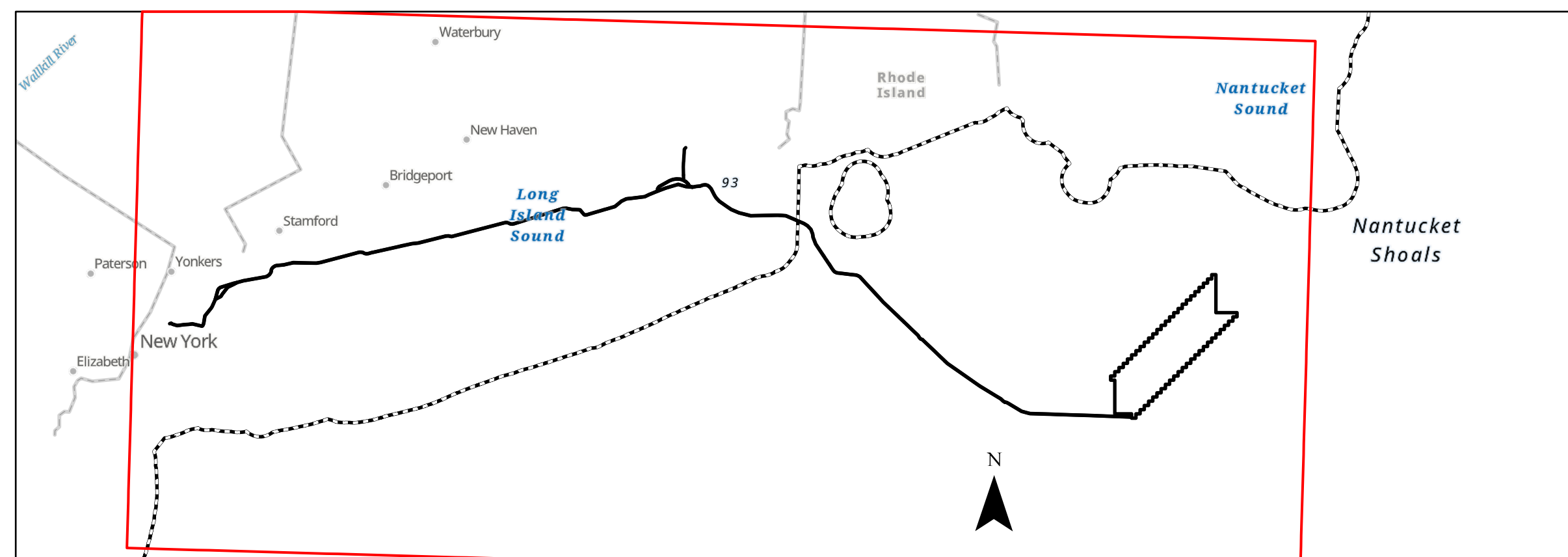
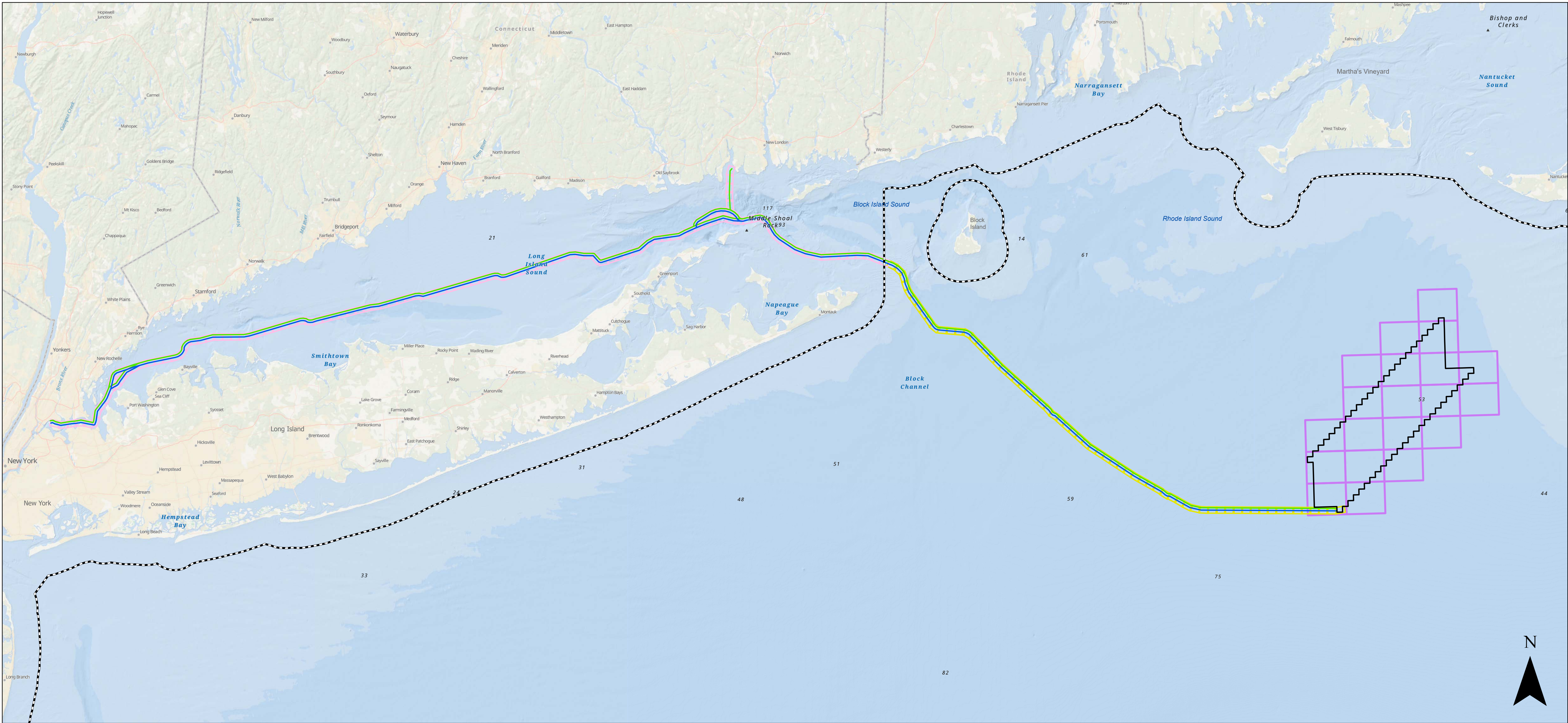




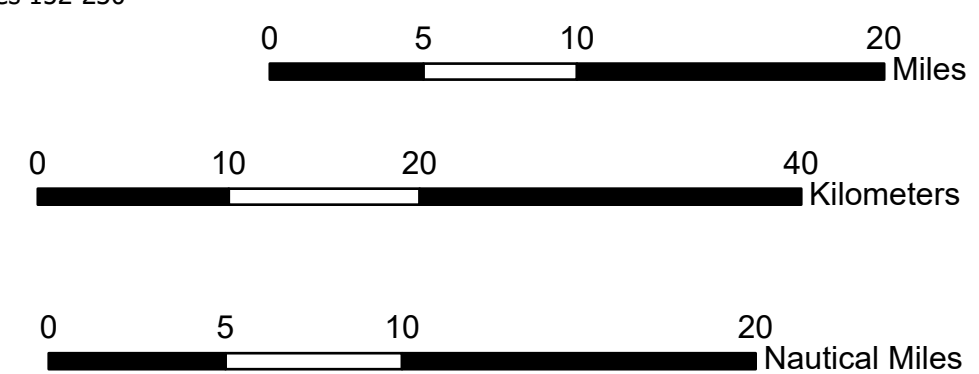
APPENDIX S

BENTHIC RESOURCES MAPBOOKS



Legend

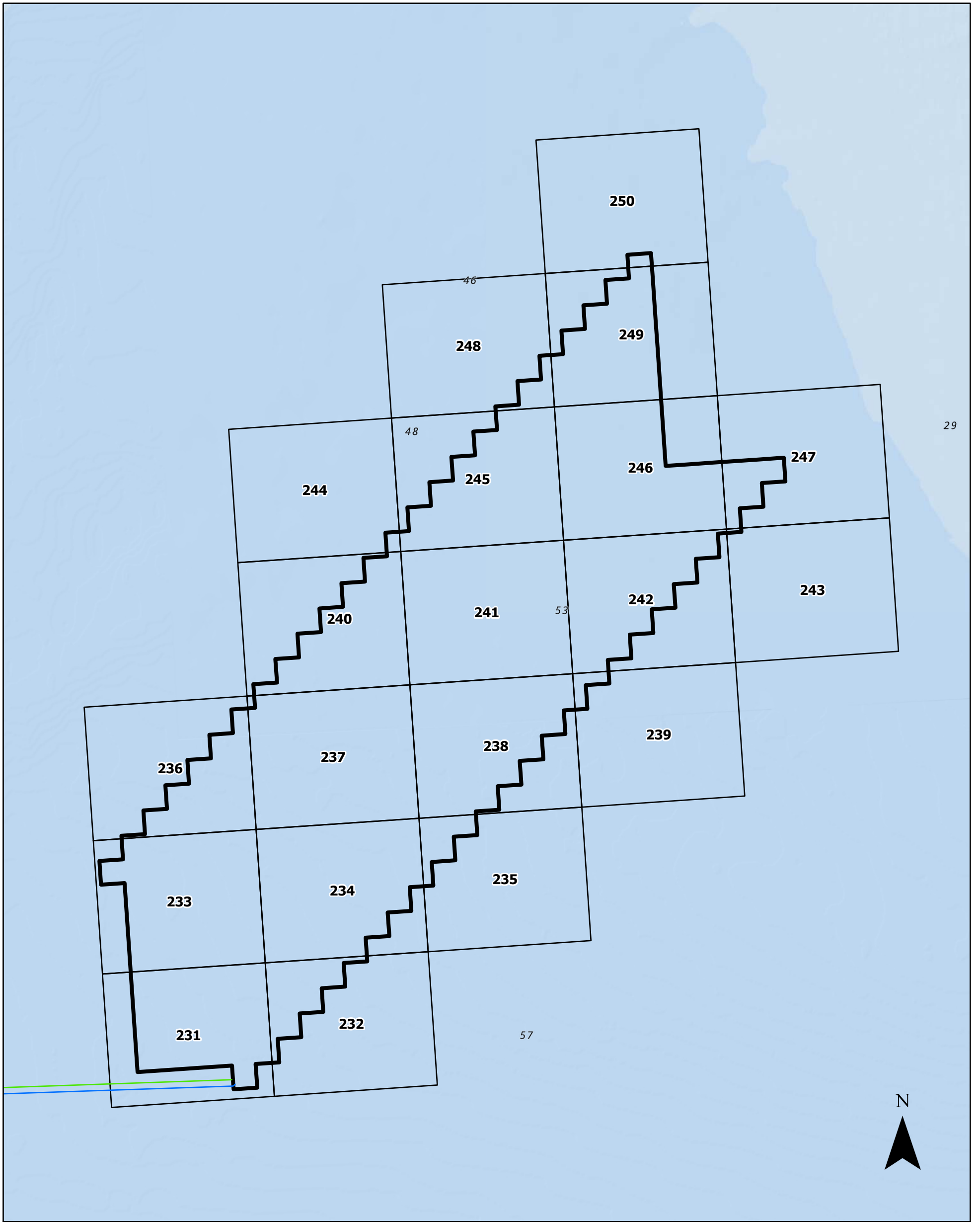
- State Waters Boundary
- ▭ Lease Area
- BW1 Submarine Export Cable Route v13
- BW2 Submarine Export Cable Route v13
- ▭ Submarine Export Cable Route State Waters Map Book Tiles 1-151
- ▭ Submarine Export Cable Route Federal Waters Map Book Tiles 152-230
- ▭ Lease Area Map Book Tiles 231-250







Project Nr.: 60618498
Date: 5/22/2023 Prepared By: AECOM

Beacon Wind Lease Area OCS-A 0520

Submarine Export Cable Routes & Lease Area Overview of Map Books



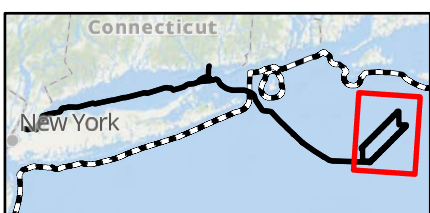
Legend

-  BW1 Submarine Export Cable Route v13
-  BW2 Submarine Export Cable Route v13
-  Lease Area
-  Lease Map Book Tiles 231-250

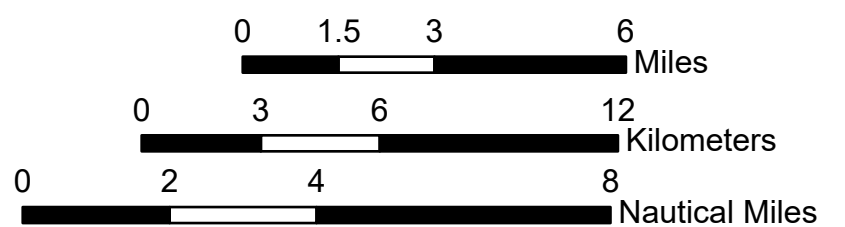


Beacon Wind Lease Area OCS-A 0520

Lease Area Map Book Overview



Project Nr.:	60618498
Prepared By: AECOM	Date: 2/24/2023



Legend Cover Page

Benthic Features, Interpreted Seabed Sediment/NMFS Habitat Characterizations, and CMECS Classifications

KPs

- BW1 KPs
- ▣ BW1 and BW2 KPs
- BW2 KPs

Export Cable Route

- BW1 Submarine Export Cable Route (v13)
- BW1 Submarine Export Cable Route - Variant (v13)
- BW2 Submarine Export Cable Route (v13)
- BW2 Submarine Export Cable Route - Variant (v13)

Station Type

- ⊕ Grab and Video
- ◆ SPI/PV
- ★ Video

Benthic Feature

- Megaripples
- Sand Ripples
- Waves
- Subsea Structure

Interpreted Seabed Sediment/NMFS Habitat Characterization

- Mud and Sandy Mud/Soft Bottom Habitat
- Sand and Muddy Sand/Soft Bottom Habitat
- Mixed Sediment/Complex Habitat
- Till/Complex Habitat
- Gravel/Complex Habitat
- Submerged Aquatic Vegetation/Complex Habitat
- Numerous Boulders/Large Grained Complex Habitat
- Occasional Boulders/Large Grained Complex Habitat
- Heterogeneous Complex Habitat

CMECS Biotic

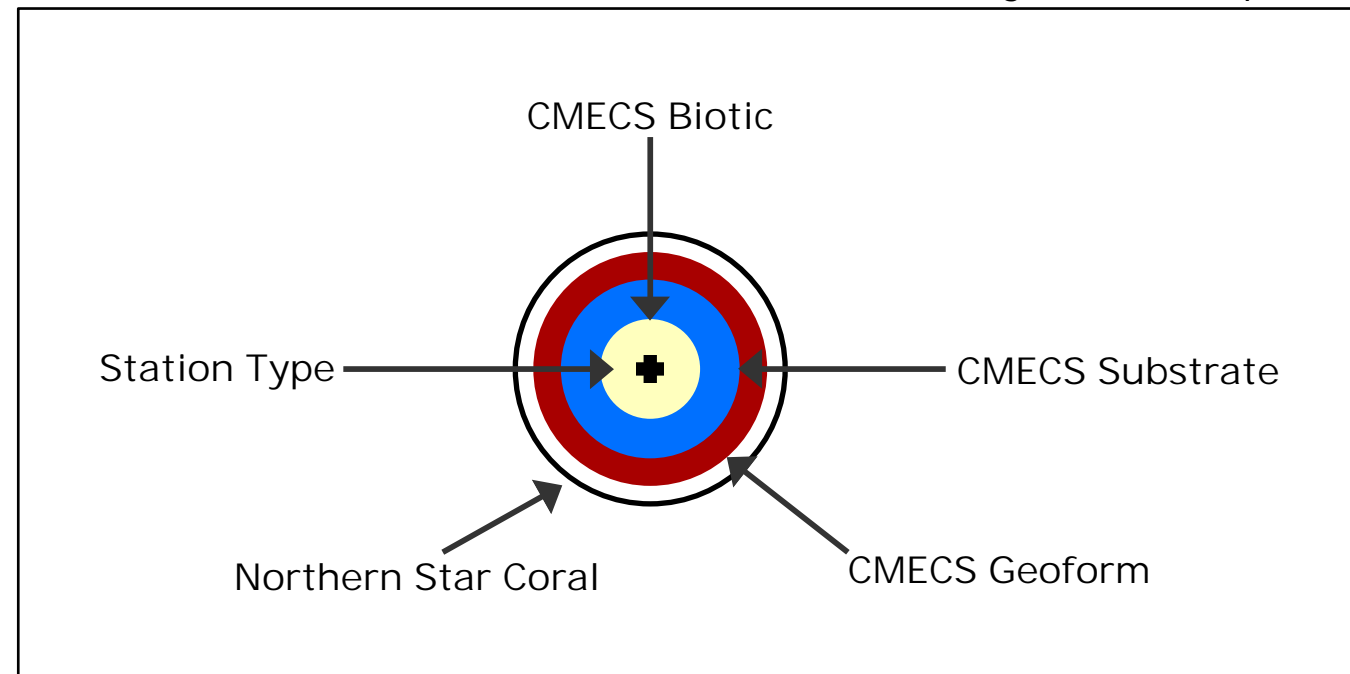
- Attached Fauna
- Crepidula spp. Beds
- Faunal Bed
- Large Macrofauna
- Sand Dollar Bed
- Soft Sediment Fauna
- Starfish Bed
- Inferred Fauna

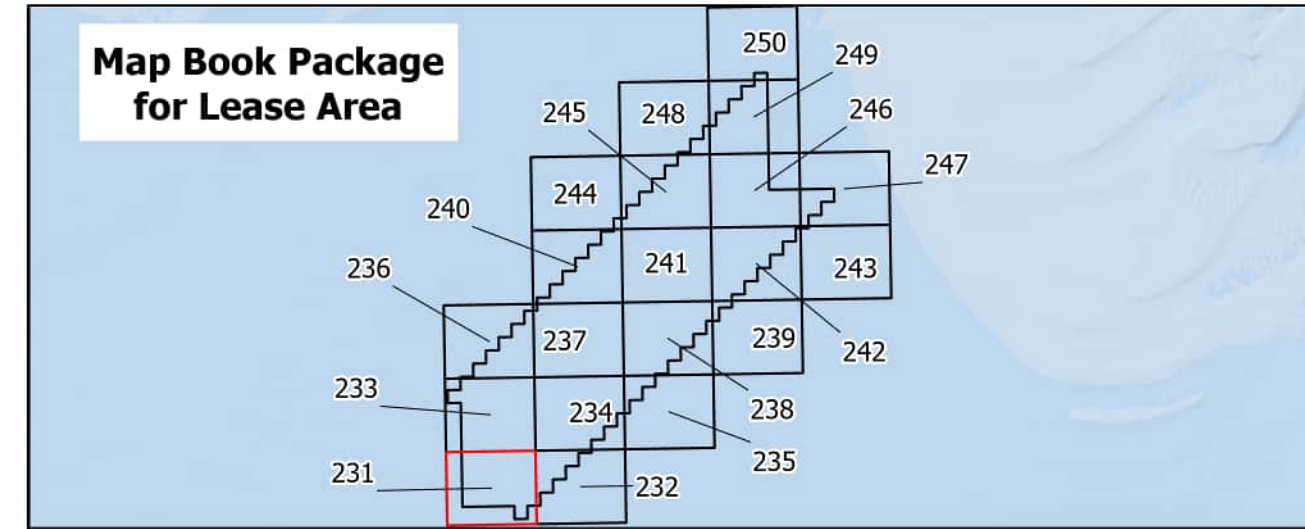
CMECS Substrate

- Coarse/Very Coarse Sand
- Fine/Very Fine Sand
- Gravel Mix
- Gravelly Mud
- Gravelly Muddy Sand
- Gravelly Sand
- Medium Sand
- Mud
- Muddy Gravel
- Muddy Sand
- Muddy Sandy Gravel
- Pebble/Granule
- SPI - Sandy Mud
- Sandy Gravel
- Sandy Mud
- Shell Hash
- Shell Rubble/Hash
- Very Coarse/Coarse Sand

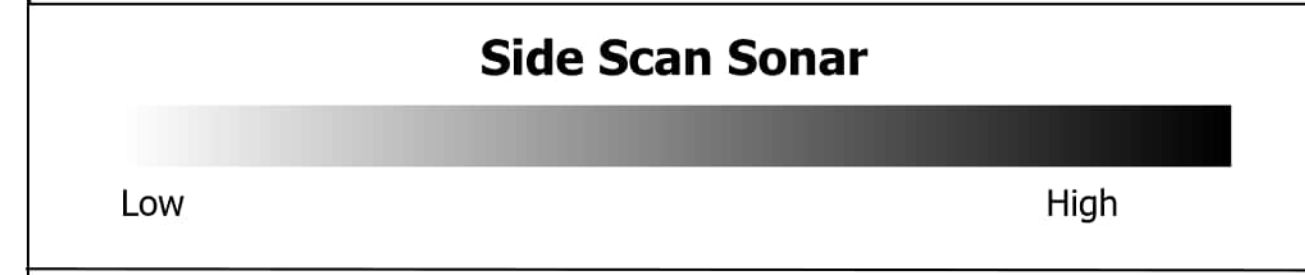
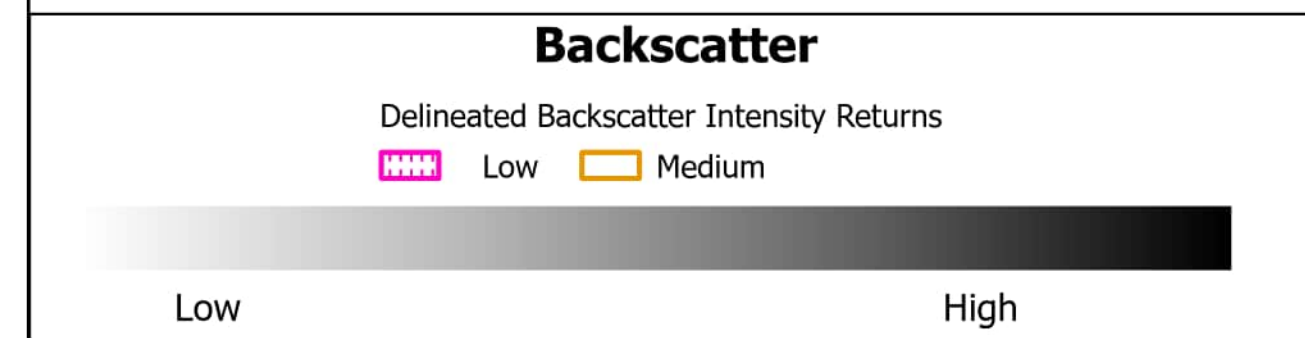
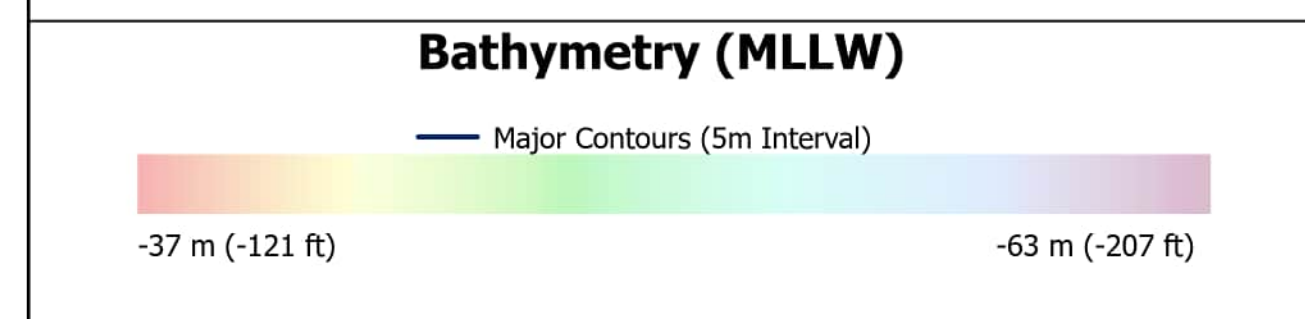
CMECS Geoform

- Boulder Field
- Burrows/Bioturbation
- Flat
- Northern Star Coral





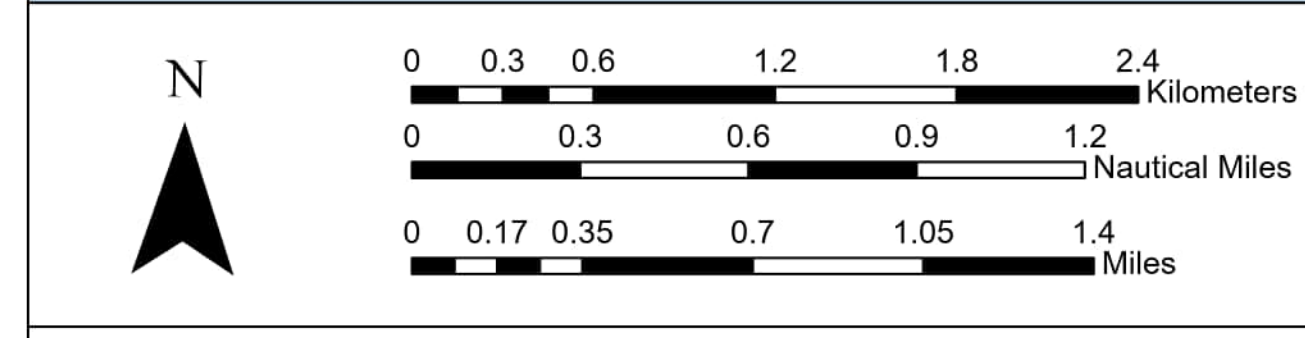
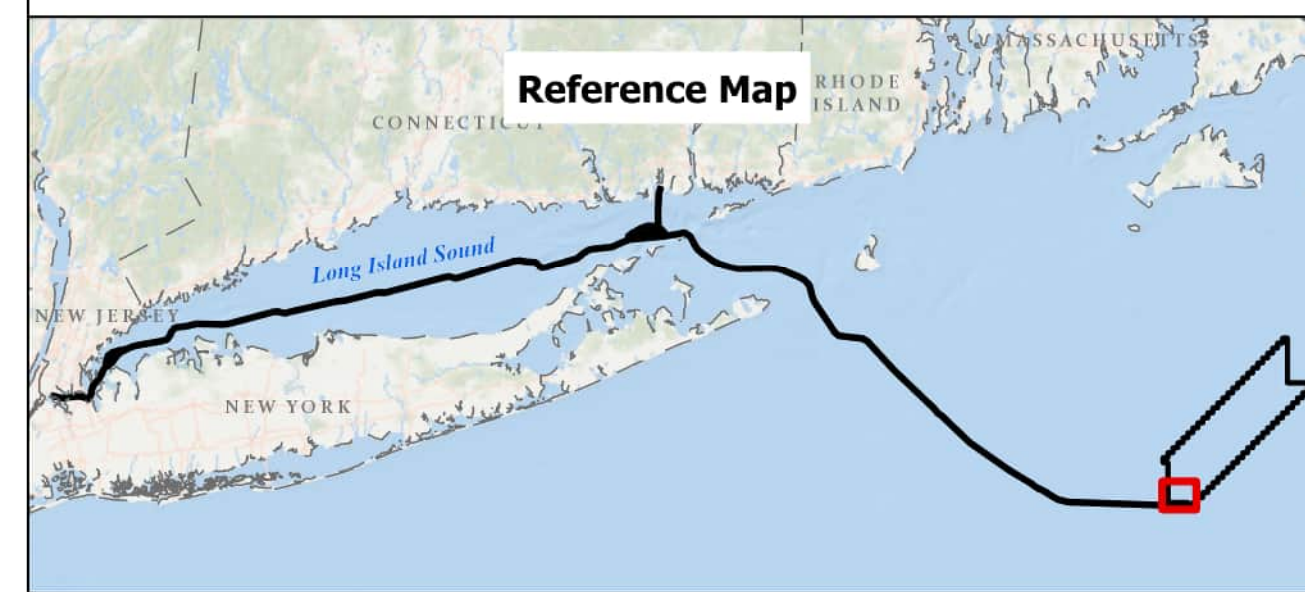
- BW1 Submarine Export Cable Route (v13)
- BW2 Submarine Export Cable Route (v13)
- Lease Area



Benthic Features, Interpreted Seabed Sediment/NMFS Habitat Characterizations, and CMECS Classifications

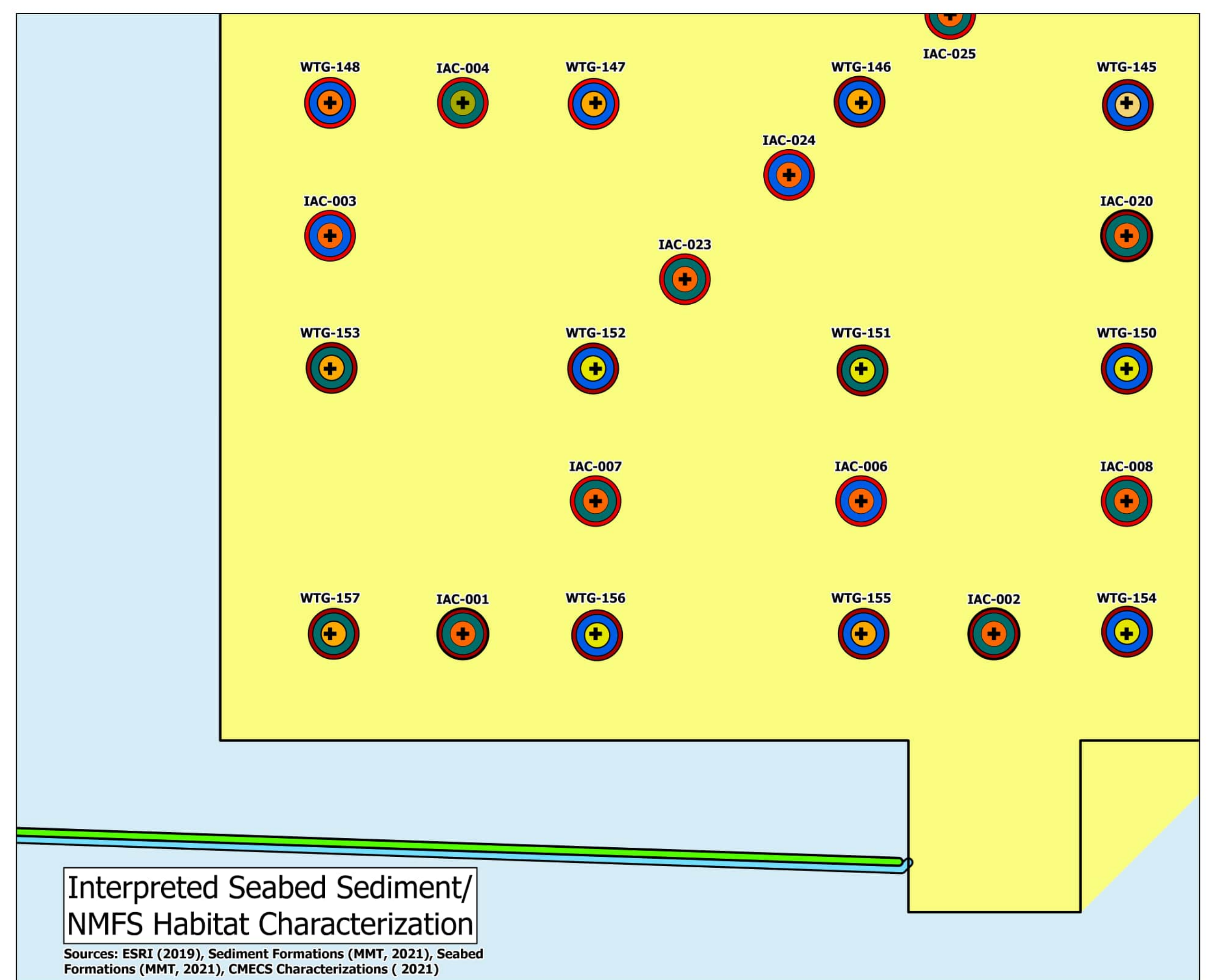
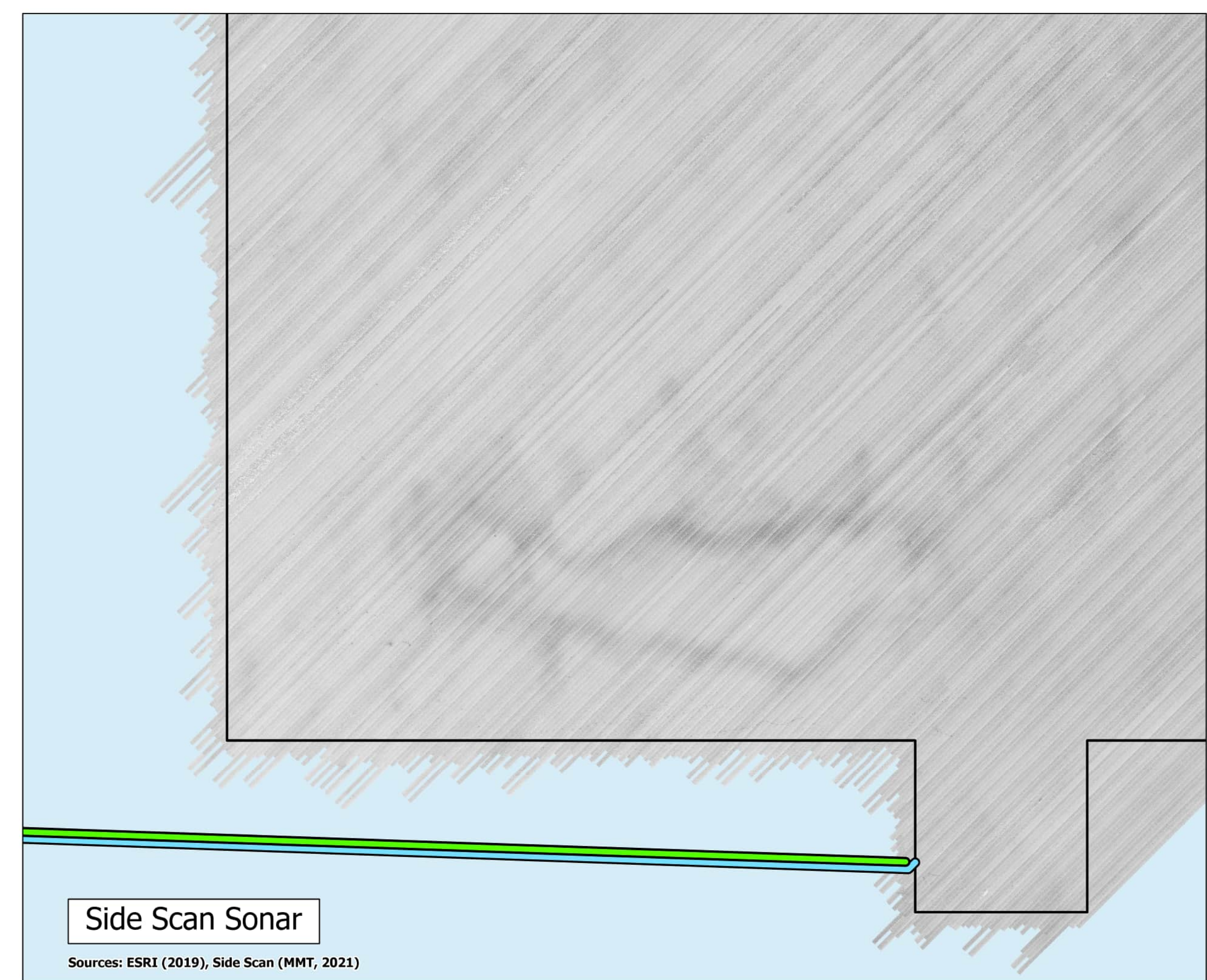
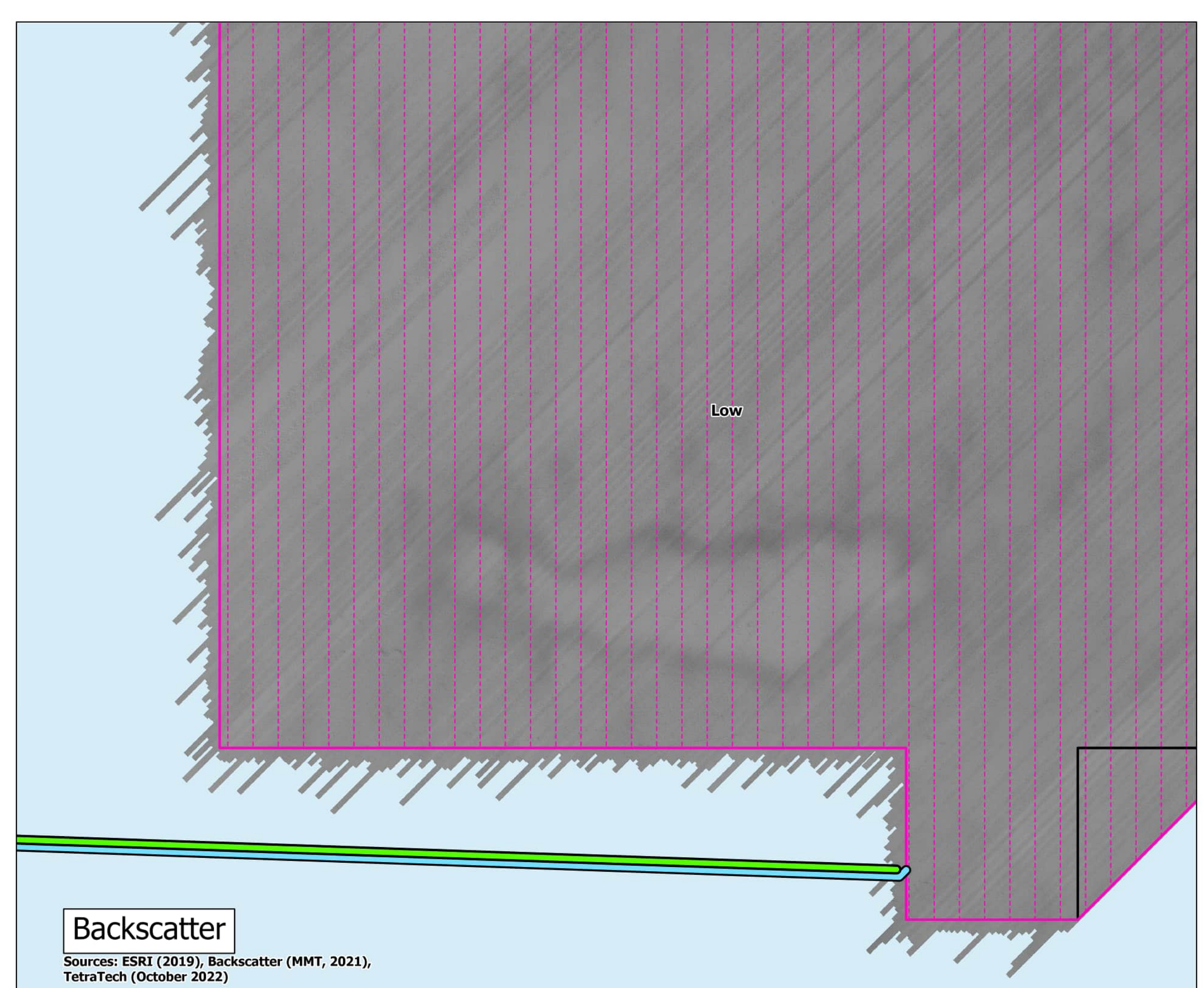
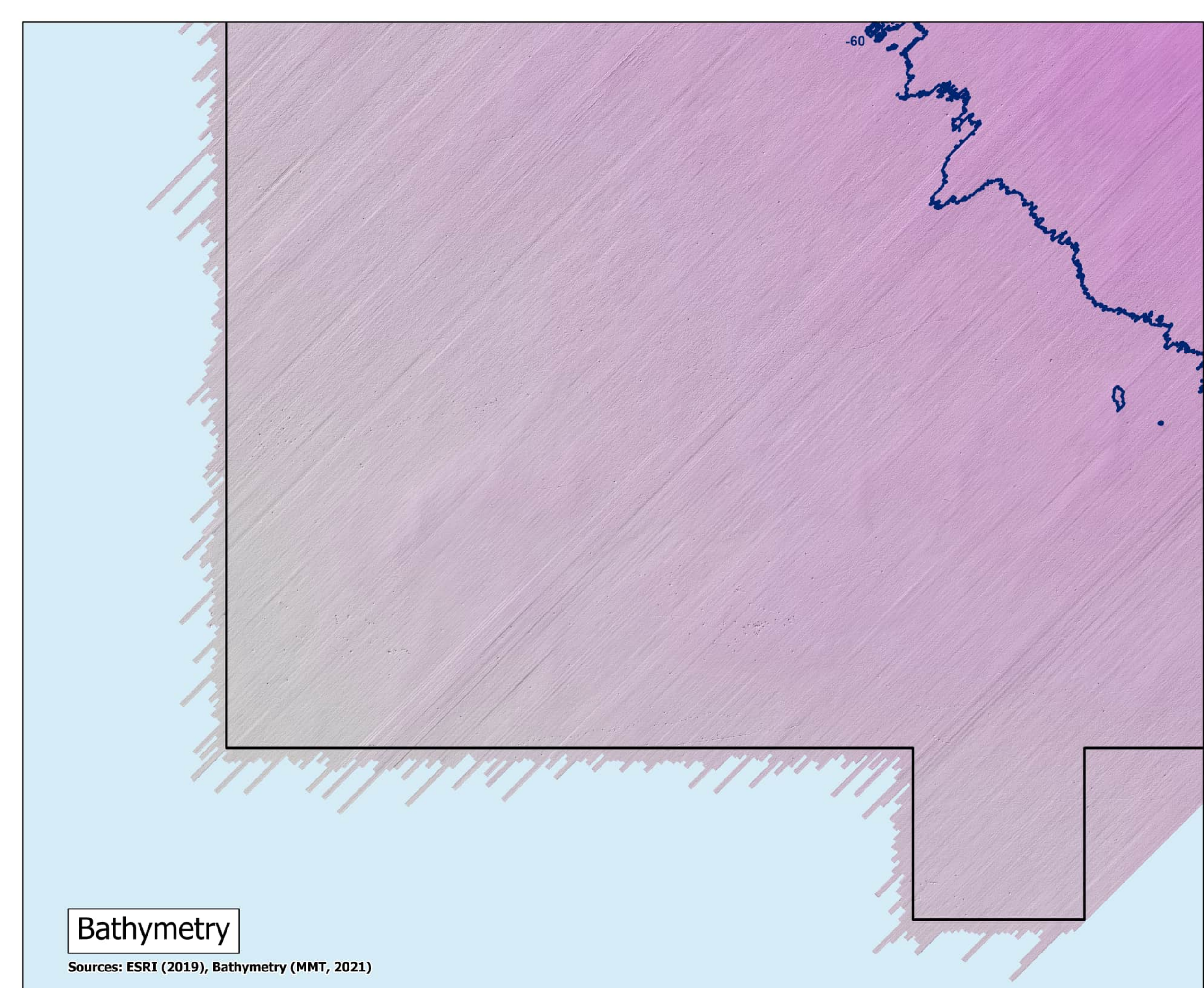
- | | | |
|--|--|---|
| <p>Station Type</p> <ul style="list-style-type: none"> + SPI/PV, Video and Grab Station Locations | <p>CMECS Substrate</p> <ul style="list-style-type: none"> Muddy Sand Sandy Mud | <p>Interpreted Seabed Sediment/NMFS Habitat Characterization</p> <ul style="list-style-type: none"> Mud and Sandy Mud/Soft Bottom Habitat |
| <p>CMECS Classification</p> <ul style="list-style-type: none"> Asterias Bed Astropecten Bed Small Tube Building Fauna Soft Sediment Fauna Inferred Fauna | <p>CMECS Geoform</p> <ul style="list-style-type: none"> Burrows/bioturbation Flat | |
- Note: 1) Legend only shows items visible in the current map extent.

