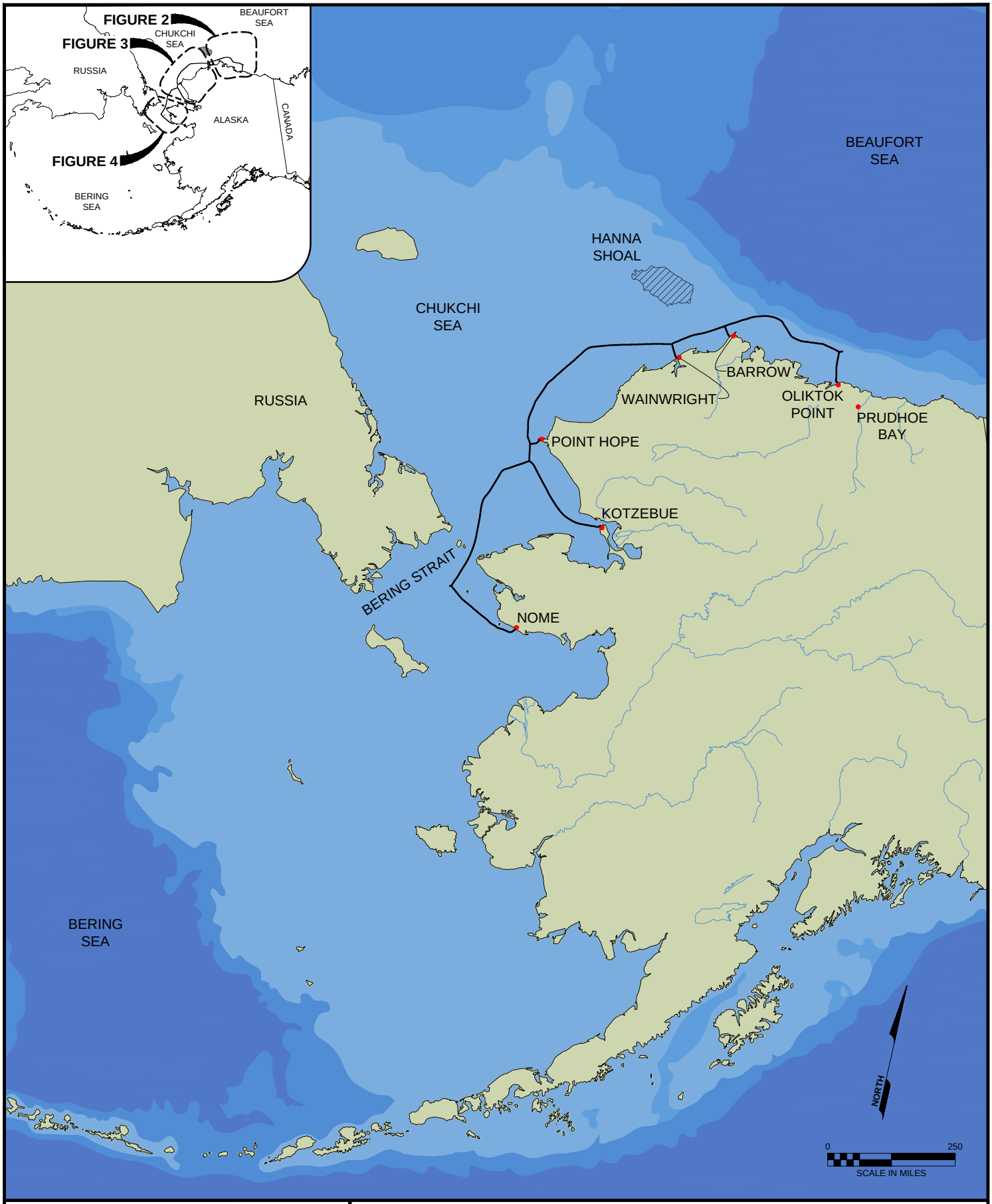


UMIAQ

4300 Arctic Spur Road · Anchorage, AK 99518 · (907)563-6300

QUINTILLION FIBER OPTIC PROJECT

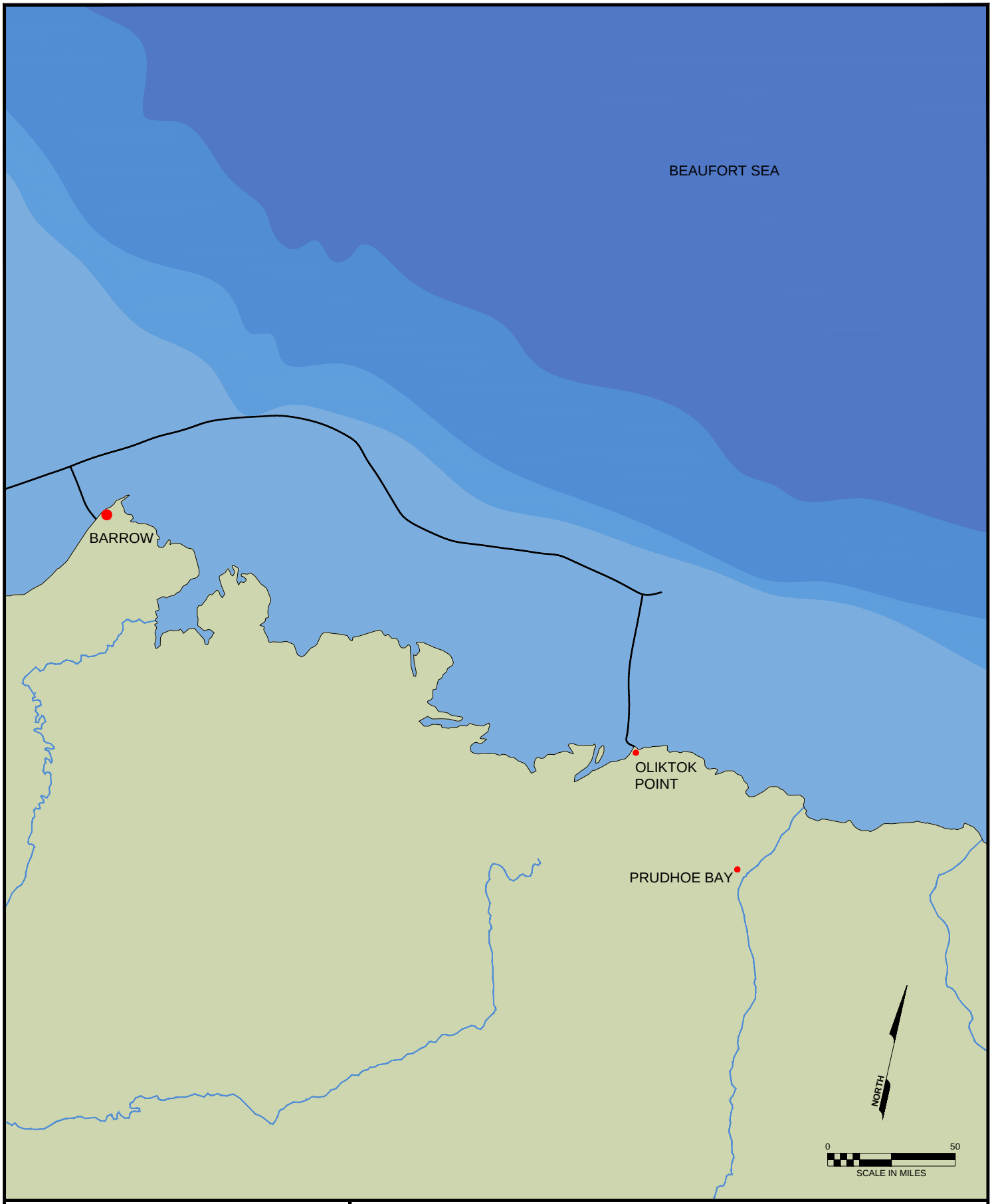
VICINITY MAP

ALASKA, USA

POA-2015-529
Bering, Chukchi and Beaufort Seas

DATE:	08/20/2015	DRAWN BY:	WDW	SHEET:	FIGURE M1
SCALE:	AS SHOWN	CHECKED BY:		JOB No:	30007.15

FILE: C:\Users\wes.williams\appdata\local\temp\AcPublish_14992\30007.15 Figure 1 Vicinity Map.dwg
PRINTED: 08/20/2015 09:52 wes.williams LAYOUT: FIGURE 1 XREFS: (DIESEL evaluation failed) IMAGES: None



