

A photograph of modern glass skyscrapers in Kazakhstan. The image features two prominent buildings: a tall, slender tower on the left and a more complex, multi-tiered structure on the right. The sky is blue with scattered white clouds. In the foreground, there are some green trees and a flagpole with the Kazakh flag. The text 'ENKA IN KAZAKHSTAN' is overlaid in large white letters across the center of the image.

# ENKA IN KAZAKHSTAN

**ENKA**  
Engineering for a Better Future

# HISTORY



## Development of Tengiz Oil Field

Since 1993, Bechtel-ENKA joint venture has been executing a great number of projects to develop the Tengiz Oil Field, in western Kazakhstan. Their joint subsidiary Senimdi Kurylys LLP, apart from the on-going operation and maintenance contract executed large-scale projects, such as Debottlenecking Project & Program 12, Tank Farm & Train 5, Second Generation Plant & Sour Gas Injection, 3GI Civils and Underground Services, Core Substation ME&I Installation & FGP Multi Well Pads Civil Installation Project, Crude Shipment Capacity Project & FGP 3GP MEI Works.



## Development of Kashagan Oil Field

ENKA was awarded several contracts starting from 1998 for the development of the Kashagan Oil Field. Major contracts included the Bautino Supply Base Project in 1998-2000, Offshore Civil Works between 2001-2012, D Complex Civil Modification Works in 2015-2016 and EPC-3 Topsides Works in 2016-2017.



## Esentai Park Complex

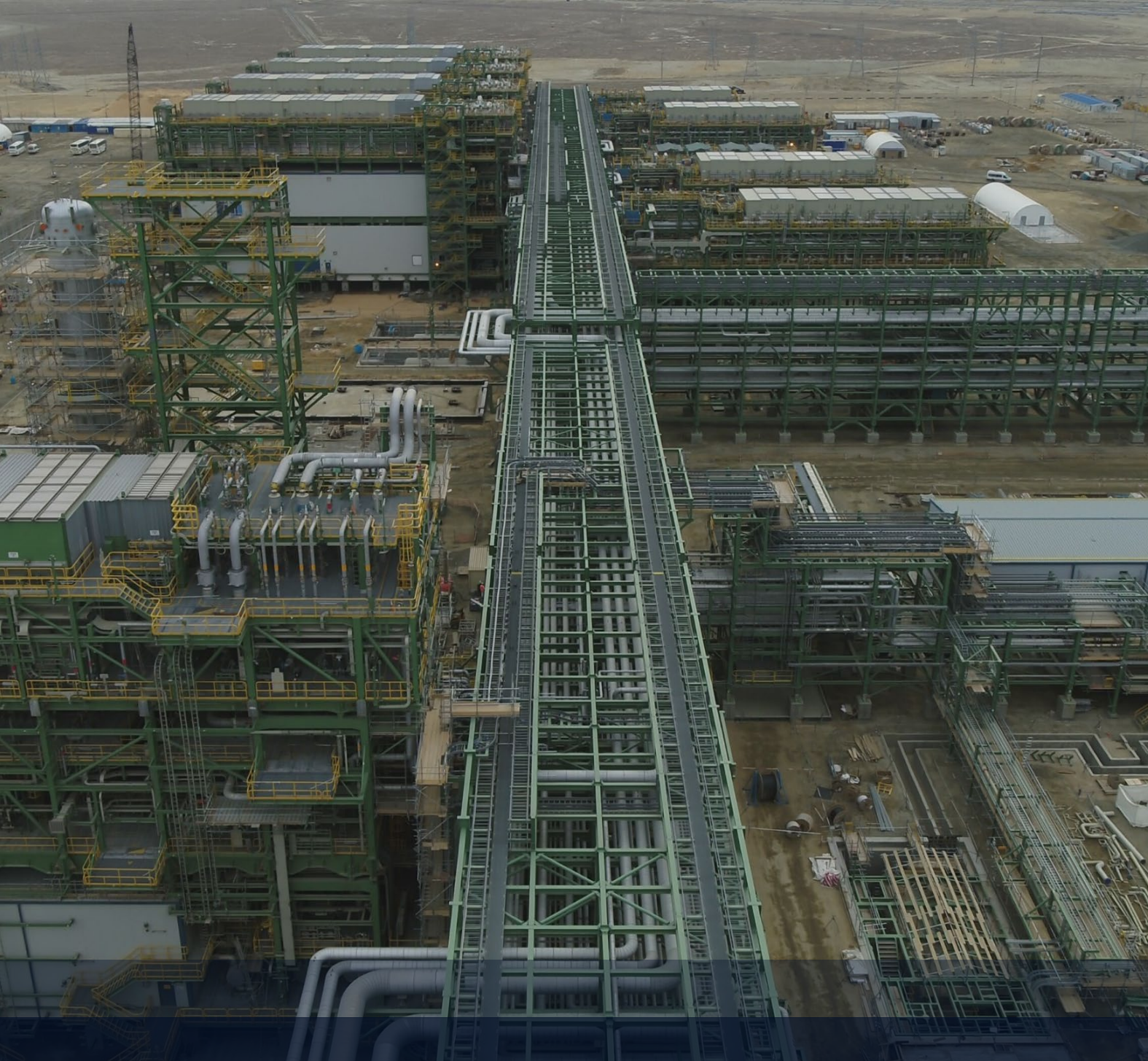
Between 2006-2014, ENKA signed contracts for the construction of the Esentai Tower, Esentai Residence A, Esentai Residence B&C, Shopping Mall and Fitness Center in Almaty.

