

This map is based on U.S.G.S quad Beechy Point (B-3) and on the Unit Operator's Facility Maps.

PROJECT LOCATION:

All coordinates are NAD83
 WEST DOCK HEAD NO.2
 LAT. = 70° 23' 13.3"
 LONG. = -148° 30' 56.7"

ALASKA STATE PLANE ZONE 4, NAD83
 X = 1,822,881.59 FEET
 Y = 5,993,228.15 FEET

WEST DOCK HEAD NO.3
 LAT. = 70° 23' 59.1"
 LONG. = -148° 31' 25.3"

ALASKA STATE PLANE ZONE 4, NAD83
 X = 1,821,791.52 FEET
 Y = 5,997,857.47 FEET

SEAWATER TREATMENT PLANT
 LAT. = 70° 24' 43.7"
 LONG. = -148° 31' 52.2"

ALASKA STATE PLANE ZONE 4, NAD83
 X = 1,820,767.10 FEET
 Y = 6,002,366.73 FEET

SEC. 11, 14, 23, T12N, R14E UMIAT M.
 ADL # 365548 & 034624

DATUM: MEAN SEA LEVEL

PURPOSE: MAINTENANCE

ADJACENT PROPERTY OWNER:
 STATE OF ALASKA

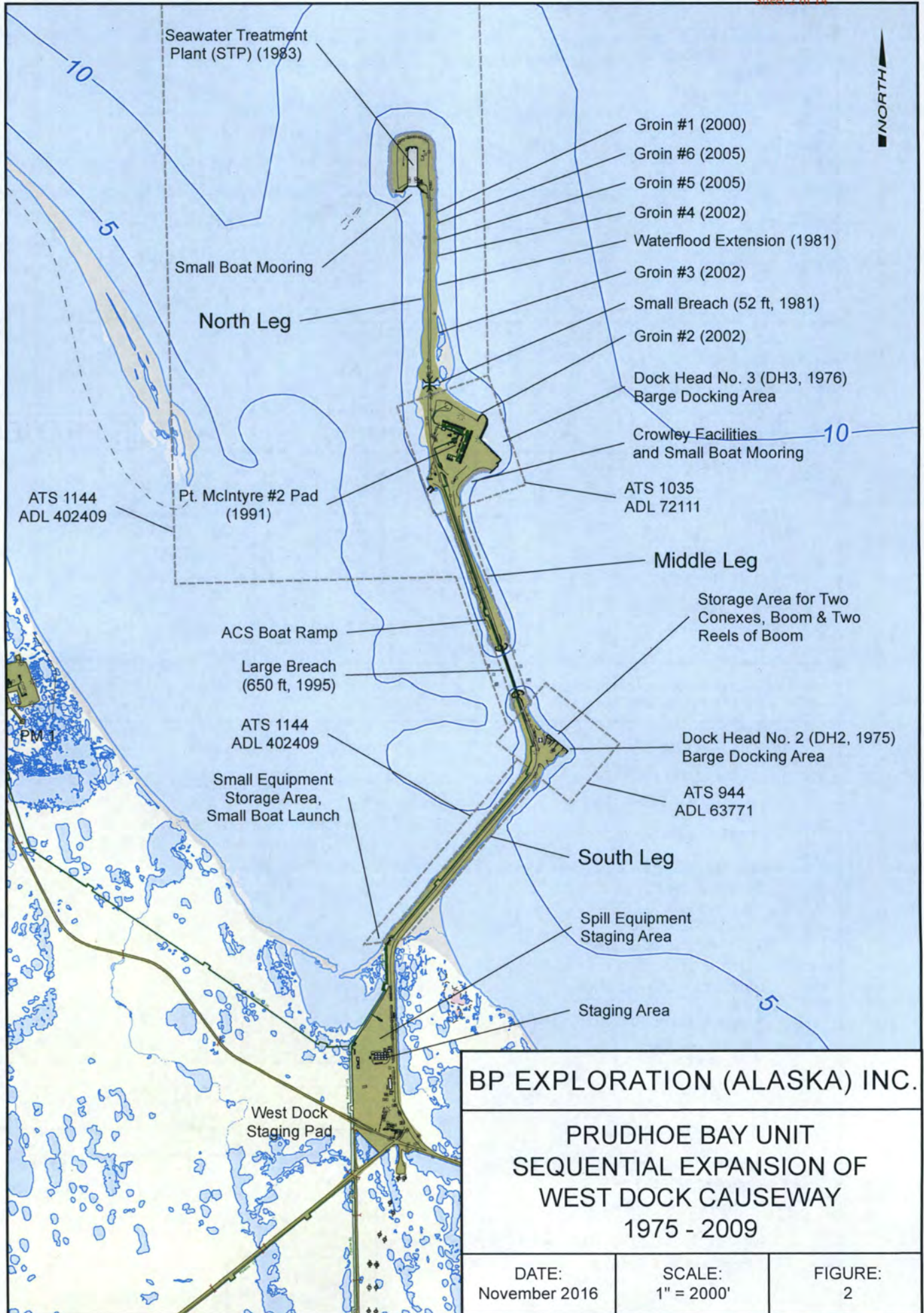
BP EXPLORATION (ALASKA) INC.

