



IPMA Italy 2014 Congress

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H5 Process Plant Gas treatment Project presentation

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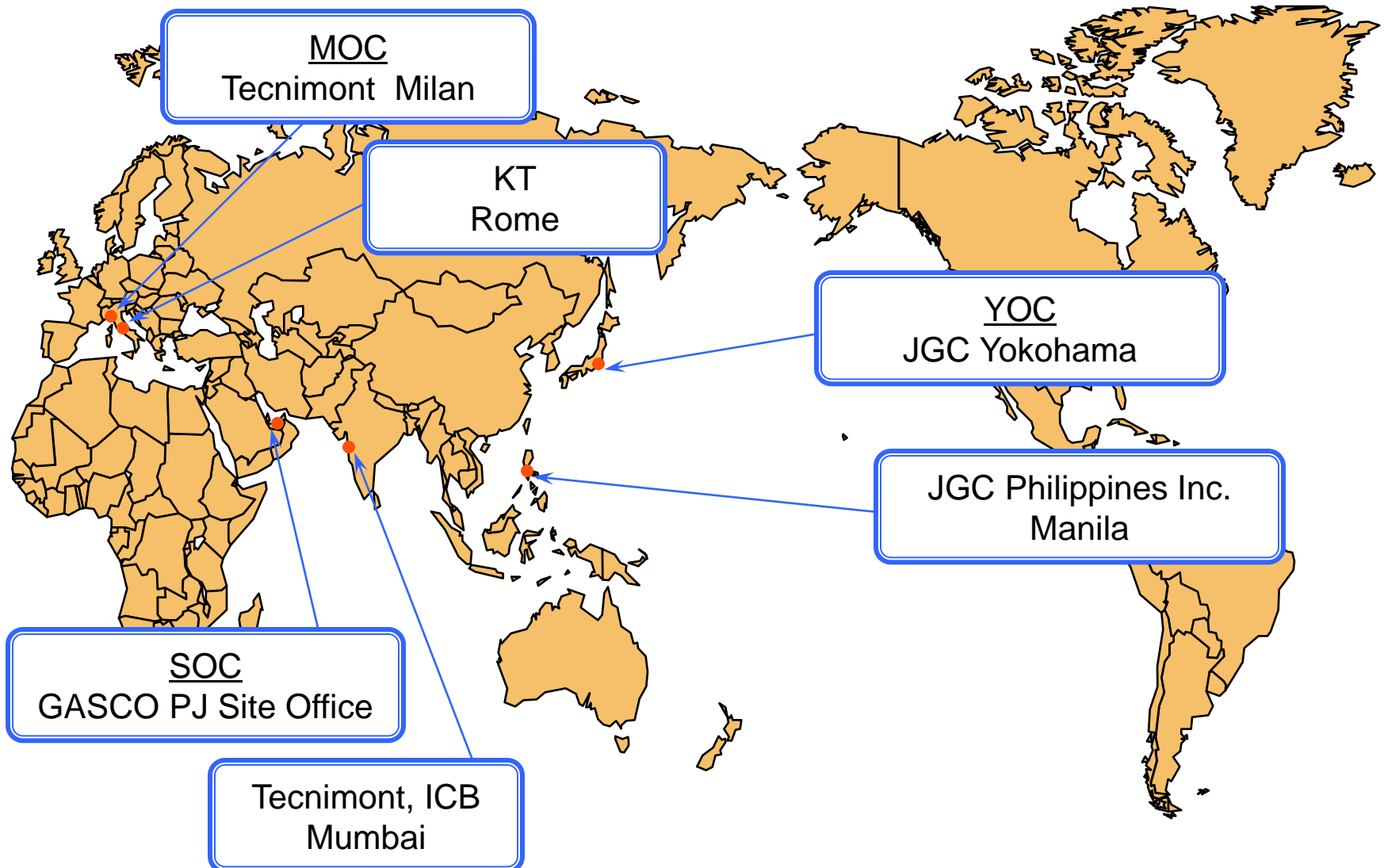
- Habshan 5 Process Plant (H5PP) is a Gas Treatment Plant executed under a LSTK EPC Contract by JGC-Tecnimont JV for GASCO in 52 months (from July 2009, EPC (Contract Effective date) to November 2013 (Provisional Acceptance) so ensuring achievement as planned of H5PP project slogan “On Time Gas delivery for Au Dhabi” set up at H5PP kick Off meeting
- H5PP has been implemented over a 4 sq.km area about 150 Km west of Abu Dhabi (United Arab Emirate) and it encompasses Acid Gas Treatment units with the biggest Sulphur Recovery Units in the World.