**More than  
60 signed engineering &  
construction contracts ranging from  
oil, gas & petrochemicals to  
infrastructure and building works  
with contracted total value of  
US\$ 6,5 Billion**

# FEATURED PROJECTS

3/20

PROJECT	COUNTRY	LOCATION	CLIENT	COMMENCE DATE	COMPLETION DATE	HIGHLIGHTS
FGP 3GP Mechanical, Electrical & Instrumentation Installation Works	Tengiz	Oil & Gas, Petrochemicals	Tengizchevroil LLP	2018	2025	Mechanical, Electrical & Instrumentation Installation Works
Kashagan Oil Field Development Project – Offshore and Onshore Civil Works	Kazakhstan	Caspian Sea	Agip KCO, ER SAI Caspian Contractor LLP, North Caspian Operating Company NV	1998	Current	Various Onshore & Offshore Civil Works Contracts Logistic Support activities for offshore (current)
Tengiz Base Operations and Maintenance Works	Tengiz	Oil & Gas, Petrochemicals	Tengizchevroil LLP	2001	2024	Various master contractor services
Crude Shipment Capacity Project	Tengiz	Oil & Gas, Petrochemicals	Tengizchevroil LLP	2014	2019	Addition to storage and pumping capacity in the Tengiz Crude Tank Farm
FGP Multi Well Pads Civil Installation Project	Tengiz	Oil & Gas, Petrochemicals	Tengizchevroil LLP	2015	2019	Development undertaking and expansion of existing facilities
Core Substation ME&I Installation	Tengiz	Oil & Gas, Petrochemicals	Tengizchevroil LLP	2017	2019	Part of Future Growth Project – Wellhead Pressure Management Project
3GI Civils and Underground Services	Tengiz	Oil & Gas, Petrochemicals	Tengizchevroil LLP	2017	2019	Civil and Underground Services Works on 3rd Generation Injection (3GI) Plant facilities
FGP-CaTRo Channel Works	Prorva	Oil & Gas, Petrochemicals	TenizService LLP / Chevron	2014	2018	Onshore and Offshore Civil Works
Esentai Park Complex	Almaty	Buiding Works	KUSA KKB-2 LLP	2006	2014	Business Centers & High Rises
Koktenkol Molybdenum Project	Koktenkol	Infrastructure	Dala Mining LLP	2012	2013	Front End Engineering Design (FEED) for 20 mtpa capacity Mining Facility
Esentai Park Complex - Shopping Mall, Phase I	Almaty	Building Works	CP Retail Almaty Company	2006	2009	Malls & Shopping Centers
Second Generation Plant Project	Tengiz	Oil & Gas, Petrochemicals	Tengizchevroil LLP	2003	2008	World’s largest single-train sour crude processing facility
Sour Gas Injection Project	Tengiz	Oil & Gas, Petrochemicals	Tengizchevroil LLP	2003	2006	Newly introduced re-injection technology (depth 7 km)
Train 5 Project	Tengiz	Oil & Gas, Petrochemicals	Tengizchevroil LLP	1997	2000	Additions to Tengiz Oil Processing Facilities
Aktau Port Rehabilitation	Aktau	Infrastructure	Aktau Commercial Sea Port	1997	1999	Kazakhstan’s main port on the Caspian Sea



