MARKET STUDY ON THE MEXICAN STATE PETROLEUM AGENCY

INDEX

NOTE

All values in this report, unless otherwise stated (Mexican pesos, Mex$, Canadian dollars, Cdn$, etc) are quoted in United States dollar equivalents based on the following average exchange rates for each year:

1988	2,290 pesos/U.S. dollar
1989	2,483 "
1990	2,838 "
1991	3,011 "
1992	3,084 "

As of January 1, 1993, the government passed a monetary reform creating the new peso, equivalent to the previous Mex$1,000, basically to simplify transactions. This involves simply dropping the last three numbers from old figures to make them comparable with the new ones.

Data on PEMEX are mostly based on "Memoria de Labores 1992", PEMEX, Mexico and official statistics as published by the Secretariat of Commerce and Industrial Development (SECOFI) and other agencies.

Many of the people that you will see listed in this document have two family names. In Mexican custom, one uses the second to last name to address a person.

1. HISTORICAL BACKGROUND

The first oil production took place in Mexico in 1876. The government of Porfirio Díaz allowed many privileges to foreign companies, and by 1910, British and U.S. companies held concessions over extensive petroleum producing areas. During the next decade, petroleum production experienced an extraordinary development, growing from 3.9 million barrels in 1910 to 193.4 million barrels in 1921, when Mexico became the second world producer. At the same time, however, the foreign companies paid virtually no rights or taxes on this production and they were quickly exhausting existing wells with unrestricted exploitation while offering extremely low wages and labour conditions considerably below those offered in other countries. The Mexican populist government that took power in the Mexican revolution of 1910-1917 made several efforts to improve this situation by declaring, under the Constitution, all underground resources to be national property and granting new concessions both to national and foreign companies. At the same time, the domestic Mexican market became more significant with local hydrocarbon consumption increasing from 11% to 40% of total production, thus limiting exports, while an increasing amount of crude oil was being processed locally, albeit using very simple processes.

Influenced by labour management disputes and a growing sense of resource nationalism, the Mexican government of Lázaro Cárdenas expropiated the overwhelmingly foreign dominated industry (U.S., British and Dutch) in a move considered very bold at the time. It then successfully created a single company, Petroleos Mexicanos (PEMEX) to encompass the complete spectrum of hydrocarbon resource exploration, development, storage, transportation and marketing. Major initial difficulties related to political pressures, and to labour and technology problems and shortages existed but, by the early 1940's, PEMEX had developed a degree of corporate coherence and started to function effectively. Between 1948 and 1975, oil and gas production increased 513%, local consumption of hydrocarbons grew 632%, oil and gas reserves increased 364% and refining capacity by 406%. At present, Mexico is the world's fifth largest crude oil producer. In 1992, PEMEX had proven reserves of 65.5 billion barrels. Its crude production reached 2.668 million barrels a day (bd) and its gas production 3.6 billion cubic feet a day (mcfd), in addition to 1.57 million bd of refined products and over 18 million tons of petrochemicals (see Section 3 for a detailed description of PEMEX's activities).

2. ECONOMIC ENVIRONMENT

With the objective of reducing the inflation rate, the Mexican authorities implemented a stabilization program in 1988, called the Economic Solidarity Pact, which features traditional austerity measures, entailing tight fiscal and monetary policies and unorthodox measures, such as price, wage and exchange rate controls. This program has been the cornerstone of Mexico's

economic policy over the past four years, and has been extended throughout 1993 under the name of Pact for Stability, Competitiveness and Employment. It has resulted in a drastic reduction of the inflation rate, from an annual rate of 159% in 1987 to 19.7% in 1989. Inflation rebounded to 29.9% in 1990 but was brought down to 18.8% in 1991 and is expected to be of 11-13% in 1992. At the same time, interest rates have increased again to the present 20%, and the peso-dollar devaluation rate has recently been increased to Mex$0.40 pesos a day or 4.6% per annum. As of January 1, 1993, the government also passed a monetary reform creating the new peso, equivalent to the previous Mex$1,000, basically to simplify transactions.

Along with the objective of consolidating the progress made in price stabilization with a 7% inflation goal through tight monetary and fiscal policies, Mexico's macroeconomic policy in 1993 aims to promote employment, reaffirm gradual and sustained economic recuperation with an estimated GDP growth of 2.5%-3%, basically by establishing the necessary conditions to encourage national and foreign investment and by promoting increased efficiency and competitiveness, and to promote social development and the improvement in living standards of the poorest segment of society through direct government action.

Domestic economic activity recovered for the third consecutive year in 1989, after the 1986 recession, with a gross domestic product (GDP) growth rate of 3.3%. In 1990 it grew 4.4% and another 3.6% in 1991 to reach $280.3 billion. With an 82.8 million population, per capita GDP was estimated at $3,307 in 1991. Additionally, manufacturing output grew by 5.4% in 1990 and 3.1% in 1991 in real terms, private investment and consumption expanded 13.6% and 5.2% respectively and public investment was up 12.8%. During the 1992-1994 period, the GDP is expected to maintain an average annual growth rate of 4%-5%, although preliminary figures place GDP growth at 2.7% for 1992 pointing towards a reduction in GDP growth in response to reduced economic activity worldwide and the need for inflation control.

In an effort to revitalize and open the Mexican economy, the Mexican Government undertook a series of structural changes, including the accession to the General Agreement on Tariffs and Trade (GATT) on August 24, 1986 leading to an extensive trade liberalization process: import permits were eliminated on all but 325 of the total 11,950 tariff items based on the Harmonized System adopted in 1989. Official import prices are no longer applicable, nor the 5% export development tax, and import duties were lowered from a maximum of 100% in 1982 to 20% in January 1988. The weighted average tariff rate is now 10.4%. The automotive and computer industries have also been liberalized, through the elimination of prior import permits, to allow free entry of products in these industries. The approval of the North American Free Trade Agreement will further strengthen trade between Canada, the United States and Mexico.

According to official data from the Mexican Secretariat of Commerce and Industrial Development (SECOFI), Mexico's trade balance dropped once again in 1991 to a $11.1 billion deficit from -$4.6 billion in 1990. Exports increased by 1.1% in 1991, from $26.8 billion to $27.1 billion, while imports grew 21.7%, from $31.4 billion to $38.2 billion in 1991, having already increased 23.6% in 1990 from $25.4 billion in 1989. January-September data for 1992, place total exports at $21 billion and imports at $35.3 for the first three quarters, with estimated year-end figures of $28.6 and $47.9 billion respectively.

3. MARKET ASSESSMENT

The market for oil and gas field equipment and machinery as estimated in this report includes drilling equipment, pipes and tubes, accessories thereof, pumps, valves, compressors, winches and cranes, turbines, internal combustion engines, geological and other instruments, and parts and attachments for the above categories, all used in the oil and gas field industry. The results were based on data on Mexican import and exports published by the Secretariat of Commerce and Industrial Development (SECOFI), on PEMEX's purchasing program for 1987, 1988, 1990 and 1993 and on PEMEX's cash flow for the 1988-1992 period.

Petroleos Mexicanos (PEMEX) is a decentralized public agency owned directly by the State. Its activities include exploration, productiom and marketing of crude oil and gas, refining of gasoline and oil products, and the production of petrochemicals. Since July 1992 PEMEX was completely reorganized, splitting the corporation into a central holding company and four operating subsidiaries, in addition to the Mexican Petroleum Institute and PEMEX Internacional. The four subsidiaries are:
PEMEX Exploration and Production
PEMEX Refining
PEMEX Gas and Basic Petrochemicals
PEMEX Secondary Petrochemicals
For a more detailed description of PEMEX and its activities, see Section 5: END USER PROFILE.

Total apparent consumption of oil and gas field equipment, as defined above, increased by almost 80% in 1988 to $1.2 billion as a result of PEMEX's increase in earnings due to more favorable oil prices and to cover a backlog in demand from the more difficult mid-80's. During 1989 and 1990, the market fell again to levels more in accordance with PEMEX's year to year purchasing needs. In 1991, demand for oil and gas field equipment began to recover again with a 7% increase and 1992 showed a further 5.9% growth in consumption. Based on PEMEX's investment budget, purchases of equipment will increase to $1.1 billion in 1993. The total market is estimated to grow at an average annual rate of 4.5% and reach $1.3 billion by 1996. However, given the present volatility in crude oil prices, it is difficult to estimate the future behaviour of PEMEX and the related industry. Nevertheless,

if the development plans are fulfilled and the country's foreign exchange reserves maintained, equipment purchases by PEMEX will continue to grow. Given the strategic importance of PEMEX as the major earner of foreign exchange and of income for the public finance, it is considered a priority development area for the country and will continue to receive important consideration in the Mexican Government's budget.

TABLE 1
THE MEXICAN MARKET FOR OIL AND GAS FIELD EQUIPMENT
(U.S. million $)

	1988	1989	1990	1991	1992	1993e	93-96 % AAGR
Production	1096.0	1062.0	1041.0	1062.5	1,080.1	1076.4	3.3%
+ Imports	356.1	310.4	257.3	283.0	337.7	367.3	5.0%
- Exports	234.8	276.8	332.0	311.6	322.4	305.2	2.0%
TOTAL	**1217.3**	**1095.6**	**966.3**	**1033.9**	**1095.4**	**1138.5**	**4.5%**

Source: Import and export data published by SECOFI
PEMEX purchasing programs 1988, 1990, 1993
PEMEX cash flow 1987-1992

AAGR = average annual growth rate

The following table describes the cash flow of PEMEX by area between 1987 and 1992.

TABLE 2
PEMEX CASH FLOW 1988-1992
(U.S. $million)

	1988	1989	1990	1991	1992
PRIMARY PRODUCTION					
Construction	262.9	225.2	272.2	365.5	583.4
Purchase of goods	114.9	64.1	101.0	91.6	215.3
Maintenance	25.4	32.2	57.0	87.0	184.6
Well drilling	645.8	630.1	552.8	750.4	547.4
Exploratory studies	39.9	41.0	71.9	114.2	188.3
Other	0.4	4.4	196.5	124.9	23.2
SUBTOTAL	**1089.3**	**997.0**	**1251.4**	**1533.6**	**1742.2**
REFINING *					
Construction	380.5	353.4	151.6	159.3	454.6
Purchase of goods	60.9	71.3	48.0	36.0	53.8
Maintenance	26.0	37.3	33.5	88.0	116.5
Other	7.8	6.6	2.0	77.1	13.2
SUBTOTAL	**475.2**	**462.6**	**235.1**	**360.4**	**638.1**

	1988	1989	1990	1991	1992
PETROCHEMICALS *					
Construction			89.4	148.5	185.8
Purchase of goods			29.6	28.6	51.1
Maintenance			5.0	9.7	14.0
Other			0.4	18.6	10.9
SUBTOTAL			**124.4**	**205.4**	**261.8**
COMMERCIAL					
Construction	108.5	69.3	70.1	55.0	154.5
Purchase of goods	40.0	28.0	18.9	22.2	83.0
Maintenance	8.3	8.0	18.4	15.1	24.1
Other	0.4	2.7	0.1	0.7	0.1
SUBTOTAL	**157.2**	**108.0**	**107.5**	**93.0**	**261.7**
ADMINISTRATION					
Construction	62.8	132.7	24.3	205.6	33.4
Purchase of goods	38.4	43.1	47.0	48.9	95.0
Maintenance	14.9	8.6	9.6	13.9	18.1
Other	2.8	8.9	242.7	198.4	11.5
SUBTOTAL	**118.9**	**193.3**	**323.6**	**466.8**	**158.0**
GRAND TOTAL					
Construction	814.7	780.6	607.6	933.9	1411.7
Purchase of goods	254.2	206.5	244.5	227.3	498.2
Maintenance	74.6	86.1	123.5	213.7	357.3
Well drilling	645.8	630.1	552.8	750.4	547.4
Exploratory studies	39.9	41.0	71.9	114.2	188.3
Other	11.4	22.6	441.7	419.7	58.9
TOTAL	**1840.6**	**1766.9**	**2042.0**	**2659.2**	**3061.8**
Exchange rate Mex/US	2290.0	2483.0	2838.0	3011.0	3200.0

Note: * Before 1990, refining and petrochemicals were not separated. The total under refining therefore includes petrochemicals in 1988 and 1989. The line of goods purchases is not comparable to data in table 1, since good's and materials' purchases are also included in construction and maintenance.

Source: PEMEX

PEMEX's budget for 1993 was set at $2.95 billion dollars or 9.5 billion new pesos, having increased 14.5% in real terms over the budget assigned to PEMEX in 1992. Of this total, $735 million or 25% is for the purchase of materials, equipment and parts according to PEMEX's purchasing program. The following table shows the budget of PEMEX by area and type of expense for 1993.

TABLE 3
PEMEX 1993 BUDGET
(million dollars)

	PEMEX CORP.	EXPLOR & PROD	REFIN ING	GAS & BP	PETR CHEM	TOTAL
salaries		65.1				65.1
purchases nat'l. mats.		252.9				252.9
purchases forgn mats.		42.6				42.6
IMP explor. studies		10.7				10.7
IMP R & D		14.3	10.8			25.1
other R & D	15.7	14.0	7.3	8.6	3.1	48.7
rehabilit./renewal by contractors	6.5	273.7	198.9	10.3	10.7	500.1
well drilling cont.		77.4				77.4
support svs drilling		19.8				19.8
well drill./repair & finishing services		67.4				67.4
drill. eq. transp.		48.5				48.5
construction	18.8	396.7	537.2	97.5	46.2	1096.4
purchases nal. goods	130.2	127.7	54.3	20.7	20.7	353.6
purchases forgn goods	16.1	46.4	18.9	2.4	2.8	86.6
pipe constr. wells		0.7				0.7
other exploration		103.2				103.2
other		149.0				149.0
TOTAL	**187.3**	**1710.1**	**827.4**	**139.5**	**83.5**	**2947.8**

Note: The first column refers to the holding company PEMEX Corporate, including the Directorate General and the Corporate Directions of Operations, Finance and Administration. The following four columns refer to each of the subsidiaries: PEMEX Exploration and Primary Production, PEMEX Refining, PEMEX Gas and Basic Petrochemicals and PEMEX Secondary Petrochemicals.

Source: PEMEX Corporate

The following table shows PEMEX's total purchases of equipment and materials relevant to this study by category budgeted in 1990 and 1993.

TABLE 3
1990 AND 1993 BUDGETED PURCHASES BY PEMEX
(000 U.S. dollar equivalent)

CATEGORY	1990 TOTAL	1990 IMPORTS	1993 TOTAL	1993 IMPORTS
MATERIALS				
Pipes/tubes stainless	2,181	292	3,024	514
Other pipes & tubes	178,937	10,648	237,377	18,526
Accessories tubing	24,852	2,849	79,865	36,428
Valves	66,466	0	38,421	3,934
TOTAL MATERIALS	**272,436**	**13,789**	**358,687**	**59,402**

CATEGORY	1990 TOTAL	1990 IMPORTS	1993 TOTAL	1993 IMPORTS
EQUIPMENT				
Storage tanks & vats	11,951	2,596	3,185	593
Exploration/gravimetry eq.	128	104	NA	NA
Winches	12,397	9,084	80	0
Drilling equipment	59,787	23,349	23,291	6,349
Internal comb. engines	4,786	1,819	1,393	351
Turbines	4,524	3,777	5,773	2,491
Speed exchangers	795	133	2,190	729
Pumps	33,900	5,017	45,189	8,901
Metal structures	1,948	0	597	0
Electric equipment	26,501	3,405	24,287	3,179
Process equipment	88,507	6,099	79,629	1,984
Measure&control instrum.	47,544	20,391	62,310	21,738
Compressors	9,680	1,823	37,426	35,175
Construction equipment	23,299	815	5,375	5,170
Machine tools	1,583	496	2,787	1,977
Various equipment	30,666	7,795	10,153	1,323
Lubricating equipment	250	0	40	22
Maneuvering equipment	NA	NA	5,815	18
Laboratory equipment	1,321	828	7,761	1,571
Firefighting eq.	1,228	641	995	666
TOTAL EQUIPMENT	**360,795**	**88,172**	**318,276**	**92,237**
PARTS FOR				
valves & connections	1,596	268	4,778	962
Winches	0	0	2,787	2,787
drilling equipment	163,751	38,171	60,916	2,920
internal comb. engines	10,146	5,008	106,304	2,920
turbines	16,181	15,893	22,694	22,694
speed exchangers	855	843	2,389	2,122
pumps	23,134	8,868	45,577	22,786
electric equipment	7,518	3,084	7,764	2,413
process plants	38,341	4,066	45,389	2,650
measure&control instrum.	10,820	3,872	14,134	7,432
boilers	5,016	44	11,546	997
compressors	23,828	19,416	116,258	116,258
machine tools	251	246	1,991	1,991
various equipment	5,580	2,232	3,384	1,896
lubricating equipment	129	38	20	20
firefighting eq.	7,943	549	3,583	250
TOTAL PARTS	**315,089**	**102,598**	**449,514**	**191,098**

Source: PEMEX

Imports have traditionally played a very important role in total demand. In 1988 they represented 29.3% of total equipment purchases. This share fell to 26.6% in 1990 in response to an overall policy enphasis to "buy Mexican". However, with the liberalization of Mexico's trade policies, imports have begun to be more attractive and the import market share is estimated to reach 32.3% in 1993 and to further increase to 32.7% by 1996.

Total imports, which fell to $257.3 million in 1990, grew by 10% in 1991 and another 19.3% in 1992. During 1993, they are expected to increase another 8.8% to $367.3 million. By 1996, imports are estimated to reach $425.2 million.

The continued increase in imports is a result of Mexico's accession to the General Agreement on Tariffs and Trade (GATT) in 1986 and the negotiations presently underway for the North American Free Trade Agreement, which have set the framework for increased access by foreign suppliers to this market. Also, due to the frequently lower price, higher quality and availability of foreign made goods, as opposed to more expensive, low quality or non existence of locally manufactured equipment and supplies, PEMEX cannot cut imports further. Additionally, at times, PEMEX has delayed payments to local suppliers, which has discouraged them from pursuing PEMEX orders, while foreign purchases are ususally paid in a more timely manner.

On the other hand, the petroleum sector is not completely open to foreign participation and supply. The events described in the first section of this report singularly shaped the Mexican petroleum industry. Traditionally the Mexican government has limited foreign capital participation to a minimum in the petroleum industry and specifically worked to decrease its dependence on foreign made equipment, technology and services through an import substitution program. As a result, Mexico has developped its own technology, which, by world standards, is quite sophisticated. PEMEX has supported local suppliers under purchasing policies that promote the use of locally manufactured equipment and materials, and maintained the absolute level of local purchases. Exports have also played a major role in the domestic equipment industry and amounted to $322.4 million in 1992. Mexico is a major exporter of pipes and tubes, accessories thereof, internal combustion engines and valves. Total domestic production of oil and gas field equipment was estimated to have remained fairly constant at $1.1 billion in the past three years. It is expected to grow at an average annual rate of 3.3% through 1996.

In addition to the market represented by PEMEX, private companies are increasingly servicing PEMEX and turn-key contracts are more and more frequenty used in this industry.

The most important foreign suppliers of oil and gas field equipment to PEMEX are the U.S. (72%), Japan (5%), West Germany (4%), Italy (3%), Canada (2%) and Spain (2%). As part of its savings campaign, PEMEX has closed its Tokyo, London and Paris offices, leaving open only its Houston office. U.S. equipment companies are well known and better established as long-term suppliers to PEMEX. The geographical proximity of the U.S. is an advantage in competing for Mexican business since it permits faster delivery and better after sales service.

Canadian suppliers can take advantage of their relative proximity to Mexico to market their products more aggressively. Total

Canadian exports of oil and gas field equipment to Mexico amounted to Cdn$2.7 million and decreased to Cdn$2.4 million in 1989 despite the overall increase in imports. Exports to Mexico then increased to Cdn$6.2 million in 1990 but fell to only Cdn$1.3 million in 1991. This reflects a generally passive marketing approach of Canadian suppliers, who could greatly benefit from this growing market by being more persistant. This could include participating in trade shows in Mexico and the United States, directly marketing their products to PEMEX, at both the central and regional level, establishing a distributor or representative in Mexico with a local office , or finding a joint venture partner. Actually, it would be quite impossible to sell to this industry, namely to PEMEX, without using all three of these marketing strategies.

TABLE 4
CANADIAN EXPORTS TO MEXICO
(000 Canadian dollars)

	1988	1989	1990	1991
Pipes and tubes	15	0	0	0
Accesories for pipes and tubes	8	8	27	0
Pumps & compressors	146	112	199	93
Winches and Cranes	17	94	442	0
Drilling equipment	1,243	1,063	4,222	300
Valves	458	273	275	90
Parts	677	806	942	460
Geological instruments	130	105	90	402
TOTAL	**2,694**	**2,461**	**6,197**	**1,345**

Source: Statistics Canada - International Trade Division

Although PEMEX has strong technical support in its own staff and the Instituto Mexicano del Petroleo (IMP or Mexican Institute of Petroleum), it has, in the past, contracted services and licensed processes from international suppliers. Some of these include: Ethylene production process from Lummus; low-density polyethylene from ICI; styrene from Monsanto-Lumus; oxylene from Atlantic Richfield; and propylene from Chevron, all of the above in the Cangrejera complex (see page 30) for a list of plants and their locations). For the Pajaritos complex, the oil monopoly has the license and production process from McKee and Lummus for ethylene; and for vynil chloride from Shell, Monsanto-Scientific Design and B.F. Goodrich-Badger. At the Cosoleacaque complex PEMEX uses production processes for ammonia from British Petroleum and methanol from Gulf Oil, among other companies. PEMEX also associated with Shell for the construction of additional plants at the Deer Park, Texas refinery to process Mexican heavy crude.

Approximately 5,000 local firms manufacture equipment and materials for the Mexican petroleum industry. Additionally, many international suppliers to PEMEX have a distributor and/or representative in Mexico considered by PEMEX as a local supplier.

International companies which produce chemicals and petrochemicals, and are represented in Mexico through joint-ventures with local companies, include:

International company	Mexican subsidiary
Akso N.V. (Holland)	Tanatex Mexicana S.A. de C.V.
American Cyanamid (U.S.)	Cyanamid de México S.A.
BASF (Germany)	BASF de México S.A.
B.F. Goodrich (U.S.)	Policyd S.A.
Borden (U.S.)	Química Borden S.A.
Celanese (U.S.)	Celanese Mexicana S.A.
Du Pont de Nemours (U.S.)	Du Pont S.A.
DSM N.V. (Holland)	
Monsanto (U.S.)	Monsanto Comercial S.A.
Petrofina (Great Britain)	
Phillips Petroleum (U.S.)	Phillips Química S.A.
Polisar (Canada)	Hules Mexicanos S.A.
Reichhold Chemicals (U.S.)	Reichhold Química México S.A.
Rhone Poulenc (France)	Fran Química S.A. de C.V.
Standard Oil (U.S.).	Cía. Nacional de Abrasivos

Other large foreign suppliers based on their sales to PEMEX in 1992 include:

Halliburton
Hause & Associates
Dowell Schlumberger
Solar Turbines Inc.
LTV Energy Products
Dresser-Rand
AVA International
Baroid
Schlumberger Offshore Division
Cooper Industries
Quality Oilfield Products
National Oilwell
Bronco Manufacturing
Hydril Co.
Jet Research Center
Martin Decker / TOTCO
PTUSA Corp.
Hydra-Rig
Dresser Industries
Stewart & Stevenson Services
Philadelphia Gear
Melco Blowout Preventer Specialties
Varco International
Equipment & Parts Exporters

Link Belt Construction Equipment
Sava Commercial
Ross-Hill Controls
Motors & Transmissions
CAMCO
The Andrews Group
European Gas Turbines
Gulf Supply Latina
Reed Tool
Fisher Controls
Lufkin Industries
Ingersoll Rand

Among the most important local suppliers to PEMEX are:

Baramin
Barita de Sonora
Conjunto Manufacturero
Núñes Santa Cruz y Asociados
Barita de Santa Rosa
Varel de México
FIP
Minerales y Arcillas
Dowell Schlumberger de México
Industrias Smith Internacional
Halliburton de México
Herramientas y Triconos
Decisiones Automatizadas
Nalcomex
Herramientas Interamericanas
Baricosta
Petro-Desarrollos
EPN Arval
Du Pont
K.J. Quinn de México
Cameron Iron Works de México
Talleres Acerorey
Técnicos de Sureste
Agua Treat
Construcciones e Instalaciones MIneras
Ingeniería Metalúrgica y Soldaduras Especializadas
Grupo Industrial Valcoma
Exxon Mexicana
Industrias GR

4. BEST SALES PROSPECTS FOR FOREIGN SUPPLIERS

Prospects are best for technologically sophisticated equipment. Based on foreign trade statistics and on publications by PEMEX, following is a list of items traditionally imported by PEMEX. The order followed is in terms of estimated value as published by PEMEX in its purchasing program for 1993:

Steel line pipe, mostly seamless;
Chemical substances;
Drilling tools and equipment;
Valves, particularly gate and control;
Process plant parts;
Hoists and cranes;
Drilling bits;
Electric motors;
Pumps, particularly centrifugal and reciprocating;
Storage tanks;
Compressors;
Pollution control equipment.
Processing equipment such as columns, heat exchangers, air coolers, reactors, bins and recipients;
Measuring and control instruments, such as analyzers, flow meters, testing and pressure instruments, chromatographers, security valves, displacer level instruments;
Telecommunications equipment;
Steam and gas turbines;
Connections and accessories for pipes, mostly carbon steel;
internal combustion engines;
Electrical equipment such as motors, generators, transformers and control panels;
Fire fighting and other industrial security equipment;
Repair and spare parts for the above items.