UMIAQ

4300 Arctic Spur Road • Anchorage, AK 99518 • (907)272-6320

QUINTILLION FIBER OPTIC PROJECT

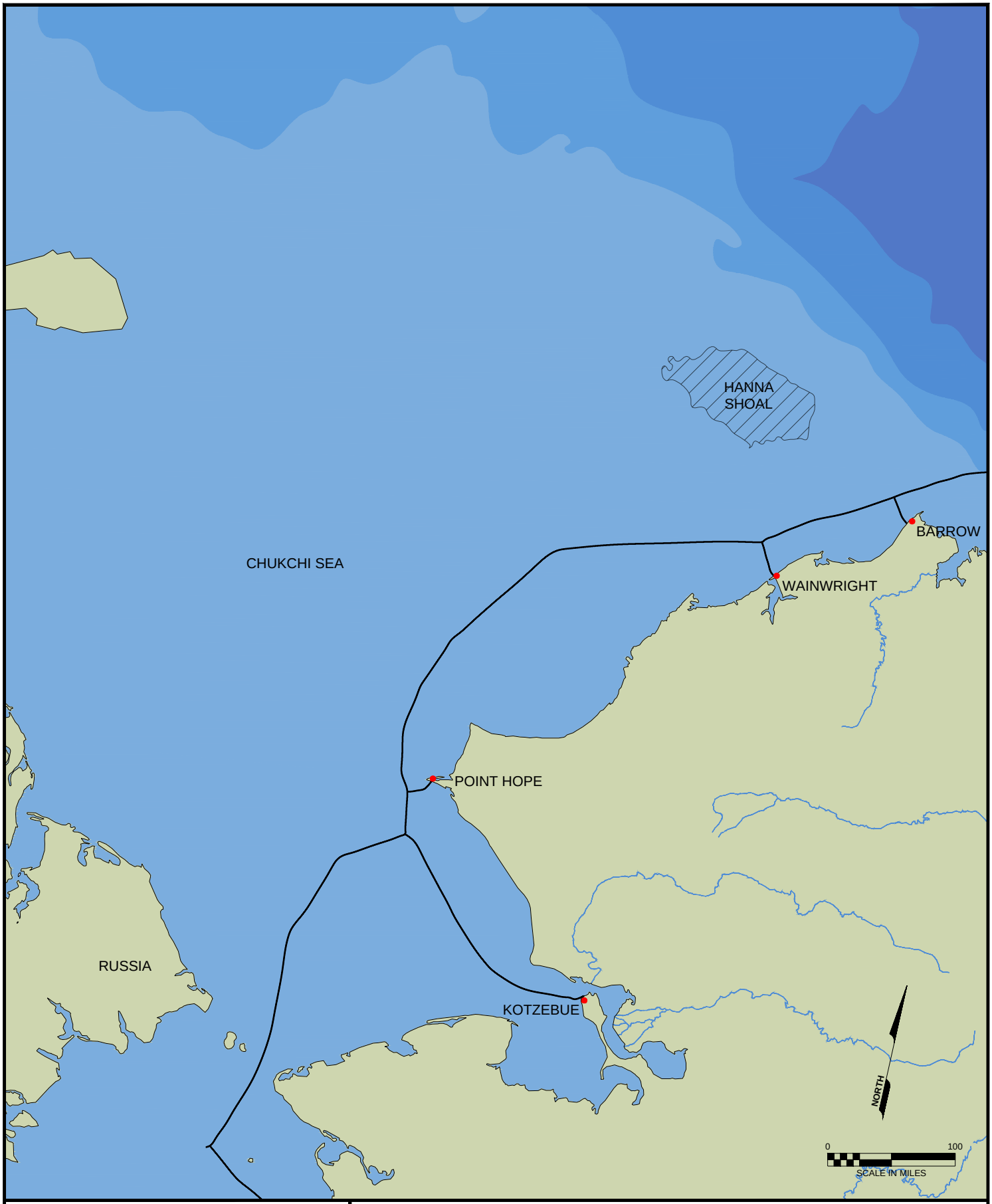
BEAUFORT SEA ECOREGION

ALASKA, USA

POA-2015-529
Bering, Chukchi and Beaufort Seas

DATE:	08/20/2015	DRAWN BY:	WDW	SHEET:	FIGURE M2
SCALE:	AS SHOWN	CHECKED BY:		JOB No:	30007.15

FILE: C:\Users\wes.williams\appdata\local\temp\AcPublish_14992\30007.15 Figure 2 - 4 Ecoregions.dwg
PRINTED: 08/20/2015 09:52 wes.williams LAYOUT: FIGURE 2 BEAUFORT XREFS: (DIESEL evaluation failed) IMAGES: None



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QUINTILLION FIBER OPTIC PROJECT