# FGP 3GP ME&I INSTALLATION WORKS

## PROJECT DESCRIPTION

Senimdi Kurylys LLP, an equal joint venture between ENKA and Bechtel, was awarded the contract for the mechanical, electrical and instrumentation installation works for the Third Generation Project (3GP).

The 3GP is part of TCO's Future Growth Project (FGP) which is an integrated project being developed primarily to increase the production capacity of the Tengiz Oil Field by an additional 12 million tons per year (260,000 barrels per day) and its gas production capacity by an additional 27 million m<sup>3</sup> per day.

The project is being carried out using a modularized construction strategy, with modules constructed both at Kazakh coastal fabrication yards and at other fabrication yards in Europe and the Far East.

### PROJECT LOCATION

Tengiz - Kazakhstan

### CONSTRUCTION PERIOD

May 2018 – March 2025

### CLIENT

Tengizchevroil (TCO - a Joint Venture between Chevron, ExxonMobil, LukArco and KazMunayGas)

### CONTRACT TYPE

Lump sum+Unit Rate+ Reimbursable

## PROJECT LOCATION

Tengiz - Kazakhstan

## CLIENT

Tengizchevroil (TCO - a Joint Venture between Chevron, ExxonMobil, LukArco and KazMunayGas)

## CONSTRUCTION PERIOD

February 2001 – November 2024



# TENGIZ BASE OPERATIONS AND MAINTENANCE WORKS

## PROJECT DESCRIPTION

The scope of work awarded consists of engineering, procurement and construction work including but not limited to; piling, foundation and infrastructure works, pipe spool and pre-cast fabrication works, structural steel erection works, piping / pipe-repair work, mechanical, electrical and instrumentation works.

Contract 1623011	2018-2024	US\$ 67 Million
Contract 1131939	2013-2018	US\$ 146 Million
Contract 1224036	2014-2017	US\$ 46 Million
Contract 1155538	2013-2015	US\$ 75 Million
Contract 844780	2011-2014	US\$ 138 Million
Contract 672887	2009-2011	US\$ 31 Million
Contract OM 202	2001-2009	US\$ 161 Million



### **PROJECT LOCATION**

Tengiz - Kazakhstan

### **CLIENT**

Tengizchevroil (TCO - a Joint Venture between Chevron, ExxonMobil, LukArco and KazMunayGas)

### **CONSTRUCTION PERIOD**

July 2014 – December 2019

### **PROJECT VALUE**

US\$ 440 Million

# **CRUDE SHIPMENT CAPACITY PROJECT**

## **PROJECT DESCRIPTION**

The Crude Shipment Capacity Project, which had commenced in July 2014, encompassed engineering, procurement and construction activities which were required to provide the Tengizchevroil's existing Crude Tank Farm with additional storage and export capabilities through the addition of new crude oil storage tanks (3 x 50,000 m<sup>3</sup> floating roof and 1 x 30,000 m<sup>3</sup> fixed roof), switching manifolds and export pumps, along with all their associated piping systems, utilities and control systems.

The project established an optimal crude tank farm and export system, so that the existing and planned volumes of crude could be delivered to the Caspian Pipeline Consortium and Crude Rail Loading without any loss of product quality or interruption in availability.

## PROJECT LOCATION

Tengiz - Kazakhstan

## CLIENT

Tengizchevroil (TCO - a Joint Venture between Chevron, ExxonMobil, LukArco and KazMunayGas)

## CONSTRUCTION PERIOD

November 2015 – January 2019

## PROJECT VALUE

US\$ 104.5 Million



# FGP MULTI WELL PADS CIVIL INSTALLATION PROJECT

## PROJECT DESCRIPTION

Tengizchevroil has been undertaking a large-scale expansion of its existing facilities through the Future Growth Project (FGP) - Wellhead Pressure Management Project. The expansion led to the signing of a new contract covering the construction of new greenfield process plants and the expansion of existing facilities.