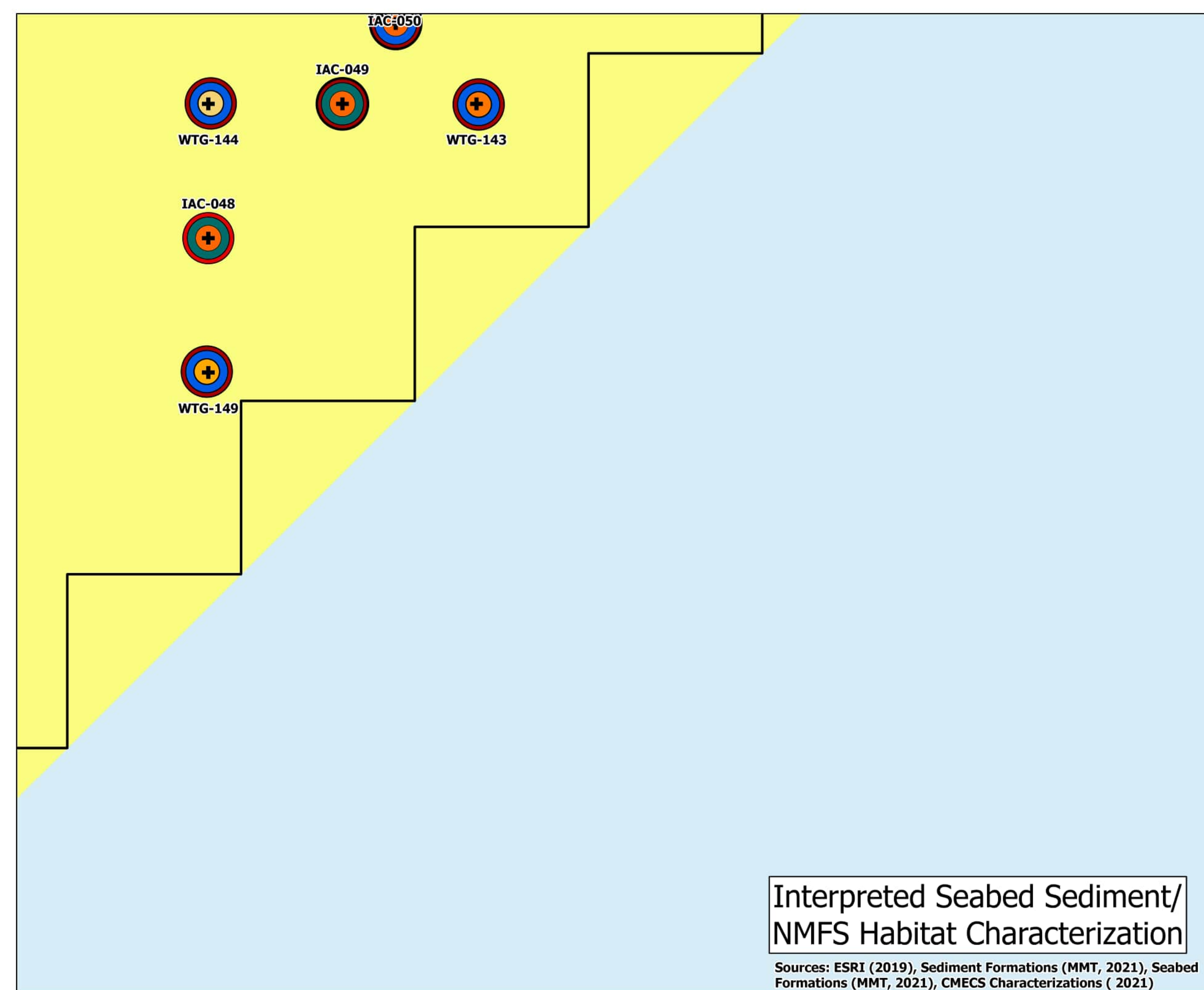
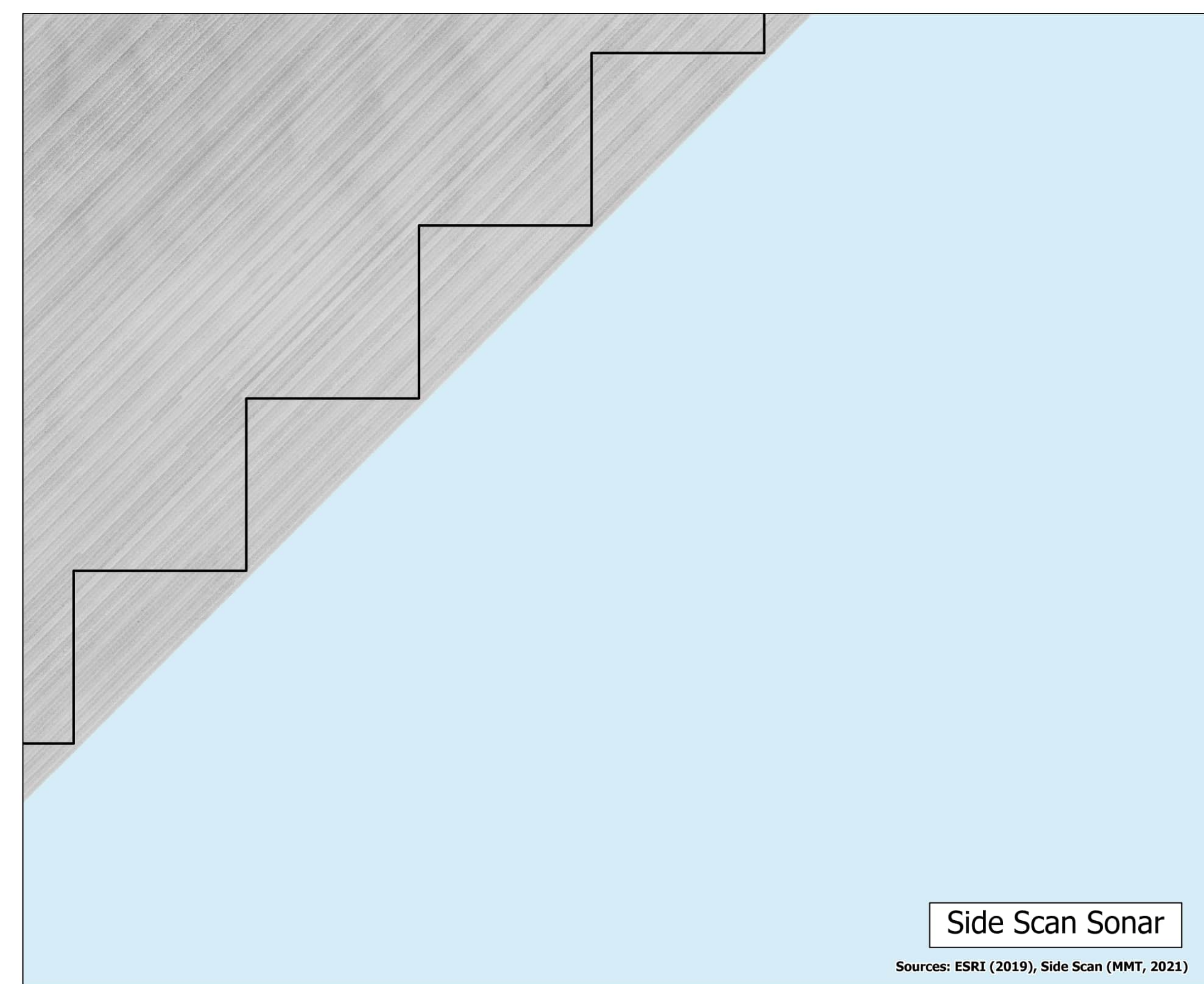
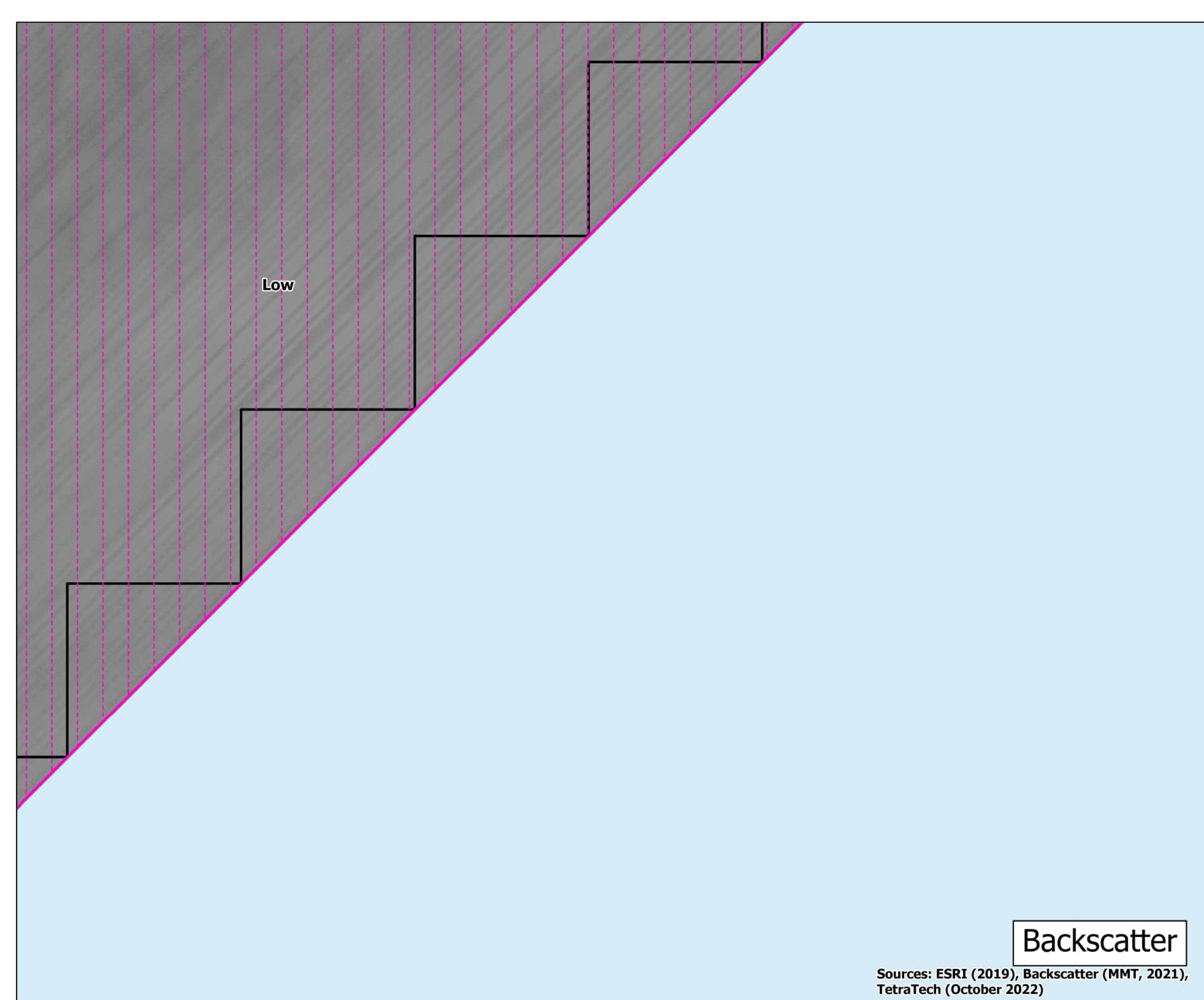
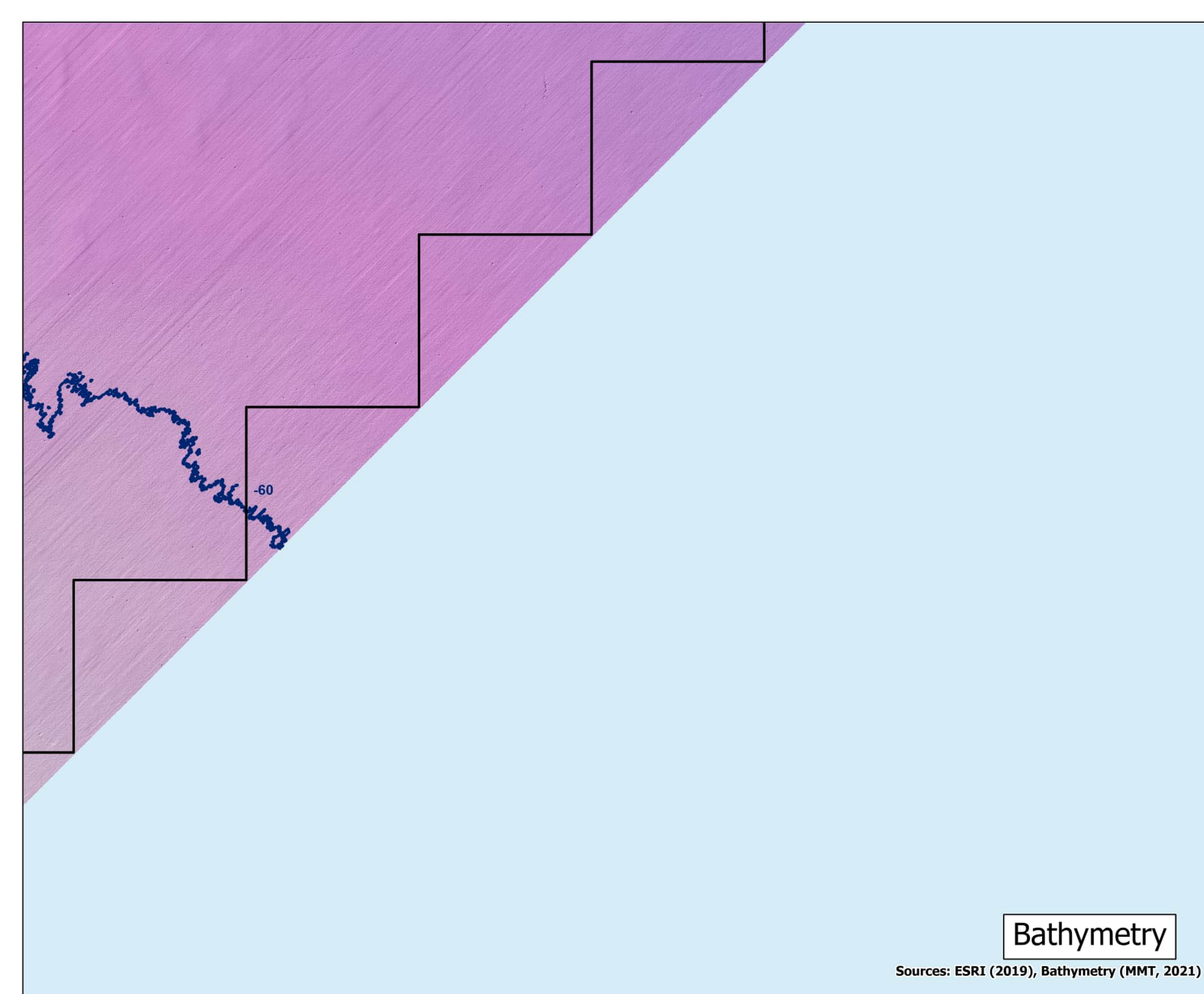
Prepared By: AECOM
 Date: 3/1/2023
 Scale: 1:25,000



BEACON WIND LEASE AREA OCS-A 0520

Map Book Package for Lease Area
 Tile 231





Map Book Package for Lease Area

Lease Area

Bathymetry (MLLW)

Major Contours (5m Interval)

-37 m (-121 ft) to -63 m (-207 ft)

Backscatter

Delineated Backscatter Intensity Returns

Low Medium

Low High

Side Scan Sonar

Low High

Benthic Features, Interpreted Seabed Sediment/NMFS Habitat Characterizations, and CMECS Classifications

Station Type	CMECS Substrate	Interpreted Seabed Sediment/NMFS Habitat Characterization
<ul style="list-style-type: none"> SPI/PV, Video and Grab Station Locations 	<ul style="list-style-type: none"> Muddy Sand 	<ul style="list-style-type: none"> Mud and Sandy Mud/Soft Bottom Habitat
CMECS Classification	CMECS Biotic	CMECS Geoform
<ul style="list-style-type: none"> Asterias Bed Small Tube Building Fauna Soft Sediment Fauna 	<ul style="list-style-type: none"> Sandy Mud 	<ul style="list-style-type: none"> Burrows/bioturbation Flat

Note:
1) Legend only shows items visible in the current map extent.

Prepared By: AECOM
Date: 2/28/2023
Scale: 1:25,000

Reference Map

0 0.3 0.6 1.2 1.8 2.4 Kilometers
0 0.3 0.6 0.9 1.2 Nautical Miles
0 0.17 0.35 0.7 1.05 1.4 Miles

BEACON WIND LEASE AREA OCS-A 0520

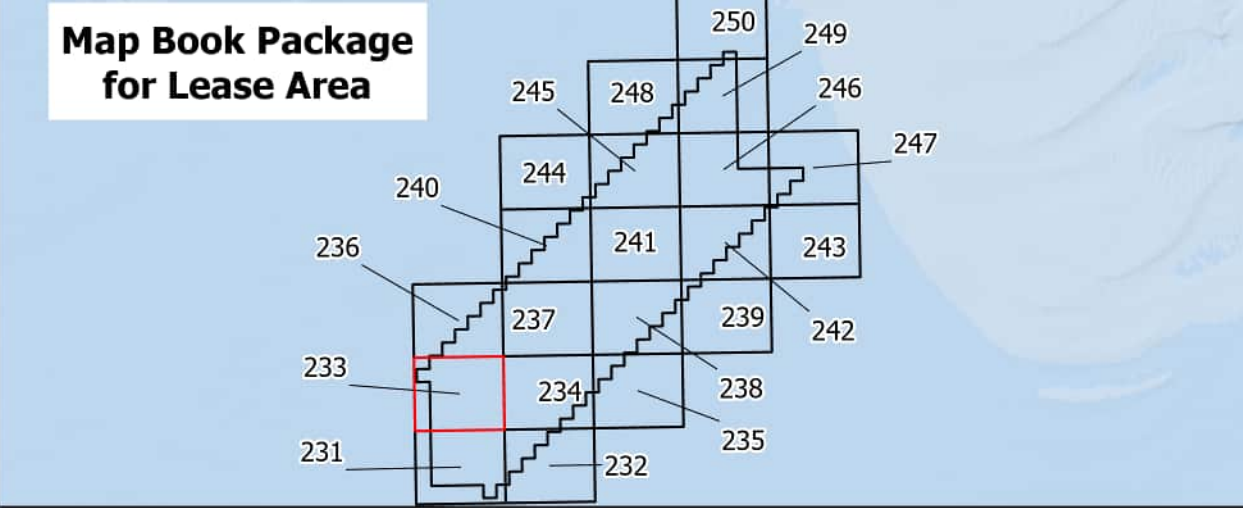
Map Book Package for Lease Area
Tile 232

Bathymetry

Sources: ESRI (2019), Bathymetry (MMT, 2021)

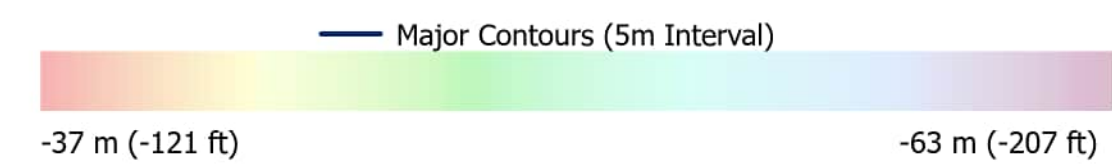
Backscatter

Sources: ESRI (2019), Backscatter (MMT, 2021), TetraTech (October 2022)



Lease Area

Bathymetry (MLLW)



Backscatter

Delineated Backscatter Intensity Returns



Side Scan Sonar



Benthic Features, Interpreted Seabed Sediment/NMFS Habitat Characterizations, and CMECS Classifications

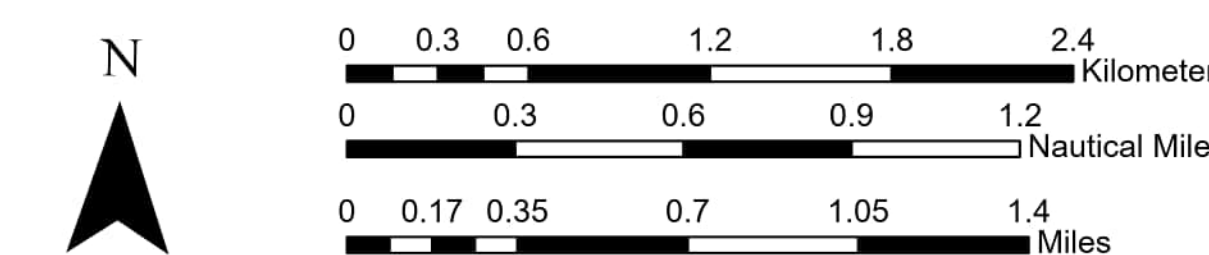
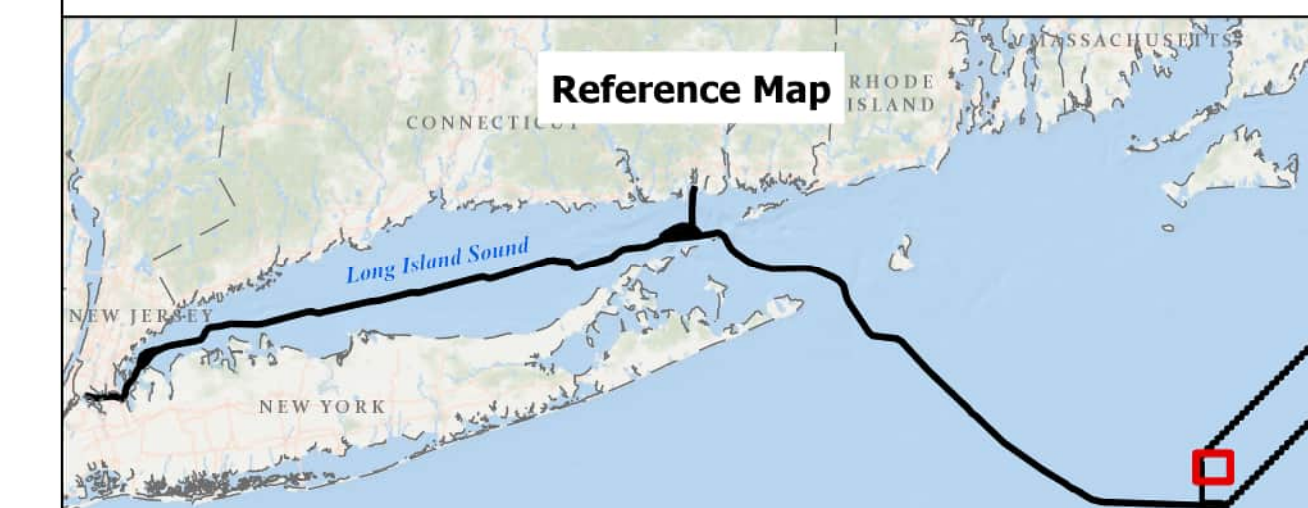
Station Type	CMECS Substrate	Benthic Features
<ul style="list-style-type: none"> SPI/PV, Video and Grab Station Locations 	<ul style="list-style-type: none"> Gravelly Muddy Sand Muddy Sand Sandy Mud Burrows/bioturbation 	<ul style="list-style-type: none"> Flat Sand Ripples
CMECS Classification	CMECS Bioform	Interpreted Seabed Sediment/NMFS Habitat Characterization
<ul style="list-style-type: none"> Asterias Bed Small Tube Building Fauna Soft Sediment Fauna Inferred Fauna 	<ul style="list-style-type: none"> Mud and Sandy Mud/Soft Bottom Habitat Sand and Muddy Sand/Soft Bottom Habitat 	

Note:
1) Legend only shows items visible in the current map extent.

Prepared By: AECOM

Date: 3/1/2023

Scale: 1:25,000



BEACON WIND LEASE AREA OCS-A 0520

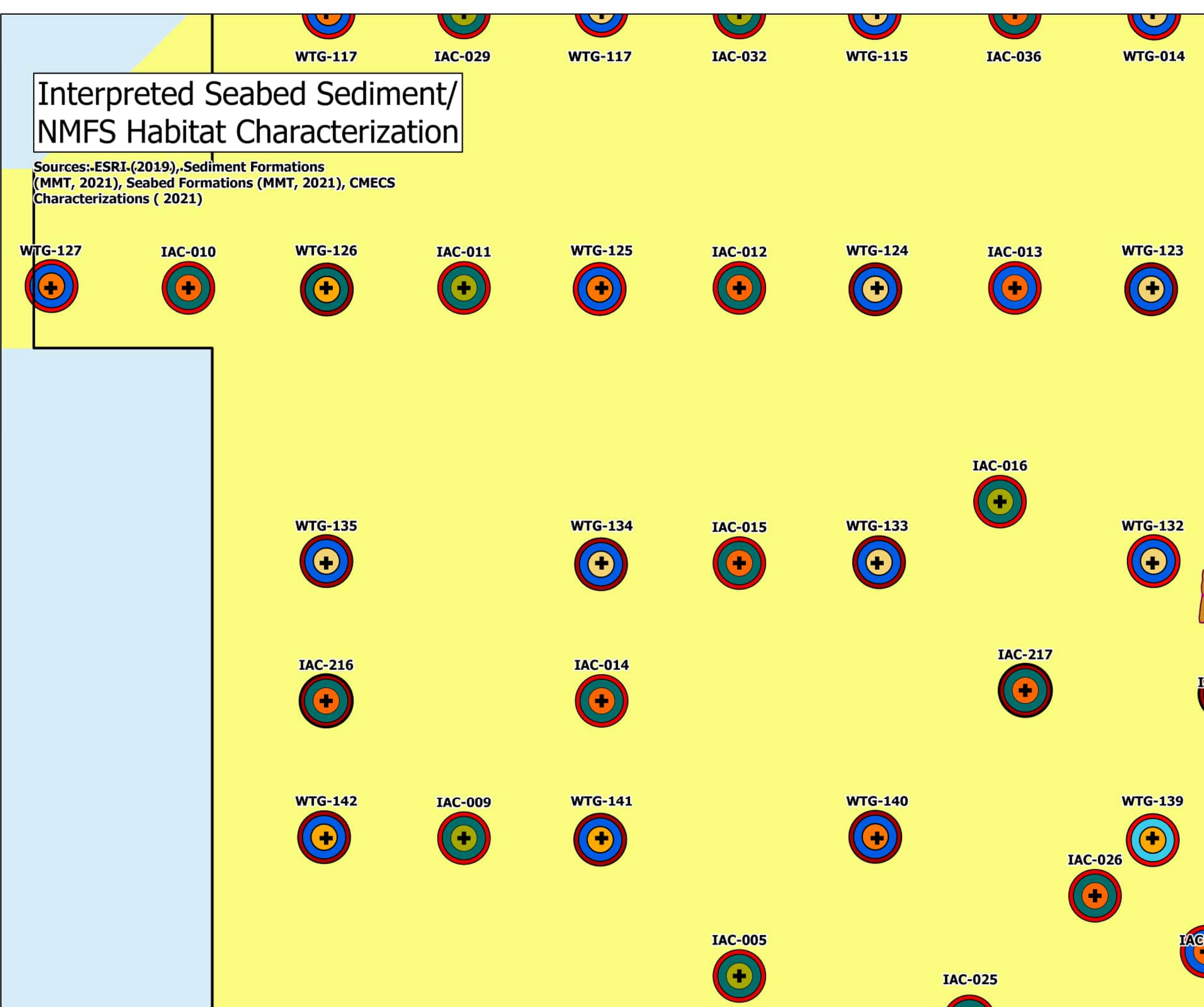
Map Book Package for Lease Area
Tile 233

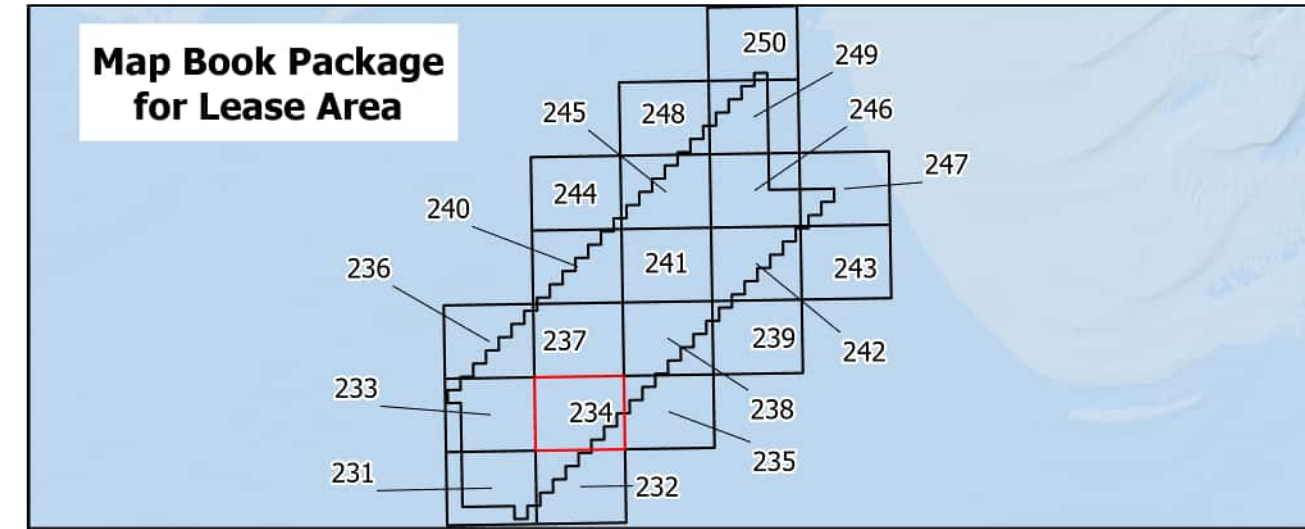
Side Scan Sonar

Sources: ESRI (2019), Side Scan (MMT, 2021)

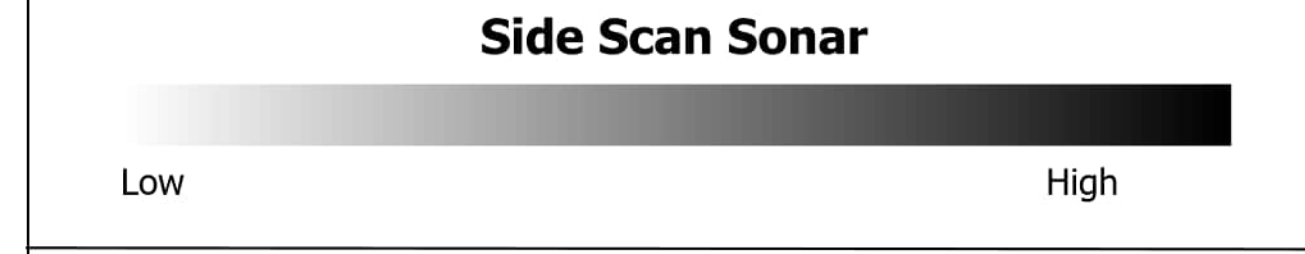
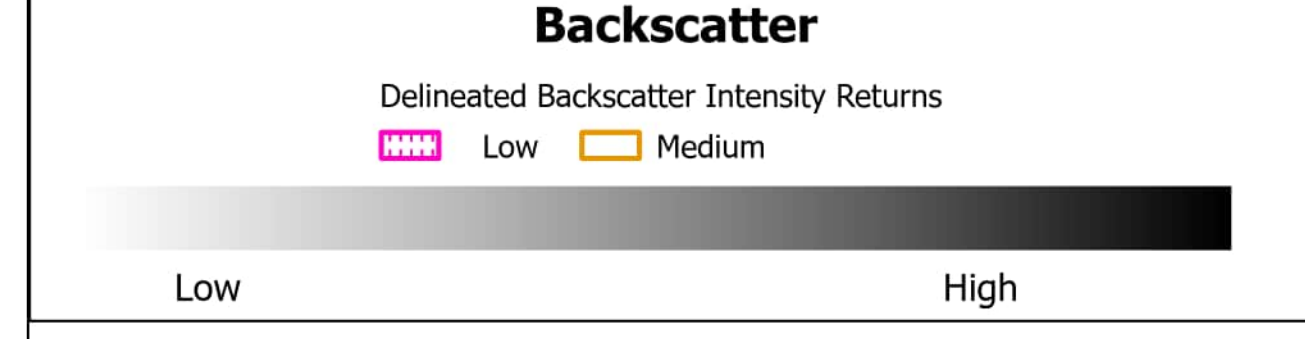
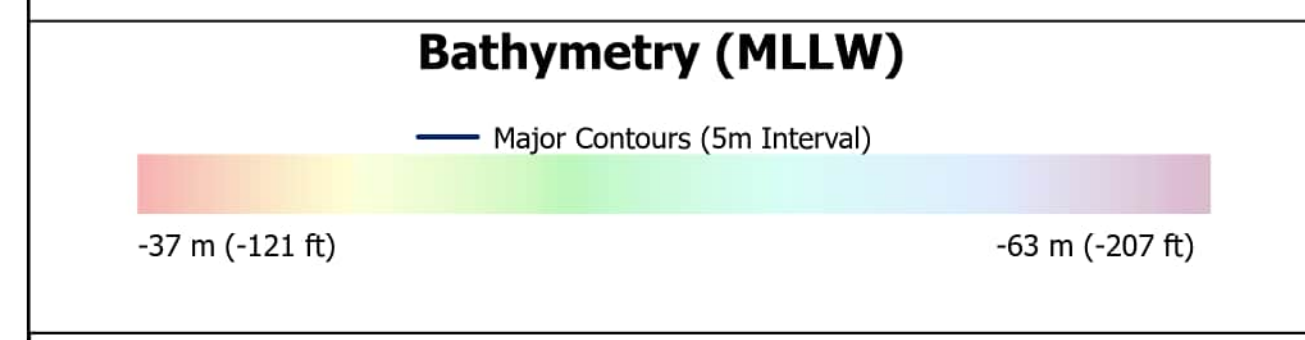
Interpreted Seabed Sediment/ NMFS Habitat Characterization

Sources: ESRI (2019), Sediment Formations (MMT, 2021), Seabed Formations (MMT, 2021), CMECS Characterizations (2021)





□ Lease Area

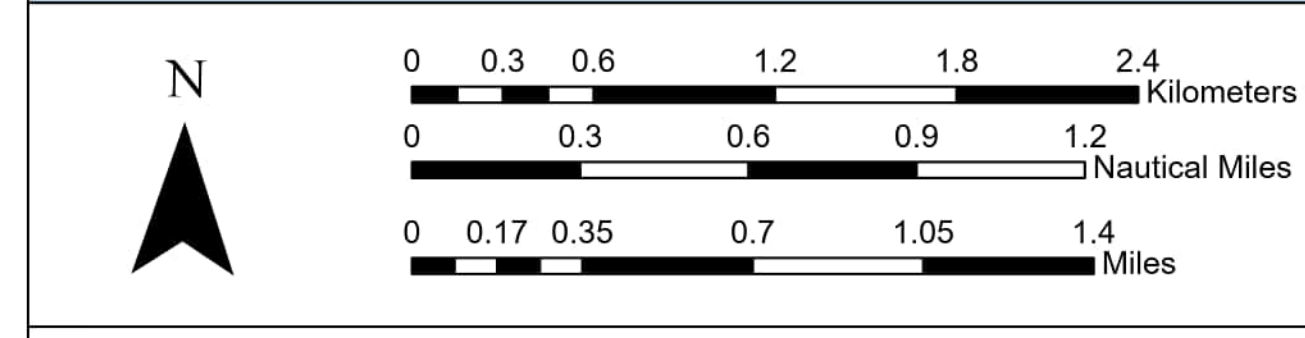
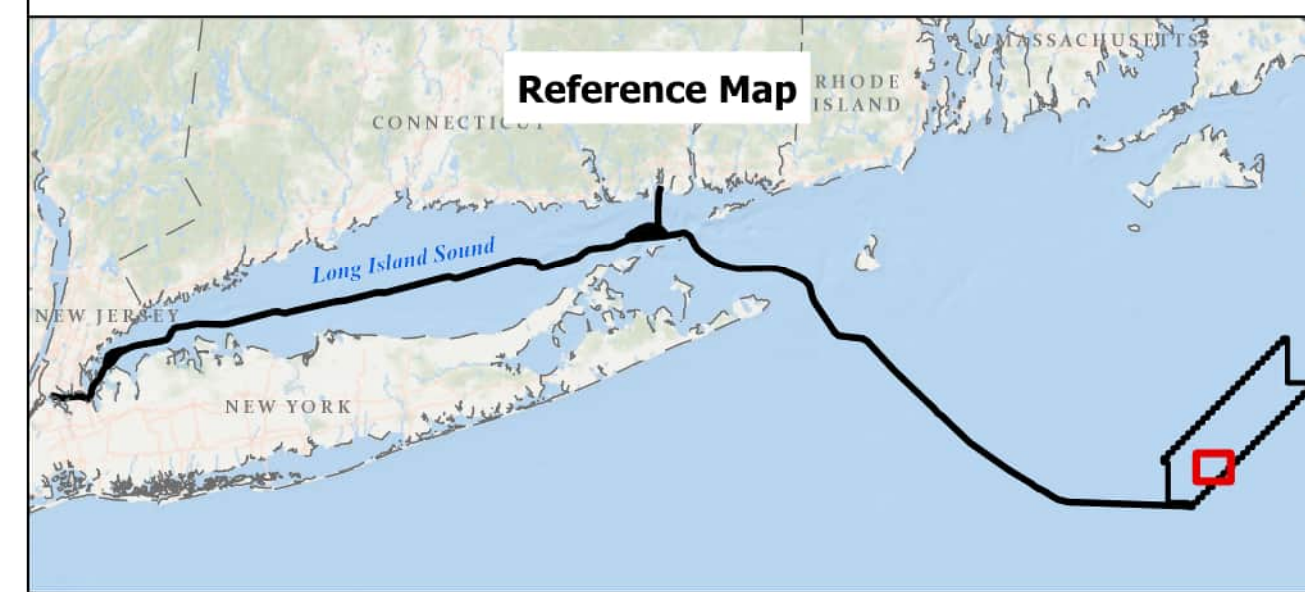


Benthic Features, Interpreted Seabed Sediment/NMFS Habitat Characterizations, and CMECS Classifications

Station Type	CMECS Substrate	Benthic Features
<ul style="list-style-type: none"> SP/IV, Video and Grab Station Locations 	<ul style="list-style-type: none"> Muddy Sand Sandy Mud Burrows/bioturbation Flat 	<ul style="list-style-type: none"> Sand Ripples
CMECS Classification	CMECS Bioform	Interpreted Seabed Sediment/NMFS Habitat Characterization
<ul style="list-style-type: none"> Ampelisca vadorum Small Tube Building Fauna Soft Sediment Fauna Inferred Fauna 	<ul style="list-style-type: none"> Mud and Sandy Mud/Soft Bottom Habitat Sand and Muddy Sand/Soft Bottom Habitat 	<ul style="list-style-type: none"> Mud and Sandy Mud/Soft Bottom Habitat Sand and Muddy Sand/Soft Bottom Habitat

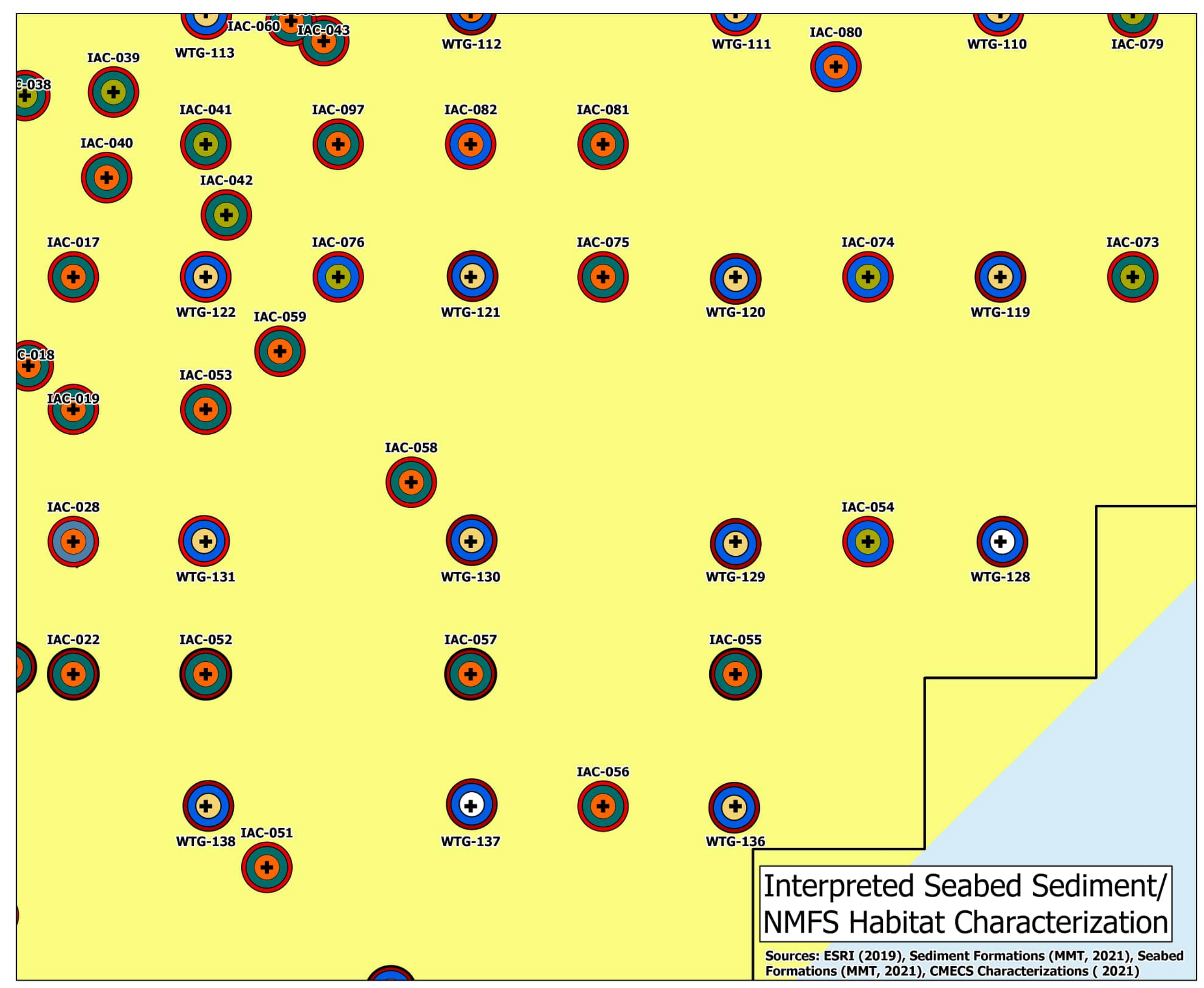
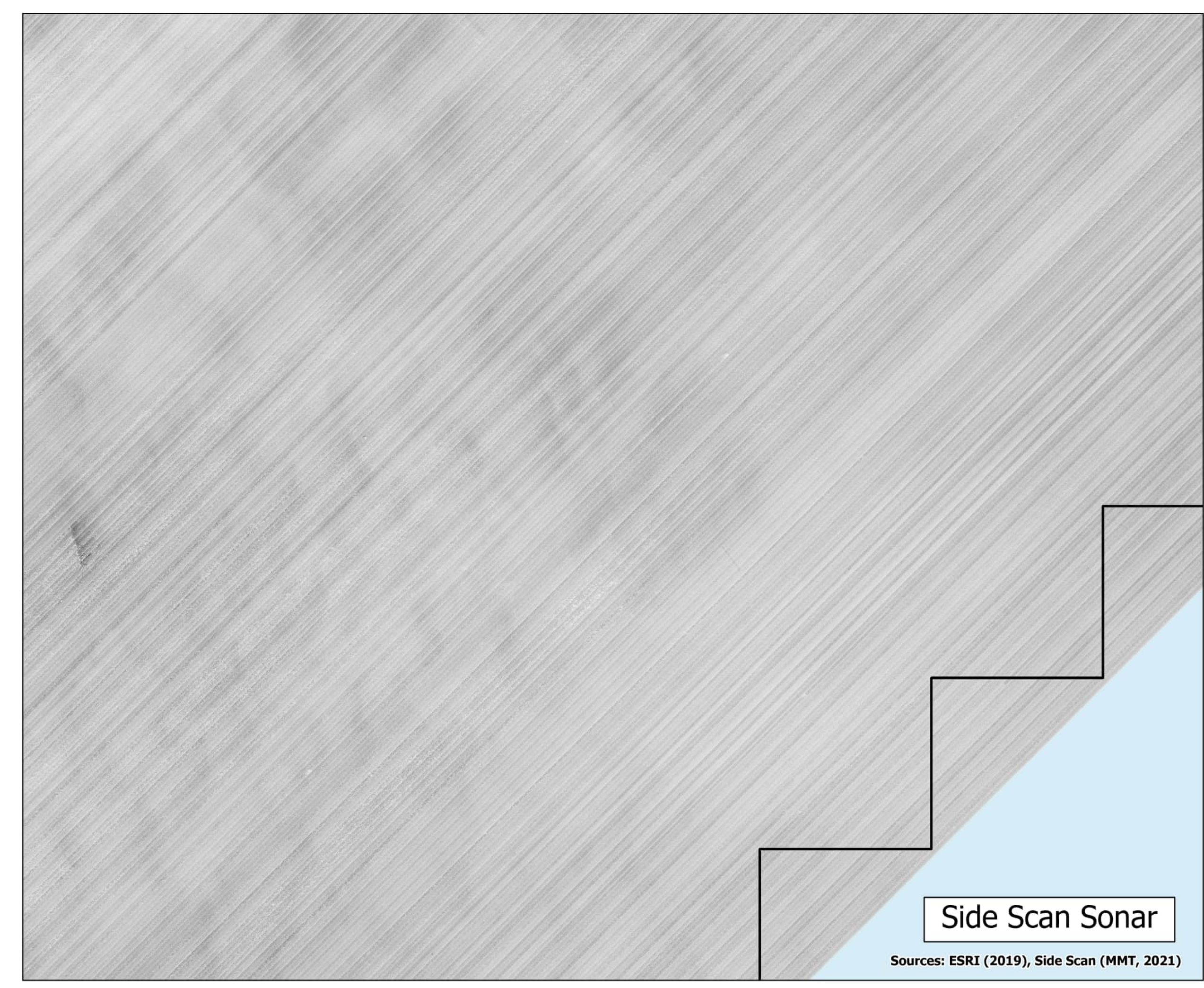
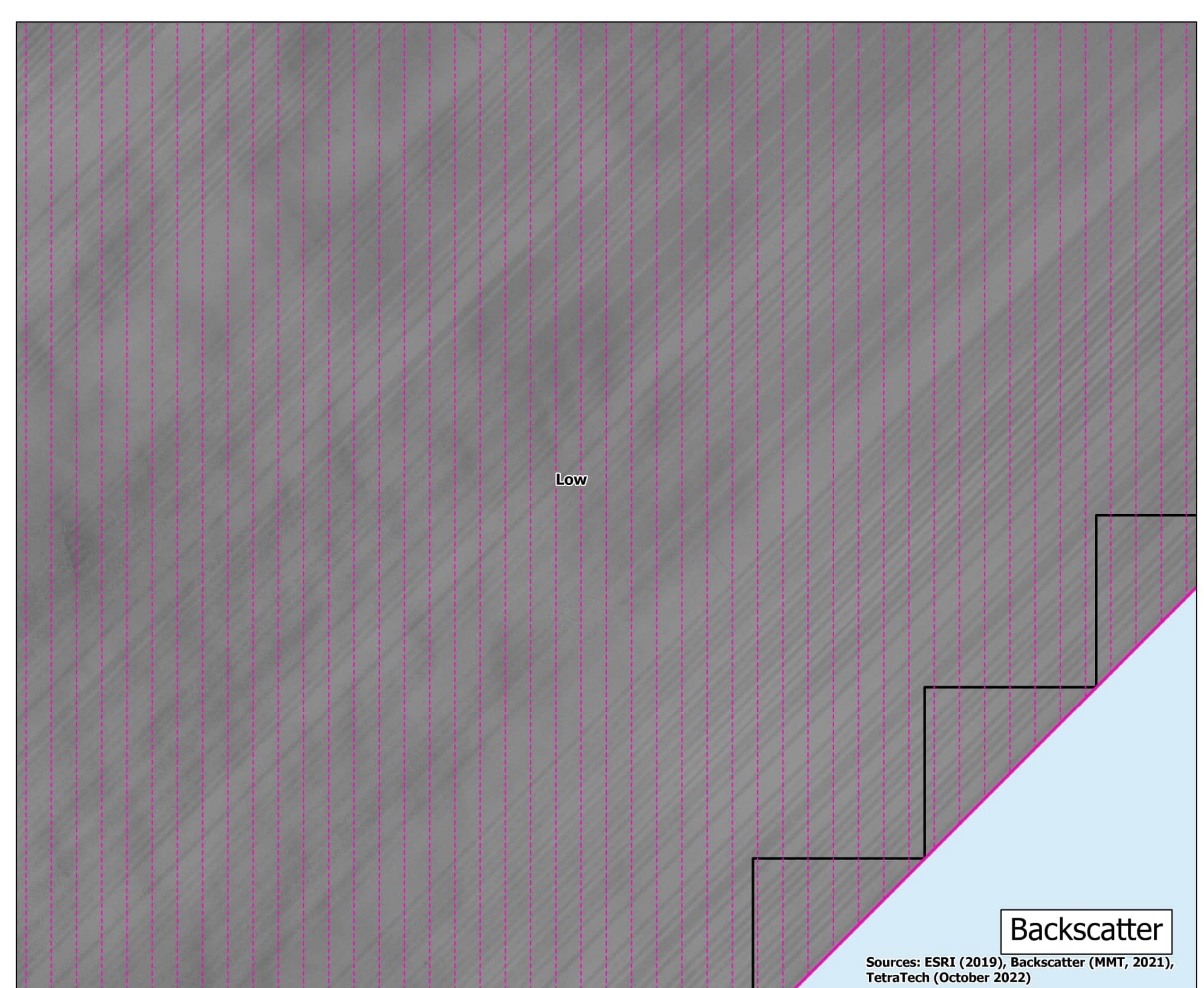
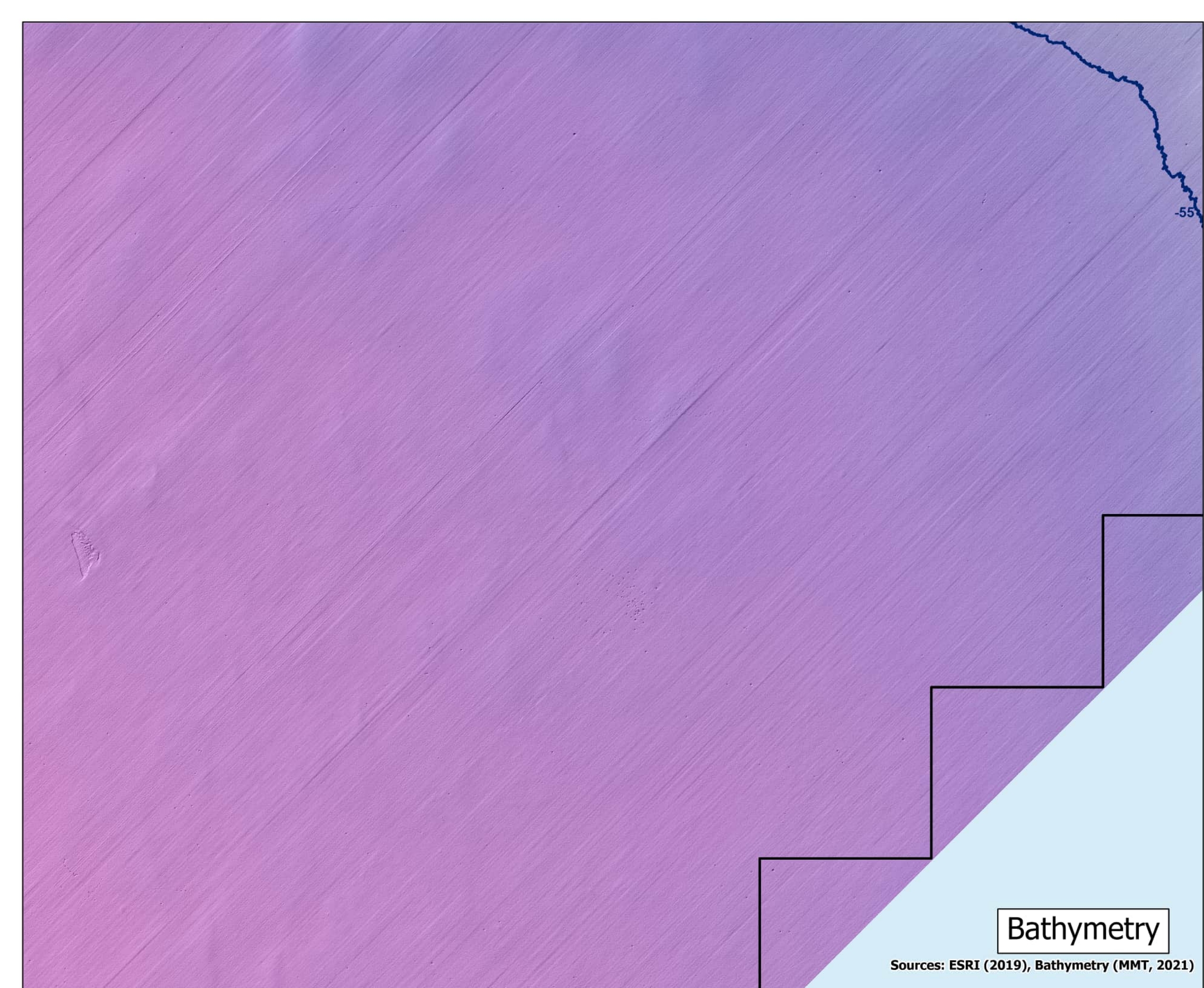
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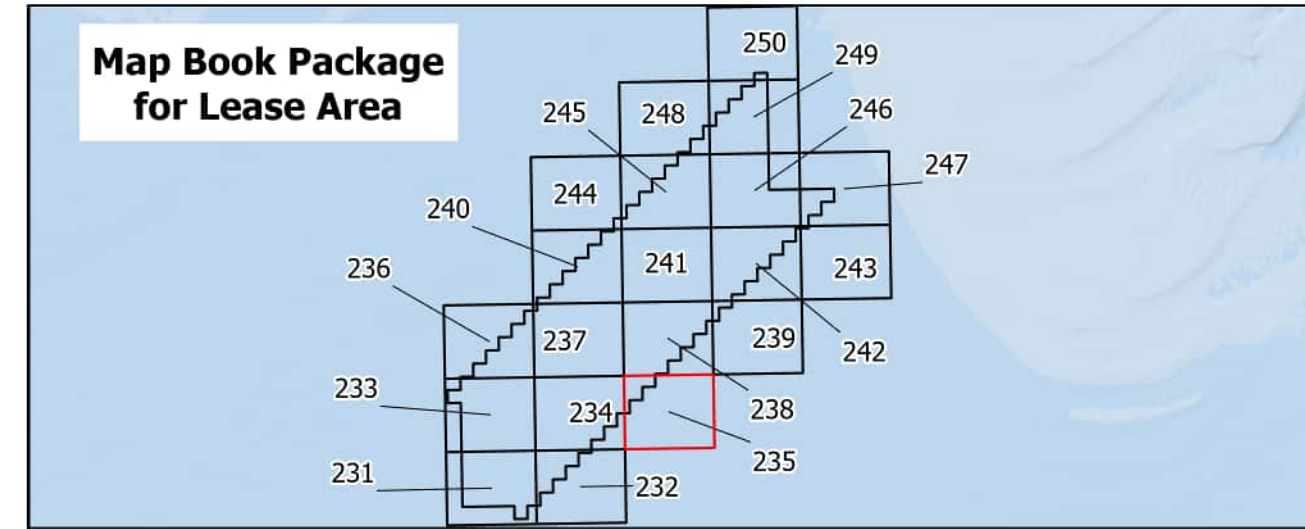
Prepared By: AECOM
Date: 2/28/2023
Scale: 1:25,000