5. END USER PROFILE

The State, by constitutional decree, maintains exclusive ownership control over petroleum, hydrocarbons and basic petrochemicals. Therefore, virtually all purchases of oil and gas field equipment have been made by the national oil monopoly PEMEX, a decentralized public agency owned directly by the State. Its activities include exploration, production and marketing of crude oil, refining of gasoline and oil products. PEMEX is also the sole producer of basic petrochemicals. Among Fortune's "500 Largest International Companies", PEMEX is ranked as the number 36 corporation in the world, while it is the largest Mexican firm as measured by its sales of $19.3 billion dollars during 1991. It is also the largest enterprise in Latin-America employing at its peak over 210,000, now about 120,000, with further cuts and spin-offs of PEMEX departments to come.

Technically, PEMEX falls under the direction of the Secretariat of Energy and Parastate Industries (SEMIP) and its Secretary or Minister, which is roughly equivalent to Canada's Department of Energy, Mines and Resources. SEMIP is principally, but not exlusively, responsible for overall management of the oil sector. It oversees oil pricing and marketing policy and the general development of the sector. The minister of SEMIP acts as the formal chairman of PEMEX's board of directors.

PEMEX has undergone reorganization along lines of authority for the past several years in order to make the firm more

competitive, efficient and profitable. In July 1992, an acceleration of this restructuring split PEMEX into its central umbrella company and four operating subsidiaries, leaving in place the Instituto Mexicano del Petroleo (IMP) and Petroleos Mexicanos Internacional (PMI), PEMEX's crude exporting company. PEMEX maintains the centralized leadership and strategic management of all activities related to the public petroleum industry, including approving the budget of the state petroleum industry as a whole and establishing overall policy. The four PEMEX subsidiaries each have their own legal frameworks, boards of directors, internal purchasing policies and budgets. They are:

1. EXPLORATION AND PRODUCTION (PEMEX-E&P): petroleum and natural gas exploration and exploitation, transportation, storage and sales to its client sister subsidiaries or to international markets through PMI;
2. REFINING: industrial processes related to refining; manufacture of petroleum related products capable of being used as basic industrial raw materials; storage, transportation, distribution and sale of these products and derivatives;
3. GAS AND BASIC PETROCHEMICALS (PEMEX - Gas & BP): natural gas, natural gas fluids and artificial gas processing; storage, transportation, distribution, sales (both domestic and export) of these hydrocarbons and their derivatives capable of being used as industrial raw materials and the imports of natural gas through its new subsidiary MEXGAS. Also it is responsible for insuring that gas and basic petrochemicals are competitive in Mexico and abroad. For a list of what is classified as "basic petrochemicals" see page 28;
4. SECONDARY PETROCHEMICALS: petrochemical industrial processes not related to the basic petrochemicals industry, their storage, distribution and sale. Its objectives are to work closely with the private sector, both domestic and foreign, to maximize the long term value of PEMEX, to achieve an operational efficiency comparable to international standards and to be a stable supplier in terms of volume and quality.

PEMEX and each subsidiary are independent financially. Their assets and funds proceed from all goods assigned to them, those purchased by them, budget assignments and donations, and income related to their operation and other income. PEMEX and its subsidiaries are responsible to meet any obligations severally or jointly. PEMEX and its subsidiaries manage their budgets based on the annual planning, budgets and programs approved by the PEMEX governing agency, SEMIP and the Secretariat of Finance (SHCP), and PEMEX central produces the annual financial consolidation. Of the total assets of PEMEX, valued at approximately $40 billion, 55% were transferred to PEMEX-E & P, 20% to PEMEX-Refining, 12% to PEMEX-G & BP, 10% to PEMEX-Secondary Petrochemicals and 3% to PEMEX Central.

PEMEX central is headed by a Director General and by a Board of Directors, composed of eleven proprietary directors: six government representatives designated by the President and five

representatives of the Petroleum Workers' Union of the Mexican Republic (STPRM). The President of the Board is the head of the coordinating agency for PEMEX, namely the Secretary of SEMIP. Each subsidiary is directed and managed by its own Board of Directors and a General Director assigned by the President. Each of these Boards of Directors has eight members: four government representatives designated by the President, the three Directors of the other subsidiaries and the General Director of PEMEX - Central, who also is Chairman of the Board.

All activities not exclusively reserved to the Nation under the Constitution can be undertaken further by subsidiaries or branches, which would be created with the approval of the Board of Directors of the existing subsidiaries. Appendix II shows the organization of PEMEX and its subsidiaries and lists the address and telephones of the top level executives in each area.

In 1992, PEMEX drilled 121 exploration and development wells (as compared to 171 in 1991, 132 in 1990 and 82 in 1989) and completed another 129 wells of an average depth of 3,561 meters, 119 plants in seven refinery centers and 109 plants in 19 petrochemical centers. It has built over 13,000 kilometers of roads and 60,453 kilometers of pipelines. It operates 21 port installations and has the largest fleet in the country with 245 ships, 35 of which are tankers and have a total cargo capacity of 7.5 million barrels. In addition, PEMEX has 1,490 tank trucks, 870 rail tank cars (PEMEX has been selling part of its fleet to the national railroad company), 90 storage and distribution installations, 33 helicopters, 80% of which are concentrated in the Marine zone and 21 airplanes. PEMEX's microwave network is equivalent to approximately 40% of the federal network operated by the Secretariat of Communications and Transportation. PEMEX also offers medical services to its 253,000 workers and their families through 191 facilities including hospitals, clinics and medical offices. In the near future, PEMEX may establish its transportation, infrastructure construction and medical services operations as fairly autonomous subsidiaries.

5.1 FINANCIAL STRUCTURE

PEMEX's financial situation has been improving year after year by the increases in the price of crude oil since 1990, coupled with a growth in production and both internal and exetrnal sales. Total PEMEX sales increased 28.1% in 1990 to $19.4 billion, another 6.4% in nominal Mexican peso terms in 1991, although they fell in dollar terms by one percent, to reach $19.2 billion in 1991. In 1992, sales grew by 9.3% in 1993 to $20.6 billion. Of these, 59.5% were from internal sales and 40.5% from export sales, as compared to 57.2% and 42.8% respectively in 1991, and 47.8% and 52.2% in 1990. During 1992, PEMEX had a net profit of $280 million, after paying $16.8 billion in taxes to the Federal Government in the form of hydrocarbon extraction duties (67.4%), the Special Production and Services tax (22.5%) and the value

added tax, compared to a $14.6 billion in 1991, of which 72% were hydrocarbon extraction duties. The oil giant is the most important single source of income to the State, both through direct income and value added tax payments, as well as through taxes levied on fuel and hydrocarbon sales. Given the tight conditions of the international credit market, Mexico is also highly dependent on the foreign exchange earned by PEMEX to cover payments on imports and on its debt. The company's total export earnings from hydrocarbons and petrochemicals reached $8.32 billion in 1992, as compared to $8.15 billion in 1991..

The following table shows some of the more relevant financial variables for PEMEX in the past few years.

TABLE 5
FINANCIAL DATA ON PEMEX
(million U.S.$)

	1987	1988	1989	1990	1991
ASSETS					
Current assets	4,102	5,203	5,164	5,932	6,240
Fixed assets	30,627	40,952	37,215	39,147	41,809
TOTAL ASSETS	**34,729**	**46,155**	**42,379**	**45,079**	**48,049**
LIABILITIES					
Current liabilities	1,643	2,312	3,155	3,196	2,919
Long term liab.	16,021	15,326	14,987	7,259	7,674
TOTAL LIABILITIES	**17,664**	**17,638**	**18,142**	**10,455**	**10,593**
EQUITY	**17,065**	**28,517**	**24,237**	**34,624**	**37,456**
TOTAL EQUITY & LIAB.	**34,729**	**46,155**	**42,379**	**45,079**	**48,049**
REVENUE					
Domestic sales	5,018	6,535	7,260	9,255	10,977
Export sales	8,223	6,591	7,854	10,111	8,204
Other income	1,554	438	465	238	198
TOTAL REVENUE	**14,795**	**13,564**	**15,579**	**19,604**	**19,379**
COSTS & EXPENSES					
Cost of sales	3,625	5,830	5,545	6,053	6,753
Cost of distribution	785	1,226	1,382	1,101	1,169
Other expenses	23	164	659	1,068	635
TOT. COSTS & EXPENSES	**4,433**	**7,220**	**7,586**	**8,222**	**8,557**
NET INCOME	**10,361**	**6,344**	**7,992**	**11,382**	**10,822**
Federal duties	7,314	5,887	7,655	9,893	9,772
NET OPERATING INCOME	**3,047**	**458**	**338**	**1,489**	**1,050**
NET INCOME	**3**	**6**	**8**	**1,003**	**1,050**

Source: PEMEX 1991 Annual Report

5.2 INFRASTRUCTURE

PEMEX EXPLORATION AND PRODUCTION

5.2.1 Exploration, Development and Research

Exploration remained a priority activity in 1992. Exploration drilling was focused on discovery of new fields and structures to increase hydrocarbon reserves and to evaluate areas with possible oil potential. In 1992, 41 exploratory wells were completed, ten fewer than in 1991, of which 24 were confirmed as productive, nine for oil, two for non commercial gas, eleven for gas and condensate and two for dry gas, 15 were improductive and two were used for stratigraphic sounding. Therefore, 59% of these explorations were successful in 1992, as compared to 52% in 1991 and 33% in 1990. Exploration in 1991 led to the discovery of four oil producing fields, eight of gas and condensates and two of gas. Of these, seven were found in the Marine Region, two in the South region and five in the Northern region.

In 1992, 88 development wells were drilled, as compared to 63 in 1990 and 133 in 1991, of which 83 were productive: 78 oil producers, four gas and condensates producers and one dry gas producer, and five were improductive. Therefore, 94% of these wells were successful, an average above the 86% of 1991 and the 93% of 1990, and confirmed PEMEX's knowledge of the explored areas. The average depth of these wells was 3,119 meters as compared to 2,992 meters in 1991. Drilling is generally between the 1,800 and 6,500 meter range but PEMEX has reported that wildcat drilling is having to go deeper. The Menonita No. 1 well in the State of Chihuahua went down to 7,050 meters, the deepest in Latin-America and only one of two wells deeper than the 7,000 meter range.

The folowing table describes exploratory and develpment drilling activities.

TABLE 6
EXPLORATORY AND DEVELOPMENT DRILLING 1992

REGION/DISTRICT	EXPLORATORY		DEVELOPMENT		TOTAL	
	WELLS	METERS	WELLS	METERS	WELLS	METERS
NORTH						
Altamira	2	2,550	4	8,293	6	10,843
Poza Rica	2	6,550	33	64,175	35	70,725
Reynosa	11	37,468	4	14,349	15	51,817
Veracruz	2	8,368	0	0	2	8,368

REGION/DISTRICT	EXPLORATORY		DEVELOPMENT		TOTAL	
	WELLS	METERS	WELLS	METERS	WELLS	METERS
SOUTH						
Agua Dulce	1	7,344	0	0	1	7,344
Comalcalco	2	13,069	6	32,528	8	45,597
Ocosingo	3	15,245	0	0	3	15,245
Reforma	3	13,595	1	4,970	4	18,565
MARINE						
Cd. del Carmen	3	15,000	24	84,806	27	99,806
Dos Bocas	9	52,841	11	49,781	20	102,622
TOTAL 1992	**38**	**172,030**	**83**	**258,902**	**121**	**430,932**
AVERAGE DEPTH		**4,527**		**3,119**		
TOTAL 1991	**45**	**82,194**	**126**	**271,078**	**171**	**353,272**
AVGERAGE DEPTH		**4,172**		**2,992**		
TOTAL 1990	**51**	**228,635**	**81**	**297,729**	**132**	**526,364**
AVERAGE DEPTH		**4,314**		**3,120**		

Source: PEMEX - Memoria de Labores 1992

The following table lists wells to be drilled, completed and repaired as of 1993 by region.

TABLE 7
WELLS TO BE DRILLED, COMPLETED AND REPAIRED
(number of wells)

	NORTH	SOUTH	MARINE	TOTAL
DRILLING RIGS				**89**
exploration				47
development				42
WELLS TO BE DRILLED	**46**	**19**	**46**	**111**
exploration	11	10	14	35
development	35	9	32	76
WELLS TO BE COMPLETED	**46**	**29**	**49**	**144**
exploration	15	14	11	40
development	51	15	38	104
WELLS TO BE REPAIRED	**334**	**308**	**50**	**692**
major repairs	40	167	48	209
minor repairs	294	141	2	483
PRODUCTION				
crude oil (TBD)	103	664	1,913	2,680
gas total (MCFD)	449	1,956	1,164	3,569
casinghead	131	1,776	1,164	3,071
not associated	318	180	0	498

Source: PEMEX - Memoria de Labores 1992

Until 1991, PEMEX contracted the services of national drilling companies under the "daily quota" mode. Starting then, it began exploring turn-key contracts. As a transition, PEMEX developed the "incentive" contract mode, which establishes a price and time period on an integral basis, as is the case in turn-key contracts, with the "incentive" of a down payment, partial payments and insurance cost coverage by PEMEX. In 1992, it granted "incentive" contracts to Perforadora Campeche, Perforadora Central, Perforadora México and Perforaciones Marítimas Protexa.

Last December 1992, PEMEX-E&P granted four contracts for the drilling of 22 marine development wells through six self-raising equipments in the Cann and Ek-Balam fields. The contracts were awarded to two Mexican companies, Cía. Perforadora Faja de Oro and Perforaciones Marítimas Protexa, and two foreign firms, Triton International and EPN-Sonat.

5.2.2 Primary Production

Up to 1976, the primary source of hydrocarbon reserves was beneath the Poza Rica district in Central Mexico. However, in that year, significant amounts of hydrocarbons were discovered in the southeastern part of Mexico, both offshore, in the bay of Campeche, and in the Chiapas-Tabasco regions.

The Campeche marine zone, also called Zonda de Campeche, consists of 12 separate fields, and covers an area of 3,000 square miles. These fields have been discovered at more conventional depths (1,100-4,000m) and productive well columns are estimated at up to 8,400 feet. This coupled with high buoyancy levels make productivity of these wells among the highest in the world, which has been about 285,000 bd of 24° API Maya (70%) and about 650,000 bd of 34° API Isthmus. Development of the Campeche Marine zone has been organized under the "Cantarell Project" since 1989 and continuing to 1993-1994. It is a $100 million project which comprises the construction of 20 projects, including hydrocarbon transportation lines, their interconnection, production sites and dwellings. It includes turn-key service contracts for drilling and operation opened to domestic and foreign companies.

The Chiapas-Tabasco area covers close to 2,000 square miles. Productive reservoirs are deep, roughly 4,000 meters and have thick (100-500m) oil-bearing strata. These exceptionally deep columns account for the high per well production, which has been about 680,000 bd. Of that, 80% is 34° API Isthmus crude produced at about $14/barrel, with 44° API Olmeca crude being produced at about $17/barrel. Development of the fields is being organized under the "Olmeca Project" beginning 1992-1993. One of the main objectives is to establish parallel facilities to process reserves of 59° API crude, which is likely to reach at least 100,000 bd and up to 300,000 bd at a production cost of $20-$22. Other long term objectives include further development along both coasts and the southern mountainous areas against the border with

Central America. The remaining hydrocarbon producing area is called Chicontepec, located between the states of Puebla and Veracruz, covering a 4,300 square mile area. Only small amounts are produced in this area and wells have rapid rates of decline.

5.2.2.1 Proven Reserves

Total proven reserves at the end of 1992 were calculated at 65,050 million barrels, reflecting a slight growth over the 65,000 million barrels of 1991, as compared to a 0.76% reduction in 1991 and 1.4% in 1990, despite the discovery of 12 new oil fields in 1990 and 23 in 1991. The 16 new fields together with the definition of four other fields, added 573 million barrels to reserves in 1992. This, coupled with the incorporation of 781 million barrels from the systematic revision of reserves originating in the behaviour of the fields, balanced the 1,304 million barrels extracted in 1992. Of total reserves, 44,439 million barrels correspond to crude oil, 13,825 million to gas and 6,786 million to condensates. Of the total reserves, 47.4% are in the Campeche marine zone, followed by 32.7% in the North zone and 19.9% in the South zone.

The following table shown the evolution in proven reserves in the past 30 years.

TABLE 8
PROVEN RESERVES
(million barrels/million cubic meters)

YEAR	TOTAL mb	CRUDE mb	CONDEN-SATES mb	DRY GAS CRUDE EQ. mb	NATURAL GAS mm^3	RES/ PROD %
1960	7,787	2,763	0	2,024	9,665	27%
1965	5,078	2,494	334	2,250	13,965	22%
1970	5,568	2,880	409	2,279	18,832	18%
1975	6,338	3,431	522	2,385	22,270	14%
1977	16,002	9,086	1,342	5,574	21,149	30%
1978	40,194	25,615	2,792	11,787	26,474	61%
1980	60,126	44,161	3,063	12,902	36,772	59%
1982	72,008	48,084	8,914	15,010	43,890	52%
1985	70,900	48,612	6,981	15,307	37,248	54%
1986	70,000	48,041	6,839	15,120	35,463	55%
1987	69,000	47,176	6,934	14,890	36,159	52%
1988	67,600	46,191	6,821	14,588	36,050	54%
1989	66,450	45,250	6,733	14,467	36,917	53%
1990	65,500	44,560	6,738	14,202	37,741	52%
1991	65,000	44,292	6,633	14,075	37,556	50%
1992	65,050	44,439	6,786	13,825		

Source: Cuarto Informe de Gobierno, Anexo Estadístico 1992

5.2.2.2 Crude Oil and Natural Gas Production

Crude found in Mexico has a very wide density range, from 10° API to 42.5° API, with an average 30°, but new reserves of 59° API were recently found. Its sulphur contents also varies proportionately to its density. High density oils are among those with the highest sulphur contents in the world (5.5%), while the lowest contain less that those found in the Middle East (0.2%). Some oils also contain large quantities of sulfhydric acid (bitter crude). Most crudes obtained in Mexico have an intermediate character (naphtenic-paraffinic). The characterization factors (Bureau of Mines) range from 11.4 to 12.2. The density of distilled products are 0.72 for gasoline, 0.8 for kerosene and 0.85 for fuel oils. All of this indicates moderate contents of cyclic components. Parafine contents vary. The dripping point of some crudes is as high as 8°C, while other, non wax crudes, have -37°C. The vanadium and nickel contents are moderate to high (16-500 ppm vanadium and 3-70 ppm nickel).

Between 1978 and 1990 crude production has increased at an average annual rate of 6.5%. During 1990, PEMEX extracted a total of 930 million barrels (mb) of crude oil at 2.55 million barrels a day (mbd). In 1991, production grew by 5% to 979.2 mb or 2.676 mbd, distributed between light Isthmus (54%) and heavy Maya crude oil (46%). In 1992, production fell 0.3% to 976.4 mb or 2.667 mbd, of which 48.6% were of heavy crude and 51.4% were of light and intermediary crude. Geographically, the production of crude was distributed as follows in 1992: 1.91 mbd (71.8%) from the Marine Zone of Campeche, 0.654 mbd (24.5%) from the South fields, the remaining 0.99 mbd 3.7% was produced in the fields located in the North zone. Total crude production was distributed as follows: 506.9 mb (51.8%) were exported, 388.3 mb (39.7%) sent to refining, 80.3 mb (8.2%) to petrochemical production and the remainder either lost through accidents and evaporation or added to inventories. During 1992, PEMEX, through its subsidiary PMI, sold an average 1.37 million bd of crude for $7.4 billion. Of these exports, 21% corresponded to light Isthmus oil, 67.5% to heavy Maya oil and 11.5% to extra-light Olmeca oil. The 1993 crude production goal was set at 2.68 million barrels, similar to 1992 levels, of which 73% will come from the Marine zone, 23.3% from the South zone and 3.7% from the North zone.

PEMEX also operates 13 water injection systems to obtain an additional oil recovery. In 1991, an average of 808,900 bd of water were injected for an oil recovery of 768,500 bd or an annual 281.3 mb, 28.8% of total production, as opposed to 29.8% in 1991 and 8.6% in 1990. Of this total oil recovery, 73.7% came from the Marine zone in the Abkatún-Pol-Chuc field, 20.6% from the South zone and 5.7% from the North zone.

Natural gas production was 3.58 billion cubic-feet a day (bcfd) in 1992, 1.4% below the 3.63 bcfd of 1991, 1.9% under the 3.65 bcfd of 1990 but 0.3% above the 3.57 bcfd of 1989. The South zone produced 54.3%, in particular the Mezozoic, the Campeche marine

zone 32.8% and the North zone 12.9%. Total gas production was distributed as follows: 31.1% delivered for internal sales, 31.3% was for internal consumption after plants, 18.6% was used by shrinking, 8% for internal consumption before pipes, 7.9% condensed in pipes and 3% lost in the atmosphere. As of September 1992, the internal sales of natural gas were 2,470 million cfd, of which 90 million were for PEMEX's own energy consumption, 420 million for the generation of electricity and the rest for industrial and domestic use. For 1993, gas production is programmed at 3,604 million cfd, of which 83% is associated with crude.

5.2.3 Industrial Transformation

PEMEX - REFINING

5.2.3.1 Refining

During 1992, the volume of crude, liquid gas, secondary process liquids and condensates processed in the refineries and petrochemical centers was 1.57 mbd, reflecting a 0.8% decrease compared to the 1.58 mbd processed in 1991. The latter level reflected a 1.6% increase above 1990's 567.5 mb or 1.55 mbd, themselves an increase of 5.8% over 1989. Fresh crude accounted for 1.28 mbd (81.4% of total), 1.1% below the level of 1991, and liquids (propane and heavier) for 285,000 bd. In order to offset the fall in production from the closure of the Azcapotzalco and Poza Rica plants in 1991, five new plants were put into operation in Salina Cruz, those in Salamanca and Tula, and the modifications in transportation pipes to increase capacity. The amount of heavy crude used in Mexican refineries has continued increasing in order to lower raw material costs and to free light oil for exports at higher prices. The use of Maya crude processed fell from 144.7 mb to 143.9 mb, while other heavy crudes processed increased 1.6% from 321.6 mb to 326.9 mb. Crude processed in refineries was a mixture of 1.05 mbd of fresh crude and 209,300 bd of reconstituted crude from petrochemical subproducts, and 6,300 bd of segregated compounds.

The following table decribes production of petroleum products by PEMEX in 1990, 1991 and 1992.

TABLE 9
PRODUCTION OF PETROLEUM PRODUCTS
(000 barrels)

	1990	1991	1992
LIQUEFIED GAS			
Dry gas	17,629.8	18,513.0	18,029.6
Liquefied gas AP	73,127.5	75,369.7	73,714.9
Liquefied gas BP	15,511.9	15,987.5	15,636.5
TOTAL	**88,639.4**	**91,357.2**	**89,351.4**
GASOLINES			
Pentane (export)	3,146.1	5,662.5	NA
Extra/Magna (unleaded)	15,742.0	14,321.5	23,870.9
Nova (leaded)	137,989.2	137,381.0	124,166.6
Airplane gasoline	371.6	74.6	0
Uncoloured gasoline	32.5	60.5	40.1
Solvents	591.1	717.9	603.5
TOTAL	**157,872.5**	**158,217.9**	**148,681.1**
KEROSENES			
Turbosine	18,597.9	22,502.1	23,623.0
Tractogas	2.0	0	0
Tractomex	1,010.2	957.3	886.1
Diaphanous	4,765.5	2,619.2	3,414.0
TOTAL	**24,375.5**	**26,078.6**	**27,923.2**
DIESEL			
Industrial fuel oil	0	875.2	0
National diesel	60,860.1	45,047.4	23,019.9
Special diesel	33,527.2	55,711.7	78,662.1
TOTAL	**94,387.3**	**101,634.3**	**101,682.1**
RESIDUALS			
Gas oils	0	875.2	8,025.1
Fuel oils	158,811.2	151,166.1	149,231.1
Semisolid asphalts	3,661.6	5,025.9	5,972.9
Reduced asphalt	2,103.4	2,799.5	2,562.8
TOTAL	**164,576.2**	**158,991.5**	**157,766.8**
OTHER			
Lubricants	2,677.7	2,802.8	2,940.1
Aeroflex 1-2		76.9	44.4
Furfural extract		426.7	341.6
Parafines	656.1	632.2	619.8
Greases	43.0	75.8	54.4
Coke	186.5	497.2	436.7
TOTAL	**3,563.2**	**4,511.8**	**4,437.0**
Net deliveries to petrochemicals	18,665.9	19,122.3	4
TOTAL PRODUCTS	**569,710.0**	**578,426.6**	**5**

Source: PEMEX - Memoria de Labores 1991 and 1992

Mexico's principal refinery centers are located in (see map):

CENTER	STATE	PLANTS	PLANTS IN CONSTRUCTION OR PLANNING	
Cadereyta	Nuevo León	13 plants	3	2
Madero	Tamaulipas	21 plants	1	
Minatitlán	Veracruz	22 plants		
Reynosa	Tamaulipas	2 plants		
Salamanca	Guanajuato	28 plants	1	1
Salina Cruz	Oaxaca	18 plants	2	1
Tula	Hidalgo	15 plants	7	

In addition to these plants in the planning and construction phases, a new refinery and a new refinery train are to be built in sites not yet defined.