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- GASCO and Tecnimont-JGC JV have completed such a huge project successfully and on time meeting the highest Safety (100,000,000 Man-hours without LTA) and Quality standard.
- H5PP was the winner of 2013 ADIPEC Best Gas & Oil Project.
- H5PP, during the IPMA 28th World congress in Rotterdam on 30th September, 2014, was awarded the “GOLD WINNER” in Mega-Sized project category.

Operating Center Locations



BRIEF OUTLINE OF PROJECT

- **Very Large Gas Processing Plant with World's largest Sulphur Recovery Units**
- **EPC CONTRACTOR: Tecnimont-JGC Joint Venture**
- **TECNIMONT share of work: 60%**
- **Value Of CONTRACT: US Dollars 4.7 Billion**
- **Period: 29 July 2009 – 25 November 2013**
- **Capacity: 2,150 MMscfd of Feed Gas / Day with 5,200 TPD of byproduct Sulphur**

TECNIMONT SCOPE

- **4 x SRU Trains**
- **2 x Lean AGR**
- **2 x Rich AGR**
- **2 x TGTU**

JGC SCOPE

- **2 x Compression Trains**
- **2 x NGL Units**
- **Sour Water Treatment**
- **Condensate Recovery**
- **Flare Unit**



MAJOR QUANTITIES INVOLVED IN THE PROJECT

In correspondence with the size of the Project, the quantities involved were also quite large. Some of the major items are listed below.

- 6 Operating Centers: Yokohama, Milan, Rome, Mumbai, Manila, UAE
- Engineering Man hours: 2.7 million
- Eng. Deliverables: 115,000
- Isometrics: 67,000
- Loop checks: 30,000
- Concrete: 265,000M³
- Steel Structure: 73,000 Tons
- Equipment: 100,000 Tons
- Piping: 65,000 Tons
- Welding: 3,250,000 Inch Dia
- Cable Laying: 7,500 KM
- Man Hours Spent: 136,000,000
- Safe Man hours Without LTI:
>100 Million Man hours



TARGETS ACHIEVED

Several important Mile Stones were achieved in this historic Project in terms of quantities, Man Hours, Delivery on Time, Safety records and Awards. Some are given below.

- **HSE:** >100 million safe man hours without LTI in construction, a world record in oil and gas projects
- **QUALITY:** All key performance indicators better than indicated values; one of the lowest weld repair ratios in the industry
- **SCHEDULE:** Monitored On Early Schedule, Completed Ahead Of Time
- **EARLY PRODUCTION:** Production Started Well In Advance To The Schedule
- **BUDGET:** completed well within budget both for client and EPC Contractor





- **Greatest achievements:**
 - fully achievement of the H5PP project slogan “**On Time Gas delivery to Abu Dhabi**” applying “**ONE TEAM**” concept
 - world record of 100,000,000 safe man-hours without LTI,
 - commissioning, start up and initial operation in fast, safe and trouble free mode ensuring sale gas production as scheduled.
- **Project uniqueness:**
 - “BULKY” project (H5PP project handled huge volumes of EPC related activities at level of largest past history),
 - world largest Sulphur recovery Unit plants capacity, tight project schedule
- **Project difficulties and how they were overcome;**
 - alignments in different operating centers (overcome by creating a sense of community with genuine desire to achieve H5PP main target),
 - procurement of huge volume of materials (advance booking and set up frame agreement with bulk material manufactures),
 - tight construction market (place SC well in advance of actual start of site activities)
- **Expectations of the H5PP Project being internationally recognized:**
 - H5PP can be referred as model for other project to come.

Habshan 5 Project

GOLD Winner Mega Size Project IPMA International Project Excellence Award



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Habshan 5 Project

Winner of the “Best Oil & Gas Project” prize at ADIPEC 2013

Congratulations to 2013 ADIPEC Awards Winners

CATEGORY 1

Award: Best Gas & Oil Project

Presented by: Mr. Toshiaki Kitamura, President & CEO of INPEX CORPORATION

Winner: Integrated Gas Development Project by GASCO (ADMA-OPCO & ADGAS)



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Thank you!

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