**PRUDHOE BAY UNIT
 WEST DOCK CAUSEWAY
 VICINITY MAP**

DATE:
 November 2016

SCALE:
 1" = 2 Miles

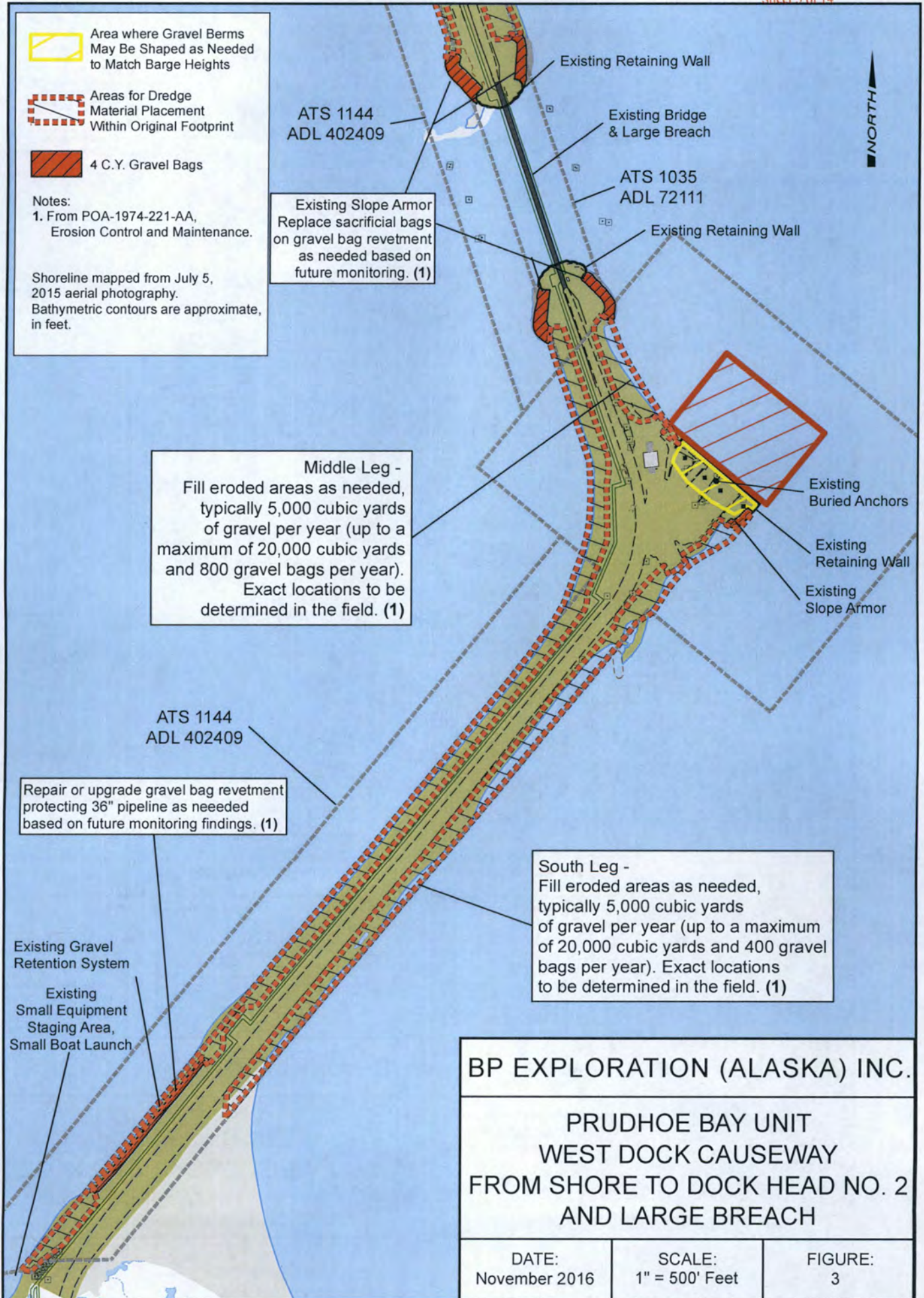
FIGURE:
 1

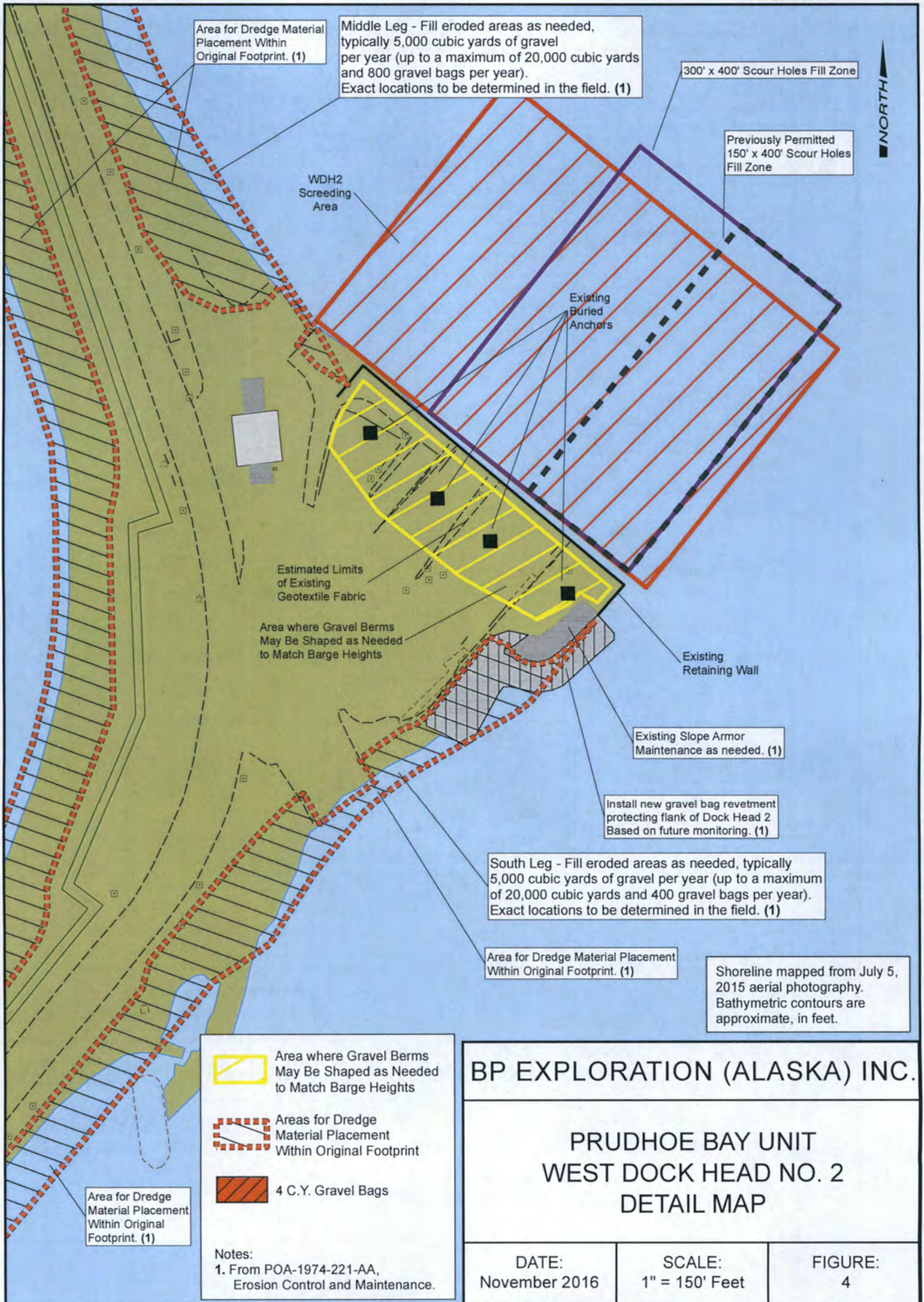


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**PRUDHOE BAY UNIT
SEQUENTIAL EXPANSION OF
WEST DOCK CAUSEWAY
1975 - 2009**

