Activity No: TDA 2002-50028A IQC1D00282, Task IQ2D00391

## COLOMBIAN REFINERY SECTOR ORIENTATION VISIT

JUNE 23 - 29, 2002 HOUSTON, TX AND WASHINGTON D.C.

SPONSORED BY: U.S. TRADE AND DEVELOPMENT AGENCY

## **INITIAL REPORT**

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## The U.S. Trade and Development Agency

The U.S. Trade and Development Agency (TDA) promotes American private sector participation in developing and middle-income countries, with special emphasis on economic sectors that represent significant U.S. export potential. Through the funding of feasibility studies, orientation visits, specialized training grants, business workshops, and various forms of technical assistance, we help U.S. businesses compete for infrastructure projects in emerging markets. We assist in building mutually beneficial partnerships between American companies and overseas project sponsors, which result in increased U.S. exports and jobs, and the completion of high quality, successful projects in host countries.

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## 1. Introduction

This report summarizes the Colombian Refinery Sector officials Orientation Visit undertaken June 23-29, 2002. This orientation visit was sponsored by The U.S. Trade and Development Agency (TDA) and implemented under U.S. TDA IQC contract Number IQC1D00282, Task Order No. IQ2D00391 by Princeton Energy Resources International (PERI).

## 1.1 U.S. Trade and Development Agency

The mission of the U.S. TDA is to promote American private sector participation in developing and middle-income countries by helping U.S. companies pursue overseas business opportunities. Through the funding of feasibility studies, orientation visits, training grants, conferences, and various forms of technical assistance, U.S. TDA enables American businesses to become involved in the planning stages of infrastructure and industrial projects in middle income and developing countries. Through these programs, U.S. TDA provides American firms with market entry, exposure, and information, thus helping them establish a position in markets that are otherwise difficult to penetrate. U.S. TDA aims to assist U.S. companies in creating jobs here at home while simultaneously promoting economic growth in developing and middle income countries. U.S. TDA works closely with government officials and industry leaders in the host countries to ensure that U.S. TDA funded projects are of a high development priority for the countries where the projects are located.

Since the U.S. Trade and Development Agency's inception in 1981, U.S. TDA has been associated with approximately \$16.8 billion in exports – or nearly \$40 in exports for every dollar invested in U.S. TDA activities. In Fiscal Year 2000, U.S. TDA obligated \$51.7 million for U.S firms in more than 63 strategically targeted developing and middle-income countries in the following regions: Africa/Middle East; Asia/Pacific; Central and Eastern Europe; Latin America and the Caribbean; and Eurasia. U.S. TDA is primarily involved in the following sectors: agriculture; energy; environment; health care; information technology manufacturing; mining and minerals development; telecommunications; transportation; and water resources.

U.S. TDA's success is often achieved through the cooperation and assistance of colleagues throughout the U.S. Government. U.S. TDA works closely with the Department of State, the Department of Commerce, the Agency for International Development, the Department of Transportation's Federal Aviation Administration and Federal Railroad Administration, the Department of Energy and, most recently, the Federal Emergency Management Agency. U.S. TDA also works closely with the U.S. Export-Import Bank, and the Overseas Private Investment Corporation.

U.S. TDA funds project planning activities that directly influence the procurement decisions related to major industrial or infrastructure projects in developing and middle-income countries - projects that typically represent millions of dollars in U.S. export potential. From radar for airports in Asia to process controls for refineries in Latin America, hundreds of goods and services are required to implement a project. U.S. TDA works to ensure that the services and products provided by U.S. firms receive "equal access."

For more information, visit U.S. TDA's website at www.tda.gov.

## **1.2** Colombia and the Refining Sector

Although hard hit by a recession and political instability in 1999 and 2000, Colombia is beginning to recover. Increasing prices for oil and coffee, the country's two largest exports, is providing an influx of income to Colombia.

In order to continue to recover and to further strengthen the oil production and refining sector, the Government of Colombia is proposing new regulations that decrease the mandatory involvement of Empresa Colombiana de Petroleos (Ecopetrol), the state oil company, from 50% to 30% and decreases the royalties paid to the national and local governments. The Government has also stated that it does not intend to construct any new refineries that are wholly owned by the state<sup>1</sup> and that it is relying on the private sector to take the lead in expanding Colombia's refining capacity.

Colombia views U.S. products favorably and the U.S. is Colombia's primary trading partner with the lead in both exports and imports to and from Colombia. U.S. oil companies such as ExxonMobil and Santa Fe Energy have played key roles in the development of Colombia's current oil production and refining capacity.

The hydrocarbon production sector, as well as the mining and telecommunications sectors all saw growth in 1999, while the banking, tourism, manufacturing, transportation, and agricultural sectors shrank in 1999. However, it is expected that the economic recovery seen in 2000 should promote recovery in the poor-performing sectors.