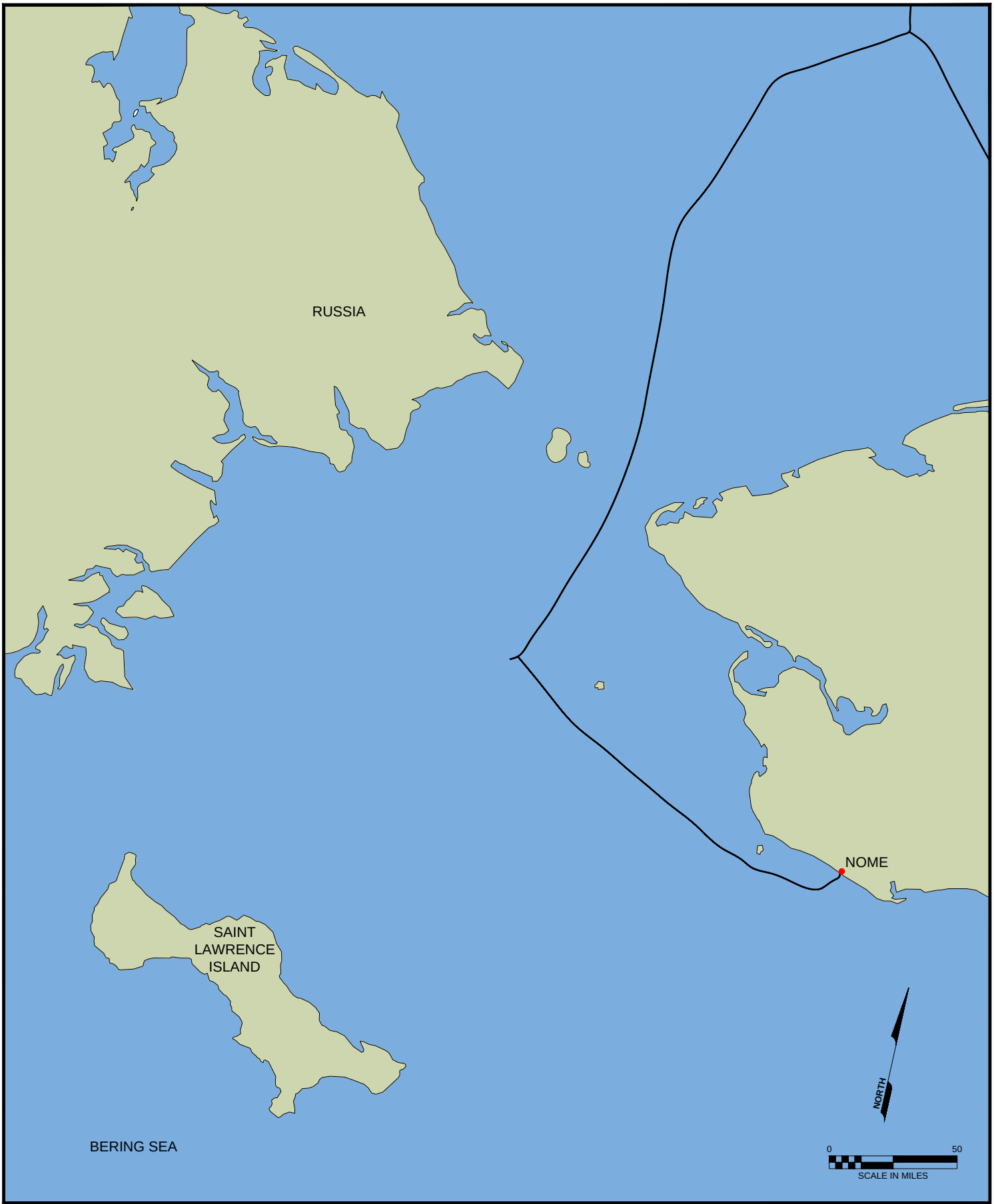
CHUKCHI SEA ECOREGION

ALASKA, USA

POA-2015-529
Bering, Chukchi and Beaufort Seas

DATE:	08/20/2015	DRAWN BY:	WDW	SHEET:	FIGURE M3
SCALE:	AS SHOWN	CHECKED BY:		JOB No:	30007.15

FILE: C:\Users\wes.williams\appdata\local\temp\AcPublish_14992\30007.15 Figure 2 – 4 Ecoregions.dwg
PRINTED: 08/20/2015 09:52 wes.williams LAYOUT: FIGURE 3 CHUKCHI XREFS: (DIESEL evaluation failed) IMAGES: None