DATE: November 2016	SCALE: 1" = 2000'	FIGURE: 2
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Area for Dredge Material Placement Within Original Footprint. (1)

Middle Leg - Fill eroded areas as needed, typically 5,000 cubic yards of gravel per year (up to a maximum of 20,000 cubic yards and 800 gravel bags per year). Exact locations to be determined in the field. (1)

300' x 400' Scour Holes Fill Zone

Previously Permitted 150' x 400' Scour Holes Fill Zone

WDH2 Screeding Area

Existing Buried Anchors

Estimated Limits of Existing Geotextile Fabric

Area where Gravel Berms May Be Shaped as Needed to Match Barge Heights

Existing Retaining Wall

Existing Slope Armor Maintenance as needed. (1)

Install new gravel bag revetment protecting flank of Dock Head 2 Based on future monitoring. (1)

South Leg - Fill eroded areas as needed, typically 5,000 cubic yards of gravel per year (up to a maximum of 20,000 cubic yards and 400 gravel bags per year). Exact locations to be determined in the field. (1)

Area for Dredge Material Placement Within Original Footprint. (1)

Shoreline mapped from July 5, 2015 aerial photography. Bathymetric contours are approximate, in feet.



Area where Gravel Berms May Be Shaped as Needed to Match Barge Heights



Areas for Dredge Material Placement Within Original Footprint



4 C.Y. Gravel Bags

Area for Dredge Material Placement Within Original Footprint. (1)

Notes:

1. From POA-1974-221-AA, Erosion Control and Maintenance.

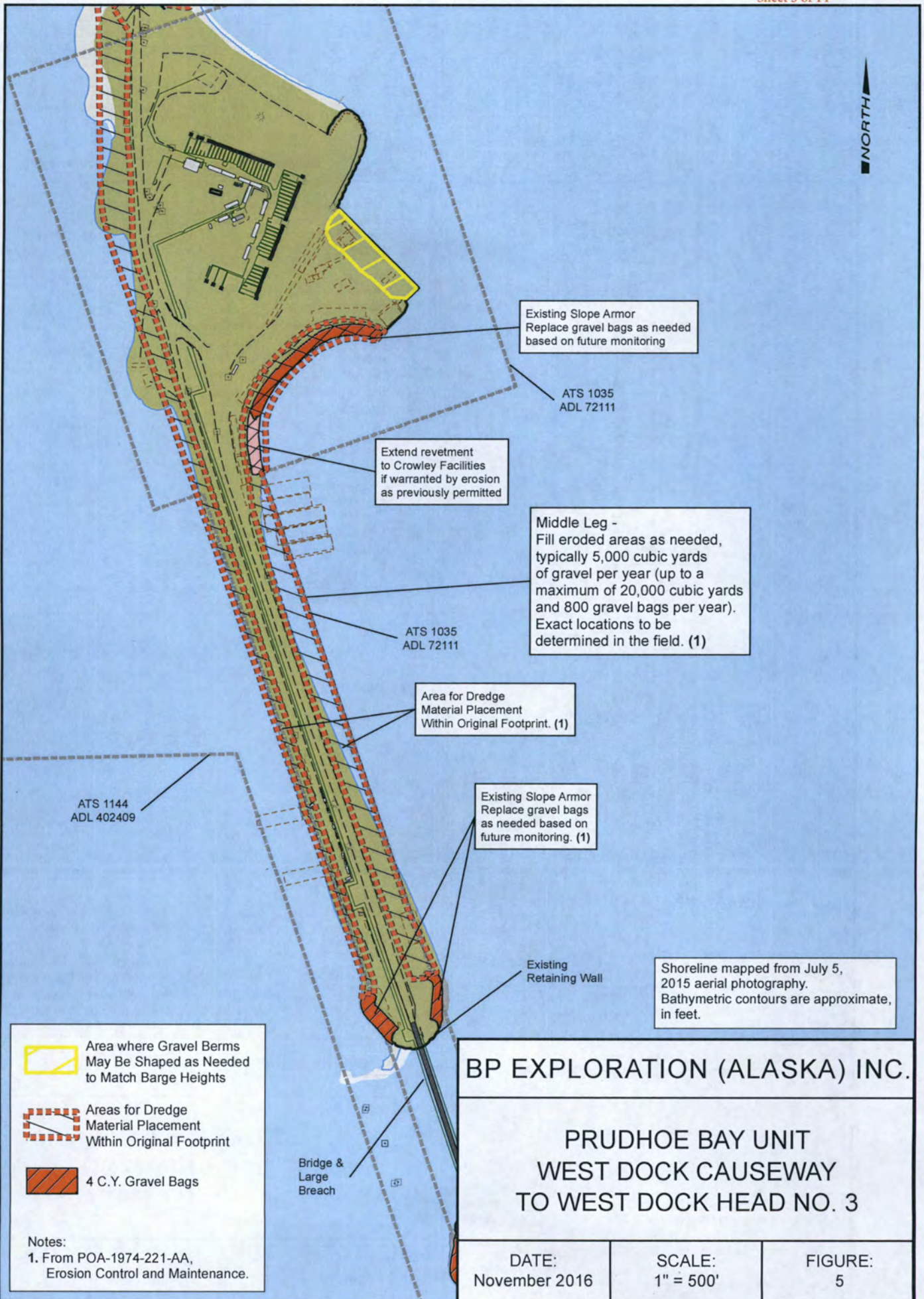
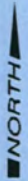
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PRUDHOE BAY UNIT
WEST DOCK HEAD NO. 2
DETAIL MAP

DATE:
November 2016

SCALE:
1" = 150' Feet

FIGURE:
4



Existing Slope Armor
Replace gravel bags as needed
based on future monitoring

ATS 1035
ADL 72111

Extend revetment
to Crowley Facilities
if warranted by erosion
as previously permitted

Middle Leg -
Fill eroded areas as needed,
typically 5,000 cubic yards
of gravel per year (up to a
maximum of 20,000 cubic yards
and 800 gravel bags per year).
Exact locations to be
determined in the field. (1)

ATS 1035
ADL 72111


Area for Dredge
Material Placement
Within Original Footprint. (1)


ATS 1144
ADL 402409


Existing Slope Armor
Replace gravel bags
as needed based on
future monitoring. (1)

Existing
Retaining Wall

Shoreline mapped from July 5,
2015 aerial photography.
Bathymetric contours are approximate,
in feet.

 Area where Gravel Berms
May Be Shaped as Needed
to Match Barge Heights

 Areas for Dredge
Material Placement
Within Original Footprint

 4 C.Y. Gravel Bags

Notes:
1. From POA-1974-221-AA,
Erosion Control and Maintenance.