Refining capacity was as follows in 1992 in barrels a day (bd):

NATURAL GASOLINE FRACTURING CAPACITY

	1992
Cactus	113,000
La Cangrejera	113,000
Madero	1,000
Minatitlán	70,000
Nuevo Pemex	113,000
Poza Rica	22,000
Reynosa	11,500
Morelos	113,000
TOTAL	**556,500**

CRUDE REFINING CAPACITY

	ATMOSPHERIC CRUDE DESTILLATION		COMPLETE CRUDE REFINING	
CENTER	INSTALLED	IN PROCESS	INSTALLED	IN PROCESS
Cadereyta	235,000	20,000	205,000	50,000
Madero	195,000		195,000	
Minatitlán	200,000		200,000	
Salamanca	235,000	60,000	210,000	50,000
Salina Cruz	330,000		310,000	20,000
New Refining Train		150,000		150,000
Tula	320,000		250,000	70,000
Reynosa	9,000		3,000	
New Refinery		300,000		300,000
TOTAL	**1,524,000**	**530,000**	**1,373,000**	**640,000**

VACUUM DISTILLATION, CATALYTIC DISINTEGRATION AND VISCOSITY REDUCTION CAPACITY (000 barrels/day)

CENTER	VACUUM DISTILL. INST.	VACUUM DISTILL. PROC.	CATALYTIC DISINT. INST.	CATALYTIC DISINT. PROC.	VISCOSITY RED. INST.	VISCOSITY RED. PROC.
Cadereyta	137.0		40.0			50.0
Madero	81.5		53.0		8.0	
Minatitlán	83.0		40.0			
Salamanca	101.2	48.0	58.5			
Salina Cruz	155.0		40.0	40.0		50.0
New Train		59.0		105.0		
Tula	155.0		40.0		41.0	
New Refinery		190.0		210.0		
TOTAL	**712.7**	**333.0**	**271.5**	**355.0**	**49.0**	**100.0**

Source: PEMEX - Memoria de Labores 1992

PEMEX - GAS AND BASIC PETROCHEMICALS

5.2.3.2 Gas

PEMEX total natural gas and condensate processing capacity was as follows in 1992:

CENTER	SWEETENING PLANTS CONDENSATES	SWEETENING PLANTS BITTER GAS	RECOVERY PLANTS LIQUEFIABLES ABSORPTION	CRYOGENIC	TOTAL
	bd	MMcfd	MMcfd	MMcfd	MMcfd
Cactus	48,000	1,800		1,450	1,450
La Cangrejera				30	30
Cd. PEMEX		800	550	200	750
La Venta			200	182	382
Matapionche		60			
Nvo. PEMEX	72,000	800		1,000	1,000
Pajaritos				192	192
Poza Rica		300		275	275
Reynosa			550		550
TOTAL	**120,000**	**3,760**	**1,300**	**3,329**	**4,629**

Source: PEMEX - Memoria de Labores 1992

A total of 3.2 billion cubic feet daily (bcfd) of gas were processed in 1992, 0.37% below 1991 levels, 86.9% of sour gas and 13.1% of sweet gas. Gas processed in 1991 was 3.3 bcfd, 2.8% above 1989 levels and practically the same as in 1990. A total of 3,546 bcfd of sweet wet gas were processed in 1992, 1.6% less than in 1991. Gas processing from the trunk line in Reynosa, Poza Rica and Pajaritos reached 440 bcfd, bitter condensates processed were 98,400 bd and the light crude process in Cangrejera was 217,000 bd. The principal products obtained were 172,000 bd of blunted crude, 43,000 bd of naphtas and 1,000 bd of butanes, 451,000 bd of liquids were recovered, slightly above 1990 levels.

Dry gas production from plants was 2,530 bcfd, 4.5% below 1991 levels. During 1992, several distributed control systems were installed in eight plants in order to increase productivity and improve the process profitability.

On average, the following record levels were attained per annum in the past three years:

PRODUCT	units	1990	1991	1992
Sour gas processed	MMcfd	2,829.8	2,831.3	2,744.9
Sweeet gas processed	MMcfd	3,588.8	3,604.9	3,545.8
Bitter condensates proc.	tbd	90.5	98.2	98.4
Total liquids recovered	tbd	426.2	550.9	451.6
Ethane produced	tbd	156.8	171.5	172.9
Liquefied gas	tbd	193.4	201.8	202.6
Gasolines	tbd	78.6	83.5	78.4

Source: PEMEX - Memoria de Labores 1992

During 1992, PEMEX - Gas & Petrochemicals processed a volume of 3,160 mcfd on average, of which it recovered 452,000 bd of liquids: 202,566 barrels of liquified gas, 172,931 barrels of ethane and 78,401 barrels of gasoline. At present, there are nine industrial centers to process natural gas and condensates located in La Cangrejera, Matapionche, Pajaritos, Poza Rica, Nuevo PEMEX, Ciudad PEMEX, La Venta, Cactus and Reynosa. At present, this company sells 45% of its production value to other PEMEX subsidiaries for energy use or as raw materials for petrochemical production, 17.7% to the Federal Electricity Commission for electricity generation, and 33.4% to industry as inputs. Its final products are dry gas for industrial fuel, liquified gas mostly for domestic, service companies and small industry consumption, as well as for automobiles.

Within the production of basic petrochemicals, naphthas and ethanes are the largest value products, followed by hexane, heptane, butane, pentane and carbon black feedstock. In 1992, total production of the latter group amounted to 1.8 million tons. PEMEX-G&BP also has processing plants to eliminate sulphur from crude and for the obtention of naphthas. In 1992, it recoverd 646,000 tons/annum of sulphur. This subsidiary also has a 12,357 kms. gas pipeline network for the transportation of natural gas and 1,729 kms. of poliducts for the transportation of liquified gas and basic petrochemicals, in addition to 20 storage and sales terminals for liquefied gas.

PEMEX-PETROCHEMICALS

5.2.3.3 Petrochemicals

At present, some 175 private sector companies are operating 490 basic and secondary petrochemical plants in Mexico, giving direct employment to about 130,000 people. Mexico currently produces

approximately 400 petrochemical products, representing 2.5% of total GDP. In the past few years (between 1987 and 1992), the Federal Government has reclassified a series of petrochemicals from basic to secondary, thereby nominally opening their production to private investors and up to 40% foreign ownership. At present (as of August 1992) PEMEX is by law the sole producer of only the following petrochemicals, considered basic petrochemicals:

Ethane
Propane
Butanes (incl. mixtures)
Pentanes
Naphtas
Hexane
Heptane
Carbon Black Feedstock

PEMEX's total installed capacity for the production of petrochemicals in its 104 processing plants was 19.0 million tons/year. The total production by PEMEX-Secondary Petrochemicals in 1992 was 13.7 milllion tons, 2.6% above 1991 levels. Of this total, 43.3% corresponded to secondary petrochemicals, mostly ammonia (2.7 million tons), ethilene (1.5 million tons), toluene (0.4 million tons) xylene mixtures (0.39 million tons) and benzene (0.35 million tons). The production of other petrochemicals was concentrated in carbon anhydride (3.6 million tons), dichlorethane (0.39 million tons), low density polyethylene (0.35 million tons), ethylene oxide (0.3 million tons) and acetaldehyde (0.27 million tons).

Production of basic petrochemicals (as defined at the date) increased 9.5% in 1990, to 17.6 million metric tons and another 2.3% in 1991 to reach 18 million tons. Of these, 20.7% corresponded to carbon anhydride, 19.7% to ethane, 15% to the production of ammonia and 7.6% to ethilene. Total exports of petrochemical products by PEMEX increased 113% in 1990 to $235.9 million and another 4.3% in 1991 to $246.2 million, while imports increased 323% to $91.9 million in 1990 and 14.4% in 1991 to $105.2 million.

The following table lists total petrochemical production by PEMEX in the past few years.

TABLE 10
PETROCHEMICAL PRODUCTION
(000 tons)

	1970	1980	1990	1991	1992
Acetaldehyde	17.0	47.6	190.5	267.7	274.9
Acrylonitryle	0	54.0	122.3	154.9	166.2
Ammonia	454.0	1,883.0	2,632.2	2,702.4	2,677.8
Benzene	77.0	79.0	319.8	337.9	352.8
Butadiene	0	17.0	20.6	10.6	31.2
Carbon anhydride	631.0	2,407.0	3,559.5	3,718.8	3,645.9
Cyclohexane	0.4	39.7	75.0	86.4	92.0
Dodecyl benzene	49.0	55.4	117.1	114.5	61.6
Ethane	106.0	632.0	3,247.3	3,553.6	3,592.3
Ethylene	60.0	366.0	1,369.8	1,364.7	1,481.7
Hexane	14.0	60.0	89.7	105.8	82.2
Methanol	19.0	173.6	210.5	213.3	200.1
Paraxylene	0	39.0	226.1	228.9	224.2
Polyethylene HD	0	67.0	175.7	212.8	220.1
Polyethylene LD	26.0	91.0	347.8	337.2	354.8
Propylene	46.0	137.0	362.7	364.8	344.0
Ortoxylene	14.0	16.1	75.3	62.7	67.3
Styrene	28.0	31.3	157.9	151.9	159.9
Tetramera	35.0	36.0	98.2	94.9	53.2
Toluene	89.0	125.0	367.8	402.0	400.0
Vinyl chloride	19.0	62.5	230.7	97.4	224.3
Carbon black				183.5	168.7
Dichlorethane				189.6	386.1
Heavy aromatics				123.6	126.1
Nitrogen				116.8	118.1
Oxygen				479.2	526.2
Pentane				571.3	785.2
Sulphur				754.1	775.2
Xylene mixtures				415.0	386.9
Other	246.6	804.8	3,592.2	1,169.8	1,227.9
TOTAL	**1,931.0**	**7,224.0**	**17,588.7**	**18,586.1**	**19,206.9**

Note: Other includes in 1970 and 1980 (in 1990-1992, some of these are listed):

Acetonitrile
Aromine 100
Carbon Black Feedstock
Carbon tertrachloride
Cianhydric acid
Clorhydric acid
Cumene
Dichlorethane
Ethylbenzene
Ethylene oxide
Glicoles
Heavy aromatics
Heptene
Hydrogen
Isopropane
Methyl Tertiary Butil Ether
Muriatic acid
Nitrogen
Oxygen
Perchlorethylene
Polyalkalids
Sulphate ammonia
Sulphur
Xylene mixtures

Source: Cuarto Informe de Gobierno, Anexo Estadístico, 1992
PEMEX - Memoria de Labores 1992

In 1992, PEMEX-Secondary Petrochemicals produced 13.7 million tons of petrochemicals, of which it sold 5.6 million tons domestically and 1.2 million tons abroad. During 1993, the production of PEMEX - Secondary Petrochemicals at its 60 plants within 10 petrochemical complexes is projected to be of 13.9 million tons, of which 6.2 million correspond to secondary inputs. Domestic sales are expected to reach 5.8 million tons and exports 1.1 million tons. The present production capacity of this subsidiary is of 13.5 million tons/year distributed as follows among its 10 centers:

Cosoleacaque	5.5 million tons/year
Cangrejera	3.0
Morelos	1.7
Pajaritos	1.4
Salamanca	0.7
Independencia	0.4
Escollin	0.3
Camargo	0.3
Tula	0.1
Reynosa	0.1

At present, PEMEX operates 19 petrochemical complexes, 106 processing plants are in operation, of which three started operating in 1991, and 40 complementary plants. The biggest of them is La Cangrejera (Veracruz), which now includes 22 petrochemical plants. This complex, with a 4.3 million ton/year capacity, ranks fourth in the world in size. PEMEX petrochemical complexes are:

CENTER	STATE	PLANTS	PRINCIPAL PRODUCTS	CAPACITY tons/year
Cactus	Chihuahua	11	ethane/sulphur	1,253.4
Cadereyta	Nuevo León	1	sulphur	26.0
Camargo	Chihuahua	1	ammonia	297.0
La Cangrejera	Veracruz	22	various	3,819.4
			various	252.9bd
			hydrogen	24.6mmcfd
Cosoleacaque	Veracruz	9	ammonia	5,530.2
Cd. Madero	Tamaulipas	5	butadiene/styrene/	158.3
Ciudad Pemex	Tabasco	3	sulphur/ethane	381.6
La Venta	Tabasco	2	ethane	218.0
Matapionche	Veracruz	2	sulphur	19.8
Minatitlán	Veracruz	9	various	504.2
Morelos	Veracruz	8	various	2,459.7
Nuevo Pemex	Tabasco	3	ethane/sulphur	1,015.8
Pajaritos	Veracruz	13	dichlorethane/other	1,275.3
Poza Rica	Veracruz	5	various	606.2
Reynosa	Tamaulipas	3	various	92.2
Salamanca	Guanajuato	5	ammonia/sulphur	747.0
Salina Cruz	Oaxaca	1	sulphur	26.0
SM Texmelucan	Puebla	6	various	392.9
Tula	Hidalgo	2	various	115.7
TOTAL				**18,978.5**

Source: PEMEX - Memoria de Labores 1991

During 1990, three petrochemical plants started operating: a high density polyethylene plant, a hydrocarbon fractioning plant and an acetaldeyde plant in the Morelos, Veracruz complex. In 1991, three new plants were put into operation: acrilonitrile and polypropelene in Morelos and etil-terbutil-ether in Pajaritos. Additionally, three plants were shut down in Azcapotzalco in 1991, as well as one plant in Salamanca. No new plants were out into operation in 1992.

Additionally, the existing refining centers produce petrochemicals with a total capacity of 829,000 tons/year, mostly of propylene, hydrogen, hexane and crabon black. This coupled with the capacity described above adds up to a total petrochemical production capacity of 19.8 million tons/day.

5.2.4. Transportation and Distribution

PEMEX has a wide network of 425 pipelines covering a total length of 60,453.1 kms. in 1992, as compared to 58,139 kms. in 1991. The longest lines are 28,651 kms. of collection and service pipes. Gas pipelines cover 12,582 kms., divided into two big arteries going from Ciudad Pemex (Tabasco) to Guadalajara (Jalisco), San Luis Potosí (SLP) and Lázaro Cárdenas, and to Mérida towards Yucatán; and from Chihuahua (Chihuahua) to Reynosa (Tamaulipas) and Ciudad Juárez, mostly to cover exports to the U.S. (see map). A wide network of 144 poli-ducts, covering 11,755 kms, carry refined products throughout the country in two main arteries: from Tabasco to Jalisco, Aguascalientes and Veracruz; and from Nuevo León to the U.S. border at Ciudad Juárez, Durango and Ciudad Madero. The 55 oil pipelines measure 5,649 kms. and basically link Salamanca (Gto.), Tabasco, Salina Cruz, Salamanca and Cadereyta. Additionally, there are 88 petrochemical pipelines of 1,569 kms. and 30 fuel oil pipelines of a total length of 247 kms. (see Maps)

TABLE 11
INSTITUTIONAL PIPELINE SYSTEM 1992
BY PEMEX SUBSIDIARY

	EXPLOR-&PROD		REFIN-ING		GAS & B.PET		PETRO-CHEMICALS		TOTAL	
	#	kms	#	kms	#	kms	#	kms	#	kms
Gas lines	11	588			97	11994			108	12582
Oil lines	29	1243	24	4394	2	11			55	5649
Poli-ducts	2	108	102	8568	40	3079			144	11755
Petrochemicals			4	342			84	1228	88	1570
Fuel oil lines			30	246					30	246
Collection & service lines		28651								28651
TOTAL	**42**	**30590**	**160**	**13550**	**139**	**15085**	**84**	**1228**	**425**	**60453**

Source: PEMEX - Memoria de Labores 1991

Gas pipelines were used in 1992 to supply the industrial, electric, domestic and PEMEX internal needs for gas of 2,431 million cfd. Oil pipelines transported a total of 1.34 million bd of oil in 1992, of which 97,500 bd were sent to Salina Cruz for export. Poli-ducts were used to transport 152,200 bd of liquefied gas (Cactus-Tula-Guadalajara), 49,000 bd of Nova gasoline (Minatitlán-Puebla) and 67,800 bd of distilled products (Tuxpan-Poza Rica-Mexico) and 2.5 million barrels of methyl-terbutil-ether (MTBE) to oxygenate gasoline sent to Mexico City to reduce the impact of auto emissions.

PEMEX has a tanker fleet of 35 ships, eight gas ships and 27 conventional tankers, with a total deadweight capacity of one million tons of six mb, in addition to 210 minor ships, such as tugboats, launches, barges, firefighting launches, a dredger and a hydrocarbon recovering boat. The construction year of the major ship fleet ranges from 1967 to 1989 with an average 15 years in service. In 1992, a total of 162 mb. of crude oil, gas, refined products and petrochemicals were transported by sea, 8% below the volume transported in 1991. Of this total, 72% were mobilized through PEMEX's own fleet and the remainder through rented vessels. Additionally, in support of crude and manufactured product exports, 506 mb were loaded unto buyer's vessels in the ports and buoys of PEMEX. PEMEX has 12 port installations in the Gulf of Mexico and nine on the Pacific Ocean, as well as 11 off-coast marine installations on the Gulf and 8 on the Pacific. The following table shows volumes transported by the national petroleum fleet in 1992.

TABLE 12

VOLUMES TRANSPORTED THROUGH THE PETROLEUM FLEET

PRODUCT	OWN (000B)	RENTED (000B)	TOTAL (000B)	TOTAL (000 tons)
Crude oil	11,347.3	6,355.3	17,702.7	2,481.5
Distilled prods.	51,302.4	24,358.7	75,661.1	8,153.1
Fuel-oil	36,657.8	11,132.1	47,789.9	5,149.8
Turbosine	1,966.6	2,728.6	4,695.2	586.2
LP gas	10,994.5		10,994.6	939.9
Ammonia	4,636.3		4,636.3	499.6
TOTAL 1992	**116,904.9**	**44,574.7**	**161,479.8**	**17,810.1**
TOTAL 1991	**123,749.3**	**51,750.7**	**175,500.0**	**23,506.3**

Source: PEMEX - Memoria de Labores 1992

For land transportation, PEMEX operated 5,082 tank trucks in 1992, compared to 5,465 in 1991, of which it owns 1,490 with a total freight capacity of 64,500 cubic meters, and rents 3,592 with a total capacity of 163,100 m^3. It also owns 870 rail tank cars with a 66,900 m^3 capacity. In 1992, it moved 19. 7 million tons of petroleum and petrochemical products over land, equivalent to 5.4 billion tons/kilometer, as compared to a total 17.2 million tons in 1991 and 20.3 million tons in 1990. Of the 1992 total, 18.2 million tons were transported by road and 1.5 by rail.

In 1991, a commercial change in policy came into effect changing the previous FOB destination to FOB filling station. This put most of PEMEX's rail cars out of service and brought about the signature of an agreement with Ferrocarriles Nacionales, the national state-owned rail company, for the sale of up to 458 of PEMEX's rail cars to Ferronales by February 1992. Additionally, another agreement was signed in 1991 between both companies to increase rail transportation by 44% in order to reduce costs to PEMEX and increase volume for Ferronales.

5.2.5 Research and Development

A very important organization in the Mexican oil industry is the Mexican Petroleum Institute (Instituto Mexicano del Petroleo IMP). Although Mexican industry in general lacks a broad-based product research and development tradition, in the petroleum area, it has a distinguished record. Almost all of the petroleum industry related research and development is carried out by the government owned IMP, established as a research, training and engineering consulting organization separate from PEMEX but with PEMEX as its principal client. The IMP employs close to 3,500 engineers and technicians who conduct most of PEMEX's projected engineering work. It is also free to hire local as well as foreign consultants to assist in project design and planning.

PEMEX also relies heavily on the IMP for technical advice and testing in Mexico before it buys products of new technologies or from new suppliers.

5.3 RECENT PEMEX ACTIVITIES

In May 1987, PEMEX initiated the construction of a major project partially financed by a Japanese Eximbank loan. This project, called the "Pacific Petroleum Project", consists of a series of interconnected installations to process and store crude, natural gas and petrochemicals for eventual shipment to the Far East. PEMEX expects this to strengthen its marketing position in the Pacific basin through integration, freight economies and increased physical capacity for transportation. The project includes four large construction works: an underground storage facility for crude and oil in 12 saline domes in Tuzandepetl, Veracruz, with a total capacity of 10 million barrels; a trans-isthmic, 265 kms long, 48" oil pipeline from Nueva Teapa to Salina Cruz; the second stage construction of the Salina Cruz refinery, which is expected to double refining capacity, and the improvement and increase of port infrastructure and gas liquification capacity; the construction of an ammonia complex in Lázaro Cárdenas, Michoacán with a 500,000 tons/year capacity. This project has received priority attention. Total projects in execution are 37 with a total cost of $1.5 billion. During 1991, important advances were made on the Pacific Petroleum Project, which comprises five subprojects with the following completion rate: refining 86.9%, storage 94%, trans-isthmus pipeline 98.3%, port infrastructure and saline domes 82.5%.

During 1990, the projects completed included one drilling platform, three well recuperation platforms, several pipe systems, the installation of five turbocompressors, the sulphur recuperation and sweetening plant in Matapionche, Veracruz, one high density polyethylene plant and one acetaldehido plant and a hydrogen compressor in the petrochemicals area, seven projects related to the pipe transportation system, three projects in the warehousing and distribution areas and several other projects related to marine transportation, infrastructure. pollution control, security, navigation, telecommunications, research, housing and hospitals. PEMEX also created a new company "Petroleos Mexicanos Internacional" (PMI) in charge of international marketing activities in 1990, in order to allow PEMEX to achieve better purchase and sales efficiency by taking advantage of trading and other opportunities open to an international oil firm.

During 1990, 1991 and 1992, PEMEX continued work begun on old projects and began several new projects, as a result of positive income flows. During 1991, 64 projects were completed for an estmated $1.3 billion, and work progressed in 383 projects in the areas of exploration, exploitation, refining, petrochemicals, transportation, distribution and administration, as well as in hospitals, housing and infrastructure, with an estimated cost of

$8.9 billion. Also, 54 new projects begun construction in 1991, valued at $684 million. In 1990, 63 projects were completed for a total investment of one billion dollars, and the 430 projects in the execution phase were valued at $7.9 billion and 56 new projects were undertaken for an estimated investment of $770 million. Of total disbursements of $588 million in 1990, 55% were channeled to construction, 36% to purchases of equipment and materials, 5% to project engineering and 4% to administrative expenses. In 1991, total expenses on projects were $876 million, of which 60% were for construction, 31.9% for the purchase of equipment and materials, 3.5% for project engineering and 4.6% for administrative expenses. A total of 378 bids were opened for project construction, of which 249 were assigned, 141 to the fields and 108 to the center for a total $175.5 million.

In 1992, the total budget for new projects reached $741 million, of which 58.9% corresponded to construction, 30.7% to the purchase of equipment and materials, 5.4% to project engineering and 5% to administrative expenses. A total of 318 projects were undertaken in the areas of exploration, exploitation, refining, petrochemicals, transportation and distribution, as well as in housing, hospitals, administration and infrastructure. A total of 44 projects were finished with a total investment of $532.9 million, 23 new projects were started with an investment cost of $346.4 million, and projects in execution have an estimated cost of $8.1 billion.

The following table shows projects completed, in progress and begun in 1991 by area.

TABLE 13
PROJECTS AND CONSTRUCTION 1992
(million U.S. dollars)

	FINISHED		IN PROGRESS		BEGUN	
	NBR.	COST	NBR.	COST	NBR.	COST
PRIMARY PRODUCTION						
Exploitation	15	290.7	80	2,176.3	15	275.5
Pipe system	2	15.2	13	294.1		
Complementary industrial proj.	1	60.7	2	156.4		
General proj.			5	25.7		
Administration & social services	2	13.0	7	81.6		
SUBTOTAL	**20**	**379.6**	**107**	**2,734.1**	**15**	**275.5**

	FINISHED		IN PROGRESS		BEGUN	
	NBR.	COST	NBR.	COST	NBR.	COST
INDUSTRIAL TRANSFORMATION						
Refining	1	38.9	29	1,244.3		
Petrochemicals			2	36.2		
Pipe system	1	1.7	4	27.0		
Storage & distribution	1	10.8	2	16.8		
Complementary industrial proj.	1	10.1	18	768.0	1	2.8
General projects			1	9.9		
SUBTOTAL	**4**	**61.5**	**56**	**2,102.2**	**1**	**2.8**
PETROCHEMICALS						
Recovery & conditioning			3	168.7		
Petrochemicals	1	7.9	14	641.2	1	7.7
Pipe systems			6	69.8	2	8.7
Storage & distribution			15	233.9		
Complementary industrial proj.	3	20.5	25	846.3		
General projects			13	118.9	1	0.8
Administration & social services	1	2.7	3	17.1		
SUBTOTAL	**5**	**31.1**	**79**	**2,095.9**	**4**	**17.2**
COMMERCIAL						
Pipe systems	1	1.3	12	264.1	2	32.0
Storage & distribution			16	308.9	1	18.9
Complementary industrial proj.			15	415.3		
General projects			2	8.3		
SUBTOTAL	**1**	**1.3**	**45**	**996.6**	**3**	**50.9**
ADMINISTRATION						
Complementary industrial proj.	1	4.8	1	0.4		
General projects	6	21.2	11	46.3		
Administration & social services	7	33.4	10	64.6		
SUBTOTAL	**14**	**59.4**	**22**	**111.3**		
OTHER PROJECTS & CONSTRUCTION						
General projects			8	75.5		
SUBTOTAL			**8**	**75.5**		
FINANCE						
Administration & social services			1	0.1		
SUBTOTAL			**1**	**0.1**		
GRAND TOTAL 1992	**44**	**532.9**	**318**	**8,115.7**	**23**	**346.4**
GRAND TOTAL 1991	**64**	**1,328.1**	**383**	**9,525.5**	**54**	**684.4**

Source: PEMEX - Memoria de Labores 1991 and 1992

In the area of exploitation systems and installations, 22 projects were completed in 1991, including three drilling platforms, one structure to recover the Taratunich well, three oil pipelines of a 20", 36" and 24" diameter. Eight oil and gas pipelines, five of 24" and three of 20", as well as three marine gas pipelines, one of 24" and two of 20". The gas dehydration capacity was increased in the Akal-C compression platform, the flow by-pass system in Cayo Arcas, the bridges, pipes and raisers of Abkatún-N, both in the Campeche marine zone were automatized, and two gas pipelines of 36" and 20" were built between separation batteries. In 1992, 15 projects were finished, mostly in the Campeche Marine zone: the Abkatún treatment and pumping platform, the Zaap-C and the Kix-2 drilling platforms. A 36" oil and gas pipeline of 14 kms, an 8" x 9 kms. combustion gas pipe, a 10" x 25 kms. oil gas pipe, a 36" x 3.5 kms. oil gas pipeline and an 8" x 15 kms. combustion gas pipeline were finished.