As of mid-2000, public foreign debt was approximately US\$ 19.7 billion, almost entirely longterm; private foreign debt was just over US\$ 14.7 billion. Therefore, total foreign debt is approximately 40% of Colombia's GDP. Major international credit rating firms currently consider Colombia sovereign debt to be below investment grade.

Colombia receives most of its imports from the U.S., with a 42% share of imports; Colombia primarily imports capital goods, industrial inputs, and consumer goods. The U.S. is responsible for most of Colombia's exports, with a 48% share; Colombia primarily exports petroleum, coal, and coffee. The E.U., Japan, and Venezuela are other significant trading partners with Colombia.

Colombia's hydrocarbon reserves are owned by the Government and are administered by the state oil company Empresa Colombiana de Petroleos (Ecopetrol) and by the Energy and Mines Ministry. Ecopetrol was required to hold a 50% share in joint ventures with private companies, but that is being reduced to 30%.

<sup>&</sup>lt;sup>1</sup> Colombia Country Analysis Brief, Energy Information Administration, U.S. Department of Energy, May 2002

There are currently four major oil and/or gas producing fields in Colombia: Cusiana, Cupiagua, Cano Limón, and Chuchupa-Ballenas. Cusiana and Cupiagua are thought to have reached peak production while Cano Limón, the largest producing field, is nearing depletion. A joint venture between Ecopetrol and Petrobras-Nexen is expected to significantly increase production at Magdalena Valley, one the country's largest new fields. Overall, the Government hopes that the new regulations being put into place will encourage more exploration and production in the country and predicts that oil production could exceed 850,000 bpd in 2010.

Colombia also possesses two major refineries at Barrancabermeja and Cartagena; there are also smaller refineries located at Tibu, Orito, and Apiay. The current capacity of these refineries is 285,850 bpd. These refineries are all owned and operated by Ecopetrol, but the Government has stated that it will not construct any new refineries and that any new construction must be undertaken by the private sector. In February 2002, Ecopetrol announced that the private sector could proceed with plans to build a new refinery at Sebastopol, in Cimitarra.

Colombia has five oil pipelines, four of which connect the oil fields to the Caribbean port of Covenas. These pipelines include: Ocensa, from Cusiana/Cupiagua to Covenas; and Cano Limón, from the same named field to Covenas.

Foreign oil companies have played a significant role in exploration and production activities in Colombia. Some of these companies are: ExxonMobil, Chevron, BPAmoco, Arco, Oxy, Maxus, Nomeco, Conoco, L.L.&E., Santa Fe Energy, Triton, Harken, Shell, Elf Aquitaine, Total, Repsol, Lasmo, PetroCanada, Canadian Petroleum, Sipetrol, Petrobras, San Jorge, Teikoku, and Ampolex.

Colombia has rich bio-diversity and the nation prides itself on being a responsible steward of its environment. Colombia is party to a number of treaties and conventions including the Antarctic, Biodiversity, Climate Change, Endangered Species, Hazardous Wastes, Marine Life Conservation, Nuclear Test Ban, Ozone Layer Protection, and Ship Pollution. Colombian environmental regulations are usually stricter than corresponding World Bank environmental guidelines.

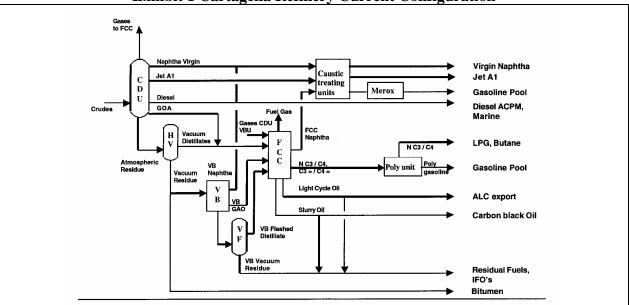
## 1.3 Cartagena Refinery

The Cartagena Refinery, owned by Ecopetrol, is a 75,000 barrel per day (bpd) refinery located west of the city of Cartagena. The refinery first began operation in 1956 and has been expanded and modernized periodically to increase output, to adjust to changing crude slates, and to meet market needs and demands. The Cartagena Refinery is located in the Mamonal industrial Zone, 30 minutes west of the city of Cartagena, on Colombia's northern coast. The refinery has well-established infrastructure including port and terminal facilities and piers for receiving tankers of up to 85,000 tons. In 2000, the Refinery exported approximately 42,800 bpd of products accounting for 47.2% of the refinery's total revenue of \$875 million.

