

Technip

#### TECHNIPETROL HELLAS S.A.

TECHNIPETROL HELLAS S.A is an engineering and contracting company based in Athens-Greece, incorporated under the Greek law, operating in the implementation of industrial plants in various and diversified sectors.

## Shareholders – a guarantee of reliability

TECHNIPETROL HELLAS S.A is owned by the Technip Group.

### Full Service Range for industrial Projects

- ✓ Process Engineering
- ✓ Basic and Detail Engineering
- ✓ Procurement
- ✓ Project Management
- ✓ Planning and Control
- ✓ Construction Management and Supervision
- ✓ Commissioning & Start-up Assistance
- ✓ Personnel Training



Technipetrol Hellas S.A. Engineering Office





## Wide variety of industrial sectors:

- Oil and Gas
- Petrochemicals and Fertilizers
- Chemicals
- Infrastructures
- Energy
- Environmental Engineering
- Pharmaceuticals
- Food
- Plant Automation & Information Systems





Hellenic Aspropyrgos Refinery – Gasoil HDT & Sulfur Recovery Units

Motor Oil Hellas Refinery PDS Model



## Technip Group

#### A world-class player:

Technip is one of the worldwide most integrated groups, providing engineering, technologies and construction services in the wide variety of industrial sectors, with core business in the oil/gas and petrochemical industry.

With a wide range of state-of-the-art technologies, operational bases spread over the five continents (22,000 people) and more than 40 years of implementing industrial facilities, Technip personifies project management excellence, from front-end engineering design to turnkey delivery.



Motor Oil Hellas Refinery Advanced Control Center (DCS/ESD)

#### Strong technological expertise:

Technip has developed strong technological expertise, conceiving and implementing its own products, technologies and related proprietary equipment in subsea and offshore areas (sub-sea pipelines, umbilicals, robotics, platforms), as well as in refining, gas, hydrogen, sulphur, ethylene, fertilizers and cement, and has established close ties or exclusive alliances with major international licensors.



Technip is uniquely placed to mobilize financial resources to make international projects a reality. Experience in financial arrangements includes: project financing, multi-source export financing, co-financing with multilateral institutions, and structural financing.

#### Business ethics:

Technip's professional activities are governed by a code of business ethics, defining the principles of its teams' working relationship with all parties involved. The main guidelines of this code are a service-to-client-oriented policy, backed by quality and professional excellence, environmental protection, and the highest standards of honesty, integrity and fairness.





Motor Oil Hellas Refinery Steam & Power Congeneration

## **Our Added Values**

#### Resources

#### • People: the key to our success

Highly skilled local personnel (university graduates with post graduate studies). All our staff boast consolidated experience at Technip center in Rome.

In-house production capacity: approx. 85.000 manhours per year.

#### State-of-the-art tools and methods

The most updated engineering tools and methods, utilizing Technip's procedures, software and hardware, including 3D & 2D-CAD, Microstation, PDS Plant Design System (Intergraph), Autocad (Autodesk) Intools (Intergraph), Caesar II (COADE), AIM Directa, PUMA5 and others.

The hardware infrastructure is based on state of the art servers, PC's and workstations provided by HP. A fully automated (robot) tape backup system is also in operation, assuring any kind of safe data recovery.

#### • I.T. and Telecommunications

Permanent fiber optic channel for secure voice and data transmission including file transfer and e-mail offers remote access to corporate applications. Structured cabling and configuration systems are used for in-house data exchange.

# Maximum flexibility and risk management ability

Maximum flexibility in implementing project execution strategies, and proposing creative solutions to achieve optimal performance in all range of contracts, from services to lumpsum EPC contracts.



Technipetrol Hellas S.A. successfully manages all project risks, controls costs and schedules through experience in implementing small, medium and large lumpsum turnkey projects.

## Targeted project execution

Wide knowledge of the local engineering and construction codes and standards in all disciplines, backed up by its consolidated experience in implementation of sophisticated process plants.

Project organization is targeted to both Customer and Project needs. Technipetrol Hellas S.A., may execute projects in collaboration with the Technip Rome operational center, whenever specific project requirements might occur.