FILE: C:\Users\wes.williams\appdata\local\temp\AcPublish_14992\30007.15 Figure 2 - 4 Ecoregions.dwg
PRINTED: 08/20/2015 09:53 wes.williams LAYOUT: FIGURE 4 BERING XREFS: (DIESEL evaluation failed) IMAGES: None

UMIAQ

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QUINTILLION FIBER OPTIC PROJECT

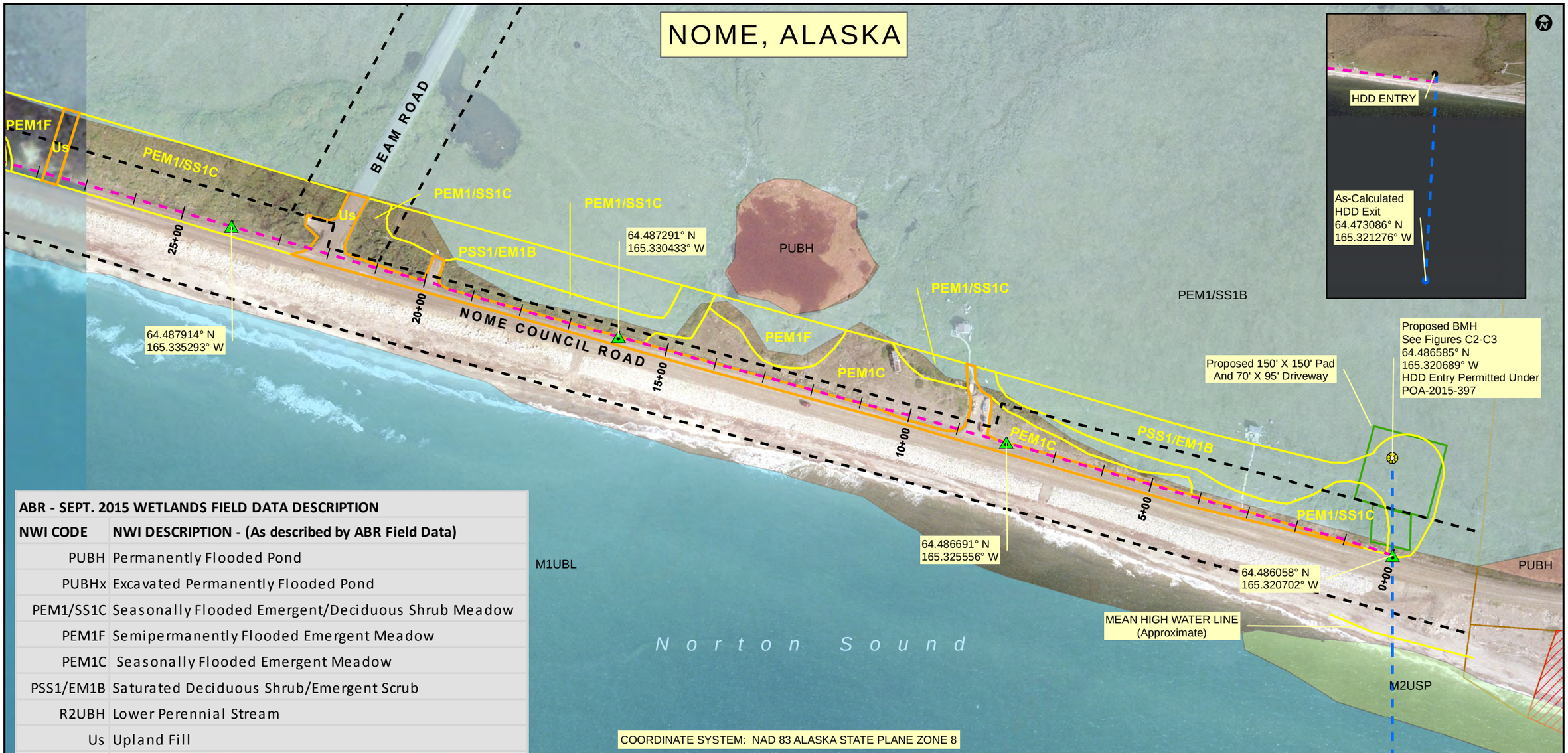
BERING SEA ECOREGION

ALASKA, USA

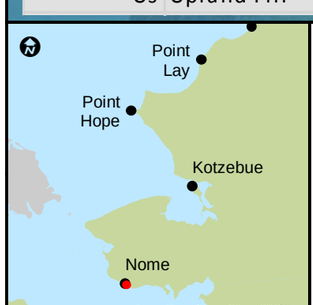
POA-2015-529
Bering, Chukchi and Beaufort Seas