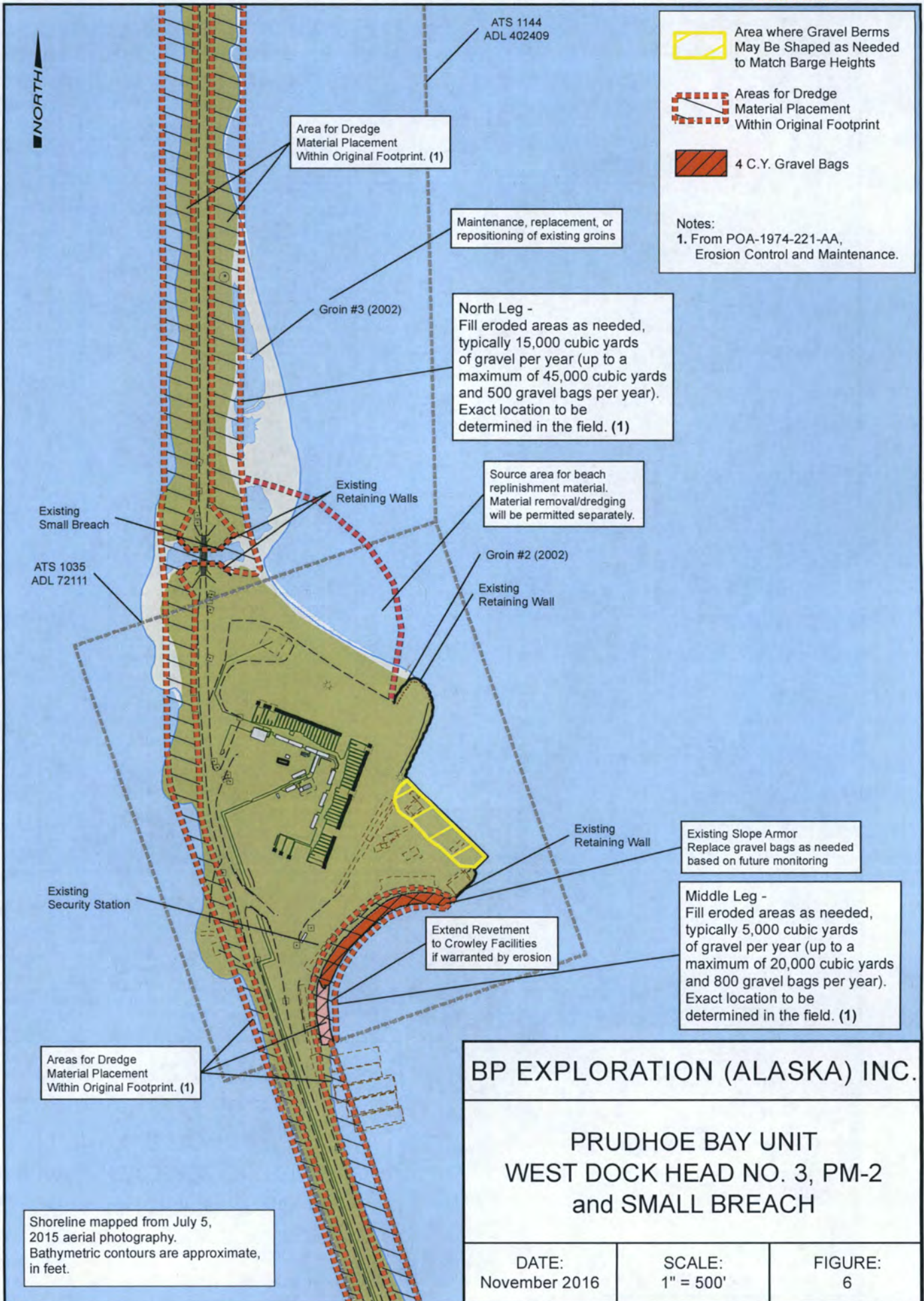
BP EXPLORATION (ALASKA) INC.

PRUDHOE BAY UNIT
WEST DOCK CAUSEWAY
TO WEST DOCK HEAD NO. 3

DATE:
November 2016

SCALE:
1" = 500'

FIGURE:
5



Legend:

- Area where Gravel Berms May Be Shaped as Needed to Match Barge Heights
- Areas for Dredge Material Placement Within Original Footprint
- 4 C.Y. Gravel Bags

Notes:
1. From POA-1974-221-AA, Erosion Control and Maintenance.

North Leg -
Fill eroded areas as needed, typically 15,000 cubic yards of gravel per year (up to a maximum of 45,000 cubic yards and 500 gravel bags per year). Exact location to be determined in the field. (1)

Source area for beach replenishment material. Material removal/dredging will be permitted separately.

Existing Slope Armor
Replace gravel bags as needed based on future monitoring

Middle Leg -
Fill eroded areas as needed, typically 5,000 cubic yards of gravel per year (up to a maximum of 20,000 cubic yards and 800 gravel bags per year). Exact location to be determined in the field. (1)

BP EXPLORATION (ALASKA) INC.

