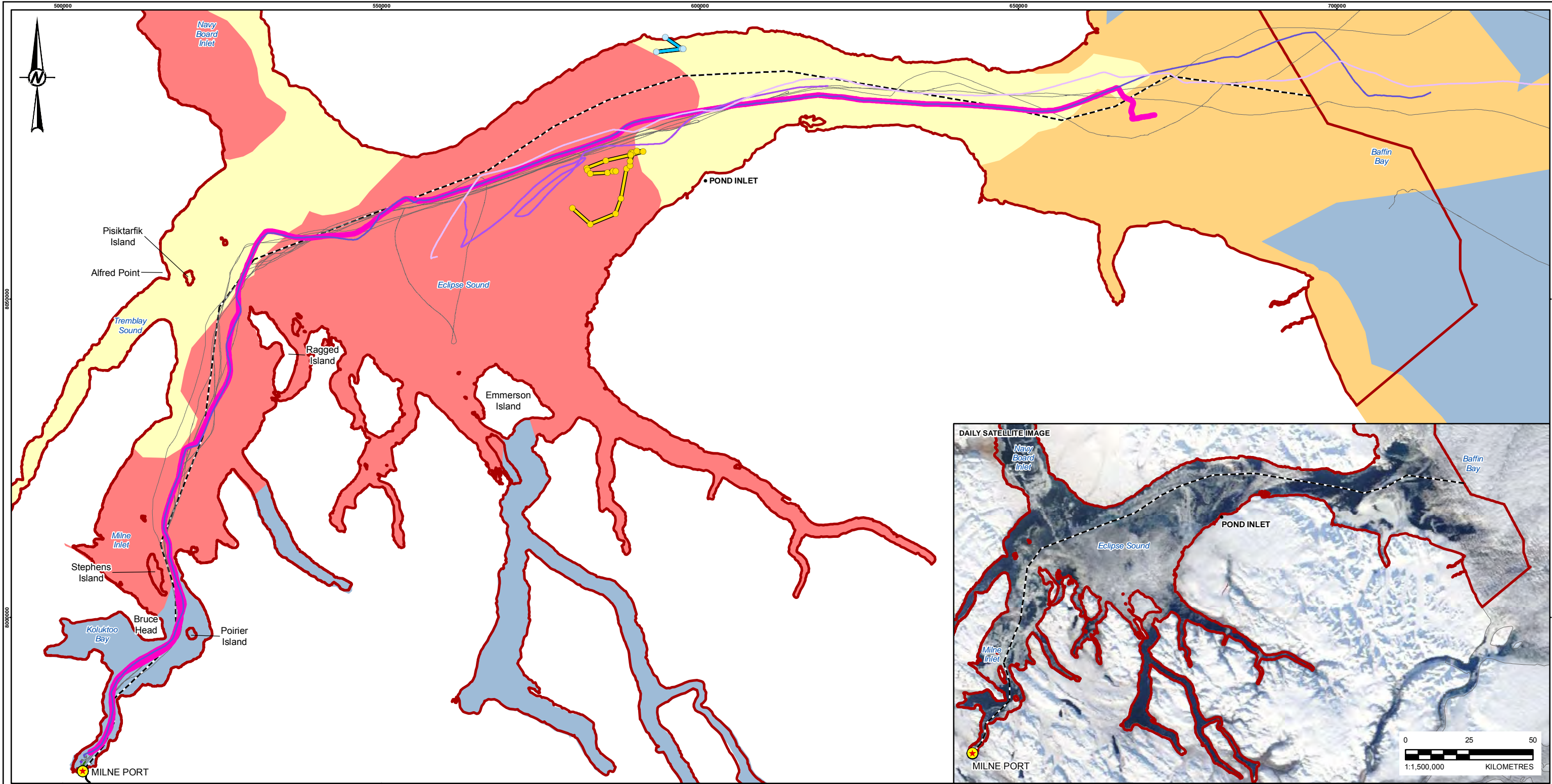
PROJECT
MARY RIVER PROJECT - PHASE 2 PROPOSAL

TITLE
DAILY LOCATIONS OF NARWHAL IN RELATION TO VESSEL TRAFFIC AND ICE CONDITIONS - FALL - OCTOBER 08, 2018 (UTC)

PROJECT NO. 1663724	CONTROL 30000-05	REV. A	FIGURE A-10
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- LEGEND**
- COMMUNITY
 - ☀ MILNE PORT
 - NARWHAL GPS LOCATIONS**
 - NW22 (MM02-760) FASTLOC GPS LOCATION
 - NW21 (MM02-763) ARGOS LOCATIONS**
 - CLASS 1 (~ERROR 500 m < 1500 m)
 - NARWHAL TRACKS**
 - NW22 (MM02-760) FASTLOC GPS LOCATION
 - NW21 (MM02-763) ARGOS LOCATIONS (CLASSES 3, 2, AND 1)
 - BOTNICA SHIP TRACK
 - MILNE INLET TOTE ROAD
 - - - NOMINAL SHIPPING ROUTE
 - PROJECT VESSEL SHIP TRACK - PREVIOUS 2 DAYS
 - PROJECT VESSEL SHIP TRACKS**
 - BULK (ORE) CARRIERS**
 - ARKADIA
 - NORDIC ODIN
 - NORDIC ODYSSEY
 - NORDIC OLYMPIC
 - OIL TANKERS**
 - SARAH DESGAGNES
 - MARINE MAMMAL REGIONAL STUDY AREA
 - ICE CONCENTRATION**
 - < 1/10
 - 1-3/10
 - 4-6/10
 - 7-8/10
 - 9-10/10



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APPROVED	PR

REFERENCE(S)
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PROJECTION: UTM ZONE 17 DATUM: NAD 83

PROJECT
MARY RIVER PROJECT - PHASE 2 PROPOSAL

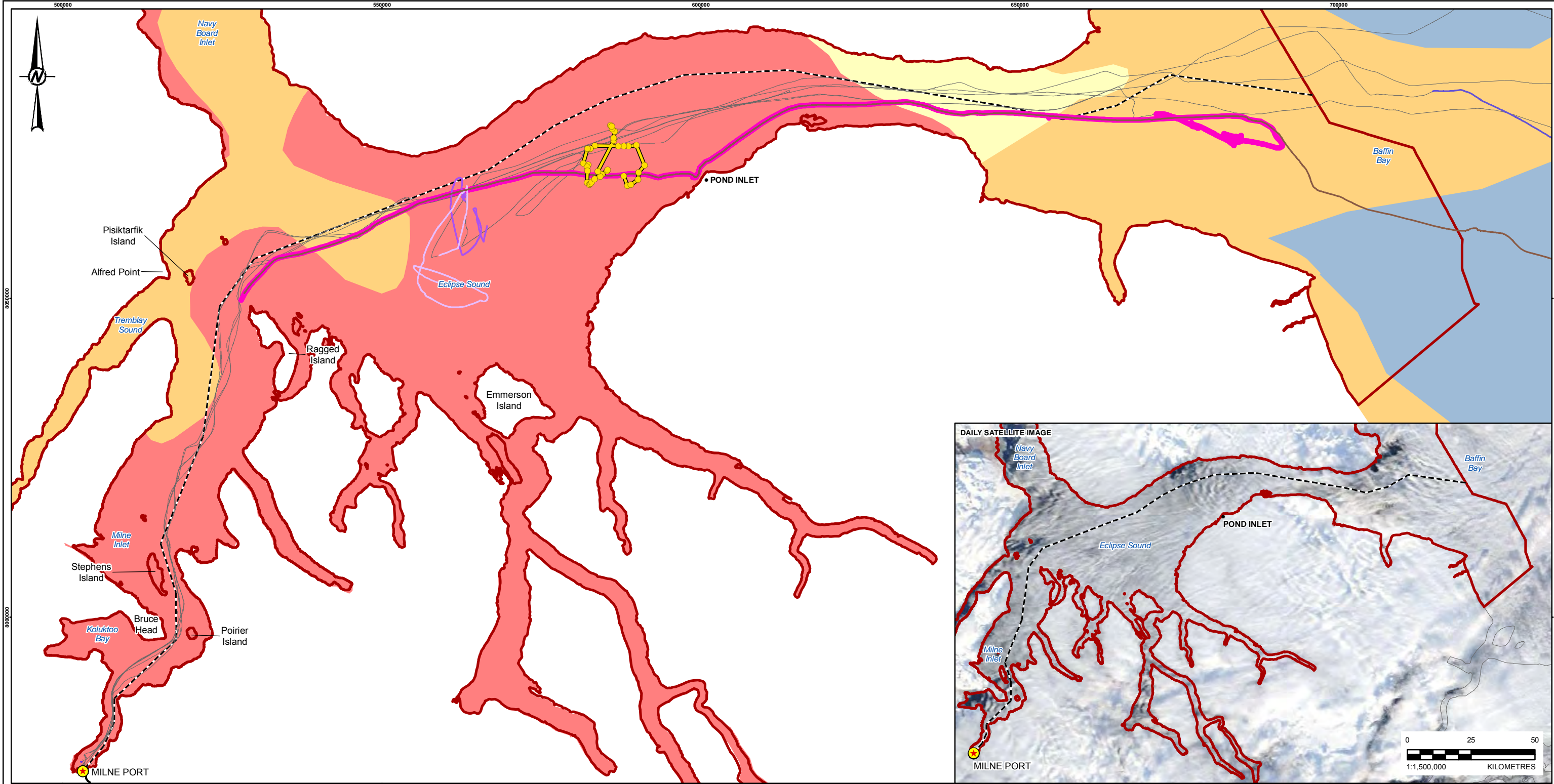
TITLE
DAILY LOCATIONS OF NARWHAL IN RELATION TO VESSEL TRAFFIC AND ICE CONDITIONS - FALL - OCTOBER 09, 2018 (UTC)

