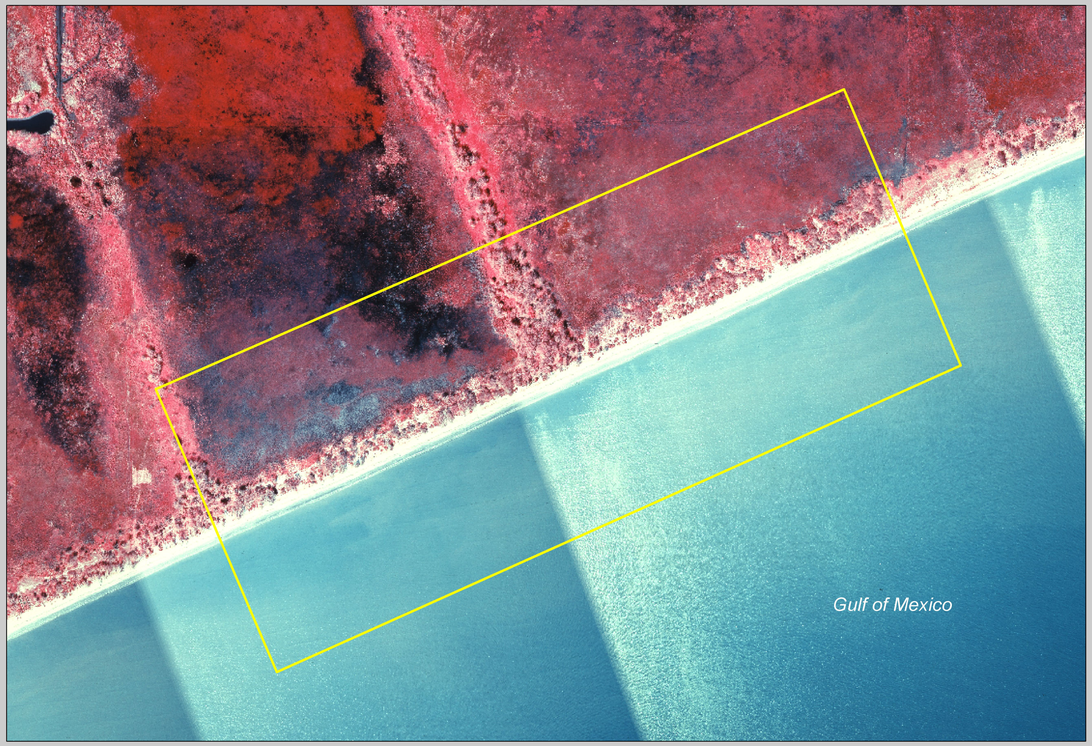
# Cheniere Au Tigre Sediment Trapping Demonstration (TV-16)

## Coastal Wetlands Planning, Protection and Restoration Act

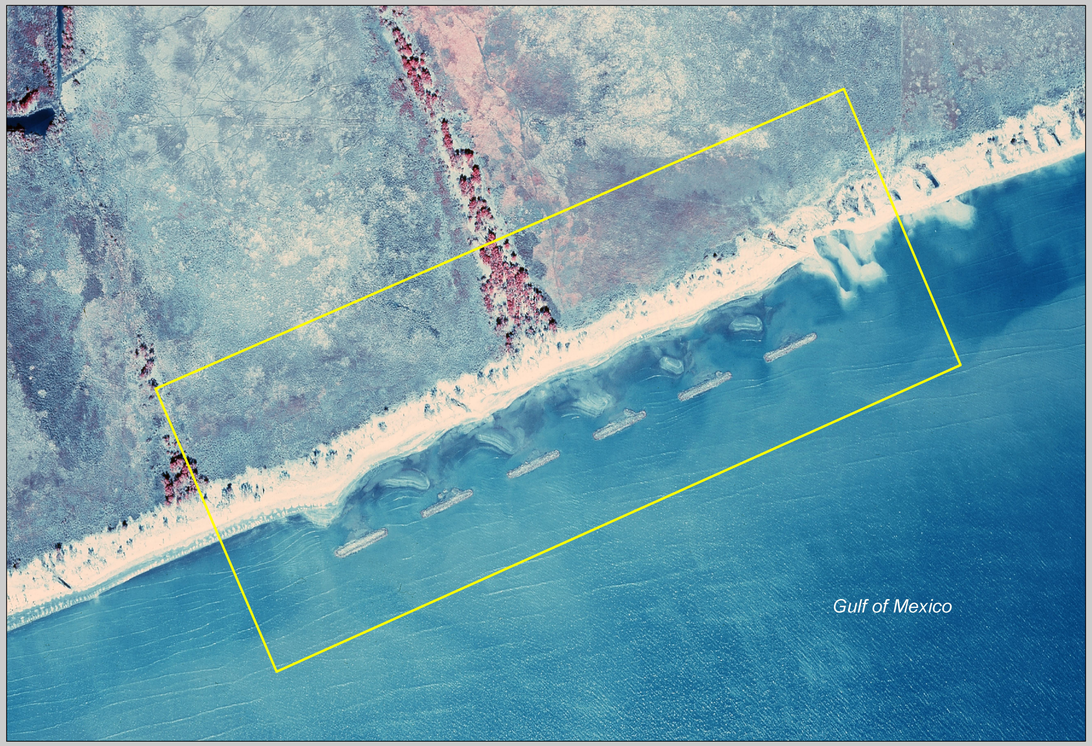
2001 and 2005 Photomosaics and Land-Water Analyses