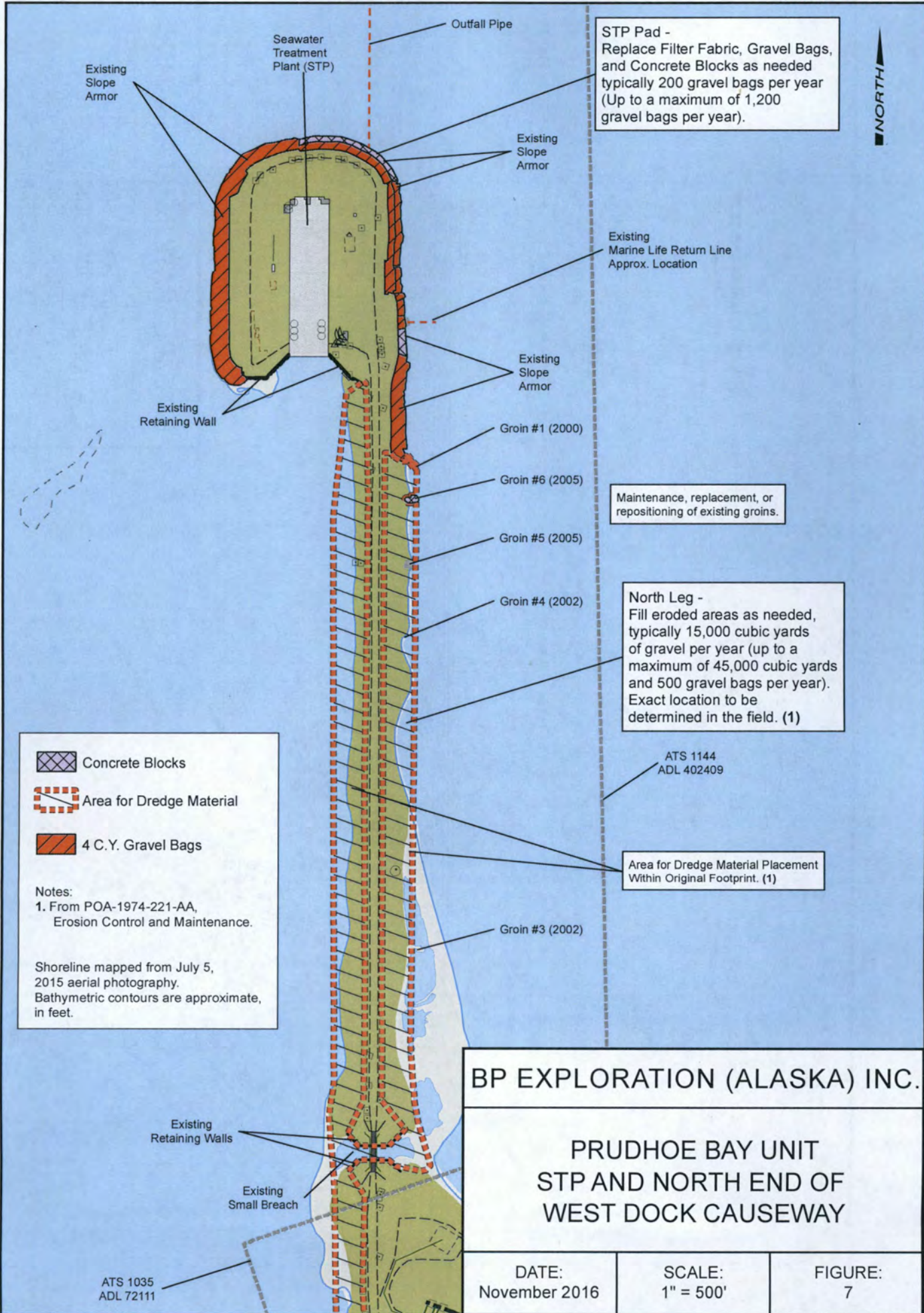
**PRUDHOE BAY UNIT
WEST DOCK HEAD NO. 3, PM-2
and SMALL BREACH**

DATE:
November 2016

SCALE:
1" = 500'

FIGURE:
6

Shoreline mapped from July 5, 2015 aerial photography. Bathymetric contours are approximate, in feet.



STP Pad -
Replace Filter Fabric, Gravel Bags,
and Concrete Blocks as needed
typically 200 gravel bags per year
(Up to a maximum of 1,200
gravel bags per year).

Existing
Marine Life Return Line
Approx. Location

Maintenance, replacement, or
repositioning of existing groins.

North Leg -
Fill eroded areas as needed,
typically 15,000 cubic yards
of gravel per year (up to a
maximum of 45,000 cubic yards
and 500 gravel bags per year).
Exact location to be
determined in the field. (1)

ATS 1144
ADL 402409

Area for Dredge Material
Within Original Footprint. (1)

Concrete Blocks
 Area for Dredge Material
 4 C.Y. Gravel Bags

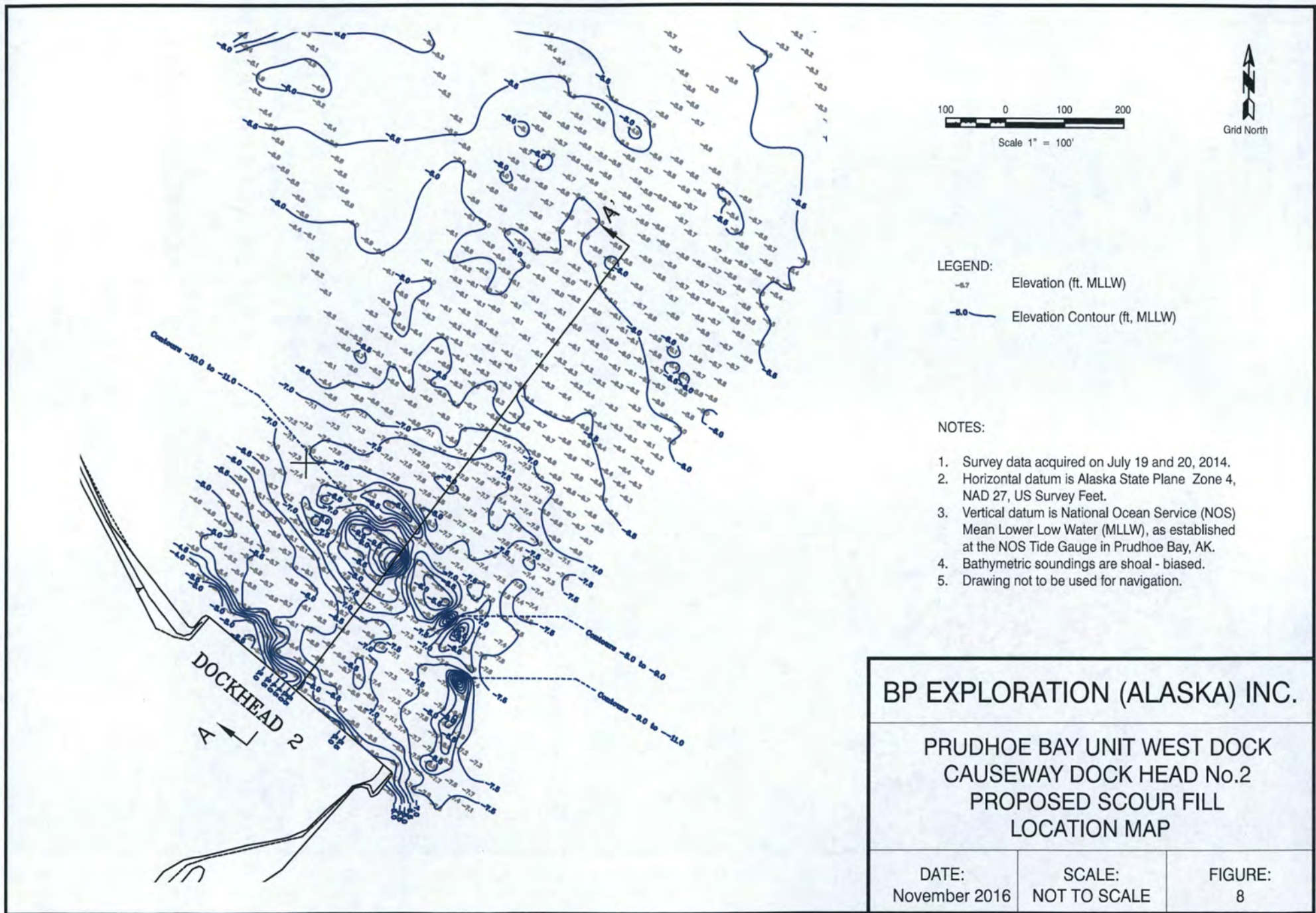
Notes:
1. From POA-1974-221-AA,
Erosion Control and Maintenance.