DATE:	08/20/2015	DRAWN BY:	WDW	SHEET:	FIGURE M4
SCALE:	AS SHOWN	CHECKED BY:		JOB No:	30007.15

NOME, ALASKA



ABR - SEPT. 2015 WETLANDS FIELD DATA DESCRIPTION	
NWI CODE	**NWI DESCRIPTION - (As described by ABR Field Data)**
PUBH	Permanently Flooded Pond
PUBHx	Excavated Permanently Flooded Pond
PEM1/SS1C	Seasonally Flooded Emergent/Deciduous Shrub Meadow
PEM1F	Semipermanently Flooded Emergent Meadow
PEM1C	Seasonally Flooded Emergent Meadow
PSS1/EM1B	Saturated Deciduous Shrub/Emergent Scrub
R2UBH	Lower Perennial Stream
Us	Upland Fill



PROPOSED BEACH MANHOLE LOCATION

PULL BOX (See Figures C4-C5)

ABR - 2015 WETLANDS FIELD DATA

WETLANDS

UPLAND

U.S. SURVEY 3791

R.O.W. ESMT. PER PLAT 2003-24

PROPOSED SUBMARINE FIBER OPTICE CABLE ROUTE

PROPOSED UNDERGROUND FIBER OPTIC CABLE ROUTE

NATIVE ALLOTMENTS

NWI WETLAND TYPE

Estuarine and Marine Deepwater

Estuarine and Marine Wetland

Freshwater Emergent Wetland

Freshwater Pond

FOR INFORMATIONAL PURPOSES ONLY
NOT FOR CONSTRUCTION
DOES NOT REPRESENT A SURVEY.

SOURCES
IMAGERY: Quantum Spatial - 8.19.2009
ALASKA MAPPED - BDL WMS LAYER
WETLANDS - ABR, Inc.—Environmental Research & Services - Field Work Sept. 2015
NATIVE ALLOTMENTS - BLM
FIBER ROUTE, BMH, PULL BOX, MANHOLES - NHTI/UMIAQ
NATIONAL WETLANDS INVENTORY - USFWS (edited to show ground conditions as of 8.6.2015)

Figure: T1 - NOME, AK

Scale: 1 inch = 200 feet

0 100 200 300 400 Feet

Date: 10/28/2015

UMIAQ

UMQ: E:\GIS\Umiaq\Project\7009013_ARCTIC_FOC\MXD\OME_FIG1_USACE_IP_r07.mxd

POA-2015-529
Bering, Chukchi and Beaufort Seas

NOME, ALASKA

PEM1/SS1B
PEM1C
R2UBH
PSS1/EM1B
PEM1F
PEM1F
PEM1/SS1E
PUBH
PEM1/SS1B
64.490485° N
165.354684° W
64.489857° N
165.349826° W
NOME COUNCIL ROAD
60+00
55+00
50+00
45+00
40+00
35+00
30+00
PSS1/EM1B
PEM1C
PSS1/EM1B
64.489191° N
165.344994° W
Us
R2UBH
PSS1/EM1B
PEM1C
PEM1F
PEM1F
64.488522° N
165.340165° W
M1UBL
Norton Sound

ABR - SEPT. 2015 WETLANDS FIELD DATA DESCRIPTION	
NWI CODE	**NWI DESCRIPTION - (As described by ABR Field Data)**
PUBH	Permanently Flooded Pond
PUBHx	Excavated Permanently Flooded Pond
PEM1F	Semipermanently Flooded Emergent Meadow
PEM1C	Seasonally Flooded Emergent Meadow
PSS1/EM1B	Saturated Deciduous Shrub/Emergent Scrub
R2UBH	Lower Perennial Stream
Us	Upland Fill

COORDINATE SYSTEM: NAD 83 ALASKA STATE PLANE ZONE 8

PULL BOX (See Figures C4-C5)

ABR - 2015 WETLANDS FIELD DATA

WETLANDS

UPLAND

R.O.W. ESMT. PER PLAT 2003-24

PROPOSED UNDERGROUND FIBER OPTIC CABLE ROUTE

NWI - WETLAND TYPE

Estuarine and Marine Deepwater

Estuarine and Marine Wetland

Freshwater Emergent Wetland

Freshwater Pond

FOR INFORMATIONAL PURPOSES ONLY
NOT FOR CONSTRUCTION
DOES NOT REPRESENT A SURVEY.

SOURCES
IMAGERY:
ALASKA MAPPED - BDL WMS LAYER
WETLANDS - ABR, Inc.—Environmental Research & Services - Field Work Sept. 2015
FIBER ROUTE, BMH, PULL BOX, MANHOLES - NHTI/UMIAQ
NATIONAL WETLANDS INVENTORY - USFWS (Dataset scale of 1:24,000 - is not intended for use at current map scale of 1:2,400)