BEACON WIND LEASE AREA OCS-A 0520

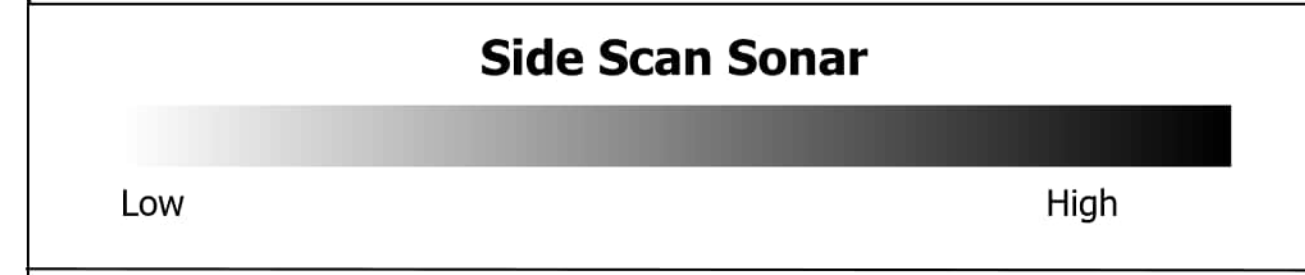
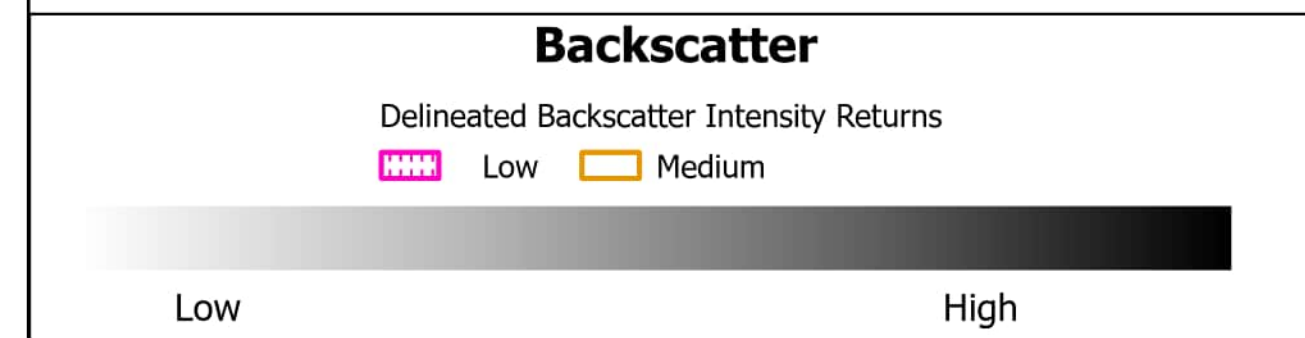
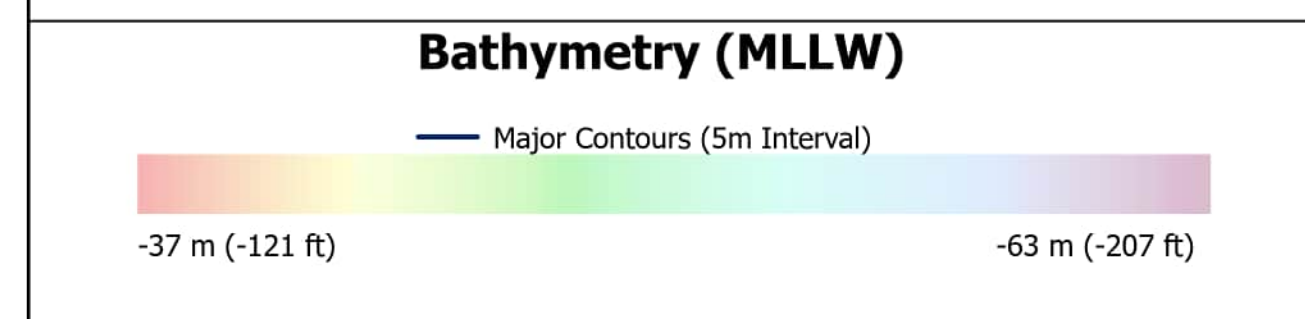
Map Book Package for Lease Area
Tile 234





Map Book Package for Lease Area

Legend: Lease Area

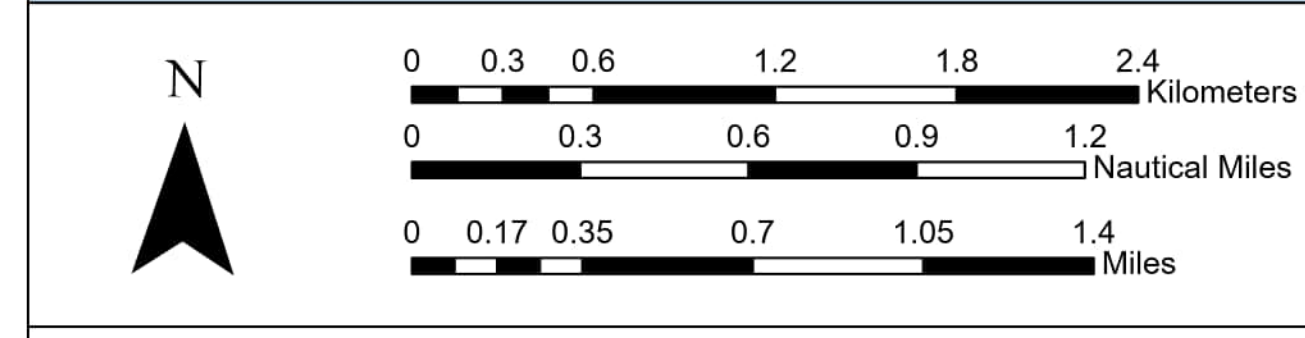
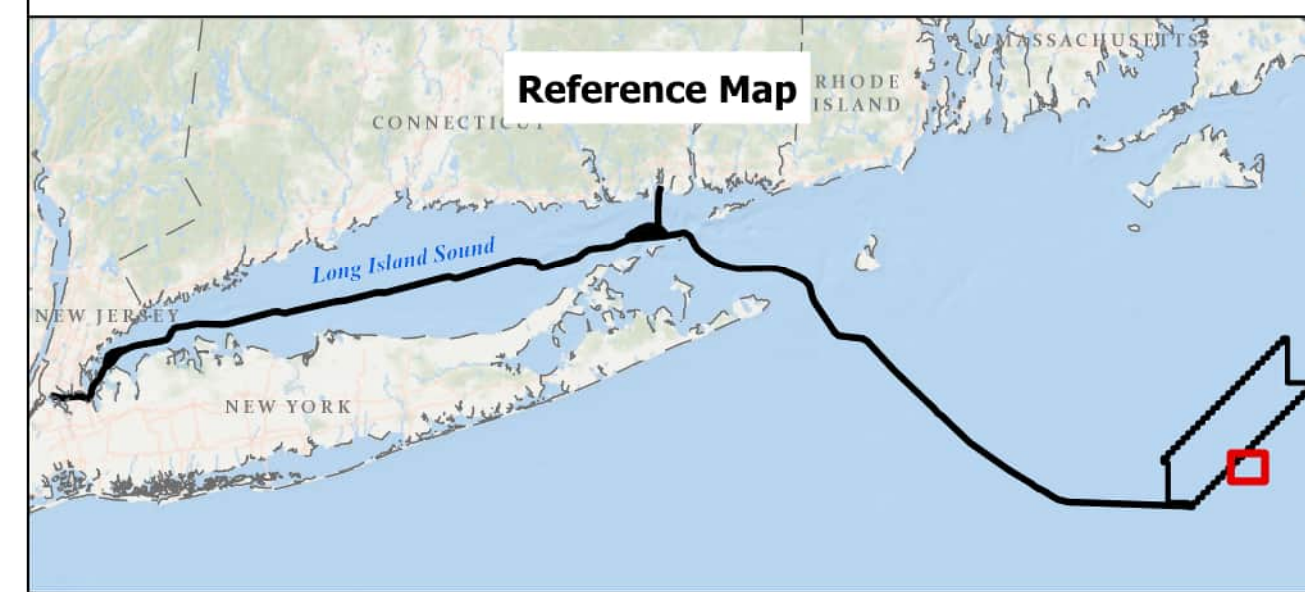


Benthic Features, Interpreted Seabed Sediment/NMFS Habitat Characterizations, and CMECS Classifications

Station Type	CMECS Substrate	Interpreted Seabed Sediment/NMFS Habitat Characterization
<ul style="list-style-type: none"> SPI/PV, Video and Grab Station Locations 	<ul style="list-style-type: none"> Muddy Sand Sandy Mud 	<ul style="list-style-type: none"> Mud and Sandy Mud/Soft Bottom Habitat
CMECS Classification	CMECS Bioform	
<ul style="list-style-type: none"> Small Tube Building Fauna Soft Sediment Fauna 	<ul style="list-style-type: none"> Burrows/bioturbation Flat 	

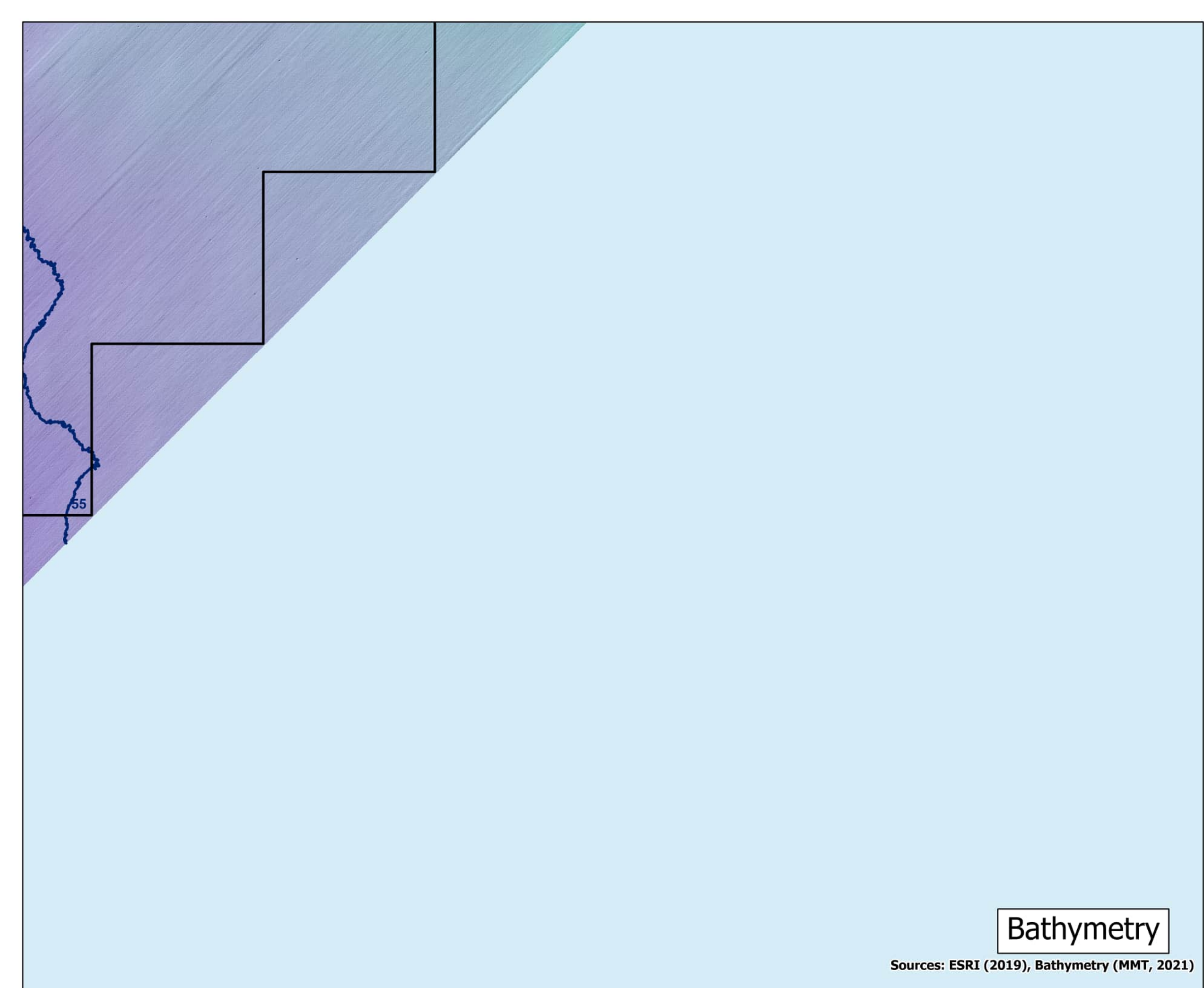
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Prepared By: AECOM
Date: 2/28/2023
Scale: 1:25,000



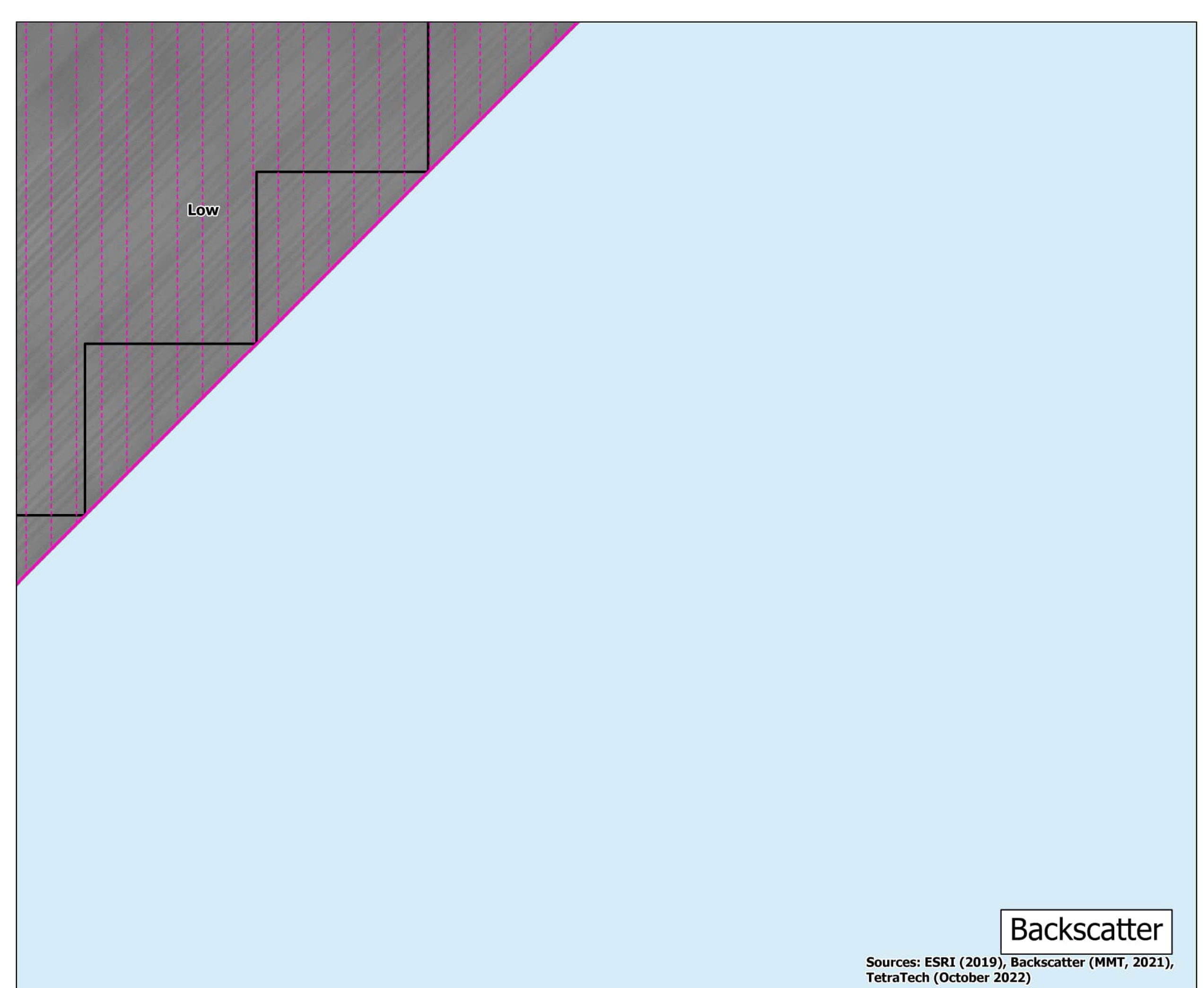
BEACON WIND LEASE AREA OCS-A 0520

Map Book Package for Lease Area
Tile 235



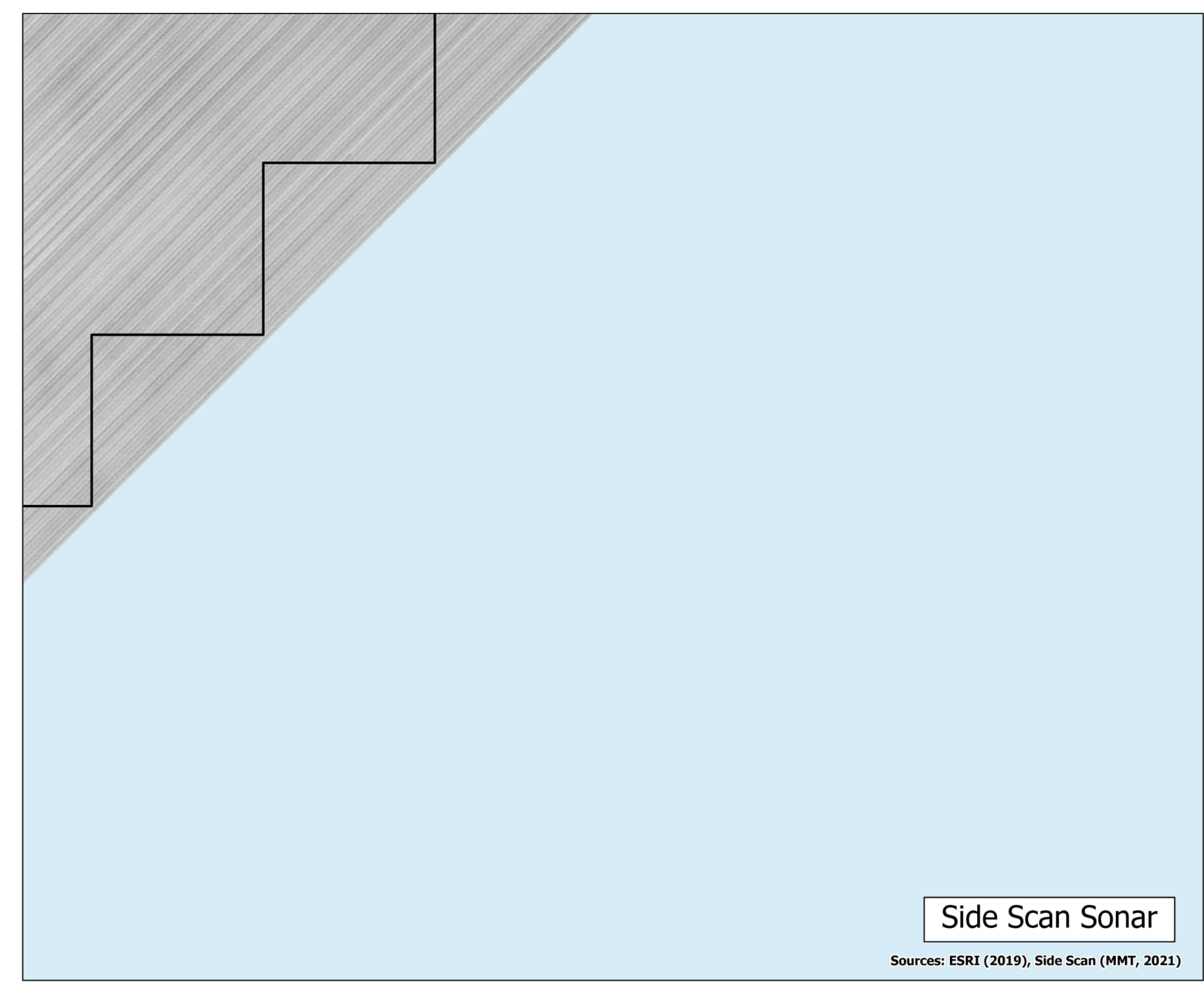
Bathymetry

Sources: ESRI (2019), Bathymetry (MMT, 2021)



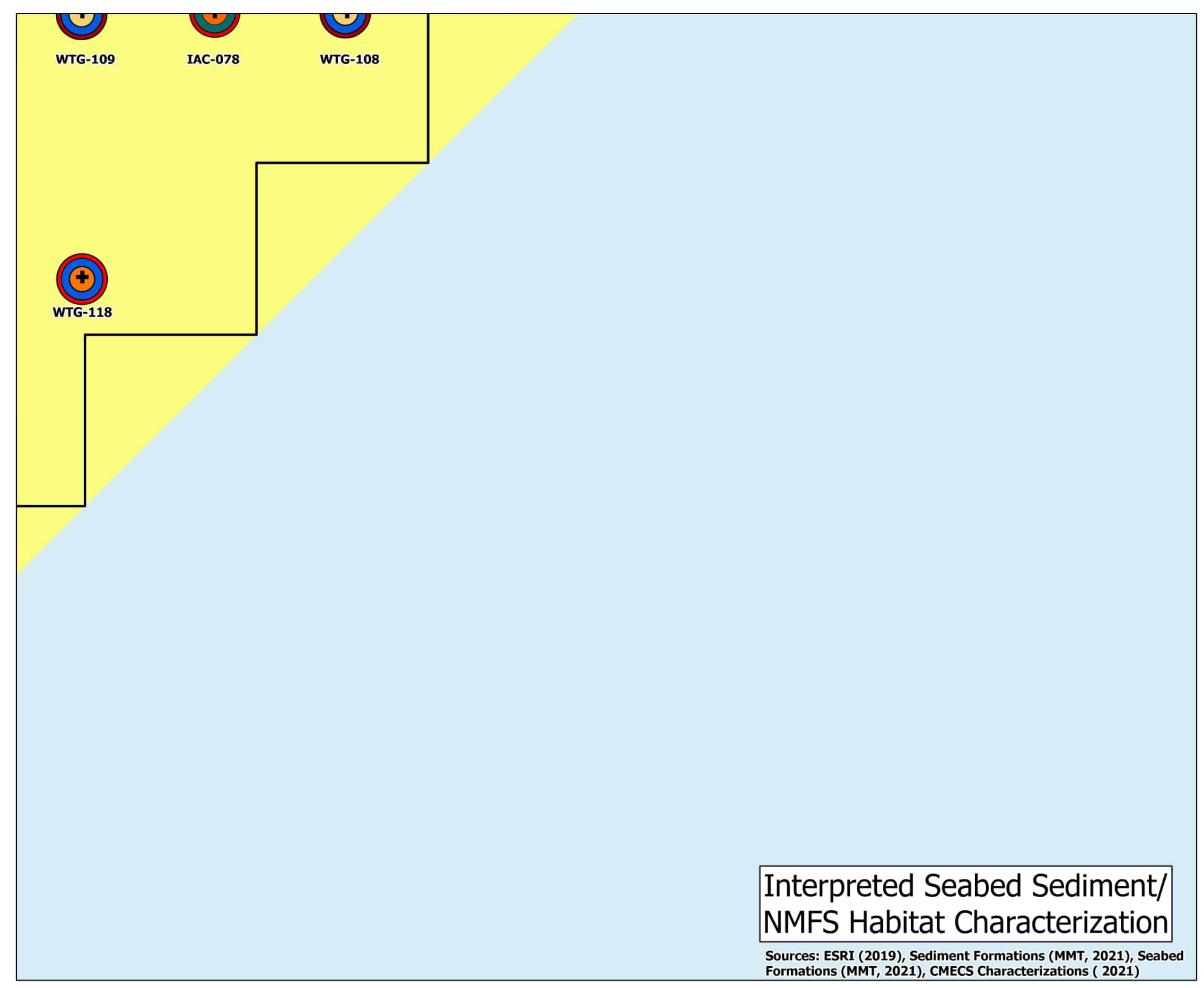
Backscatter

Sources: ESRI (2019), Backscatter (MMT, 2021), TetraTech (October 2022)



Side Scan Sonar

Sources: ESRI (2019), Side Scan (MMT, 2021)

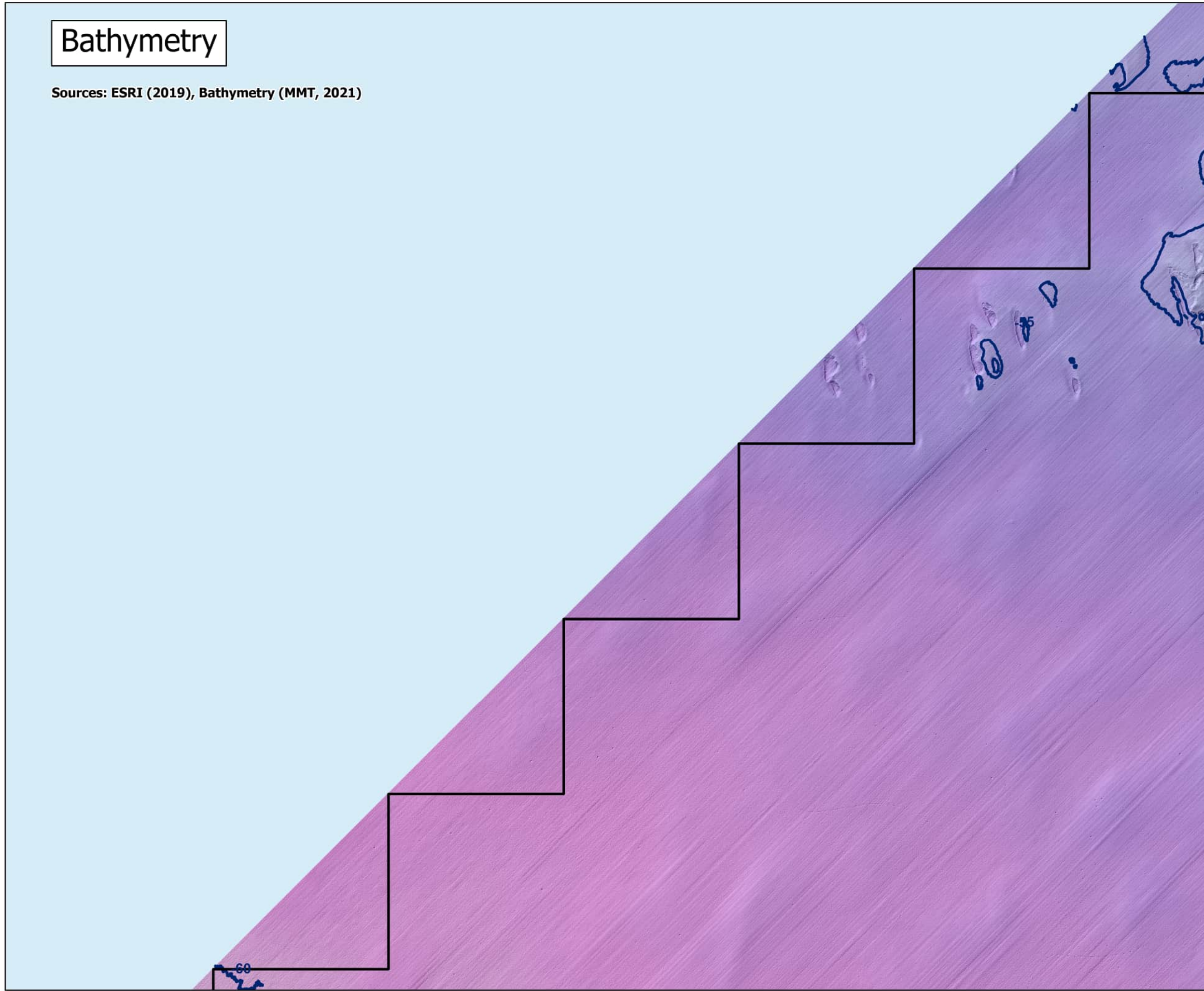


Interpreted Seabed Sediment/NMFS Habitat Characterization

Sources: ESRI (2019), Sediment Formations (MMT, 2021), Seabed Formations (MMT, 2021), CMECS Characterizations (2021)

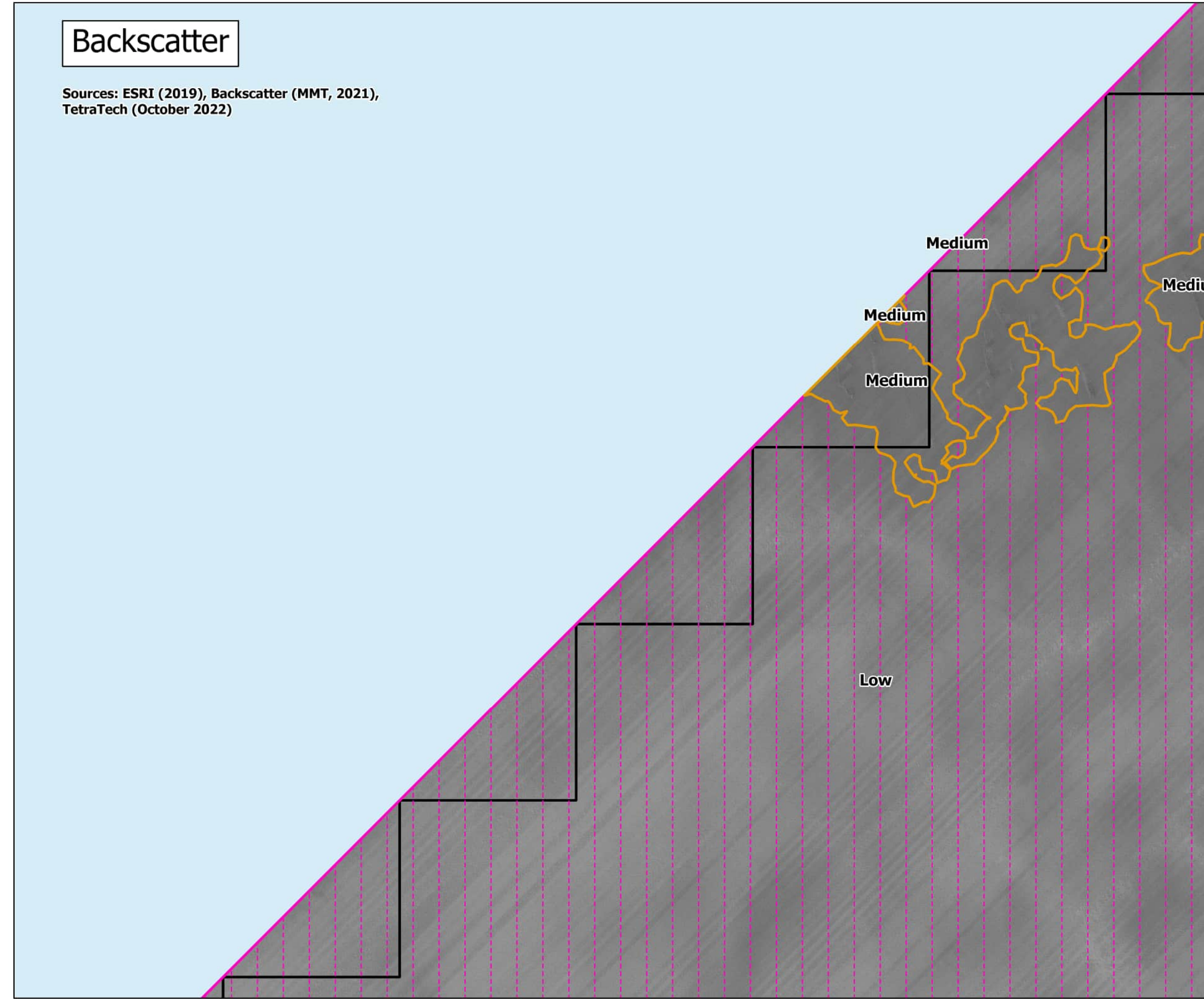
Bathymetry

Sources: ESRI (2019), Bathymetry (MMT, 2021)



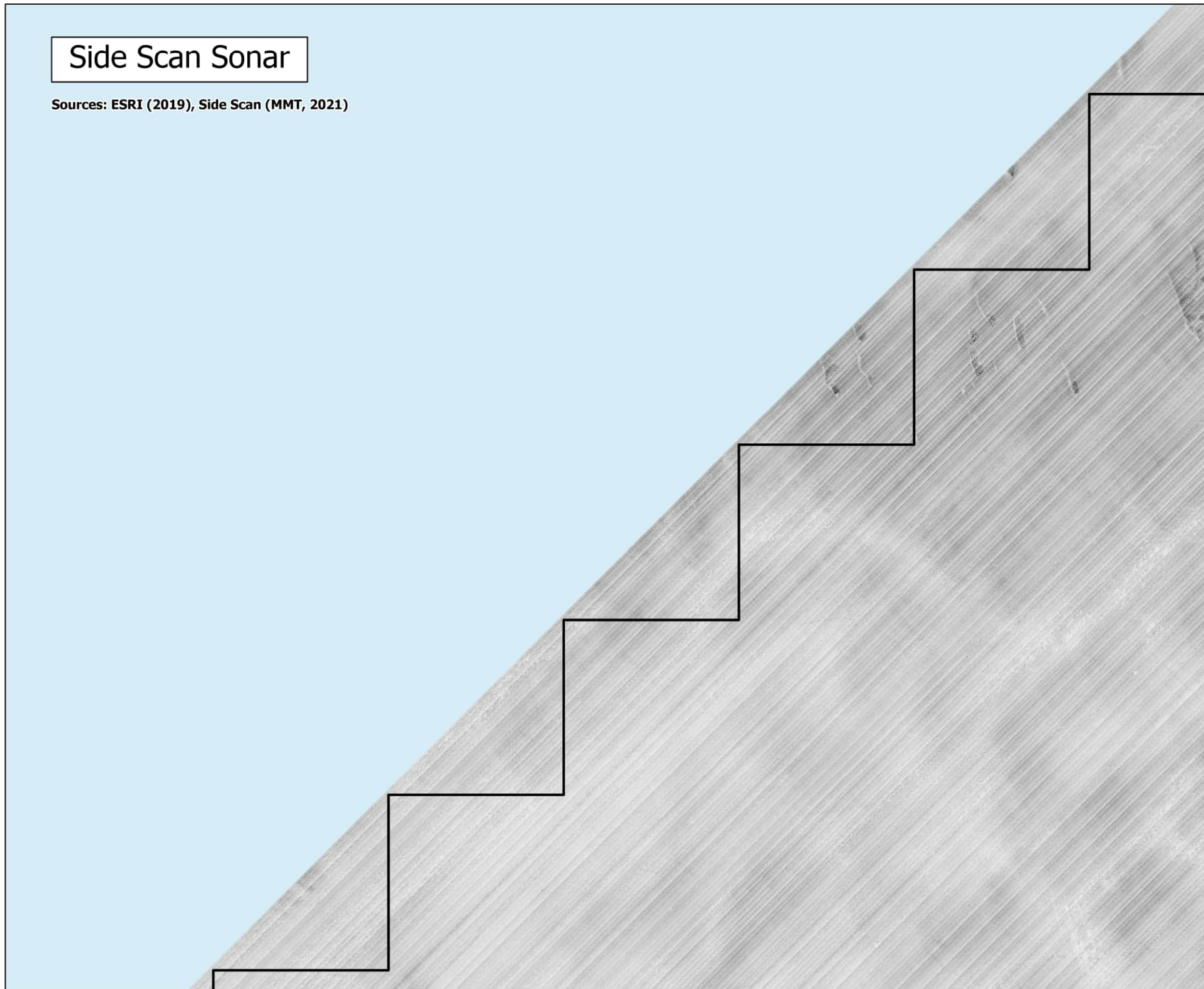
Backscatter

Sources: ESRI (2019), Backscatter (MMT, 2021), TetraTech (October 2022)



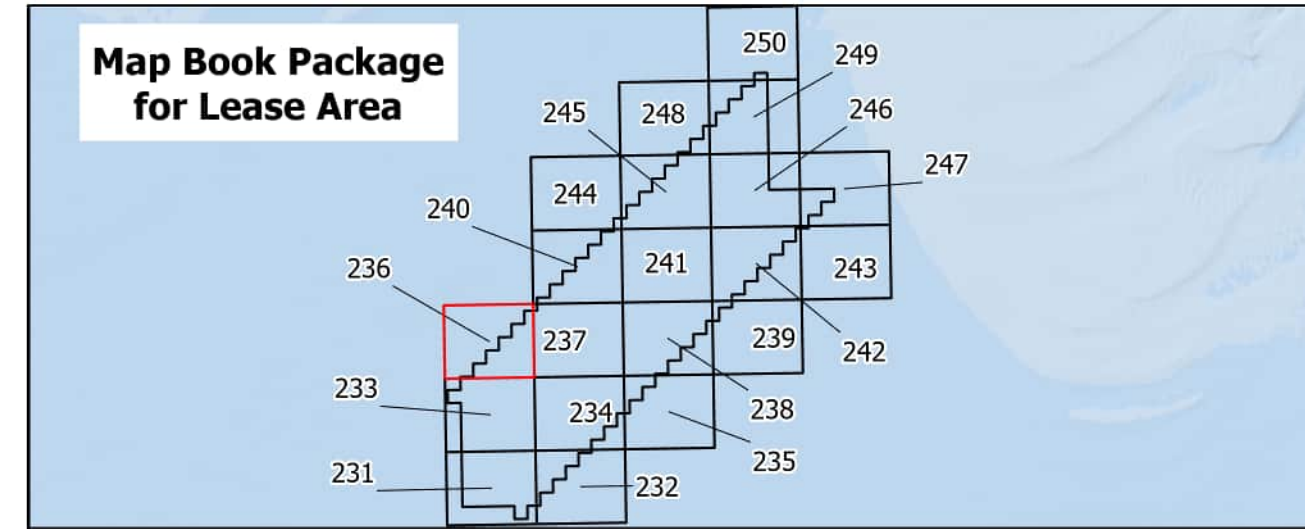
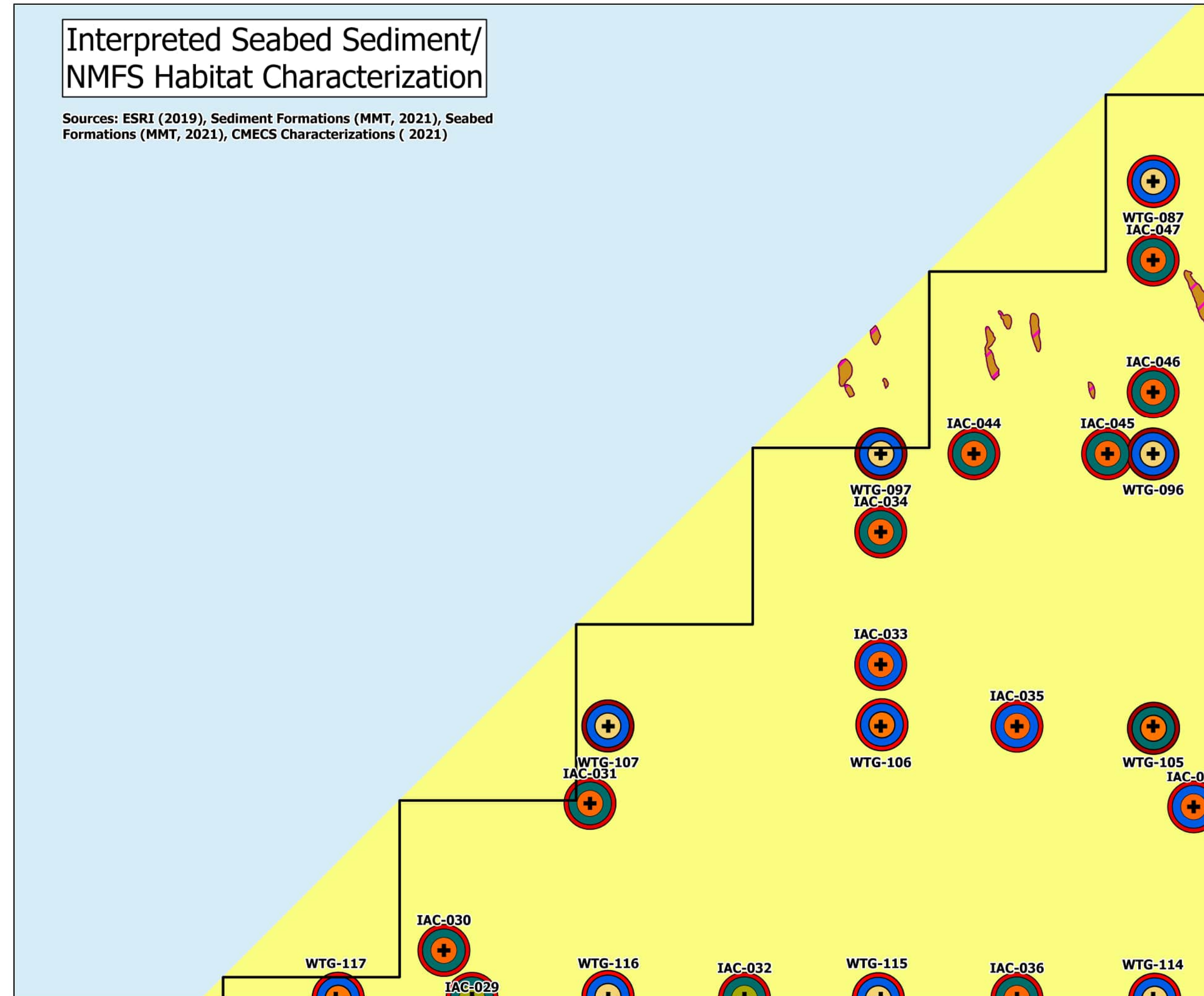
Side Scan Sonar

Sources: ESRI (2019), Side Scan (MMT, 2021)



Interpreted Seabed Sediment/ NMFS Habitat Characterization

Sources: ESRI (2019), Sediment Formations (MMT, 2021), Seabed Formations (MMT, 2021), CMECS Characterizations (2021)



Map Book Package for Lease Area

Legend: Lease Area (black outline)

Bathymetry (MLLW)
Major Contours (5m Interval)
Color scale: -37 m (-121 ft) to -63 m (-207 ft)

Backscatter
Delineated Backscatter Intensity Returns
Low (pink), Medium (yellow)

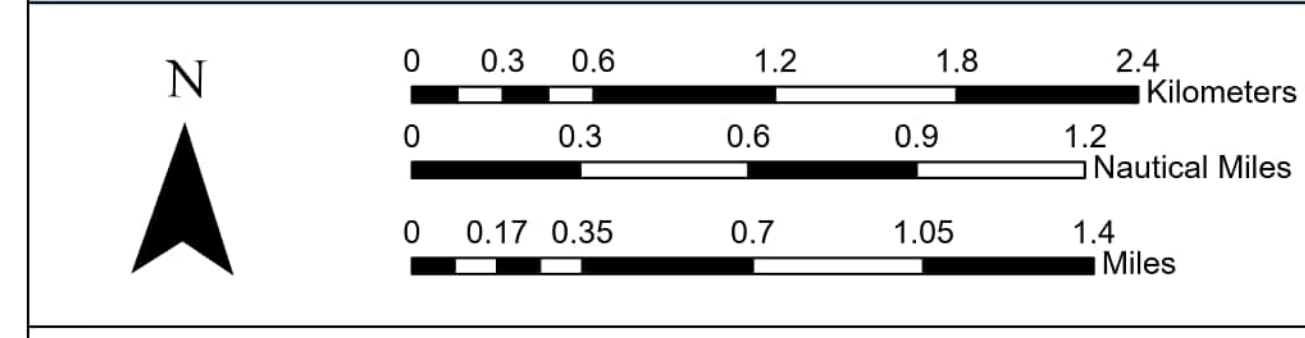
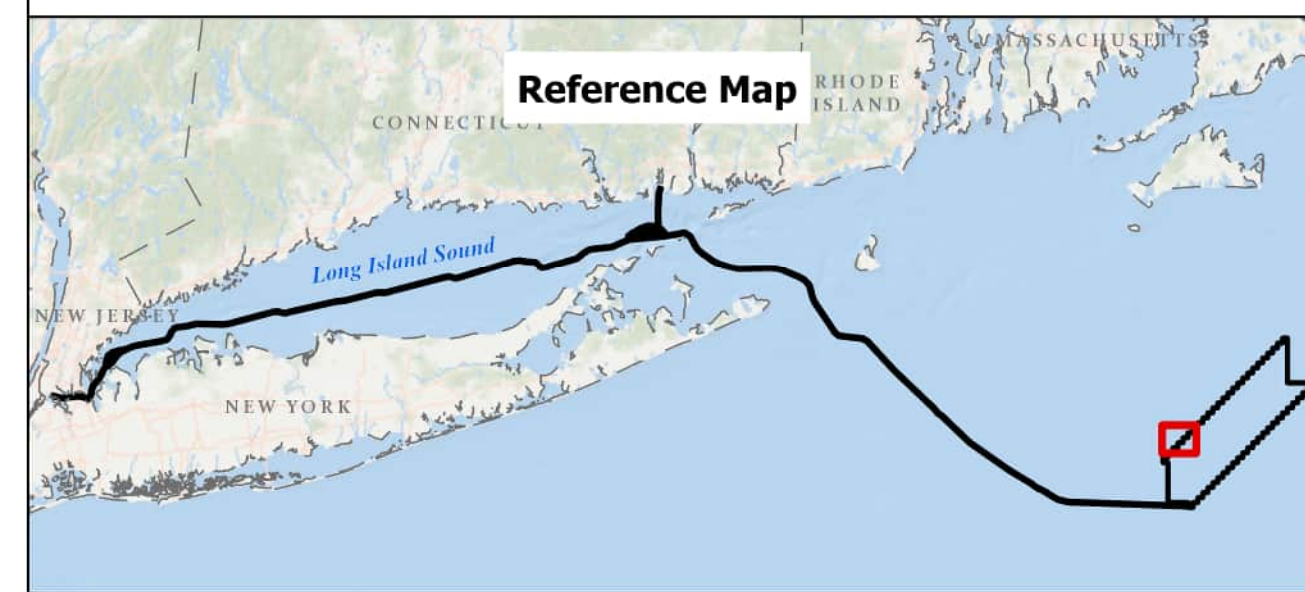
Side Scan Sonar
Low to High grayscale gradient