PROJECT NO.
1663724

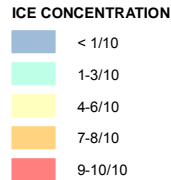
CONTROL
30000-05

REV.
A

FIGURE
A-11



- LEGEND**
- COMMUNITY
 - ☀ MILNE PORT
 - NARWHAL GPS LOCATIONS**
 - NW22 (MM02-760) FASTLOC GPS LOCATION
 - NARWHAL TRACKS**
 - NW22 (MM02-760) FASTLOC GPS LOCATION
 - BOTNICA SHIP TRACK
 - MILNE INLET TOTE ROAD
 - NOMINAL SHIPPING ROUTE
 - PROJECT VESSEL SHIP TRACK - PREVIOUS 2 DAYS
 - PROJECT VESSEL SHIP TRACKS**
 - BULK (ORE) CARRIERS**
 - ARKADIA
 - NORDIC ODIN
 - NORDIC ODYSSEY
 - NORDIC OLYMPIC
 - GENERAL CARGO VESSELS**
 - ZELADA DESGAGNES
 - OIL TANKERS**
 - SARAH DESGAGNES
 - ▭ MARINE MAMMAL REGIONAL STUDY AREA



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APPROVED	PR

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PROJECTION: UTM ZONE 17 DATUM: NAD 83

PROJECT
MARY RIVER PROJECT - PHASE 2 PROPOSAL

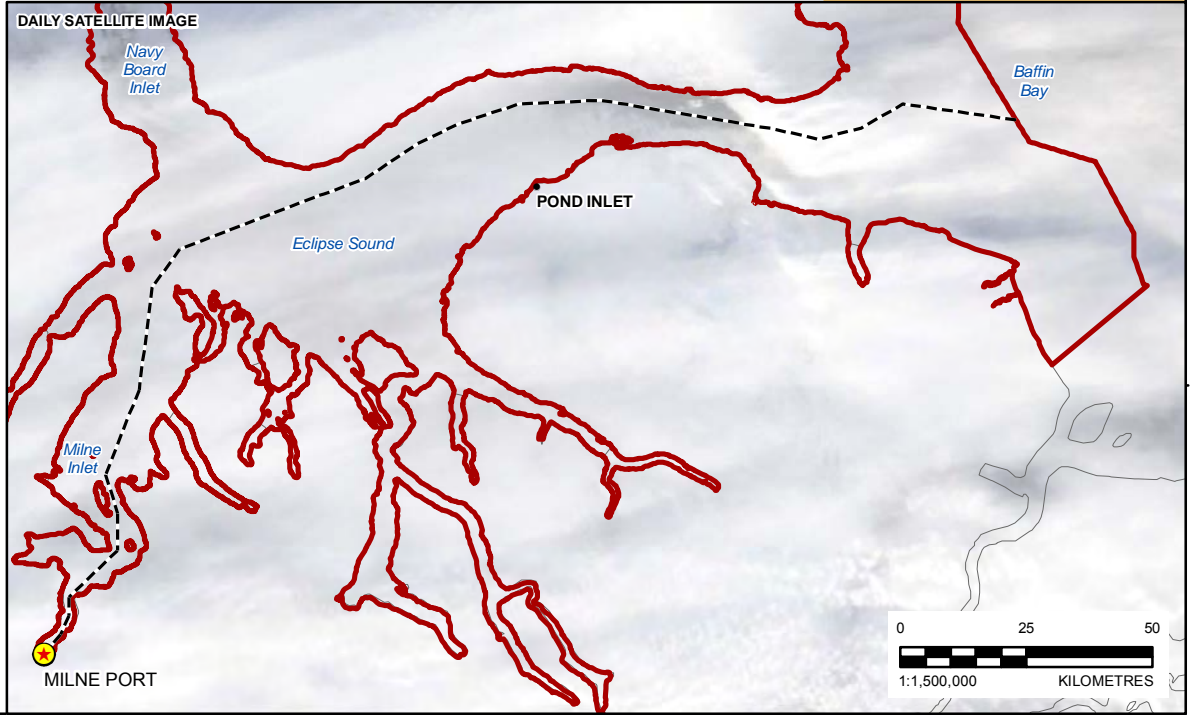
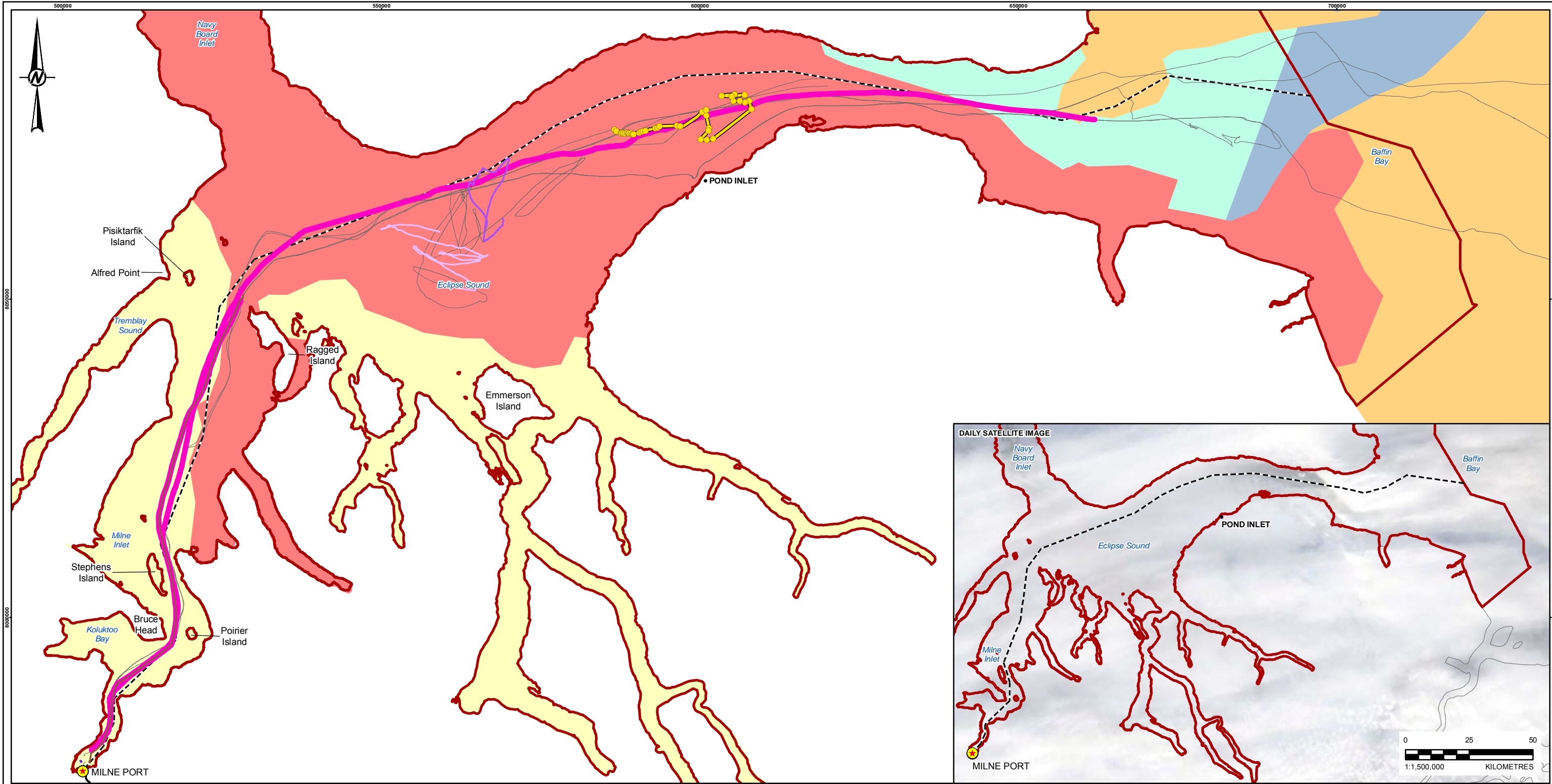
TITLE
DAILY LOCATIONS OF NARWHAL IN RELATION TO VESSEL TRAFFIC AND ICE CONDITIONS - FALL - OCTOBER 10, 2018 (UTC)