The project included the road construction, worksite clearing and grubbing, site preparation, excavation works, installation of grounding lines, construction of wellhead cellars, auger and precast concrete pile installation and cropping, pile testing, construction of pile cap and precast foundations, construction of emergency flare pits, construction of reserve and technical water pits, and HDPE technical water line installation.



### **PROJECT LOCATION**

Tengiz - Kazakhstan

### **CLIENT**

Tengizchevroil (TCO - a Joint Venture between Chevron, ExxonMobil, LukArco and KazMunayGas)

### **CONSTRUCTION PERIOD**

July 2017 - July 2019

### **PROJECT VALUE**

US\$ 49 Million

# **CORE SUBSTATION ME&I INSTALLATION WORKS**

## **PROJECT DESCRIPTION**

FGP/WPMP - Core Substation Mechanical, Electrical & Instrumentation Installation Works project includes the installation of a new 110kV core substation and the interconnection of the facility's new and existing generating stations. The core substation will operate as the hub for the distribution of power.

The core substation comprises 32 prefabricated and pre-tested modules, and includes five (5) 110kV BAAH GIS switchboard and associated control and protection equipment, 10kV / 400V distribution transformers, LV switchgear, UPS systems, and system control equipment panels for FLS, ECS, SRC and automatic synchronizing.

A wide-angle photograph of a construction site. The foreground and middle ground are dominated by a dense grid of vertical steel rebar rods, each topped with a yellow plastic cap. The rods are laid out on a dark, flat surface, likely a formwork for a concrete slab. In the background, several construction workers wearing high-visibility yellow and green safety vests and white hard hats are visible. Some are crouching or kneeling, working on the rebar grid, while others stand further back. The ground is a mix of dirt and concrete. The overall scene is one of active construction preparation.

## PROJECT LOCATION

Tengiz - Kazakhstan

## CLIENT

Tengizchevroil (TCO - a Joint Venture between Chevron, ExxonMobil, LukArco and KazMunayGas)