Benthic Features, Interpreted Seabed Sediment/NMFS Habitat Characterizations, and CMECS Classifications

<p>Station Type</p> <ul style="list-style-type: none"> + SPI/PV, Video and Grab Station Locations <p>CMECS Classification</p> <ul style="list-style-type: none"> Small Tube Building Fauna Soft Sediment Fauna Inferred Fauna 	<p>CMECS Substrate</p> <ul style="list-style-type: none"> Muddy Sand Sandy Mud <p>CMECS Geoform</p> <ul style="list-style-type: none"> Burrows/bioturbation Flat 	<p>Benthic Features</p> <ul style="list-style-type: none"> Sand Ripples <p>Interpreted Seabed Sediment/NMFS Habitat Characterization</p> <ul style="list-style-type: none"> Mud and Sandy Mud/Soft Bottom Habitat Sand and Muddy Sand/Soft Bottom Habitat
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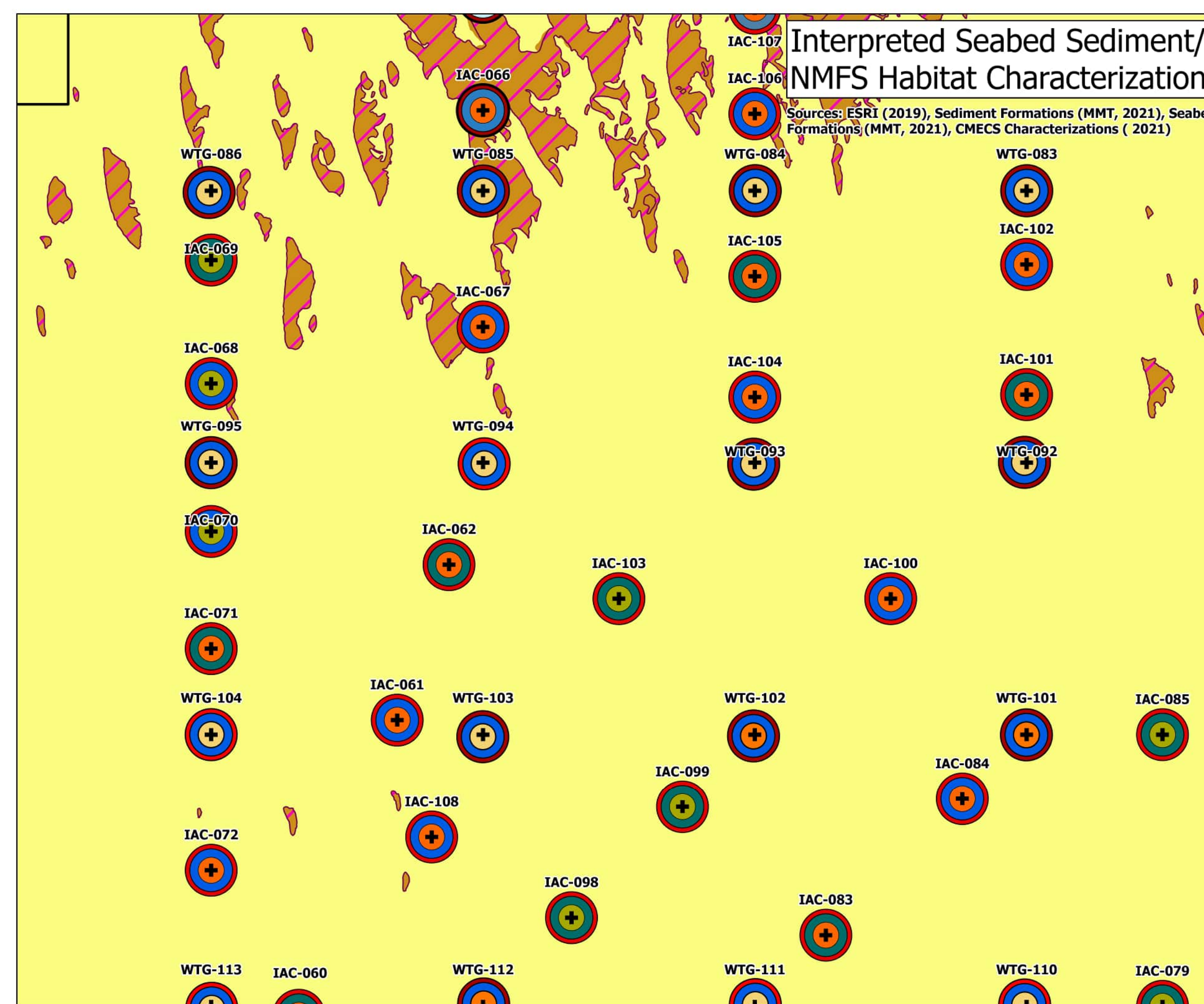
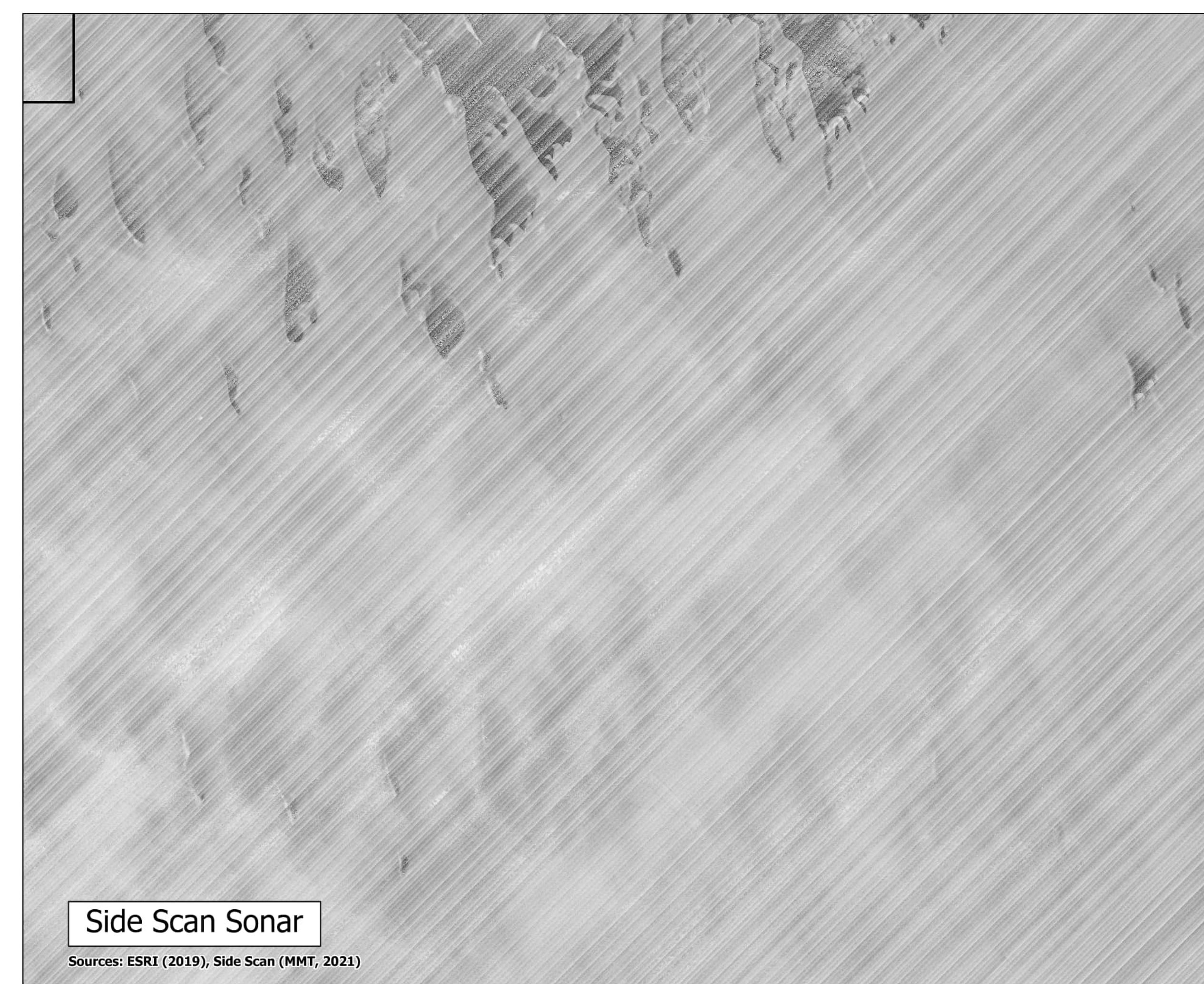
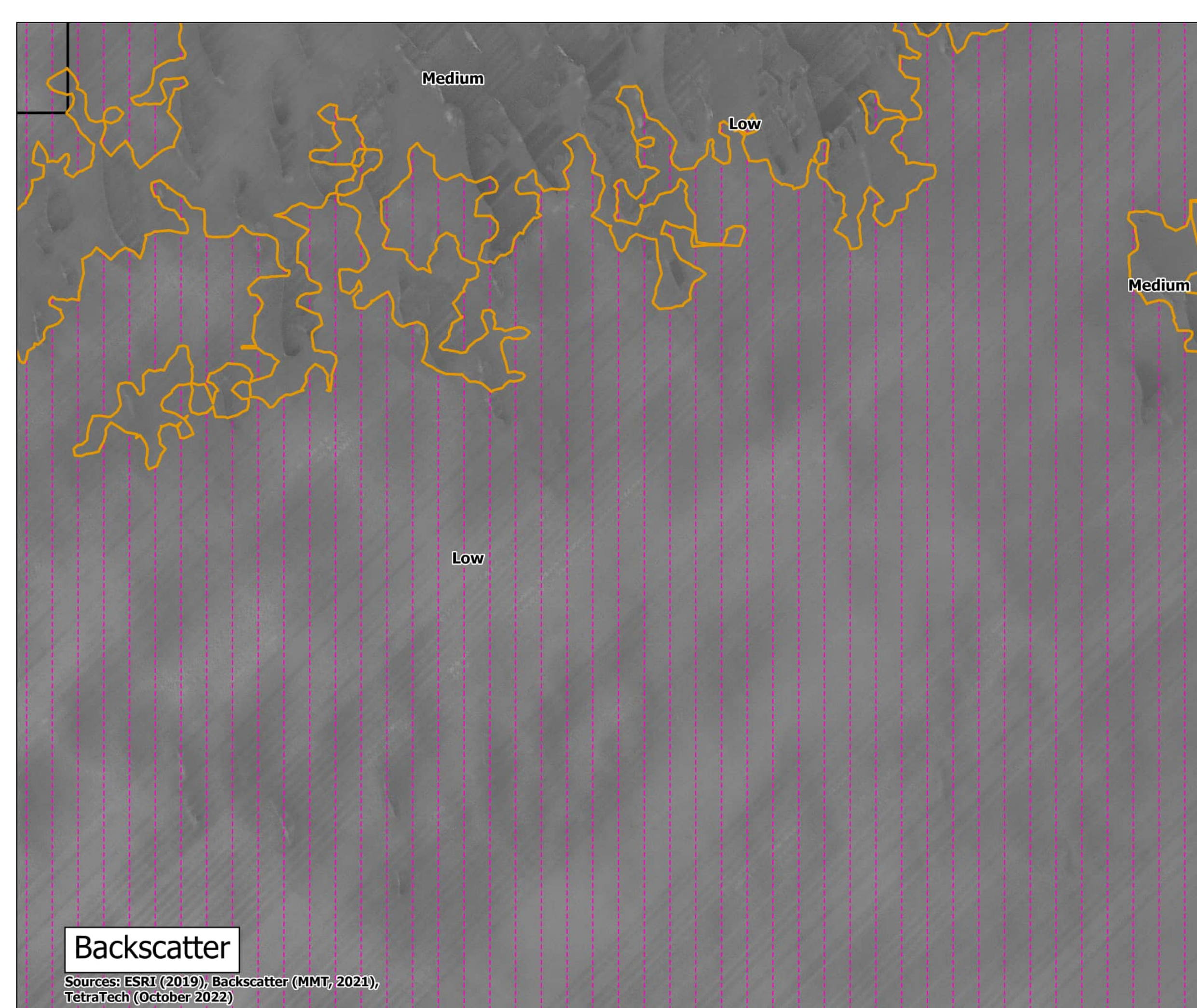
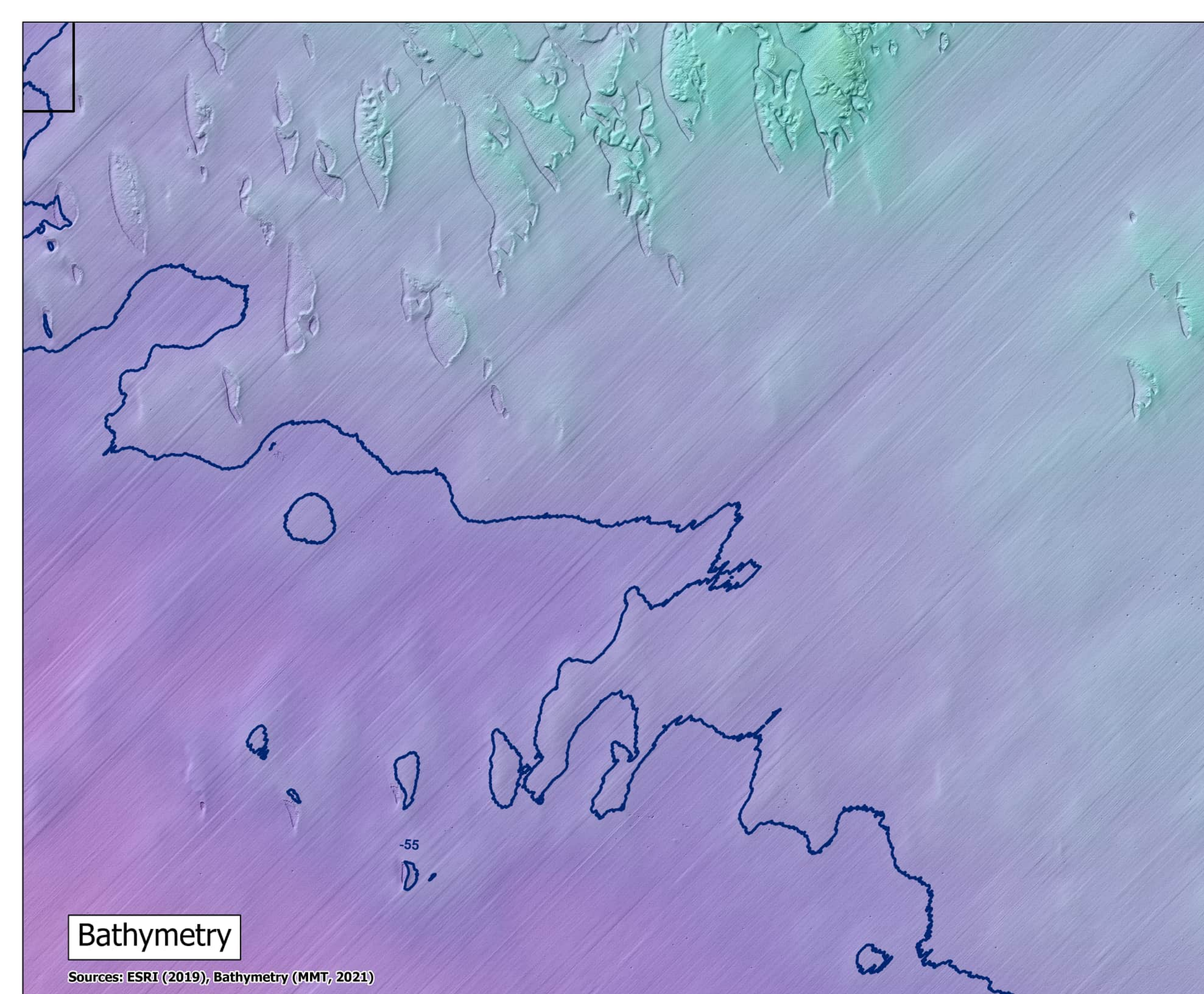
Note:
1) Legend only shows items visible in the current map extent.

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Scale: 1:25,000



BEACON WIND LEASE AREA OCS-A 0520

Map Book Package for Lease Area
Tile 236



Map Book Package for Lease Area

Lease Area

Bathymetry (MLLW)

Major Contours (5m Interval)

-37 m (-121 ft) to -63 m (-207 ft)

Backscatter

Delineated Backscatter Intensity Returns

Low Medium

Low High

Side Scan Sonar

Low High

Benthic Features, Interpreted Seabed Sediment/NMFS Habitat Characterizations, and CMECS Classifications

Station Type	CMECS Substrate	Benthic Features
+	Blue circle	Sand Ripples
+	Green circle	Muddy Sand
+	Red circle	Sandy Mud
+	Dark Red circle	Burrows/bioturbation
+	Light Red circle	Flat
+	Orange circle	Soft Sediment Fauna
+	Yellow circle	Inferred Fauna
+	Light Blue circle	Small Tube Building Fauna
+	Light Green circle	Soft Sediment Fauna
+	Light Yellow circle	Inferred Fauna

CMECS Biotic

CMECS Geoform

Interpreted Seabed Sediment/NMFS Habitat Characterization

Mud and Sandy Mud/Soft Bottom Habitat

Sand and Muddy Sand/Soft Bottom Habitat

Note: 1) Legend only shows items visible in the current map extent.

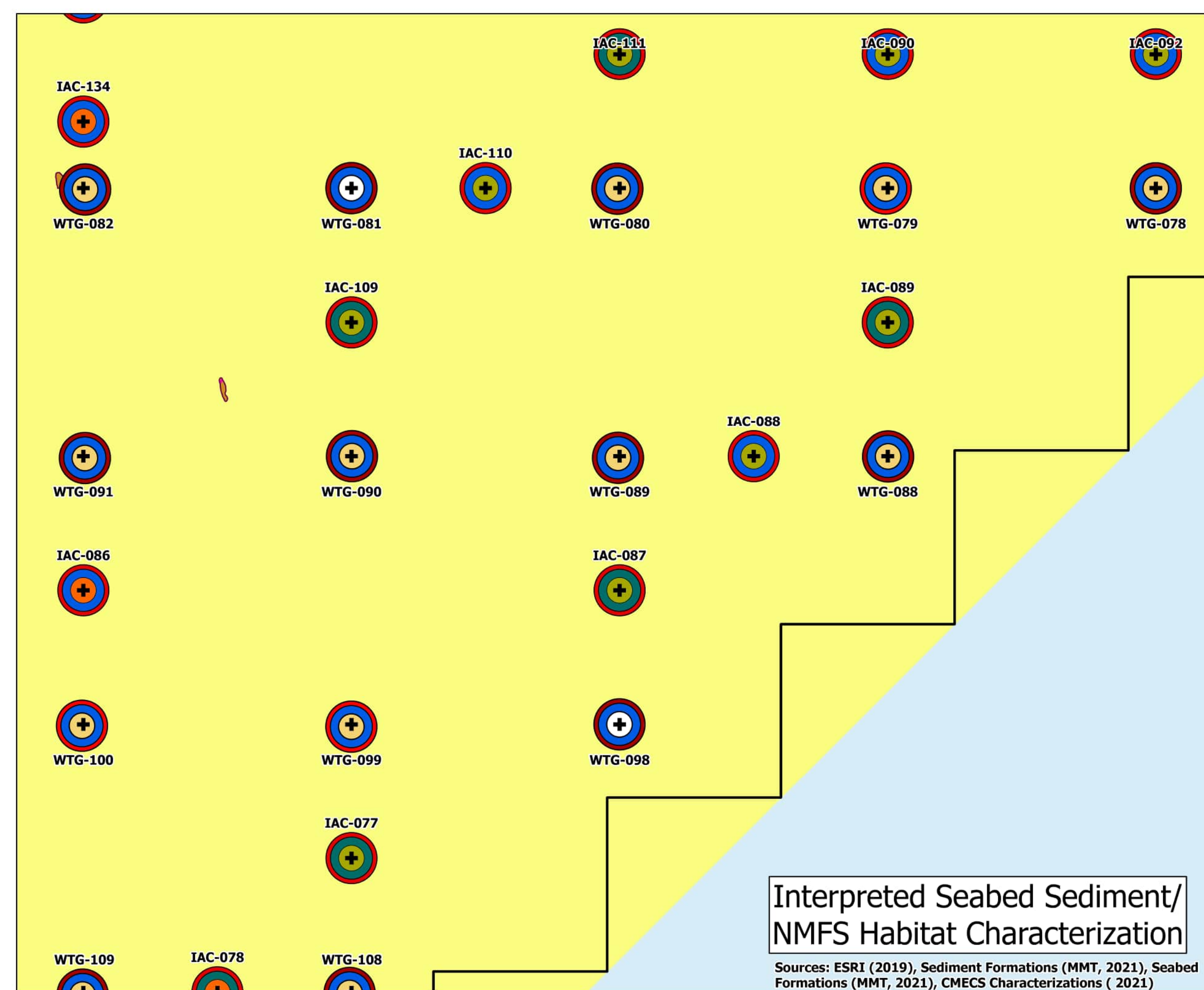
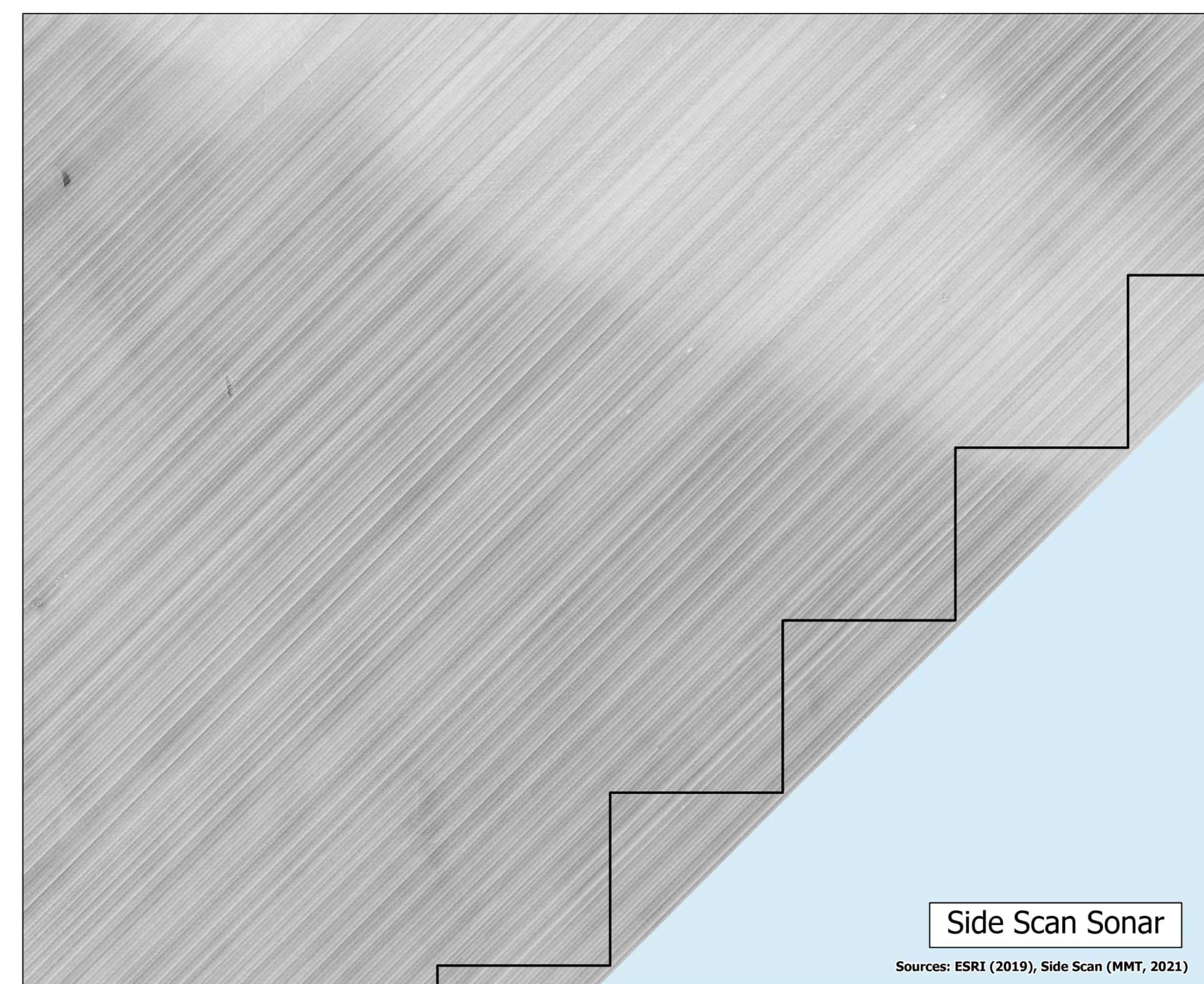
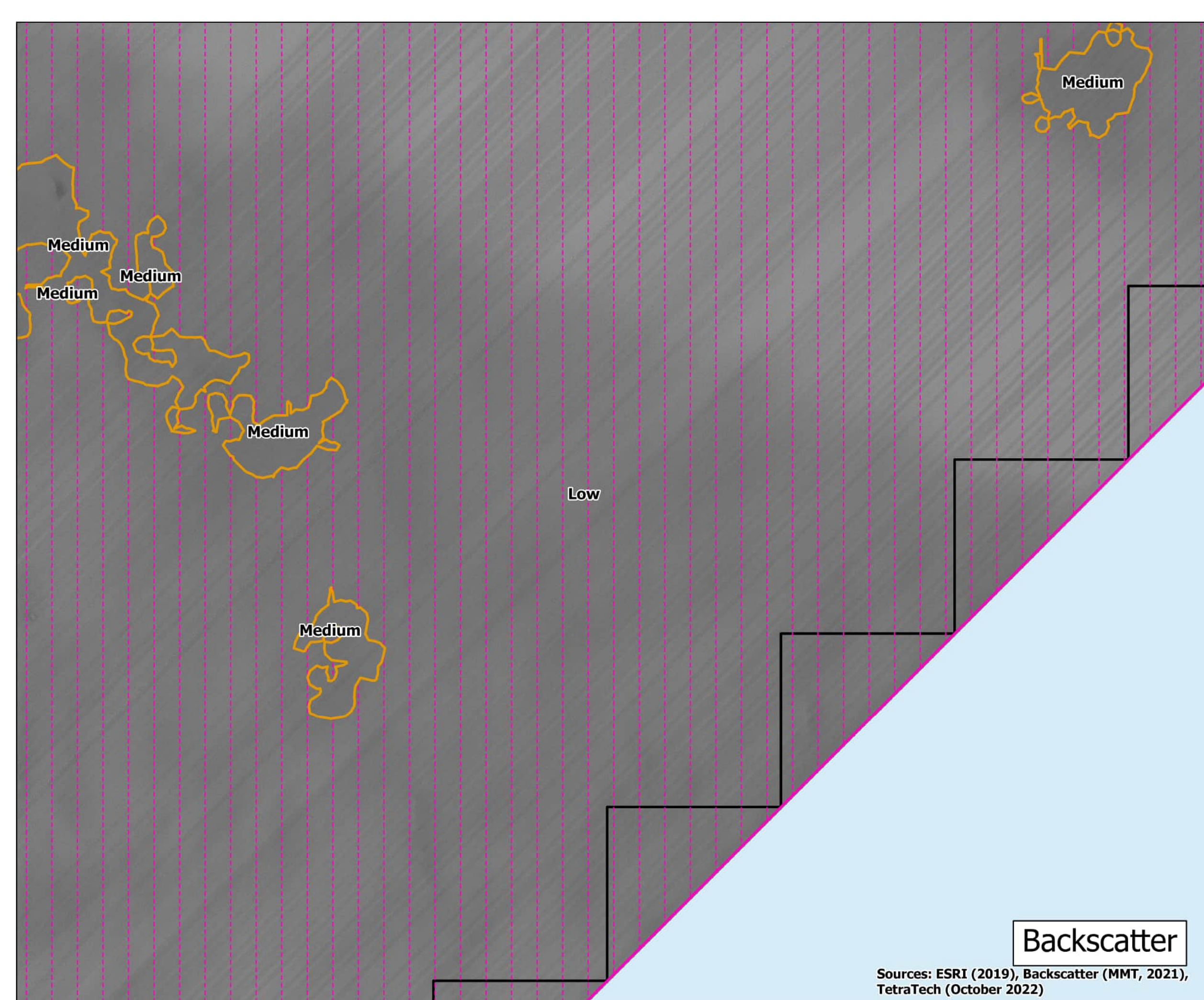
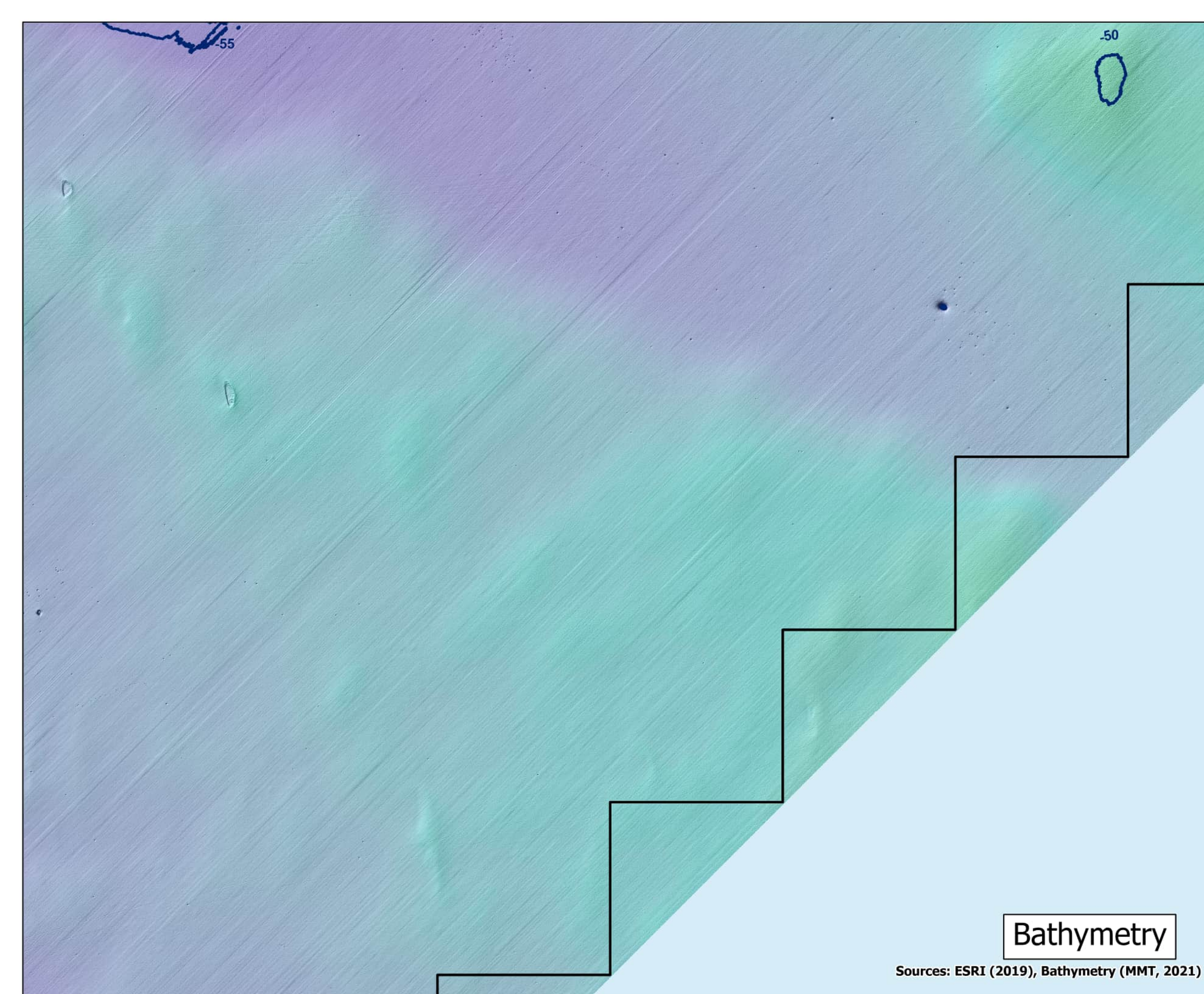
Prepared By: AECOM
Date: 2/28/2023
Scale: 1:25,000

Reference Map

0 0.3 0.6 1.2 1.8 2.4 Kilometers
0 0.3 0.6 0.9 1.2 Nautical Miles
0 0.17 0.35 0.7 1.05 1.4 Miles

BEACON WIND LEASE AREA OCS-A 0520

Map Book Package for Lease Area
Tile 237



Map Book Package for Lease Area

Lease Area

Bathymetry (MLLW)

Major Contours (5m Interval)

-37 m (-121 ft) to -63 m (-207 ft)

Backscatter

Delineated Backscatter Intensity Returns

Low Medium

Low High

Side Scan Sonar

Low High

Benthic Features, Interpreted Seabed Sediment/NMFS Habitat Characterizations, and CMECS Classifications

Station Type	CMECS Substrate	Benthic Features
<ul style="list-style-type: none"> SPI/PV, Video and Grab Station Locations 	<ul style="list-style-type: none"> Muddy Sand Sandy Mud Burrows/bioturbation Flat 	<ul style="list-style-type: none"> Sand Ripples
CMECS Classification	CMECS Geoform	Interpreted Seabed Sediment/NMFS Habitat Characterization
<ul style="list-style-type: none"> Ampelisca vadorum Small Tube Building Fauna Soft Sediment Fauna Inferred Fauna 	<ul style="list-style-type: none"> Burrows/bioturbation Flat 	<ul style="list-style-type: none"> Mud and Sandy Mud/Soft Bottom Habitat Sand and Muddy Sand/Soft Bottom Habitat

Note:
1) Legend only shows items visible in the current map extent.

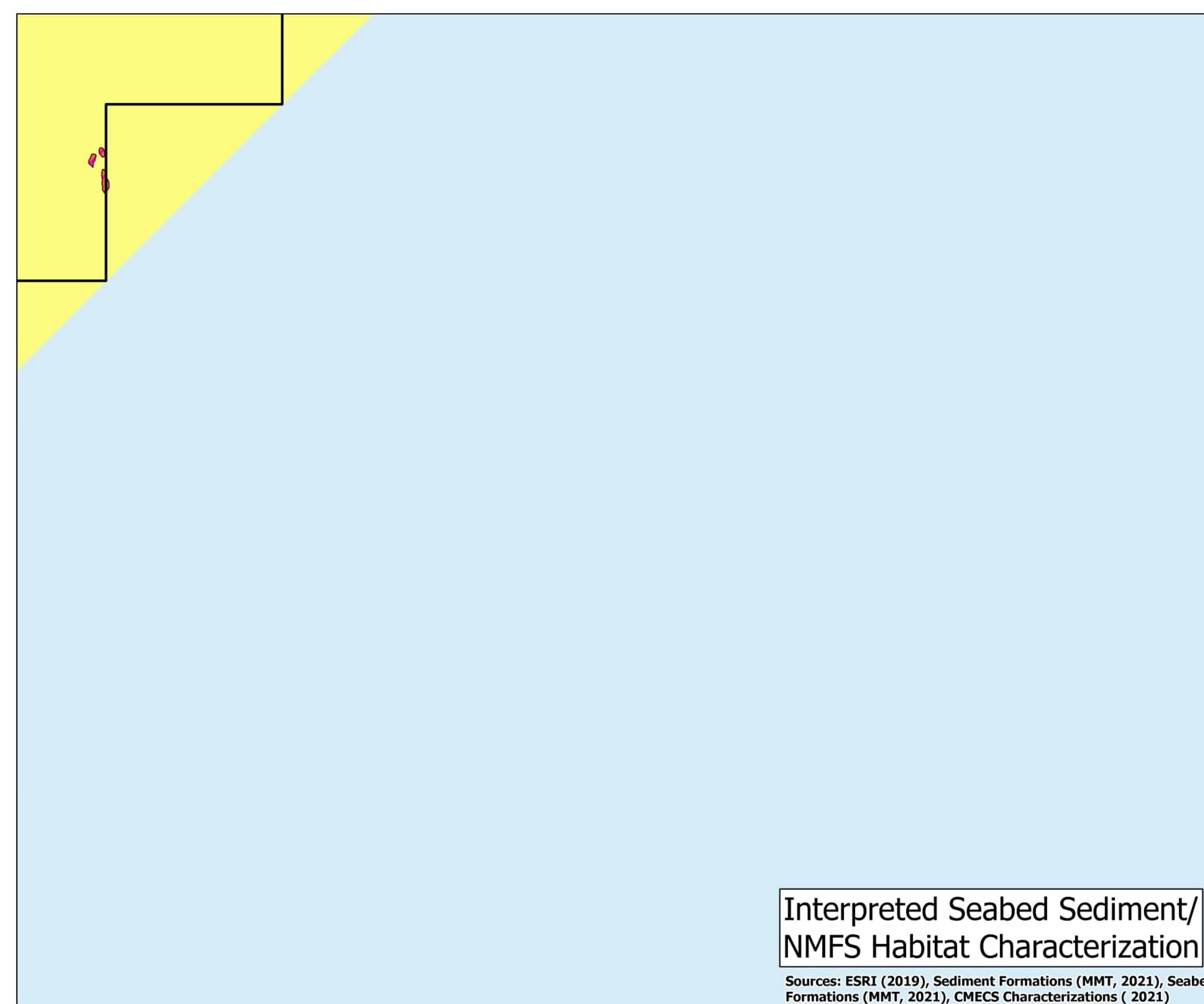
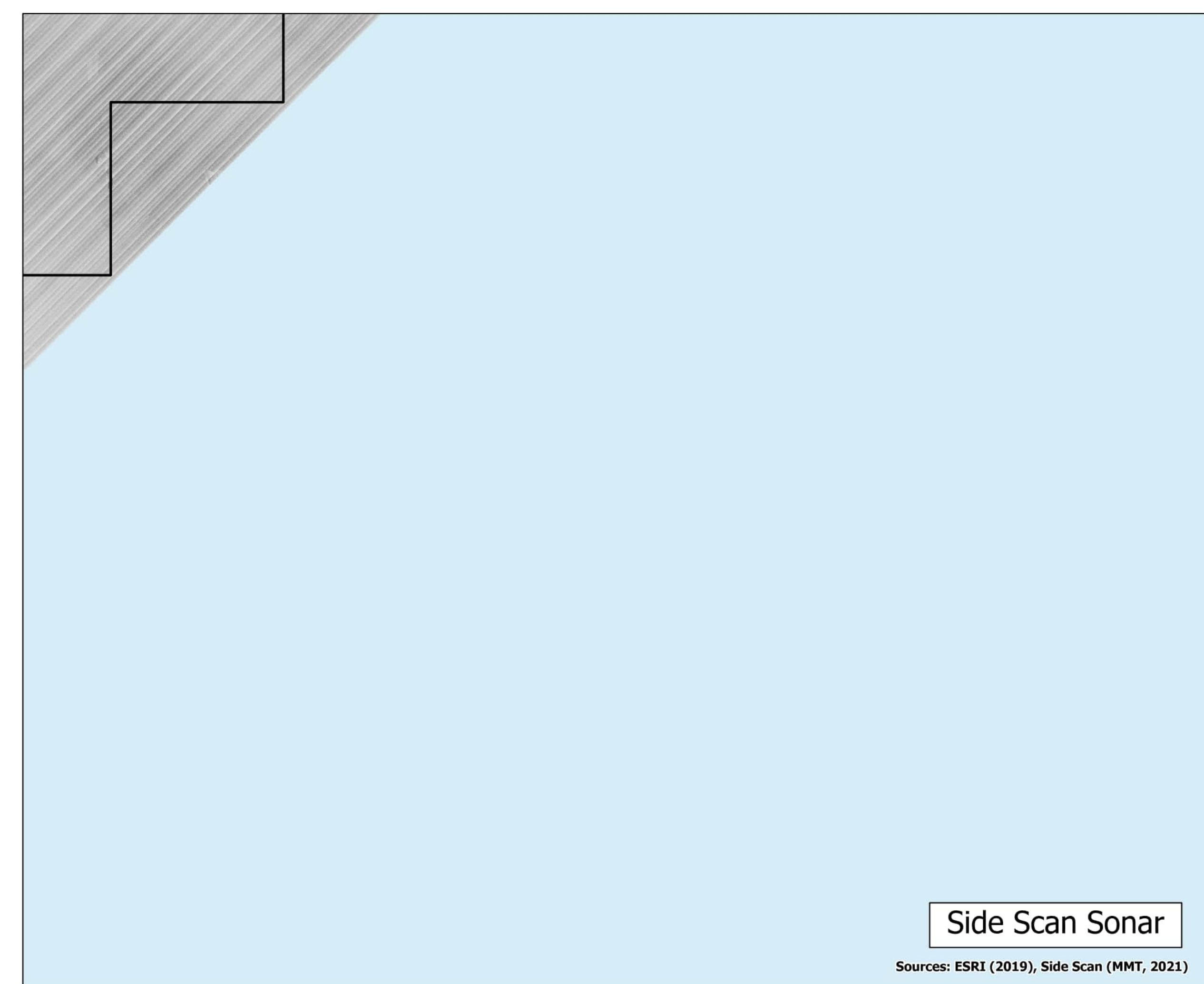
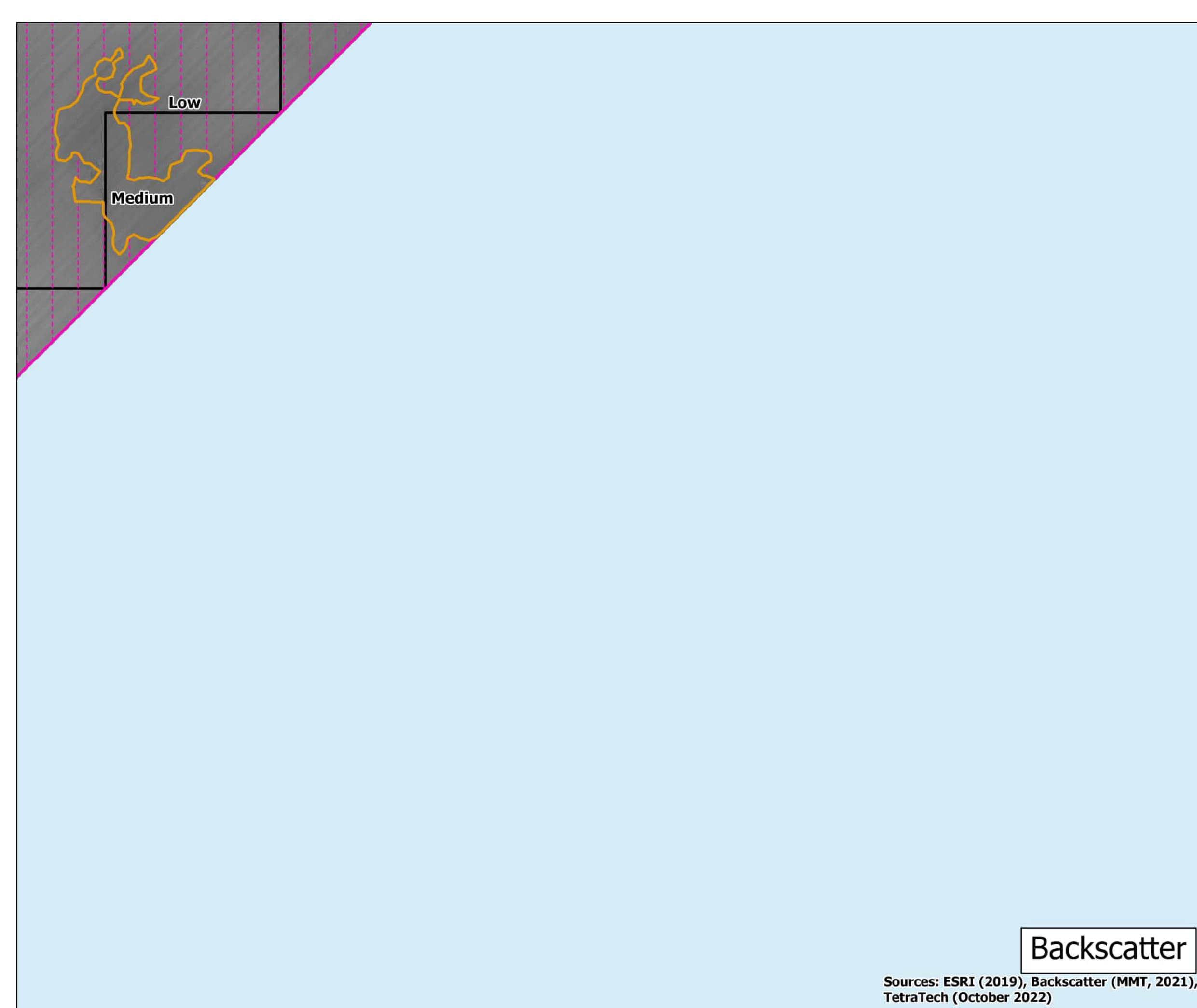
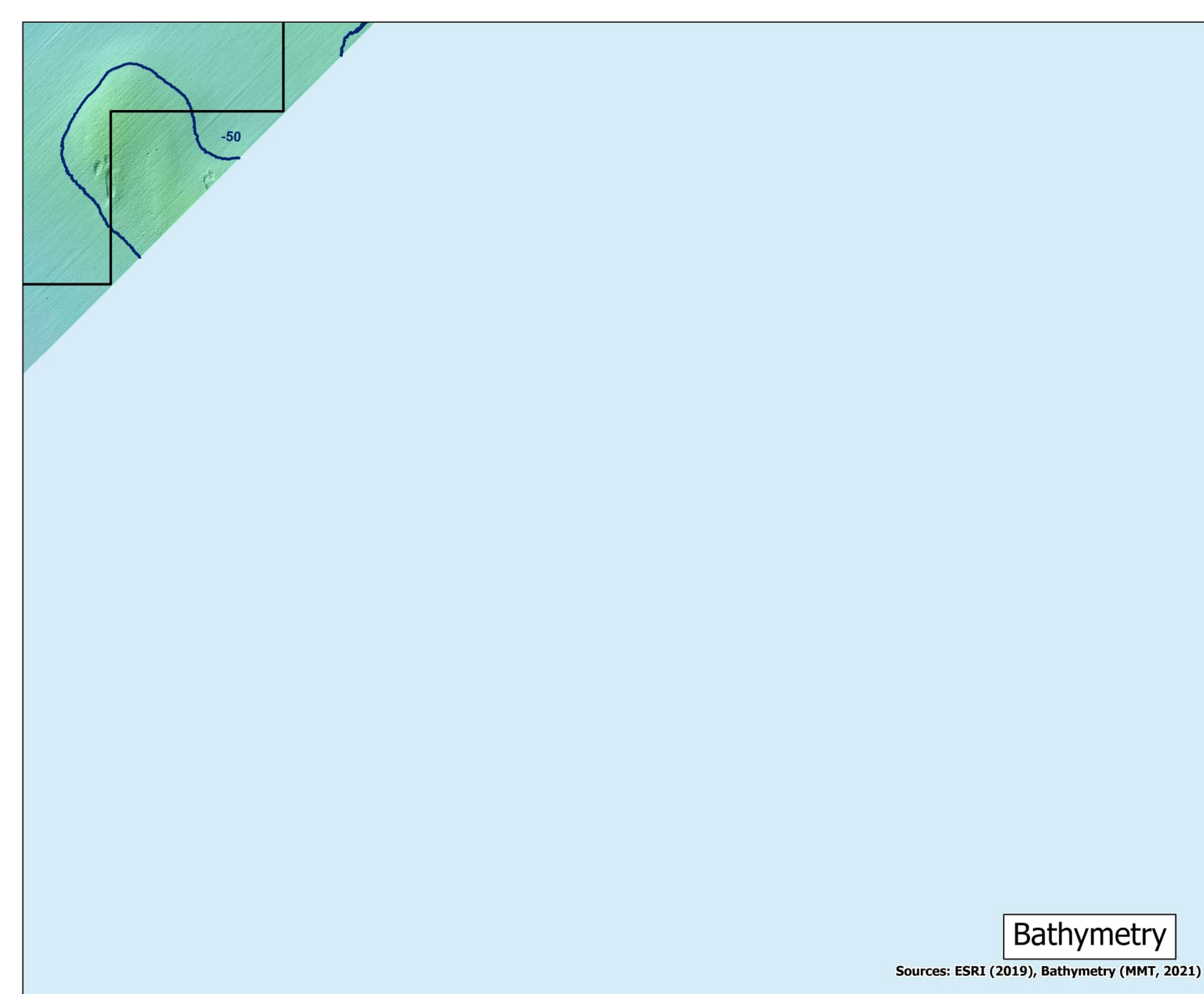
Prepared By: AECOM
Date: 2/28/2023
Scale: 1:25,000

Reference Map

0 0.3 0.6 1.2 1.8 2.4 Kilometers
0 0.3 0.6 0.9 1.2 Nautical Miles
0 0.17 0.35 0.7 1.05 1.4 Miles

BEACON WIND LEASE AREA OCS-A 0520

Map Book Package for Lease Area
Tile 238



Map Book Package for Lease Area

Legend: Lease Area

Bathymetry (MLLW)

Major Contours (5m Interval)

-37 m (-121 ft) to -63 m (-207 ft)

Backscatter

Delineated Backscatter Intensity Returns

Low (pink) Medium (yellow)

Low to High

Side Scan Sonar

Low to High

**Benthic Features, Interpreted Seabed Sediment/
NMFS Habitat Characterizations, and CMECS Classifications**

Benthic Features

- Sand Ripples (pink)

Interpreted Seabed Sediment/NMFS Habitat Characterization

- Mud and Sandy Mud/Soft Bottom Habitat (yellow)
- Sand and Muddy Sand/Soft Bottom Habitat (brown)

Note:
1) Legend only shows items visible in the current map extent.