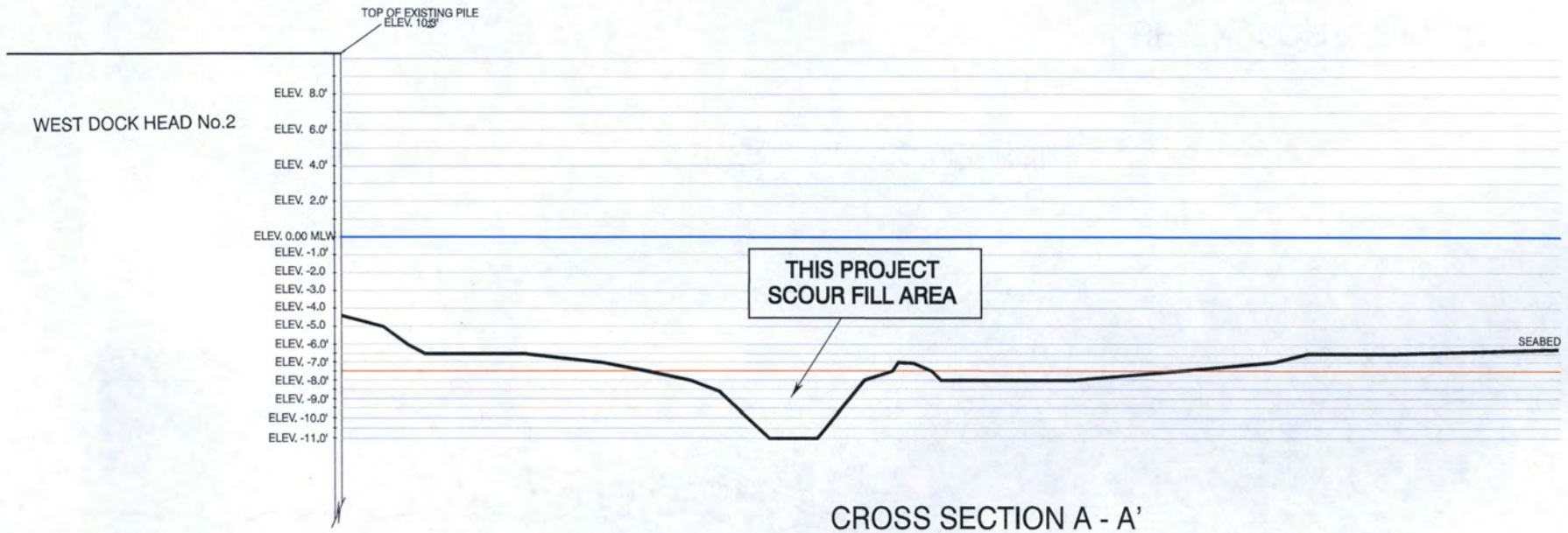
Shoreline mapped from July 5,
2015 aerial photography.
Bathymetric contours are approximate,
in feet.

BP EXPLORATION (ALASKA) INC.

**PRUDHOE BAY UNIT
STP AND NORTH END OF
WEST DOCK CAUSEWAY**

DATE: November 2016	SCALE: 1" = 500'	FIGURE: 7
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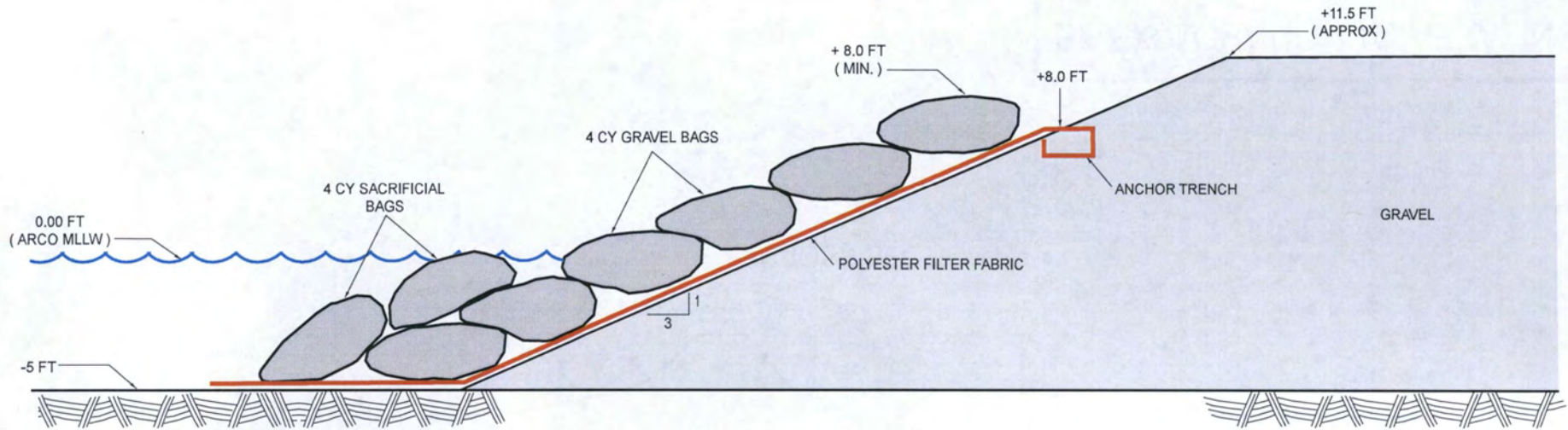




NOTES:

1. Survey data acquired on July 19 and 20, 2014
2. Location of cross section shown in Figure 8.

BP EXPLORATION (ALASKA) INC.		
PRUDHOE BAY UNIT WEST DOCK CAUSEWAY DOCK HEAD No.2 PROPOSED SCOUR FILL CROSS SECTION		
DATE: November 2016	SCALE: NOT TO SCALE	FIGURE: 9



GENERAL CROSS SECTION

BP EXPLORATION (ALASKA) INC.