PROJECT NO.
1663724

CONTROL
30000-05

REV.
A

FIGURE
A-12

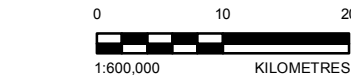


- LEGEND**
- COMMUNITY
 - ☀ MILNE PORT
 - NARWHAL GPS LOCATIONS**
 - NW22 (MM02-760) FASTLOC GPS LOCATION
 - NARWHAL TRACKS**
 - NW22 (MM02-760) FASTLOC GPS LOCATION
 - BOTNICA SHIP TRACK
 - MILNE INLET TOTE ROAD
 - NOMINAL SHIPPING ROUTE
 - PROJECT VESSEL SHIP TRACK - PREVIOUS 2 DAYS
 - PROJECT VESSEL SHIP TRACKS**
 - BULK (ORE) CARRIERS**
 - ARKADIA
 - NORDIC ODIN
 - NORDIC ODYSSEY
 - GENERAL CARGO VESSELS**
 - ZELADA DESGAGNES
 - OIL TANKERS**
 - SARAH DESGAGNES
 - ICE CONCENTRATION**
 - < 1/10
 - 1-3/10
 - 4-6/10
 - 7-8/10
 - 9-10/10
 - MARINE MAMMAL REGIONAL STUDY AREA



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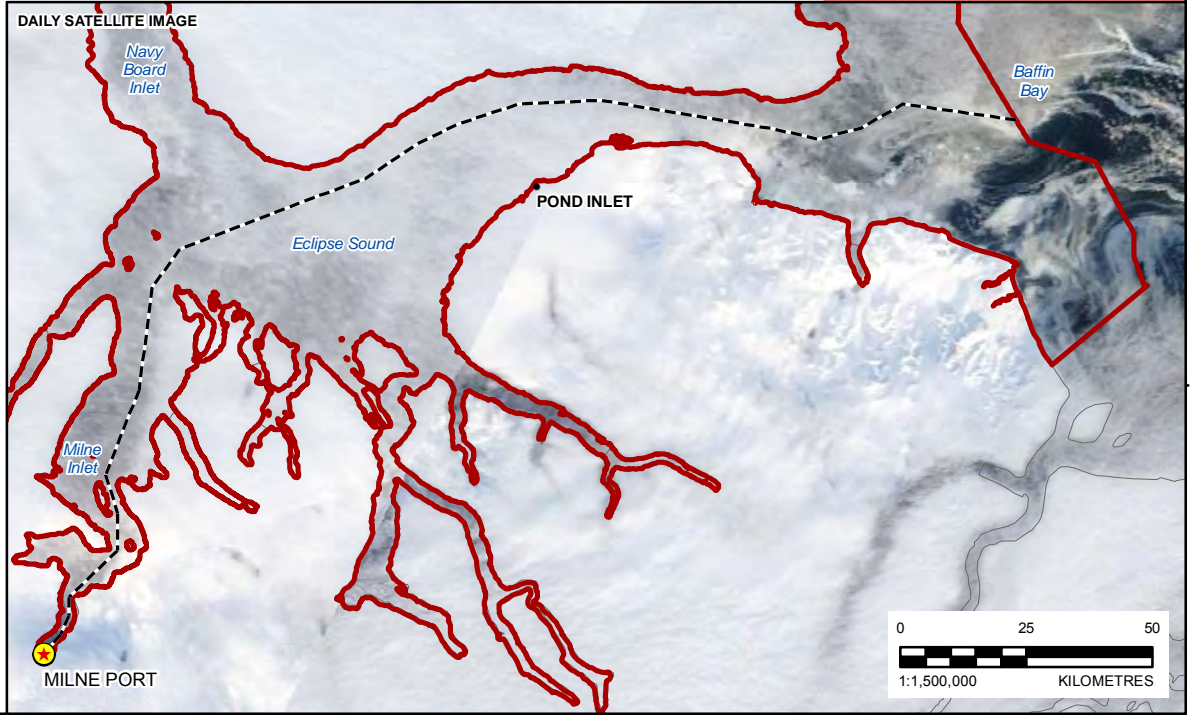
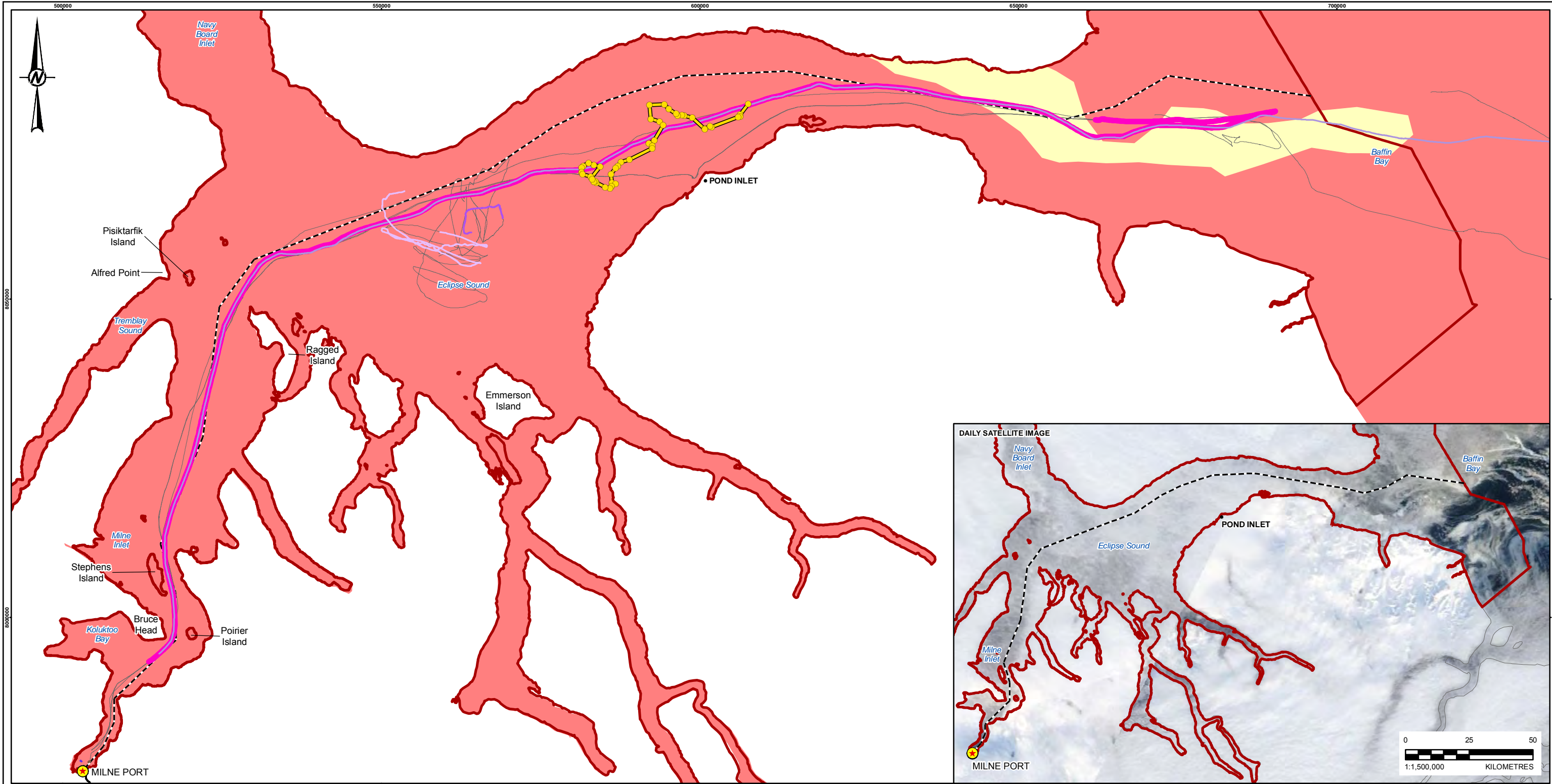
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PREPARED	AA
REVIEWED	AA
APPROVED	PR

