



# Oil Refinery Tracks 2,000,000 Materials with Jovix®

## Key Facts

**Companies:** Fluor, TCO

**Website:** fluor.com,  
tengizchevroil.com

**Industry:** Oil & Gas

**Country:** Kazakhstan

### Products Used:

- Jovix
- Upstream fab shop and mod yard tagging
- RFID tags
- Barcodes
- Rugged tablets
- Gate readers

### Significant Numbers:

- Project began with 500,000 RFID tags
- Tracked 2 million materials
- \$36.8B project

## Introduction

Fluor and Jovix entered a five-year contract on deployment to a large grassroots refinery in Kazakhstan. The Future Growth and Wellhead Pressure Management Project (FGP-WPMP) increased crude oil production at the Tengiz Oil Field by about 260,000 barrels per day. FGP-WPMP had an initial estimated price tag of \$36.8 billion, including \$27.1 billion for facilities, \$3.5 billion for wells and \$6.2 billion for contingency and escalation. The project raised TCO's (TengizChevroil) total production to approximately 1 million barrels of oil equivalent per day. WPMP maximized the value of existing TCO facilities by extending the production plateau and keeping existing plants producing at full capacity. FGP used state-of-the-art sour gas injection technology, successfully developed and proven during TCO's prior expansion in 2008 that enhanced oil recovery.

## Jovix Scope

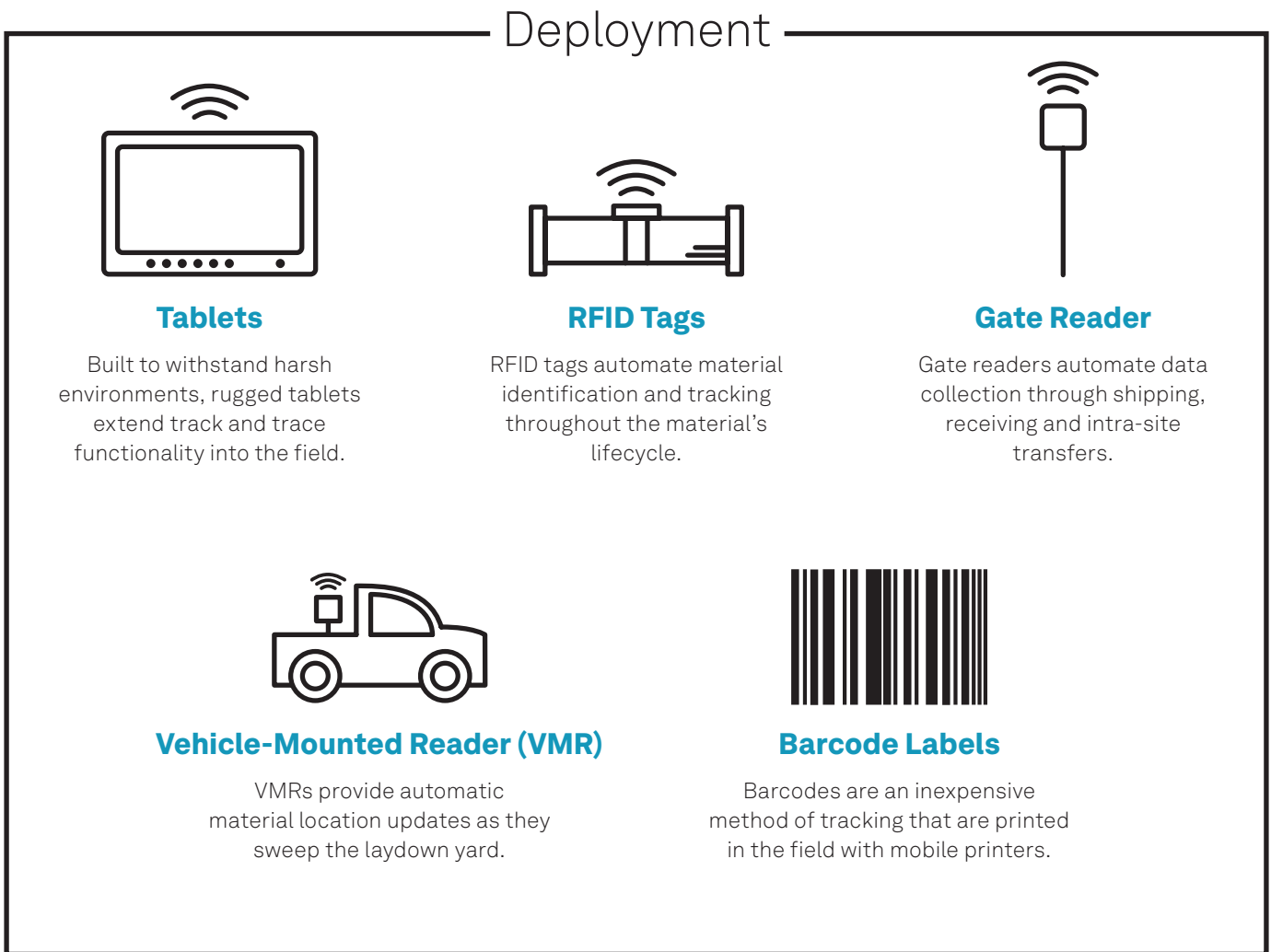
Combined with Fluor's materials management system, MatMan, Jovix enhanced the site's materials management processes by increasing visibility into the supply chain through RFID, barcoding and rugged tablets. The Jovix deployment began in May 2017 with 500,000 RFID tags.



Over the course of the five-year development, Jovix and Fluor's MatMan were used to track an estimated 2 million materials. RFID tags and barcodes were deployed at the DSME Shipyard in South Korea, the project's fabrication and modularization site.

## Project Future

TCO - (jointly owned by Chevron (50%), Exxon Mobil (25%), KazMunay Gas (20%) and LukAgro (5%) - is the operator of the Tengiz oil field. The project increased the well pressures and the production capacity of the existing Tengiz site. First oil for the Tengiz Expansion Project is expected in 2022.



## About Hexagon

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Hexagon's PPM division empowers its clients to transform unstructured information into a smart digital asset to visualize, build, and manage structures and facilities of all complexities, ensuring safe and efficient operation throughout the entire lifecycle.

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