Exhibit 1 shows the current configuration of the Cartagena Refinery. In the 1990's, Ecopetrol began evaluating options for expanding and modernizing the refinery in order to improve its

competitiveness and to enter new markets. Ecopetrol's objectives for expanding and modernizing the refinery included:

- Meeting a growing domestic demand for motor fuels
- Meeting clean fuel standards
- Meeting new environmental requirements
- Maximize the refinery's efficiency and reliability
- Improving the refinery's energy efficiency
- Improving the refinery's long-term competitiveness and profitability



## Exhibit 1 Cartagena Refinery Current Configuration

Source: Plan Maestro de Desarrollo de la Refinería de Cartagena, Bogotá D.C., November 2001, Empresa Colombiana de Petroleos – Ecopetrol.

In 1996 MW Kellogg, with support from U.S. TDA, developed a proposed Master Plan for expanding the refinery from 75,000 bpd to 140,000 bpd and modernizing the refinery to the product standards and environmental requirements of Ecopetrol. In 2000, Ecopetrol commissioned a study to update the proposed Master Plan to comply with the anticipated 2005 Fuel Product Quality legislation and with projections of future product demands and prices of crude and products. The new study demonstrated that from technical, economic, operational and strategic points of view the proposed expansion and modernization plan is feasible.

The new study also recommended that:

- Ecopetrol operate the expanded refinery on behalf of shareholders;
- utility (e.g., power, steam, hydrogen, air, and water) plants be located outside of the refinery fence;
- new product treating and environmental plants be located inside of the refinery fence;

• the refinery expansion and modernization be implemented as one integrated project without phasing.

Exhibit 2 shows the proposed configuration for expansion and modernization of the Cartagena Refinery.

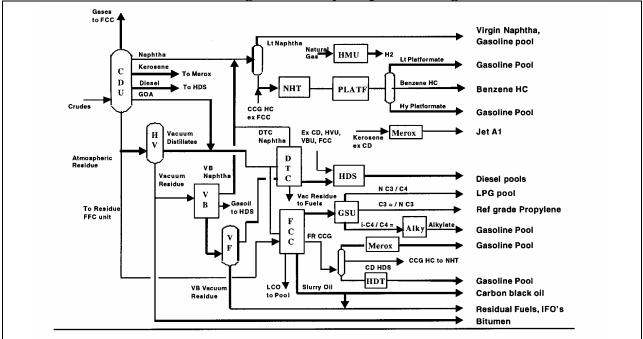


Exhibit 2 Cartagena Refinery Proposed Configuration

Source: Plan Maestro de Desarrollo de la Refinería de Cartagena, Bogotá D.C., November 2001, Empresa Colombiana de Petroleos – Ecopetrol.

Appendix A includes a copy of a Preliminary Information Memorandum (PIM) issued by Ecopetrol in November 2001 describing the Cartagena Refinery expansion and modernization Master Plan. This PIM indicates that the estimated total capital cost for the proposed expansion and modernization project is about \$630 million, including \$500 million for expanding and modernizing the refinery and \$130 million for the utility facilities.

## **1.4** Sebastopol Refinery<sup>2</sup>

Sebastopol Refinery (the "Company"), a Colombian corporation, was established in 1997 with the goal of developing Colombia's first private sector refinery. This new refinery (Exhibit 3) will be designed to process 30,000 bpd of Cusiana and/or Cupiagua crude to premium gasoline, LPG, and industrial fuels for the domestic market (Exhibit 4). A 75 MW cogeneration plant will provide the required utilities (power, steam, and compressed air) to the refinery (Exhibit 5). The Refinery will be located in the mid-Magdalena River valley (Exhibit 6), Medellín region, northwest of Santafé de Bogotá, within three miles of Colombia's main crude pipeline and will be adjacent to Ecopetrol's Sebastopol product tank farm (Exhibits 7and 8).

The Company is negotiating a 12-year off-take contact with Ecopetrol for 100% of the premium gasoline product. Ecopetrol will also supply the crude under a 12-year supply contract. Other products will be sold through one or more local distribution companies.

Total project cost is estimated to be approximately \$400 million -- \$315 million debt and \$85 million equity. A large portion of equity will be financed and sourced from the Colombian capital market (pension funds). The Company is structuring a zero coupon bond for \$65 million for a 12-year term. The Company has also executed an agreement with GIA International LTD. of Medford, Oregon to become a project co-sponsor and to invest \$20 million in the project. The debt will be arranged from the international financial market. The company has been in discussions with the U.S. Export-Import Bank (Ex-Im) and anticipates Ex-Im supported project financing for a substantial portion of the debt.

GIA International LTD. has also agreed to fully finance the co-generation power plant for \$65 million. Selection for Owners Engineer, Basic Engineering, Technology, and construction contractor will begin in the 3<sup>rd</sup> quarter of 2002.

The Company has also engaged the Shaw Group Inc., U.S.A., as its principal EPC contractor for the project. The Shaw Group will perform or cause to perform all engineering, fabrication, and construction work. The Shaw Group also will provide a 100% completion guarantee for the project. The Company has also signed a Letter of Intent (LOI) with UOP, LLC for providing operation and maintenance services for the refinery.