## CONSTRUCTION PERIOD

May 2017 – July 2019

## PROJECT VALUE

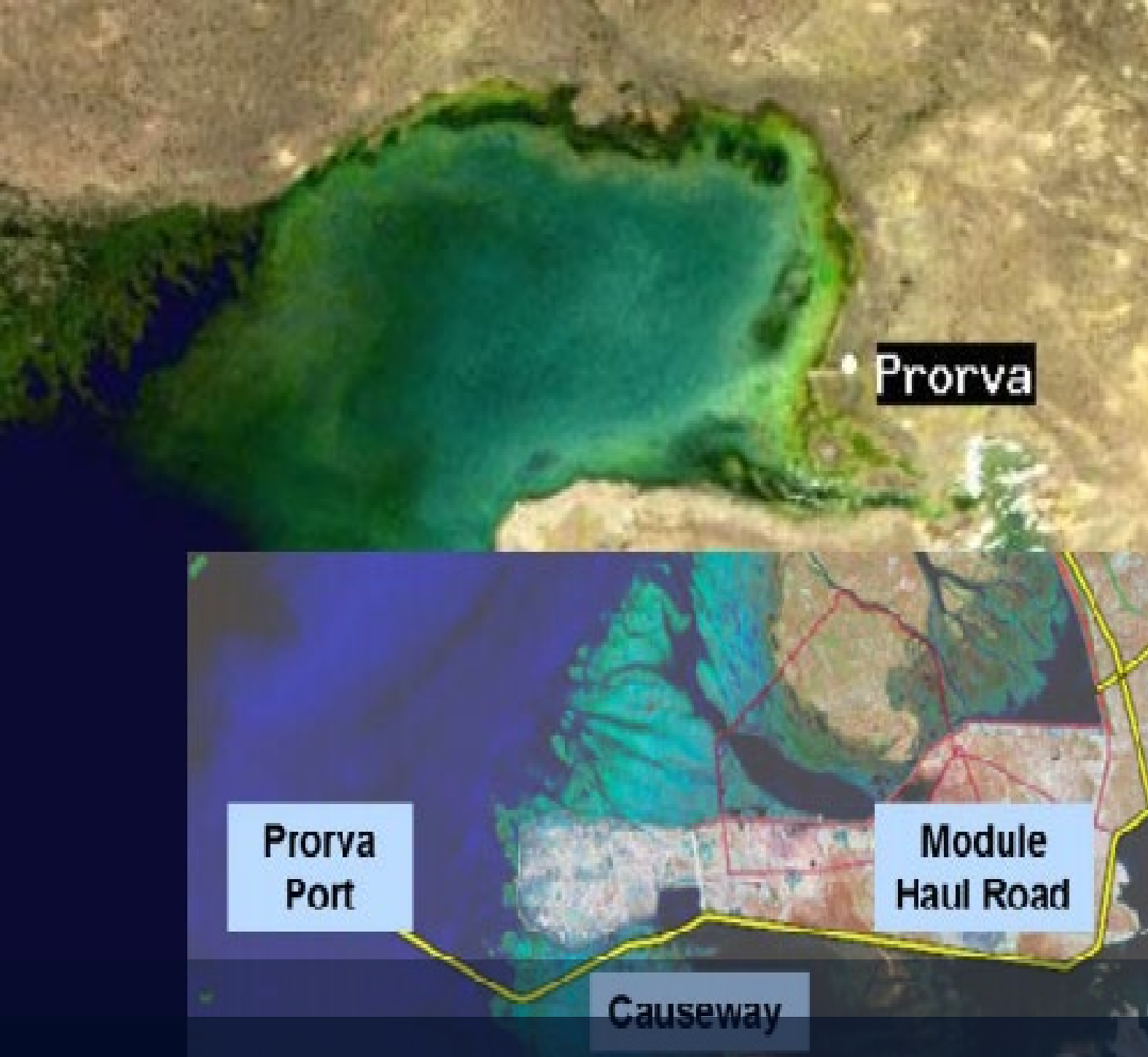
US\$ 118.5 Million

# 3GI CIVIL WORKS & UNDERGROUND SERVICES

## PROJECT DESCRIPTION

The joint venture between ENKA and Bechtel was awarded the contract for civil works and underground services for the Third Generation Gas Injection Plant (3GI) facilities on Kazakhstan's giant Tengiz oil and gas field.

The project covered a range of construction works including pile cropping and head treatment, earthworks, road works, terracing and concrete works, as well as the installation of underground utilities systems including piping, drain trenches, chambers and duct banks, the installation and termination of underground cables, and the installation of grounding materials for site areas including 45, 47A, 47B, 49, 57 and 58, which are integral parts of the TCO FGP project.



# FGP-CATRO CHANNEL WORKS OF CASPIAN SEA

## ONSHORE WORKS

2014 - 2017

- Van Oord Contract - Marine Fleet and Logistic Services

2017 - 2018

- Marine Installation Works (Mooring Piles, Fenders, Communication Platforms) Preparation works - onshore

## OFFSHORE WORKS

2014 - 2017

- Van Oord Contract - Marine Fleet and Logistic Services

2017 - 2018

- Marine Installation Works (Mooring Piles, Fenders, Communication Platforms)

### PROJECT LOCATION

Prorva - Kazakhstan

### CONSTRUCTION PERIOD

October 2014 – October 2018

### CLIENT

Van Oord  
TenizService LLP / Chevron

### PROJECT VALUE

US\$ 103.4 Million



## PROJECT LOCATION

Tengiz - Kazakhstan

## CLIENT

Tengizchevroil (TCO - a Joint Venture between Chevron, ExxonMobil, LukArco and KazMunayGas)

## CONSTRUCTION PERIOD

December 2003 – November 2008

## PROJECT VALUE

US\$ 588 Million

# SECOND GENERATION PLANT PROJECT

## PROJECT DESCRIPTION

The main component of the Tengizchevroil's Asset Development Project, the Second Generation Plant Project, one of the largest and most complex projects undertaken in the oil & gas industry, was to expand the crude oil production capacity of the Tengiz field by 12 mtpa and significantly increase the production of associated dry gas, propane, butane and saleable sulfur products. Major new surface facilities included crude stabilization, gas processing and sulfur recovery plants, together with all required utilities including a major power generation and power distribution facility.