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ICE CONCENTRATION OBTAINED FROM CANADIAN ICE SERVICE, GOVERNMENT OF CANADA. DAILY ICE CHARTS – APPROACHES TO RESOLUTE BAY. ACCESSED NOVEMBER 23, 2018. GEOGRAPHIC NAMES, POPULATED PLACE, AND PROVINCIAL BOUNDARY DATA OBTAINED FROM GEOGRATIS, © DEPARTMENT OF NATURAL RESOURCES CANADA. ALL RIGHTS RESERVED. WE ACKNOWLEDGE THE USE OF IMAGERY PROVIDED BY SERVICES FROM NASA'S GLOBAL IMAGERY BROWSE SERVICES (GIBS), PART OF NASA'S EARTH OBSERVING SYSTEM DATA AND INFORMATION SYSTEM (EOSDIS).
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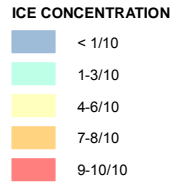
PROJECT
MARY RIVER PROJECT - PHASE 2 PROPOSAL

TITLE
DAILY LOCATIONS OF NARWHAL IN RELATION TO VESSEL TRAFFIC AND ICE CONDITIONS - FALL - OCTOBER 11, 2018 (UTC)

PROJECT NO.	CONTROL	REV.	FIGURE
1663724	30000-05	A	A-13

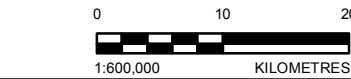


- LEGEND**
- COMMUNITY
 - ☀ MILNE PORT
 - NARWHAL GPS LOCATIONS**
 - NW22 (MM02-760) FASTLOC GPS LOCATION
 - NARWHAL TRACKS**
 - NW22 (MM02-760) FASTLOC GPS LOCATION
 - BOTNICA SHIP TRACK
 - MILNE INLET TOTE ROAD
 - NOMINAL SHIPPING ROUTE
 - PROJECT VESSEL SHIP TRACK - PREVIOUS 2 DAYS
 - PROJECT VESSEL SHIP TRACKS**
 - BULK (ORE) CARRIERS**
 - ARKADIA
 - NORDIC ODIN
 - NORDIC ODYSSEY
 - NORDIC OSHIMA
 - GENERAL CARGO VESSELS**
 - ZELADA DESGAGNES
 - OIL TANKERS**
 - SARAH DESGAGNES
 - ▭ MARINE MAMMAL REGIONAL STUDY AREA



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REFERENCE(S)
ICE CONCENTRATION OBTAINED FROM CANADIAN ICE SERVICE, GOVERNMENT OF CANADA. DAILY ICE CHARTS – APPROACHES TO RESOLUTE BAY. ACCESSED NOVEMBER 23, 2018. GEOGRAPHIC NAMES, POPULATED PLACE, AND PROVINCIAL BOUNDARY DATA OBTAINED FROM GEOGRATIS, © DEPARTMENT OF NATURAL RESOURCES CANADA. ALL RIGHTS RESERVED. WE ACKNOWLEDGE THE USE OF IMAGERY PROVIDED BY SERVICES FROM NASA'S GLOBAL IMAGERY BROWSE SERVICES (GIBS), PART OF NASA'S EARTH OBSERVING SYSTEM DATA AND INFORMATION SYSTEM (EOSDIS).
PROJECTION: UTM ZONE 17 DATUM: NAD 83

PROJECT
MARY RIVER PROJECT - PHASE 2 PROPOSAL

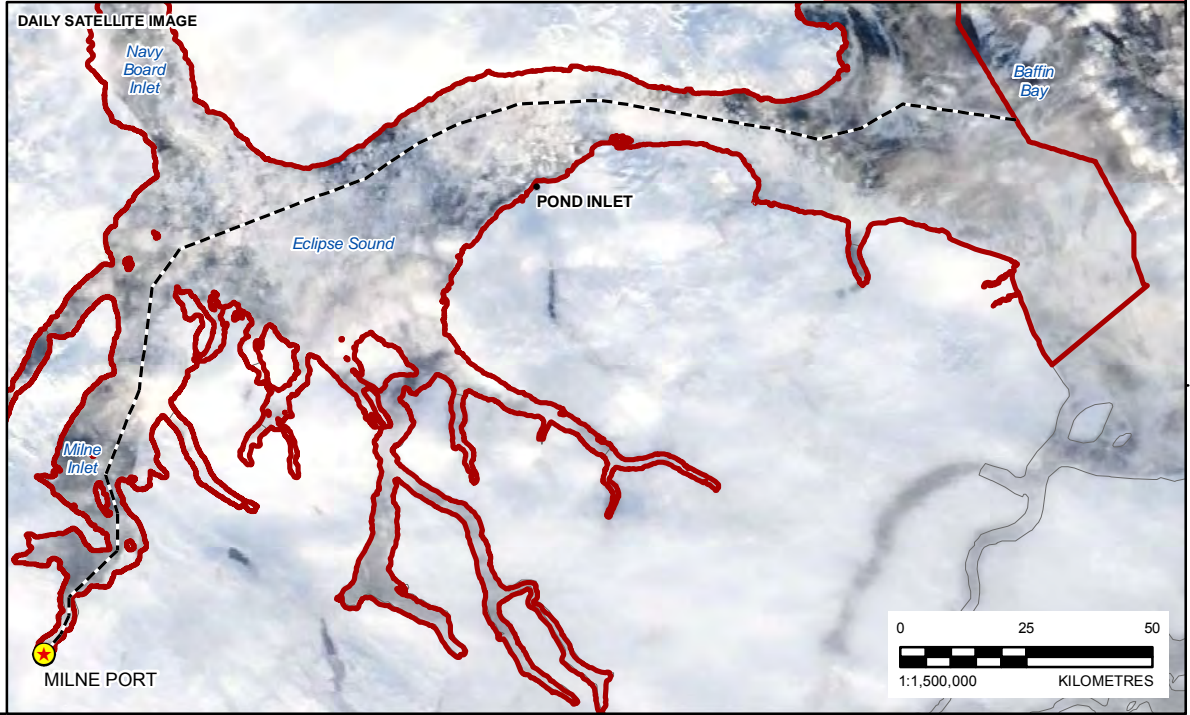
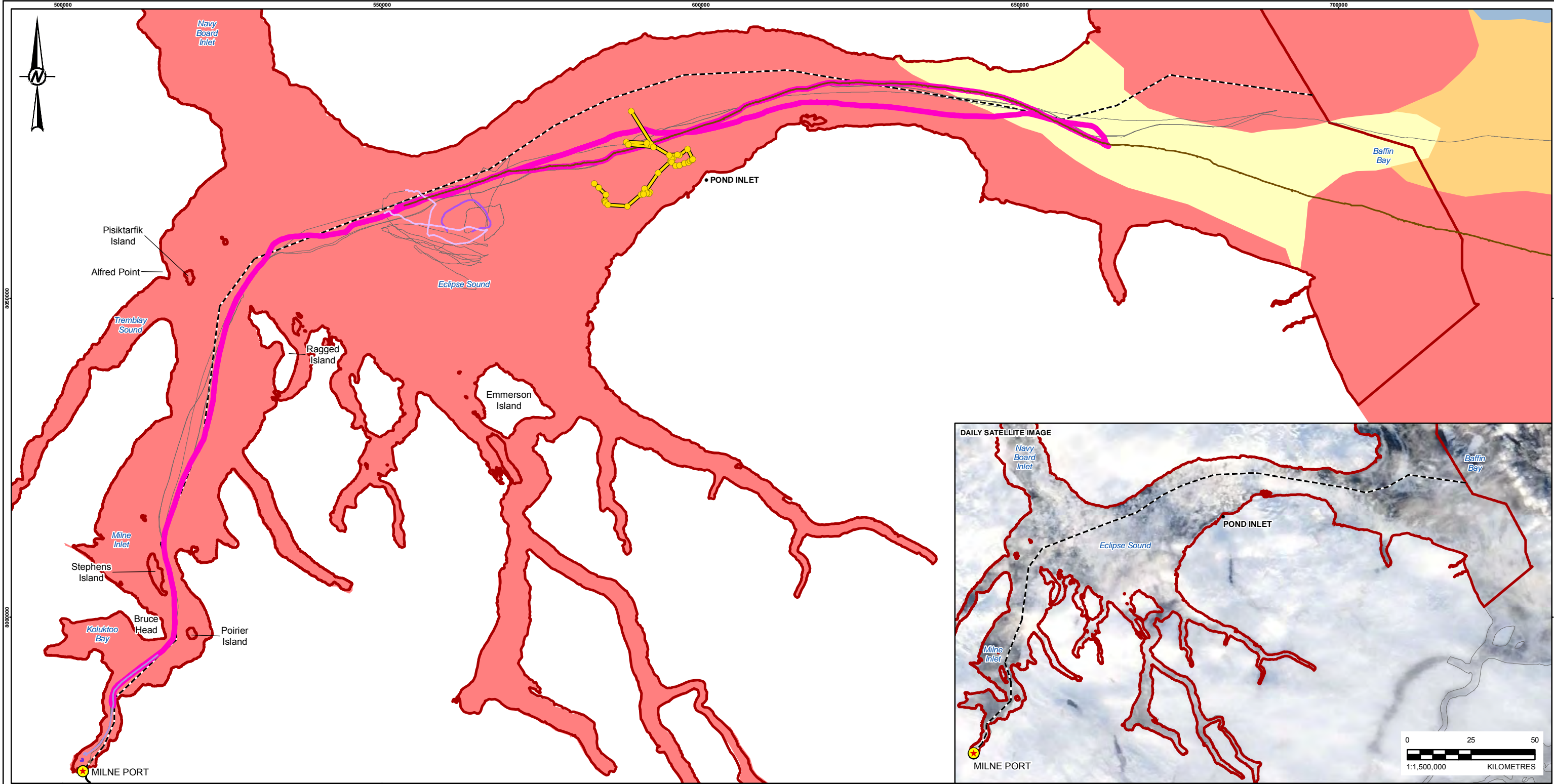
TITLE
DAILY LOCATIONS OF NARWHAL IN RELATION TO VESSEL TRAFFIC AND ICE CONDITIONS - FALL - OCTOBER 12, 2018 (UTC)