### Construction Management

Maximum utilization of local content coupled with our capability to manage Subcontractors effectively, make Technipetrol Hellas S.A. leader in this activity due to the long experience accumulated through the years (since 1975).

## Quality, Health, Safety and the Environment

Quality, the health and welfare of persons, the safety of plants and protection of the environment are Technipetrol Hellas's top priorities.

These concerns are taken into account at an early stage of the project and are strictly applied at each phase of project execution.

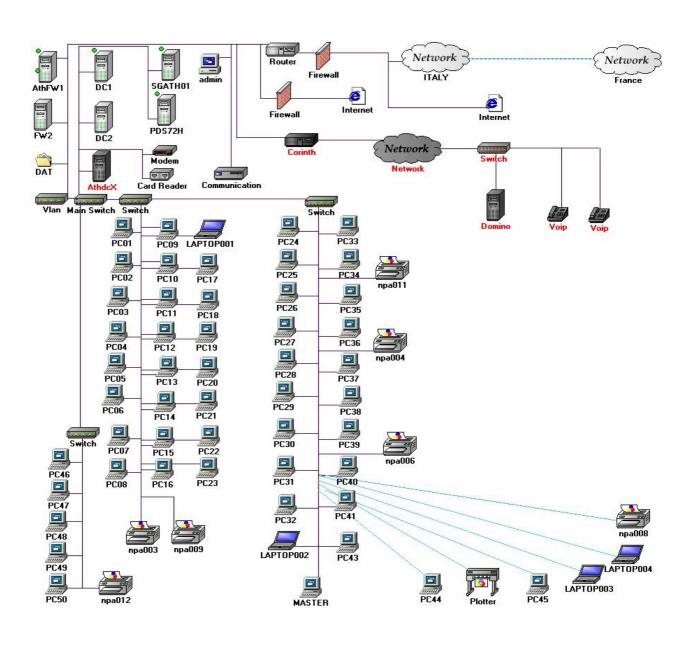
Technipetrol Hellas S.A. adopts Technip quality standards and procedures to comply with ISO 9001.

## Local Strategic Alliances

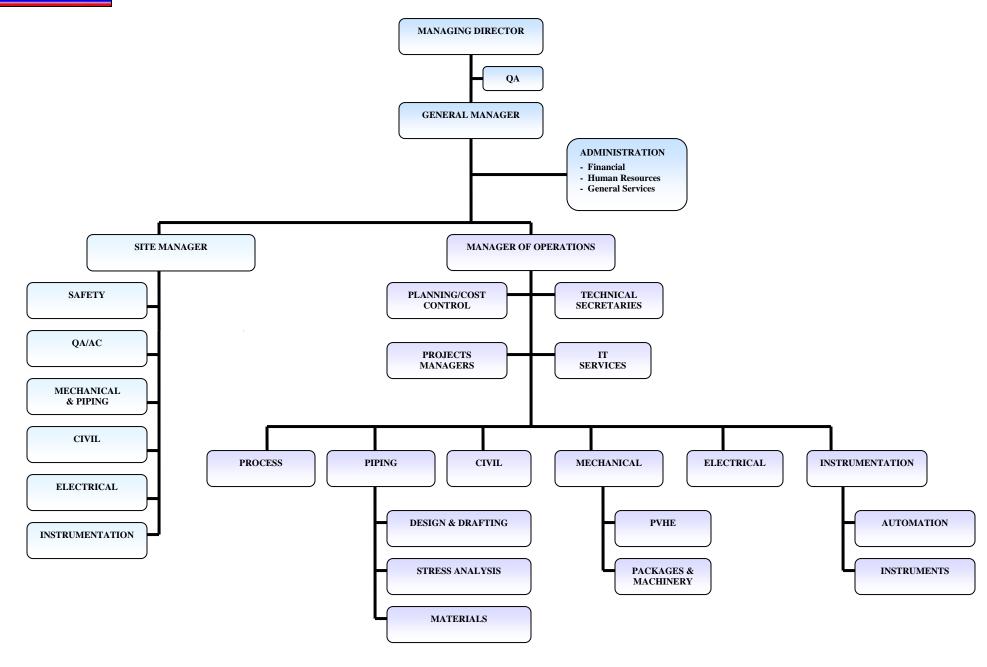
The excellent knowledge and experience of Technipetrol Hellas S.A. in engineering procurement and construction services, make us the best partner to build up strategic alliances with local partners.