ENKA and Bechtel successfully carried out the two main multi-discipline construction components for the Second Generation Plant Project under a single contract in Tengiz, including civil, structural, mechanical, piping fabrication and installation, electrical, instrumentation, insulation, painting and building works.



# SOUR GAS INJECTION PROJECT

## PROJECT LOCATION

Tengiz - Kazakhstan

## CLIENT

Tengizchevroil (TCO - a Joint Venture between Chevron, ExxonMobil, LukArco and KazMunayGas)

## CONSTRUCTION PERIOD

November 2003 – November 2006

## PROJECT VALUE

US\$ 77 Million

## PROJECT DESCRIPTION

The Sour Gas Injection Project was one of the two main components of Tengizchevroil's Asset Development Project, a world-scale program to significantly expand the crude oil production capacity of the Tengiz field. The SGI Project utilized state-of-the-art gas injection technology to enhance oil recovery and maintain reservoir pressure by re-injecting previously produced sour gas back into the reservoir. Major new facilities included a Sour Gas Injection Plant and eight Injection Wells with associated equipment and facilities. The SGI Project was divided into two stages:

- **Stage 1:** Inject sweet gas from the processing facilities into the reservoir to test the operation of the compressor and validate the predicted response of the reservoir.
- **Stage 2:** Expand the installation, permitting injection of high pressure sour gas from Second Generation Plant. ENKA, together with Bechtel installed the compression and associated piping systems capable of safely and reliably delivering sour gas, into the 7,000 m deep reservoir at 10,000 PSI.

ENKA and Bechtel successfully undertook multi-discipline work under six separate contracts, in accordance with the client's contracting strategy, inclusive of site preparation, piling, civil, structural, mechanical, electrical, instrumentation and building work. They also successfully carried out turnaround work to convert the sweet gas injecting plant into an operational plant working with sour gas.



#### **PROJECT LOCATION**

Tengiz - Kazakhstan

#### **CLIENT**

Tengizchevroil (TCO - a Joint Venture between Chevron, ExxonMobil, LukArco and KazMunayGas)

#### **CONSTRUCTION PERIOD**

June 1997 - August 2000

#### **PROJECT VALUE**

US\$ 562 Million

## **TRAIN 5 PROJECT TENGIZ OIL PROCESSING FACILITIES**

### **PROJECT DESCRIPTION**

The Train 5 project entailed the construction of a process group with an annual capacity of 2,5 million tons. The project contributed to the increase in the crude oil production capacity to 12 million tons of sweet crude per year as forecast in Tengizchevroil's 5-year business plan.

The project involved the engineering, supply of equipment and materials, and construction of the processing unit for crude separation, desalting, condensate stripping, H<sub>2</sub>S removal and NGL recovery.

The auxiliary units, built in addition to the main processing units, were a 2x40 MW gas turbine generator station, a 110 KV switchyard power management system, a high-pressure boiler plant, a nitrogen unit and a 100 ton/hour water treatment plant.



# OIL FIELD DEVELOPMENT OF CASPIAN SEA

## OFFSHORE WORKS

### PROJECT LOCATION

Kashagan - Kazakhstan

### CLIENT

OKIOC, Agip KCO, ER SAI Caspian Contractor LLP, North Caspian Operating Company N.V.

### CONSTRUCTION PERIOD

1998 - Current

### PROJECT VALUE

US\$ 2 Billion

#### 2001-2004

- OKIOC Contract 2000-278: Offshore Civil Works
- A Island Phase-1
- Aktote Island
- Kairan Island
- D Complex Phase-1

#### 2005-2012

- Contract 2004-1372 Offshore Civil Works
- D Complex Construction
- A Island Construction
- 3 ea. EPC Islands
- 6 ea. Berms
- 10 ea. IPS (Ice Protection Structures)
- 4 ea. IRG (Ice Rubble Generators)
- 3 ea. DC Islands for Full Field Development

#### 2015-2016

- D Complex Civil Modification Works
- A Island Civil Modification Works
- Onshore & Trench Dredging activities

#### 2016-2017

- EPC-3 Topside Works
- Early Works, Site Preparation, Load-in, Installation, Hook-up,
- Mechanical Completion, Pre-commissioning and Commissioning

#### 2017-Current

- Currently, ENKA is providing Marine Operations Services and Vessel/Equipment Rental



