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CALCAGNO Y ASOCIADOS S.A.  
PETROLEO GAS ENERGIA CONSULTORES

## DEEPENING OF DEREGULATION AND PRIVATIZATION PROCESS OF THE INDUSTRY

### General

Although the private sector has participated in the Argentine oil and gas industry since the 1950s, the industry was until 1993 almost entirely state-owned.

### MARKET SURVEY ON UPSTREAM SERVICES, EQUIPMENT AND MATERIALS FOR THE ARGENTINE OIL AND GAS INDUSTRY

hydrocarbons with the state sector playing a secondary role. In 1935, Law No. 13,110 granted the state-owned oil and gas companies (the state-owned oil and gas companies) exclusive rights over the development of hydrocarbon reserves in Argentina, as a result of which the hydrocarbon reserves in Argentina were restricted to state-owned companies.

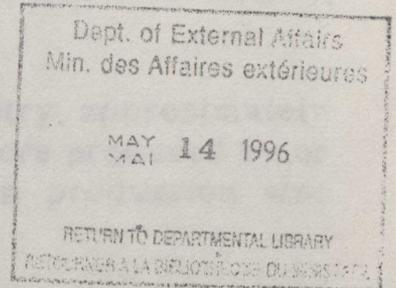
Prior to the deregulation of the oil and gas industry, 97% of all hydrocarbons produced in Argentina were under contract with the state and all hydrocarbons required by law to be used in the state.

From 1946 until the end of 1989, the transportation of natural gas were under the exclusive control of the state predecessors.

As from July 1991 the Argentine oil and gas industry was largely deregulated in steps pursuant to the provisions of Law No. 17,319 (the "Hydrocarbons Law") which granted private companies the right to explore for and produce hydrocarbons and to transport and distribute them.

Prepared for: The Canadian Embassy in Argentina

October 1993



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## BUSINESS CLIMATE

### DEEPENING OF DEREGULATION AND PRIVATIZATION PROCESS OF THE INDUSTRY

#### General

Although the private sector has participated in the Argentine oil and gas industry since early in this century, the public sector has historically been dominant in the exploration, production, development, transportation, refining and distribution of hydrocarbons with the private sector playing only a secondary role. In 1935, Law No. 12,161 granted to the state-owned oil and gas companies (the predecessors of YPF and GdeIE) exclusive rights over the development and production of all new hydrocarbon reserves in Argentina. As a result, private sector participation was largely restricted to activities under contract with YPF.

Prior to the deregulation of the oil and gas industry, approximately 97% of all hydrocarbons produced in Argentina were produced by or under contract with YPF, and all hydrocarbon production was required by law to be sold to YPF or GdeIE.

From 1946 until the end of 1992, the transportation and distribution of natural gas were under the exclusive control of GdeIE and its predecessors.

As from July 1991 the Argentina oil and gas industry has been largely deregulated in steps pursuant to several different programs and plans designed to restructure the industry. These programs and plans were based on the provisions of the 1967 Hydrocarbons Law, Law No. 17,319 (the "Hydrocarbons Law"), which regulates all matters relating to the exploration, development, production, transportation and distribution of hydrocarbons.

As a result of deregulatory measures undertaken over the past several years and the transfer of interest in significant properties and assets previously held by YPF and GdeIE to the private sector, the structure and competitive profile of the oil and gas industry in

Argentina has been altered considerably. A major consequence of such measures has been a significant increase in the private sector's direct interest in exploration and production properties and a corresponding decrease in the participation of YPF in exploration and production activities. Substantially all private sector oil production and a significant portion of private sector gas production is now conducted pursuant to concessions and association agreements which provide for free disposal of extracted hydrocarbons.

### **Privatization of Gas del Estado**

In June 1992, the Argentine government approved Law No. 24,076 (the "Gas Law") which established the basis for deregulating the transportation, distribution and sale of natural gas in Argentina. Pursuant to the Gas Law, the transportation and distribution components of GdeIE were organized into two transportation companies ("Transporters") and with distribution companies ("Distributors"). These companies received the corresponding assets of GdeIE and were granted licenses to conduct natural gas transportation and distribution activities.

In accordance with the Gas Law, during December 1992 bids were received from qualified consortia for the award of licenses relating to the operation of the Transporters and the Distributors. The interests offered for bid were majority interests (ranging between 60% and 90%) in and the right to operate each Transporter or Distributor. The transactions were consummated on December 29, 1992, the date on which the new owners assumed control.

Pursuant to the provisions of the Gas Law, the deregulation of the gas transportation and distribution system must be completed by June 12, 1994. At the end of the period, the producers' prices for natural gas will be determined by free market principles, with producers negotiating prices directly with Distributors and large consumers such as utilities and certain industrial companies.

## Privatization of YPF

On September 24, 1992, the Argentine government approved the Law on Transformation and Privatization of YPF and Federalization of Hydrocarbons (the "YPF Law") which provides for the ownership of a majority of the shares of YPF by the private sector and the sale or transfer to the private sector of certain of YPF's assets. Pursuant to the YPF Law, 51% of YPF's capital stock will initially be owned by the Argentine government, 39% by provincial governments and 10% by YPF's employees. Within three years of approval of the YPF Law, the Argentine government and the provincial governments must dispose of at least 50% of their respective share holdings, thereby reducing their holdings in YPF to no more than 25.5%.