All governmental licenses and permits, including environmental permits, for the project have been obtained.

<sup>&</sup>lt;sup>2</sup> Source: Sebastopol Refinery

Exhibit 3

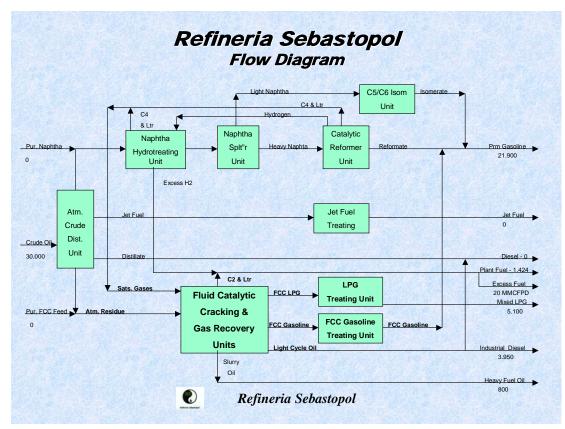


Exhibit 4 Sebastopol's Technical Specifications

- Capacity 30,000 BPD
- 30,000 BPD Crude Unit
- 11,000 BPD Naptha Hydrotreater
- 11,000 BPD CCR
- 20,000 BPD FCC/Gas Plant
- 12,000 BPD FCC
- 9,000 BPD LPG Treaters
- 8,000 BPD FCC C3/C4 Amine Contractor

- Tank Farm and Interconnects, Paving and Buildings
- Caustic System
- Truck Racks **PRODUCTION:**
- 21,900 BPD GASOLINE (RON 94)
- 3,950 BPD DIESEL
- 5,100 BPD LPG
- 800 BPD FUEL OIL CONSTRUCTION TIME: 30Mo.

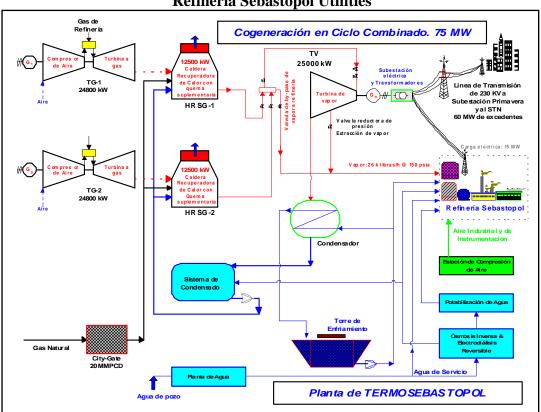


Exhibit 5 Refineria Sebastopol Utilities

Exhibit 6 Colombian Refineries



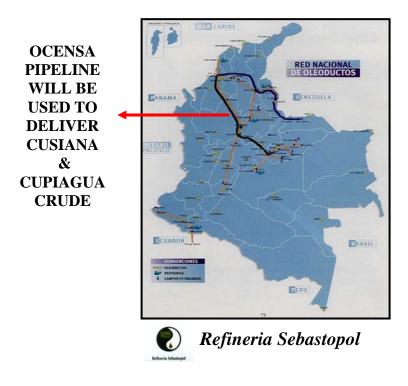
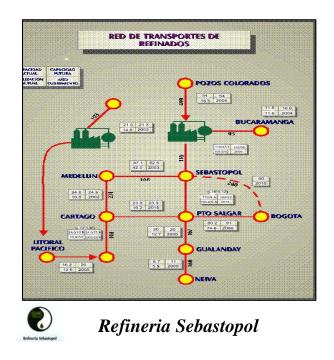


Exhibit 7 National Crude Pipelines

**Exhibit 8** National Products Pipelines. Sebastopol's Strategic Distibution Location



## 1.5 Orientation Visit

In an effort to provide U.S. businesses with the necessary information on business opportunities at the Cartagena and Sebastopol refineries, U.S. TDA sponsored an orientation visit on June 23 – 29, 2002 including a one-day business briefing in Houston, Texas and a one-day financing roundtable discussion in Washington, D.C. for the officials from these refineries. The official delegation included four executives from the Cartagena Refinery, two officials from the Sebastopol Refinery and a commercial specialist from American Embassy, Commercial Section in Bogotá. In addition, five representatives from Colombian and U.S. based-industries supporting the development of the Sebastopol Refinery project accompanied the group at their own expense.

Private meetings were arranged for the delegates with senior executives from six engineering, procurement, and construction (EPC) contracting firms, technology and equipment suppliers, and consulting firms. In Houston, Companies hosting meetings, tours, and meals for the delegates were ExxonMobil Refinery (at Baytown); GE Aero Energy Products; Jacobs Consultancy, Inc.; Foster Wheeler International Corporation; ABB Lummus Global, Inc.; Stone & Webster, Inc.; and Parsons Energy & Chemicals. In Washington, D.C., the delegates held a private meeting with the representatives of Taylor-DeJongh at Taylor-DeJongh's offices and met the representatives of the U.S. Export-Import Bank (Ex-Im), Overseas Private Investment Corporation (OPIC), Allfirst Bank (Allfirst), International Finance Corporation (IFC), and Sextant Capital Strategies during the financing roundtable discussion held at the U.S. TDA's conference center.