# OIL FIELD DEVELOPMENT OF CASPIAN SEA

## ONSHORE WORKS

1998

- EPC construction of Bautino supply base

1998-1999

- Supply of graded rock for appraisal berms

1999-2000

- Expansion of OKIOC Bautino supply base

2001-2004

- Infrastructure upgrade works in Bautino

2005

- Construction of Cuttings Pits in Koshken

2006

- Supply of High Density Rock (HDR), EPC loading & berthing facility in Saritash

2008

- Supply of sheet pile materials

2015-2017

- Logistic Support activities for offshore

2015-2017

- Pre fabrication works for offshore installations

2017-Current

- Logistic Support activities for offshore



## ONSHORE FACILITIES — BAUTINO BASE

ENKA Bautino Base is located in Bautino village adjacent to ENKA Marine Base with 31,500 m<sup>2</sup> area:

- 230 bed capacity
- Family camp for staff personnel
- Training Centre
- Recreation Facilities
- Office Buildings
- Warehouse
- Mechanical Workshop
- Civil Works Supply Yard (Batch-plant, Carpenter's shop, rebar preparation yard etc.)
- Sports Facilities



## ENKA MARINE BASE (BAUTINO)

ENKA Marine Base is located in Bautino Bay:

- Available 350 m Jetty
- 56,000 m<sup>2</sup> storage area
- Weighbridge and Loading Bridge
- Passenger Transfer Office (Custom)
- Workshop for Precast Fabrication
- Marine Mechanical Workshop
- Welding Workshop





# ESENTAI PARK COMPLEX

## PROJECT DESCRIPTION

- The tower including the JW Marriott Hotel, featuring 175 rooms with the total area: 87,000 m<sup>2</sup>, comprising 37 storeys and four levels of basement parking
- Residential Block A is a 3+21-storey building featuring 137 apartments and covering a total area of 63,000 m<sup>2</sup>. Residential Blocks B and C, each block consists of a 2+21-storey building, with common parking levels. There are 18 duplex apartments and 268 standard apartments, with a total gross area is 89,000 m<sup>2</sup>
- The Shopping Mall and Fitness Centre with the total gross construction area of 128,000 m<sup>2</sup> and indoor parking available for 700 cars