In the hydrocarbon recovery and conditioning plants and installations two plants were completed in 1991, one the number 3 hydrocarbon sweetening and stabilizing plant with a 24,000 BD capacity in Nuevo PEMEX, Tabasco; and a 30,000 BD propane-butane drying and sweetening plant in la Cangrejera, Veracruz.

In the refinery area, in 1991 five processing plants were completed in Salina Cruz, Oaxaca: the Nbr. 2 hydrocarbon treatment and fractioning plant of a 267,000 m3 gas and 11,000 BD condensate capacity, the Nbrs. 3 and 4 intermediate distilled products hydrodesulfurizing plants with a 25,000 BD capacity each, the Nbr. 2, 36,000 BD naphtha hydrodesulfurizing and the Nbr. 2, 30,000 BD, naphtha reforming plant. In 1992, two plants were relocated in Salamanca and are now operating: the 60 tbd "AA" atmospheric distillation plant and the 48 tbd "A1" vacuum distillation plant (previously in Azcapotzalco).

Petrochemical plants and installations completed in 1991 included four projects: the 50,000 tons/year acrylonytrile plants and the 100,000 tons/year polypropelene plant in the Morelos petrochemical complex; the integration of the La Cangrejera, Veracruz complex; and the integration of the second stage plants at Nuevo PEMEX, Tabasco. In 1992, an oxichlorination reactor and a washing tower for chlorine derivatives were finished in the Pajaritos petrochemical complex.

Two projects were completed in the pipeline transportation system in 1991: the replacement of 13.4 kms. of the 30" Nuevo Teapa-Poza Rica oil pipeline; and the new pumping station at Ciudad Mendoza, Veracruz for the 30" Nuevo Teapa-Venta de Carpio. In 1992, four projects were finished in the pipeline transportation system: The Pajaritos-Minatitlán 12"x3kms polyduct and its connection to the Minatitlán-Mexico line, the automation and the supervising stations of four pipelines, the circumvention of the Veracruz 48" gas pipeline, and the change of an 8" polyduct to a 12" one in the 28 kms. Tula-Tepetitlán stretch.

Three storage and distribution projects were completed in 1991: the 165,000 B expansion of the Culiacán, Sinaloa storage installations; the relocation of the Zamora, Michoacán distilled products' storage and distribution plant; and the liquid gas booth and the tubing distribution to concessionaries in San Juan Ixhuatepec, Mexico. In 1993, two storage and distribution projects were finished, a pumping house and the integration of pipelines in Tula.

Thirteen complementary industrial projects were finished in 1991: the tank and boiler yard in Cadereyta, Nuevo León; the non-smoke burner construction and rehabilitation in Pajaritos, Veracruz; the water and discharge treatment systems in Ciudad PEMEX and La Venta Tabasco. In 1993, six complementary industrial projects were completed: the Abkatún service and control platform, the water pretreatment train in Cosoleacaque, an increase in water pumping capacity of the Cosoleacaque cooling towers, the increase in capacity of the Mexico City airport terminal, and six storage tanks in Salamanca.

General projects completed in 1991 included the construction of roads, a warehouse, a firefighting central and an analysis laboratory. In 1992, six general projects were finished, including a road, buildings, telecommunications and port facilities.

Administrative and social projects included the construction of a hospital wing, two homes, doctor's offices, living platforms, a reseach unit, a security system and electrical substations in 1991, and in 1992, the construction of buildings for housing, offices, medical attention and childcare.

During 1992, the Pacific Petroleum Project was practically finished, with advances of 97.1% in refining, 99.6% in storage, 99.4% in the trans-isthmus oil pipeline, 89.9% in port infrastructure and saline domes.

As of 1992, projects in the execution phase totalled 318 with a total estimated cost of $8.1 billion. These are described in the table above. Of the total investment in 1991, 33.4% corresponded to the Southeast zone, 29.8% to the South zone, 14.4% to the Center zone, 14.3% to the Pacific Project, considered part of the South zone, and 8.1% to the North zone. In 1992, 29.9% corresponded to the Southeast zone, 45.3% to the South zone, 14.6% to the center zone and 10.1% to the North zone. Of the total 54 projects begun in 1991 with a total cost of $684 million, 50.4% were located in the Southeast zone, 22.8% in the Center zone, 14.7% in the pacific Project, 7.5% in the South zone and 4.6% in the North zone. Of the 23 projects begun in 1992 with a $346.4 million total cost, 79.5% were located in the Southeast zone, 14.0% in the Center zone, 5.5% in the South zone and 1% in the North zone.

The 1992 budget was divided into the following major projects (data in U.S. $millions), which will continue to be the ones to

be developed throughout 1997. (Basically, operational projects and other capital expenditures remain constant throughout the 1993-1997 period, and the remainder is channeled towards strategic projects as described below).

EXPLORATION AND PRODUCTION	**1992 BUDGET**	
Strategic Programs	**1,117.5**	(will account for
Oil and gas potential evaluation	172.3	most of investment)
Incorporation of reserves	314.8	
Fields development	630.4	
Operational Projects	**417.0**	
Exploitation & maintenance	386.4	
Infrastructure	30.6	
Operation Management		
Safety and ecology		
Other projects	67.1	
TOTAL	**1,601.6**	

REFINING		
Strategic Projects	**495.2**	(will account for
Tula II refinery	139.6	most of investment)
Salina Cruz refinery	74.4	
Cadereyta refinery	14.6	
Ecological Package project	115.7	
Lube oil cap. increase Salamanca	0.6	
Capacity increase Salamanca	28.9	
Capacity increase Salina Cruz		
First battery in a new refinery		
New process plants other refineries		
Pipe lines	73.3	
Seaport infrastructure	6.3	
Storage tanks/sales ag. relocation	40.2	
Salina Cruz crude oil supply	1.7	
Operational projects	**221.2**	
Other capital expenditures	**174.7**	
TOTAL	**1,601.6**	

GAS AND BASIC PETROCHEMICALS		
Strategic projects	**28.1**	
Integral modernization for gas production/process/distribution	14.4	(accounts for 50% of 1994-1996 budget)
Integration of gas production Papaloapan basin	8.0	(accounts for 15% of 1994-1996 budget)
Salina Cruz enlargement	5.7	
Operational projects	**30.1**	
Other capital expenditures	**27.9**	
TOTAL	**86.1**	

PETROCHEMICALS		
Morelos petrochemical complex	46.0	(finished in 1992)
Operational projects	44.4	
Other capital expenditures	51.1	
TOTAL	**141.5**	

5.4 PROJECTED ACTIVITIES

The general objectives set for PEMEX in the years to come are to increase efficiency and productivity, promote energy savings satisfy internal demand for petroleum products, increase exports, foster private investment in selected infrastructure projects, improve the quality of its products, fight pollution, increase safety and contribute to strengthening Mexico's public finances.

Projections on future energy needs in Mexico place average annual growth rate at 5% based on a per capita energy consumption estimated at a 10.6 barrels of crude equivalent for 1992. The following table shows the estimated demand for refined products and their growth rate during this administration.

TABLE 14
FUTURE DEMAND FOR REFINED PRODUCTS
(000 barrels a day BD / %)

	1989-1994 GROWTH	1992-1994 GROWTH	1988 000 BD	1994 000 BD
L.P. Gas	3.8-4.4	4.2-4.5	180	225- 233
Gasolines	5.7-6.5	4.8-5.5	361	503- 528
Diesel	3.6-4.2	4.5-5.0	184	228- 236
Fuel oil	5.4-6.2	4.2-4.9	398	545- 572
Other	3.2-3.5	3.2-3.5	83	100- 102
TOTAL	**4.8-5.6**	**4.4-4.9**	**1,206**	**1,601-1,671**

Source: Programa Nacional de Modernización Energética

In the long run (1995-2010), total energy demand is expected to continue growing at an average 4.1-4.7% rate, although electricity is expected to grow at a higher rate than refined products. Their consumption is expected to grow 1.5 fold in the 1989-2010 period.

During the 1990-1994 period, PEMEX estimates it will have invested $20 billion. Much of this will be spent on off-shore projects, largely operating in the Campeche marine zone, out of the Ciudad del Carmen office. Other areas of priority investment are development drilling; exploration drilling in areas with the greatest potential; refineries, particularly those that are already in the construction phase (although a new refinery project to be financed by private sources is being established); and petrochemical plants. Financing is expected to come prioritarily from PEMEX's own income, both domestic and foreign credit mechanisms, and through increased private investments through contractors and turn-key projects.

The following table shows capital expenditure requirements projected by PEMEX for the 1993-1997 period. The overall emphasis is a high concentration on exploration and production, the full

continuity of ongoing investment programs, and a mid-term capacity planning framework.

TABLE 15
PEMEX CAPITAL EXPENDITURE REQUIREMENTS
1993-1997
(U.S. $million)

	1992	1993	1994	1995	1996	1997	TOTAL
Exploration & production	1601.6	1609.9	1851.4	2129.2	2448.5	2815.8	10854.9
Refining	891.1	778.8	1583.0	1558.5	1239.7	821.2	5981.2
Gas & basic petrochemicals	86.1	131.0	215.8	195.1	201.8	63.5	807.2
Petrochemicals	141.5	78.6	78.6	78.6	78.6	78.6	393.0
Corporate	151.3	176.3	78.0	57.6	55.1	61.8	428.8
TOTAL	**2871.6**	**2774.6**	**3806.8**	**4019.0**	**4023.7**	**3840.9**	**18465.1**

Source: PEMEX

The most important projects contemplated for the years to come will continue to be in exploration and production, evaluating oil and gas potential, incorporating reserves, field development (mostly of oil fields), exploitation and maintenance of existing wells with a strong emphasis on the Marine zone, and infrastructure projects. In the area of refining, working on projects in the refineries of Tula II, Salina Cruz and Cadereyta, developing the "Ecological Project", modernizing existing processes, and eventually building a new refinery. In gas and basic petrochemicals, the most important project is the integral modernization of gas production processes and distribution and, to a lesser degree, the integration of gas production in the Papaloapan basin. No major projects are presently identified in the area of petrochemicals, and they are basically limited to upgrading existing facilities to reduce risks and improve technology, modernization programs through distributed control, finishing existing projects and the "Ecological Project". On the other hand, much investment will be made in this field by private investors.

Financing of these projects is basically from non-budgetary funds. PEMEX has had good access to foreign loans through institutions such as the Eximbank (Japan and U.S.) and Canada's Export Development Corporation. Often financing is specifically tied to a particular project, as is the case with the "Ecological Package" financed by Eximbank Japan. PEMEX also has lines of credit established with major world banks, as well as preferential credits from several institutions worldwide to finance purchases of equipment, plants or projects. Finally, PEMEX has funded itself through international capital markets through bonds and other titles. Additionally, PEMEX has been opening to the possibility of allowing private investors and

contractors to execute various projects with a series of leasing, mechanisms or contracts giving PEMEX the ownership of the product and all aspects deemed to be strategic and non-transferable. One of these is the so called "key in hand".

In 1992, PEMEX announced that it would continue to work on the 437 projects presently under construction, of which 54 were started in 1991, in the following areas: exploration, well maintenance, refining, petrochemicals, transportation, distribution and administration. The total cost of these projects is valued at $10.2 billion and is mostly concentrated in petrochemicals (32%), industrial transformation (11%) and primary production (30.9%) areas. Pollution control has also received much attention and the $1 billion "Ecological Package" project is underway to produce diesel and fuel oil with low sulphur levels, as well as gasoline of a similar ecological quality as that sold in developed countries. This program will consist of 20 projects integrated into eight groups. Other specific projects to be developed in future years are the expansion of the Cadereyta Refinery, the LP gas production and distribution process model and a major telecommunications development program.

During 1993, PEMEX announced it will consolidate the company's new organizational structure, the decentralization of its funcions and the definition of responsabilities. Much emphasis will be placed on exploration and production to maintain the present levels of proven reserves through the discovery of new fields to compensate for extraction. Investment programs will have the objective of adequately supplying the local market and maintaining export levels at 1,300 bd.

The 1993 budget for PEMEX - Exploration & Production was set at $2.45 billion, of which 63% will be used for investment projects, in particular for exploration and the evaluation of crude potential, while the remaining 37% will be used for operational and maintenance programs. Activities will be centered in the Campeche marine zone, in the southeastern fields of Ocosingo and Simojovel, and in the northern Burgos field. Also it will develop the non associated gas fields of Emu and Mercedes in the North and Bellota and Chinchorro in the South.

The 1993 budget of PEMEX - Gas & Basic Petrochemicals was set at $377 million for seven basic programs related to security, ecology, energy savings, increases in supply and efficient national distribution. Of the total budget, 63.8% will be used for operational expenses and 36.2% for investment projects. Important projects to be developed in 1993 are to increase the transportation capacity to guarantee the supply at the terminals, to finish the Minantitlán-Salina Cruz pipeline, to build a storage terminal in Ciudad Juárez, installing new high efficiency criogenic and sweetening plants, to purchase new equipments to substitute old ones.

The budget of PEMEX -Secondary Petrochemicals for 1993 was $586 million, 28.7% of which will be for investment programs in the

areas of security, ecology, energy savings, production increase and infrastructure development. Its strategy is to efficiently integrate its productive processes with those of the national petrochemical industry, by establishing chains of the raw materials that are more profitable and have structural advantages, in order to be more competitive and to be a stable supplier of petrochemicals. Investment projects for 1993 include the termination of a propylene plant in the Morelos complex with a 350,000 tons/year capacity; a 500,000 ton/year methil-terbutil-ether (MTBE) plant in the engineering process, the construction of which will soon begin; the construction of a 500,000 tons MTV production plant with a $300 million investment through the Protexa consortium formed by two Mexican firms, one American and one Spanish firm; the manufacture of biodegradable detergents in Mexico; it is negotiating a project for the manufacture of normal paraffin and lineal alquilbenzene for the production of biodegradable detergents in conjunction with a U.S. company; the study of a plant complex in conjunction with the private sector to develop the ethylene chain with a $1 million investment. PEMEX - Secondary Petrochemicals is evaluating the possibility of privatizing, signing joint venture agreements and/or closing several of its 60 plants, retaining only those in which it has structural advantages in order to be more efficient and competitive. This process is to be finished during 1993. Also, it is installing distributed control systems in many of its plants to improve efficiency.

On July 19, 1991, PEMEX signed a $500 million line of credit agreement with the Canadian Export Development Corporation to purchase Canadian capital goods and services, valid through 1994. Eligible for this credit are Canadian exporters satisfying EDC technical and financial standards and exported goods should have an optimized Canadian content. The minimum contract is of one million dollars, but Canadians should consult with their closest E.D.C. office regarding the line of credit and other helpful programs.

6. PROCUREMENT AT PEMEX

The legal framework covering procurement at all public agencies of the Mexican Government, and in particular at PEMEX, comprise:

- Article 134 of the Constitution of the United Mexican States,
- The Law of Public Works (December 30, 1980),
- The Regulations to the Law of Public Works (February 13, 1985),
- The Law for Procurement, Leasing and Services Related to Movable Goods (February 8, 1985),
- The regulations to the Law for Procurement, Leasing and Services Related to Movable Goods (February 13, 1990).

All purchases by government agencies are subject to this regulatory framework. For a detailed guide to Mexico's government procurement policies, please consult the "Government Procurement

in Mexico" publication, also available from External Affairs - International Trade Canada.

The **Law of Public Works** and its associated regulations govern the expenses and actions relative to planning, programming, budgeting, execution, maintenance, demolition and control of all public works. According to this law, the public entity prepares the public work program in accordance with national policies, priorities and objectives and the budget. The entity can then further contract the necessary professional services (research, consulting, projects and other studies). All public work contracts are to be assigned or executed by public tenders (Art. 30) to assure the best conditions in price, quality, financing, timing and other circumstances. Public tenders are to be published in one of the large circulation newspapers in the country and at least in one of the internal bulletins of the entity in question (Art. 31).

In certain cases, the entity can directly contract the public works without a public tender (Art.33). This would include cases of national security, integrity and sovereignty, emergency situations (economic, social, safety, environmental), when a contract is rescinded, when there is need for advanced technology, when the project cannot be duly specified or when the works require rural or marginal urban labor to be contracted directly at the execution site (Art. 55 and 56). When, due to the cost of the project, a public tender is not practical, the entity will also be able to directly contract the public work (Art. 57). The maximum value of the works that can be contracted directly is published annually in the Expense Budget of the Federation and of the Department of the Federal District. When the work to be executed surpasses the maximum amounts defined above for direct purchases but does not exceed a second cast ceiling, the contract can be awarded through a notice given to at least three persons with the necessary capacity in terms of response, technical and financial resources. During 1993, PEMEX is allowed to contract directly works of up to Mex N$123,000 ($40,660) and through notice to three suppliers works of up to Mex N$1,100,000 ($363,636).

The **Law for Procurement, Leasing and Services Related to Movable Goods** and the associated Regulations govern all planning, programming, budgeting and control related to the purchase or lease of equipment, furniture and other supplies and services related to these, both of national and foreign origin. The purchasing entity plans and generates its buying programs in accordance with overall national policies, specific objectives, availability and in coordination with related projects, using preferably domestic materials, equipment, systems, goods, services and technology (Art. 13). There are two types of public tenders: national and international. In the case of national public tenders, only local suppliers can participate and the goods have to have at least 50% Mexican content including labor costs. International public tenders are open to suppliers established both locally and abroad and the goods can be of

national or foreign origin with no national contents requirement (Reg. Art. 15). Foreign suppliers are invited to bid on international tenders only when price, quality, quantity, delivery period, service, guarantee and similar terms are convenient to the agency (Reg. Art. 6).

The purchasing agencies require a previous authorization from the Secretariat of Commerce and Industrial Development (SECOFI) for the purchase of foreign goods, unless they are not produced in the country or the domestic supply is insufficient (Art. 30), also when there is an unexplainable price differential with national goods.

All purchases, leasings and services are to be assigned by public tender, unless the contract can only be assigned to one particular person holding patents to the necessary goods and services (Art. 26). Public tenders are to be circulated in three ways. They will be published in one of the large circulation newspapers in the country and at least in one of the dailies of the entity in question (Art. 27). At present, this means usually "El Nacional", and two of the following: Excelsior, Novedades and Universal. Secondly, invitations may be sent directly to registered potential suppliers. Thirdly, tenders are normally posted at the information board at the government entity's procurement branches. In the case of national tenders, these are also published at the Manufacturing Industry Chamber (CANACINTRA) offices in Mexico City, Guadalajara and Monterrey, while international public tenders are sent to Embassies of countries considered a likely source of suppliers. The bid opening act or ceremony can be no sooner then 10 days after the public anouncement of the bid in the case of line goods and 20 days in the case of manufacturing per design (Reg. Art. 14). Bids are delivered and officially opened at this bid opening act. The competition results may be announced either at this point, at a later event, posted at the bulletin board of the agency or sent directly to the winner (Reg. Arts. 19-22) The public tender contracts are assigned based on the legal, technical and economic conditions required by the contracting agency from the contractor and, these being acceptable from various bids, based on the lowest price, no longer than 30 days after the bid opening act (Art. 34).

As under the Law for Public Works, in certain cases, the entity can directly purchase or lease goods or sevices without a public tender, based criteria of economy, efficiency, fairness and honesty criteria assuring the best conditions for the State (Art.35). Again, this is the case of purchases directly authorized by the Presidency based on national security and sovereignty considerations (Art. 36), purchases of perishable goods, basic or semi-processed foods, of used goods priced below a professional valuation, in an emergency (economic, social, safety, environmental), when there are not at least three possible suppliers, when the services cannot be duly specified (maintenance, restoration and repair), when a contract is rescinded, when purchases are not made through common commercial

channels, or when the purchases or services are contracted from peasants or marginal urban groups (Art. 37). In the case of purchases of goods that will later be resold or processed, the entity has to apply critera to obtain the best conditions for the State (Art. 38).

In addition, as mentioned above, when, due to amount of the purchase, a public tender is not practical, the entity will be able to directly purchase or contract the goods or services. The maximum value of the purchases that can be contracted directly is published annually in the Expense Budget of the Federation and of the Department of the Federal District. In case the purchases surpass the maximum amounts defined above but do not exceed the limits established through the same channel, the contract can be awarded through a notice given to at least three suppliers capable of giving an immediate response (Art. 39). These limits are defined based on the individual purchasing, leasing and service amounts and the overall investment authorized to the agencies. In the case of PEMEX, which has an investment budget surpassing one billion new pesos (roughly $330 million) during 1993, the maximum amount of purchases which can be made directly is Mex N$15,000 ($4,960) and the maximum amount for operations that can be assigned with a notice to at least three suppliers is Mex N$765,000 ($25,290).

Although since 1991 the Mexican legal requirement for a national government contractors or suppliers register was abolished, PEMEX maintains its own register of suppliers and it is necessary to be registed on that to be able to enter one of its public tenders.

The requirements foreign suppliers need to meet in order to register themselves in PEMEX's suppliers catalogue are:

- To fill out the application form (a copy is provided as Appendix III);
- To provide to PEMEX a virgin 5 1/4 double density diskette on which will be copied PEMEX's materials catalogue in order for ther company to identify and fill out on the application form the type of product offered and its code;
- A certificate of incorporation or a notarized letter from the Mexican Embassy or Consul in the country of origin in order to prove the existence of the company;
- A notarized letter by the Mexican Consul recognizing who is empowered to act as representative of the company before PEMEX;
- Last audited financial statements.

In the case of representatives or subsidiaries of foreign companies incorporated in Mexico, the following Mexican documents are also needed:

- Constituting certificate, principals and the last changes to the public commercial registry;
- Federal fiscal registration number (certificate and format);
- Last annual and partial income tax statement;

- Registration and proof of last payment with the appropriate professional or industrial chamber.

In the case of Mexican individuals acting as agents, two documents are needed:

- Federal fiscal registration number (certificate and format);
- Last income tax statement.

In order to obtain the registration card, a photograph and identification are needed.

All of these documents have to be delivered in original with a legible copy to the:
Supplier Attention Department
PEMEX
Marina Nacional 329, bldg. B-2, 9th floor
Mexico City
Tel. 531-6217
250-2611 ext. 245-57

PEMEX then evaluates the supplier in advance of any specific bids to guarantee the company's capacity and the soundness and reliability of its products and services. This allows PEMEX to eliminate the need for permanent inspections and separate evaluations for separate bid competitions. PEMEX follows the following standards:

Product norms:	ANSI 45.2	18 criteria
	CANADIAN	4 levels
Quality norms:	API - Q1	19 criteria
	ISO 9000	4 levels
	NOM-CC-I-A-CC-8	(Mexican equivalent)

Other standards used by PEMEX and their foreign equivalents (which will soon gain automatic acceptance) are:

NATIONAL	**FOREIGN**
NOM - CC - 1	ISO - 8402
NOM - CC - 2	ISO - 9000
NOM - CC - 3	ISO - 9001
NOM - CC - 4	ISO - 9002
NOM - CC - 5	ISO - 9003
NOM - CC - 6	ISO - 9004
NOM - CC - 7	ANSI/ASQC Q1
	ANSI/ASME NQA1
	ANSI/ASME N45.2.12
NOM - CC - 8	ANSI/ASME N45.2.23
	CAN 3 Q395

The evaluation is carried out by teams of PEMEX technical experts and specialists who design the annual evaluation program. Normally, a general information meeting is held with each of the companies before the evaluation itself. The evaluation is based on the above standards, any more detailed standards for the

specific product, a questionnaire based on PEMEX's requirements for the product, the internal processes and the size of the company. The compliance with existing norms, the questionnaire score and the scores from any previous evaluations, give the final results of the evaluation. Between 1988 and 1991, 400 suppliers were evaluated, of which only 10% were placed in the "reliable" category. During 1992, 500 evaluations were to be made, 150 new ones and 350 following up on previous evaluations.