#### **COMPUTER SYSTEM NETWORK CONFIGURATION**



## **TECHNIPETROL HELLAS S.A.**



#### REFERENCE LIST: ENGINEERING SERVICES

CLIENT	PROJECT	CAPACITY	TECHNOLOGY	DESCRIPTION OF SERVICES	AWARD/ COMPLETION	TYPE OF CONTRACT
Motor Oil Hellas	CDU Complex / Amine, Interconnecting, Offsite & Utilities			Detailed Engineering Services	2008/2009	L.S. services
Motor Oil Hellas	F-7501 vibration problem			Stress Engineering	2008	L.S. Services
Motor Oil Hellas	UOP fluid catalytic cracking complex scoping study report			Study	2008	L.S. Services
ASPROFOS	PRO II Simulation / Condensate Distillation Unit			PRO II Simulation	2008	L.S. services
Motor Oil Hellas	New LPG Bullets			Detailed Engineering & Procurement Services	2007/2008	L.S. services
Motor Oil Hellas	SIL Assessment Study			Study/Engineering	2007/2008	L.S. services
Motor Oil Hellas	Maintenance Building HVAC redesign			HVAC Design	2007/2008	L.S. services
Motor Oil Hellas	U-5300 revamping			Detailed Engineering & Procurement Services	2007/2008	L.S. services
Motor Oil Hellas	Lube mini revamping			Detailed Engineering & Procurement Services	2007/2008	L.S. services
ENOIA	Check of final piping design			Engineering Services	2007/2008	Reimbursable services
Motor Oil Hellas	Fire Fighting Study CDU			Engineering Study	2007	L.S. services
TPIT	N.7 Diesel Oil HDS plan			Engineering Services	2007	L.S. services
CCC	EI-Sharara oil field development / MTO			MTOs + MRs	2007	L.S. services
HELPE	Thessaloniki Refinery  CCR Topping Revamping Hydrofining revamping		AXENS EXXON KELLOG	FEED Services	2007	L.S. services
Motor Oil Hellas	Lube Extraction Unit P&ID'S U-300			AS BUILT P&Is	2007	L.S. services
KTI	Hydrogen Generation Unit		KTI	Detailed Engineering	2007	L.S. services
HELPE	Thermal Reactors		KTI	Engineering Services	2007	L.S. services
Motor Oil Hellas	Modification of the refinery satellite building into blast resistant			Front End Engineering Design	2007	L.S. services