Under the YPF Law, YPF was permitted to sell to private companies, or to form associations with private companies for the joint ownership of, YPF's interests in refineries, oil pipelines, multi-purpose pipelines, oil tankers, minor vessels, ports and buoys, storage premises, compression plants and drilling rigs and seismic survey equipment. Certain of YPF's assets have previously been disposed of pursuant to a series of decrees issued by the Argentine government, including YPF's interests in specified Marginal Areas, Central Areas, the Campo Durán Montecristo product pipeline, the Campo Durán, Dock Sud and San Lorenzo refineries, the Neuquina basin-Puerto Rosales pipeline (awarded in January 1993), the Puerto Rosales loading port terminals and some drilling rigs. A lot consisting in 29 drilling equipments were offered for tender by YPF. 21 of them were sold for the total sum of u\$s 6,124,523.

The company which acquired the largest number of equipment was Parker Drilling Co., as it was awarded five of such rigs.

The other companies which acquired equipments were the following: Cadesa, Estirpe, Tecnicagua, Drillers International, Arpetro, Clear and Venver.

Yacimientos Petrolíferos Fiscales S.A. shares are already being quoted in the main stock markets of the world. From the 353 million shares forming its stock capital, 160 million shares -slightly over a 45%- already have their new owners. On the basis of the cut price fixed by Government at u\$s 19 per share, u\$s 3.04 billion in cash entered the National State. Likewise, the oil company was valued at u\$s 6.707 billion.

## New Industry Structure for the Oil & Gas Companies.

Since January 1, 1991, YPF's business has undergone fundamental changes as a result of the deregulation of the Argentine oil and gas industry. Pursuant to Argentine governmental mandates, proved reserves of approximately 1.4 billion BOE were sold (representing an amount equal to 34% of YPF's total proved reserves at January 1, 1991) to private parties which now compete with YPF. At the same time, restrictions on the exploration, development and sale of oil, gas and petroleum products were lifted.

Argentina currently has an active and growing private oil and gas sector, which includes a number of non Argentine companies or subsidiaries of non-Argentine companies. During 1992, Compañía Naviera Pérez Companc S.A.C.F.I.M.F.A. ("Pérez Companc"), Amoco, Bidas SAPIC, Astra C.A.P.S.A. ("Astra"), Total Austral S.A. ("Total"), a subsidiary of Total Société Anonyme, and Occidental Petroleum Corporation ("Occidental"), the six largest Argentine private sector crude oil producers, accounted for approximately 35% of total crude oil production compared with YPF's approximate 49% during the same period. With respect to marketable natural gas production, during 1992, Bidas SAPIC, Astra, Pluspetrol S.A. ("Pluspetrol"), Pérez Companc, Total and Deminex Argentina S.A., a subsidiary of Deminex Deutsche Erdoelversorgungsgesellschaft m.b.H. ("Deminex"), the six largest Argentine private sector natural gas producers, accounted for approximately 30% of total marketable natural gas production, represents approximately 80% of the total gas produced, and is currently delivered to the market through the current Transporters and the Distributors.

## Production.

The private sector in Argentina has steadily increased its share of total oil and gas production over the past seven years and presently accounts for approximately one-half of crude oil production and approximately 36% of natural gas production. As a result of the Argentine government's deregulatory policies, approximately 88% of private sector oil production and 41% of private sector gas production, which percentage includes natural gas produced pursuant to the production service agreements with YPF, is carried

out under concessions and associations which generally permit the holder of the concession to freely dispose of all the oil and gas produced.

### **Cost Savings**

Over the past two years or so, restructuring and focus on costs has led to some significant reductions in costs incurred by the industry.

As for example rig rates paid by YPF which used to be as high as US\$ 16,000/day average has currently gone down to US\$ 8,000/day. Further reductions are targeted to US\$ 6,000/day or 1.35 times US rig rate.

### **Projected Oil development and exploration.**

YPF related expenditures are planned to average US\$ 700 MM throughout the next decade. Only YPF drilling is projected to increase from a level of 550 wells/year ('92/'93) (35 exploration wells) up to an average of 750 wells/year (120 exploration wells).

### **Business Conditions for the suppliers to the upstream oil industry.**

One consequence of the deregulation of the market has been the enlargement of the number and level of activity of the operating companies (the buyers), in a process of demand fragmentation: nowadays more clients are starting to demand for new techniques, better materials, equipment and services, each conforming relatively a medium to small size individual market.

At the same time the opening of the economy has lead this group of clients to be extremely concern in operating within a highly efficient cost framework as, obviously, the activity became largely dependent of the level of the international oil price.

Importation has started to appear as another serious concern, aggravated by the fact that foreign equipment prices are currently driven by the surplus situation of the recessive US market.