The procurement process itself begins with the specific needs of one of the production centers, which are channeled through the technicians and the purchasing department at the district levels (superintendents), regional level (regional manager or deputy manager) and central level in Mexico City (deputy manager, manager, subdirector) in order to determine which of the three types of bids will be used to award the contract: a direct purchase, which usually is made through invitation to a few known suppliers, a three supplier notice or a public tender, both national or international (see above). The basis for the tender is established, the tender is published or the potential suppliers are invited, the necessary clarifications are made, the bid is executed and awarded. The manufacturing process or the product is inspected for compliance, the product is delivered and invoiced.

Purchases are now made at four levels: the district level, the regional level, the central level (Mexico City) and the offices in Houston for some international purchases. After a recent hiatus, much of PEMEX's foreign purchases, or approximately 40% of foreign exchange transactions, are increasingly to be made through its purchasing office in Houston. This office will be an autonomous subsidiary that will service the five PEMEX companies. It is headed by Mr. Ramón Guerrero Esquivel and located at

Petroleos Mexicanos - Houston Purchasing Office
3600 South Gessner, Suite 100
Houston TX. 77065
Telex 791397
Fax (713) 978-6298
Phone (713) 978-7996 978-5997
978-6269

Purchases from Mexico City can be through national and international tenders and have no limits besides those defined in the Purchasing Regulations described above. As in other decentralized agencies, regional offices are being given more authority for purchasing decisions. They are of course subject to the same legal framework described above for overall purchases. However, the limits on regional purchases are up to Mex N$2.5 million (roughly $800,000) for national goods and Mex N$500,000 (roughly $150,000) for foreign goods, while the district offices can purchase up to Mex N$120,000 (some $36,000) of national goods but have no authority to purchase foreign goods.

In PEMEX Exploration and Production, the largest regional buyers are:

REGION	LOCATION	DISTRICT	OPERATIONAL SECTOR
Marine	Cd del Carmen	Cd. del Carmen Dos Bocas	
South	Villahermosa	Agua Dulce Reforma Cárdenas Comalcalco Ocosingo Ciudad PEMEX	Nanchital / El Plan
North	Poza Rica	Poza Rica Reynosa Altamira Veracruz	Cerro Azul / Naranjos

The regional offices of PEMEX-Refining are located where the large refining centers are:

Cadereyta
Madero
Minatitlán
Salamanca
Salina Cruz
Tula

In the case of PEMEX-Gas & Basic Petrochemicals, purchases are still centralized and very little is sourced at the regional level.

In the case of PEMEX-Secondary Petrochemicals, a committee is being created to analyze regional purchasing, problems, make recommendations, supervise proceedings and legal matters, etc. This committee will include executives from PEMEX-Central, PEMEX-Secondary Petrochemicals Mexico City headquarters and regional offices. Purchases made by headquarters will be limited to product families that are easier or cheaper to source as a whole and that are usually used by all plants, to restricted goods for which special permits are necessary and to complex state-of-the-art technology. All other purchases (some 80% of total) will be made at the regional level. As is the case with refining, the regional centers are located where the large petrochemical complexes are:

South	Cosoleacaque Cangrejera Pajaritos Morelos

Center/ North	San Martín
	Salamanca
	Camargo
	Tula
	Escolín

7. MARKET ACCESS

According to PEMEX officials, a company wishing to sell to the Mexican petroleum industry should first establish if there is a market for its goods or services by discussions with PEMEX and/or private companies and through trade shows. Since it is unlikely a company will have success selling to PEMEX from Laredo, decisions should be taken on whether to use an agent, or enter into a joint venture or licensing agreement with a Mexican company. Mexico's market is highly competitive and companies which maintain an active presence in the market and establish a good track record by virtue of product performance, competitive price, service and strong technical support will do well. After-sales service is also a crucial factor in purchasing policy.

PEMEX is still undergoing many structural changes. Old departments and divisions are being reorganized, although the top three levels of executives have basically been decided (see Appendix II). This has slowed the marketing efforts of many established as well as newly arrived suppliers to PEMEX. As the reorganization settles into place, this process should become simpler.

Nevertheless, in order to promote their products with PEMEX, Canadian manufacturers need to be much more persistent now and for the future. Actions of successful companies include:

- participating in trade shows to establish contacts with the buyers and/or to find a representative or agent.
- establishing a Mexican representative for sales, promotion, direct visits to PEMEX, obtaining information on bids and purchasing needs, participation in bids, etc.;
- having a good technical staff located in Mexico for service and technical support;
- visiting the regional centers and the plants and complexes to promote their products directly with the technicians at the production level. It is very important to create the need for a specific product at this level and to continuously promote it through calls, visits, brochures and demonstrations (data on regional offices is contained in Appendix II). Often foreign suppliers offer certain services free of charge to introduce their products;
- visiting the central purchasing directors at PEMEX in Mexico City, as well as executives at the Houston office to promote their products (data in Appendix II);
- registering with both the Houston and Mexico offices;

PEMEX generally buys on an open account system, usually making payments 30 days after the invoice date when dealing through the

Houston office. Occasionally, PEMEX pays suppliers with letters of credit.

Since Mexico's accession to GATT, the Mexican government has gradually opened the economy to international markets. Tariffs have been lowered from a maximum 100% in 1983, to 20% since December, 1988. The official price system has been totally eliminated and import permits are required on only 198 of the total 11,812 items in the Mexican Harmonized Tariff System.

The import climate for oil and gas field equipment has improved significantly as a result of this commercial liberalization. Therefore, imports of equipment for this industry are subject to an ad valorem duty of maximum 20% assessed on the invoice value. In addition, a customs processing fee of 0.8% is assessed on the invoice value. A 10% value added tax (recently reduced from 15%) is then assessed on the cumulative value of both taxes in addition to the invoice value. Some manufacturers who use imported inputs for their products under a Mexican Government approved manufacturing plan may have the duty and/or VAT waived or rebated. Raw materials, intermediates and machinery for use in manufacturing or assembling products for export are generally eligible to be imported either duty free or under bond.

International tenders financed by the World Bank or the International Development Bank are open to all member countries of these institutions. More recently, the World Bank, where its credits are involved, has required that bid documents should also include an affidavit confirming that the Canadian company is a bona fide Canadian company with an official residence in Canada and that Canada is recognized as a contributing member to the World Bank.

There are no official metric requirements applicable to imports into Mexico. However, since the metric system of units is, by law, the official standard of weights and measures in Mexico, importers will usually require metric labeling for packaged goods, although the English system is also used. Dual labeling is acceptable. Imported products should be labeled in Spanish containing the following information: name of the product, trade name and address of the manufacturer, net contents, serial number of equipment, date of manufacture, electrical specifications, precautionary information on dangerous products, instructions for use, handling and/or product conservation and mandatory standards. Mexico adheres to the International System of Units (SI). Electric power is 60 cycles with normal voltage being 110, 220 and 400. Three phase and single phase 230 volt current is also available.

Prepared by:
Caroline Verut
for the Canadian Embassy
Mexico City
March 1993

Note: To call all telephone and fax numbers listed below from Canada, unless they are preceded by a different area code, dial 011-525 first, otherwise dial 011-52-(area) number.
The information on companies not located in Mexico City was not confirmed.

APPENDIX I
INDUSTRIAL CHAMBERS AND ASSOCIATIONS

ASOCIACION MEXICANA DE DISTRIBUIDORES DE GAS LICUADO Y EMPRESAS CONEXAS,A.C.
(MEXICAN ASSOCIATION OF DISTRIBUTORS OF
LIQUID GAS AND ASSOCIATED ENTERPRISES)
Rousseau 44,
Col.Nueva Anzures,
México D.F.11590
Phone: 531-8386 545-7264
Fax: 545-7264, 545-6886
Contact: Lic. José Hermosillo Muñoz
Manager

ASOCIACION DE INGENIEROS PETREOLEROS DE MEXICO, A.C. (AIPM)
(PETROLEUM ENGINEERS ASSOCIATION OF MEXICO)
Tacuba No. 5,Palacio de Mineria,
Col.Centro
México D.F.06700
Phone: 254-0428 512-3747
Fax:
Contact: Ing. Antonio Acuña Rosado
Manager

CAMARA NACIONAL DE LA INDUSTRIA DE LA TRANSFORMACION (CANACINTRA)
(NATIONAL CHAMBER OF MANUFACTURING INDUSTRIES)
San Antonio 256-8
Col.Ampliación Napoles,
México D.F.03849
Phone: 563-3400 663-0511
Fax: 598-9467
Contact: Visente Gutierrez Camposeco
President

CAMARA AMERICANA DE COMERCIO DE MEXICO, A.C.
(AMERICAN CHAMBER OF COMMERCE OF MEXICO)
Lucerna 78,
México D.F.06600
Phone: 709-0995
Fax:
Contact: John Bruton
Executive Vice-President

CAMARA NACIONAL DE COMERCIO,SERVICIOS Y TURISMO DE LA CIUDAD DE MEXICO (CANACO)
(NATIONAL CHAMBER OF COMMERCE,SERVICES AND TOURISM OF MEXICO CITY)
Reforma 42
Col.Centro
México D.F.06048
Phone: 592-2677 592-2665
Fax: 705-7412
Contact: Sergio Aldana Contreras
Coordinator

INSTITUTO MEXICANO DEL PETROLEO (IMP)
(MEXICAN PETROLEUM INSTITUTE)
Eje Central Norte Lazaro Cardenas 152,
Col.San Bartolo
México D.F.07730
Phone: 368-5911 368-9333
Fax: 368-4523 368-9112
Contact: Lic. Elsa Gutierrez Diaz Cevallos
Importaciones

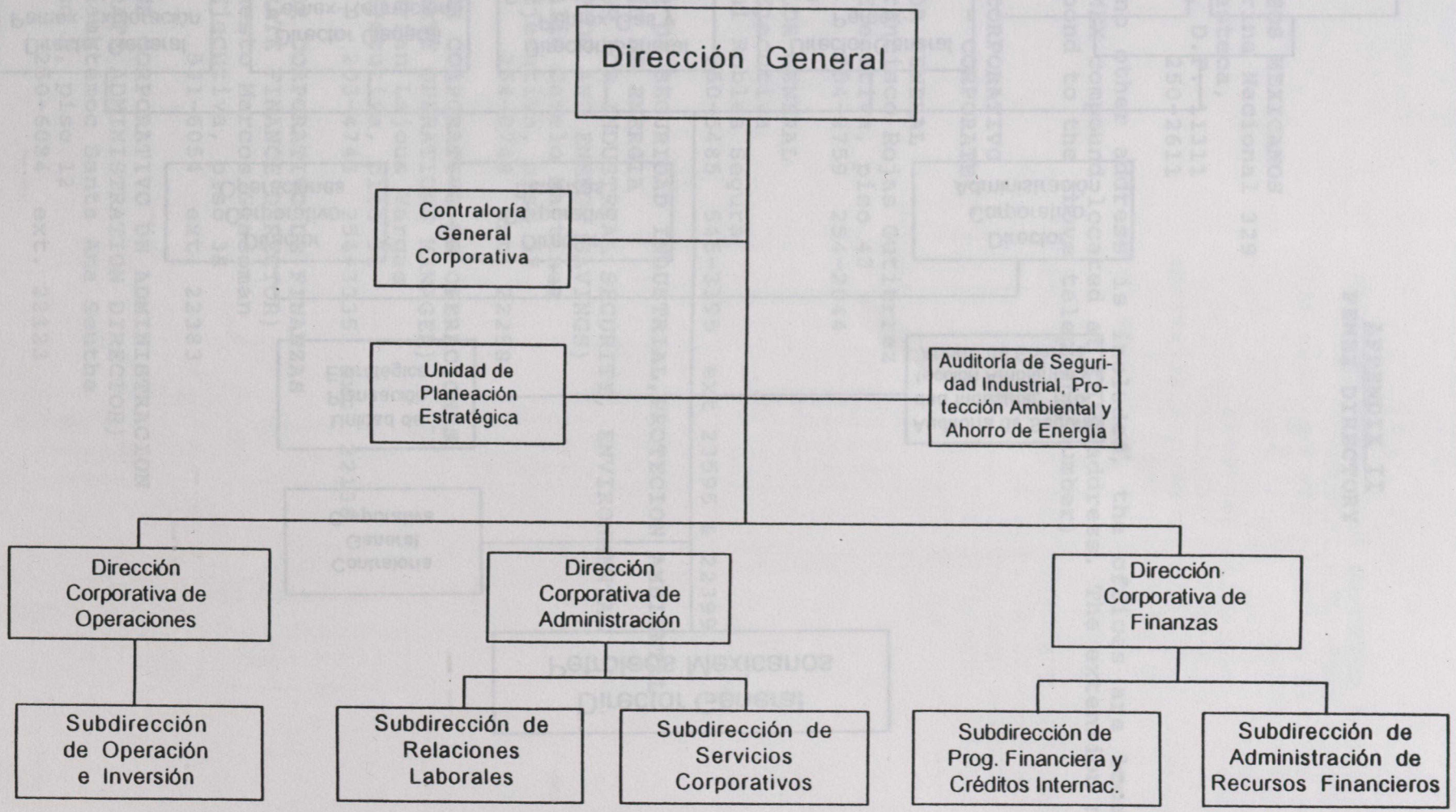
Ing. Mario Alberto Martínez
International Promotion
Phone: 567-4366
Fax: 567-9225

ASOCIACION NACIONAL DE IMPORTADORES Y EXPORTADORES DE LA REPUBLICA MEXICANA (ANIERM)
(NATIONAL ASSOCIATION OF IMPORTERS AND EXPORTERS OF THE MEXICAN REPUBLIC)
Monterrey 130,
Col.Roma,
México D.F.06700
Phone: 564-8618
Fax: 584-5317
Contact: Ing. Rodrigo Guerra BOtello
Presidente

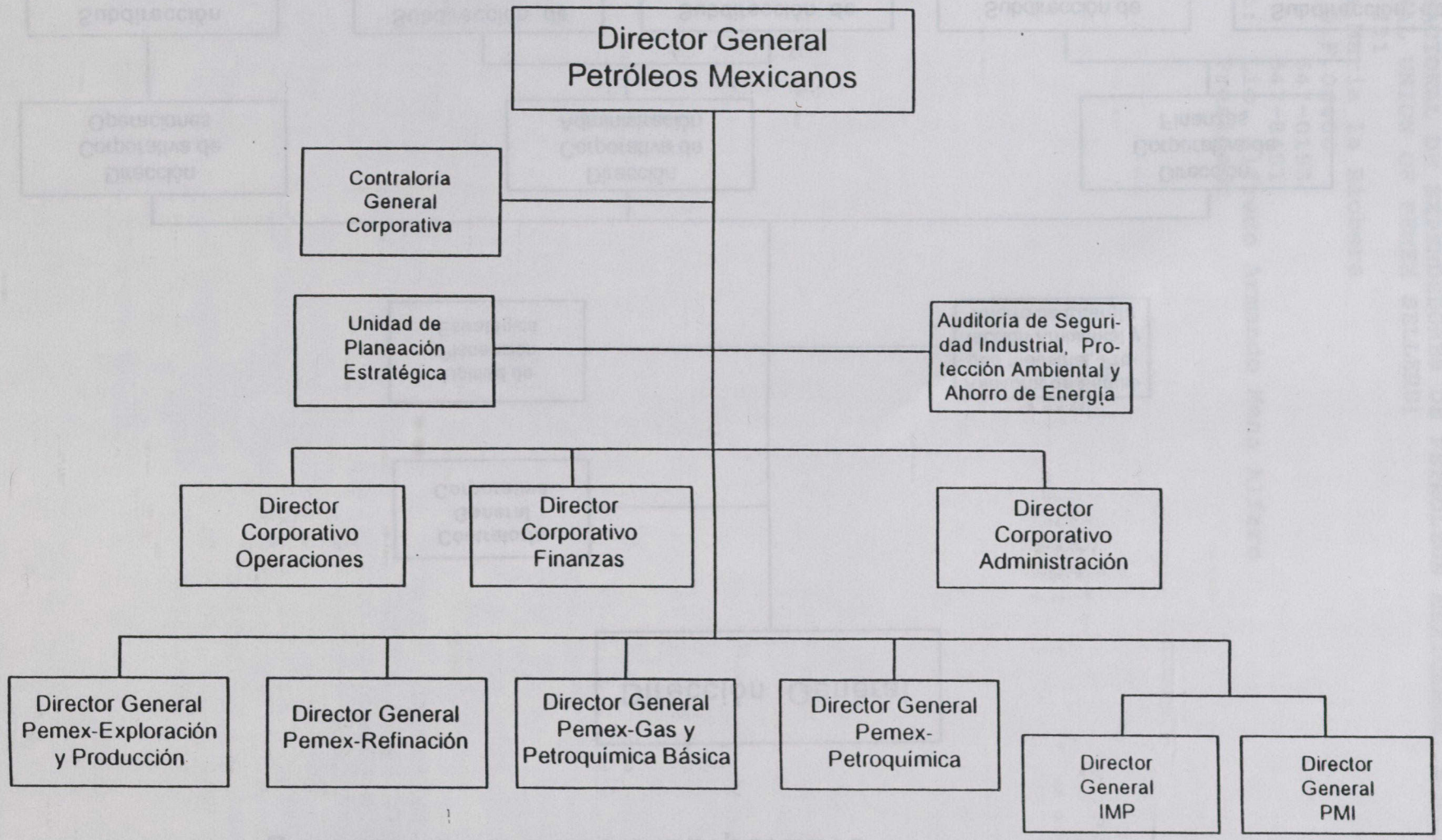
SECRETARIADO TECNICO DE LA COMISION PETROQUIMICA MEXICANA
(TECHNICAL SECRETARIAT OF THE MEXICAN PETROCHEMICALS COMMISSION)
Francisco Marquez 160,
Col,Condesa,
México D.F.06140
Phone: 553-9099 553-9034
Fax: 553-9108
Contact: Dr. Eduardo E. Flores Magon Lopez
Secretario Técnico

UNION NACIONAL DE EXPENDEDORES DE PETROLEOS MEXICANOS, A.C.
(NATIONAL UNION OF PEMEX SELLERS)
Cedros 231
Col.Sta.Maria la Riobera
México D.F.06400
Phone: 547-0153
Fax: 547-8451
Contact: Lic. Alfredo Armando Mena Alfaro
President

Estructura Organizativa del Centro Corporativo



Petróleos Mexicanos y sus Organismos Subsidiarios



APPENDIX II
PEMEX DIRECTORY

PETROLEOS MEXICANOS
Av. Marina Nacional 329
Col.Huasteca,
México, D.F. 11311
Phone: 250-2611

(When no other address is included, the offices are located in the PEMEX compound located at this address. The extension numbers correspond to the above telephone number)

PEMEX-CORPORATIVO
(PEMEX - CORPORATE)

DIRECTOR GENERAL
C.P. Francisco Rojas Gutiérrez
Torre Ejecutiva, piso 43
Phone: 254-2759 254-2044

CONTRALOR GENERAL
Torre Ejecutiva
C.P.Raul Robles Segura
Phone: 250-5485 545-3395 ext 23595 & 22399

AUDITOR DE SEGURIDAD INDUSTRIAL,PROTECION AMBIENTAL Y AHORRO DE ENERGIA
(AUDITOR FOR INDUSTRIAL SECURITY, ENVIRONMENTAL PROTECTION AND ENERGY SAVINGS)
Lic. Julio Camelo Martínez
Torre Ejecutiva, piso 17
Phone: 254-0749 ext. 22258

DIRECTOR CORPORATIVO DE OPERACIONES
(CORPORATE OPERATIONS MANAGER)
Lic. Adrían Lajous Vargas
Torre Ejecutiva, piso 36
Phone: 203-4743 254-3335 ext. 22138

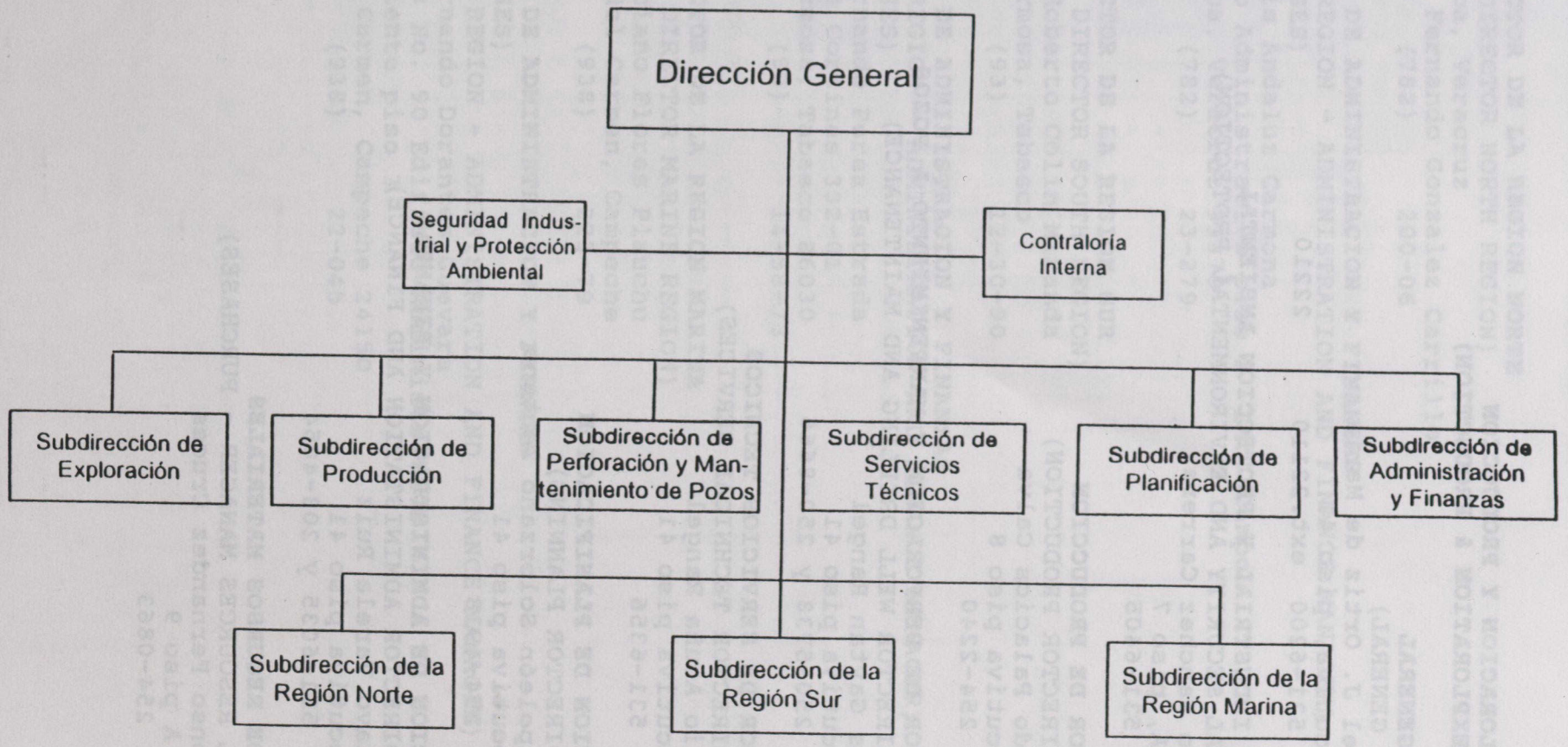
DIRECTOR CORPORATIVO DE FINANZAS
(CORPORATE FINANCE DIRECTOR)
Dr. Ernesto Marcos Giacoman
Torre Ejecutiva, piso 38
Phone: 531-6054 ext. 22383

DIRECTOR CORPORATIVO DE ADMINISTRACION
(CORPORATE ADMINISTRATION DIRECTOR)
Lic. Cuauhtémoc Santa Ana Seuthe
Edificio A, piso 12
Phone: 250-6084 ext. 22123

INSTITUTO MEXICANO DEL PETROLEO (IMP)
(MEXICAN PETROLEUM INSTITUTE)
Eje Central Norte Lazaro Cardenas 152,
Col.San Bartolo,
México D.F.07730
Phone: 368-5911 368-9333
Fax: 368-4323 368-9112
Contact: Ing. Victor Manuel Alcerreca
Dirctor General
Lic. Elsa Gutierrez Diaz Cevallos
Imports

PETROLEOS MEXICANOS INTERNACIONAL (PMI)
Torre Ejecutiva, piso 20
Lic. Pedro Haas García
Phone: 227-0010 227-0012

Pemex-Exploración y Producción



PEMEX-EXPLORACION Y PRODUCCION
(PEMEX - EXPLORATION & PRODUCTION)

DIRECTOR GENERAL
(DIRECTOR GENERAL)
Ing. Manuel J. Ortiz de Maria
Torre Ejecutiva, piso 41
Phone: 531-6200 ext.22110 22210

SEGURIDAD INDUSTRIAL Y PROTECCION AMBIENTAL
(INDUSTRIAL SECURITY AND ENVIRONMENTAL PROTECTION)
Ing. Pedro Sanchez Carrera
Edificio A, piso 7
Phone: 531-6405

SUBDIRECTOR DE PRODUCCION
(DEPUTY DIRECTOR PRODUCTION)
Ing.Ricardo Palacios Calva
Torre Ejecutiva piso 8
Phone: 254-2240