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CLIENT	PROJECT	CAPACITY	TECHNOLOGY	DESCRIPTION OF SERVICES	AWARD/ COMPLETION	TYPE OF CONTRACT
ARAMCO	Riyadh Refinery Isometric Sketches			Isometrics	2007	L.S. services
Motor Oil Hellas	P&IDs Verification for Unit 100			Engineering Study	2007	L.S. services
DAMCO	Prefeasibility Study for a new Refinery	60000 BPD		Prefeasibility Study	2007	L.S. services
Motor Oil Hellas	New Sea Water Supply			Basic Engineering Study	2006	L.S. services
KTI	Qatargas AGX Project (SRU)	2 x 490 t/d	KTI	Front End Engineering Design	2006	L.S. services
Motor Oil Hellas	New Crude Distillation Complex	60000BPSD 160t/d -	TP KTI - -	Front End Engineering Design	2006	L.S. services
Motor Oil Hellas	Lubes Upgrading Project –F.E.E.D.  Catalytic Dewaxing Propan deasphalting (ROSE) Intermediate tankage & offsites	3000BPSD 2000 BPSD	EXXON MOBIL KELLOG	Front End Engineering Design	2006	L.S. services
Motor Oil Hellas	Line connecting C-2701 to E3610			Complete Engineering Services	2006	L.S. services
Motor Oil Hellas	E3214/a by pass line			Complete Engineering Services	2006	L.S. services
Motor Oil Hellas	No. 3 New Storage Tanks (25.00 CUMT)			Complete Engineering Services	2005/2006	L.S. services
Motor Oil Hellas	Relocation of machine shop & central warehouse to HELARCO			Complete Engineering Services	2005/2006	L.S. services
TPIT	OL2K Ethylene Plant-Dow/Pic		DOW	Complete Engineering Services	2005/2007	L.S. services
Motor Oil Hellas	Basic, Detailed Design & requisitioning for Natural Gas in MOH Refinery			Basic Engineering Study	2005/2006	L.S. services
Motor Oil Hellas	Vacuum Unit (U-200) P&ID's reconstruction			Project Engineering Services	2005	L.S. services
Motor Oil Hellas	Safety Loops safety integrity level (SIL) evaluation			Risk Analysis Study	2005	L.S. services
BENTINI	Mellitah storage and export system upgrading			Process, Engineering & requisitioning services (piping, electrical & instrumentation, mechanical	2005	L.S. services
KTI	ERGMED-Unità CR-41 Nuovo impianto recupero zolfo		KTI	Engineering Services (civil, eletr., instr.)	2004/2005	L.S. services

## **TECHNIPETROL HELLAS S.A**

Tail gas treatment

Sulfur solidification

New sour water stripper

New amine unit

Utilities

Motor Oil

Hellas

#### REFERENCE LIST: ENGINEERING SERVICES DESCRIPTION OF AWARD/ TYPE OF **CLIENT PROJECT** CAPACITY **TECHNOLOGY** COMPLETION CONTRACT **SERVICES** Motor Oil Relocation of maintenance workshop Basic Engineering L.S. 2004/2005 Hellas & central warehouse Study services Refinery Expansion -2005 Specs Mild hydrocracker (30% conversion) 37000 BPSD 32000 BPSD Gasoil polishing unit **AXENS** 65000 Hydrogen production unit Sulfur recovery unit **AXENS**

ΤP

ΤP

TP

MDEA

Complete

Engineering

Services

Ncu.m/hr

70 t/d

70 t/d

210 t/d

194 t/hr

132 t/hr

L.S.