Prepared By: AECOM
Date: 2/28/2023 Scale: 1:25,000

Reference Map

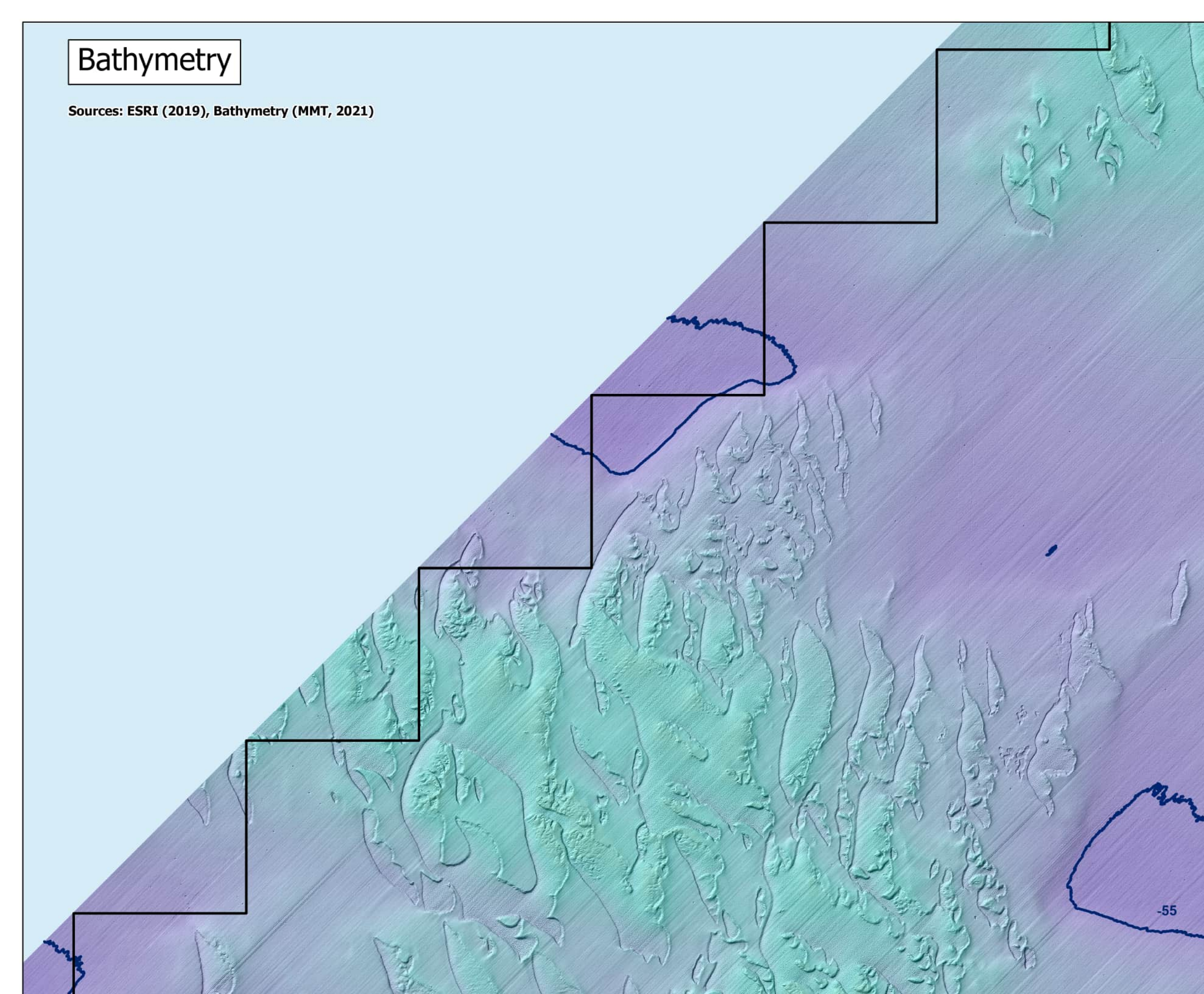
Scale:
0 0.3 0.6 1.2 1.8 2.4 Kilometers
0 0.3 0.6 0.9 1.2 Nautical Miles
0 0.17 0.35 0.7 1.05 1.4 Miles

BEACON WIND LEASE AREA OCS-A 0520

Map Book Package for Lease Area
Tile 239

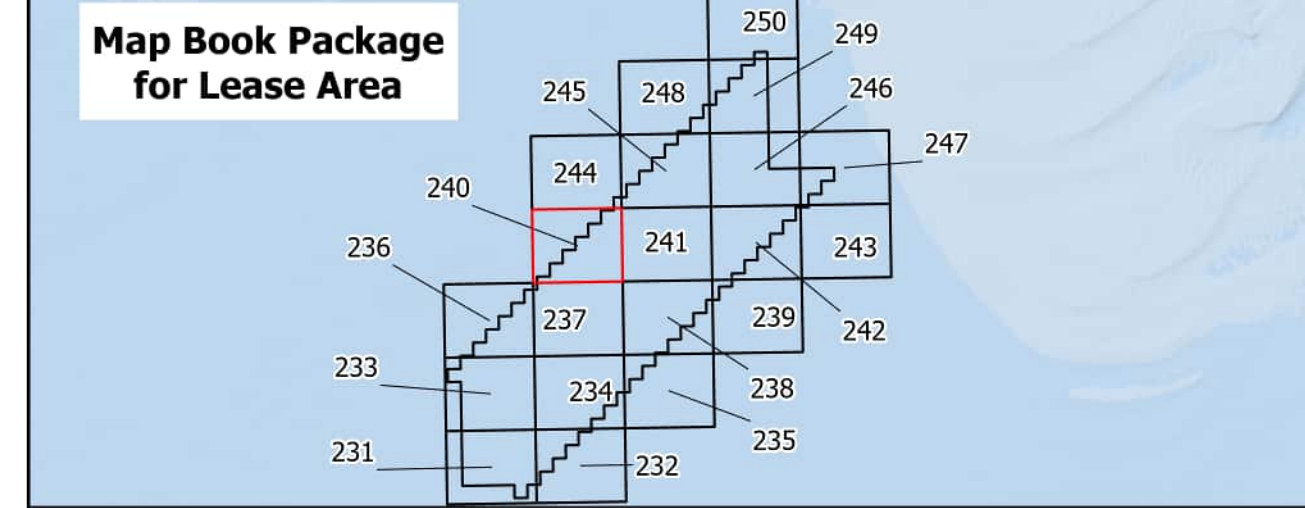
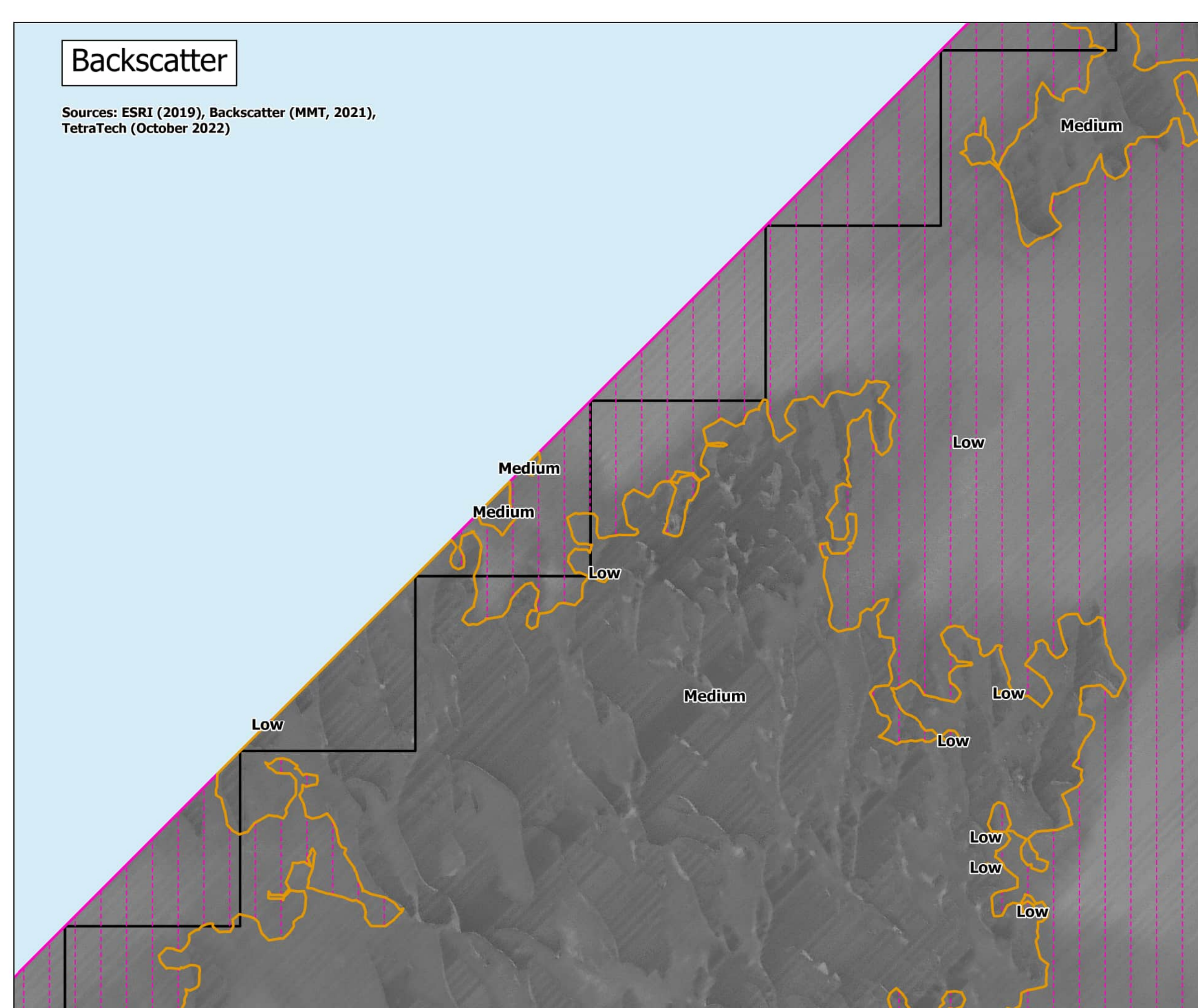
Bathymetry

Sources: ESRI (2019), Bathymetry (MMT, 2021)



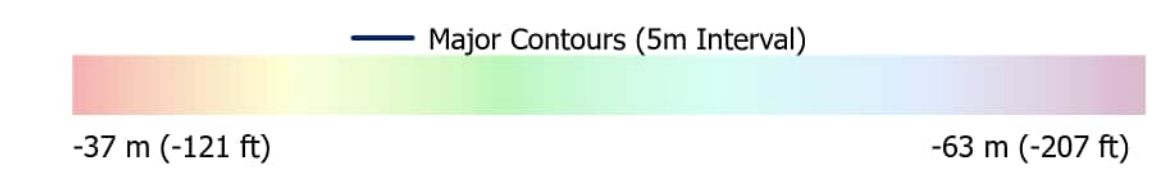
Backscatter

Sources: ESRI (2019), Backscatter (MMT, 2021), TetraTech (October 2022)

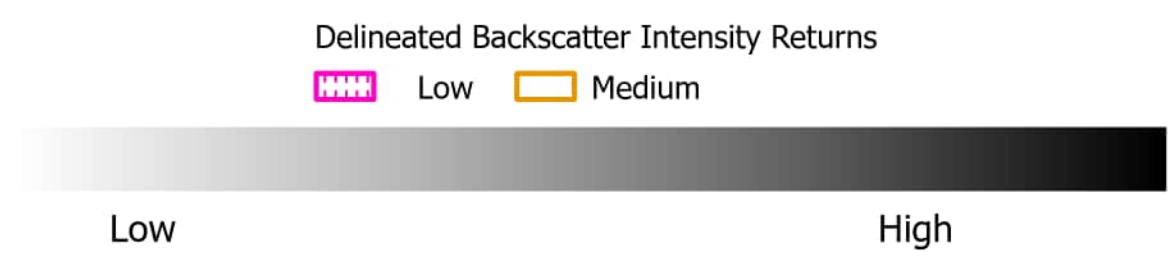


Lease Area

Bathymetry (MLLW)



Backscatter



Side Scan Sonar



Benthic Features, Interpreted Seabed Sediment/NMFS Habitat Characterizations, and CMECS Classifications

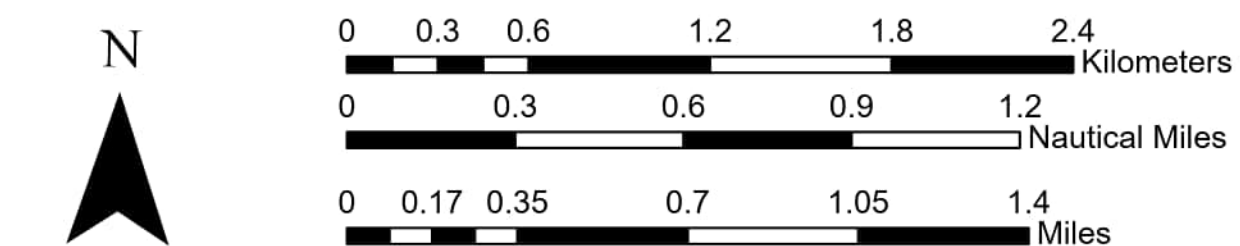
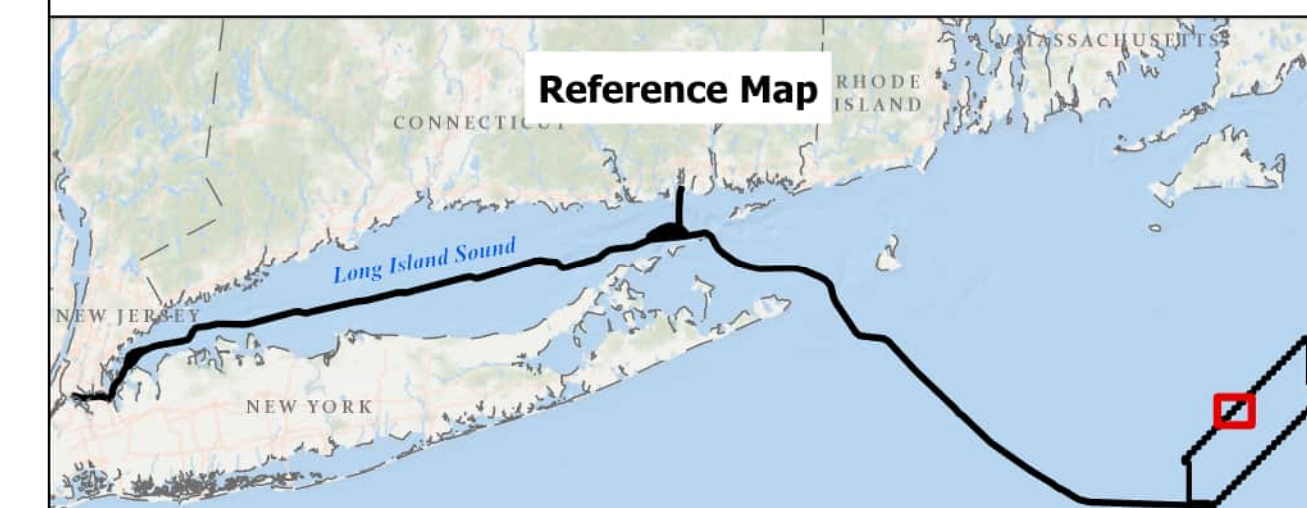
Station Type + SPI/PV, Video and Grab Station Locations CMECS Classification ○ Ampelisca vadorum ○ Small Tube Building Fauna ○ Soft Sediment Fauna ○ Inferred Fauna	CMECS Substrate ● Coarse/Very Coarse Sand ● Medium/Coarse Sand ● Muddy Sand ● Sandy Mud CMECS Geoform ● Burrows/bioturbation	● Flat Benthic Features ■ Sand Ripples Interpreted Seabed Sediment/NMFS Habitat Characterization ■ Mud and Sandy Mud/Soft Bottom Habitat ■ Sand and Muddy Sand/Soft Bottom Habitat
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Note:
1) Legend only shows items visible in the current map extent.

Prepared By: AECOM

Date: 2/28/2023

Scale: 1:25,000

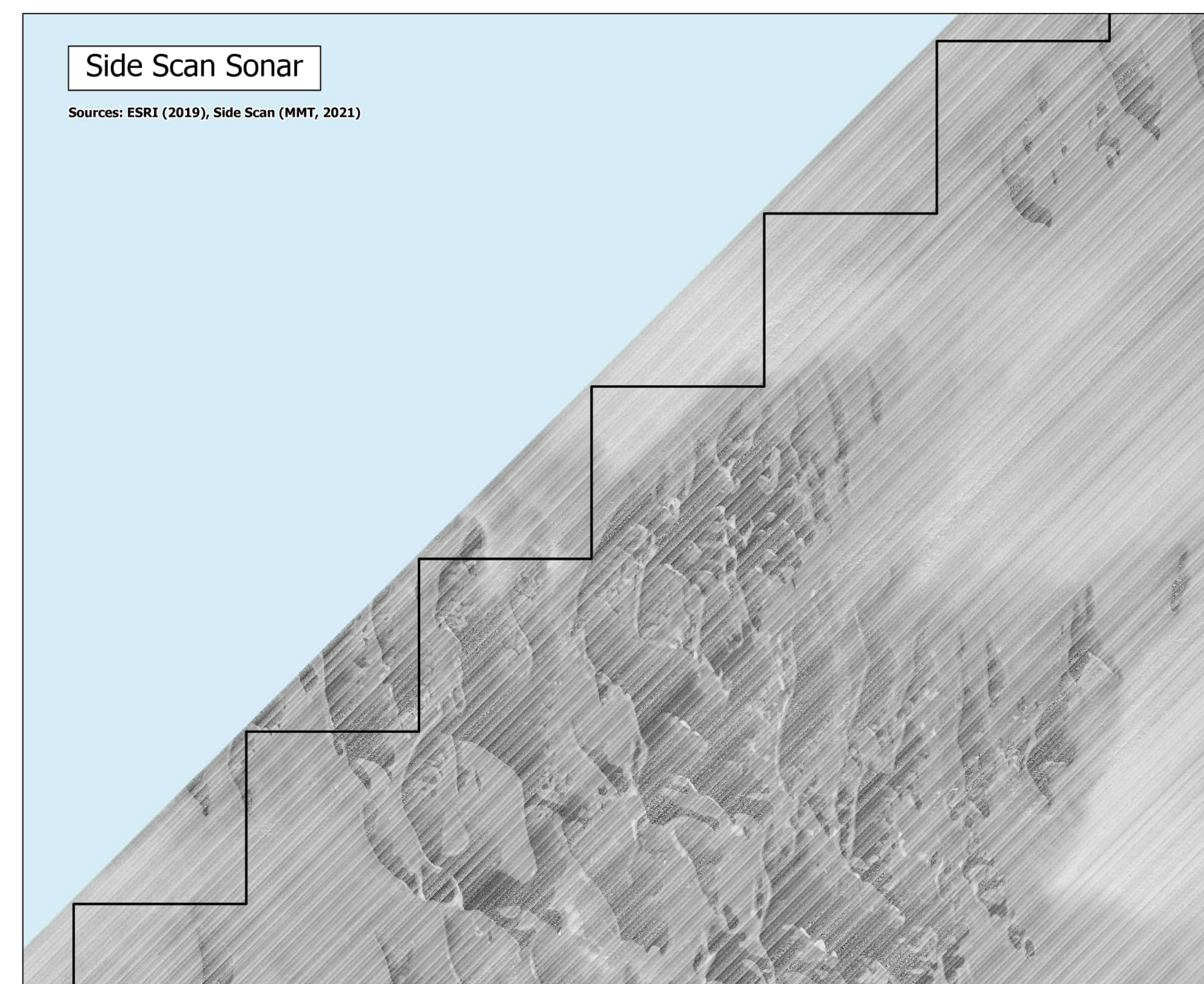


BEACON WIND LEASE AREA OCS-A 0520

Map Book Package for Lease Area
Tile 240

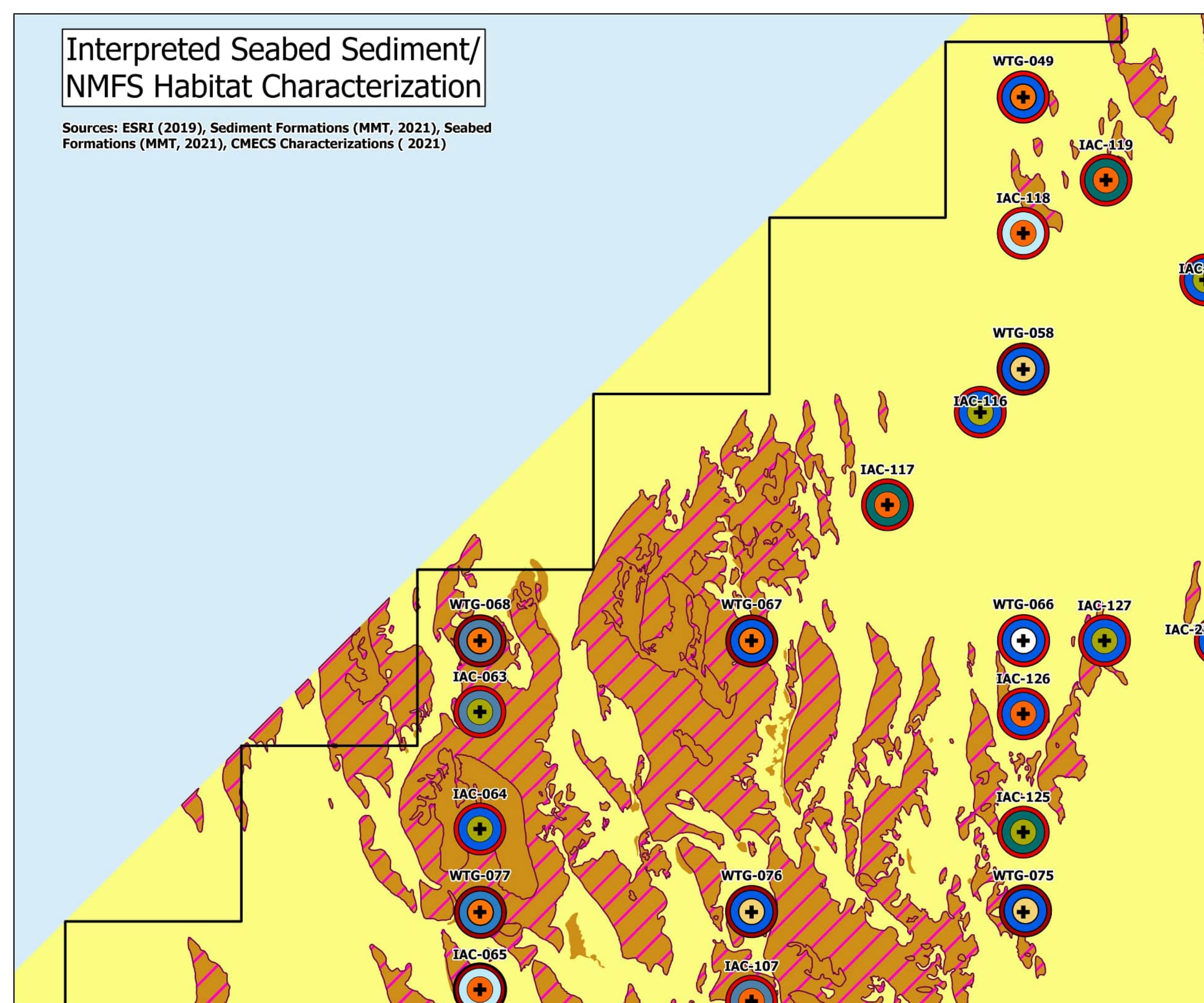
Side Scan Sonar

Sources: ESRI (2019), Side Scan (MMT, 2021)



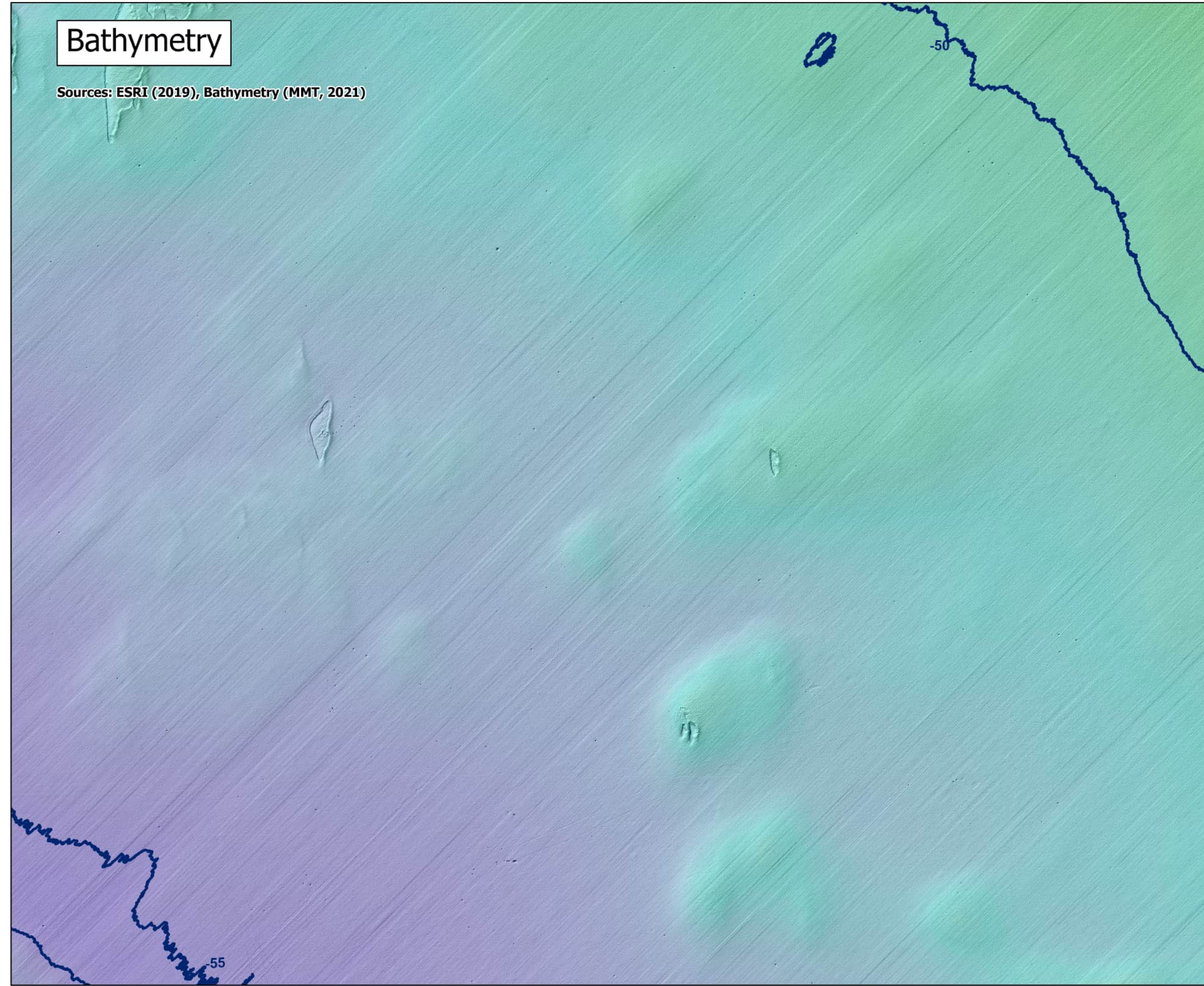
Interpreted Seabed Sediment/NMFS Habitat Characterization

Sources: ESRI (2019), Sediment Formations (MMT, 2021), Seabed Formations (MMT, 2021), CMECS Characterizations (2021)



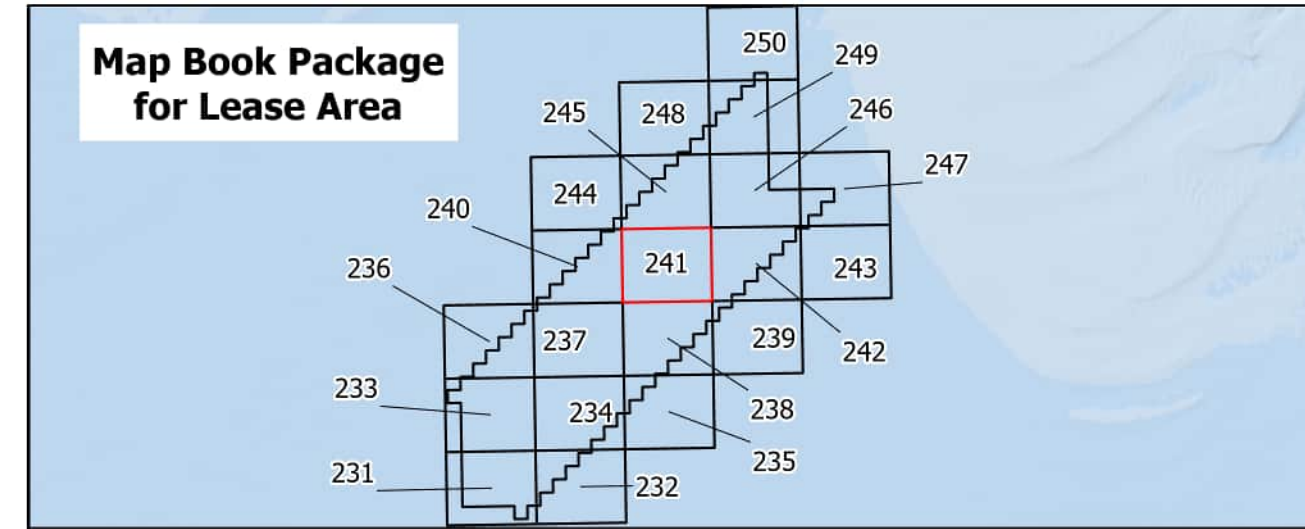
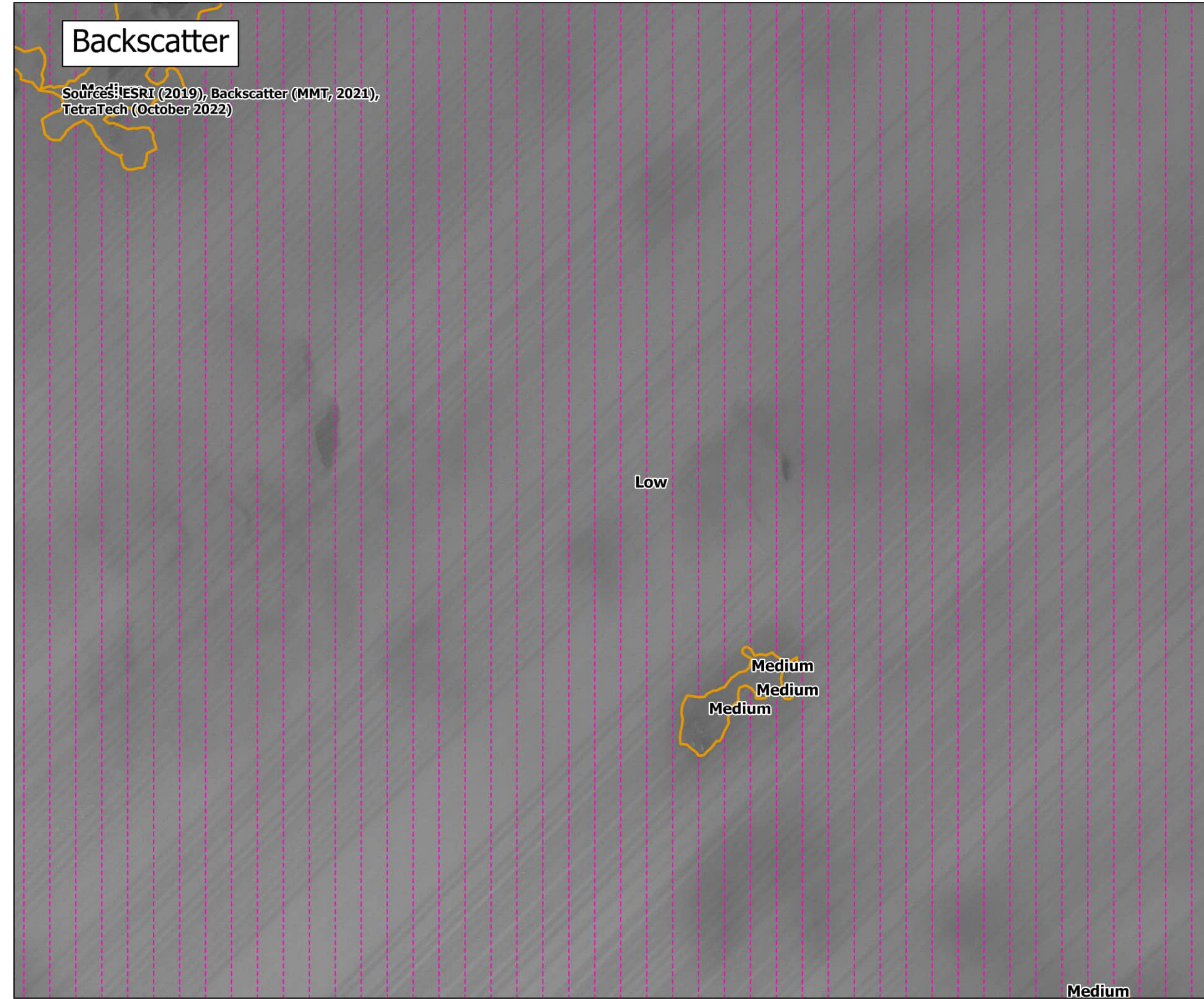
Bathymetry

Sources: ESRI (2019), Bathymetry (MMT, 2021)



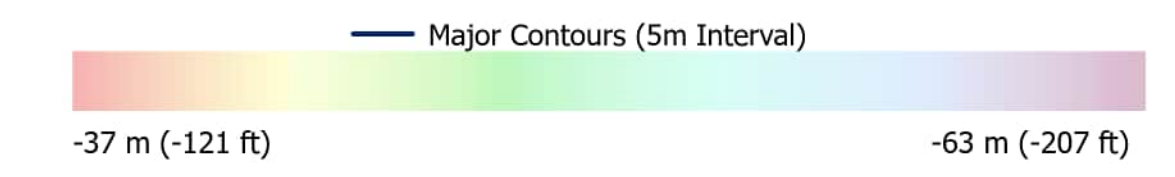
Backscatter

Sources: ESRI (2019), Backscatter (MMT, 2021), TetraTech (October 2022)



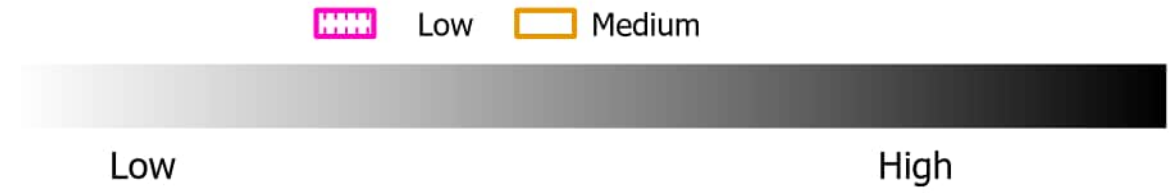
Lease Area

Bathymetry (MLLW)



Backscatter

Delineated Backscatter Intensity Returns



Side Scan Sonar

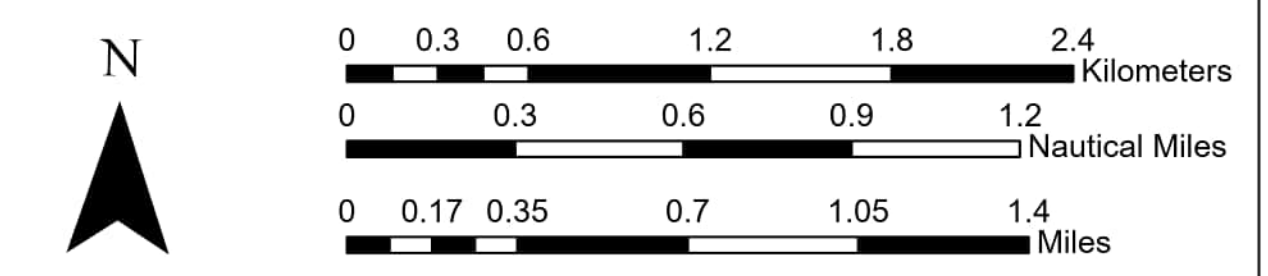


Benthic Features, Interpreted Seabed Sediment/NMFS Habitat Characterizations, and CMECS Classifications

Station Type + SPI/PV, Video and Grab Station Locations	CMECS Substrate ● Muddy Sand ● Sandy Mud	Benthic Features □ Sand Ripples □ Sand and Muddy Sand/Soft Bottom Habitat
CMECS Classification ● Nucula proxima ● Small Tube Building Fauna ● Soft Sediment Fauna ● Inferred Fauna	CMECS Geoform ● Burrows/bioturbation ● Flat	Interpreted Seabed Sediment/NMFS Habitat Characterization ● Mud and Sandy Mud/Soft Bottom Habitat ● Sand and Muddy Sand/Soft Bottom Habitat

Note:
1) Legend only shows items visible in the current map extent.