### 2001 Photomosaic

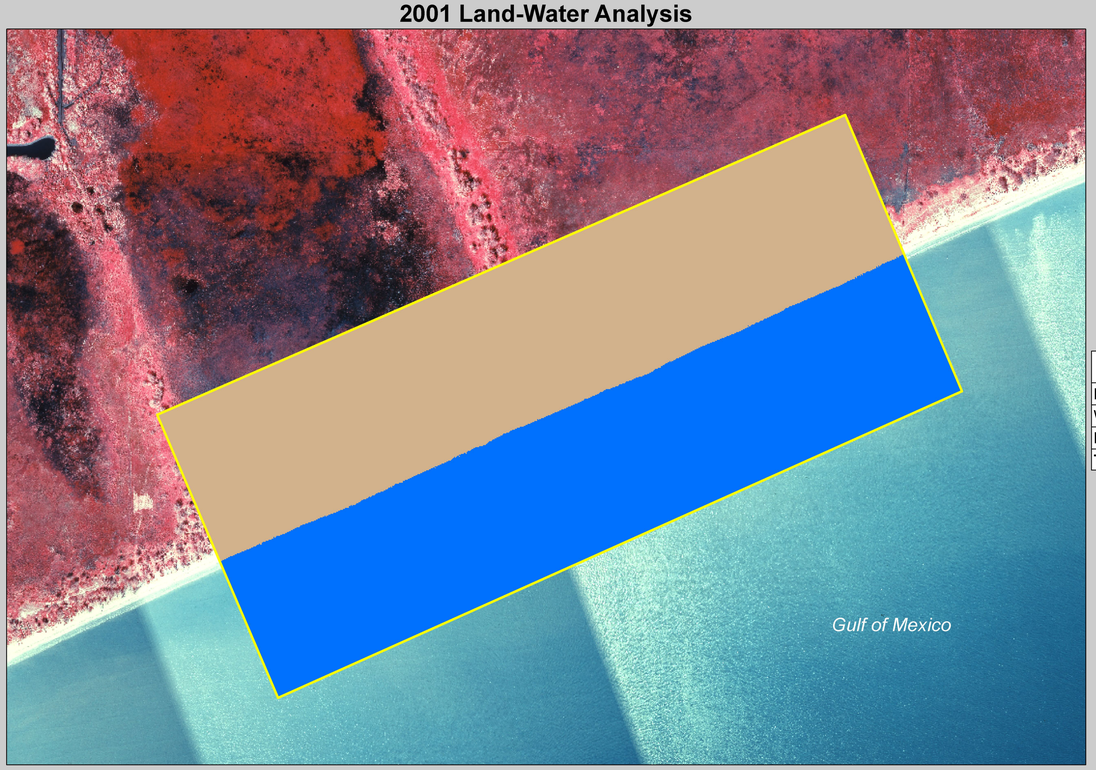



**Project Description:**
This project is located in southeastern Vermilion Parish, Louisiana, on the shoreline of the Gulf of Mexico, approximately 15 miles (24 km) south of Intracoastal City. Cheniere Au Tigre is part of the chenier plain, which developed during the past 5,000 years through westward littoral transport of Mississippi River Delta sediments, in combination with deposition of local fluvial sediments. The development of cheniers coincided with eastward shifts in the course of the Mississippi River. Cheniers are recessional beach ridges comprised of sand and shell fragments that parallel the current shoreline. Wetland loss in the project area has occurred as beach and brackish marsh have converted to open water. Shoreline retreat in this area between 1956 and 1969 was measured to be 26.6 ft/yr (8.1 m/yr). This loss has resulted primarily from erosional scouring caused by the same littoral currents which can also contribute to sediment accretion. The construction of rock breakwaters serves to protect the current shoreline of Cheniere au Tigre and prevents further wave-induced erosion. Each breakwater is 200 ft (61 m) long, with a 120-ft gap (37 m) between segments. These segments were constructed parallel to the shoreline at a distance of 200 ft (61 m) offshore. Settled elevation of the rock segments will be 3.5 ft (1 m) above marsh elevation.