SUBDIRECTOR DE PERFORACION Y MANTENIMIENTO A POZOS
(DEPUTY DIRECTOR WELL DRILLING AND MAINTENANCE)
Ing. Jesús Gaytan Rangel
Torre Ejecutiva piso 41
Phone: 250-5738 y 250-8666

SUBDIRECTOR DE SERVICIOS TECNICOS
(DEPUTY DIRECTOR TECHNICAL SERVICES)
Ing.Antonio Acuña Rangel
Torre Ejecutiva piso 41
Phone: 531-6356

SUBDIRECCION DE PLANIFICACION
(DEPUTY DIRECTOR PLANNING)
Ing.I. Napoleón Solorzano Zenteno
Torre Ejecutiva piso 41
Phone: 254-4918

SUBDIRECCION DE ADMINISTRACION Y FINANZAS
(DEPUTY DIRECTOR ADMINISTATION AND FINANCE)
Lic. Gustavo Varela Ruiz
Torre Ejecutiva piso 41
Phone: 531-6035 y 203-4054

GERENTE DE RECURSOS MATERIALES
(MATERIAL RESOURCES MANAGER - PURCHASES)
Lic. Alfonso Fernandez Cruces
Edificio A piso 9
Phone: 254-0863

SUBDIRECTOR DE LA REGION NORTE
DEPUTY DIRECTOR NORTH REGION)
Poza Rica, Veracruz
Ing. C. Fernando Gonzalez Carrillo
Phone: (782) 200-06

GERENTE DE ADMINISTRACION Y FINANZAS
(NORTH REGION - ADMINISTRATION AND FINANCE MANAGER)
(PURCHASES)
Ing. Luis Andaluz Carmona
Edificio Administrativo piso 3 Int. Campo
Poza Rica, Veracruz 93370
Phone: (782) 23-279

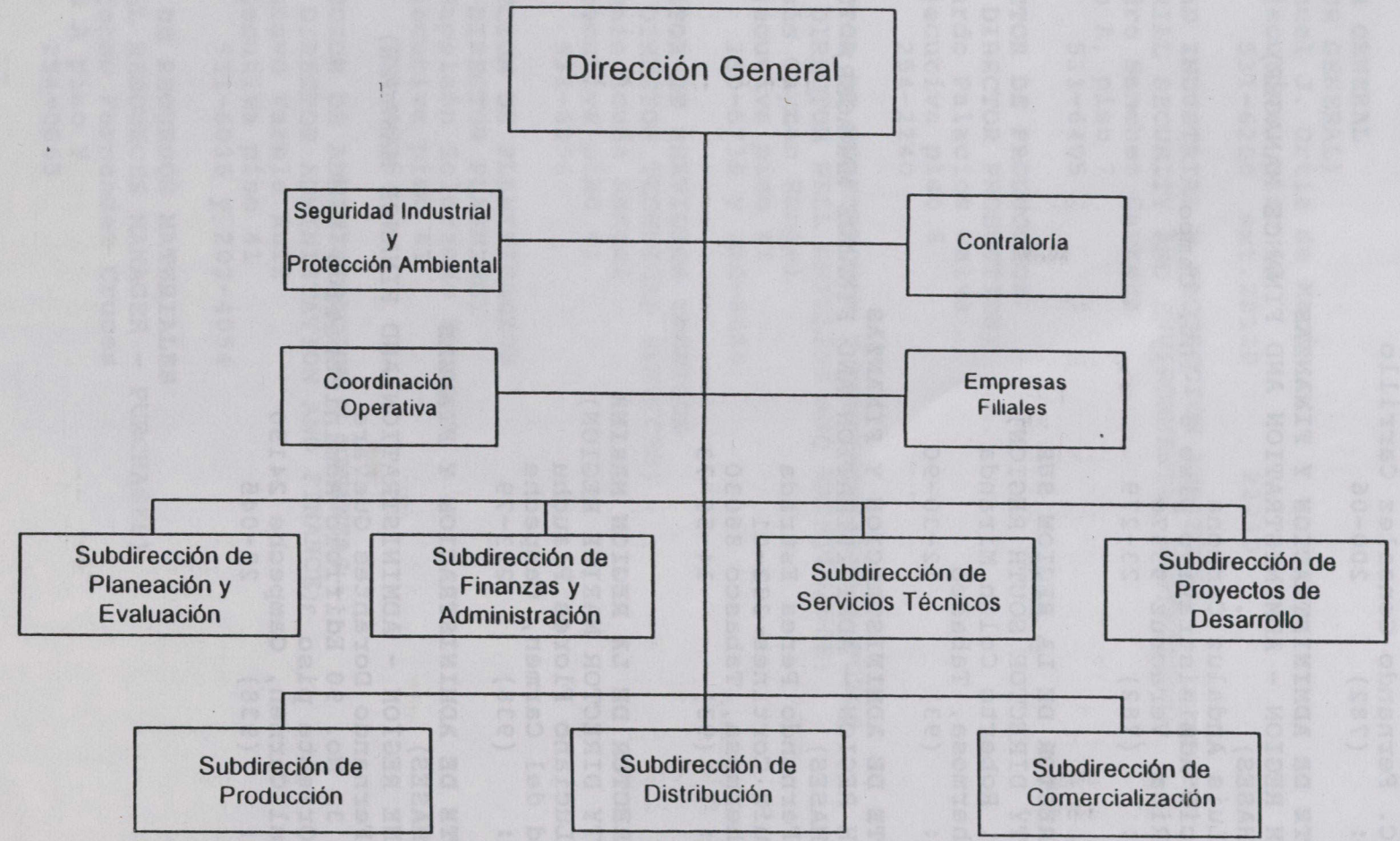
SUBDIRECTOR DE LA REGION SUR
(DEPUTY DIRECTOR SOUTH REGION)
Ing.R. Roberto Colin Miranda
Villahermosa, Tabasco
Phone: (93) 12-30-90

GERENTE DE ADMINISTRACION Y FINANZAS
(SOUTH REGION - ADMINISTRATION AND FINANCE MANAGER)
(PURCHASES)
Ing. Fernando Perea Estrada
Av. Ruiz Cortines 332-01
Villahermosa, Tabasco 86030
Phone: (93) 14-58-73

SUBDIRECTOR DE LA REGION MARINA
(DEPUTY DIRECTOR MARINE REGION)
Ing. Luciano Flores Plauchu
Ciudad del Carmen, Campeche
Phone: (938) 223-79

GERENTE DE ADMINISTRACION Y FIANZAS
(PURCHASES)
(MARINE REGION - ADMINISTRATION AND FINANCE MANAGER)
Ing. Fernando Dorantes Guevara
Calle 33 No. 90 Edificio Administrativo
Lado Oriente piso 3
Cd. del Carmen, Campeche 24150
Phone: (938) 22-045

Pemex-Refinación



PEMEX-REFINACION
(PEMEX - REFINING)

DIRECTOR GENERAL
(DIRECTOR GENERAL)
Ing. Fernando Manzanila Sevilla
Torre Ejecutiva, piso 40
Phone: 545-9022 545-1463 ext. 22202 22198
Fax: 254-2679

SUBDIRECTOR DE PRODUCCION
(DEPUTY DIRECTOR PRODUCTION)
Ing. José A. Celestinos Isaacs
Torre Ejecutiva, piso 40
Phone: 531-6023 ext. 22203

SUBDIRECTOR DE DISTRIBUCION
(DEPUTY DIRECTOR DISTRIBUTION)
Dr. Oscar González Rodríguez
Torre Ejecutiva, piso 23
Phone: 254-7609 ext. 27426

SUBDIRECTOR DE COMERCIALIZACIONN
(DEPUTY DIRECTOR SALES)
Ing. José A. Ceballos Soberanis
Torre Ejecutiva, piso 25
Phone: 250-5819 ext. 22137

SUBDIRECTOR DE PLANEACION Y EVALUACION
(DEPUTY DIRECTOR PLANNING & EVALUATION)
Ing. Manuel Viejo Zubicaray
Torre Ejecutiva, piso 19
Phone: 254-4508 ext. 25320

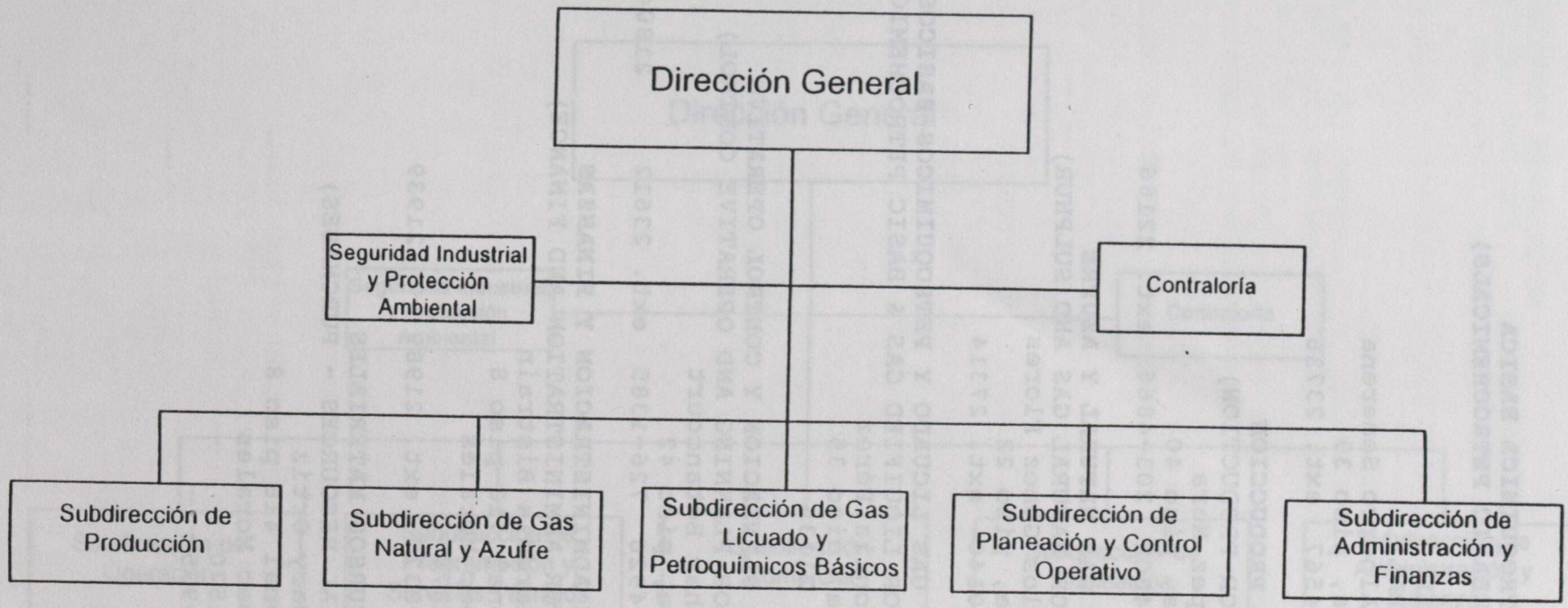
SUBDIRECTOR DE FINANZAS Y ADMINISTRACION
(DEPUTY DIRECTOR FINANCE AND ADMINISTRATION)
C.P. Carlos Acedo Valenzuela
Torre Ejecutiva, piso 42
Phone: 545-5777 ext. 25213

ADQUISICIONES
(PURCHASES)
Lic. Roberto Mujica Miranda
Ejército Nacional 212 piso 11
Phone: 531-9927

SUBDIRECTOR DE SERVICIOS TECNICOS
(DEPUTY DIRECTOR TECHNICAL SERVICES)
Ing. Hugo Molina Calderón
Torre Ejecutiva, piso 39
Phone: 254-0174 ext. 22124

SUBDIRECTOR DE PROYECTOS DE DESARROLLO
(DEPUTY DIRECTOR DEVELOPMENT PROJECTS)
Ing. Eduardo Vergara Cabrera
Torre Ejecutiva
Phone: 260-6504

Pemex-Gas y Petroquímica Básica



PEMEX-GAS Y PETROQUIMICA BASICA
(PEMEX - GAS & BASIC PETROCHEMICALS)

DIRECTOR GENERAL
(DIRECTOR GENERAL)
Dr. José Luis Alberro Semerena
Torre Ejecutiva, piso 39
Phone: 254-4567 ext. 23736

SUBDIRECTOR DE PRODUCCION
(DEPUTY DIRECTOR PRODUCTION)
Ing. Carlos López Mora
Torre Ejecutiva, piso 40
Phone: 203-4809 203-4866 ext. 22166

SUBDIRECTOR DE GAS NATURAL Y AZUFRE
(DEPUTY DIRECTOR NATURAL GAS AND SULPHUR)
Lic. Pedro Carlos Gómez Flores
Torre Ejecutiva, piso 22
Phone: 227-0140 ext. 27314

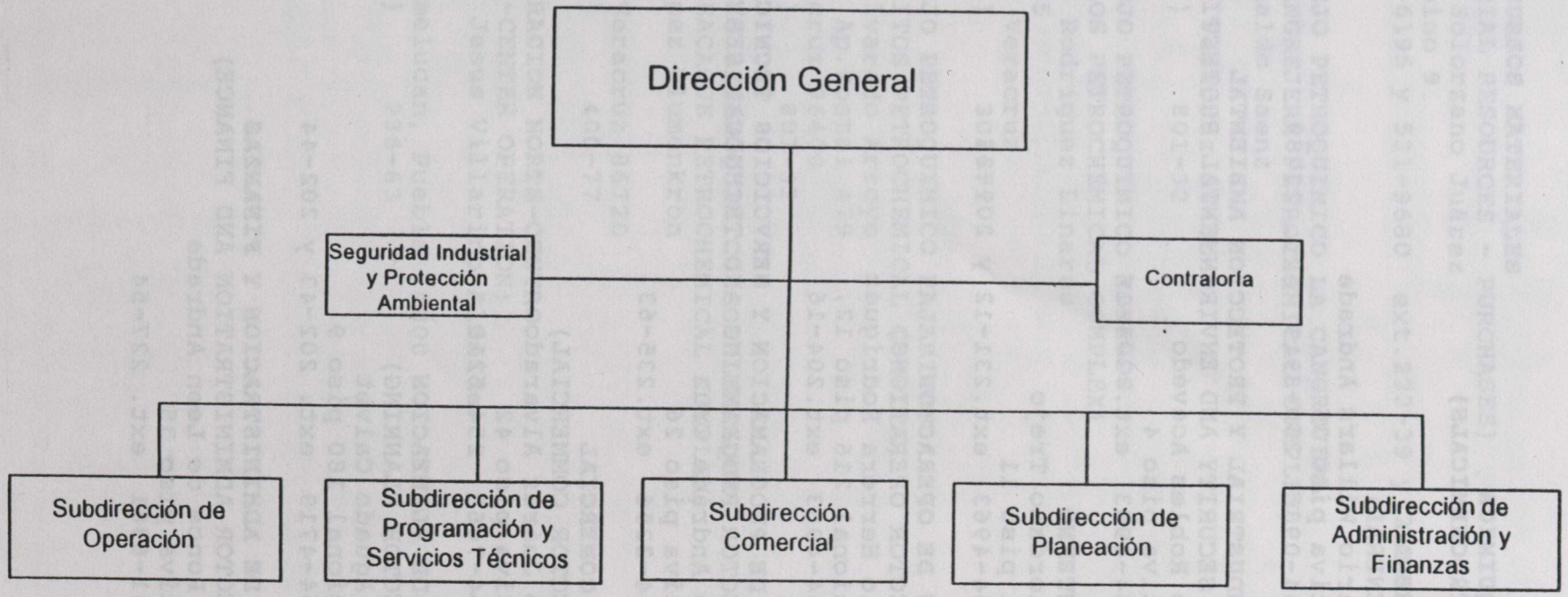
SUBDIRECTOR DE GAS LICUADO Y PETROQUIMICOS BASICOS
(DEPUTY DIRECTOR LIQUIFIED GAS & BASIC PETROCHEMICALS)
Ing. Gustavo Bonila Pérez
Torre Ejecutiva, piso 35
Phone: ext. 21135

SUBDIRECTOR DE PLANEACION Y CONTROL OPERATIVO
(DEPUTY DIRECTOR PLANNING AND OPERATIVE CONTROL)
Dr. Gustavo Mohar Betancourt
Torre Ejecutiva, piso 42
Phone: 254-4926 726-1385 ext. 23612 21804

SUBDIRECTOR DE ADMINISTRACION Y FINANZAS
(DEPUTY DIRECTOR ADMINISTRATION AND FINANCE)
C.P. Enrique Heredia Bistrain
Ejército Nacional 418 piso 8
Col. Chapultepec Morales
México D.F. 11570
Phone: 545-8370 ext. 21989 21939

GERENTE DE RECURSOS MATERIALES
MANAGER MATERIAL RESOURCES - PURCHASES)
Lic. Roberto Gary Ortiz
Ejército Nacional 418 piso 8
Col. Chapultepec Morales
México D.F. 11570
Phone: 250-9352

Pemex-Petroquímica



PEMEX-PETROQUIMICA
(PEMEX - PETROCHEMICALS)

DIRECTOR GENERAL
(DIRECTOR GENERAL)
Dr. Jaime Mario Willars Andrade
Torre Ejecutiva piso 35
Phone: 254-0935 250-8919 ext. 23789

SEGURIDAD INDUSTRIAL Y PROTECCION AMBIENTAL
(INDUSTRIAL SECURITY AND ENVIRONMENTAL PROTECTION)
Ing. Alfonso Robles Acevedo
Torre Ejecutiva piso 4
Phone: 254-4963 ext. 204-16

CONTRALOR INTERNO
C.P. Juan Giordano Trejo
Edificio B-1 piso 11
Phone: 254-4963 ext.231-12 y 209-26

SUBDIRECCION DE OPERACION
(DEPUTY DIRECTOR OPERATIONS)
Ing. Maclovio Herrera Rodriguez
Ejercito Nacional 216 piso 12,
Phone: 254-4963 ext.204-16

SUBDIRECTOR DE PROGRAMACION Y SERVCICIOS TECNICOS
(DEPUTY DIRECTOR PROGRAMMING AND TECHNICAL SERVICES)
Ing. Roberto Andrade Cruz
Torre Ejecutiva piso 26
Phone: 254-2256 ext.235-63

SUBDIRECTOR COMERCIAL
(DEPUTY DIRECTOR COMMERCIAL)
Lic. Antonio Juárez Alvarado
Torre Ejecutiva piso 42
Phone: 254-7669 254-6218

SUBDIRECTOR DE PLANEACION
(DEPUTY DIRECTOR PLANNING)
Lic. Emilio Aguado Calvet
Ejercito Nacional 180 piso 9
Phone: 254-4719 ext. 202-43 y 202-44

SUBDIRECTOR DE ADMINISTRACION Y FINANZAS
(DEPUTY DIRECTOR ADMINISTRATION AND FINANCE)
Lic. Xavier Ponce de Leon Andrade
Torre Ejecutiva piso 35
Phone: 531-6381 ext. 227-54

GERENTE DE RECURSOS MATERIALES
(MANAGER MATERIAL RESOURCES - PURCHASES)
Lic.Carlos E. Solorzano Juârez
Edificio B-1 piso 9
Phone: 531-6195 y 531-9680 ext.222-39 y 233-09

GERENTE COMPLEJO PETROQUIMICO LA CANGREJERA
(MANAGER LA CANGREJERA PETROCHEMICAL COMPLEX)
Ing. José Basualdo Saenz
Ap. Postal 913
Coatzacoalcos, Veracruz 96400
Phone: (921) 801-32

GERENTE COMPLEJO PETROQUIMICO MORELOS
(MANAGER MORELOS PETROCHEMICAL COMPLEX)
Ing. Josè Luis Rodriguez Linares
Ap. Postal 1225
Coatzacoalcos, Veracruz
Phone: (921) 301-71

GERENTE COMPLEJO PETROQUIMICO PAJARITOS
(MANAGER PAJARITOS PETROCHEMICAL COMPLEX)
Ing. Roberto Alvarado Arroyo
Col. Pajarito, Ap.Postal 479
Pajaritos Veracruz 96400
Phone: (921) 807-32

GERENTE COMPLEJO PETEROQUIMICO COSOLEACAQUE
(MANAGER COSOLEACAQUE PETROCHEMICAL COMPLEX)
Ing. Carlos Lopez Blumenkron
Ap.Postal 58
Cosoleacaque, Veracruz 86720
Phone: (936) 400-77

GERENTE DE OPERACION NORTE-CENTRO
(MANAGER NORTH-CENTER OPERATION)
Ing. Manuel de Jesus Villarino Almeida
Ap.Postal 79
San Martìn Texmelucan, Puebla 74000
Phone: (248) 236-63

Responsables de las adquisiciones de maquinaria y equipo en Petróleos Mexicanos y Organismos Subsidiarios

Corporativo/Organismos	Area	Responsable	Ubicación	Teléfono
Petróleos Mexicanos	Gerencia de Administración Interna	Lic. Antonio Velázquez de la Osa	Av. Marina Nacional 329 Edif. B2,Piso 11 Col.Huasteca CP.11311, México,D.F.	254-09-47 531-60-46
Pemex-Exploración y Producción*	Gerencia de Recursos Materiales	Lic. Alfonso Fernández Cruces	Av. Marina Nacional 329 Torre Ejec. Piso 15 Col.Huasteca CP.11311, México,D.F.	531-60-89
Región Norte	Gcia. Admon. y Fnzas.	Ing. Luis M. Andaluz Carmona	Edif.Admvo. Piso 3 Int. Campo Pemex CP.93370 Poza Rica,Ver.	91-782-23279
Región Sur	Gcia. Admon. y Fnzas.	Ing. Fernando Perea Estrada	Av.Ruíz Cortines 332-01 CP.86030 Villahermosa,Tab.	91-931-145873
Región Marina	Gcia. Admon. y Fnzas.	Ing. Fernando Dorantes Guevara	Calle 33 #90 Edif.Admvo. Lado Ote. Piso 3 CP. 24150 Cd. del Carmen, Camp.	91- 938 -22045
Pemex-Refinación	Adquisiciones	Lic. Roberto Mújica Miranda	Ejército Nacional #216 Piso 11 Col. Anzures CP. 11590 México,D.F.	531-99-27
Pemex-Gas y Petroquímica Básica	Gerencia de Recursos Materiales	Lic. Roberto Gary Ortiz	Ejército Nacional #418 Piso 8 Col. Anzures CP.11570 México,D.F.	250-93-52
Pemex-Petroquímica	Gerencia de Recursos Materiales	Lic. Carlos Solórzano Juárez	Av. Marina Nacional #329 Edificio B1, Piso 9 Col Huasteca CP.11311 México,D.F.	531-61-95

* Las regiones dependen normativamente de oficinas centrales

REQUISITOS PARA LA INCLUSION O ACTUALIZACION DE PROVEEDORES EN EL DIRECTORIO INSTITUCIONAL DE PETROLEOS MEXICANOS.

PROVEEDORES EXTRANJEROS

EMPRESA:

- SOLICITUD EN EL FORMATO QUE PROPORCIONA EL DEPARTAMENTO DE ATENCION A PROVEEDORES.
- DISKETTE VIRGEN DE 5 1/4 DOBLE DENSIDAD, PARA COPIAR EL CATALOGO DE MATERIALES A EFECTO DE IDENTIFICAR Y ANOTAR EN EL FORMATO LA CLAVE Y TIPO DEL PRODUCTO QUE OFRECE.
- CERTIFICADO DE INCORPORACION O CARTA VISADA DE LA EMBAJADA O CONSUL MEXICANO EN EL PAIS DE ORIGEN QUE ACREDITE ANTE ALGUNA AUTORIDAD OFICIAL LA EXISTENCIA DE LA EMPRESA.
- PODER NOTARIAL VISADO POR EL CONSUL MEXICANO, ACREDITANDO A LOS REPRESENTANTES DE LA EMPRESA ANTE PETROLEOS MEXICANOS.
- ULTIMOS ESTADOS FINANCIEROS AUDITADOS.

REPRESENTANTES

EMPRESA MEXICANA O FILIAL EN MEXICO:

- ACTA CONSTITUTIVA, ASI COMO PRINCIPALES Y ULTIMA MODIFICACION CON REGISTRO PUBLICO DE COMERCIO.
- REGISTRO FEDERAL DE CONTRIBUYENTES (CEDULA Y FORMATO).
- ULTIMA DECLARACION ANUAL Y PARCIAL DE IMPUESTO SOBRE LA RENTA.
- REGISTRO Y PAGO ANTE LA CAMARA CORRESPONDIENTE (ULTIMO AÑO).

PERSONA FISICA *

- REGISTRO FEDERAL DE CONTRIBUYENTES (CEDULA Y FORMATO).
- ULTIMA DECLARACION DE IMPUESTO SOBRE LA RENTA.

NOTAS:

- SE DEBERA PRESENTAR COPIA LEGIBLE DE LOS DOCUMENTOS Y ORIGINAL CON FINES DE COTEJO.
- PARA EL TRAMITE DE CREDENCIALES SE DEBERA PRESENTAR UNA FOTOGRAFIA TAMAÑO INFANTIL DE LOS INTERESADOS ASI COMO COPIA DE UNA IDENTIFICACION.

* CUANDO LOS REPRESENTANTES SEAN PROVEEDORES DE PEMEX Y ESTEN ACTUALIZADOS QUEDAN EXENTOS DE PRESENTAR NUEVAMENTE LOS DOCUMENTOS.