Prepared By: AECOM
Date: 2/28/2023
Scale: 1:25,000



BEACON WIND LEASE AREA OCS-A 0520
Map Book Package for Lease Area
Tile 241

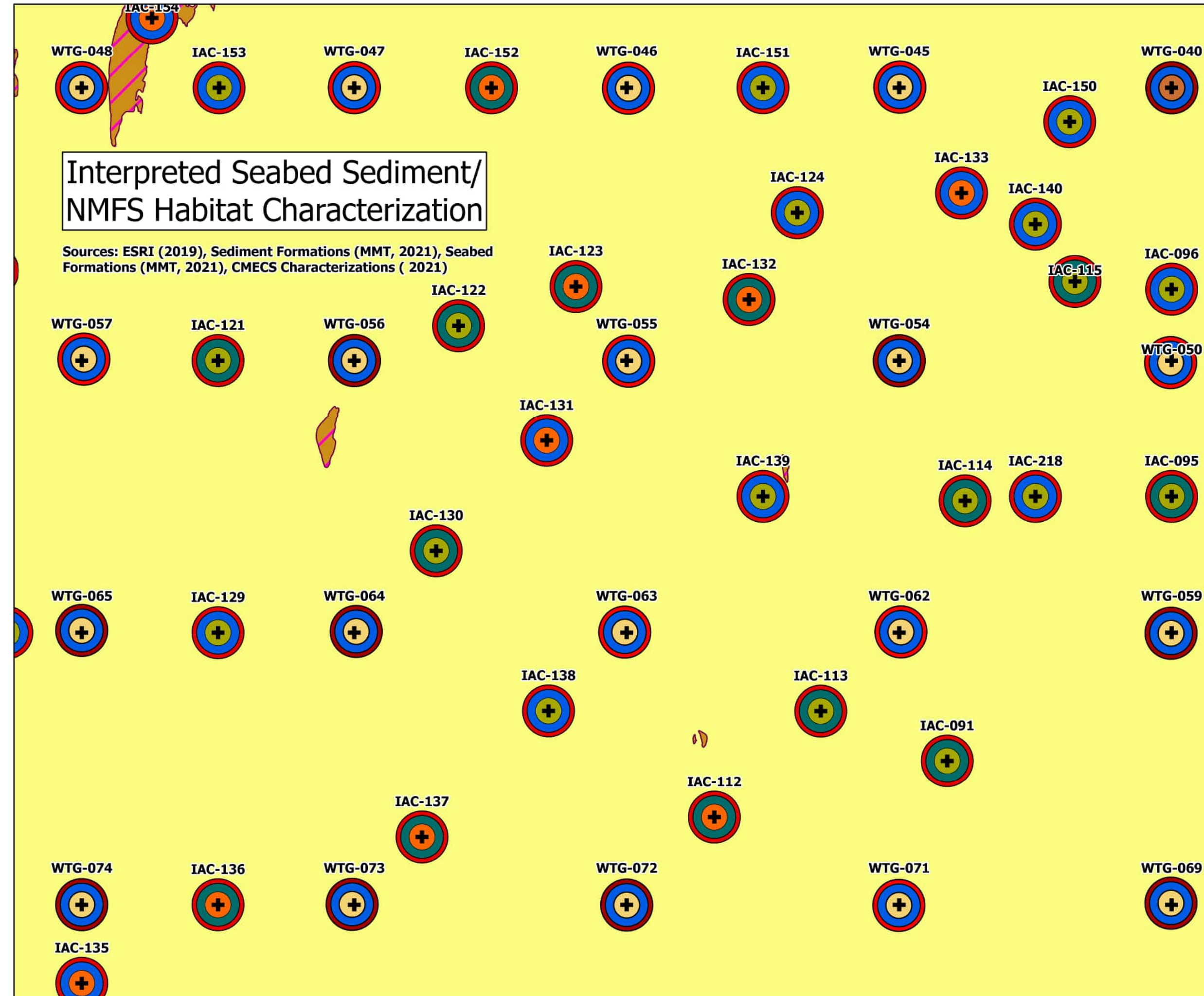
Side Scan Sonar

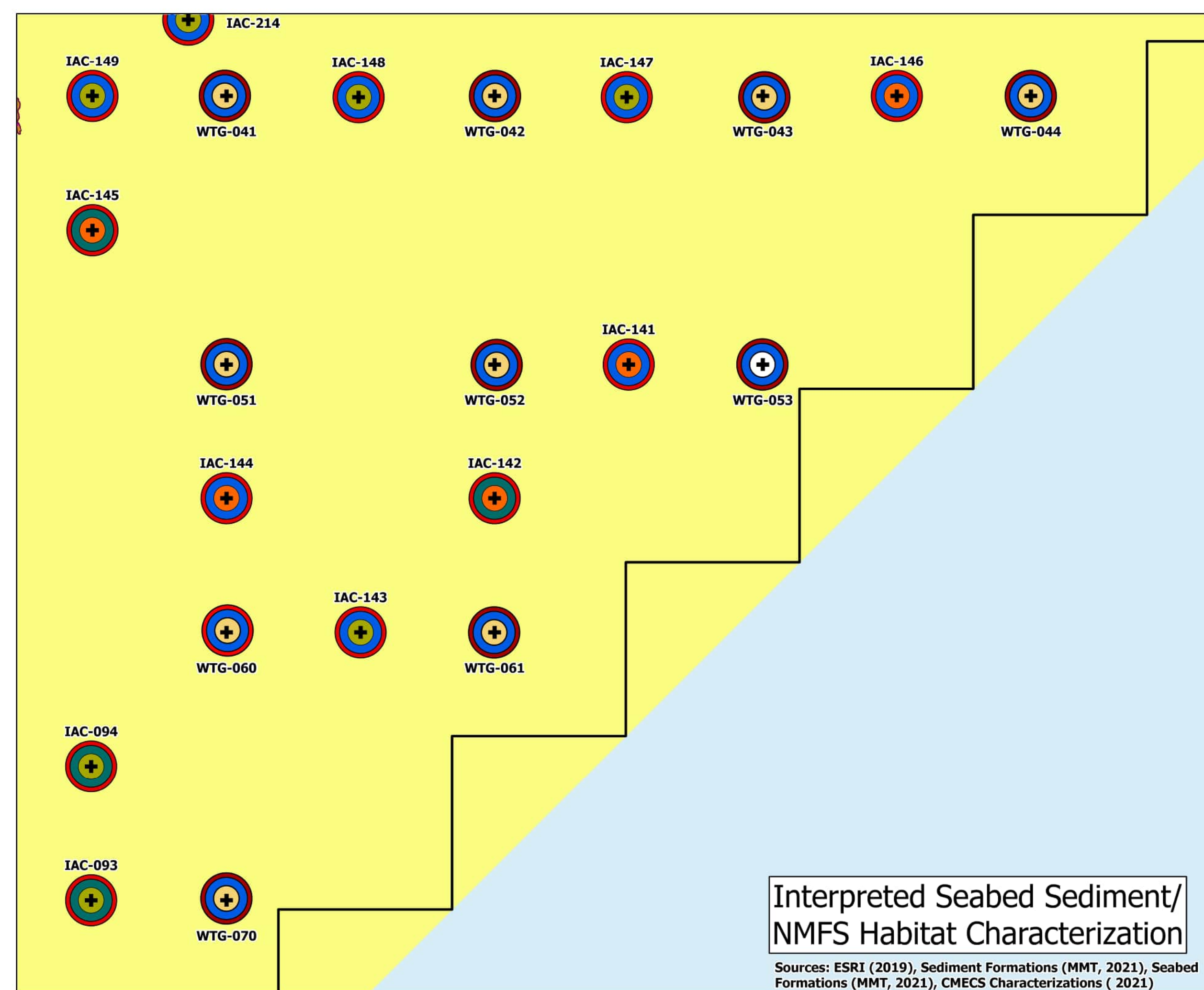
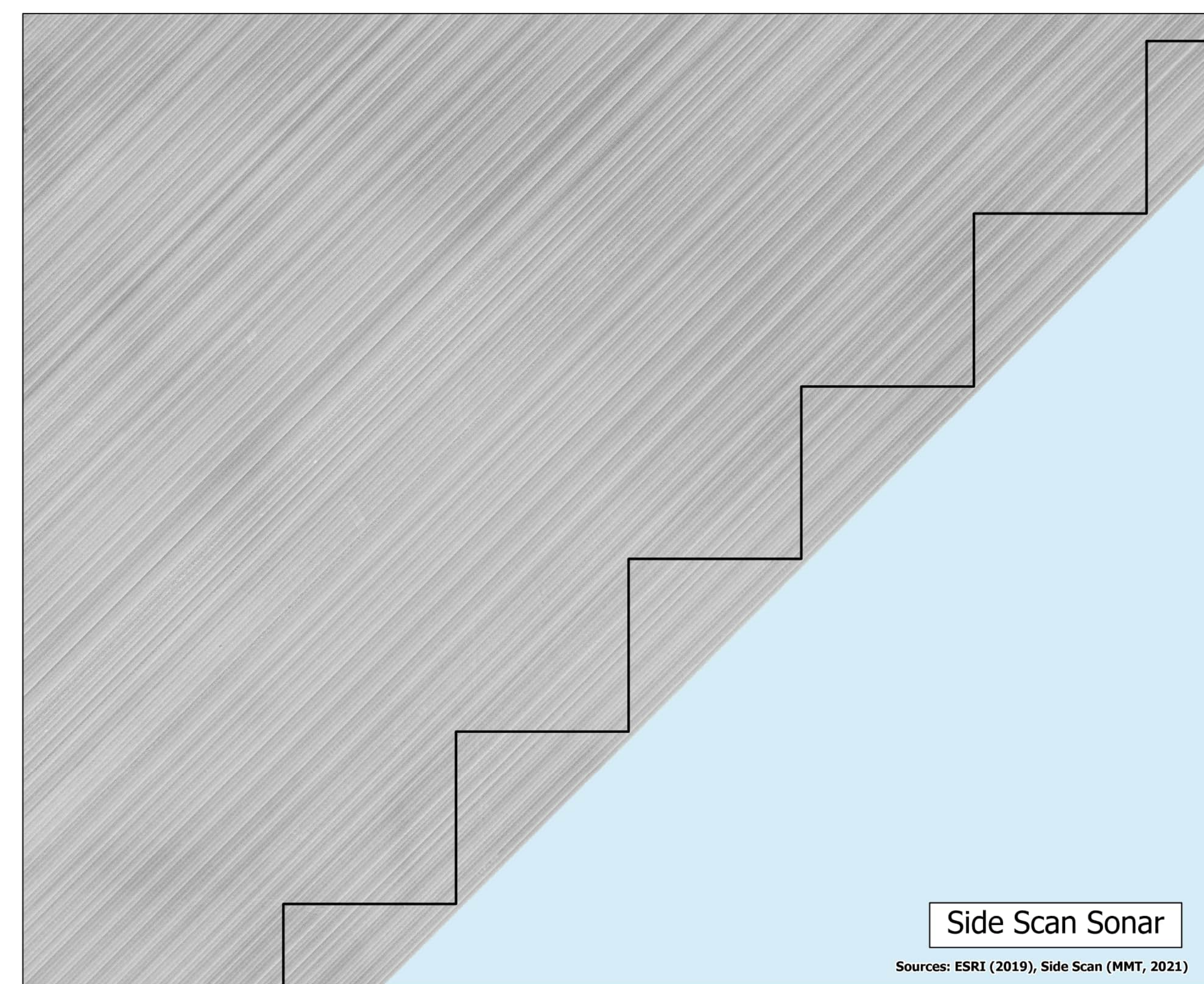
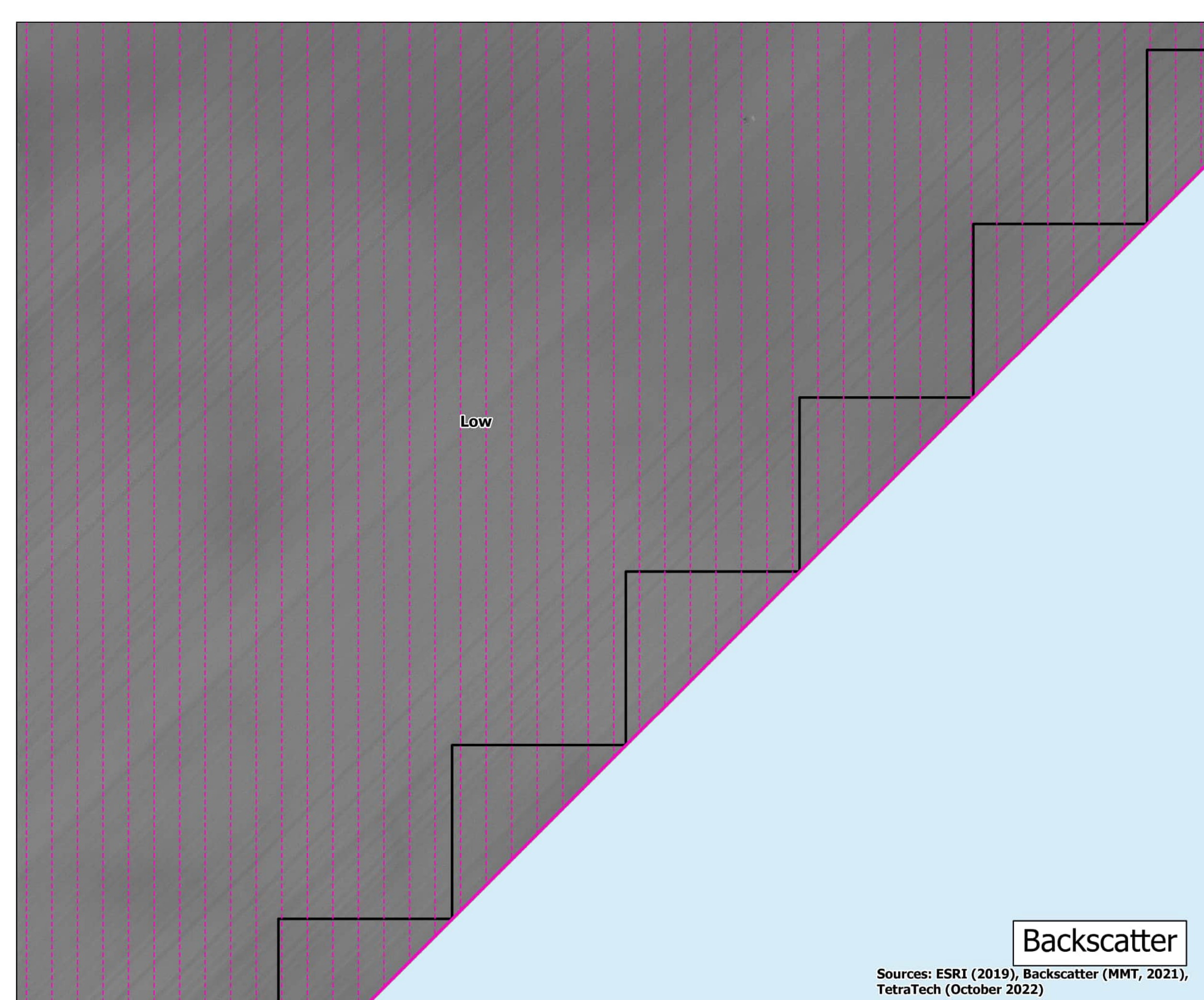
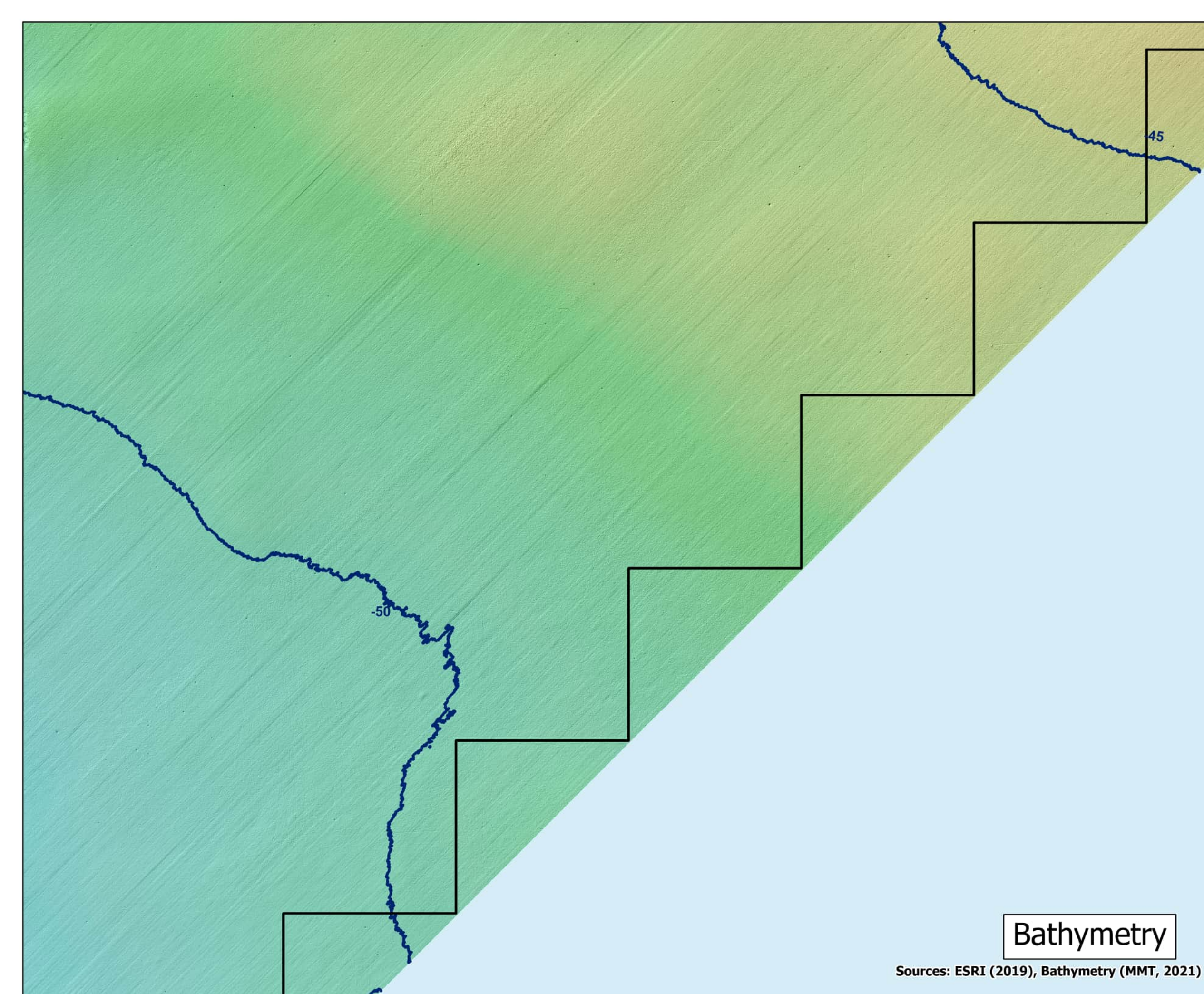
Sources: ESRI (2019), Side Scan (MMT, 2021)



Interpreted Seabed Sediment/NMFS Habitat Characterization

Sources: ESRI (2019), Sediment Formations (MMT, 2021), Seabed Formations (MMT, 2021), CMECS Characterizations (2021)





Map Book Package for Lease Area

Lease Area

Bathymetry (MLLW)

Major Contours (5m Interval)

-37 m (-121 ft) to -63 m (-207 ft)

Backscatter

Delineated Backscatter Intensity Returns

Low (pink) Medium (yellow)

Low to High

Side Scan Sonar

Low to High

Benthic Features, Interpreted Seabed Sediment/NMFS Habitat Characterizations, and CMECS Classifications

Station Type	CMECS Substrate	Benthic Features
+ SPI/PV, Video and Grab Station Locations	Blue circle: Muddy Sand	Pink rectangle: Sand Ripples
CMECS Classification	Green circle: Sandy Mud	Interpreted Seabed Sediment/NMFS Habitat Characterization
○ Ampelisca vadorum	Red circle: Burrows/bioturbation	Yellow rectangle: Mud and Sandy Mud/Soft Bottom Habitat
○ Small Tube Building Fauna	Dark red circle: Flat	Orange rectangle: Sand and Muddy Sand/Soft Bottom Habitat
○ Soft Sediment Fauna		
○ Inferred Fauna		

Note:
1) Legend only shows items visible in the current map extent.

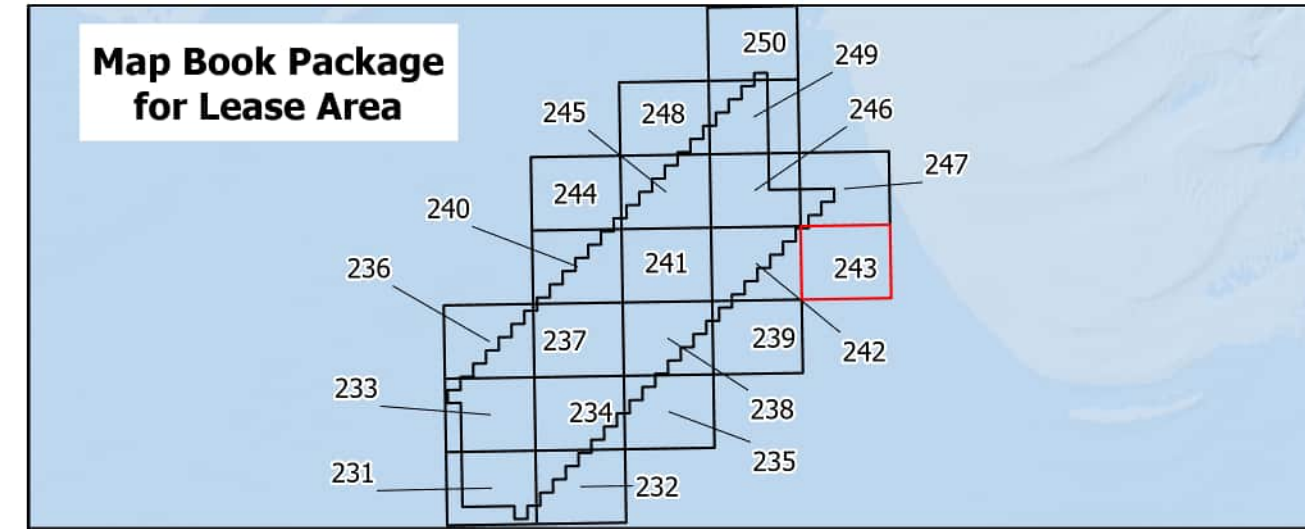
Prepared By: AECOM
Date: 2/28/2023
Scale: 1:25,000

Reference Map

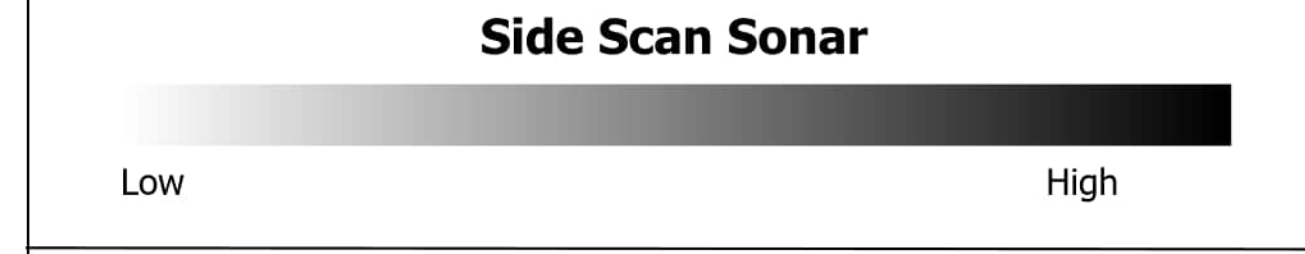
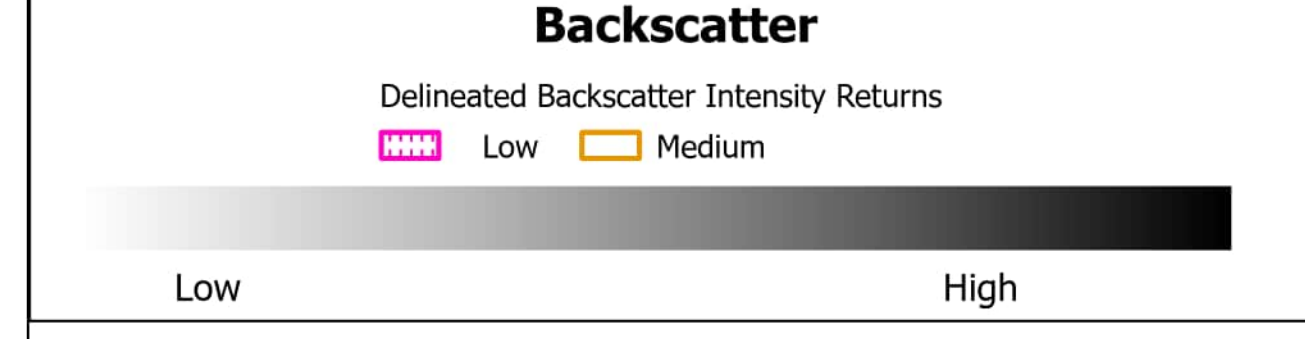
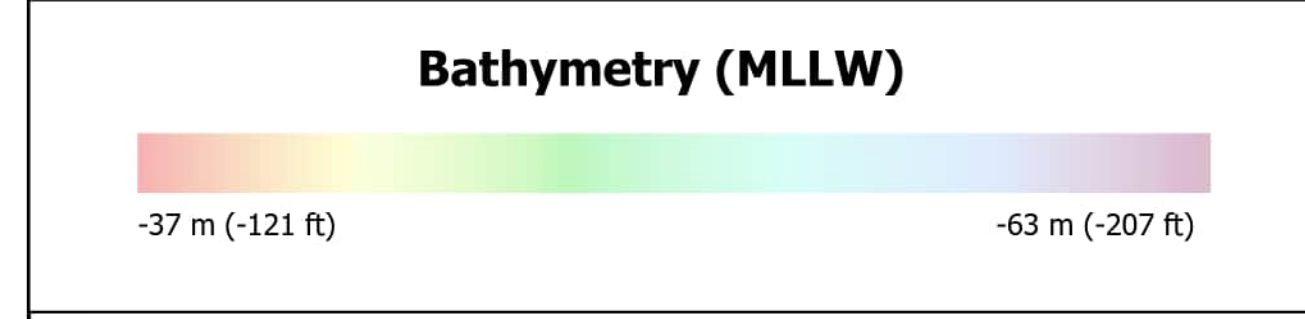
0 0.3 0.6 1.2 1.8 2.4 Kilometers
0 0.3 0.6 0.9 1.2 Nautical Miles
0 0.17 0.35 0.7 1.05 1.4 Miles

BEACON WIND LEASE AREA OCS-A 0520

Map Book Package for Lease Area
Tile 242



□ Lease Area



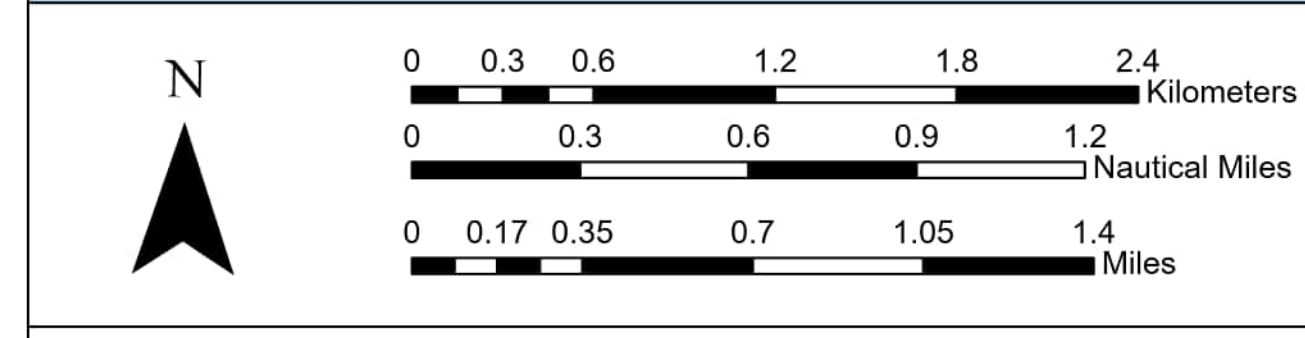
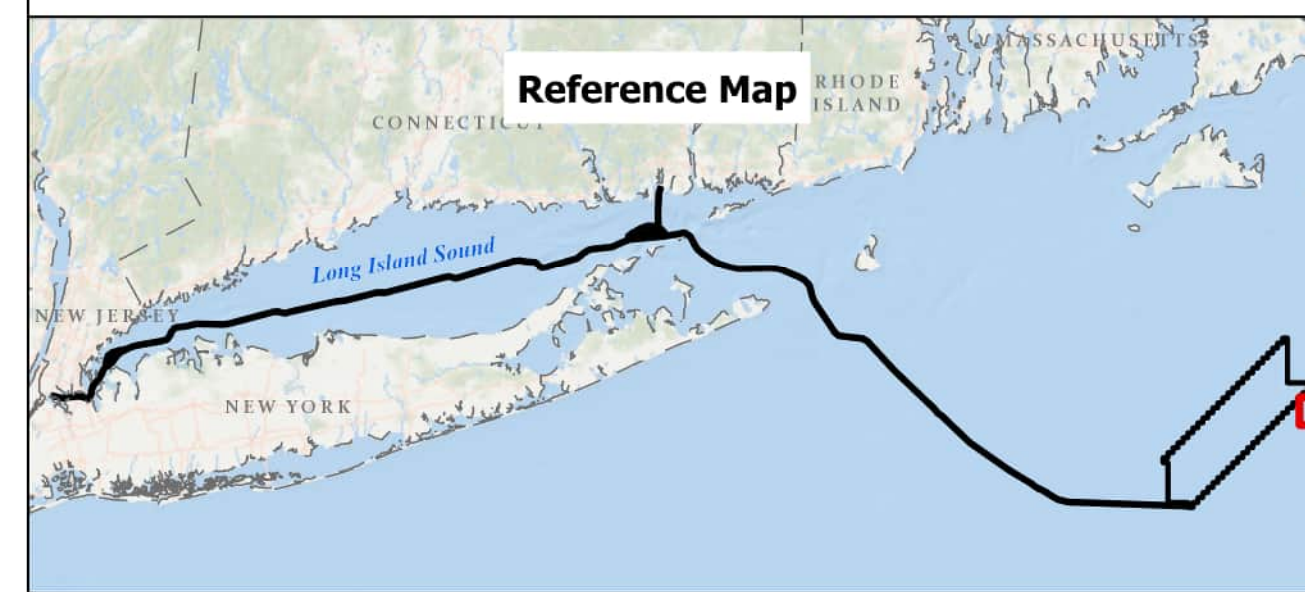
Benthic Features, Interpreted Seabed Sediment/ NMFS Habitat Characterizations, and CMECS Classifications

Interpreted Seabed Sediment/ NMFS Habitat Characterization

Mud and Sandy Mud/Soft Bottom Habitat

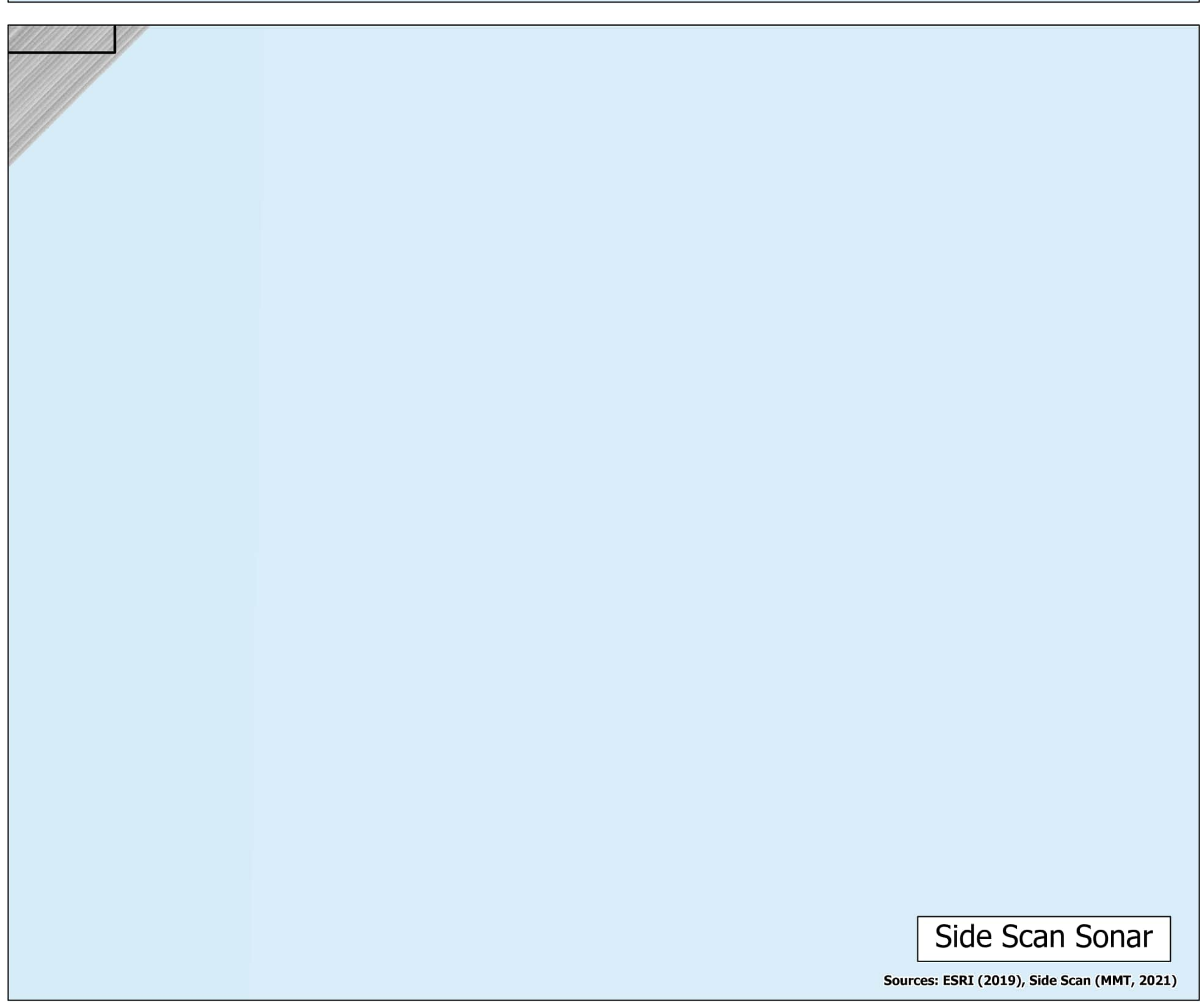
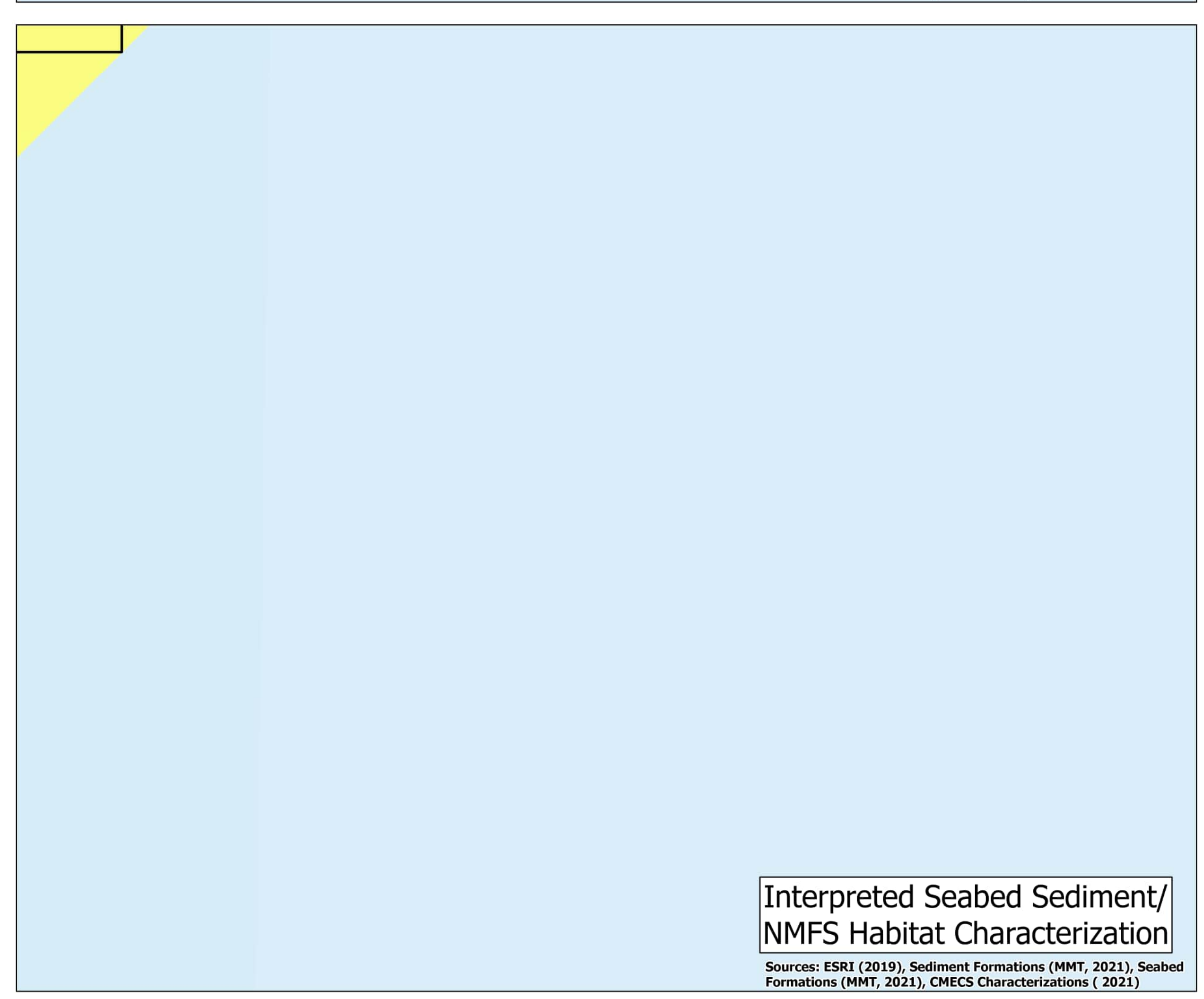
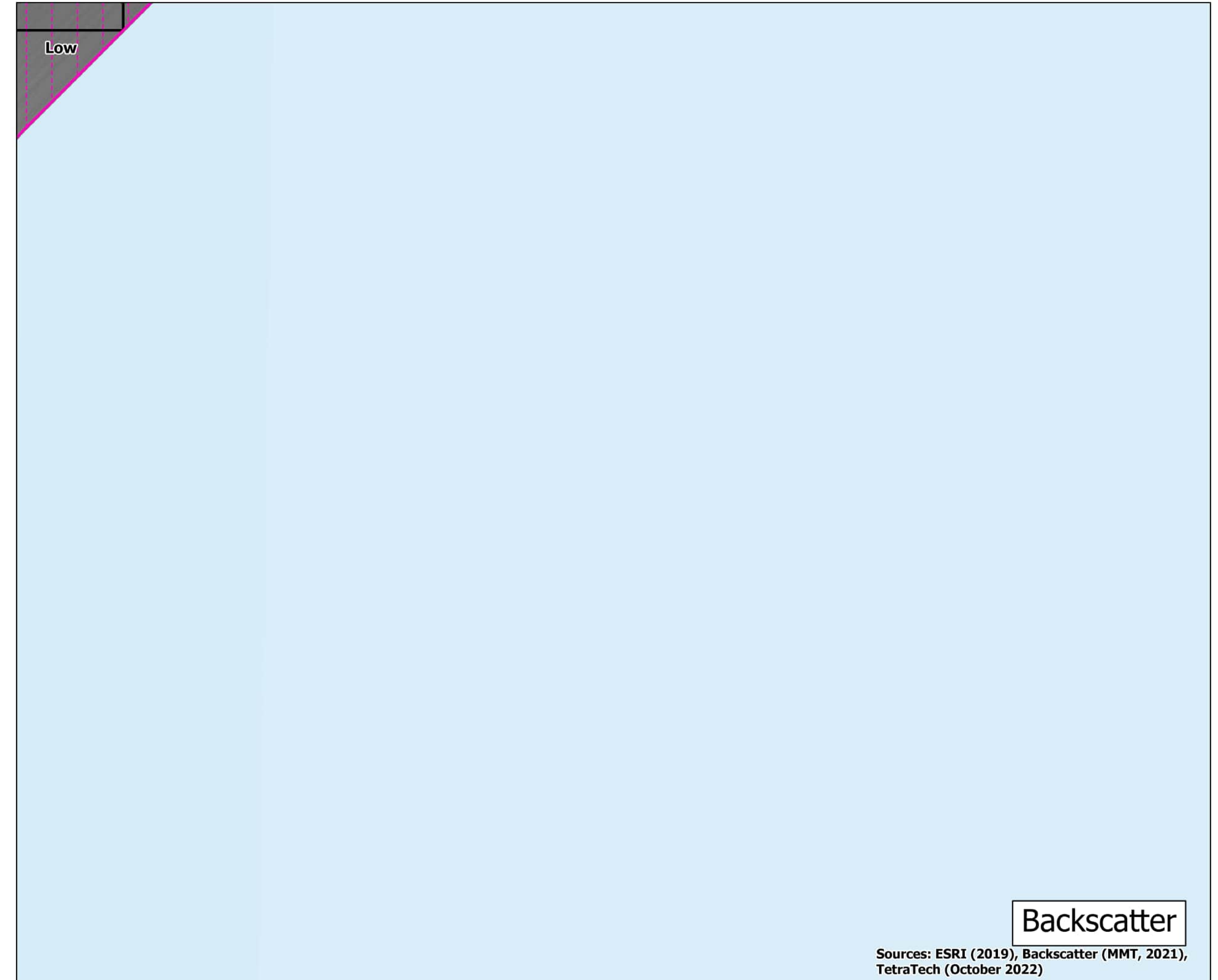
Note:
1) Legend only shows items visible in the current map extent.

Prepared By: AECOM
Date: 2/28/2023 Scale: 1:25,000



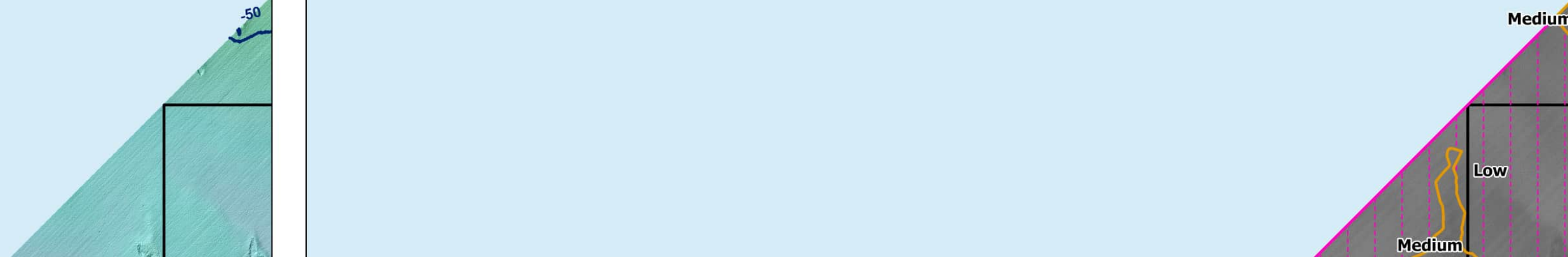
BEACON WIND LEASE AREA OCS-A 0520

Map Book Package for Lease Area
Tile 243



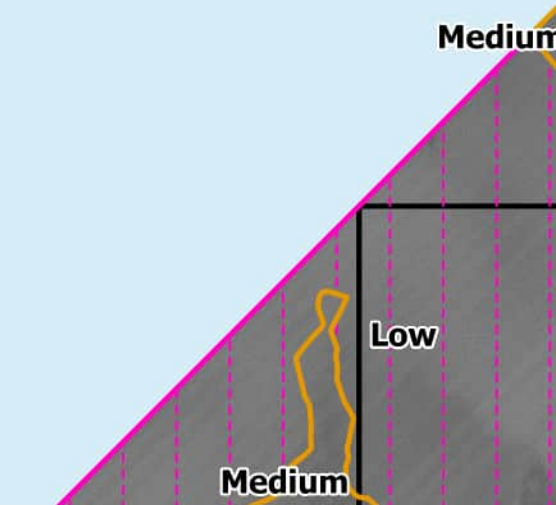
Bathymetry

Sources: ESRI (2019), Bathymetry (MMT, 2021)



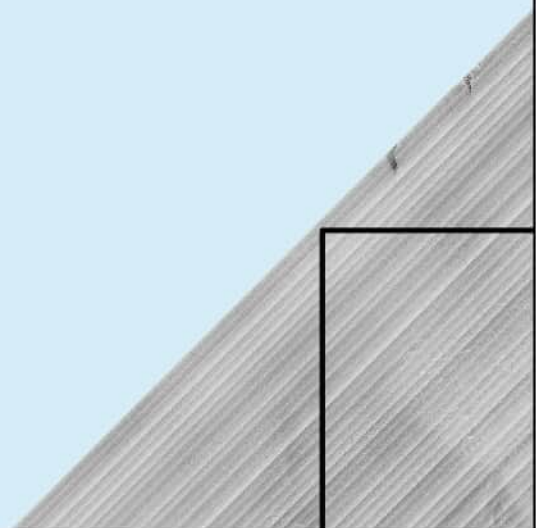
Backscatter

Sources: ESRI (2019), Backscatter (MMT, 2021), TetraTech (October 2022)



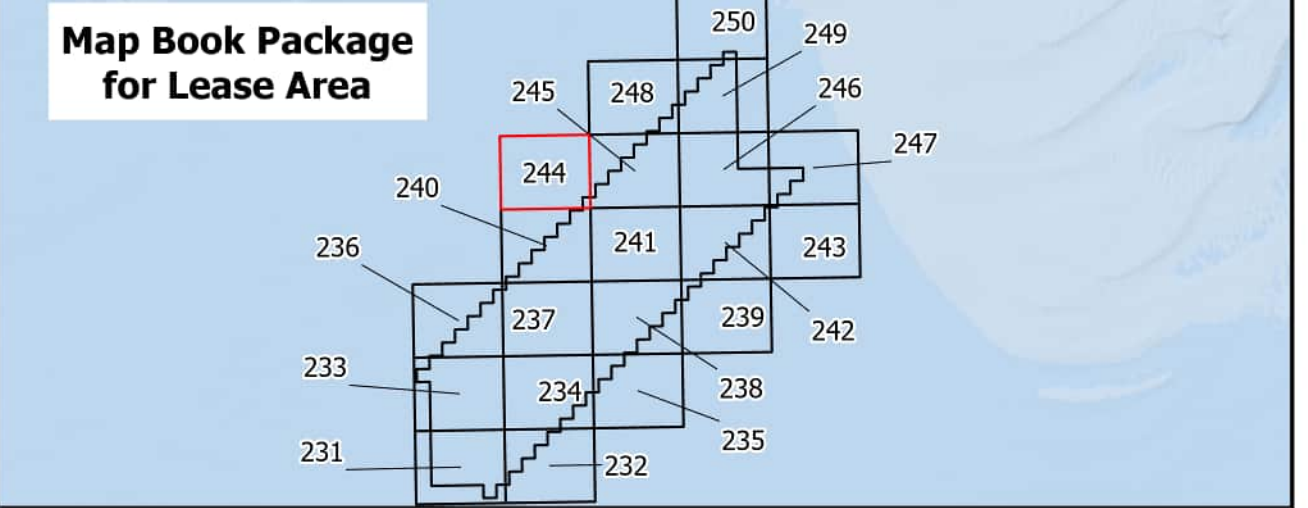
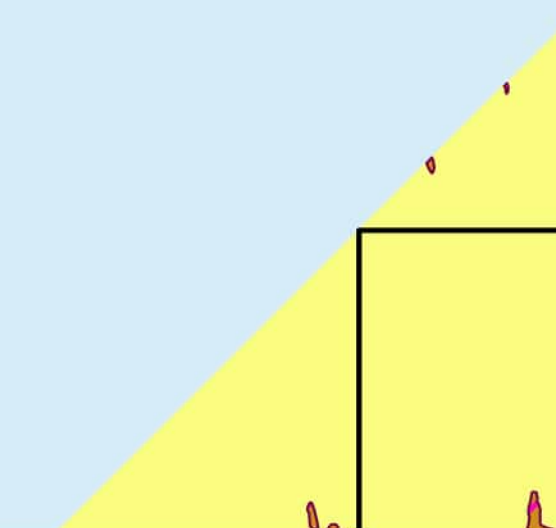
Side Scan Sonar

Sources: ESRI (2019), Side Scan (MMT, 2021)



Interpreted Seabed Sediment/ NMFS Habitat Characterization

Sources: ESRI (2019), Sediment Formations (MMT, 2021), Seabed Formations (MMT, 2021), CMECS Characterizations (2021)



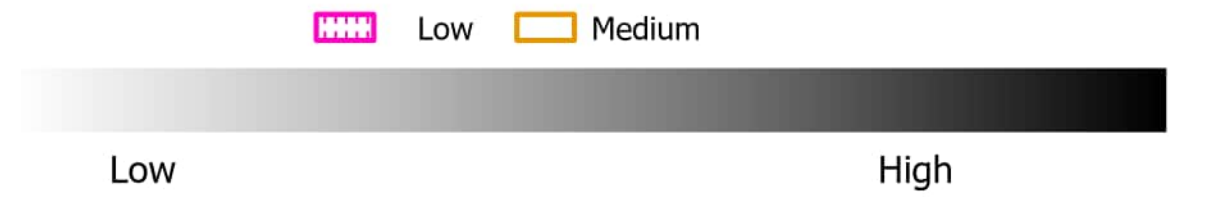
Lease Area

Bathymetry (MLLW)



Backscatter

Delineated Backscatter Intensity Returns



Side Scan Sonar



Benthic Features, Interpreted Seabed Sediment/ NMFS Habitat Characterizations, and CMECS Classifications

Benthic Features

Sand Ripples

Interpreted Seabed Sediment/ NMFS Habitat Characterization

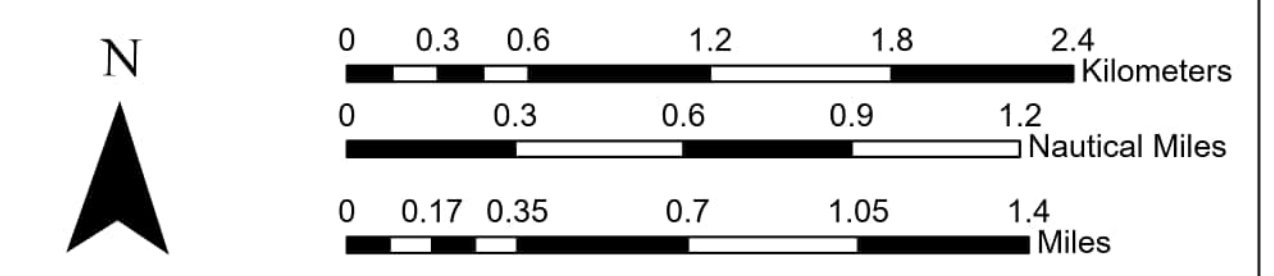
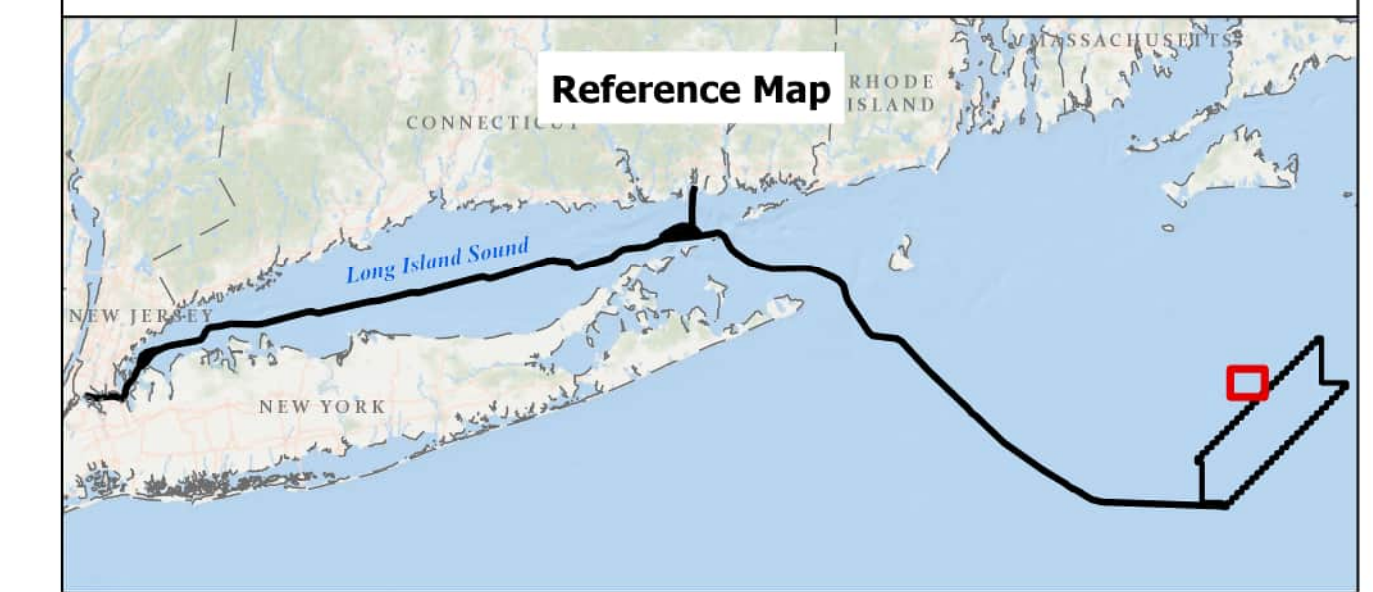
Mud and Sandy Mud/Soft Bottom Habitat
Sand and Muddy Sand/Soft Bottom Habitat

Note:
1) Legend only shows items visible in the current map extent.