PROJECT NO.
1663724

CONTROL
30000-05

REV.
A

FIGURE
A-14



LEGEND

- COMMUNITY
- ☀ MILNE PORT
- NARWHAL GPS LOCATIONS**
- NW22 (MM02-760) FASTLOC GPS LOCATION
- NARWHAL TRACKS**
- NW22 (MM02-760) FASTLOC GPS LOCATION
- BOTNICA SHIP TRACK
- MILNE INLET TOTE ROAD
- NOMINAL SHIPPING ROUTE
- PROJECT VESSEL SHIP TRACK - PREVIOUS 2 DAYS
- PROJECT VESSEL SHIP TRACKS**
- BULK (ORE) CARRIERS**
- ARKADIA
- NORDIC ODIN
- NORDIC ODYSSEY
- NORDIC OSHIMA
- GENERAL CARGO VESSELS**
- QAMUTIK
- ZELADA DESGAGNES
- OIL TANKERS**
- SARAH DESGAGNES
- ▭ MARINE MAMMAL REGIONAL STUDY AREA

ICE CONCENTRATION

- < 1/10
- 1-3/10
- 4-6/10
- 7-8/10
- 9-10/10



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CONSULTANT
 GOLDER

0 10 20
1:600,000 KILOMETRES

YYYY-MM-DD	2019-09-26
DESIGNED	MF
PREPARED	AA
REVIEWED	AA
APPROVED	PR

REFERENCE(S)
ICE CONCENTRATION OBTAINED FROM CANADIAN ICE SERVICE, GOVERNMENT OF CANADA. DAILY ICE CHARTS – APPROACHES TO RESOLUTE BAY. ACCESSED NOVEMBER 23, 2018. GEOGRAPHIC NAMES, POPULATED PLACE, AND PROVINCIAL BOUNDARY DATA OBTAINED FROM GEOGRATIS, © DEPARTMENT OF NATURAL RESOURCES CANADA. ALL RIGHTS RESERVED. WE ACKNOWLEDGE THE USE OF IMAGERY PROVIDED BY SERVICES FROM NASA'S GLOBAL IMAGERY BROWSE SERVICES (GIBS), PART OF NASA'S EARTH OBSERVING SYSTEM DATA AND INFORMATION SYSTEM (EOSDIS). PROJECTION: UTM ZONE 17 DATUM: NAD 83

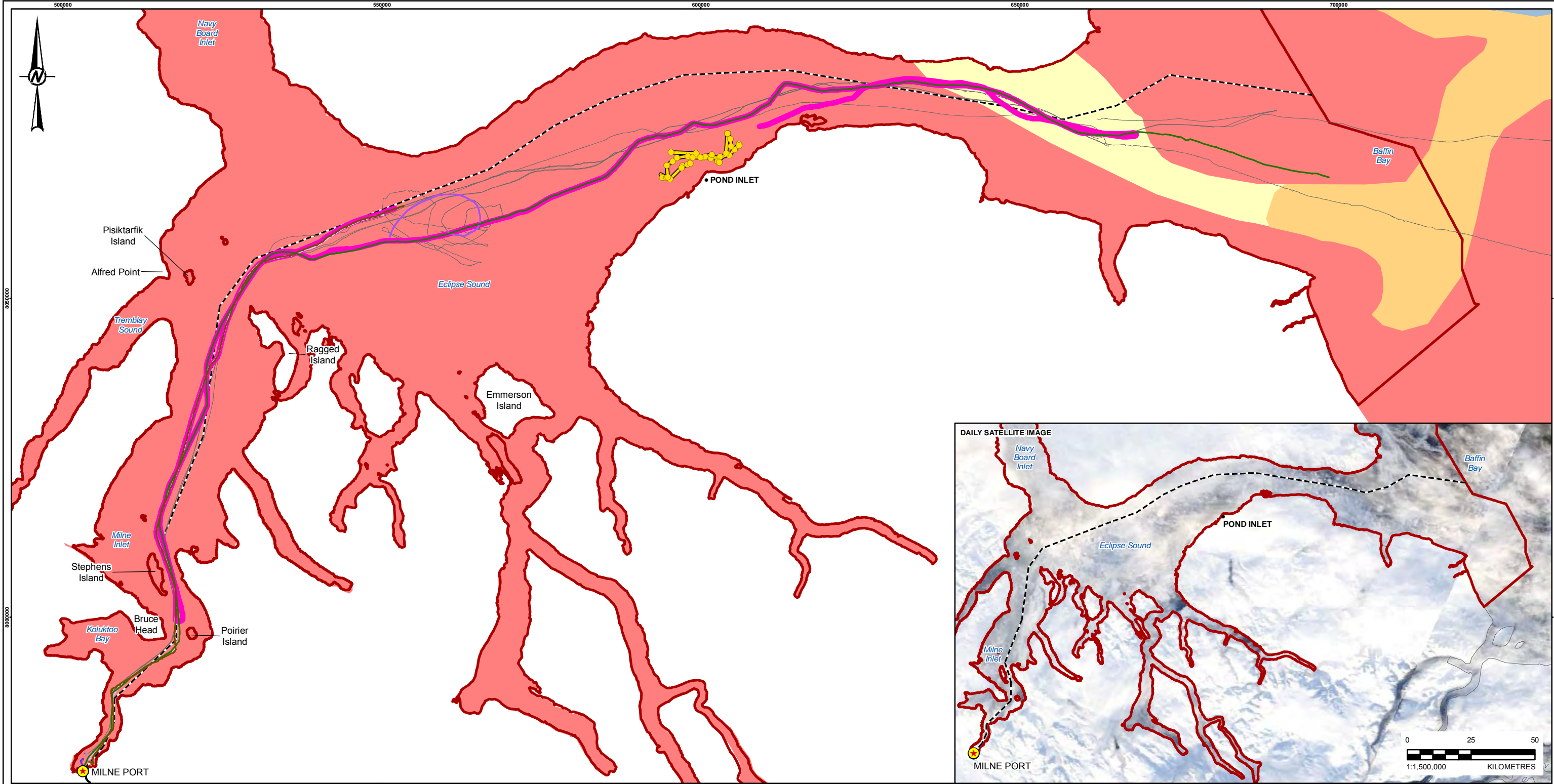
PROJECT
MARY RIVER PROJECT - PHASE 2 PROPOSAL

TITLE
DAILY LOCATIONS OF NARWHAL IN RELATION TO VESSEL TRAFFIC AND ICE CONDITIONS - FALL - OCTOBER 13, 2018 (UTC)

PROJECT NO.	CONTROL	REV.	FIGURE
1663724	30000-05	A	A-15

PATH: I:\2019\663724\Mapping\NCD\00000_EA_Support\20191002724_30000_05_FigA-15_Narwhal_DailyShipTraffic_050000_EA_Rev0.mxd PRINTED ON: 2019-09-26 AT: 12:02:14 PM

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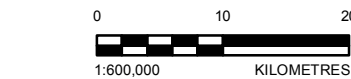


- LEGEND**
- COMMUNITY
 - ☀ MILNE PORT
 - NARWHAL GPS LOCATIONS**
 - NW22 (MM02-760) FASTLOC GPS LOCATION
 - NARWHAL TRACKS**
 - NW22 (MM02-760) FASTLOC GPS LOCATION
 - BOTNICA SHIP TRACK
 - MILNE INLET TOTE ROAD
 - NOMINAL SHIPPING ROUTE
 - PROJECT VESSEL SHIP TRACK - PREVIOUS 2 DAYS
 - PROJECT VESSEL SHIP TRACKS**
 - BULK (ORE) CARRIERS**
 - ARKADIA
 - NORDIC ODIN
 - NORDIC ODYSSEY
 - NORDIC OSHIMA
 - GENERAL CARGO VESSELS**
 - QAMUTIK
 - ZELADA DESGAGNES
 - OIL TANKERS**
 - SARAH DESGAGNES
 - ▭ MARINE MAMMAL REGIONAL STUDY AREA
- ICE CONCENTRATION**
- < 1/10
 - 1-3/10
 - 4-6/10
 - 7-8/10
 - 9-10/10