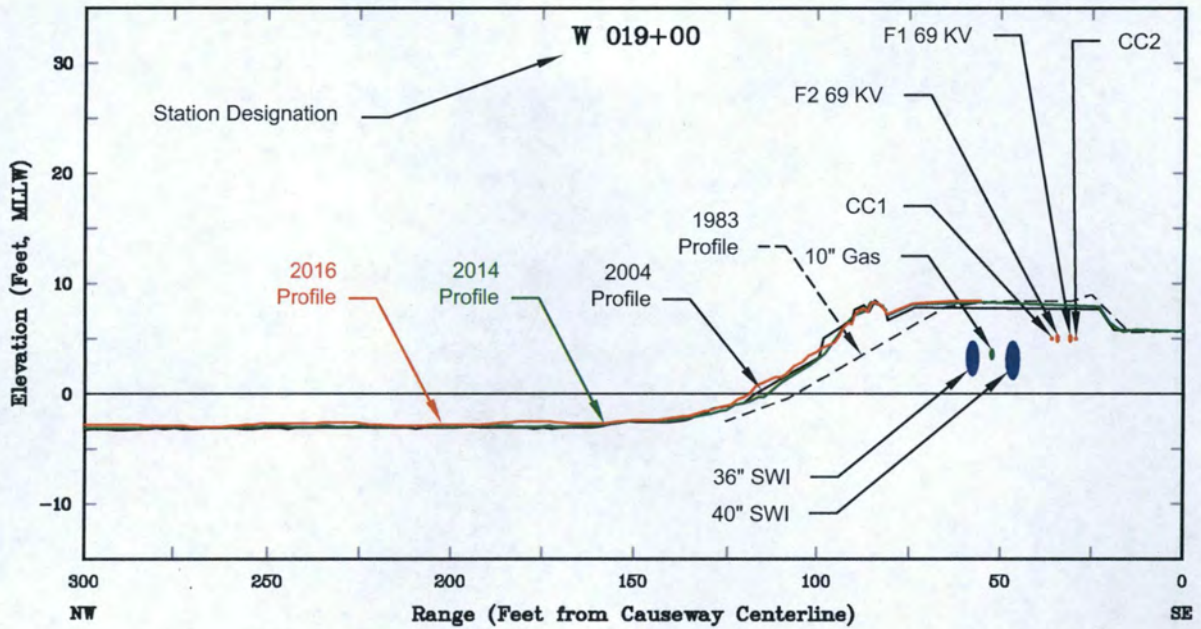
PRUDHOE BAY UNIT
WEST DOCK CAUSEWAY
GRAVEL BAG REVETMENTS
CROSS SECTION

DATE:
November 2016

SCALE:
NOT TO SCALE

FIGURE:
10

LEGEND



NOTES

- 1) Vertical Datum is ARCO MLLW, which is identical to National Ocean Service MLLW.
- 2) Range datum is causeway centerline unless otherwise noted.
- 3) 1983 profile and locations of utility lines derived from As-Built Drawing PBFG-CED-0700102.
- 4) 2004 profiles surveyed 2 - 9 August.
- 5) 2014 profiles surveyed 19 - 20 July.
- 6) 2016 profiles surveyed 22 - 23 July.

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**PRUDHOE BAY UNIT
WEST DOCK CAUSEWAY
SIDE SLOPE PROFILES**

DATE:
November 2016

SCALE:
NOT TO SCALE

FIGURE:
11



* Profile data appear in figures 13 and 14.
Remaining profile data available in annual
West Dock Coordination Plan.

Shoreline mapped from July 5, 2015 aerial photography.
Bathymetric contours are approximate in feet.

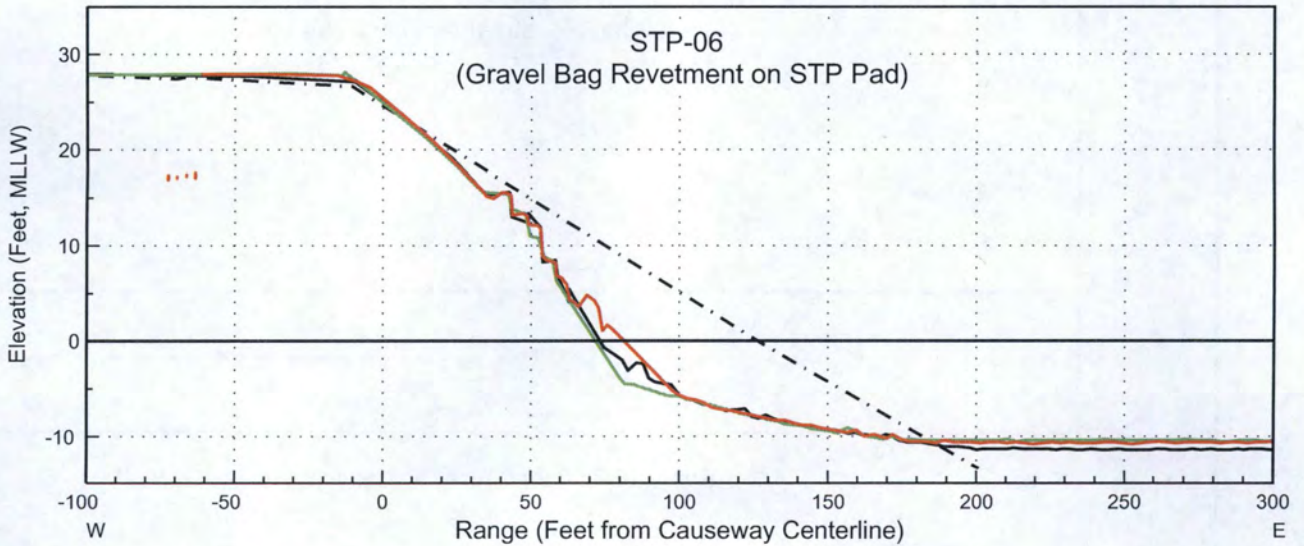
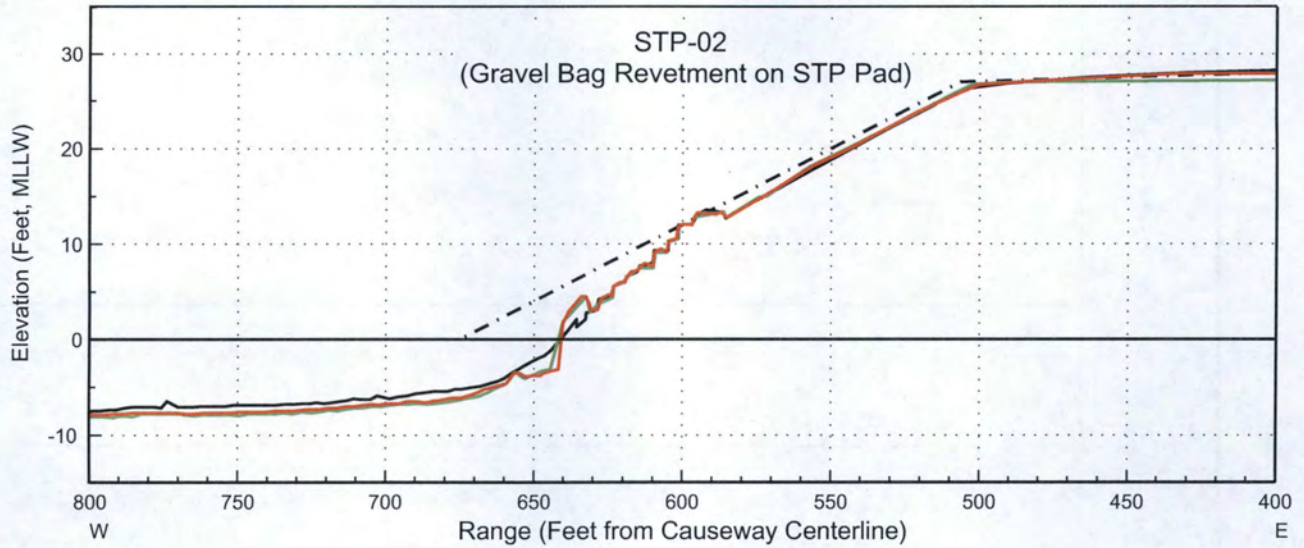
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**PRUDHOE BAY UNIT
WEST DOCK CAUSEWAY
SLOPE PROTECTION
2004 TRANSECT LOCATIONS**