### PROJECT LOCATION

Almaty - Kazakhstan

### CONSTRUCTION PERIOD

January 2006 – December 2014

### CLIENT

Capital Tower Development LLP  
KUSA KKB-2 LLP  
Fitness Development LLP

### GROSS AREA

367,000 m<sup>2</sup>

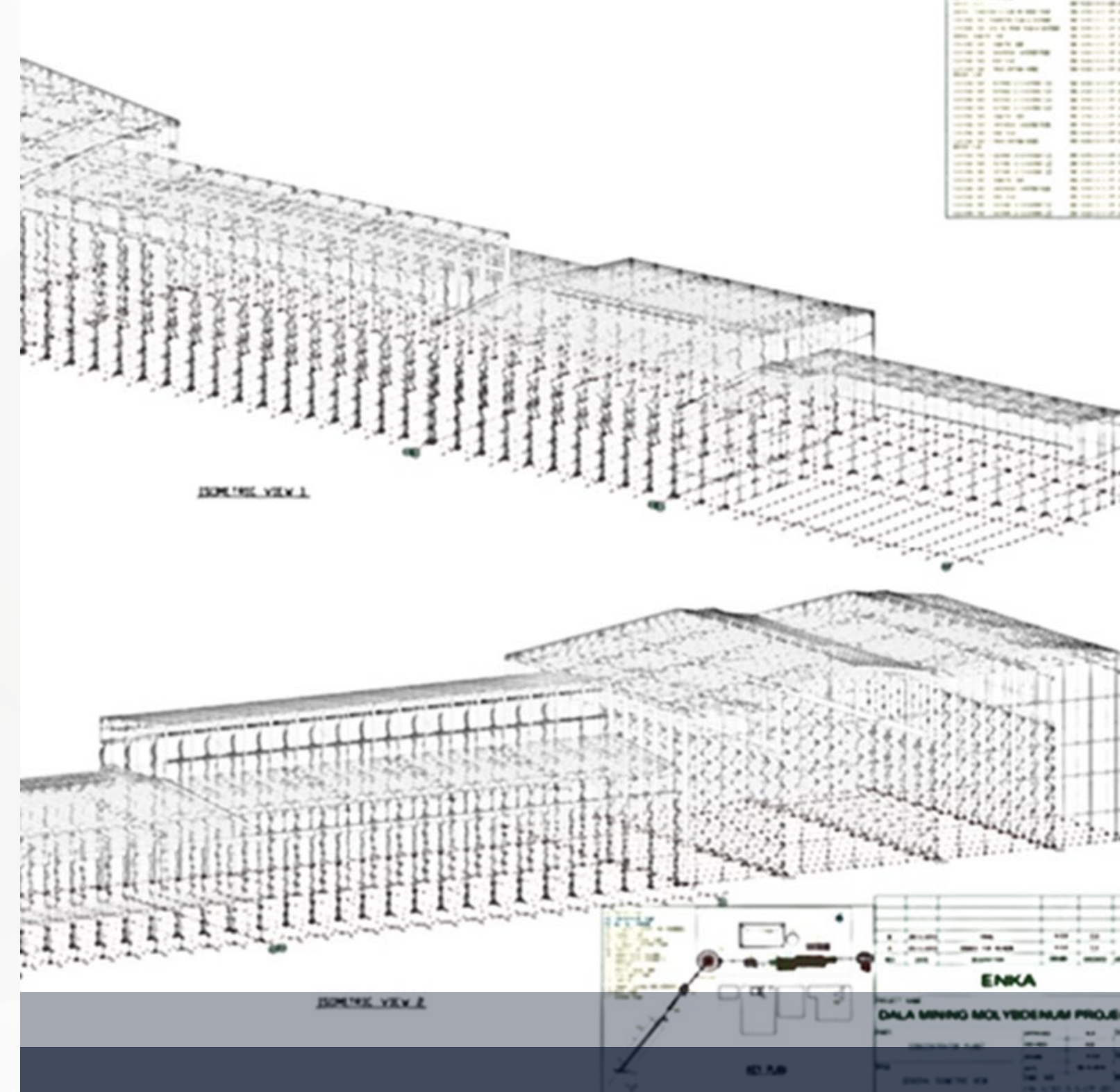
# KOKTENKOL MOLYBDENUM PROJECT

## PROJECT DESCRIPTION

ENKA and OUTOTEC successfully completed Front End Engineering Design (FEED) services for Koktenkol Molybdenum Project.

The Koktenkol Molybdenum Project was a large open pit molybdenum mine, including ore processing facilities, and associated infrastructure, located in central Kazakhstan, about 150 kilometers southwest of the city of Karaganda.

The mine was planned to process 20 million tonnes of ore per year.



### PROJECT LOCATION

Koktenkol - Kazakhstan

### CONSTRUCTION PERIOD

September 2012 – August 2013

### CLIENT

Dala Mining LLP

### SCOPE

Front End Engineering Design (FEED)



## PROJECT LOCATION

Aktau - Kazakhstan

## CLIENT

Aktau Commercial Sea Port

## CONSTRUCTION PERIOD

May 1997 – September 1999

## SCOPE / CONTRACT TYPE

Design Management, Procurement and Construction

# AKTAU PORT REHABILITATION

## PROJECT DESCRIPTION

Aktau is Kazakhstan's main port on the Caspian Sea and serves as the major logistics base for the offshore oil fields. The ENKA and Bechtel joint venture signed the contract with Kazakhstan's Ministry of Transportation for the Aktau Port rehabilitation project.

The contract included elevating the port by two meters, replacing all the port utilities, and constructing a new 550 m pile supported quay, a new railroad, a port administration building and a 6,500 m<sup>2</sup> transit shed as well as additional auxiliary buildings.

The port had to be kept operational throughout construction, which was completed in September 1999.

# ENKA

Engineering for a Better Future

Balmumcu Mah., Zincirlikuyu Yolu No: 10, 34349

Beşiktaş / İstanbul

**Tel:** +90 (212) 376 10 00 (pbx)

**Fax:** +90 (212) 376 19 80

**E-mail:** enka@enka.com

**Web:** <https://www.enka.com>