EL TRAMITE DE INCORPORACION O ACTUALIZACION ES TOTALMENTE GRATUITO

QUEJAS: DEPARTAMENTO DE ATENCION A PROVEEDORES, UBICADO EN MARINA NAL. 329 EDIFICIO B-2, PISO 9. TELS: 531-62-17 O 250-26-11 EXT. 245-57

PEMEX

GERENCIA DE PROVEEDURIA Y ALMACENES

DIRECTORIO DE PROVEEDORES EXTRANJEROS
SUPPLIERS CATALOGUE DATA

DATOS GENERALES

FECHA / DATE

NOMBRE DE LA COMPAÑIA / COMPANY'S NAME

CAPITAL SOCIAL / SOCIAL STOCK

MONEDA / CURRENCY

CLAVE DEL PROVEEDOR / PEMEX REGISTER

☐ INCLUSION / NEW REGISTER ☐ ACTUALIZACION / RENEWAL

DIRECCION OFICINAS / OFFICE ADRESS

CIUDAD / CITY

ESTADO / STATE

PAIS / COUNTRY

TELEFONO 1 / TELEPHONE 1 | TELEFONO 2 / TELEPHONE 2 | TELEFONO 3 / TELEPHONE 3 | AREA / CODE | TELEFAX | TELEX | P.O.BOX

DIRECCION PLANTA / PLANT ADRESS

CIUDAD / CITY

ESTADO / STATE

PAIS / COUNTRY

TELEFONO 1 / TELEPHONE 1 | TELEFONO 2 / TELEPHONE 2 | TELEFONO 3 / TELEPHONE 3 | AREA / CODE | TELEFAX | TELEX | P.O.BOX

No. DE EMPLEADOS / EMPLOYEES | No. DE OBREROS / WORKERS

ACTIVIDAD O GIRO / ACTIVITY ☐ FABRICANTE / MANUFACTURER ☐ DISTRIBUIDOR / DEALER ☐ MAQUILADORA / PLANT ☐ SERVICIOS / SERVICES

FUNCIONARIOS/CHAIRMEN

NOMBRE / NAME — CARGO / POSITION — FIRMA / SIGNATURE

NOMBRE / NAME — CARGO / POSITION — FIRMA / SIGNATURE

REPRESENTACION EN MEXICO (EN CASO DE SER UNA COMPAÑIA) REPRESENTATIVE IN MEXICO (IN CASE OF COMPANY)

RAZON SOCIAL — CLAVE DEL PROVEEDOR EN PEMEX (EN SU CASO)

DOMICILIO — COLONIA — DELEGACION O MUNICIPIO

ENTIDAD — CODIGO POSTAL — TEL. 1 | TEL. 2 | TEL. 3 | LADA | TELEFAX | TELEX

R.F.C | CAPITAL SOCIAL | CAMARA A LA QUE PERTENECE | NUMERO DE REGISTRO

REPRESENTANTES (PERSONAS FISICAS) / REPRESENTATIVE SUPPLIERS IN MEXICO (NATURAL PERSONS)

NOMBRE — DOM. OFICINA — TEL. OFNA — FAX — DOM. PARTICULAR — TEL. PART — R.F.C. — FIRMA

NOMBRE — DOM. OFICINA — TEL. OFNA — FAX — DOM. PARTICULAR — TEL. PART — R.F.C. — FIRMA

NOMBRE — DOM. OFICINA — TEL. OFNA — FAX — DOM. PARTICULAR — TEL. PART — R.F.C. — FIRMA

SERVICIOS QUE PUEDEN PROPORCIONAR / OFFERED SERVICES

FACILIDADES DE ESPUELA DE FFCC. / RAILROAD FACILITIES ☐ SI/YES ☐ NO

DISPONE DEL AREA ADECUADA PARA CARGAY DESCARGA / SUITABLE LOADING AND UNLOADING TRUCK AREA ☐ SI/YES ☐ NO

CUENTA CON SERVICIO DE ASISTENCIA TECNICA / TECNICAL ASISTENCE SERVICE ☐ SI/YES ☐ NO

DISPONE DE VENTA DE PARTES Y REFACCIONES / SALE OF PARTS OF REPAIR ☐ SI/YES ☐ NO

DESCRIBA EL TIPO DE EMPAQUE
PACKING (DESCRIBE THE TYPE OF PACKING USED)

ESTE FORMATO DEBERA LLENARSE A MAQUINA
PLEASE USE TYPEWRITER TO FILL OUT THIS FORM

DESCRIPCION DE PRODUCTOS / DESCRIPTION OF PRODUCTS OFFERED

CODIFICACION PEMEX PEMEX CODE			DESCRIPCION DE PRODUCTOS PRODUCTS DESCRIPTION	NUMERO DE PATENTE PATENT NUMBER	FABRICANTE MANUFACTERER (M) DISTRIBUIDOR DEALER (D) SERVICIOS SERVICES (S)	MARCA REGISTRADA TRADE MARK
GRUPO GROUP	SUBGRUPO SUBGROUP	IDENTIFICADOR IDENTIFICATION				

PARA USO EXCLUSIVO DE PEMEX FOR PEMEX USE ONLY

EMPRESA MEXICANA	EMPRESA EXTRANJERA	PERSONAS FISICAS
● ACTA CONSTITUTIVA ☐ SI ☐ NO ● MODIFICACIONES ☐ SI ☐ NO ● R.F.C. ☐ SI ☐ NO ● ULTIMA DECLARACION ANUAL ☐ SI ☐ NO ● ULTIMA DECLARACION PARCIAL ☐ SI ☐ NO ● REGISTRO Y PAGO DE LA CAMARA ☐ SI ☐ NO ● REGISTRO PEMEX ACTUALIZADO ☐ SI ☐ NO	● CARTA VISADA DE LA EMPRESA FECHA: _____ ● CARTA O PODER DE REPRESENTACION VISADA FECHA: _____ ● ESTADOS FINANCIEROS FECHA: _____	● R.F.C. ☐ SI ☐ NO ● ULTIMA DECLARACION DE IMPUESTOS ☐ SI ☐ NO

NOMBRE DE QUIEN RECIBIO _____

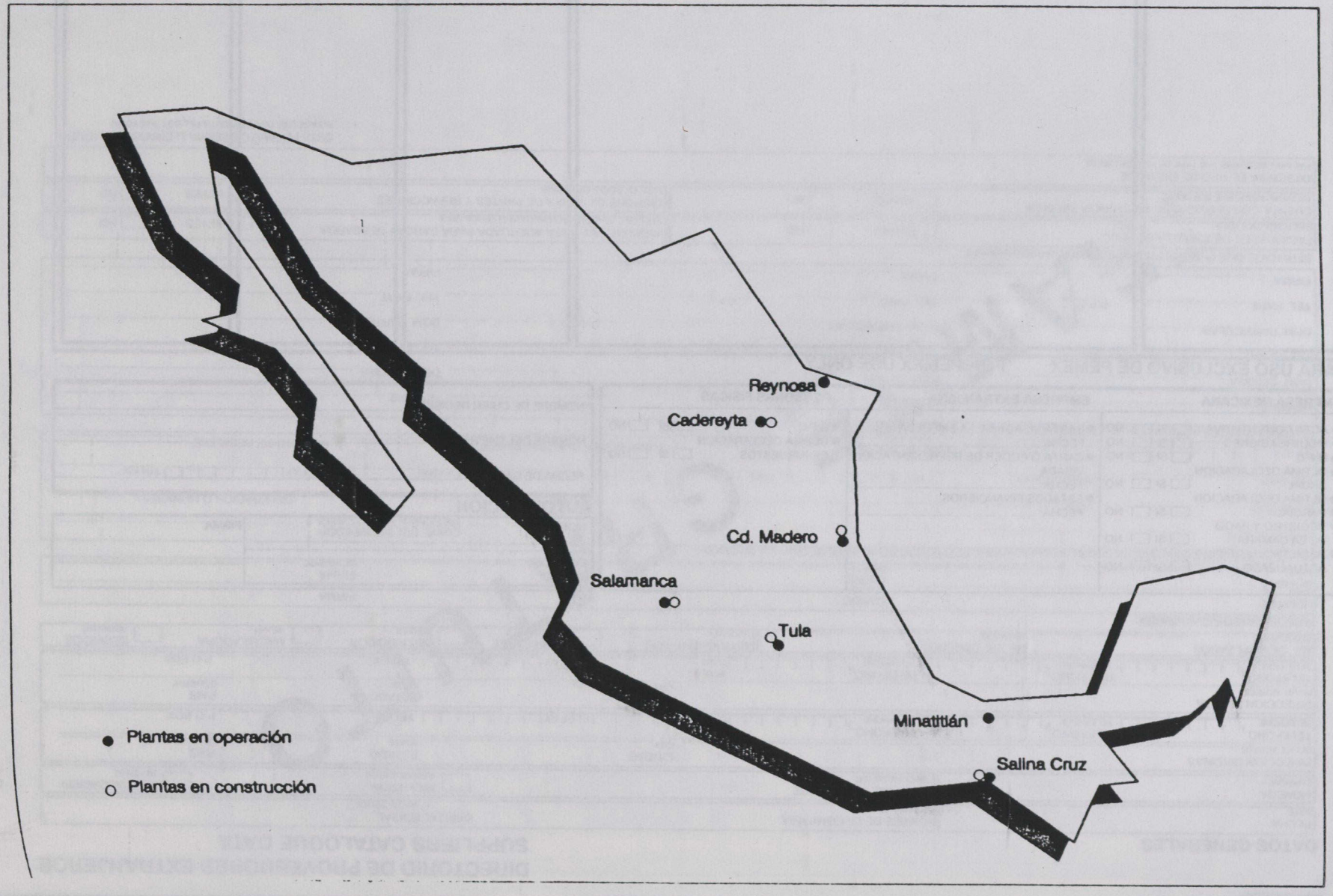
NOMBRE DEL CAPTURISTA _____

FECHA DE CAPTURA _____

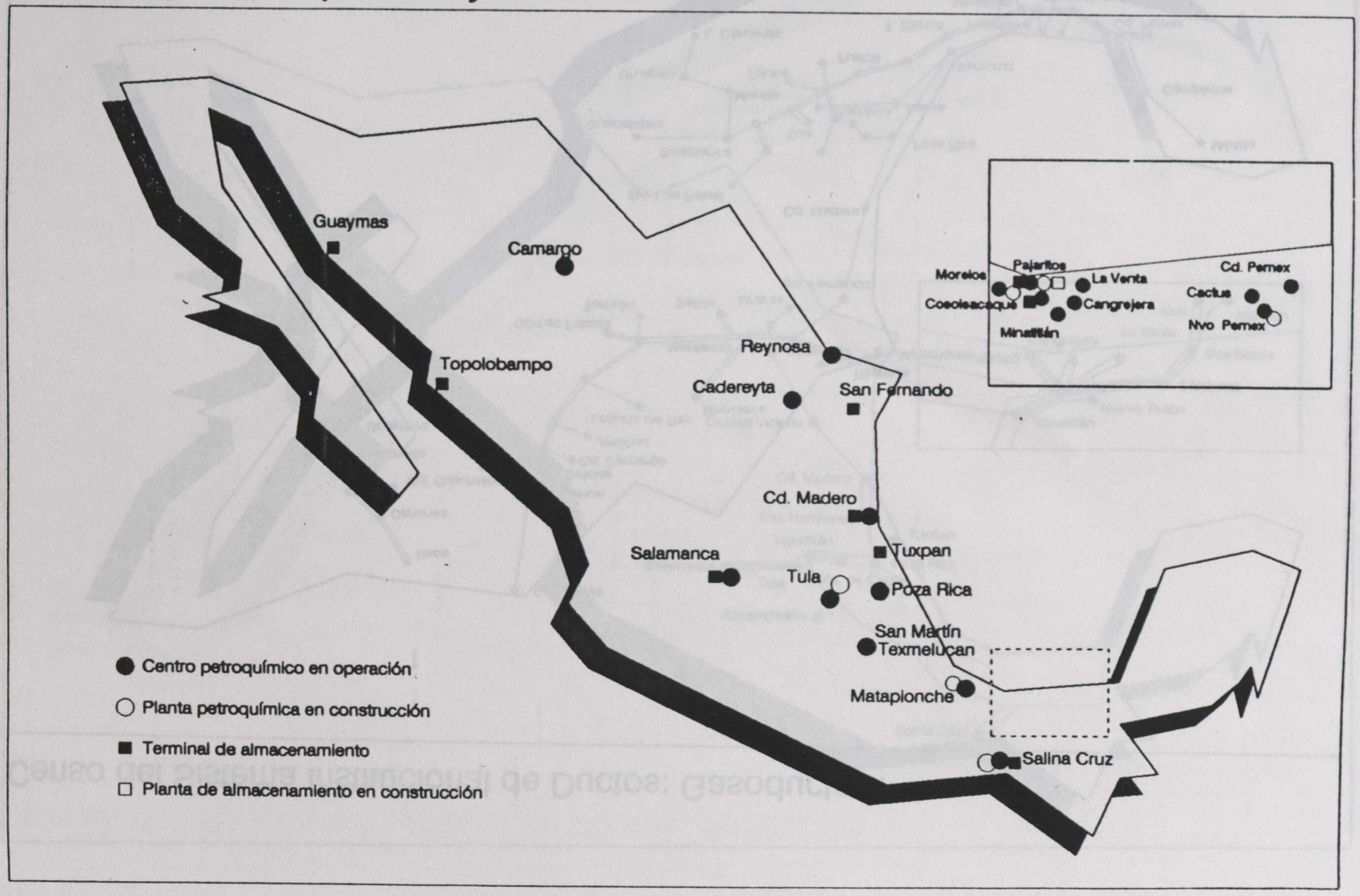
AUTORIZACION

NOMBRE	FIRMA
CARGO	

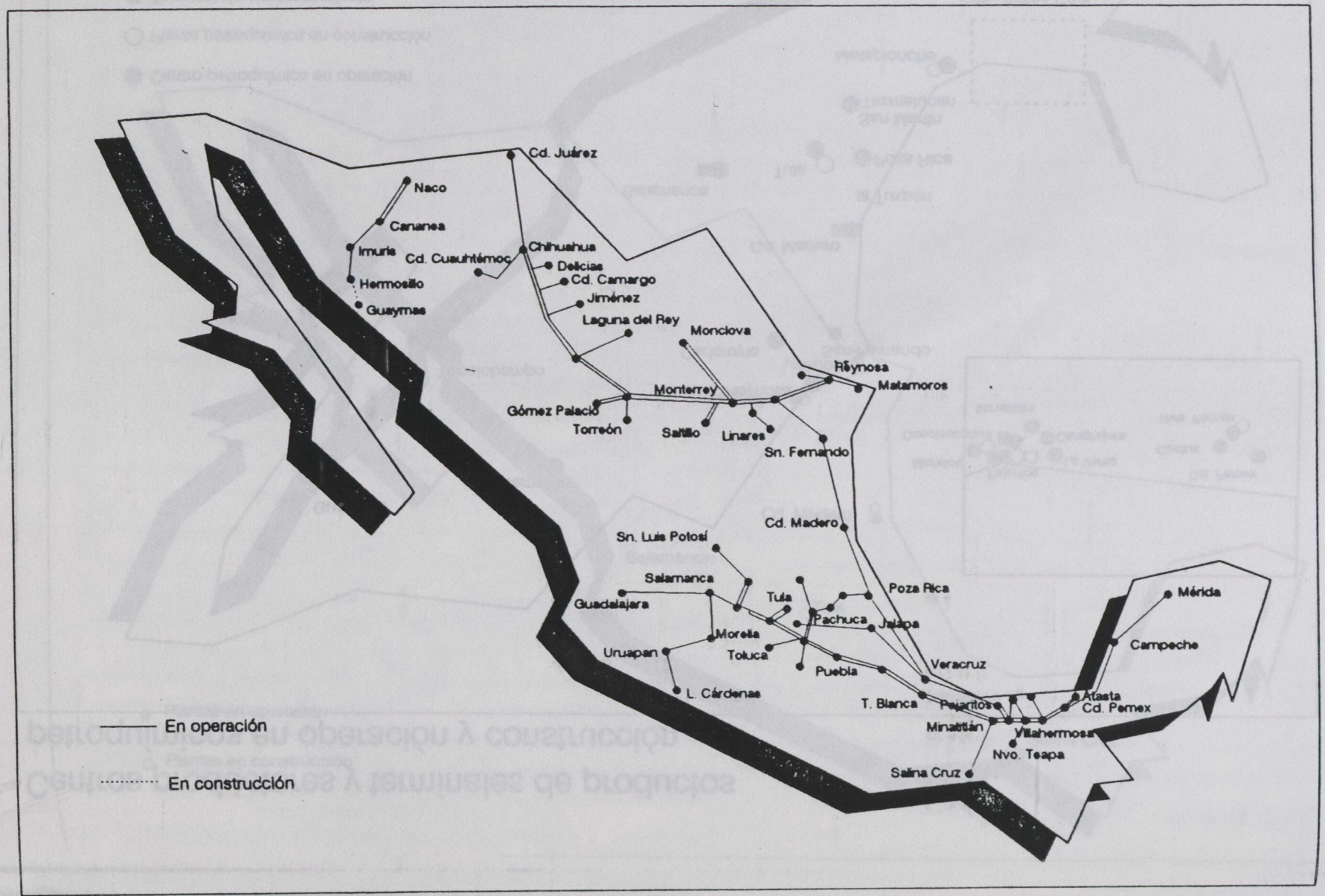
Centros de refinación en operación y construcción



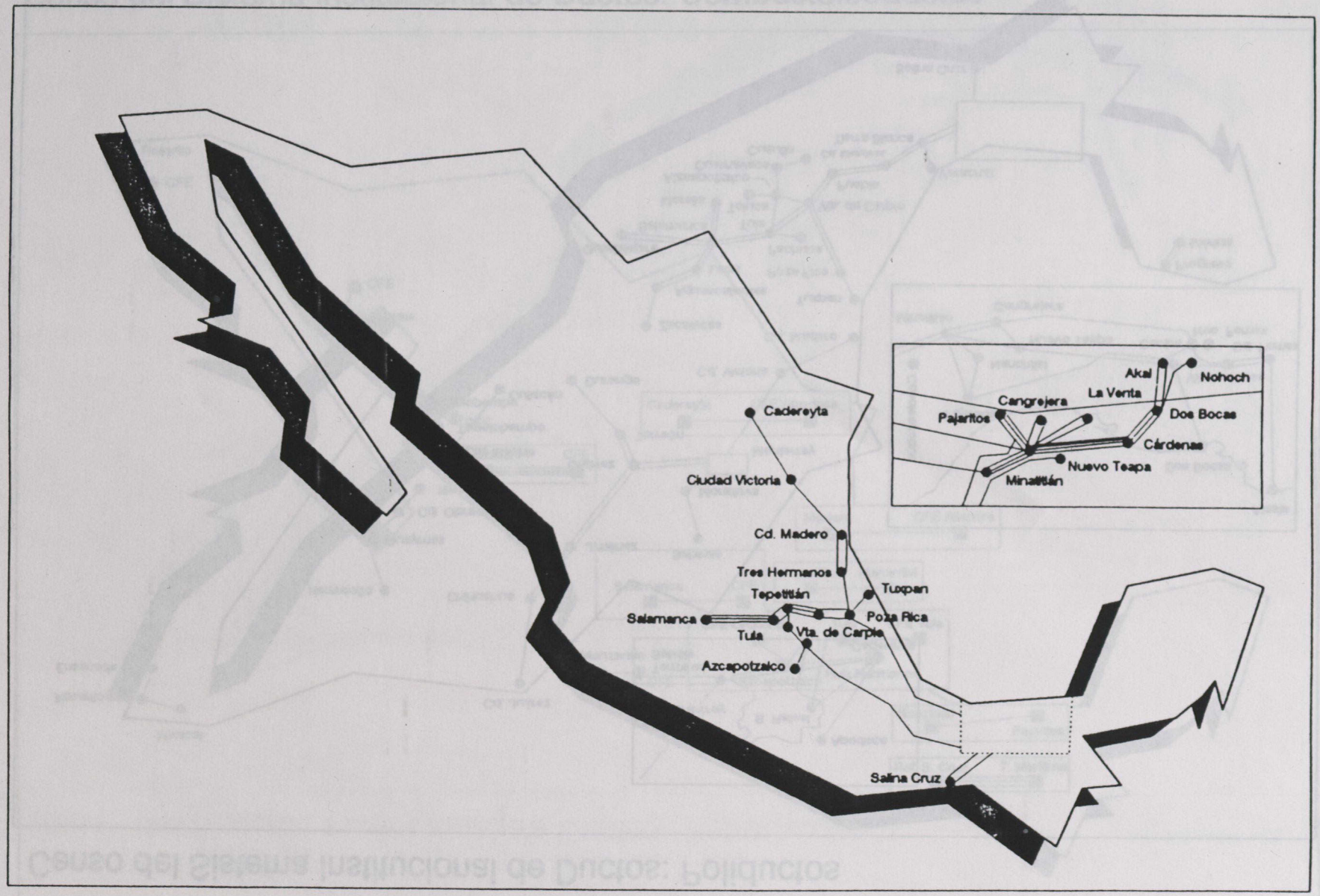
Centros productores y terminales de productos petroquímicos en operación y construcción



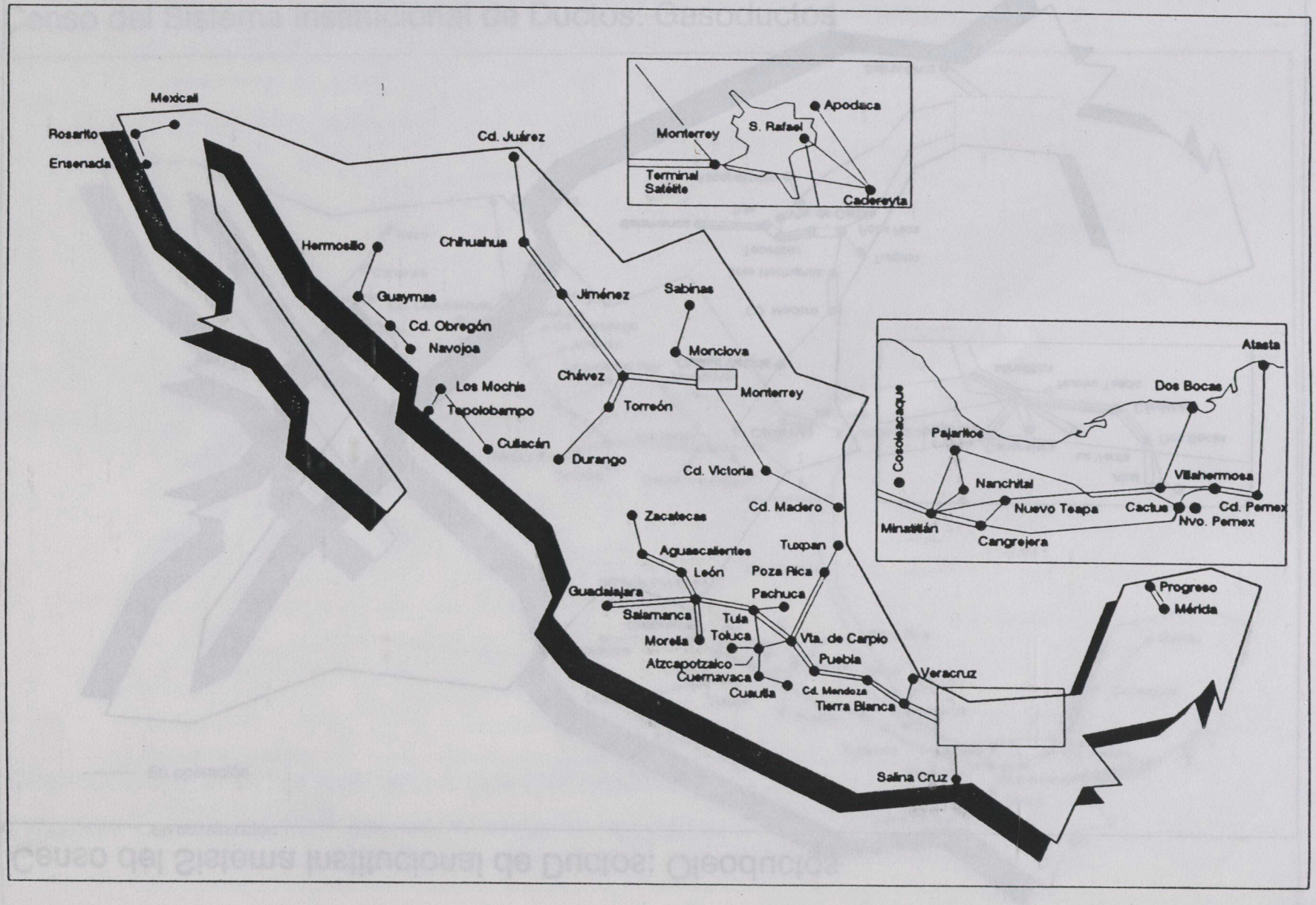
Censo del Sistema Institucional de Ductos: Gasoductos