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YYYY-MM-DD	2019-09-26
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PREPARED	AA
REVIEWED	AA
APPROVED	PR

REFERENCE(S)
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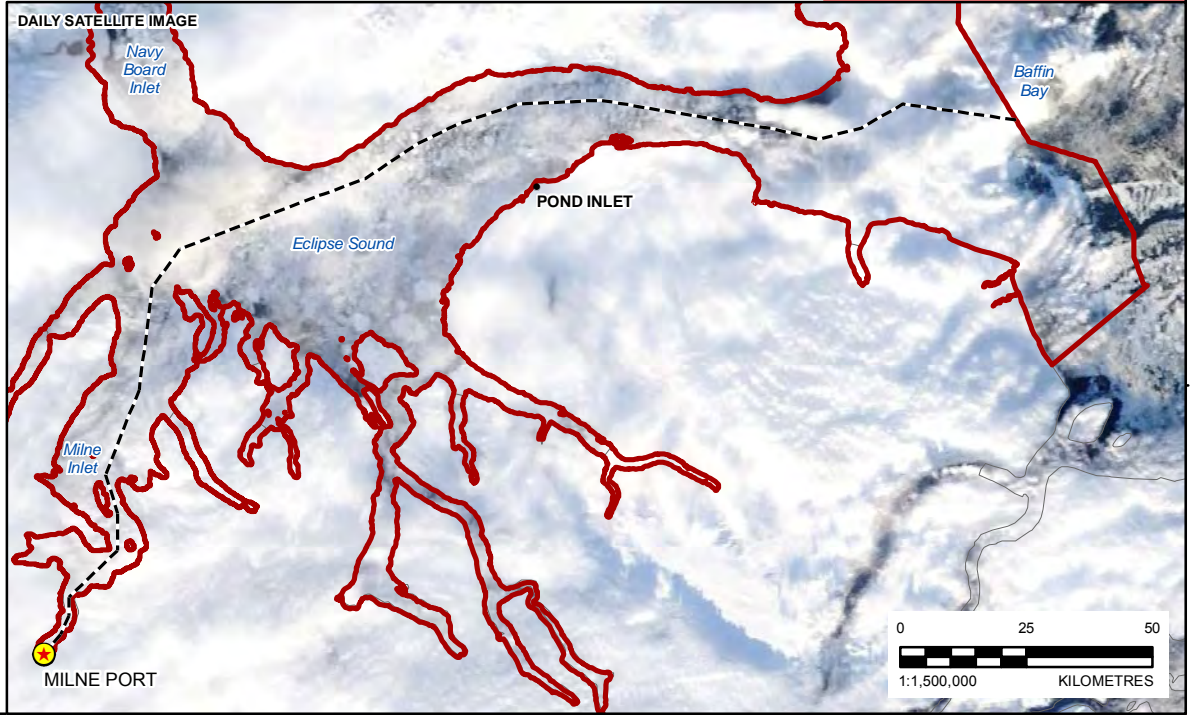
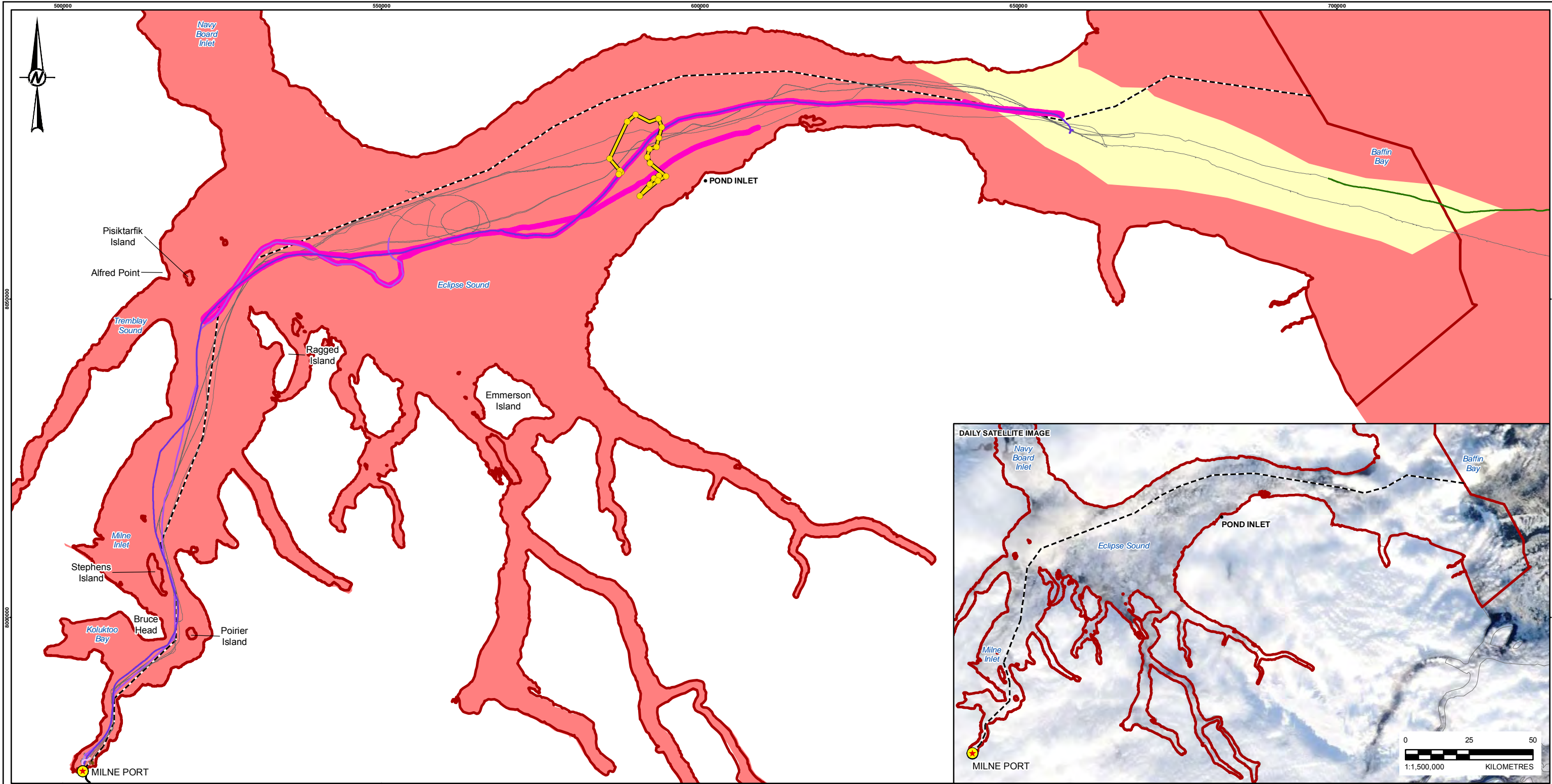
PROJECT
MARY RIVER PROJECT - PHASE 2 PROPOSAL

TITLE
DAILY LOCATIONS OF NARWHAL IN RELATION TO VESSEL TRAFFIC AND ICE CONDITIONS - FALL - OCTOBER 14, 2018 (UTC)

PROJECT NO.	CONTROL	REV.	FIGURE
1663724	30000-05	A	A-16

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- LEGEND**
- COMMUNITY
 - ★ MILNE PORT
 - NARWHAL GPS LOCATIONS**
 - NW22 (MM02-760) FASTLOC GPS LOCATION
 - NARWHAL TRACKS**
 - NW22 (MM02-760) FASTLOC GPS LOCATION
 - BOTNICA SHIP TRACK
 - MILNE INLET TOTE ROAD
 - NOMINAL SHIPPING ROUTE
 - PROJECT VESSEL SHIP TRACK - PREVIOUS 2 DAYS
 - PROJECT VESSEL SHIP TRACKS**
 - BULK (ORE) CARRIERS**
 - ARKADIA
 - NORDIC ODIN
 - NORDIC ODYSSEY
 - NORDIC OSHIMA
 - GENERAL CARGO VESSELS**
 - QAMUTIK
 - ZELADA DESGAGNES
 - OIL TANKERS**
 - SARAH DESGAGNES
 - MARINE MAMMAL REGIONAL STUDY AREA
- ICE CONCENTRATION**
- < 1/10
 - 1-3/10
 - 4-6/10
 - 7-8/10
 - 9-10/10