Prepared By: AECOM

Date: 2/28/2023

Scale: 1:25,000

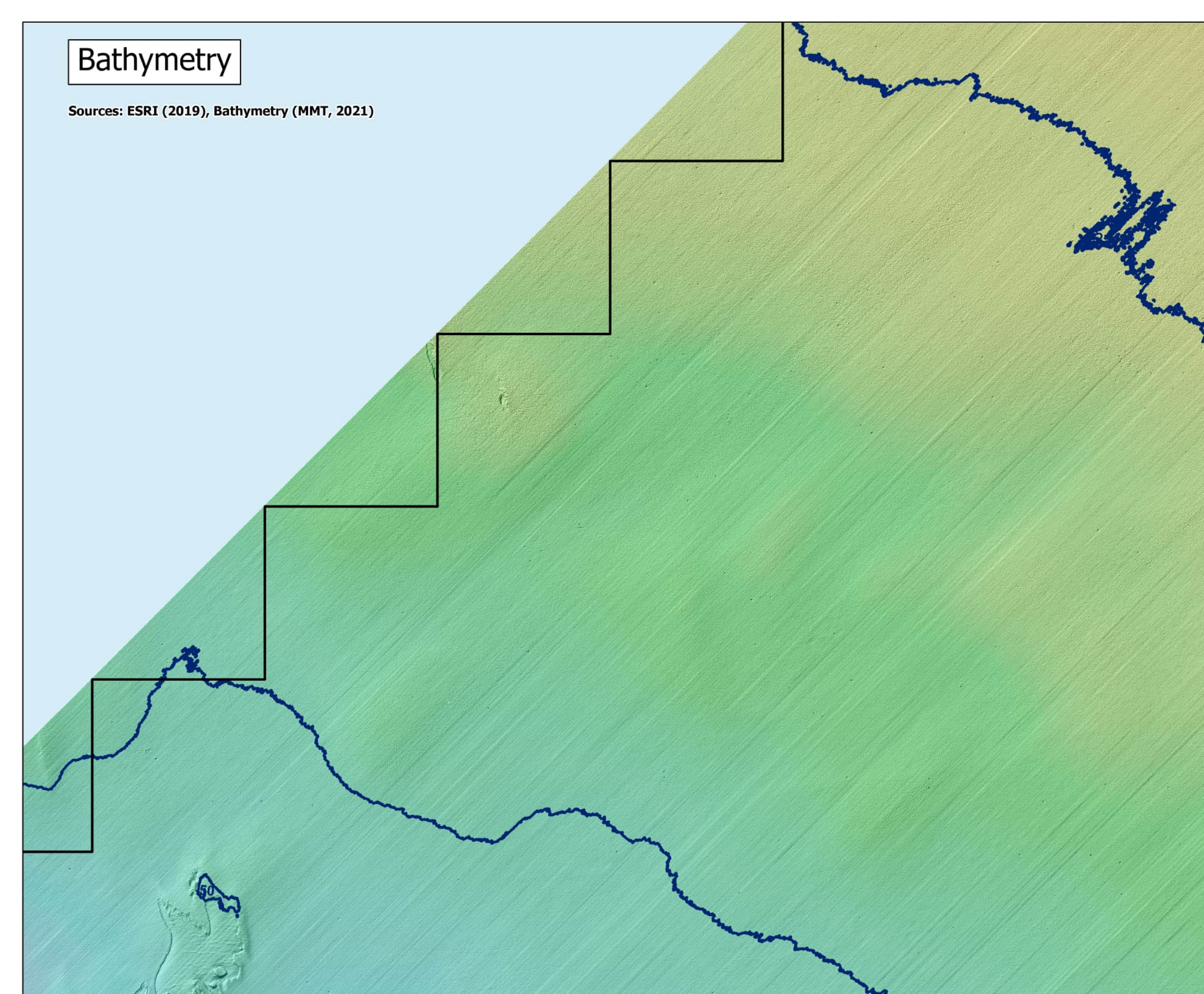


BEACON WIND LEASE AREA OCS-A 0520

Map Book Package for Lease Area
Tile 244

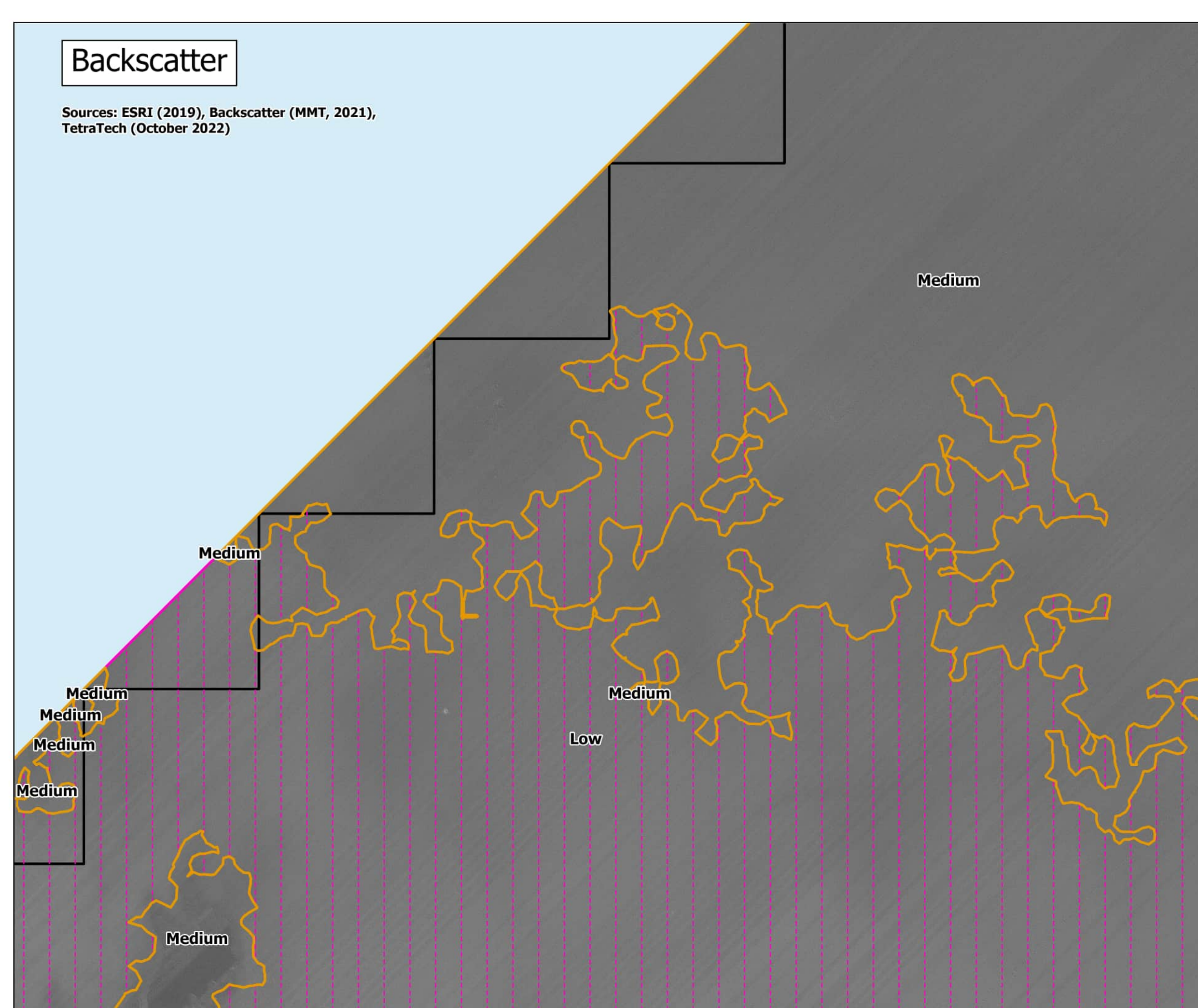
Bathymetry

Sources: ESRI (2019), Bathymetry (MMT, 2021)



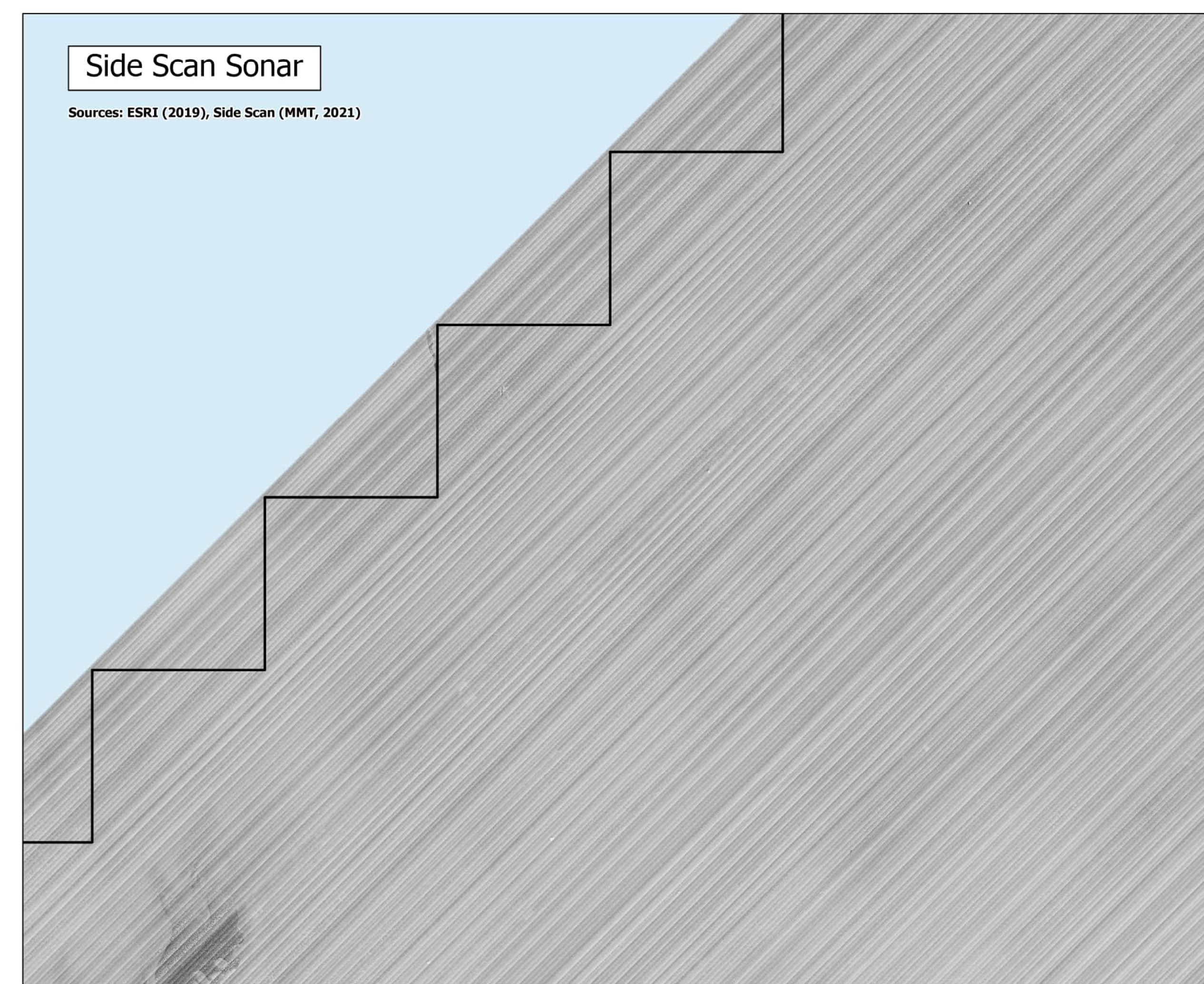
Backscatter

Sources: ESRI (2019), Backscatter (MMT, 2021), TetraTech (October 2022)



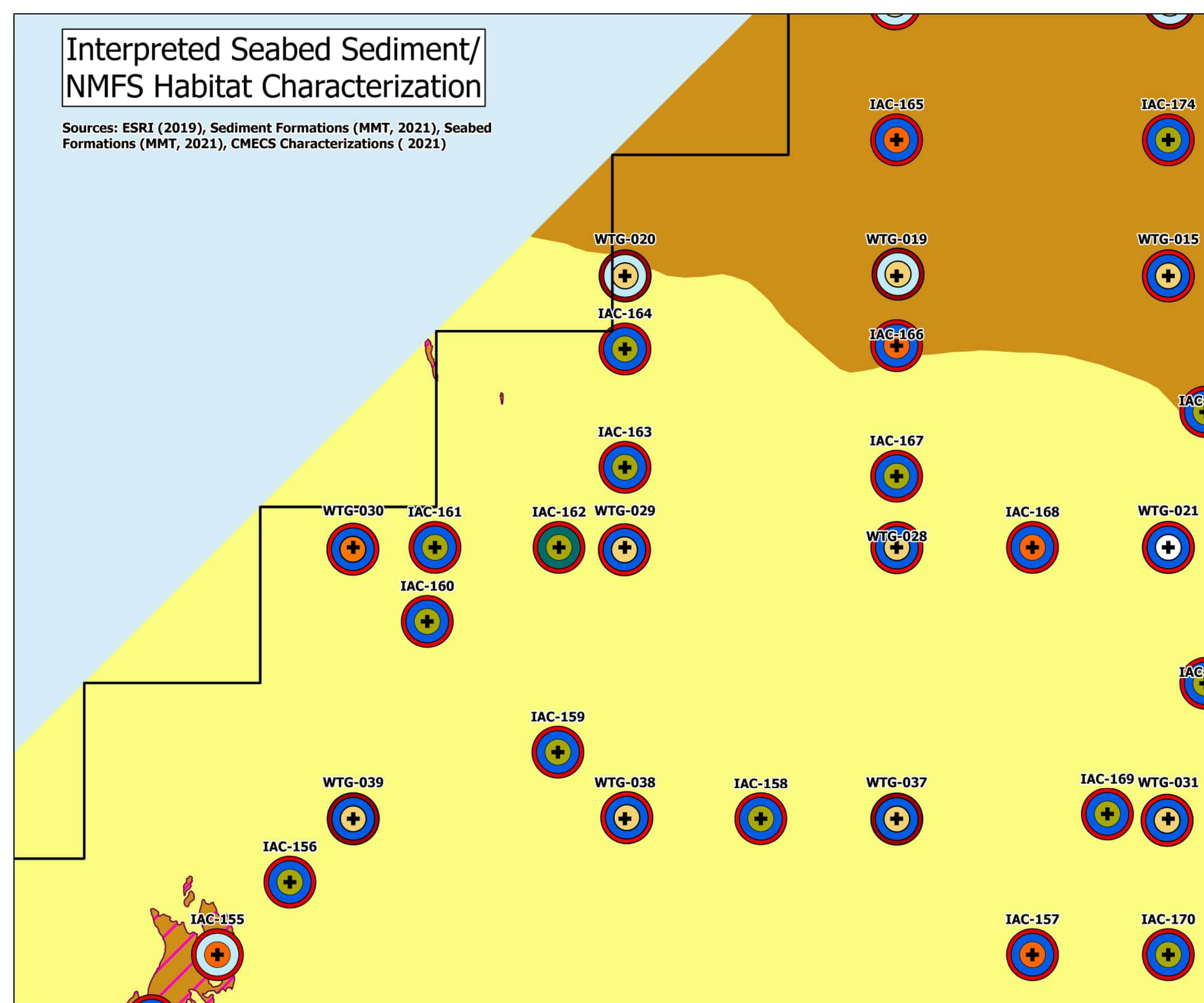
Side Scan Sonar

Sources: ESRI (2019), Side Scan (MMT, 2021)

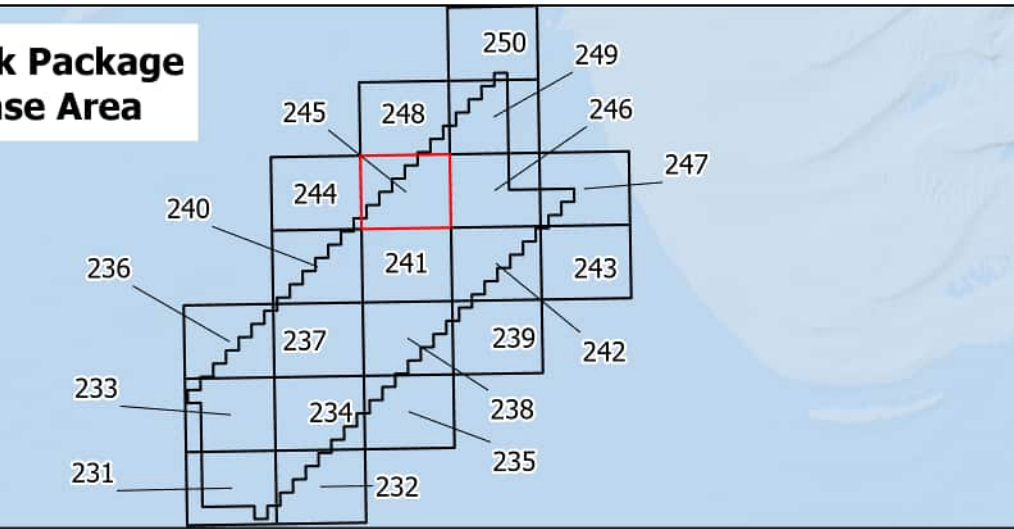


Interpreted Seabed Sediment/ NMFS Habitat Characterization

Sources: ESRI (2019), Sediment Formations (MMT, 2021), Seabed Formations (MMT, 2021), CMECS Characterizations (2021)

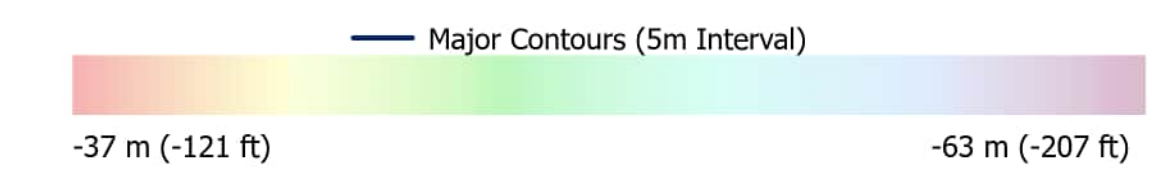


Map Book Package for Lease Area



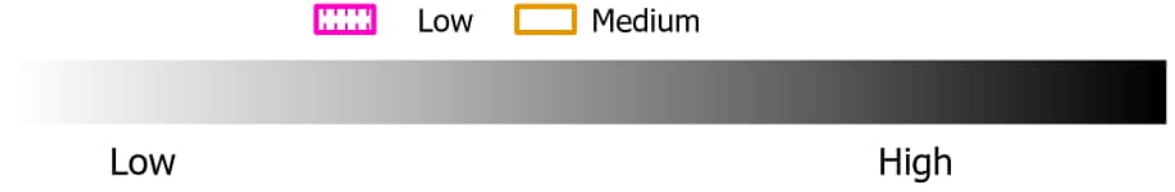
Lease Area

Bathymetry (MLLW)



Backscatter

Delineated Backscatter Intensity Returns



Side Scan Sonar



Benthic Features, Interpreted Seabed Sediment/ NMFS Habitat Characterizations, and CMECS Classifications

Station Type + SPI/PV, Video and Grab Station Locations	CMECS Substrate ● Fine/Very Fine Sand ● Muddy Sand ● Sandy Mud ● Burrows/bioturbation	● Flat Benthic Features □ Sand Ripples Interpreted Seabed Sediment/ NMFS Habitat Characterization ● Mud and Sandy Mud/Soft Bottom Habitat ● Sand and Muddy Sand/Soft Bottom Habitat
CMECS Biotic ○ Ampelisca vadorum ● Small Tube Building Fauna ● Soft Sediment Fauna ● Inferred Fauna	CMECS Geoform ● Burrows/bioturbation	

Note:
1) Legend only shows items visible in the current map extent.

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Date: 2/28/2023
Scale: 1:25,000



BEACON WIND LEASE AREA OCS-A 0520

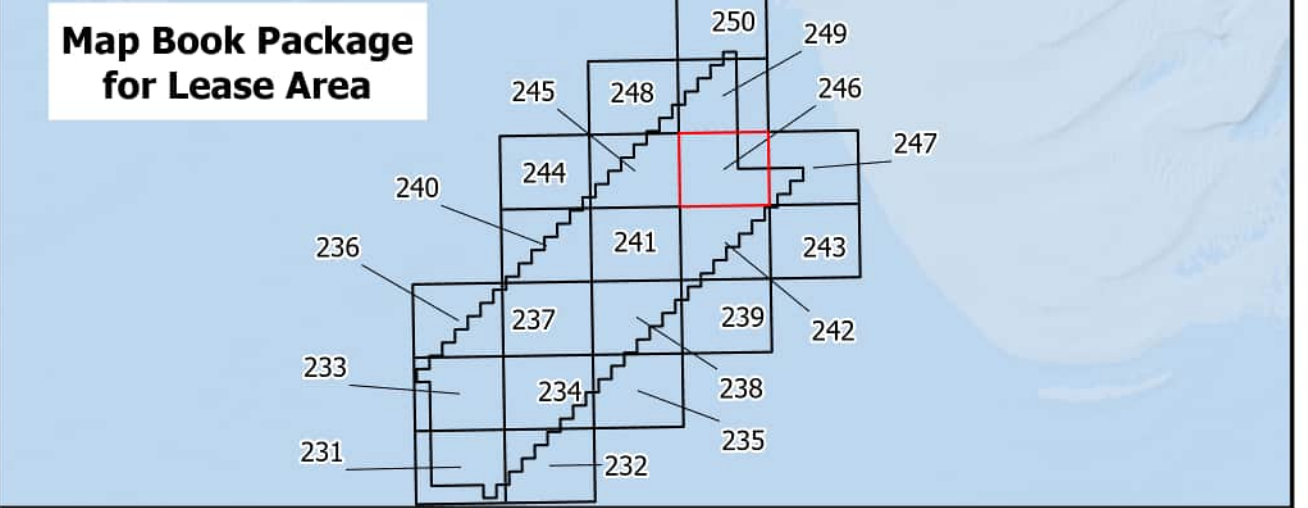
Map Book Package for Lease Area
Tile 245

Bathymetry

Sources: ESRI (2019), Bathymetry (MMT, 2021)

Backscatter

Sources: ESRI (2019), Backscatter (MMT, 2021), TetraTech (October 2022)

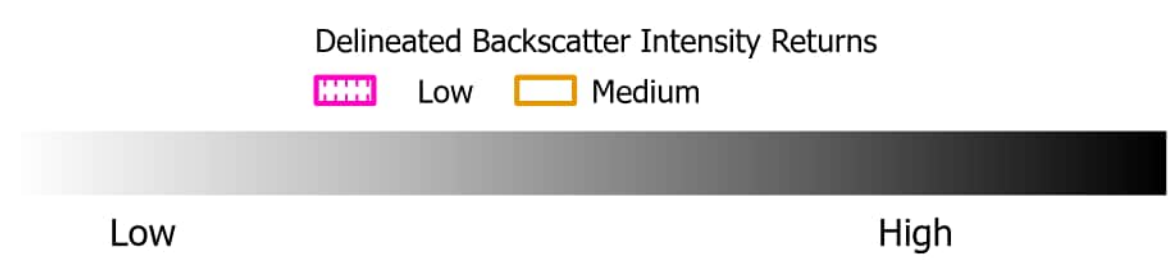


Lease Area

Bathymetry (MLLW)



Backscatter



Side Scan Sonar

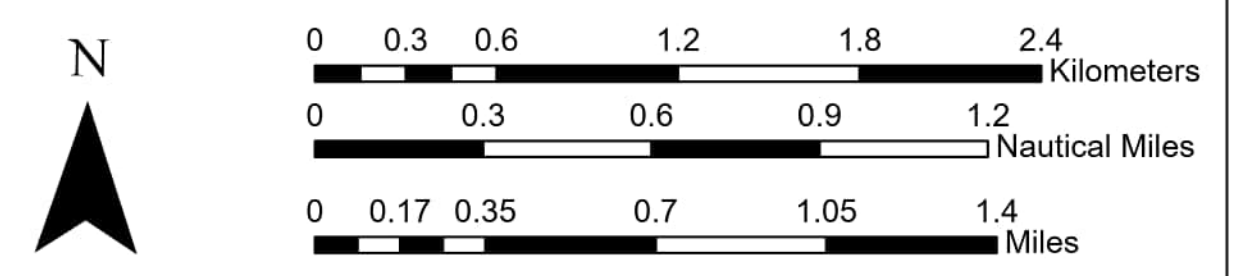


Benthic Features, Interpreted Seabed Sediment/NMFS Habitat Characterizations, and CMECS Classifications

Station Type SPI/PV, Video and Grab Station Locations	CMECS Substrate Fine/Very Fine Sand Gravelly Muddy Sand Muddy Sand Sandy Mud Burrows/bioturbation	Flat Benthic Features Sand Ripples Interpreted Seabed Sediment/NMFS Habitat Characterization Mud and Sandy Mud/Soft Bottom Habitat Sand and Muddy Sand/Soft Bottom Habitat
CMECS Classification Small Tube Building Fauna Soft Sediment Fauna Inferred Fauna	CMECS Biotic Small Tube Building Fauna Soft Sediment Fauna Inferred Fauna	CMECS Geoform Burrows/bioturbation

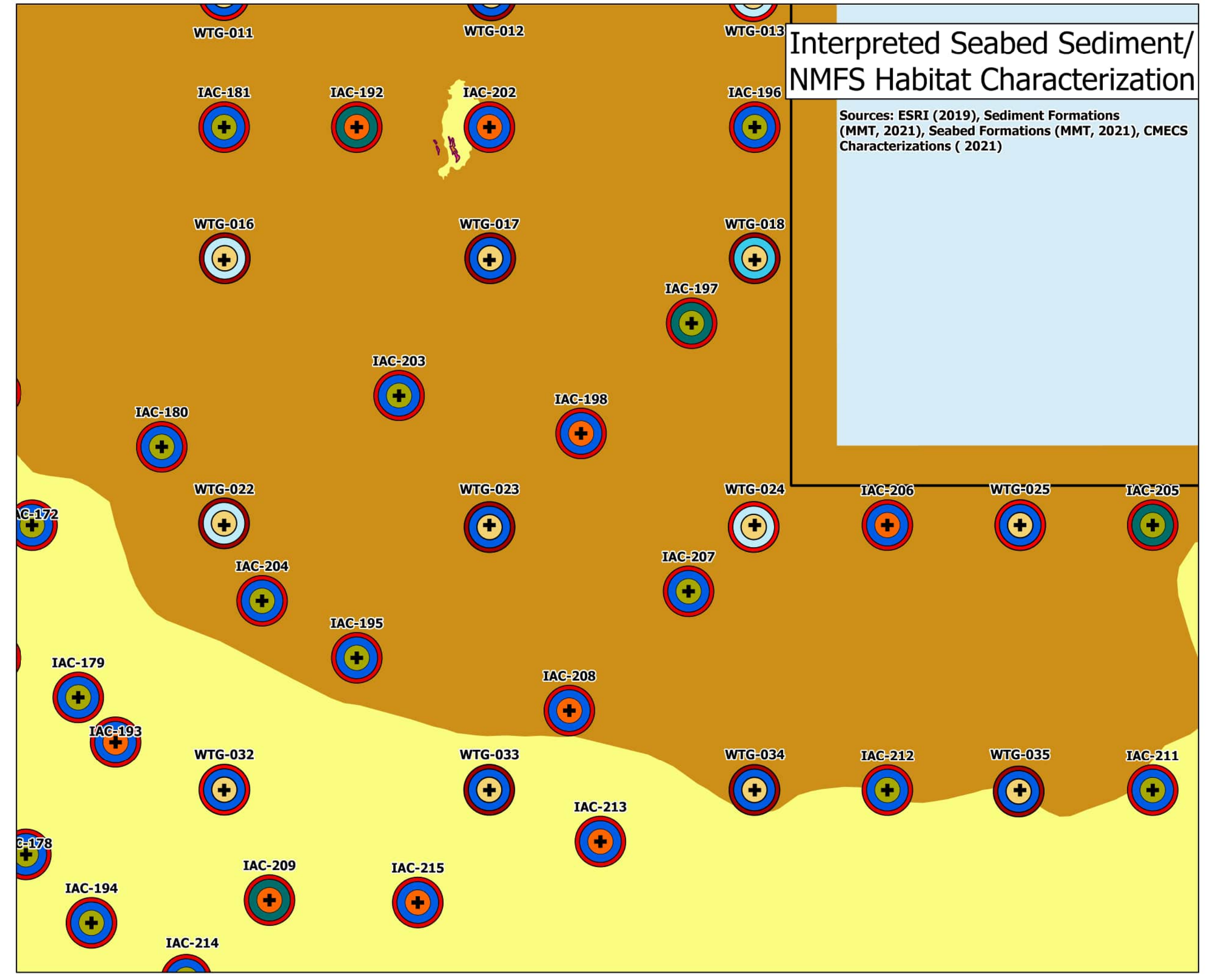
Note:
1) Legend only shows items visible in the current map extent.

Prepared By: AECOM
Date: 3/1/2023
Scale: 1:25,000



BEACON WIND LEASE AREA OCS-A 0520

Map Book Package for Lease Area
Tile 246



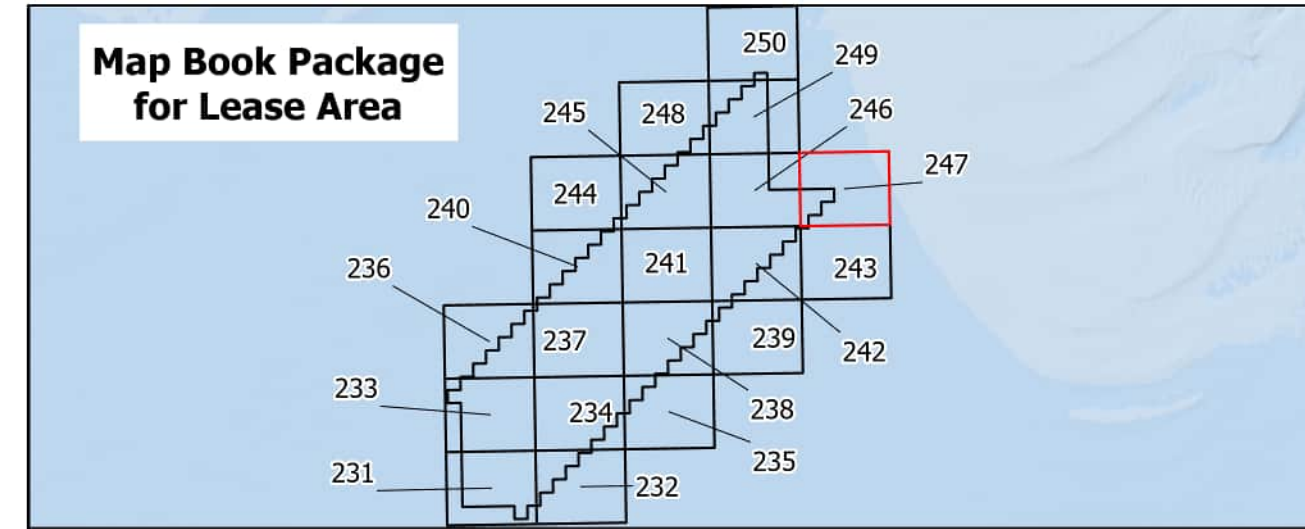
Interpreted Seabed Sediment/NMFS Habitat Characterization

Sources: ESRI (2019), Sediment Formations (MMT, 2021), Seabed Formations (MMT, 2021), CMECS Characterizations (2021)

Side Scan Sonar

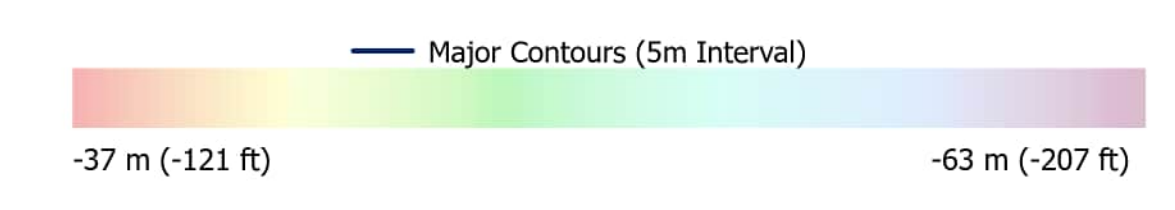
Sources: ESRI (2019), Side Scan (MMT, 2021)



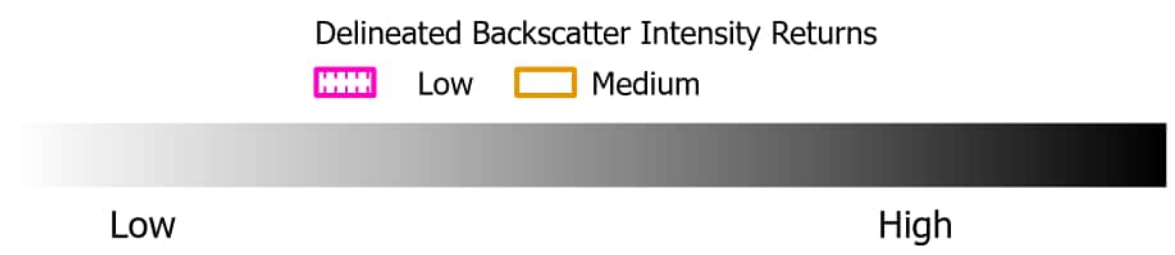


□ Lease Area

Bathymetry (MLLW)



Backscatter



Side Scan Sonar

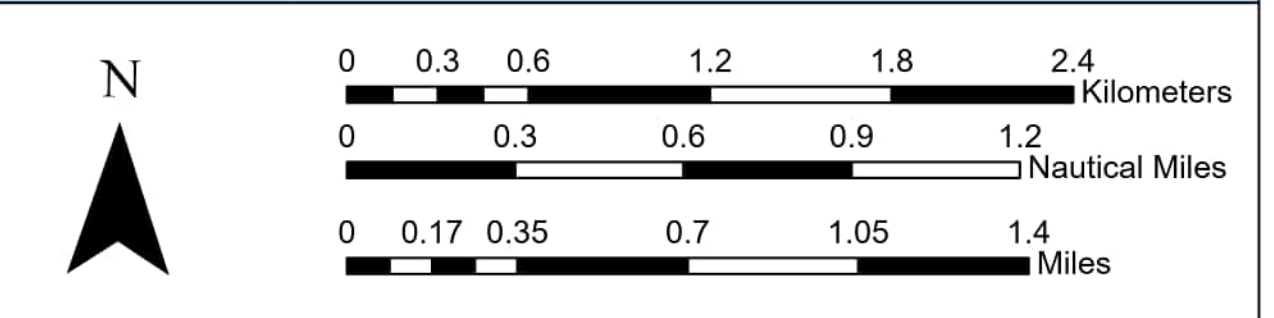
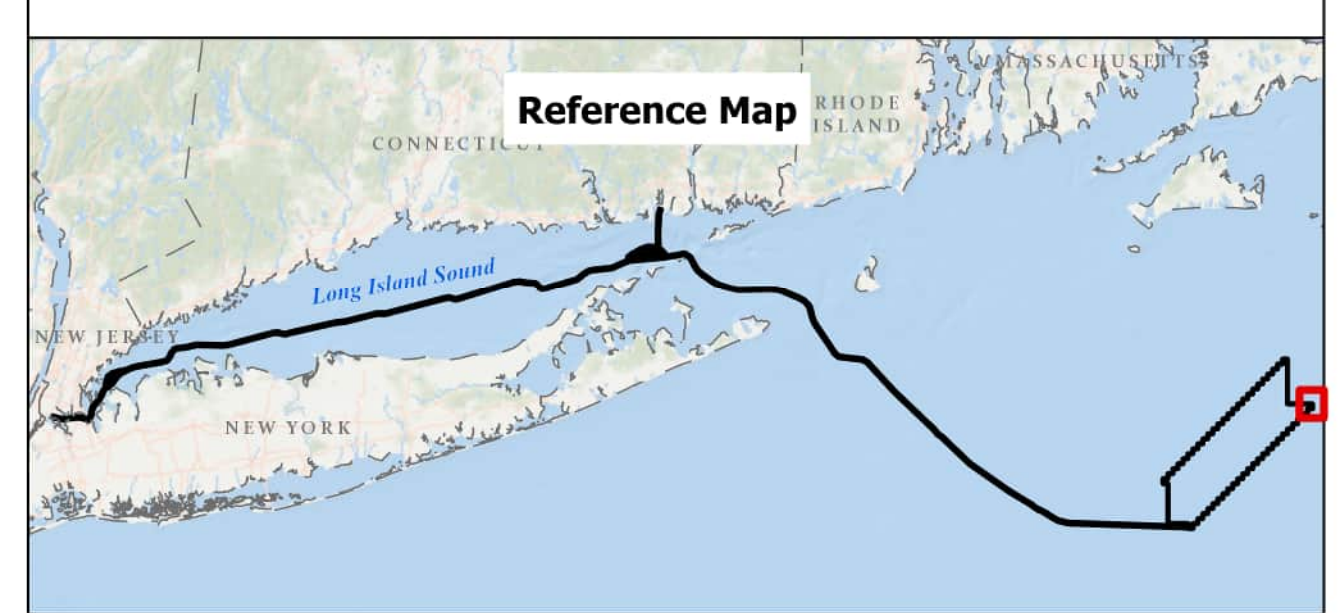


Benthic Features, Interpreted Seabed Sediment/NMFS Habitat Characterizations, and CMECS Classifications

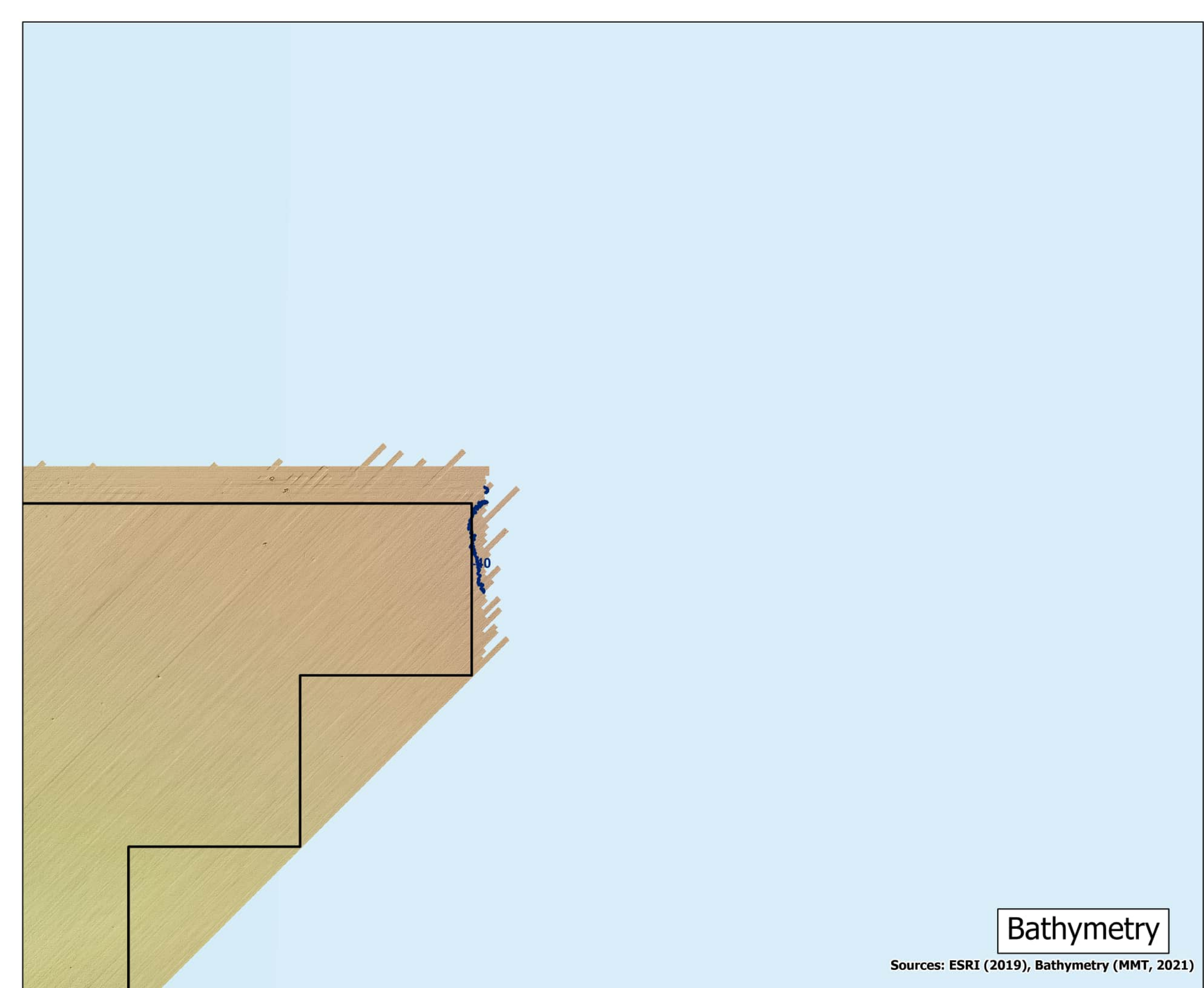
Station Type	CMECS Substrate	Interpreted Seabed Sediment/NMFS Habitat Characterization
<ul style="list-style-type: none"> SP/IV, Video and Grab Station Locations 	<ul style="list-style-type: none"> Muddy Sand Sandy Mud 	<ul style="list-style-type: none"> Mud and Sandy Mud/Soft Bottom Habitat Sand and Muddy Sand/Soft Bottom Habitat
CMECS Classification	CMECS Bioform	
<ul style="list-style-type: none"> Nucula proxima Small Tube Building Fauna Soft Sediment Fauna 	<ul style="list-style-type: none"> Burrows/bioturbation Flat 	

Note:
1) Legend only shows items visible in the current map extent.

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Scale: 1:25,000

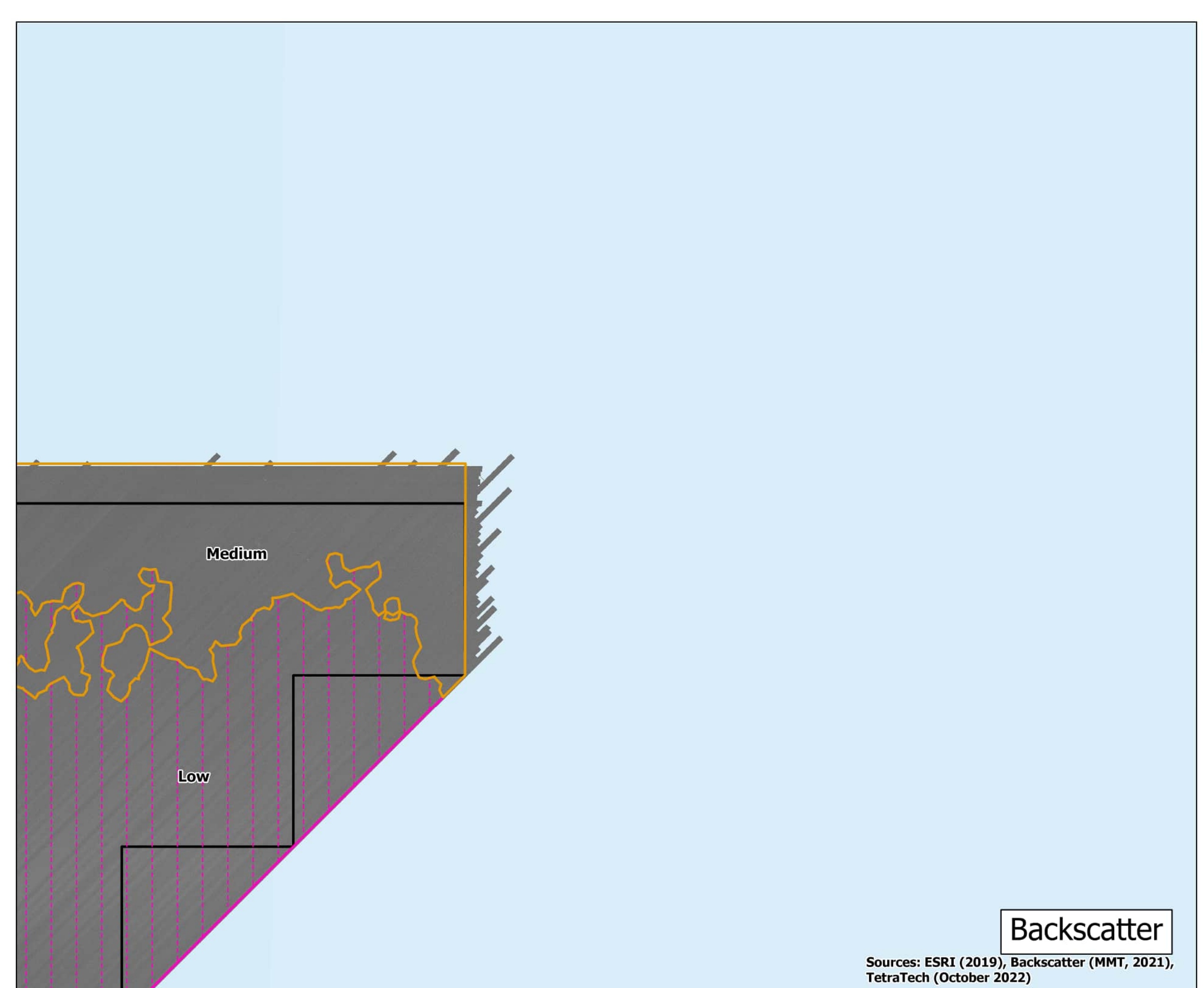


BEACON WIND LEASE AREA OCS-A 0520
Map Book Package for Lease Area
Tile 247



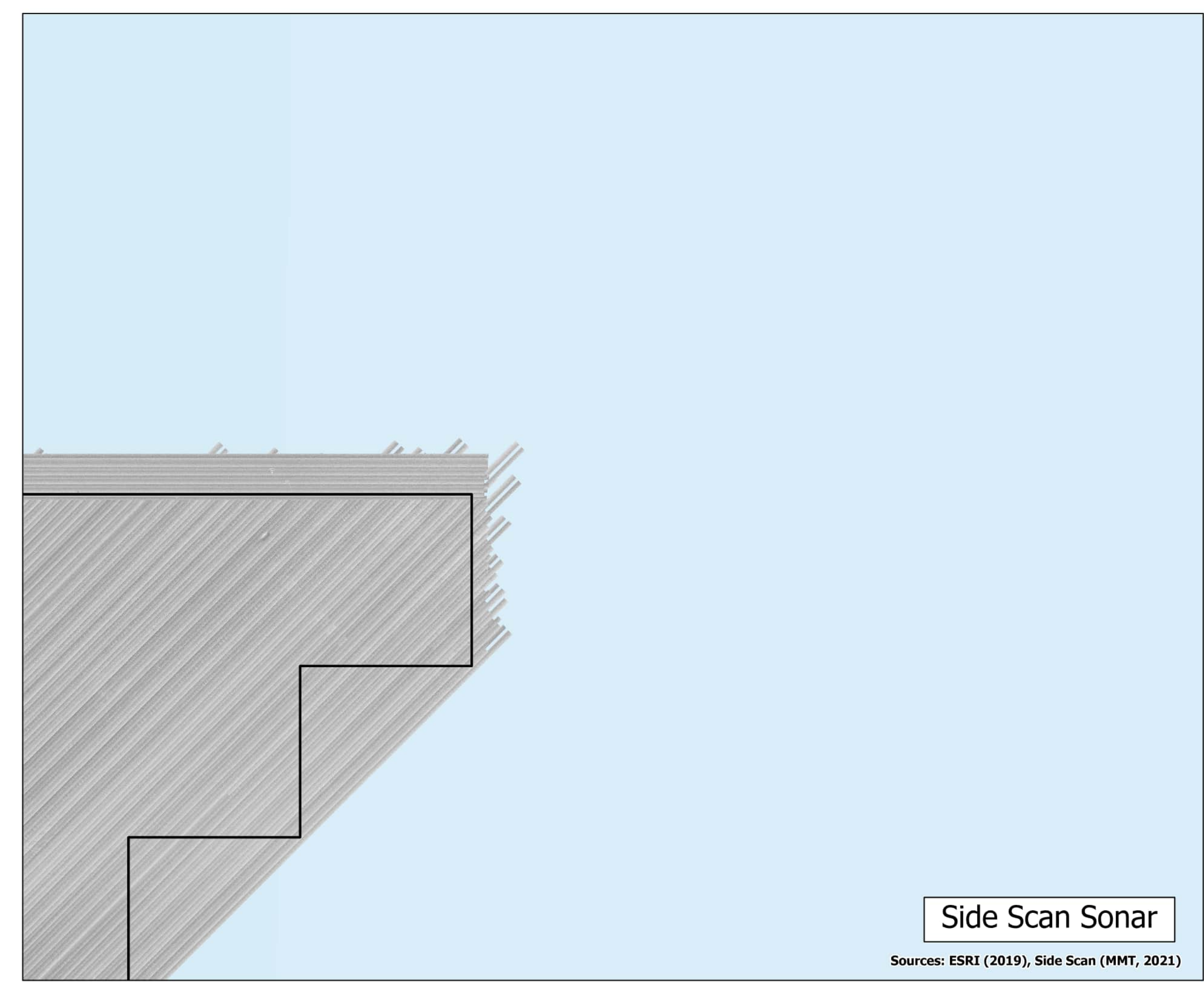
Bathymetry

Sources: ESRI (2019), Bathymetry (MMT, 2021)



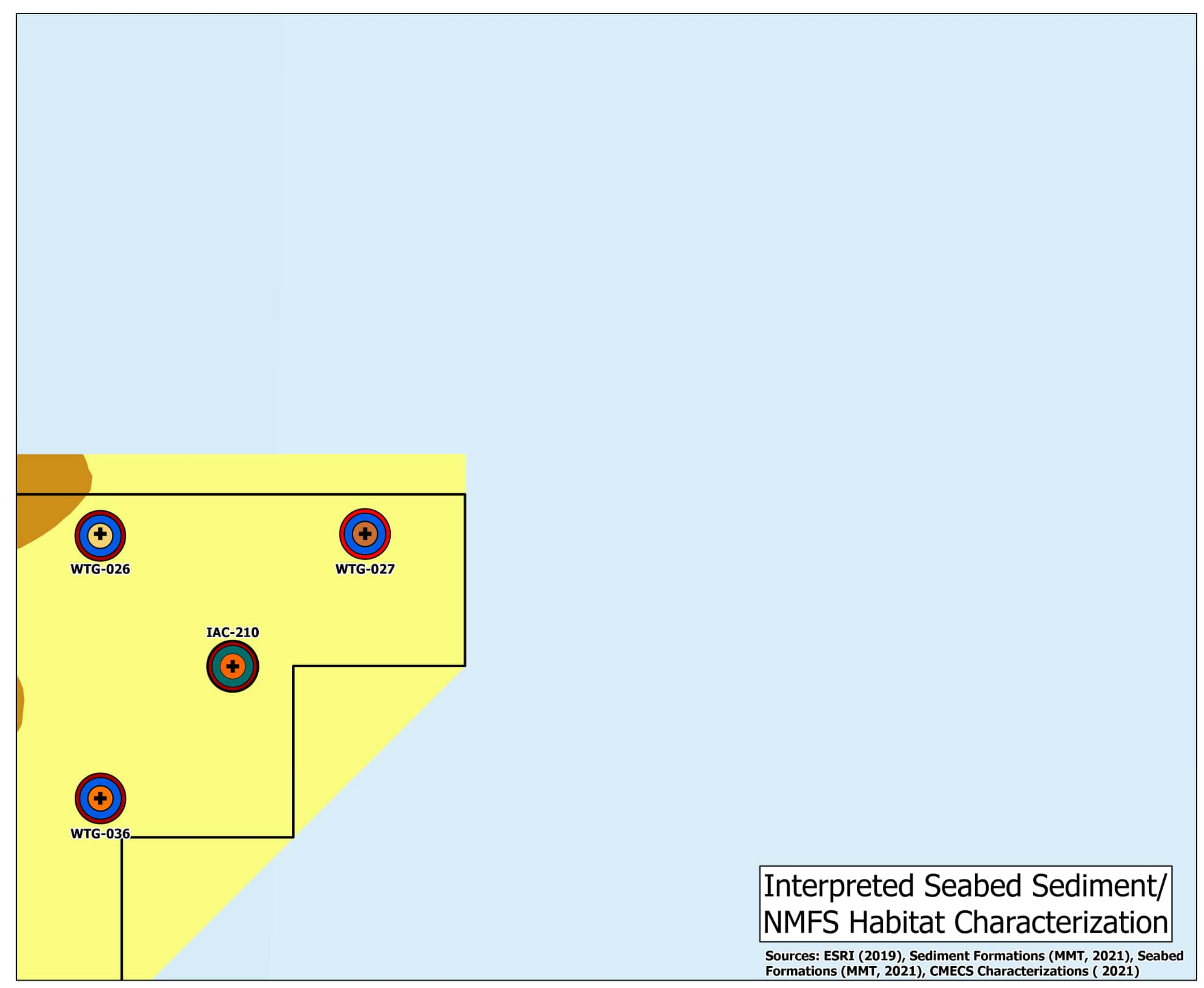
Backscatter

Sources: ESRI (2019), Backscatter (MMT, 2021), TetraTech (October 2022)



Side Scan Sonar

Sources: ESRI (2019), Side Scan (MMT, 2021)