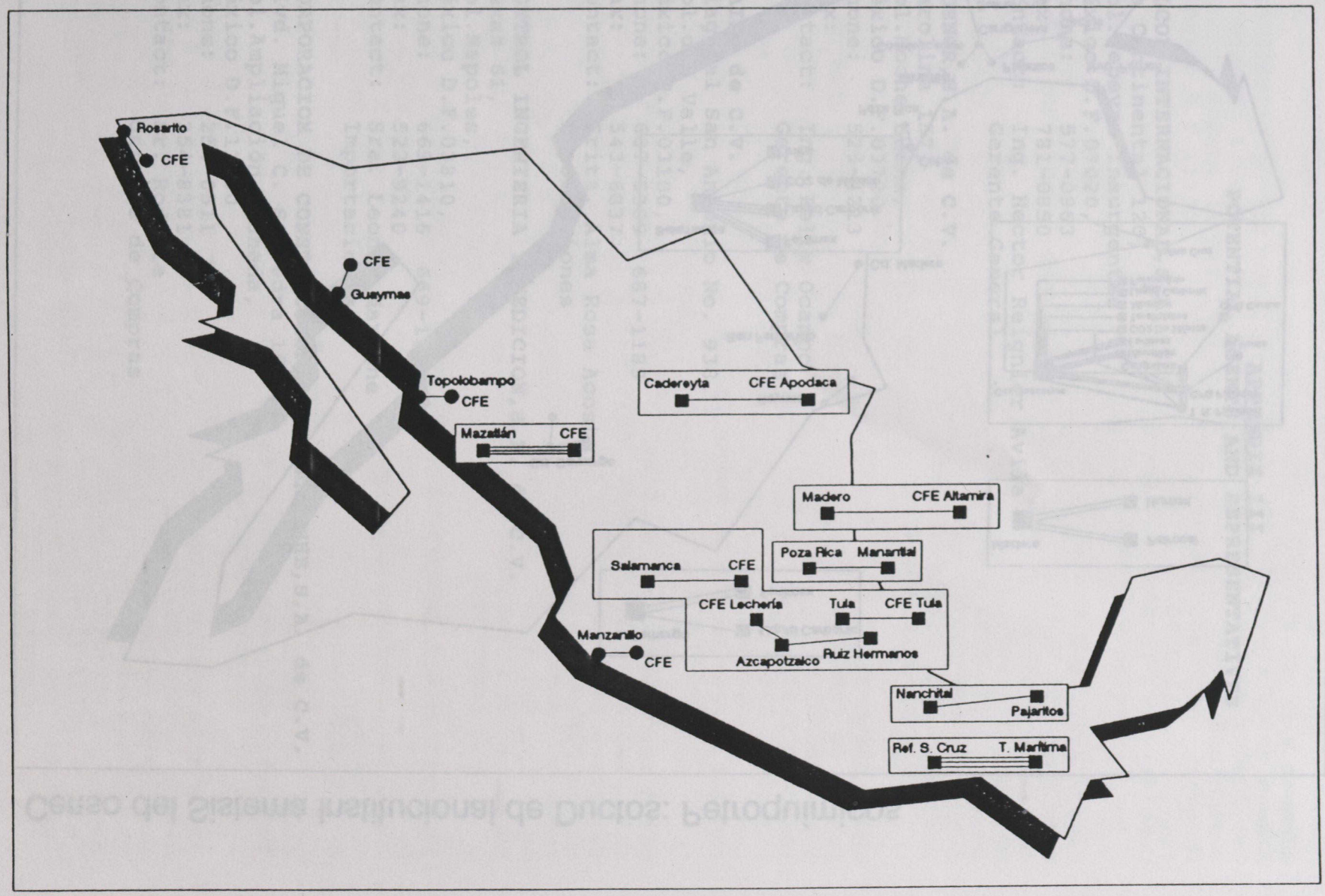
Censo del Sistema Institucional de Ductos: Oleoductos



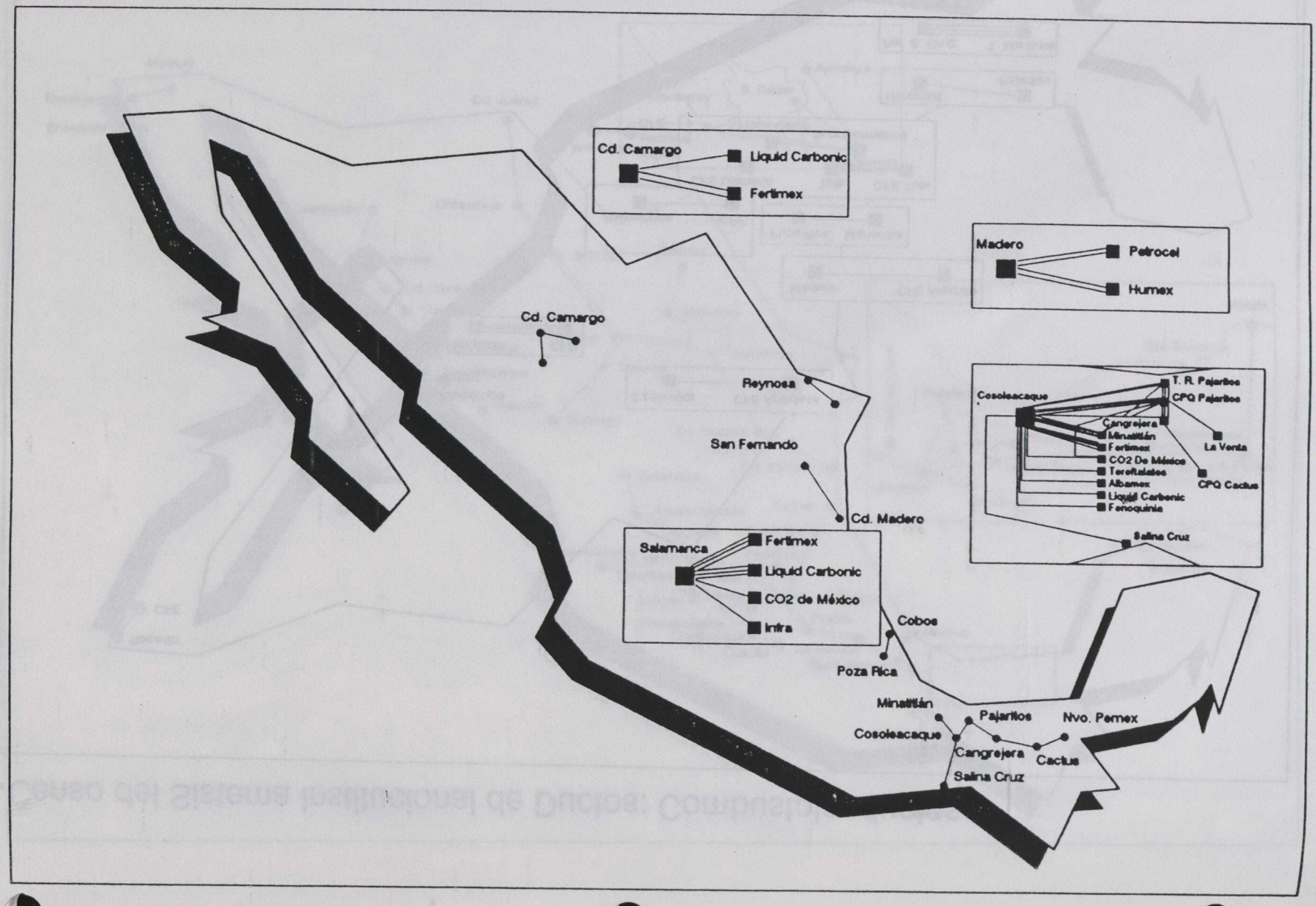
Censo del Sistema Institucional de Ductos: Poliductos



Censo del Sistema Institucional de Ductos: Combustoleoductos



Censo del Sistema Institucional de Ductos: Petroquímicos



APPENDIX III
POTENTIAL AGENTS AND REPRESENTATIVES

ALCOE INTERNACIONAL,S.A.
La Continental 120,
Col.Tepeyac Insurgentes,
México D.F.07020,
Phone: 577-0963
Fax: 781-0850
Contact: Ing. Hector Reignier Avila
Gerente General

BOSNOR,S.A. de C.V.
Carolina 157,
Col.Noche Buena,
México D.F.03720
Phone: 525-4213
Fax:
Contact: Ing. Felix Ocampo
Gerente de Compras

CAISA de C.V.
Diagonal San Antonio No. 938,
Col.del Valle,
México D.F.03100,
Phone: 687-5389 687-1189
Fax: 543-6837
Contact: Srita. Alma Rosa Acosta,
Importaciones

CONTROL INGENIERIA Y MEDICION,S.A. de C.V.
Texas 61,
Col.Napoles,
México D.F.03810,
Phone: 669-1416 669-1526
Fax: 523-9240
Contact: Sra. Leonor Martone
Importaciones

CORPORACIOM DE CONSTRUCCIONES DE CAMPECHE,S.A. de C.V.
Blvd. Miguel C. Saavedra 157,
Col.Ampliación Granada,
México D.F.11520
Phone: 254-0511
Fax: 254-8381
Contact: Sr. Rodarte
Gerente de Compras

ECUADOR,S.A. de C.V.
Bosque de Duraznos 65-701B,
Col.Bosque de las Lomas,
México D.F.11700,
Phone: 251-0636 251-1636
Fax: 251-2090
Contact: Sr. Teodoro Gutierrez Villanueva,
Gerente General

GRICON,S.A. de C.V.
Buen Tono 164,
Col.Industrial,
México D.F.07800,
Phone: 537-7380 a 85
Fax: 537-1307
Contact: Ing. Victor Olveda
Director General

HARRY MAZAL,S.A.
Laguna de Tamiahua 204,
Col.Anahuac,
México D.F.11320
Phone: 396-1133
Fax: 396-8649
Contact: Prof.Hector M. Tello García
Gerente

HERLO INDUSTRIAL,S.A. de C.V.
Calz. Vallejo 923, 1er piso, priv.2,
Col.Nueva Vallejo
México D.F.07750
Phone: 567-5400
Fax: 567-5554 368-0116
Contact: Sr. Isaac Marin O.
Importador

IMPORTACIONES Y EXPORTACIONES EN ESPECIALIDADES GENERALES,S.A. de C.V.
Paseo de la Reforma 122 piso 5,
Col.Juárez,
México D.F.06600
Phone: 566-4966 566-4908 566-4909
Fax: 592-4734
Contact: Sr.Jorge Ordoñes de la Vega,
Director General

INDUSTRIAS FREI,S.A. de C.V.
Genaro Garcia 164,
Col.Jardín Balbuena,
México D.F.15900
Phone: 762-8477
Fax: 785-1166
Contact: Ing. Jesús Izaguirre
Gerente

INDUSTRIAS RESISTOL,S.A. de C.V.
Bosque de Ciruelos 99,
Fracc. Bosque de las Lomas,
México D.F.11700,
Phone: 596-3588 726-9011
Fax: 596-1819 251-5048
Contact: C.P. Enrique Ochoa Vega,
Director Generañ

KARMA REPRESENTACIONES,S.A. de C.V.
Eugenia 120,
Col.del Valle,
México D.F.03100,
Phone: 211-2158
Fax: 682-4684
Contact: Srita. Gloria Ocampo,
Importador

MAQUINARIA UCHA,S.A. de C.V.
Av. Homero No.538-404,
México D.F.11570,
Phone: 250-7966 531-7528
Fax: 545-3340
Contact: Ing. Pedro C. Tapie,
Importaciones

MARCOVI,S.A. de C.V.
Circuito Médicos 52
Col.Satélite,
Naucalpan, Mex.,53100,
Phone: 393-9555 572-0515
Fax: 374-0889
Contact: Sr. Arturo Cordoba Vidaurri,
Importador

MILLER DE MEXICO,S.A. de C.V.
Felix Guzman 16,
Col.del Parque,
Naucalpan, Mex. 53390
Phone: 395-4826 28
Fax: 395-9551
Contact: Lic. Cesar Andrade
Importaciones

PERFOPARTS,S.A. de C.V.
Via Adolfo Lopez Mateos 18,
Col.el Parque,
Naucalpan, Mex. 53390,
Phone: 359-5338 576-1408
Fax: 358-7303
Contact: Irma Inclán Sagal
Presidente

PROCEQUIPO,S.A. de C.V.
Parral 78 Bis 602-603,
Col.Condesa,
México D.F.06140
Phone: 286-3544
Fax: 553-4063
Contact: Ing.Felipe Tellez
Gerente

RACINE HYDRAULICS DE MEXICO,S.A. de C.V.
Blvd. Puerto Aereo 360,
Col.Moctezuma, 2a. Sección,
México D.F.15500,
Phone: 751-5611 785-4177
Fax: 785-1691
Contact: Angel Ricardo Beraldi Berlingen
Presidente

TECNICOS ARGOSTAL,S.A. de C.V.
Av. Jalisco 180,
Col.Tacubaya,
México D.F.11870,
Phone: 515-8580 a 92
Fax: 271-4395 515-3424
Contact: Ing. Carlos Garcia Muriel,
Director General

TEPESA,S.A. de C.V.
Diagonal San Antonio 938,
Col.del Valle
México D.F.03000,
Phone: 687-1189 687-5389
Fax: 543-6837
Contact: Ing. José Luis Navarro
Director

VIKING DE BOMBAS MEXICO,S.A. de C.V.
Rio Nazas 110,
Col.Cuauhtemoc,
México D.F.06500,
Phone and Fax: 514-1541
Contact: C.P. Carlos Lopez
Importador

PRIVATE DRILLING COMPANIES

PERFORADORA CENTRAL,S.A. de C.V.
Montes Urales 520
Col.Lomas de Chapultepec,
México D.F.11000
Phone: 202-1370
Fax:
Contact: Ing.Jorge Villalpando
Gerente General

PERFORADORA MEXICO,S.A.
Insurgentes Sur 432,piso 9,
Col.Roma Sur,
México D.F.06760
Phone: 574-2057,574-0122,574-8270
Fax: 574-4406
Contact: Lic. Alfredo Casar Pérez
Gerente General

Some Possible Business Contacts - Petroleum Sector

The following may be interested to talk to Canadian companies. Most speak english. Even if these are not a good match for your company, they are a source of information on other local contacts that might be.

Please note that the Embassy cannot "guarantee" these companies. Since feed-back from Canadian companies helps us form opinions of local companies, please let us know about your experiences with these or any other contacts. If a contact is not right for you, it might be right for another Canadian.

Dragados y Equipos, S.A.
Manuel Rivera Nº 19
C.P. 54030 Tlalnepantla,
Estado de México, México
Telephone: 011 (525) 390-0434
FAX: 011 (525) 565-2998
Contact: Sr. Guillermo Lara Lopez
Some specialties: dredging, marine and on-shore construction, repair, equipment parts. Registered with PEMEX.

Consorcio Mexicano de Comercio e Industria, S.A. de C.V.
Paseo de la Reforma, Nº 300, 20º piso
Col. Juarez
06600 México, D.F.
Telephone: 011 (525) 207-1973/533-3566/533-3567/533-3568/533-3569
FAX: 011 (525) 207-5503
Contact: Lic. Rafael A. Ramirez Galan, Director General
L.A.E. Otoniel Miranda Negrete, Director de Mercadotecnica
Some specialties: security systems and instrumentation. Untechnical support at PEMEX HQ, but links up with technical experts. Familiar with PEMEX personnel and processes at HQ.

Catalizadores Salhmon
Niza 77 - 302
06600 México, D.F.
Telephone: 011 (525) 208-9648/514-9356
FAX: 011 (525) 514-5814
Contact: Ing. Daniel Aguilar M., Gerente de Ventas
Some specialties: petrochemicals, refineries, pharmaceuticals, gas technology

Economic Development Consultants
310 North Mesa, Suite 313
El Paso, TX 79901, U.S.A.
Telephone: (915) 542-4872
FAX: (915) 542-4871
Contact: Mr. Raúl Ibarra
Some specialties: Familiar with PEMEX, has contacts in Campeche. See also his office "Coatza S.A." in Mexico City, last page.

Enlace Comercial Intercontinental S.A. de C.V. (ENCO)
Ejercito Nacional, No. 209
C.P. 11300, Mexico, D.F.
Telephone: 011 (525) 531-7222/255-3078
FAX: 011 (525) 545-6994
Contact: Mr. Erik van Olst
Some specialties: Petroleum equipment/services, has offices in regions, familiar with personnel and processes at PEMEX

Abastacimientos Universales, S.A. de C.V.
Avenida de las Granjas, Numero 155, Segundo Piso
Col. Jardin, Atzcapotzalco
02530 México, D.F.
Telephone: 011 (525) 396-9411/396-9428/341-0852
FAX: 011 (525) 341-0792
Contact: Ing. Juan de Dios, Gerente Comercial
Some specialties: Petroleum equipment, also for power and other heavy industrial equipment to state organizations; registered PEMEX supplier, has regional offices.

Inter-Export, S.A.
Havre 67 - 1-07
06600 México, D.F.
Telephone: 011 (525) 525-6807/514-1769
FAX: 011 (525) 514-8449
Contact: Sr. Noë de la Flor, Director Comercial
Some specialties: Petroleum equipment and services, presence in the regional offices. A full roster at present, but always glad to hear of more Canadian companies.

C.P. Golfo, S.A. de C.V.
Hamburgo 29
México, D.F.
Telephone: 011 (525) 592-5217/566-2377
Contact: Ing. Hector David Colon, Presidente
Some specialties: Variety of petroleum equipment and services. Have offices in the regions and in Houston. Are looking especially for companies with experience in pipeline or refineries construction.

DIMYESA (Distribuidora de Maquinaría y Equipos, S.A. de C.V.)
Loma Bontia No. 7
Col. Lomas Altas
11950 México, D.F.
Telephone: 011 (525) 670-4039/40/91, 670-3849/50, 670-3631
FAX: 011 (525) 670-7354
Contact: Ing. Antonio Barajas, President
Some specialties: High pressure hydraulic parts, plastics. Offices in Guadalajara, Puebla, Tijuana and Monterrey.

Intergolfo, S.A.
M. Abasolo 114 - A
Col. Atasta
86100 Villaheremosa, TABASCO
Telephone: 011 (931) 3 - 3825
FAX: 011 (931) 3 - 3825
Contact: Sr. Jorge Peyrou, Gerente
Some specialties: Petroleum equipment, concentration on important regional office.

INDUMES, S.A. de C.V.
Av. Insurgentes 605, Dsp. 304
Col. Napoles
México, D.F.
Telephone: 011 (525) 687-3481/5394
Contact: Ing. Jorge Jaber, Director General
Some specialties: Petroleum equipment and services. Knowledge of personnel and procedures, registered with PEMEX.

Productos Refacciones y Servicios De la Isla, S.A. de C.V.
Calle 35, No. 26
Ciudad del Carmen, CAMPECHE
Telephone: 011 (938) 2-0409
Contact: Sr. José T. Rangel
Some specialties: Concentrated on PEMEX's important marine zone office. Smaller parts and instruments.

Signal & Sistems Protección Industrial Veracruzana, S.A. de C.V.
C. Beistengui No. 113
México D.F.
Telephone/FAX: 011 (525) 687-4101
Contact: Sr. Marco Antonio Rodríguez
Some specialties: Instruments for PEMEX and Electric Commission. Main office in Veracruz.

LUPEQSA
Noradino Rubio 49
Col. Casa Blanca
76030 Queretaro, QUERETARO
Contact: Lic. Alejandro Loyola, Marketing
Some specialties: Petroleum derivatives

Industria del Hierro
Río Becerra No. 27, Piso 2
Col. Napoles
03810 México D.F.
Telephone: 011 (525) 660-3596
FAX: 011 (525) 687-3903
Contact: Ing. Eduardo Torres, Gerente Comercial
Some specialties: Manufactures petroleum and industrial equipment, some in cooperation with foreign licensees. A subsidiary of huge engineering company ICA.

Hidrojet, S.A. de C.V.
Zotitla No. 44
Col. Contadero
05530 México D.F.
Telephone: 011 (525) 812-1821/2977
FAX: 011 (525) 570-1806
Contact: Ing. José Cespedes, Gerente de Ventas
Some specialties: Make customized high pressure water pumps, repair of pumps, cleaning service for industrial equipment and tanks.

SEPARATOR S.A. de C.V.
Av. Revolución No. 850 - E
Col. Jardín Español
64820 Monterrey, NUEVO LEON
Telephone: 011 (83) 59-3120/3158/3489
FAX: 011 (83) 59-1410
Contact: Ing. Sergio Villanueva
Some specialties: Make centrifugal machines for diesel cleaning, rep Westfalia Separators

FAWICK de México, S.A. de C.V.
Poniente 128, No. 496
Col. Industrial Vallejo
02300 México D.F.
Telephone: 011 (525) 587-6755/6865
FAX: 011 (525) 368-8655/587-1917
Contact: Ing. Hector Gómez, Gerente General
Some specialties: Reps engine/machine parts, lubricants.

MATESA (Manufacturas Tecnologicas, S.A. de C.V.)
Isla Cedros No. 3031
Fracc. López de Legaspi
44950 Guadalajara, JALISCO
Telephone: 011 (36) 11-4114
FAX: 011 (36) 31-4499
Contact: Ing. Armando Santibañez, Gerente General
Some specialties: Telecommunications systems, other instruments (not specialized necessarily in petroleum sector)

Telas Metálicas Industriales, S.A.
Calle Ferrocarril No. 27
Fracc. Industrial Alce Blanco, Apdo. Postal 67
53370 Naucalpan, EDO. de MEXICO
Telephone: 011 (525) 576-5648/5630/359-0918/373-2847
FAX: 011 (525) 358-6883
Contact: Ing. Rudolf Kumbolder, Sub-gerente
Some specialties: Make wire cloth. Not specialized in petroleum industry but know this industry which supplies to PEMEX.

Central de Elementos Industriales, S.A. de C.V.
Ejercito Nacional 1112 - 1102
Col. Los Morales-Polanco
11510 México D.F.
Telephone: 011 (525) 395-9217/1676
FAX: 011 (525) 395-9217
Contact: Lionel Dignowity
Some specialties: Safety systems. Good relations with PEMEX regional offices for equipment.

FARISA (Fabricación de Estructuras y Redes Industriales, S.A.)
J. Cantu Leal 1311
Col. Buenos Aires
Monterrey, NUEVO LEON
Tlepeohne: 011 (83) 58-6761/6766
FAX: 011 (83) 59-3732
Contact: Victor Ramos
Some specialties: Do construction for PEMEX , especially related to pipelines

HI-TECH S.A. de C.V.
Héroes de Churubusco No. 7
Col. Tacubaya
11870 México D.F.
Telephone: 011 (525) 271-8381/272-1762
FAX: 011 (525) 272-0938
CANADIAN OFFICE
12 des Mésanges
Hull, Québec J9A 2B3
Telephone: (819) 595-2430
Contact: Jorge Madero, Dirección
Some specialties: Especially interested in environmental products.

AURIMPORT, S.A. de C.V.
Av. Vasconcelos 1501 Poniente
Centro Comercial Plaza Local 24
Col. Del Valle
66220 Garza García, NUEVO LEON
Telephone: 011-(83) 38-8386
FAX: 011 (83) 38-8514
Contact: Ing. Enrique Llaguno
Some specialties: Petroleum equipment to northern regions

Comercializadora VEL
Londres 190 - Desp. 304
06600 México D.F.
Telephone: 011 (525) 209-5924/525-1164
FAX: 011 (525) 207-5924
Contact: Enrique Rivera
Some Specialties: Not necessarily specialized in petroleum sector.

ALTA TECNICA SUBMARINA
Insurgentes Sur 1569
Col. San José Insurgentes
03900 México D.F.
Telephone: 011 (525) 524-6180/1999
Contact: MSD. Pablo García, Director de Operaciones
Some specialties: Marine services

Multi-Norm S.A.
84E Yucatan
Col. Rosa
México D.F.
FAX: 011 (525) 264-2006
Some specialties: Environmental products.

Representaciones Mexicanas de Maquinaria y Equipos
505 Ejercito Nacional 1004
Col. Granada
11520 México D.F.
Telephone: 011 (525) 250-4168
FAX: 011 (525) 395-3784
Contact: Ing. Juan Luis Steimle

SYSTEC (Servicios Tecnologicos Para la Construcción)
Ricardo Castro 54, Piso 84
Col. Guadalupe Inn
01020 México D.F.
Telephone: 011 (525) 550-2150
FAX: 011 (525) 548-7832
Contact: Dr. en Ing. Jorge Díaz, Director General

Sistemas Delphi de México, S.A. de C.V.
Refinería 1338
Parque Industrial El Alamo
Guadalajara, JALISCO
Telephone: 011 (52) 36-395-530
FAX: 011 (52) 578-819
Contact: Ing. W.H. Kock, Presidente

EPS Co. (Engineered Product Support Company)
3627 Cheaney Dr.
Houston, TEXAS 77066
Telephone: (713) 729-3944
FAX: (713) 729-2738
Contact: Ing. José Castañeda, President
Some specialties: Knows PEMEX personnel and procedures.

Servicios de Comercialización, S.A. de C.V.
Rafael Alducin No. 16 - 401
Col. Del Valle
03100 México D.F.
Telephone: 011 (525) 559-7134/575-1618
FAX: 011 (525) 575-1618
Contact: Ing. Frank Gebhart, President
Some specialties: Consulting engineering

International Business Consultants of Canada Inc.
Suite 407, 45 Camelot Avenue
Leamington, Ontario N8H 4V5
Telephone: (519) 326-0769
FAX: (519) 326-8774
Contact: Mark Petreau
Some specialties: Variety of industrialequipment in Mexico, is familiar with some areas of PEMEX personnel.