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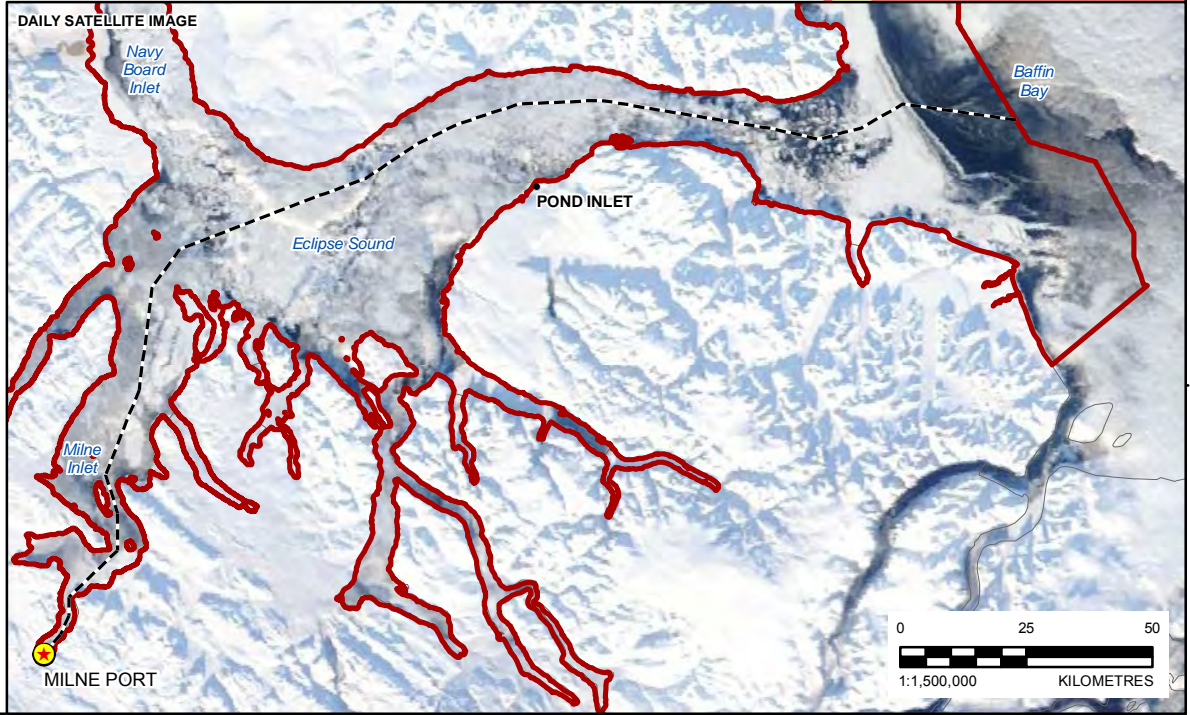
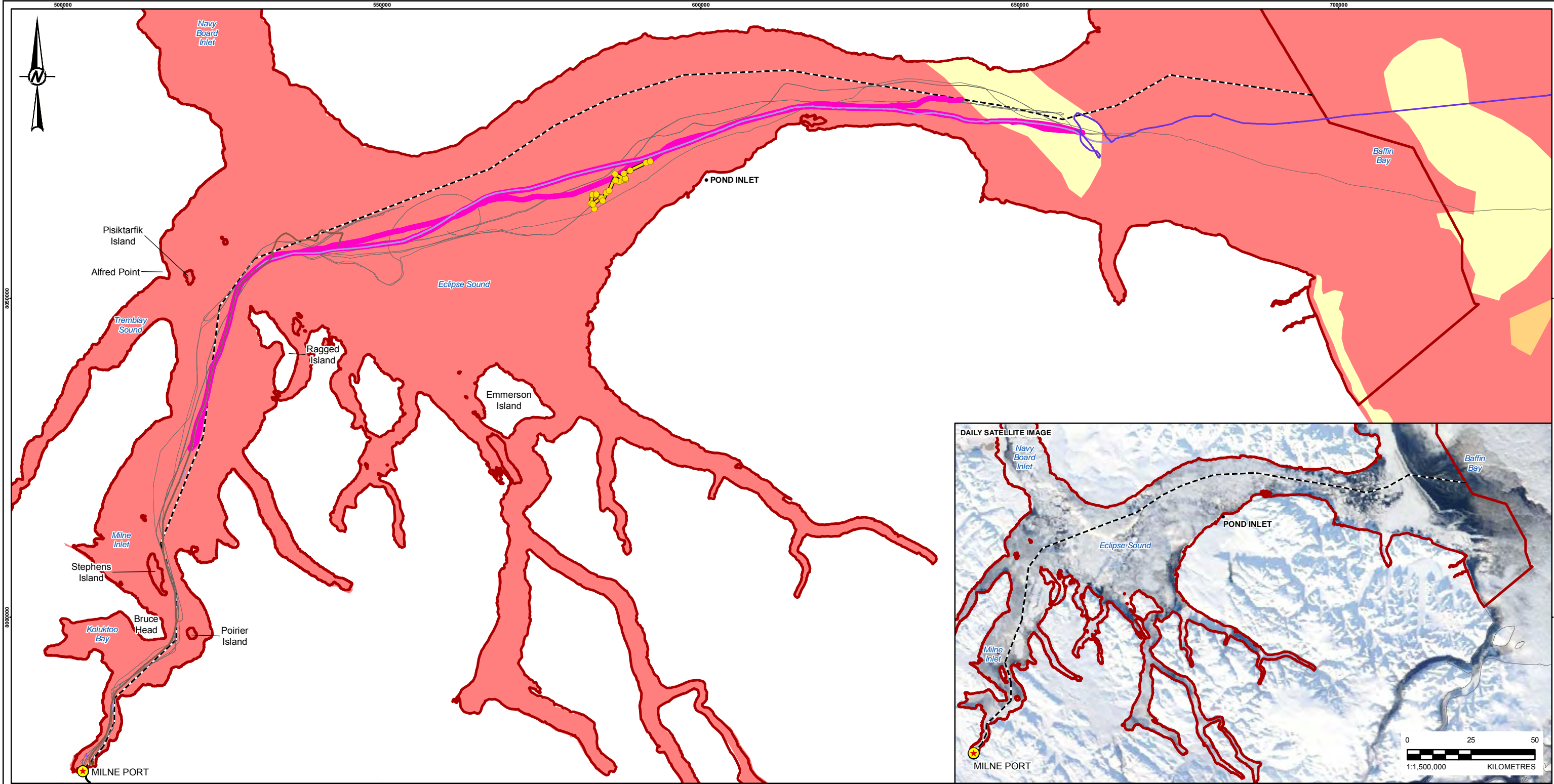
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DESIGNED	MF
PREPARED	AA
REVIEWED	AA
APPROVED	PR

REFERENCE(S)
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PROJECTION: UTM ZONE 17 DATUM: NAD 83

PROJECT
MARY RIVER PROJECT - PHASE 2 PROPOSAL

TITLE
DAILY LOCATIONS OF NARWHAL IN RELATION TO VESSEL TRAFFIC AND ICE CONDITIONS - FALL - OCTOBER 15, 2018 (UTC)

PROJECT NO.	CONTROL	REV.	FIGURE
1663724	30000-05	A	A-17



LEGEND

- COMMUNITY
- ☀ MILNE PORT
- NARWHAL GPS LOCATIONS**
- NW22 (MM02-760) FASTLOC GPS LOCATION
- NARWHAL TRACKS**
- NW22 (MM02-760) FASTLOC GPS LOCATION
- BOTNICA SHIP TRACK
- MILNE INLET TOTE ROAD
- NOMINAL SHIPPING ROUTE
- PROJECT VESSEL SHIP TRACK - PREVIOUS 2 DAYS
- PROJECT VESSEL SHIP TRACKS**
- BULK (ORE) CARRIERS**
- ARKADIA

- NORDIC ODIN
- NORDIC ODYSSEY
- NORDIC OSHIMA
- GENERAL CARGO VESSELS**
- QAMUTIK
- ZELADA DESGAGNES
- ▭ MARINE MAMMAL REGIONAL STUDY AREA
- ICE CONCENTRATION**
- < 1/10
- 1-3/10
- 4-6/10
- 7-8/10
- 9-10/10



CLIENT
BAFFINLAND IRON MINES CORPORATION

CONSULTANT

0 10 20
1:600,000 KILOMETRES

YYYY-MM-DD	2019-09-26
DESIGNED	MF
PREPARED	AA
REVIEWED	AA
APPROVED	PR

REFERENCE(S)
ICE CONCENTRATION OBTAINED FROM CANADIAN ICE SERVICE, GOVERNMENT OF CANADA. DAILY ICE CHARTS – APPROACHES TO RESOLUTE BAY. ACCESSED NOVEMBER 23, 2018. GEOGRAPHIC NAMES, POPULATED PLACE, AND PROVINCIAL BOUNDARY DATA OBTAINED FROM GEOGRATIS, © DEPARTMENT OF NATURAL RESOURCES CANADA. ALL RIGHTS RESERVED. WE ACKNOWLEDGE THE USE OF IMAGERY PROVIDED BY SERVICES FROM NASA'S GLOBAL IMAGERY BROWSE SERVICES (GIBS), PART OF NASA'S EARTH OBSERVING SYSTEM DATA AND INFORMATION SYSTEM (EOSDIS).
PROJECTION: UTM ZONE 17 DATUM: NAD 83