DATE:
November 2016

SCALE:
1" = 2000'

FIGURE:
12



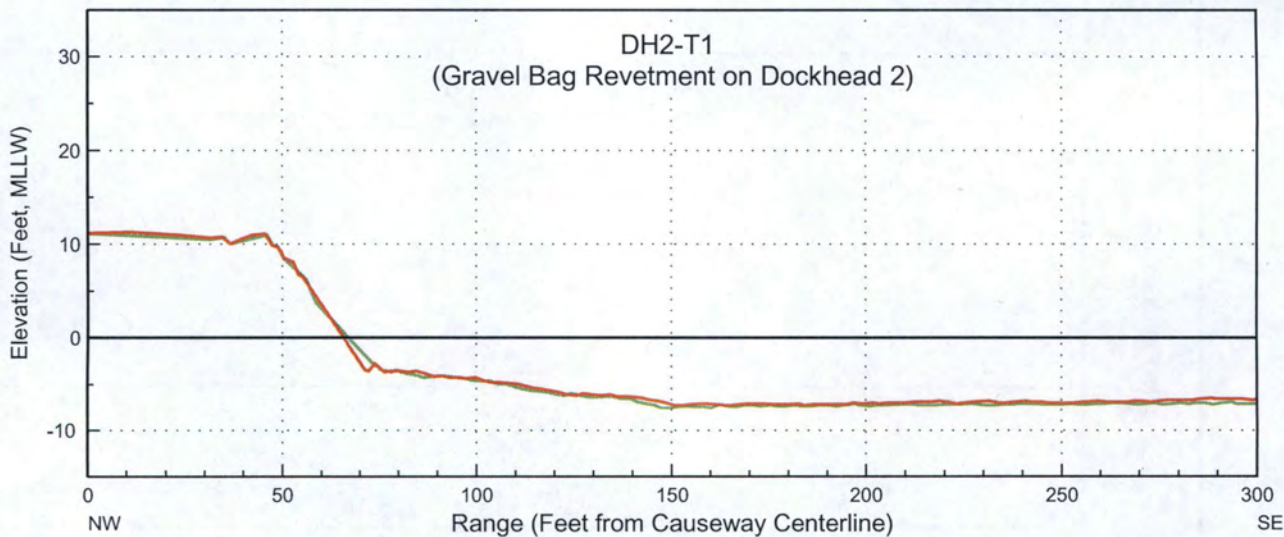
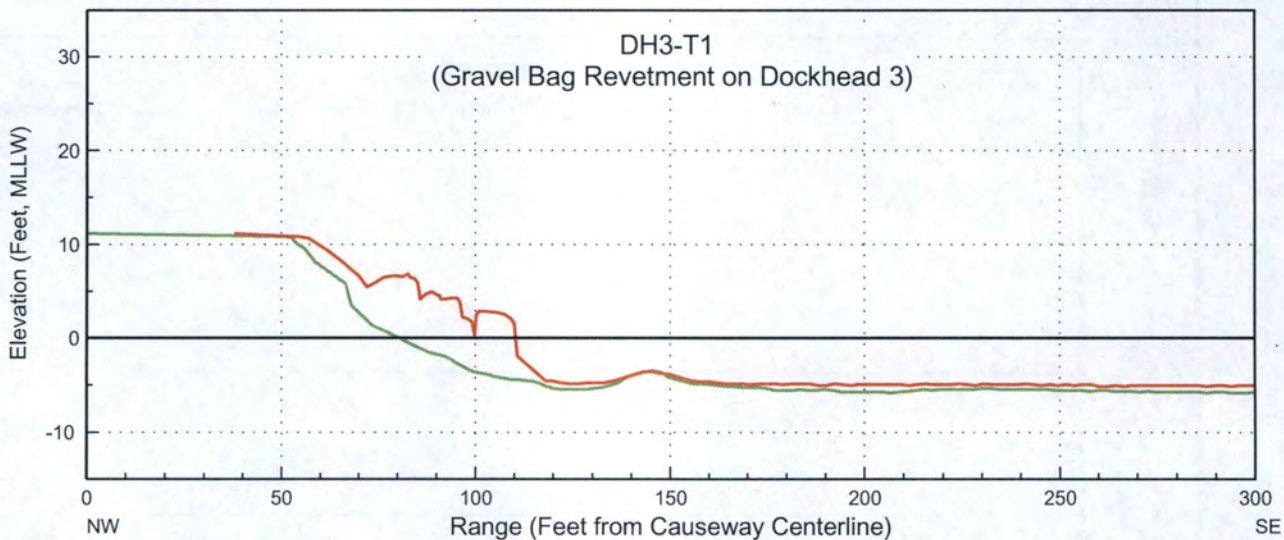
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PRUDHOE BAY UNIT
WEST DOCK CAUSEWAY
SIDE SLOPE PROFILES

DATE:
November 2016

SCALE:
NOT TO SCALE

FIGURE:
13



BP EXPLORATION (ALASKA) INC.

PRUDHOE BAY UNIT
WEST DOCK CAUSEWAY
SIDE SLOPE PROFILES

DATE:
November 2016

SCALE:
NOT TO SCALE

FIGURE:
14