services

2003/2005

# REFERENCE LIST: L.S.-T.K. PROJECTS AS GENERAL CONTRACTOR IN COLLABORATION WITH TECHNIP ITALY (1)

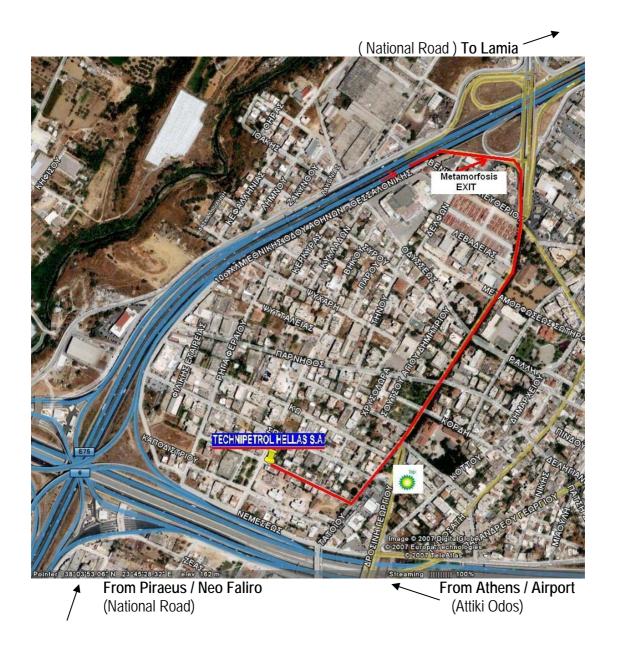
CLIENT	PROJECT	CAPACITY	TECHNOLOGY	AWARD/COMPLETION
Motor Oil Hellas	Refinery Expansion -2005 Specs  Mild hydrocracker (30% conversion)  Gasoil polishing unit  Hydrogen production unit  Sulfur recovery unit  Tail gas treatment  Sulfur solidification  New amine unit  New sour water stripper  Utilities	37000 BPSD 32000 BPSD 65000 Ncu.m/hr 70 t/d 70 t/d 210 t/d 194 t/hr 132 t/hr	AXENS AXENS TP TP TP TP	2003/2005
Motor Oil Hellas	Lubes Upgrading Project –F.E.E.D.			2002
Asprofos Eng	HAR Modernization Project –F.E.E.D.			2002
Asprofos Eng	HAR Modernization Project –F.E.E.D.  CCR revamp	25000 BPSD	AXENS	2002
Motor Oil Hellas	New Sulfur Recovery Unit  Sulfur recovery	90 t/d	KTI Modified Claus	2001/2003
Motor Oil Hellas	DCS/ESD Implementation on Fuel Units and Lube Ref			2001/2002
Motor Oil Hellas	Power Plant Expansion  Cogeneration plant	17 MW	Cogen. Gas turbine	2000/2001
Motor Oil Hellas	DCS/ESD Implementation on FCC Complex & NCCR			1999/2001
Motor Oil Hellas	Corinth Refinery Upgrading  Benzene free gasoline production  FCC gasoline hydrotreater  Regenerative cat.reformer revamp  Utilities	9400 BPSD 18200 BPSD 13400 BPSD	IFP TP/IFP IFP	1999/2000
Motor Oil Hellas	Corinth FCC Revamp			1997/1999
Hellenic Aspropyrgos Ref	Refinery Expansion – Gasoil HDT & Sulfur Recovery Units  Atmospheric gasoil hydrotreating Sulfur production Tail gas treatment	17000 BPSD 40 t/d	UNOCAL COMPRIMO COMPRIMO	1994/1996
Motor Oil Hellas	Refinery Expansion & Revamp. – Gasoil HDT & Sulfur Rec  Tail gas treatment Amine regeneration	120 t/d 90 cu.m/d	N.IGI MDEA	1994/1995
Motor Oil Hellas	Refinery Revamp–HDT,Reforming			1989/1990
Motor Oil Hellas	Refinery Expansion Phase 8 – High Octane Gasoline Project  MTBE Naphtha isomerization Offsites	34000 t/yr 160000 t/yr	TEXACO Union Carbide Tip	1984/1986
Motor Oil Hellas	Refinery Expansion Phase 7-FCC & Vacuum Unit Revamp			1983/1985
Motor Oil Hellas	Refinery Expansion Phase 6 – Steam & Power Cogen.  Power Plant	26 MW	Cogen.Gas turbine	1982/1984

NOTE (1): Construction Supervision Engineering Services Local Materials Procurement

## TECHNIPETROL HELLAS S.A.

# REFERENCE LIST: L.S.-T.K. PROJECTS AS GENERAL CONTRACTOR IN COLLABORATION WITH TECHNIP ITALY (1)

CLIENT	PROJECT	CAPACITY	TECHNOLOGY	AWARD/COMPLETION
Motor Oil Hellas	Refinery Expansion Phase 4-Lubes Revamping Dimerization Amine treatment Sulfur recovery Offsites	70400 t/yr 91500 t/yr 45 t/d	IFP Dimersol MEA AMOCO/IGI	1980/1981
Motor Oil Hellas	Refinery Expansion Phase 3-FCC Complex  Vacuum distillation Fluid catalytic cracking Alkylation Gasoline sweetening Utilities	22000 BPSD 17500 BPSD 110000 t/yr 13000 BPSD	UOP UOP HF UOP Merox	1978/1980
Hellenic Aspropyrgos Ref	Refinery Revamping – Energy Saving			1978/1979
Motor Oil Hellas	Refinery Expansion Phase 2-Catalytic Reformer			1976/1979
Motor Oil Hellas	Refinery Expansion Phase 1- Hydroskimming			1973/1975
Hellenic Aspropyrgos Ref	Aspropyrgos Refinery Expansion			1970/1972



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