Figure: T2 NOME, AK

Scale: 1 inch = 200 feet

0 100 200 300 400 Feet

Date: 10/23/2015

UMIAQ

UMQ: E:\GIS\Umiaq\Project\7009013_ARCTIC_FOC\MXD\OME_FIG2_USACE_IP_r04.mxd

POA-2015-529
Bering, Chukchi and Beaufort Seas

NOME, ALASKA

ABR - SEPT. 2015 WETLANDS FIELD DATA DESCRIPTION	
NWI CODE	**NWI DESCRIPTION - (As described by ABR Field Data)**
PUBHx	Excavated Permanently Flooded Pond
PEM1Fx	Excavated Semipermanently Flooded Emergent Meadow
PEM1C	Seasonally Flooded Emergent Meadow
PSS1Bx	Excavated Saturated Deciduous Shrub Scrub
PSS1/EM1Ex	Excavated Seasonally Flooded-Saturated Deciduous Shrub/Emergent Scrub
PSS1/EM1B	Saturated Deciduous Shrub/Emergent Scrub

PULL BOX (See Figures C4-C5)

ABR - 2015 WETLANDS FIELD DATA

WETLANDS

PROPOSED UNDERGROUND FIBER OPTIC CABLE ROUTE

R.O.W. PER CITY OF NOME TAX ASSESSOR, SITUATED UPON MONUMENTS SHOWN ON ROS CONTROL DRAWING (AK DOT & PF) DATED 1-12-10

NWI - WETLAND TYPE

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Pond

FOR INFORMATIONAL PURPOSES ONLY NOT FOR CONSTRUCTION DOES NOT REPRESENT A SURVEY.

SOURCES
IMAGERY:
ALASKA MAPPED - BDL WMS LAYER
WETLANDS - ABR, Inc.—Environmental Research & Services - Field Work Sept. 2015
FIBER ROUTE, BMH, PULL BOX, MANHOLES - NHTI/UMIAQ
NATIONAL WETLANDS INVENTORY - USFWS (Dataset scale of 1:24,000 - is not intended for use at current map scale of 1:2,400)

Figure: T3 NOME, AK

Scale: 1 inch = 200 feet

0 100 200 300 400 Feet

Date: 10/23/2015

UMIAQ

UMQ: E:\GIS\Umiaq\Project\7009013_ARCTIC_FOC\MXD\OME_FIG3_USACE_IP_r06.mxd

POA-2015-529
Bering, Chukchi and Beaufort Seas

NOME, ALASKA

64.499207° N
165.404492° W

64.498283° N
165.405352° W

Proposed CLS
64.498325° N
165.406283° W

64.498538° N
165.400389° W

64.497831° N
165.395819° W

64.498848° N
165.394728° W

64.49809° N
165.391127° W

64.49716° N
165.386534° W

64.496234° N
165.381937° W

64.495912° N
165.380342° W

64.493959° N
165.382326° W

64.493505° N
165.379052° W

64.492884° N
165.374191° W

155+00
150+00
145+00
140+00
135+00
130+00
125+00
120+00
115+00
110+00
105+00
100+00
95+00
90+00
85+00

W. 1ST STREET
STEADMAN STREET
E G STREET
E 4TH AVE
E 3RD AVE
E K STREET
E N STREET
FRONT STREET

PEM1/SS1B
M1UBL
PUBHx
PUBHx
PSS1Bx
PEM1C

Norton Sound

COORDINATE SYSTEM: NAD 83 ALASKA STATE PLANE ZONE 8

ABR - SEPT. 2015 WETLANDS FIELD DATA DESCRIPTION	
NWI CODE	**NWI DESCRIPTION - (As described by ABR Field Data)**
PEM1C	Seasonally Flooded Emergent Meadow
PSS1Bx	Excavated Saturated Deciduous Shrub Scrub

PULL BOX (See Figures C4-C5)

CABLE LANDING STATION (CLS)

ABR - 2015 WETLANDS FIELD DATA

WETLANDS

PROPOSED UNDERGROUND FIBER OPTIC CABLE ROUTE

R.O.W. PER CITY OF NOME TAX ASSESSOR, SITUATED UPON MONUMENTS SHOWN ON ROS CONTROL DRAWING (AK DOT & PF) DATED 1-12-10

NWI WETLAND TYPE

Estuarine and Marine Deepwater

Estuarine and Marine Wetland

Freshwater Emergent Wetland

Freshwater Pond

FOR INFORMATIONAL PURPOSES ONLY NOT FOR CONSTRUCTION DOES NOT REPRESENT A SURVEY.

SOURCES
IMAGERY:
ALASKA MAPPED - BDL WMS LAYER
WETLANDS - ABR, Inc.—Environmental Research & Services - Field Work Sept. 2015
NATIVE ALLOTMENTS - BLM
FIBER ROUTE, BMH, PULL BOX, MANHOLES - NHTI/UMIAQ

Figure: T4 NOME, AK

Scale: 1 inch = 400 feet

0 200 400 600 800 Feet

Date: 10/23/2015

UMIAQ

UMQ: E:\GIS\Umiaq\Project\7009013_ARCTIC_FOC\MXD\OME_FIG4_USACE_IP_r05.mxd

POA-2015-529
Bering, Chukchi and Beaufort Seas

KOTZEBUE, ALASKA

As-Calculated
HDD Exit
66.89961° N
162.604405° W

ID #144
250' ESMT
CITY OF KOTZEBUE

KOTZEBUE SOUND

ID #144
30' ESMT
CITY OF KOTZEBUE

SHORE AVENUE

MEAN HIGH WATER LINE
(Approximate)

TUNDRA WAY

SECOND AVENUE

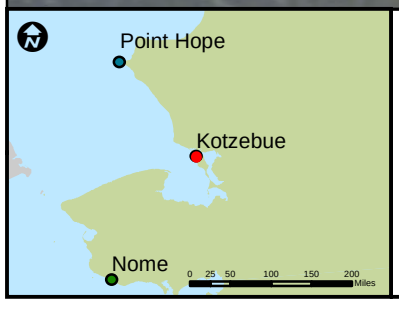
SEAWALL

Proposed CLS
& Pull Box
66.897719° N
162.598966° W

HDD Entry Permitted Under
POA-2015-397
66.897897° N
162.599909° W

Proposed BMH
See Figures C2A-C3
66.897594° N
162.599157° W

COORDINATE SYSTEM: NAD 83 ALASKA STATE PLANE ZONE 7



PROPOSED CLS & PULL BOX (See Figures C4-C5)

PROPOSED SUBMARINE HDD ROUTE

PROPOSED UNDERGROUND FIBER OPTIC CABLE ROUTE

*Lot lines are for display purposes and do not represent a survey.