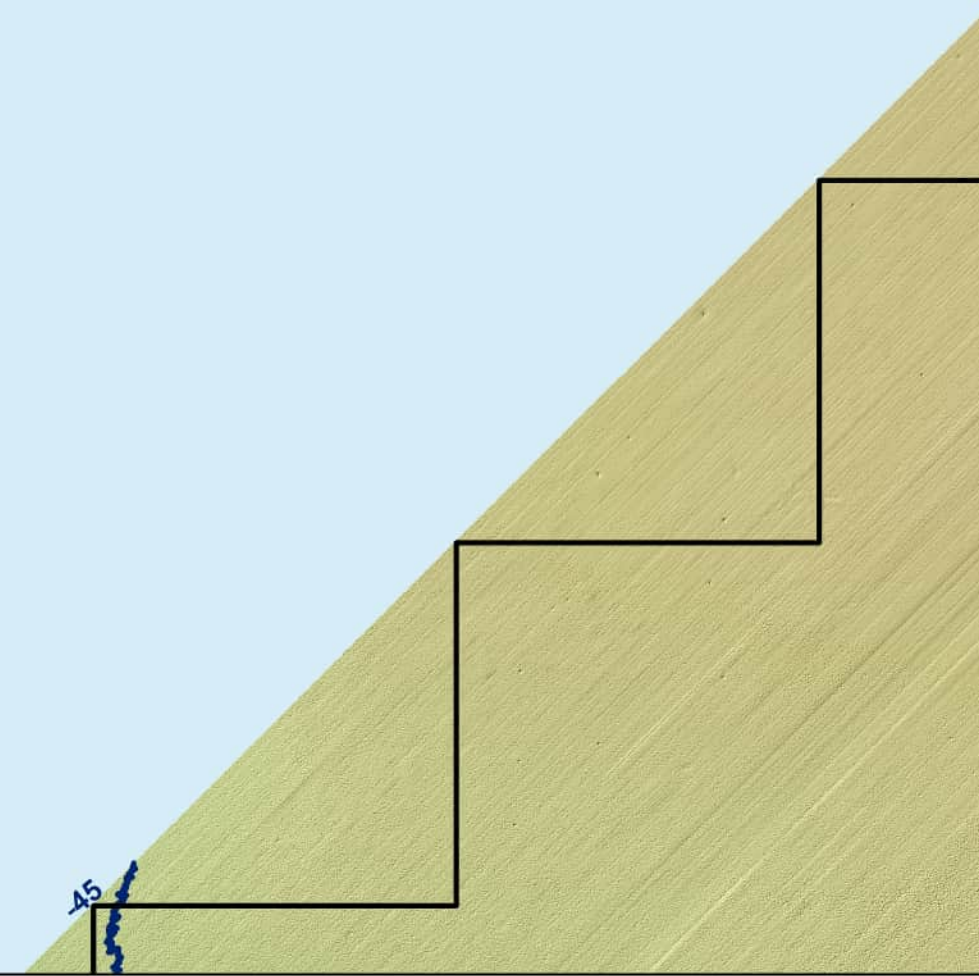


Interpreted Seabed Sediment/NMFS Habitat Characterization

Sources: ESRI (2019), Sediment Formations (MMT, 2021), Seabed Formations (MMT, 2021), CMECS Characterizations (2021)

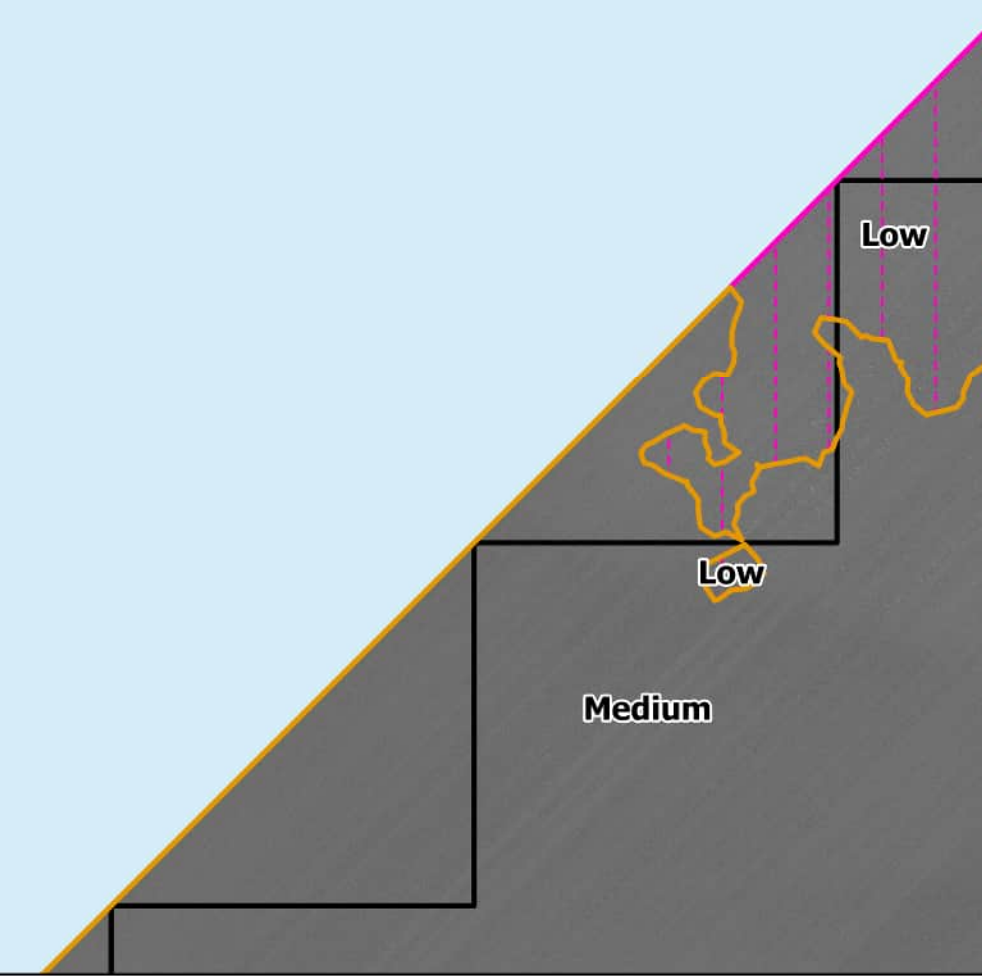
Bathymetry

Sources: ESRI (2019), Bathymetry (MMT, 2021)



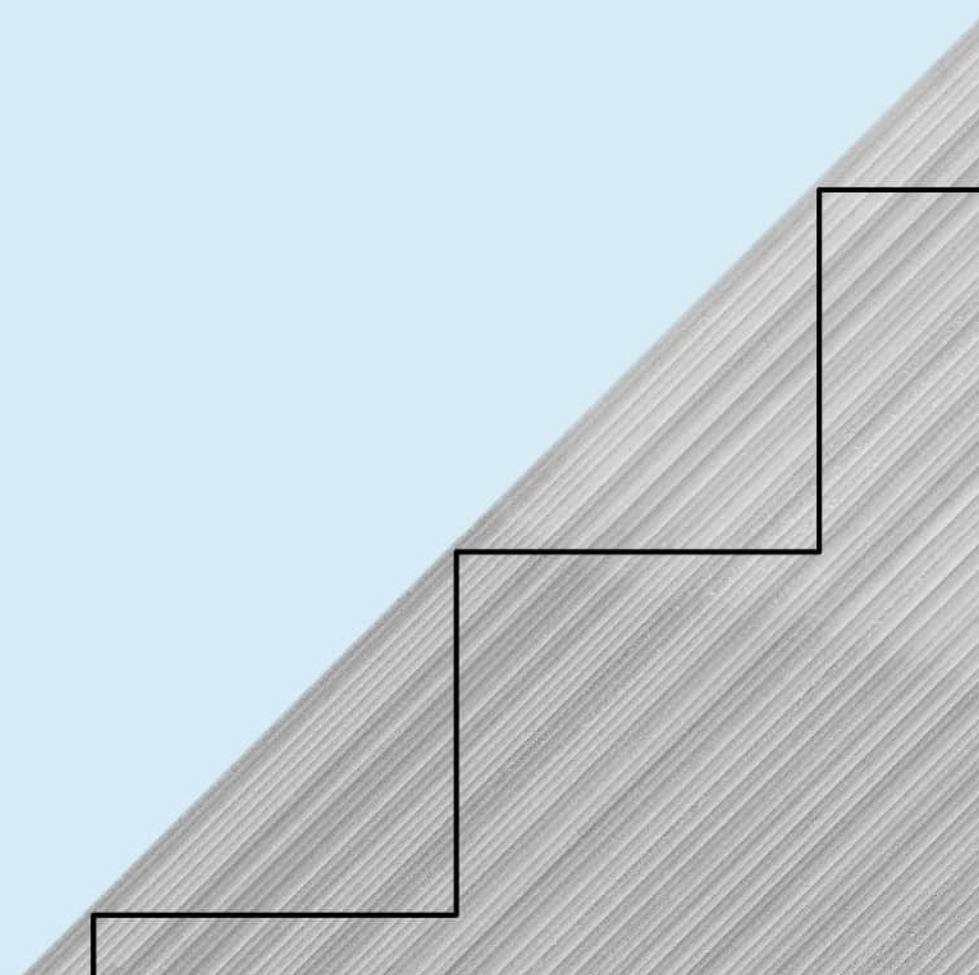
Backscatter

Sources: ESRI (2019), Backscatter (MMT, 2021), TetraTech (October 2022)



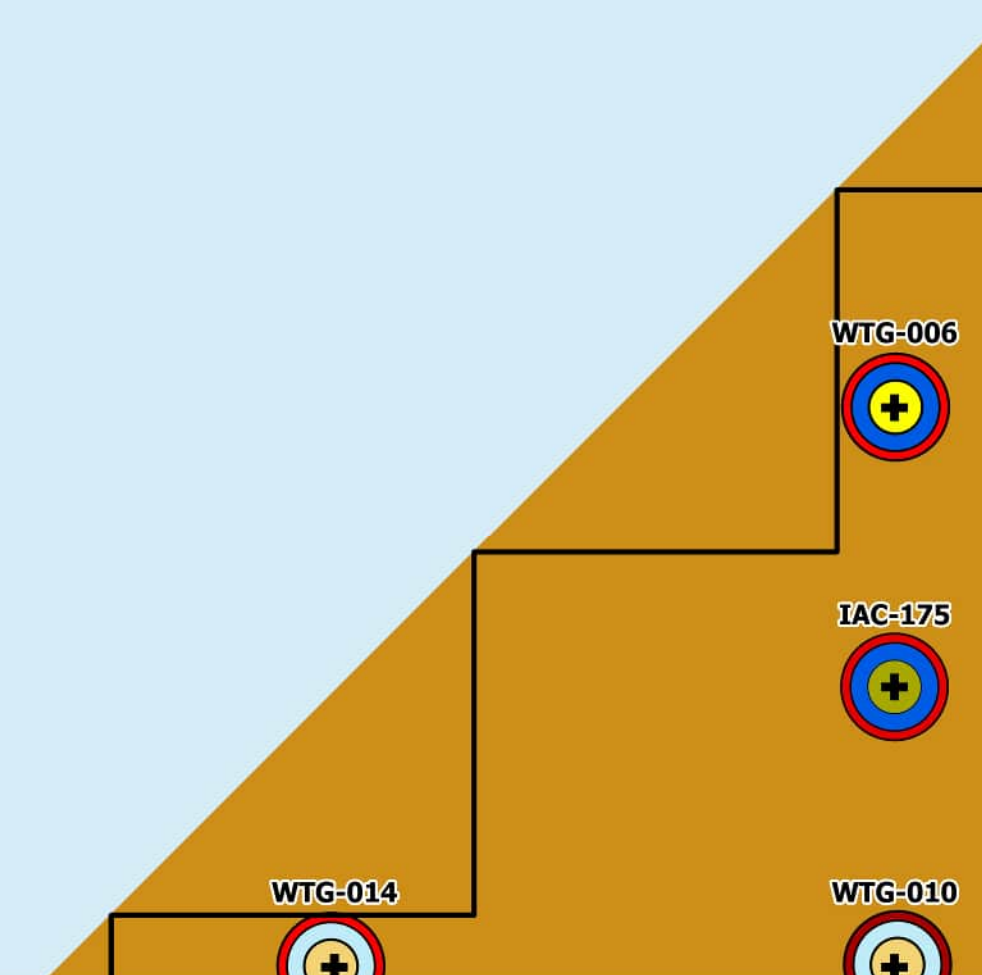
Side Scan Sonar

Sources: ESRI (2019), Side Scan (MMT, 2021)

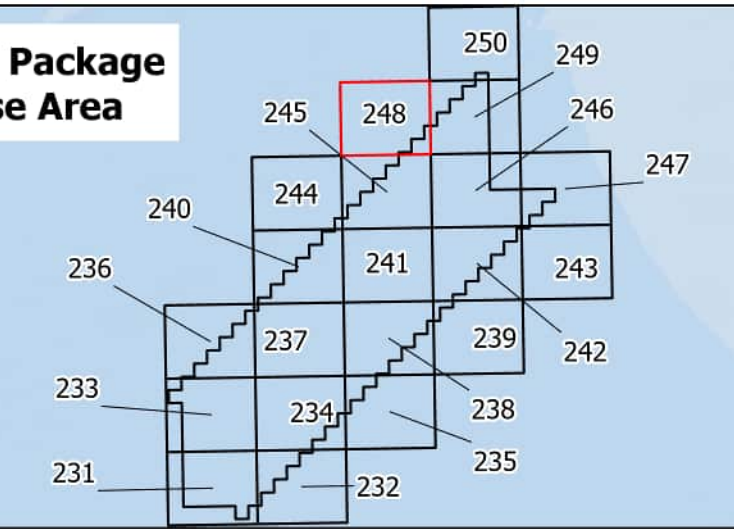


Interpreted Seabed Sediment/ NMFS Habitat Characterization

Sources: ESRI (2019), Sediment Formations (MMT, 2021), Seabed Formations (MMT, 2021), CMECS Characterizations (2021)



Map Book Package for Lease Area



Lease Area

Bathymetry (MLLW)



Backscatter

Delineated Backscatter Intensity Returns



Side Scan Sonar



Benthic Features, Interpreted Seabed Sediment/NMFS Habitat Characterizations, and CMECS Classifications

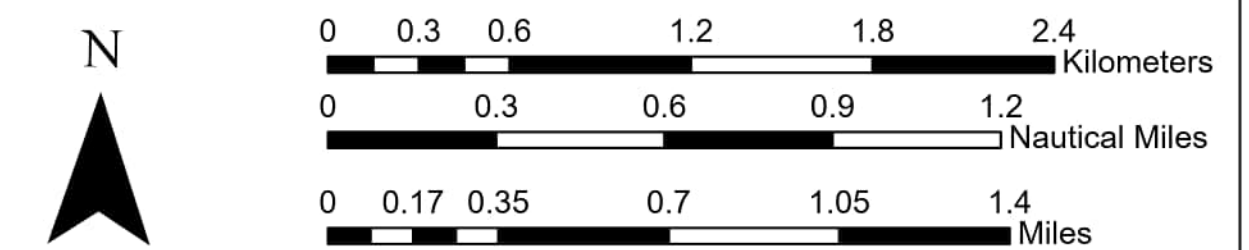
Station Type	CMECS Substrate	Interpreted Seabed Sediment/NMFS Habitat Characterization
<ul style="list-style-type: none"> Station Locations 	<ul style="list-style-type: none"> Fine/Very Fine Sand 	<ul style="list-style-type: none"> Sand and Muddy Sand/Soft Bottom Habitat
CMECS Classification		
CMECS Biotic	CMECS Geoform	
<ul style="list-style-type: none"> Small Tube Building Fauna Sand Dollar Bed Inferred Fauna 	<ul style="list-style-type: none"> Muddy Sand Burrows/bioturbation Flat 	

Note:
1) Legend only shows items visible in the current map extent.

Prepared By: AECOM

Date: 2/28/2023

Scale: 1:25,000



BEACON WIND LEASE AREA OCS-A 0520

Map Book Package for Lease Area
Tile 248

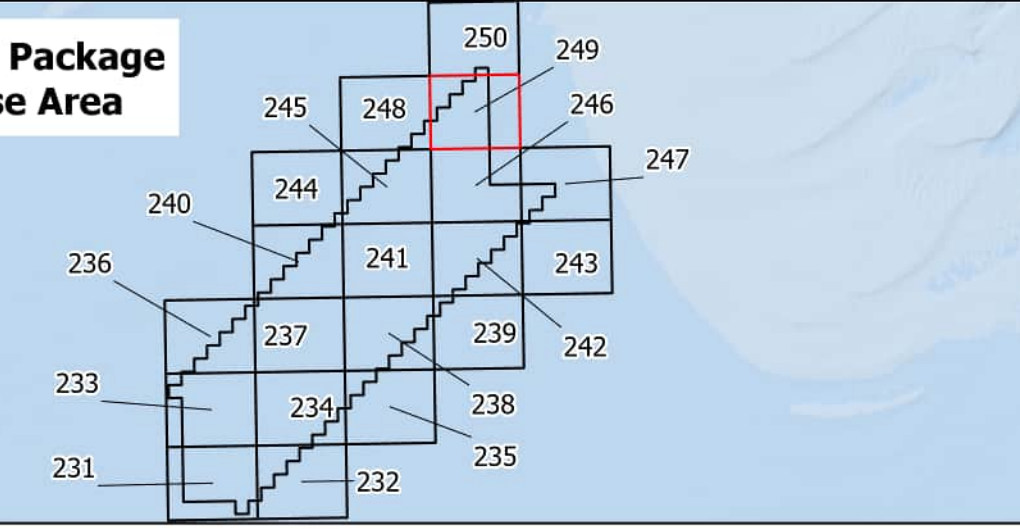
Bathymetry

Sources: ESRI (2019), Bathymetry (MMT, 2021)

Backscatter

Sources: ESRI (2019), Backscatter (MMT, 2021), TetraTech (October 2022)

Map Book Package for Lease Area



Lease Area

Bathymetry (MLLW)



Backscatter

Delineated Backscatter Intensity Returns

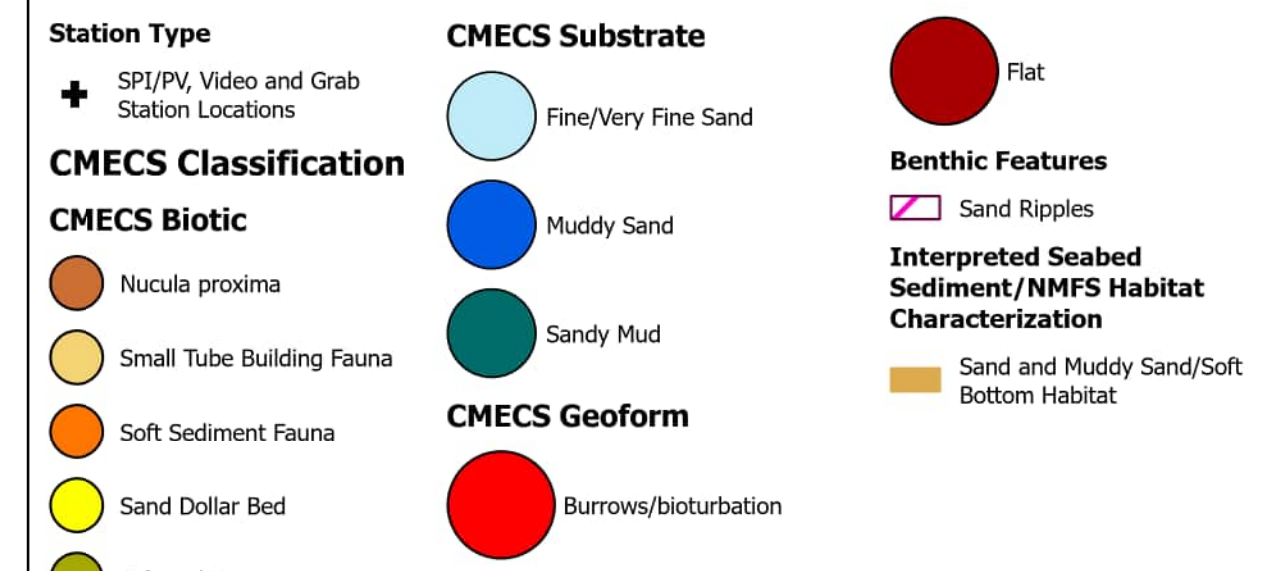
Low Medium



Side Scan Sonar



Benthic Features, Interpreted Seabed Sediment/NMFS Habitat Characterizations, and CMECS Classifications

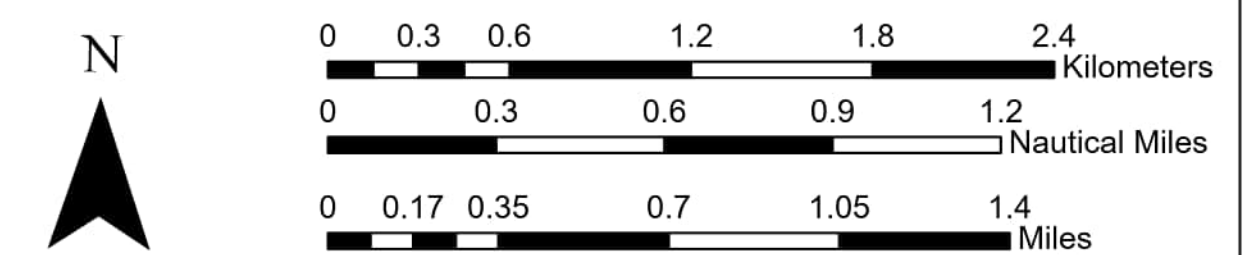
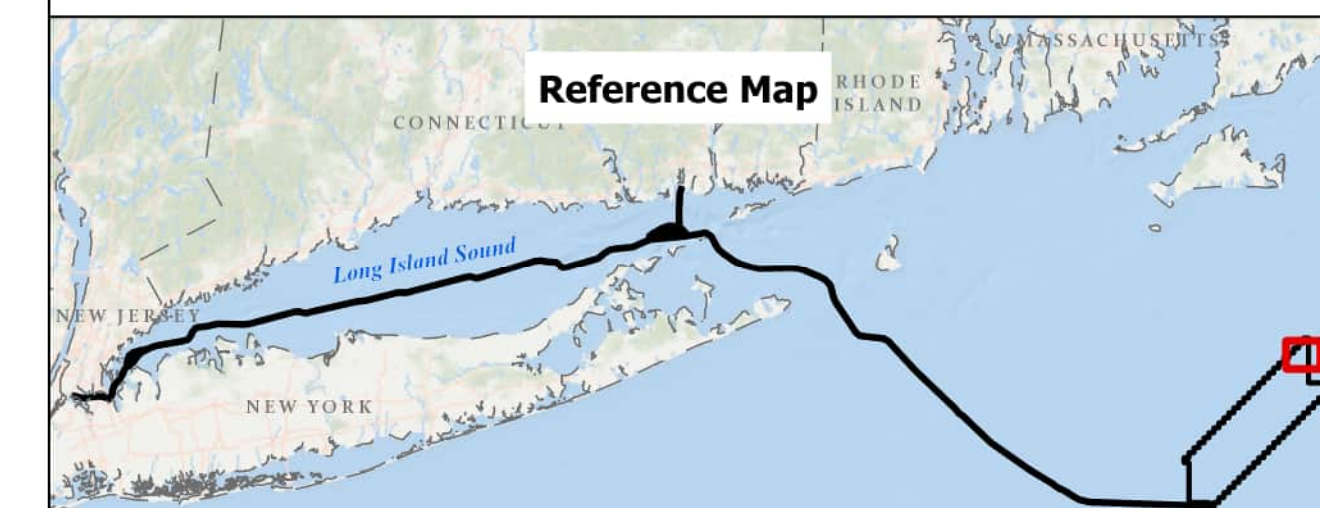


Note: 1) Legend only shows items visible in the current map extent.

Prepared By: AECOM

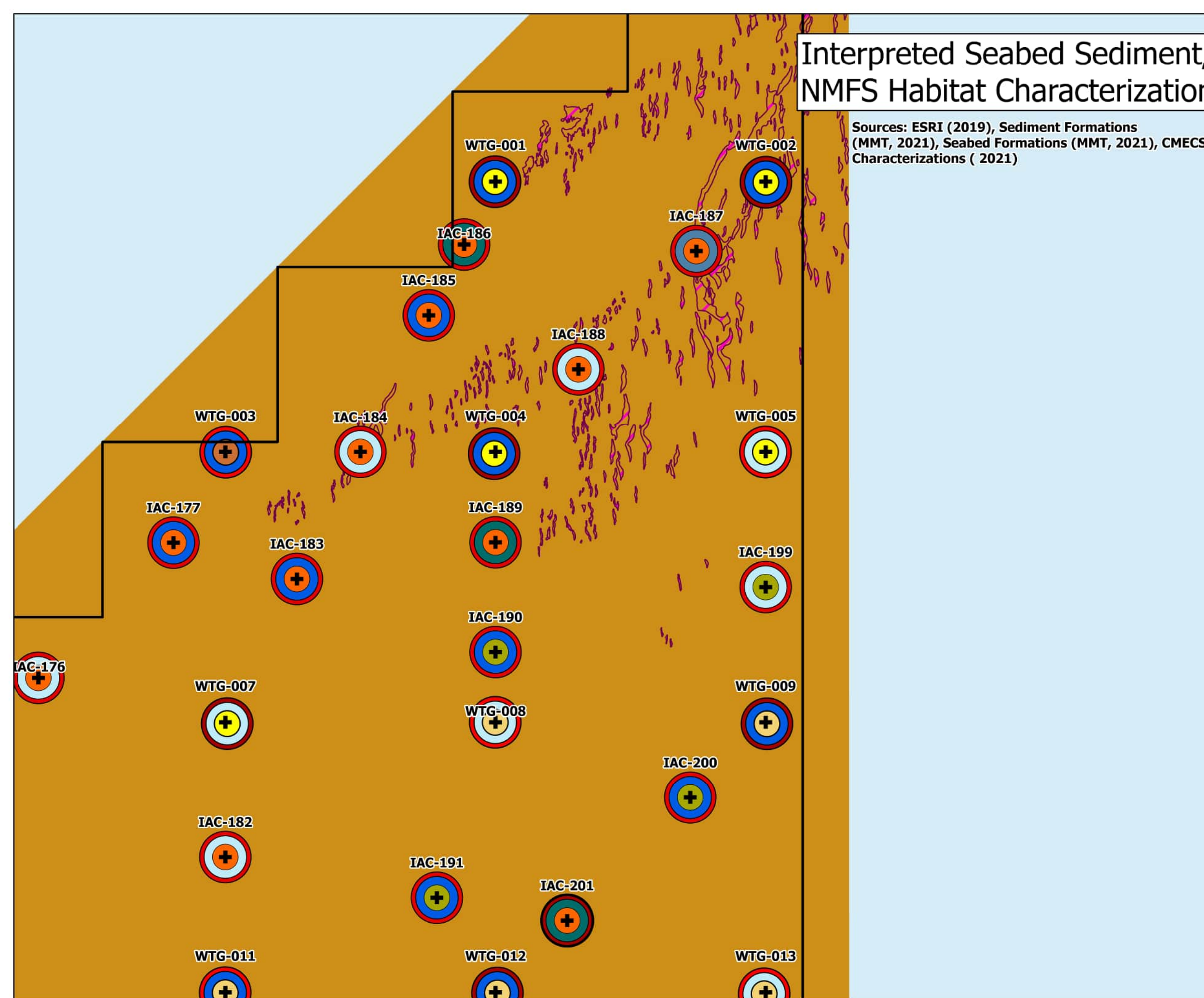
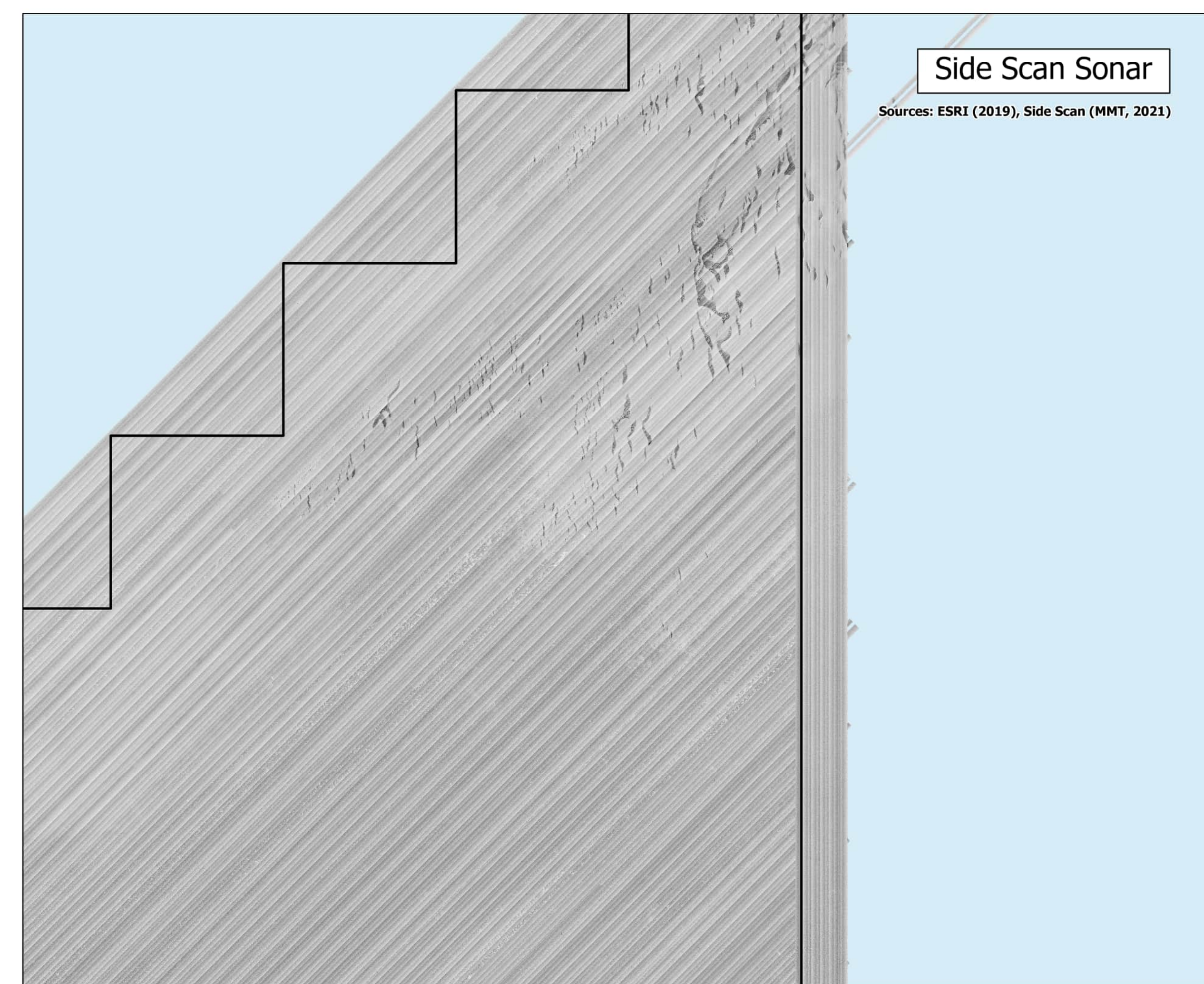
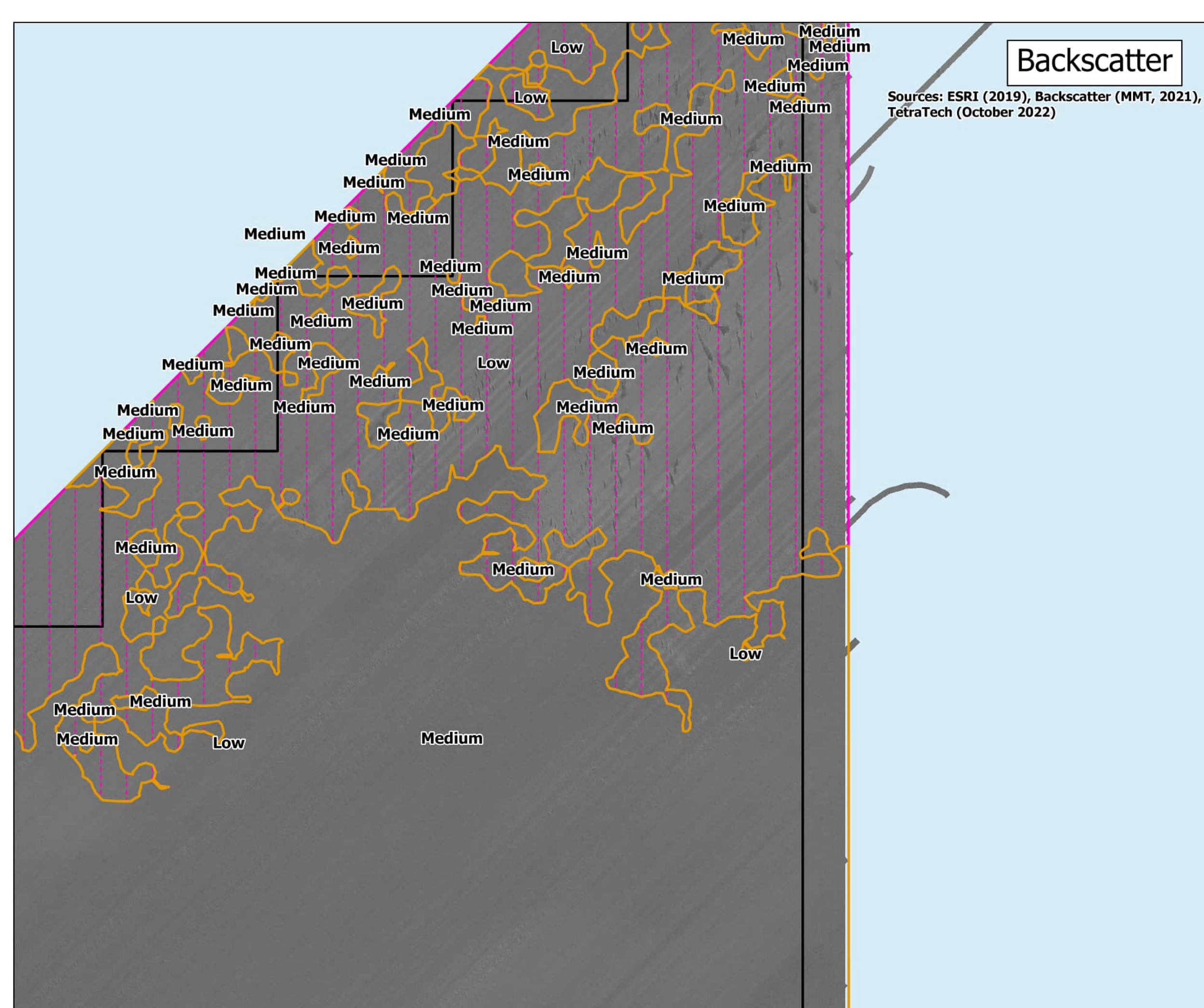
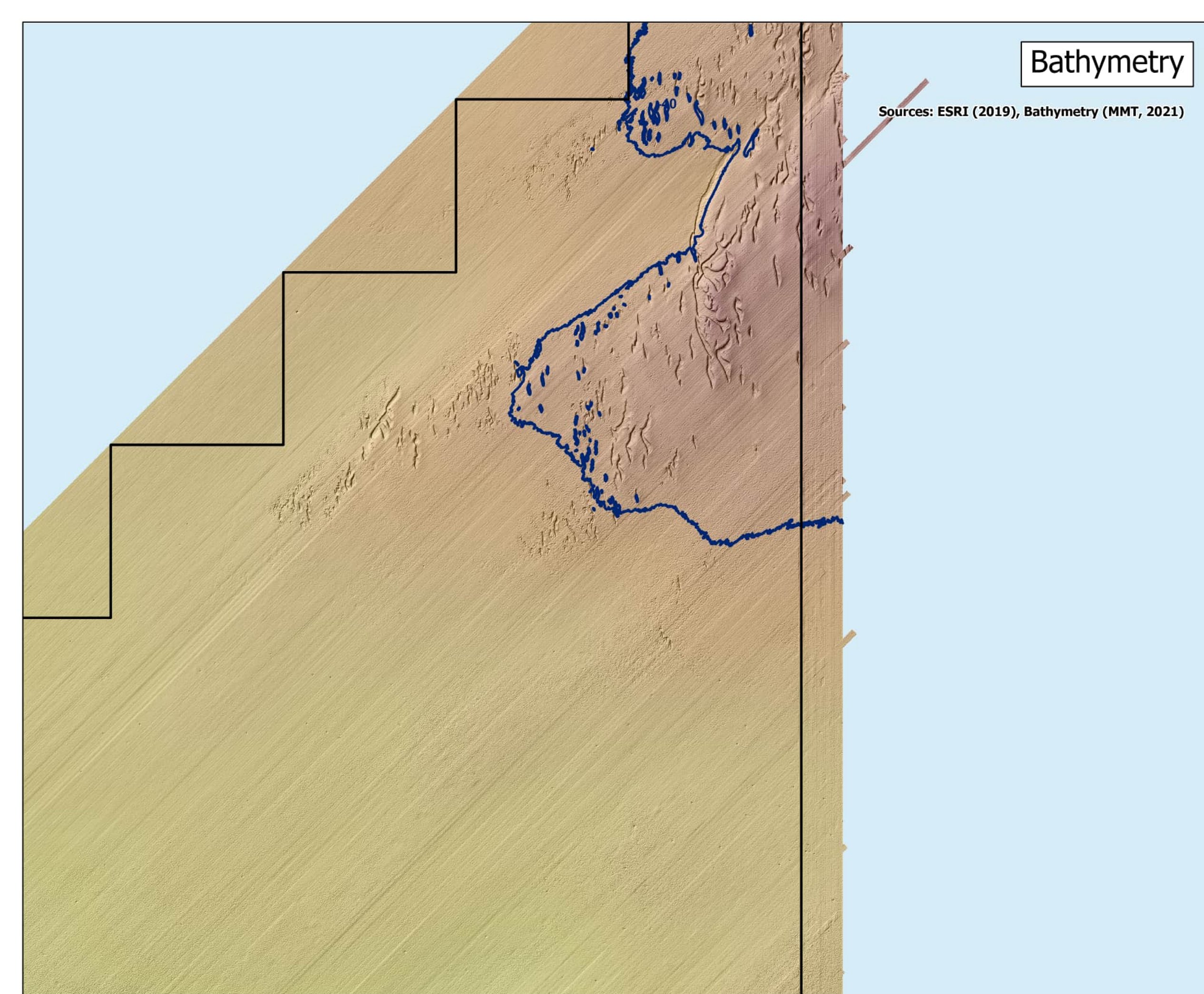
Date: 3/1/2023

Scale: 1:25,000



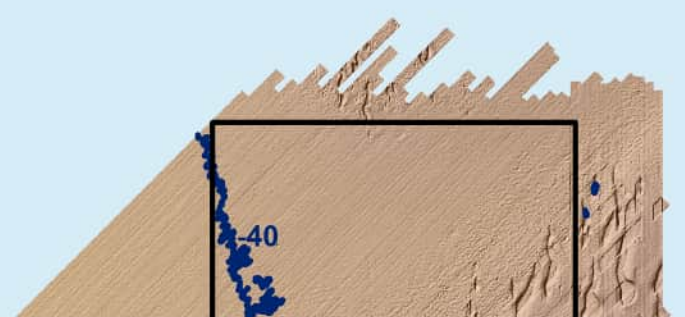
BEACON WIND LEASE AREA OCS-A 0520

Map Book Package for Lease Area
Tile 249



Bathymetry

Sources: ESRI (2019), Bathymetry (MMT, 2021)



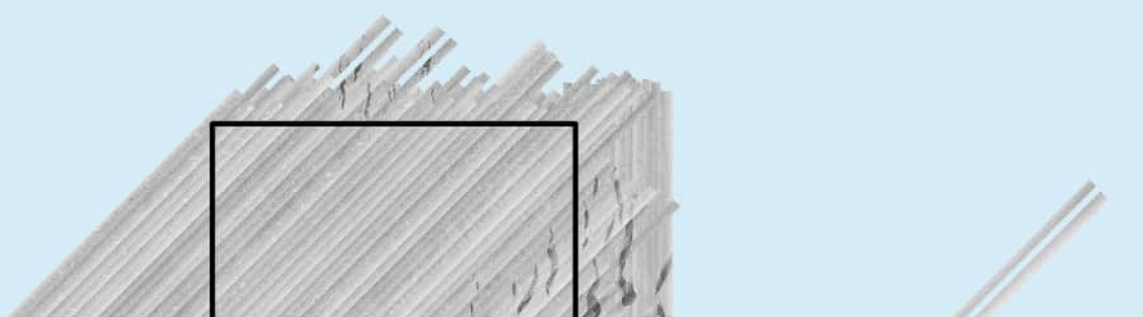
Backscatter

Sources: ESRI (2019), Backscatter (MMT, 2021), TetraTech (October 2022)



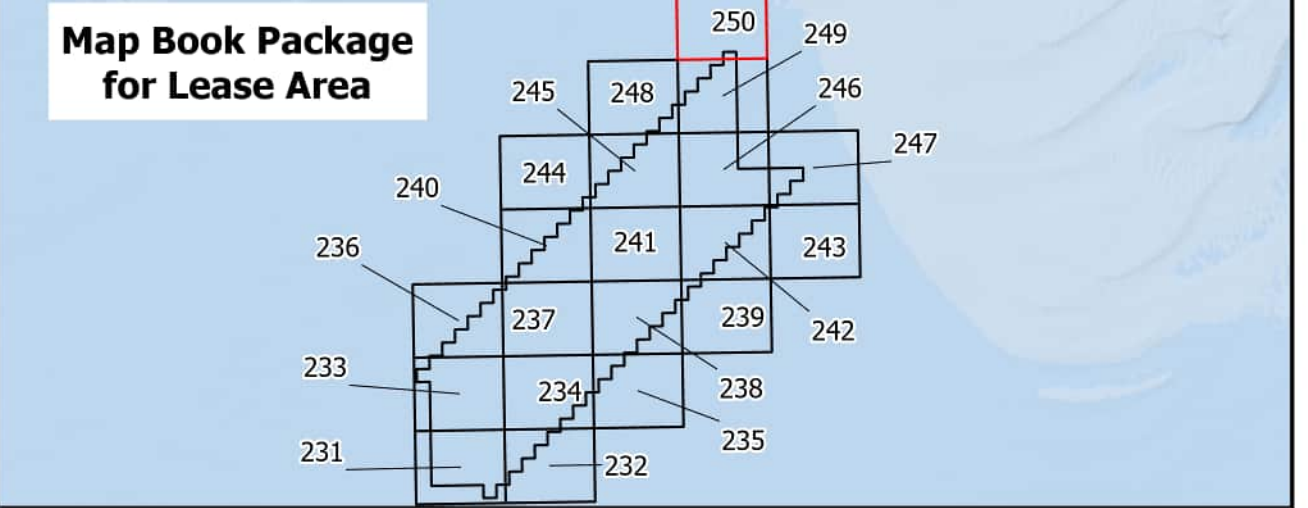
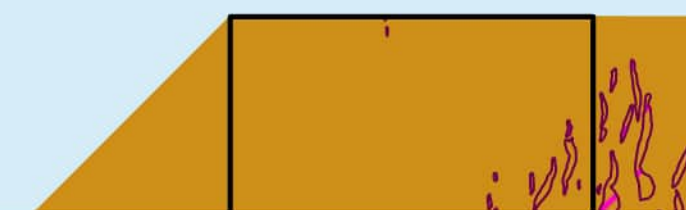
Side Scan Sonar

Sources: ESRI (2019), Side Scan (MMT, 2021)



Interpreted Seabed Sediment/ NMFS Habitat Characterization

Sources: ESRI (2019), Sediment Formations (MMT, 2021), Seabed Formations (MMT, 2021), CMECS Characterizations (2021)

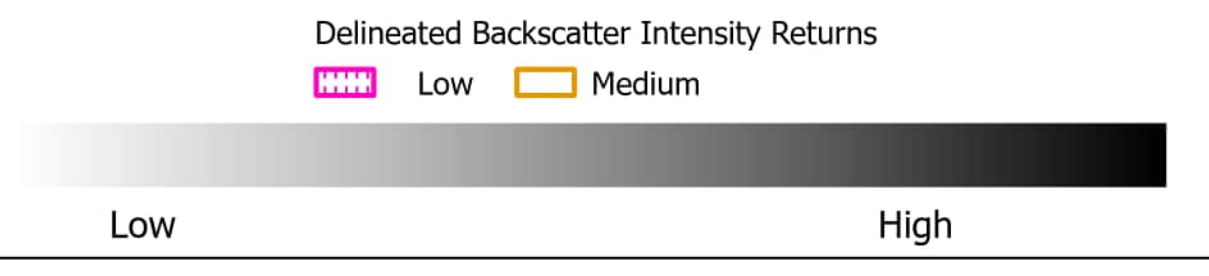


Lease Area

Bathymetry (MLLW)



Backscatter



Side Scan Sonar



Benthic Features, Interpreted Seabed Sediment/ NMFS Habitat Characterizations, and CMECS Classifications

Benthic Features

Sand Ripples

Interpreted Seabed Sediment/NMFS Habitat Characterization

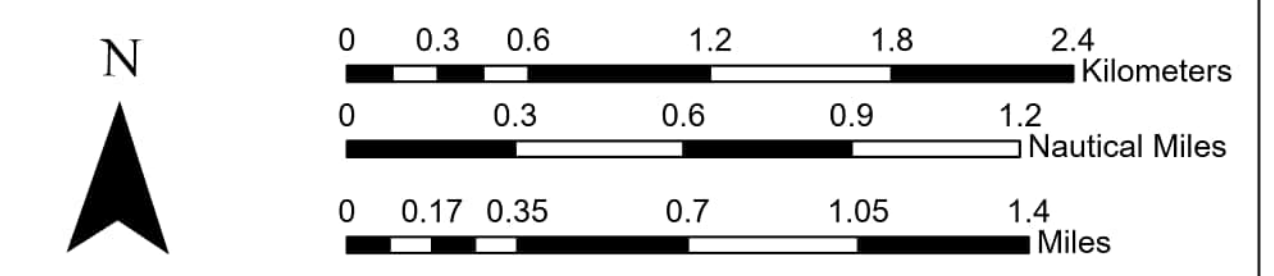
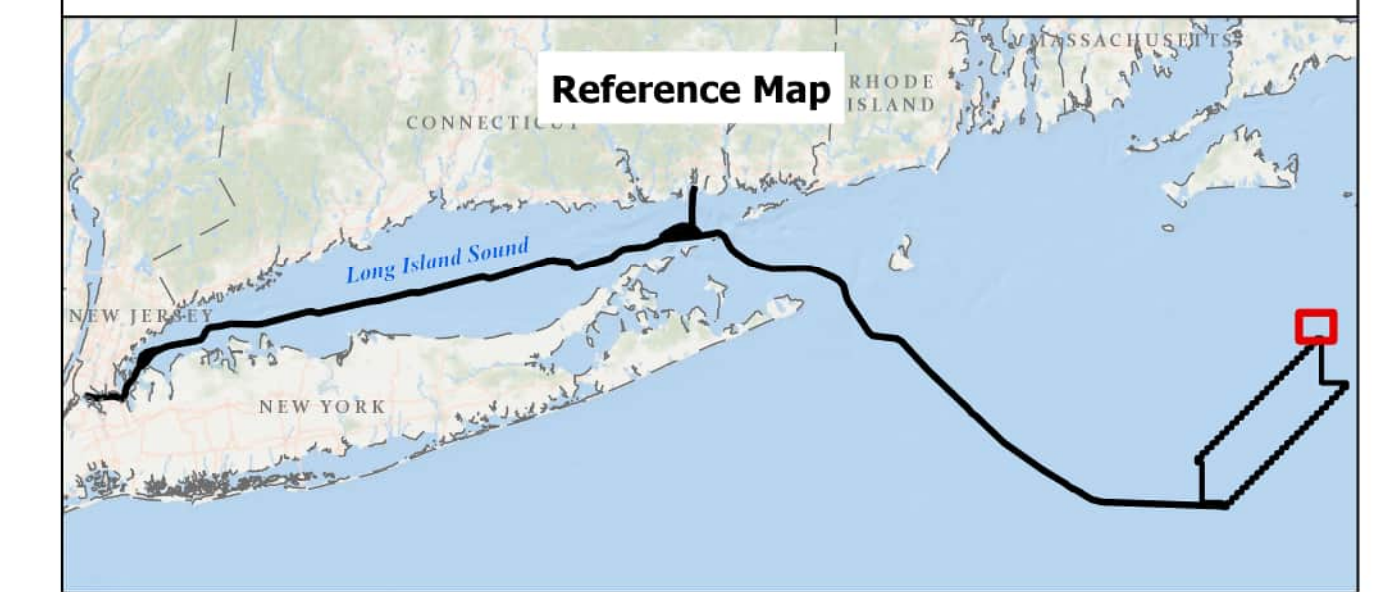
Sand and Muddy Sand/Soft
Bottom Habitat

Note:
1) Legend only shows items visible in the current map extent.

Prepared By: AECOM

Date: 2/28/2023

Scale: 1:25,000



BEACON WIND LEASE AREA OCS-A 0520

Map Book Package for Lease Area
Tile 250



Photo credit: Matt Goldsmith, Equinor