### 2005 Photomosaic

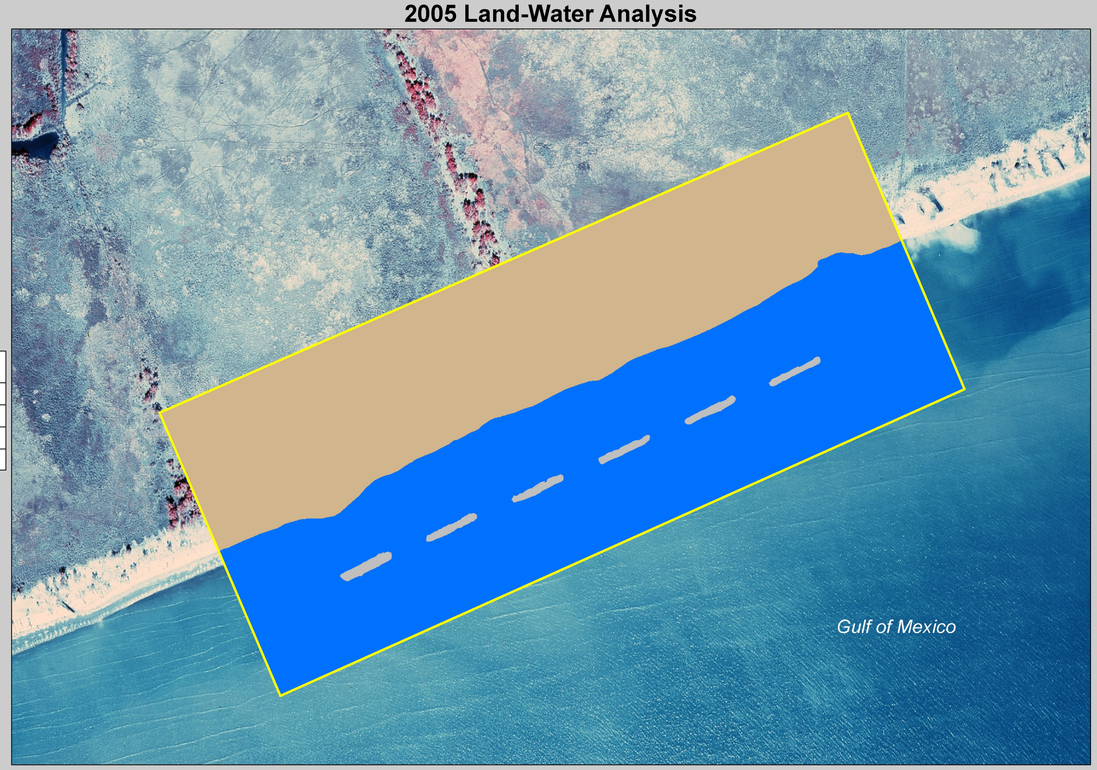



### 2001 Land-Water Analysis




**Land-Water Analysis:**
To determine land-water analysis, aerial photographs were scanned and habitats were classified according to "Classification of wetlands and deepwater habitats of the United States" (Cowardin and others, 1979). All areas characterized by emergent marsh, scrub-shrub, upland, and dunes that are not effected by tide were classified as land. Areas characterized by open water, aquatic beds, and mud flats were classified as water.

### 2005 Land-Water Analysis




2001 and 2005 Acreages

| Class | 2001 | 2005 |
|---|---|---|
| Land | 29 | 29 |
| Water | 31 | 31 |
| Breakwaters | 0 | <1 |
| **TOTAL** | **60** | **60** |

Project Location


Prepared by:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Lafayette, Louisiana
and
Louisiana Department of Natural Resources
Coastal Restoration Division
Lafayette Field Office

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Project Area

Scale = 1:2,500

0.1 0 0.1 0.2 Miles

0.1 0 0.1 0.2 0.3 Kilometers

Data Source:
The land-water data were obtained from color infrared aerial photography at 1:6,000 scale on March 5, 2001, and at 1:12,000 scale on October 25, 2005. It is shown here at 1:2,500 scale.

Federal Sponsor:
U.S. Department of Agriculture
Natural Resources Conservation Service

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