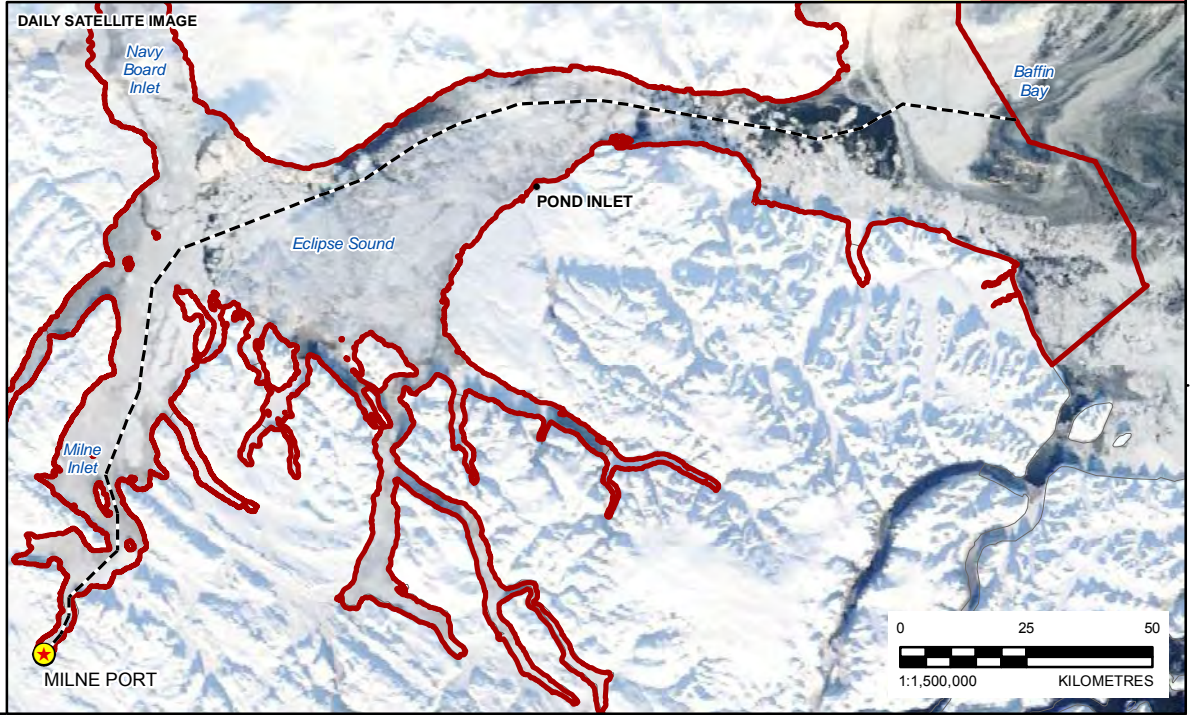
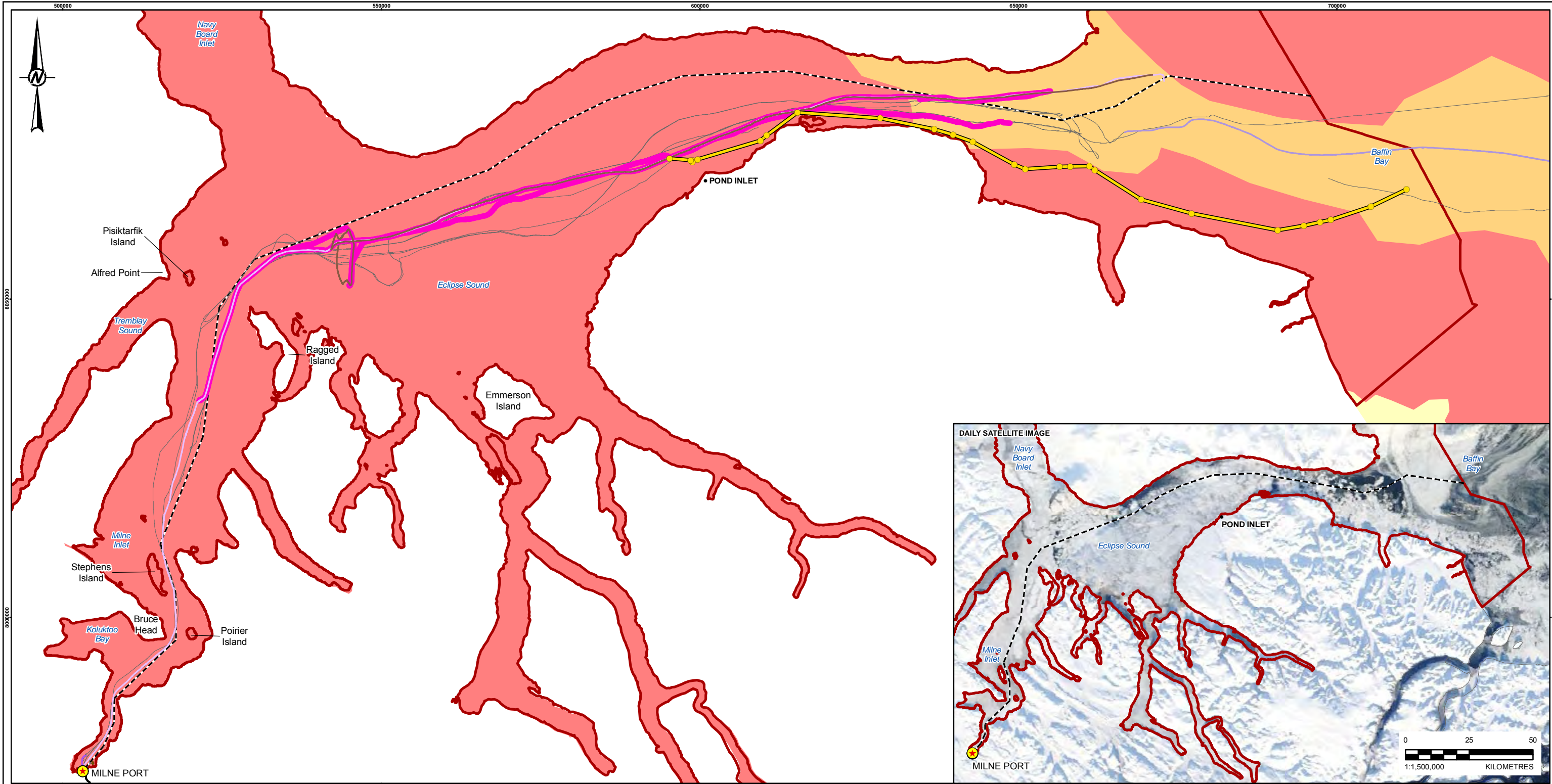
PROJECT
MARY RIVER PROJECT - PHASE 2 PROPOSAL

TITLE
DAILY LOCATIONS OF NARWHAL IN RELATION TO VESSEL TRAFFIC AND ICE CONDITIONS - FALL - OCTOBER 16, 2018 (UTC)

PROJECT NO.	CONTROL	REV.	FIGURE
1663724	30000-05	A	A-18

PATH: I:\2019\663724\Mapping\NCD\00000_EA_Support\20191006724_30000_05_FigA-18_Narwhal_DailyShipTraffic_JacCone_Fall_Rev0.mxd PRINTED ON: 2019-09-26 AT: 12:04:31 PM

28mm IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

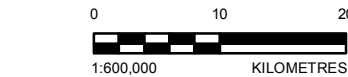


- LEGEND**
- COMMUNITY
 - ☀ MILNE PORT
 - NARWHAL GPS LOCATIONS**
 - NW22 (MM02-760) FASTLOC GPS LOCATION
 - NARWHAL TRACKS**
 - NW22 (MM02-760) FASTLOC GPS LOCATION
 - BOTNICA SHIP TRACK
 - MILNE INLET TOTE ROAD
 - NOMINAL SHIPPING ROUTE
 - PROJECT VESSEL SHIP TRACK - PREVIOUS 2 DAYS
 - PROJECT VESSEL SHIP TRACKS**
 - BULK (ORE) CARRIERS**
 - ARKADIA
 - NORDIC ODYSSEY
 - NORDIC OSHIMA
 - GENERAL CARGO VESSELS**
 - QAMUTIK
 - ZELADA DESGAGNES
 - MARINE MAMMAL REGIONAL STUDY AREA
 - ICE CONCENTRATION**
 - < 1/10
 - 1-3/10
 - 4-6/10
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 - 9-10/10



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PROJECT NO.
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CONTROL
30000-05

REV.
A

FIGURE
A-19