Source: Imagery - Quantum Spatial Date: 6.12.2013
UAF-GINA/SDMI http://alaskamapped.org/bdl

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DOES NOT REPRESENT A SURVEY.

DISCLAIMER

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Figure: T5
KOTZEBUE, AK

Scale: 1 inch = 100 feet
0 50 100 Feet

Date: 10/26/2015

UMIAQ

UMQ: E:\GIS\Umiaq\Project\7009013_ARCTIC_FOC\MXD\OTZ_USACE_IP_r05.mxd

POA-2015-529
Bering, Chukchi and Beaufort Seas

POINT HOPE, ALASKA

68.348071° N
166.729208° W

Proposed BMH
See Figures C2-C3
68.34726° N
166.719198° W
HDD Entry Permitted Under
POA-2015-397

Proposed CLS
68.346421° N
166.733042° W

15+00
10+00
5+00
0+00
20+00

68.347733° N
166.724968° W

68.34628° N
166.732758° W

68.346099° N
166.730252° W

(RESTRICTED)
0-2005-0186

NA (RESTRICTED)
50-2006-0071

NA (RESTRICTED)
50-2005-0185

NA (RESTRICTED)
50-2005-0185

(100' ROW)

M2USP

MEAN HIGH WATER LINE
(Approximate)

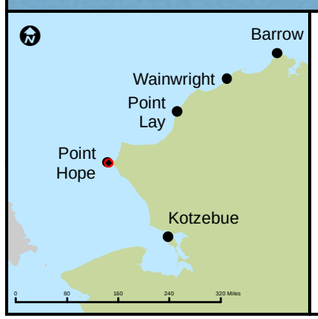
M1UBL

As-Calculated
HDD Exit
68.341111° N
166.719197° W

NWI WETLAND TYPE

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

COORDINATE SYSTEM: NAD 83 ALASKA STATE PLANE ZONE 8



PROPOSED BEACH MANHOLE

PULL BOX (See Figures C4-C5)

CABLE LANDING STATION (CLS)

PROPOSED SUBMARINE FIBER OPTIC CABLE ROUTE

PROPOSED UNDERGROUND FIBER OPTIC CABLE ROUTE

NATIVE ALLOTMENTS

NSB PARCELS

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NOT FOR CONSTRUCTION
DOES NOT REPRESENT A SURVEY.

SOURCES
IMAGERY: Quantum Spatial - 8.20.2013
ALASKA MAPPED - BDL WMS LAYER
PARCELS/ROW: NSB GIS
NATIVE ALLOTMENTS: BLM
NATIONAL WETLANDS INVENTORY - USFWS (Dataset scale of 1:24,000 - is not intended for use at current map scale of 1:6,000)

Figure:
T6
POINT HOPE, AK

Scale: 1 inch = 500 feet
0 200 400 600 800 Feet

Date:
10/26/2015

UMIAQ

UMQ: E:\GIS\Umiaq\Project\7009013_ARCTIC_FOC\MXD\PHO_USACE_IP_r04.mxd

POA-2015-529
Bering, Chukchi and Beaufort Seas

WAINWRIGHT, ALASKA

M1UBL

MEAN HIGH WATER LINE (Approximate)

HDD Entry Permitted Under POA-2015-397
70.63729° N
160.037772° W

Proposed BMH
See Figures C2-C3
70.637202° N
160.037978° W

0+00

Milikruak Street

Aknik Road

Airport Road

Nashoalook Road

Main Street

70.636516° N
160.035355° W

5+00

10A

10B

70.636529° N
160.030125° W

20+00

Tract 3-A

Tract 3-B

Tract 2-A

Tract 2-B

Proposed CLS
70.635975° N
160.029263° W

70.636148° N
160.028754° W

70.63577° N
160.038353° W

10+00

15+00

Tract 1

70.635069° N
160.035984° W

Tununiq Road

Emaiknik Road

Nashoalook Street

Tract F

PEM1/SS1B

PEM1/SS1E

Tract B-1-A

Tract B-2-A-1

Tract G

As_Calculated
HDD Exit
70.648038° N
160.073804° W

CHUKCHI SEA

HDD Entry

NWI WETLANDS TYPE

- Estuarine and Marine Deepwater
- Freshwater Emergent Wetland

COORDINATE SYSTEM: NAD 83 ALASKA STATE PLANE ZONE 7

CHUKCHI SEA

Barrow

Wainwright

Atqasuk

Point Lay

0 25 50 75 100 Miles

- CABLE LANDING STATION (CLS)
- PULL BOX (See Figures C4-C5)
- PROPOSED BEACH MANHOLE LOCATION
- PROPOSED UNDERGROUND FIBER OPTIC CABLE ROUTE
- PROPOSED SUBMARINE FIBER OPTIC CABLE ROUTE

