

كهرباء لبنان  
"مؤسسة عامة"

ELECTRICITE DU LIBAN  
"Etablissement Public"

MM. CONAPRO  
LIBAN

Rue du Fleuve-BEYROUTH

Téléphone 442720 à 29

Adr. élégr. OFELEC BEYROUTH

Telex: EDL 22258 LE

EDL 43370 LE

B.P.No. 131

6D / 4988

Votre Réf.

Notre Réf.

BEYROUTH, LE 28 / 10 / 1997

OBJET : Works ON SHORE pipelines net work .

MRS.,

We hereby certify that CONAPRO S.A. had executed the here below listed works on behalf of the owner ELECTRICITE DU LIBAN, Bierut, Lebanon, for the general Overhaul of " Off loading and Transfer pipeline Network for Diesel and Fuel Oil " project.

I - ON SHORE PIPELINES NETWORK ( HYDRAULIC WORKS )

- Steel pipeline 420 meters long AP1 5L Gr.B. SCH 40 20" for fuel oil.
- Steel pipeline 420 meters long AP1 5L Gr.B. SCH 40 6" for diesel oil.
- ~~Steel~~ pipeline 120 meters long AP1 5L Gr.B. SCH 40 16" for fuel oil.
- ~~Steel~~ pipeline 80 meters long AP1 5L Gr.B. SCH 40 16" for fuel oil.
- Motor operated valves :
  - 20" B/V ASA 150
  - 16" B/V ASA 150 - 2 pieces.
  - 12" B/V ASA 150
- Gear operated valves :
  - 16" G/V ASA 150
  - 16" G/V ASA 150
- Gear operated valves :
  - 16" G/V ASA 150 - 4 pieces.
- Hand wheel valves :
  - 12" G/V ASA 150
  - 6" G/V ASA 150 - 2 pieces.
- Check valves :
  - 20" C/V ASA 150

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16" C/V ASA 150

12" C/V ASA 150

- Testing of network of lines for 24 hours at 1.5 times operating pressure.
- Sand blast and paint pipelines and valves with three coats of paints.

II - The total budget for the above works exceeds U.S.D. 1250000.00 The duration of the project was 3 months. It started in March 1995 and was completed in June 1995.

 HBH  
SH/-

**ELECTRICITE DU LIBAN  
LE PRESIDENT DIRECTEUR GENERAL**



**JOSEPH EL-HAWA**

كهرباء لبنان

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B.P.No. 131

C2U / 4989

Votre Réf.

Notre Réf.

BEYROUTH, LE 28 /10/ 1997

OBJET : OFF SHORE WORKS ( MARINE WORKS ).

MRS.,

We hereby certify that CONAPRO S.A. had executed the here below listed works on behalf of the owner ELECTRICITE DU LIBAN, Beirut, Lebanon, for the " General Overhaul Of Zouk Offshore Oil Import Terminal " project.

I - OFF SHORE WORKS ( MARINE WORKS )

Performance of a complete overhaul for the whole terminal including the required parts that needed replacement. The works comprised of :

- a. Single anchor leg mooring buoy (120tons).
- b. Anchor chain 3 1/4 inches.
- c. Under water main fluid swivel (20" & 6" inlets/outlets).
- d. Submarine & floating hoses (360 M length ).
- e. Under water steel pipelines ( 20" & 6" 700 M length each ).
- f. Pipeline end manifold with under water valves ( 20" & 6" ).
- g. Counter weight ( dead man 400 tons ).
- h. Accessories :
  - Cam lock coupling 12"
  - Butterfly valve 12"
  - Check valve 6"
  - Lifting chain
  - Snubbing rope
  - Winker lights
  - Pick up buoy


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- Support steel buoy
- Pick up rope
- Chafing chain 2 1/4"
- Support chain
- Floating rope nylon 4" - 90 tons
- Mooring shackles
- Galvanism anodes
- Radar reflector
- Fog horn
- Winch tackle 2.5 tons
- "D" - type hollow rubber fenders
- Steel drum for chafing chain
- Inlet and out valves for air and water

The total budget for the above works exceeds U.S.D. 2250000.00 The project started July 1995 and was successfully completed October 1995.

 HBH  
SH/-

**ELECTRICITE DU LIBAN  
LE PRESIDENT DIRECTEUR GENERAL**



**JOSEPH EL-HAWA**