

**Fundamental to BOEM being a responsible steward of the U.S. Outer Continental (OCS) is the creation of official maps with delineated boundaries for monitoring, enforcement, and oversight. Maps illustrating ocean boundaries are critical for conservation, environmental, and economic purposes and to conduct everyday governmental sovereignty functions associated with U.S. insular areas.**

## Overview

The **Geospatial Services Division (GSD)** of the BOEM Office of Strategic Resources Program provides foundational support for oil and gas, renewable energy, and marine minerals leasing activities by supplying the Bureau with official maps, complex area computations, and boundary data products. These operations support management of the Federal government's OCS leasing program. Additionally, the GSD develops and maintains the Submerged Lands Act boundary, Limit of "8(g) Zone," and the Offshore Marine Cadastral database that contains lease block grids and various offshore boundaries. While the GSD produces many types of mapping products, its staff uses the Boundary Delineation System (BDS) to create the following products:

### Index Maps

Index maps provide a visual method so that users can locate the proper map for their project area, just as the name implies.

### OCS Leasing Maps (LM)

OCS leasing maps depict the cadastral subdivisions of the OCS that legally define all leasing areas. LMs, however, are available only within the OCS Federal jurisdiction for Texas and Louisiana ([see Figure 2](#)). OPDs are used in other areas.

### Official Protraction Diagrams (OPD)

Official protraction diagrams depict the cadastral subdivisions of the OCS that legally define all leasing areas.

### Supplemental Official Block Diagrams (SOBD)

Supplement LMs and OPDs, covering all Federal waters off the contiguous 48 states, Alaska, Hawaii, and U.S. territories. SOBDs depict areal measurements, offshore boundaries, and their intersection coordinates. They also identify Federal and state land ownership for individual OCS leasing blocks.

Users of these products will note that the geographic coordinates displayed and used to develop each product vary by location because different BOEM regional offices have access to differing datasets, or datums, from which their maps are made. BOEM publishes these map products in open source Adobe (.pdf) formats that are available at no cost and are downloadable through the Bureau's [website](#). The most current, approved edition for each OPD and SOBD are also available in a compressed WinZip file format. A description of each product type is provided below.

## Index Maps

BOEM offers an OCS index map for each region that shows the location, division, and name of each individual detailed map of that area ([see Figure 1](#)). Index maps allow users to quickly identify and retrieve the appropriate map for their project area. Note that the Gulf of Mexico Region's Index Map is two index maps in one. The top half of the map is an index for the LMs, and the bottom is an index map for the OPDs. The Atlantic, Alaska, and Pacific Regions are standardized and illustrate only the OPD divisions owing to its long history of leasing in the region.

## Leasing Maps and Official Protraction Diagrams

The most commonly used maps by virtue of the size of the BOEM leasing program are the LMs and OPDs. These are appropriated submerged land plats that depict the cadastral subdivisions of the OCS, and that legally define all leasing areas. LMs are available within the OCS Federal jurisdiction for Texas and Louisiana ([see Figure 2](#)). The standard drawing is based upon a seaward extension of the coastal state's State Plane Coordinate System, which is measured in feet. In areas farther offshore in the Gulf of Mexico where LMs have never been generated, OPDs are used.

Standard OPDs of OCS cadastral subdivisions are measured in meters, and based on a grid that is approximately 1 degree latitude by 2 degrees longitude when the latitudes are between 0–48 degrees ([Figure 3](#)). The standard drawing changes in the higher latitudes (between 48–75 degrees), where the diagrams are 1 degree latitude by 3 degrees longitude.

## Supplemental Official Block Diagrams

As the name implies, SOBDs supplement OPDs and LMs by providing more detail of an area, including legal descriptions. These may be offshore of the contiguous 48 states, Alaska, and Hawaii; as well as the territories of American Samoa, Guam, the Commonwealth of the Northern Mariana Islands, the U.S. Virgin Islands, and the Commonwealth of Puerto Rico.

An SOBD is prepared for each OCS block intersected by an offshore boundary (Submerged Lands Act Boundary, Limit of "8(g) Zone," National Marine Sanctuaries, etc.). Note that not all OPDs contain such boundaries; therefore not all OPDs have SOBDs associated with them. The SOPDs showing areal measurements are signed by representatives of both the Federal and State governments ([see Figure 4](#)).