A Refinery Sector Business Opportunity Briefing highlighted the opportunities at the Cartagena and Sebastopol refineries for the U.S. industry participants. The delegates presented a detailed description of Colombia's oil production goals, Ecopetrol's role and plans for the expansion and modernization of the Cartagena Refinery and the plans and objectives for the construction of a new refinery by Refinería Sebastopol. A copy of materials presented by the delegates at this business briefing is provided in Appendix B. Over seventy people representing over sixty different U.S. firms attended the Briefing. Following the briefing, sixteen individuals representing fifteen different U.S. firms had one-on-one meetings with the members of the delegation.

Participation in the Business Briefing was promoted through e-mail and fax transmittal to the members of the InterAmerican Chamber of Commerce, Petroleum Equipment Suppliers Association (PESA), and PERI's in-house list of engineering, procurement, and construction (EPC) contractors, engineering, consulting, and equipment and technology suppliers. Over 300 firms were contacted by e-mail and fax and follow-up phone calls were made in an effort to notify all potentially interested persons. A copy of a flyer used to promote this business briefing is included in Appendix C.

Princeton Energy Resources International, based in Rockville, Maryland, planned, organized, advertised, and reported results from the meetings. The InterAmerican Chamber of Commerce, under a subcontract to Princeton Energy Resources International, provide logistics support for

the Business Briefing in Houston, Texas. A follow-up survey of the participating companies will be conducted one year from now to determine results from the meetings.

The participation in the financing roundtable discussion was limited to the financial institutions; Sextant Capital Strategies was invited due to their extensive experience in financing projects in Colombia. Seven financial institutions were invited to participate in the financing roundtable discussions; Ex-Im, OPIC, IFC, and Allfirst participated in this roundtable discussion. Appendix A includes a copy of the material presented by the delegates and the representatives of the financial institutions during the financing roundtable discussion. The formal discussion was followed by a networking luncheon.

## 2. Delegation Information

#### 2.1 Delegates Sponsored by U.S. TDA

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<sup>&</sup>lt;sup>3</sup> Participated in financing roundtable discussion on June 28<sup>th</sup> only. Mr. Augusto Ramirez substituted for Mr. Neider in meetings in Houston Texas.

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<sup>&</sup>lt;sup>4</sup> Participated in Business Briefing on June 25<sup>th</sup> only.

## **3.** List of U.S. Participants – Private Meetings

## 3.1 ExxonMobil Refinery Site Visit

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## 3.2 Jacobs Consultancy, Inc. Meeting

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## 3.3 Foster Wheeler International Corp. Meeting

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#### 3.4 ABB Lummus Global, Inc. Meeting

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#### 3.5 Stone & Webster Meeting

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Mr. Jim Mountaux Vice President 1430 Enclave Parkway Houston, Texas 77077 Phone: (281) 368-4120 Fax: (281) 368-4548 E-mail: jim.mountaux@stoneweb.com

## 3.6 GE Aero Energy Products Site Visit and Meeting

Greg West Manager, International Marketing GE Aero Energy Products P.O. Box 4414 Houston, Texas 77210 Phone: 713-803-0939 Fax: 713-803-0390 E-mail: gregory.west@ps.ge.com

Remy Hallam Sales Support Manager Latin America GE Packaged Power, Inc. 2707 North Loop West Houston, Texas 77008 E-mail: remy.hallam@ps.ge.com A. John Rezaiyan Vice President Princeton Energy Resources Int'l 1700 Rockville, MD 20850 Phone: (301) 468-8430 Fax: (301) 230-1232 E-mail: jrezaiyan@perihq.com

## 3.7 Parsons Energy & Chemicals Meeting

Juan Llovet Vice President Parsons E & C 5 Greenway Plaza Houston, Texas 77046 Phone: 713-407-5053 Fax: 713-407-5088 E-mail: juan.llovet@parsons.com

Raul Rizo-Patron Vice President Parsons Latin America 5 Greenway Plaza (77046) Houston, Texas 77277 Phone: 713-407-8594 Fax: 713-407-5088 E-mail: raul.rizo.patron@parsons.com

#### 3.8 Taylor-DeJongh Meeting

Gene Vega Vice President Taylor-DeJongh 1101 17th Street, NW 12th Floor Washington, DC 20036 Phone: 202-775-0899 Fax: 202-775-1668 E-mail: gvega@taylor-dejoghn.com