IMAGERY: Acquired July 9th, 2010
Kodiak Mapping/North Slope Borough
FIBER ROUTE, BMH,
PULL BOX, MANHOLES - NHTI/UMIAQ
NATIONAL WETLANDS INVENTORY - USFWS (Dataset scale of 1:24,000 - is not intended for use at current scale)

NOT FOR CONSTRUCTION
DOES NOT REPRESENT A SURVEY

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Figure: T7
WAINWRIGHT, AK

Scale: 1 inch = 200 feet
0 100 200 Feet

Date: 10/26/2015

UMIAQ

UMQ: E:\GIS\Umiaq\Project\7009013_ARCTIC_FOC\MXD\AIN_USACE_IP_r04.mxd

POA-2015-529
Bering, Chukchi and Beaufort Seas

BARROW, ALASKA

CHUKCHI SEA

ALASKA TIDELANDS SURVEY (ATS) 283

As-Calculated
HDD Exit
71.272978° N
156.872733° W

HDD Entry

CHUKCHI SEA

M1UBL

Tract: 1

PEM1/SS1E

Tract: 1

PEM1/UBH

PEM1/SS1B

PEM1/
SS1B

PEM1/
SS1B

PEM1/SS1

PUB/EM2

DOT & PF

PEM1/SS1B

Proposed CLS
71.278488° N
156.788545° W

71.278283° N
156.789852° W

UIC
PAD

SKW GRAVEL PIT
(LEASE)

PEM1/SS1B

PEM1/SS1E

71.275245° N
156.807935° W

71.276297° N
156.801973° W

PEM1E

71.277305° N
156.795938° W

CITY OF
BARROW

Tract: A

LOT 1

PEM1/SS1B

71.273768° N
156.812929° W

PLAT 87-6
B.R.D.

LOT 2

71.272192° N
156.817643° W

LOT 3

PUBH

PUBH

PEM1/SS1B

PEM1F

PEM1/SS1E

71.270617° N
156.822357° W

MEAN HIGH WATER LINE
(Approximate)

PUBH

71.269041° N
156.82707° W

U I C L A N D S

71.267465° N
156.831783° W

Tract: B

PEM1E

CITY OF
BARROW

PEM1/SS1E

NUNAVAAQ STREET

PEM1/SS1B

Proposed BMH & 150' X 150' Pad
See Figures C2-C3
71.26597° N
156.836918° W
HDD Entry Permitted Under
POA-2015-397

PEM1E

0+00 5+00 10+00 15+00 20+00 25+00 30+00 35+00 40+00 45+00 50+00 55+00 60+00 65+00 70+00

NWI WETLAND TYPE

- Estuarine and Marine Deepwater
- Freshwater Emergent Wetland
- Freshwater Pond

COORDINATE SYSTEM: NAD 83 ALASKA STATE PLANE ZONE 6

Barrow
Wainwright
Atqasuk
Point Lay
0 25 50 75 100 Miles

- PROPOSED BEACH MANHOLE LOCATION (BMH)
- CABLE LANDING STATION (CLS)
- PULL BOX (See Figures C4-C5)
- PROPOSED SUBMARINE FIBER OPTIC CABLE ROUTE
- PROPOSED UNDERGROUND FIBER OPTIC CABLE ROUTE

**FOR INFORMATIONAL PURPOSES ONLY
NOT FOR CONSTRUCTION
DOES NOT REPRESENT A SURVEY.**

IMAGERY: 2014
SOURCES:
FIBER ROUTE, BMH, PULL BOX, MANHOLES - NHTI/UMIAQ
NATIONAL WETLANDS INVENTORY - USFWS (Dataset scale of 1:24,000 - is not intended for use at the current map scale)

Figure: T8
BARROW, AK

Scale: 1 inch = 800 feet
0 400 800 Feet

Date: 10/27/2015

UMIAQ

UMQ: E:\GIS\Umiaq\Project\7009013_ARCTIC_FOC\MXD\BRW_USACE_IP_r06.mxd

POA-2015-529
Bering, Chukchi and
Beaufort Seas

OLIKTOK

CLS
70.51130° N
149.870442° W

1408'

MEAN HIGH WATER LINE
(Approximate)

As-Calculated
HDD Exit
70.510905° N
149.88147° W

Proposed BMH
70.51090° N
149.869947° W
HDD Entry Permitted Under
POA-2015-397

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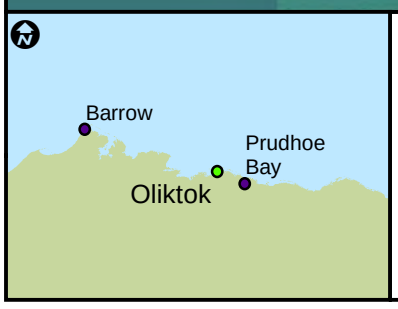
Aerial Image: August 13, 2012
1.0 foot pixel resolution,
Courtesy of: ConocoPhillips Alaska, Inc.

COORDINATE SYSTEM: NAD 83 ALASKA STATE PLANE ZONE 4



- PROPOSED CABLE LANDING STATION (CLS)
- PROPOSED ENTRY POINT
- AS-CALCULATED EXIT POINT
- PROPOSED BEACH MANHOLE (BMH)
- PROPOSED UNDERGROUND FIBER OPTIC CABLE ROUTE
- PROPOSED SUBMARINE FIBER OPTIC CABLE ROUTE

Figure: T9
OLIKTOK DOCK

Scale: 0 100 200 300 400 500 Feet

Date: 10/26/2015

UMIAQ

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POA-2015-529
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Beaufort Seas