A strong pressure has been created towards the reduction of prices (i.e. please refer to YPF's cost cuts). In the last 20 months prices of services and goods within the sector were reduced by, at least, 15%.

With reference to costs, the incidence of the still increasing "Argentine cost" and of the salary rigidity are parameters which endanger the economics of various companies for the near future.

The optimization of resources, the acquisition of newer technologies and the development of new products are seriously being considered by the more agile companies.

To sustain business some companies decided to enlarge their economic dimension (i.e. Quitral-Co through the merging with Astrafor and Pérez Companc). Others bet in enlarging their exportations in order to reduce the incidence of fixed costs in final prices and at the same time, to lower their dependence on the local market conditions (i.e. Bolland exports 60% of its mechanical pumps and spare parts).

For other companies, demand fragmentation meant, in the short run, the strengthening of their marketing efforts, the widening of their products' stocks and the increase of some operating costs when, on the contrary, the current goal is to reduce them.

This situation has caused a reduction of the operation activity of those companies, specially within the manufacturing area (i.e. Hughes Tools Argentina).

### **Business Opportunities.**

- As predicted in our previous report levels of activity remained effectively low, perhaps at their lowest point in many years, until April 1993, while capital continued to struggle for traditional interest rather to expanded operations programs.

- Transacting for hydrocarbon interest continues to be of great attraction as operating companies define their final business dimension. Novacorp is a Canadian newcomer, currently operating TGN, one of the two transmission companies out coming from the privatization of Gas del Estado.
- With the re conversion of the drilling services companies we now see little room for drilling ventures but increasing demand for spare parts and, eventually, drilling rigs. Slim hole drilling is on the other hand considered at present as a probable way to diminish the cost of future wells.
- New opportunities were checked to exist with respect to:
  - 1 - Plunger-lift techniques.
  - 2 - Horizontal drilling.
  - 3 - VIBRO type acquisition systems.
  - 4 - Core testing equipment.
  - 5 - Field automation.
  - 6 - Corrosion detection and control.
  - 7 - Instrumentation (CO<sub>2</sub>, SH<sub>2</sub> level measurement)
  - 8 - Natural Gas treatment plants.
- Other equipment and materials may be required as indicated on our previous report provided USA prices can be beaten.
- Cost reduction became mandatory to Argentina upstream operators in view of the level of the current productivity of the wells and the decrease of the realization prices (tied up, in general, to the WTI levels).
- At the same time capital constraints and high rates of interest, (in many cases related with the amortization of the amounts paid by the new holders of the oil properties), are still precluding full activity in many areas operated by private companies.

- Attractive financing accompanying the offering of services and products will nowadays be interesting and help, for sure, to accelerate projects.
- On the side of the suppliers of materials and services, mainly the small and medium size ones, they are progressively understanding the need to cope with the new frame work, updating technologies and working at scale. As financial constraints persist, the local service companies have shown interest to joint venture with foreign "competitors" to modernize and increase their business. The possibilities of offering new and attractively priced materials and services would also be welcomed.
- EOR keeps a good perspective in the country. Additional recovery of oil not requiring high capital expenditures per barrel could help to account for new proved reserves and additional production. Water injection is solely applied at present at a fair scale. Engineering support bringing news ideas and techniques will be required. Obviously, the limitations existing today could soften if the international pricing of the oil increases. Farm-ins could also envisaged.



## INTRODUCTION TO THE SUPPLEMENTARY REPORT

### Objective

### **MARKET SURVEY ON UPSTREAM SERVICES, EQUIPMENT AND MATERIALS FOR THE ARGENTINE OIL AND GAS INDUSTRY**

Just a sample of the companies surveyed on July 1992 as part of the Market Survey on the Upstream Activities in Argentina, prepared for the Canadian/Embassy

### **SUPPLEMENTARY REPORT**

### Scope of the sample

Some relevant 33 companies out of the original spectrum of 154 in the upstream activities were contacted this time including:

Oil & Gas Companies (E+P)	7
Oil & Gas Services Companies	9
Suppliers of Material	16
Consulting Companies	1

**Prepared for: The Canadian Embassy in Argentina**

**October 1993**



# MARKET SURVEY ON UPSTREAM SERVICES EQUIPMENT AND MATERIALS FOR THE ARGENTINE OIL AND GAS INDUSTRY

## DEEPENING OF DEREGULATION AND PRIVATIZATION

### INTRODUCTION TO THE SUPPLEMENTARY REPORT

#### General

#### Objective

The objective of this supplementary report is to summarize the prevailing business conditions as detected through the scouting of just a sample of the companies surveyed on July 1992 as part of the Market Survey on the Upstream Activities in Argentina, prepared for the Canadian Embassy.

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As a result of deregulatory measures undertaken over the past several years and the transfer of interest in significant properties and assets previously held by YPF and Gd&E to the private sector, the structure and competitive profile of the oil and gas industry in



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At the same time the opening of the economy has lead this group of clients to be extremely concern in operating within a highly efficient cost framework as, obviously, the activity became largely dependent of the level of the international oil price.

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