John E. Hehir Vice President Taylor-DeJongh 1101 17th Street, NW 12th Floor Washington, DC 20036 Phone: 202-775-0899 Fax: 202-775-1668 E-mail: jhehier@taylor-dejoghn.com

Jeneifer L. Hara Associate Taylor-DeJongh 1101 17th Street, NW 12th Floor Washington, DC 20036 Phone: 202-775-0899 Fax: 202-775-1668 E-mail: jhara@taylor-dejoghn.com June Toro Associate Taylor-DeJongh 1101 17<sup>th</sup> Street, NW 12<sup>th</sup> Floor Washington, DC 20036 Phone: 202-775-0899 Fax: 202-775-1668 E-mail: jtoro@taylor-dejoghn.com

Ilse Pineda Achtner Associate Taylor-DeJongh 1101 17<sup>th</sup> Street, NW 12<sup>th</sup> Floor Washington, DC 20036 Phone: 202-775-0899 Fax: 202-775-1668 E-mail: ipachtner@taylor-dejoghn.com

Last Name	First Name	Title	Company
Alatorre <sup>6</sup>	Carlos E.	International Sales	Tioga Pipe Supply Co., Inc.
Angulo	Albert W.	Regional Director, Latin America & The Caribbean	U.S. Trade and Development Agency
Arnold	Gwynne	Conference Registration Manager	InterAmerican Chamber of Commerce
Beeston <sup>6</sup>	Steve	Latin America Sales Manager	UOP LLC
Belaire <sup>6</sup>	Bobby	Project Manager	Advanced Instrumentation & Electrical, Inc.
Bettes	Terry	Sales Manager	Kodiak Industries, Inc.
Boyce <sup>6</sup>	Walter J.	President	Boyce Consultants
Castells <sup>6</sup>	Javier	Account Manager	UOP LLC
Cathriner	William W.	President	Continental Corporation
Correa	Gustavo	Director of Marketing	KBC Advanced Technologies
Cosso	Sergio	Director, Latin America Sales	Dresser-Rand
Dadson	Graham	Business Development Manager	CBI Company Limited
Diez <sup>6</sup>	Dario	Director	Fluequitec LTDA
Dorman	Fan	President & CEO	InterAmerican Chamber of Commerce
Farrie	Vaughan C.	Vice President	ABB Lummus Global, Inc.
González <sup>6</sup>	Eduardo	Business Analyst	Gaffney Cline & Associates
Gutierrez <sup>6</sup>	Raul	Director, Latin America Sales	Black & Veatch
Gutierrez Torres	The Honorable Otto	Consul General of Colombia	Colombia Consulate General
Guzman <sup>6</sup>	Francisco A.	President	Incopro Corp
Hall	Steve	Senior Vice President, Sales	Ultraflote Corporation
Headrick	Leonard P.	Business Development, National Accounts	Transoceanic Shipping Company, Inc.
Hesse <sup>6</sup>	Robert J.	Vice President, Business Development	Robert A. King, Inc.
Holden, Jr.	John B.	Partner	Jackson Walker L.L.C.
Hull	C. Bryson	Correspondent	Reuters

#### **Business Briefing Participants<sup>5</sup>** 4.

 <sup>&</sup>lt;sup>5</sup> Please see Section 2 for a list of participating delegates.
<sup>6</sup> Participated in one-on-one meetings.

Last Name	First Name	Title	Company
Johnson	Patrick Wm.	President	Kodiak Industries, Inc.
Johnston	Elmer	Secretary & General Counsel	Global Energy Development PLC
Kralowetz	Jeff	Editor	Petroleum Argus
Leiss	Benigna	Director, Business Development, Latin America	ChevronTexaco
Llovet	Juan	Vice President	Parsons E & C
Loredo	Rodolfo	Project Development	Panamerican Enterprises, Inc.
Maeda <sup>6</sup>	Takeshi	Project Development Manager, Onshore	KBRD, LLC
Martinez	Jaime	International Project Director	Onyx Engineering, Inc.
Martinez <sup>6</sup>	Sergio	President	Panamerican Enterprises, Inc.
Mathieu	Rene	Vice President	Foster Wheeler International Corporation
Meckel	Charles	International Sales Manager	Stainless Specialties, Inc.
Milano	Jann Michaela	Vice President, Business Development	Petro-Chem Technical Services, Inc.
Nilsson	Gunnar	Vice President	ABB Lummus Global, Inc.
Ortiz	Roberto	Business Development Manager	Stone & Webster, Inc.
Palmer	R. E. (Ed)	Manager, Process Design	Mustang Engineers and Constructors, Inc.
Pereira	José	Business Development Manager	SPS Inc.
Pulido	Clara I.	Technical Sales Manager	Koch-Glitsch, LP
Rabago	Tony	Director of Sales & Business Development, Latin America	Capstone Turbine Corporation
Rabie	Rocio	Logistic Coordinator	Princeton Energy Resources International
Raesde	John P.	Consultant, Market Development	BOC Gases
Ramirez <sup>6</sup>	Luz	Development Engineer	Wood Group
Ramos	Pablo	Business Development	FMC Energy Systems
Reynolds	Roy R.	Oil Reporter	Dow Jones Newswires
Rezaiyan	A. John	Vice President	Princeton Energy Resources International

<sup>&</sup>lt;sup>6</sup> Participated in one-on-one meetings.