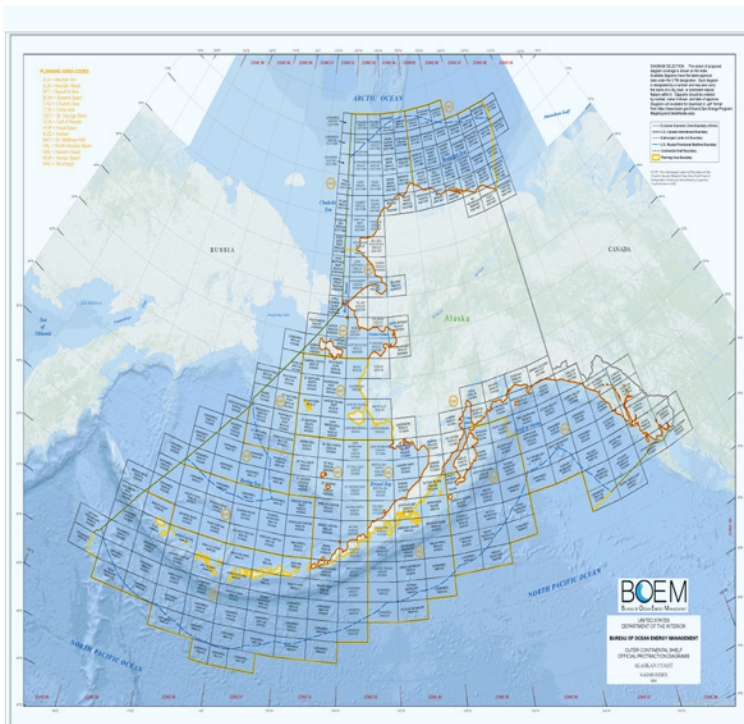


Figure 1. Index Map

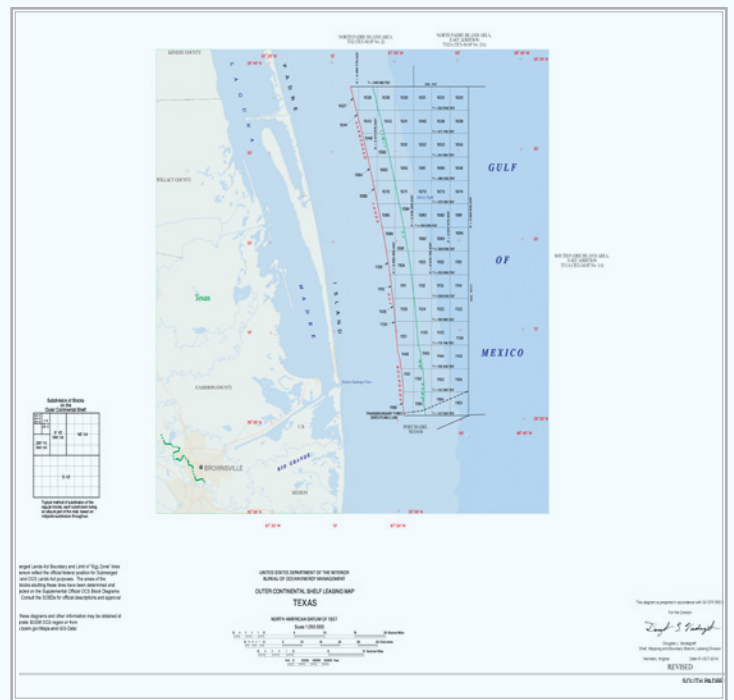


Figure 2. Leasing Map

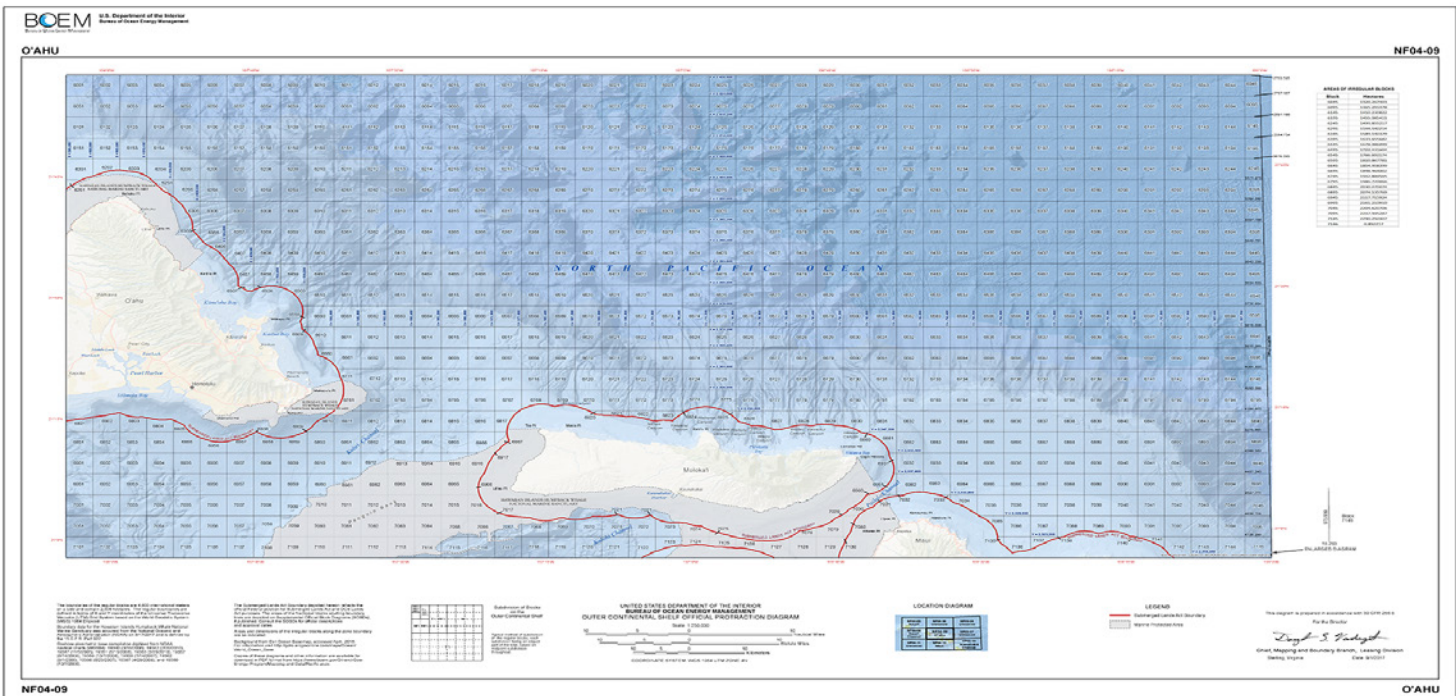


Figure 3. Official Protraction Diagram

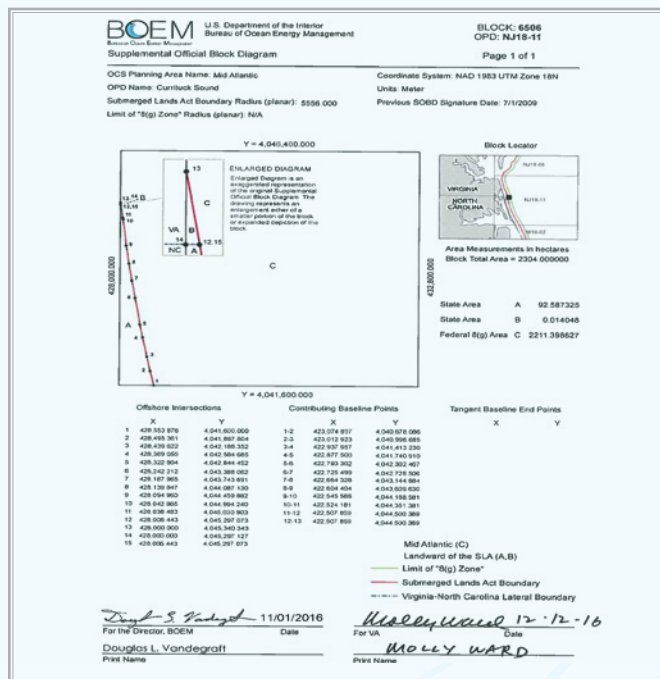


Figure 4. Supplemental Official Block Diagram

For more information about BDS, please see the following fact sheets:

- <https://www.boem.gov/Boundary-Delineation-System>
- <https://www.boem.gov/Projected-Boundaries>
- <https://www.boem.gov/Other-Boundaries>