Last Name	First Name	Title	Company
Rodriguez Andrade <sup>6</sup>	Mauricio	General Manager	Androma LTDA
Rubenstein	Mansel M.	President	Cement Lining Co., Inc.
Russo	Simon	Senior Consultant	Jacobs Consultancy, Inc.
Sandlin	Bradley A.	Vice President, Technical Sales	Petro-Chem Technical Services, Inc.
Santiago	Susana	Sales Agent	Servitrans
Saul	Harry	Manager, Houston Office	Sproule Associates, Inc.
Schlesing	Bill	Director, Business Development	Jacobs Consultancy, Inc.
Schmulson	Daniel	International Sales	North Shore Supply Co.
Serrano	Roberto	Associate	KBC Advanced Technologies
Silva	Roberto D.	Business Manager	BOC Gases
Spencer	Starr	Associate Editor	Platts
Sweezey	Alan	Executive Account Manager	Engelhard Corp.
Turbay	Gabriel	Consultant	Independent Consultant to Refineria Sebastopol
Urbaez	Fernando	International Sales Director	Cooper Energy Services
Valdivia	Manuel	President	Intermetals Company
Vila	Daniel	Sales Manager	ENRAF
Vittor	José Luis	Partner	Bracewell & Patterson, L.L.P.
Wallendorf	William	Senior Manager	Stone & Webster, Inc.
Wasp <sup>6</sup>	Timothy H.	Vice President, Technology Sales	Kellogg Brown & Root
West	Greg	Manager, International Marketing	GE Aero Energy Products
White <sup>6</sup>	E. Robert		Garry Struthers Associates, Inc.
Workman	Stephanie	Sales	Advance Products & Systems, Inc.

<sup>&</sup>lt;sup>6</sup> Participated in one-on-one meetings.

## 5. Financing Roundtable Discussions<sup>7</sup>

Cheryl Conlin Business Development Structured Finance Export-Import Bank 811 Vermont Ave., NW Washington, DC 20571 Phone: 800-565-3946 Fax: 202-565-3380 Email: <u>Cheryl.Conlin@exim.gov</u>

Pamela Bracey Sr. Insurance Officer OPIC 1100 New York Avenue, N.W. Washington, D.C. 20527-001 Phone: 202-336-8584 Fax: 202-218-0160 Email: <u>pbrac@opic.gov</u>

Charles J. Murphy Vice President Export Finance Division (101-486) Allfirst Bank 25 South Charles Street, 15th floor Baltimore, Maryland, 21201 Phone: 410-244-4507 Fax: 410-244-4328 Email: charles.j.murphy@allfirst.com

Albert Angulo Regional Director, Latin America and the Caribbean U.S. Trade and Development Agency 1621 North Kent Street, Suit 200 Arlington, Virginia 22209 Phone: 703-875-4357 Fax: 703-875-4009 E-mail: aangulo@tda.gov Matthias E. Hedinger IFC Investment Officer Oil, Gas & Chemicals Department 2121 Pennsylvania N.W. Room F8P-198 Washington, DC 20433 Phone: 202-473-3265 Fax: 202-974-4325 Email: <u>mhedinger@ifc.org</u>

Richard Grant Sextant Capital Strategies 28 Commerce Street Clinton, Connecticut 06413 Phone: 860-669-5610 Fax: 860-669-5610 Email: <u>rdgrnt@aol.com</u>

Ms. Thelma J. Askey Director U.S. Trade and Development Agency 1621 North Kent Street, Suit 200 Arlington, Virginia 22209 Phone: 703-875-4357 Fax: 703-875-4009 E-mail: <u>taskey@tda.gov</u>

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<sup>&</sup>lt;sup>7</sup> Please see Section 2 for a list of participating delegates.

Gabriella Rigg Country Manager U.S. Trade and Development Agency 1621 North Kent Street, Suit 200 Arlington, Virginia 22209 Phone: 703-875-4357 Fax: 703-875-4009 E-mail: grigg@tda.gov

# 6. Itinerary and Agendas for the Business Briefing and Roundtable Discussion

## Day 1 – Sunday, June 23<sup>rd</sup>

8:20 a.m.	Depart from Bogotá, Colombia (Continental Airlines – #0882) from Terminal 1
1:13 p.m.	Arrive in Houston, Texas, Terminal D, Geo Bush Airport
2:30 p.m.	Arrive at J.W. Marriott, Houston Hotel 5150 Westheimer Road Houston, TX 77056 713- 961-1500
7:00 p.m.	Dinner Hosted by PERI: Introduction and Review of O.V. Activities
Day 2 – Monday, June 24 <sup>th</sup>	
7:30 a.m.	Leave hotel for ExxonMobil refinery at Baytown
9:00 a.m. – 11:00 a.m.	Site Visit ExxonMobil Refinery
11:00 a.m.	Depart ExxonMobil Refinery
12:30 a.m. – 2:30 p.m.	Technical Presentation and Discussion at Jacobs Consultancy Inc.
	Lunch will be hosted by Jacobs Consultancy
3:00 p.m. – 5:00 p.m.	Technical Presentation and Discussions at Foster Wheeler Offices
5:30 p.m.	Return to Hotel
7:30 p.m.	Dinner hosted by Foster Wheeler International Mr. Rene Mathieu
	Beef and Bird Rotisserie 713-977-9524
Night	J.W. Marriott, Houston Hotel 5150 Westheimer Road Houston, TX 77056 713- 961-1500
Day 3 – Tuesday, June 25 <sup>th</sup>	
8:30 a.m 9:00 a.m.	Registration
9:00a.m 9:15 a.m.	Welcome, Introductions and Working with U.S.TDA Mr. Albert W. Angulo Regional Director, Latin America and the Caribbean

9:15 a.m. – 9:30 a.m.	Colombia And Ecopetrol Dr. Carlos Alberto Sandoval Reyes Financial Vice President, Ecopetrol
9:30 a.m. – 9:50 a.m.	Colombia Refinery Market Overview Dr. Jose Luis Saavedra Vanegas Refining and Marketing Vice President, Ecopetrol
9:50 a.m. – 10:10 a.m.	Fuel Quality Standards and Environmental Regulations Ms. Maria del Pilar Florez Forero Director, Corporate Planning, Ecopetrol
10:10 a.m. – 10:30 a.m.	Cartagena Refinery Expansion and Modernization Master Plan (PMD) Mr. Ramon Benavides Zarate Engineer, Cartagena Master Development Plan, Ecopetrol
10:30 a.m. – 10:50 a.m.	Questions and Answers
10:50 a.m. – 11:00 a.m.	Coffee Break
11:00 a.m. – 12:00 p.m.	Sebastopol Refinery – A Project Update Mr. Fernando Casas, President and Mr. Ben Malek, Executive Vice President Sebastopol Refinery
12:00 p.m. – 12:15 p.m.	Questions and Answers
12:15 p.m. – 1:00 p.m.	Networking Luncheon
1:00 p.m. – 4:30 p.m.	One-on-One Meetings
7:30 p.m.	Dinner Hosted By ABB Lummus Global (Casual) Mr. Gunnar Nilsson
	Las Almedas 8615 Katy Freeway Houston, Texas 713-461-1503
Night	J.W. Marriott, Houston Hotel 5150 Westheimer Road Houston, TX 77056 713- 961-1500
Day 4 – Wednesday, June 26 <sup>th</sup>	Transportation (minibus) will be provided by Class Limousine Services (713-772-5277)
9:00 a.m. – 11:00 a.m.	Technical Presentation and Discussions at Stone & Webster, Inc.

12:00 p.m. – 3:00 p.m.	GE Aero Energy Products – Factory Tour and Presentations
	Lunch hosted by GE Aero Energy Products
4:00 p.m. – 5:00 p.m.	Technical Presentation and Discussions at Parsons
7:00 p.m.	Dinner hosted by Parsons Mr. Juan Llovet
Night	J.W. Marriott, Houston Hotel 5150 Westheimer Road Houston, TX 77056 713- 961-1500
Day 5 – Thursday, June 27th	
7:30 a.m.	Depart Hotel for the Airport
9:31 a.m.	Depart Houston, TX for Washington, D.C. (Continental Airlines – FLT:1058) from Terminal C, Geo Bush Airport
1:31 p.m.	Arrive in Washington, DC at Terminal B, Dulles Airport
2:30 p.m.	Check in at Hyatt Arlington 1325 Wilson Blvd. Arlington, VA 22209 703-525-1234
3:30 p.m.	Leave for Taylor-DeJongh Offices
4:00 p.m. – 5:00 p.m.	Meeting at Taylor-DeJongh
Evening	Free
Night	Hyatt Arlington 1325 Wilson Blvd. Arlington, VA 22209
Day 6 – Friday, June 28 <sup>th</sup>	703-525-1234
8:45 a.m.	Leave Hotel for the U.S. TDA Offices
9:00 a.m. – 9:30 a.m.	Registration
9:30 a.m. – 9:45 a.m.	Welcome and Introduction Ms. Thelma J. Askey Director U.S. Trade and Development Agency

9:45 a.m. – 10:15 a.m.	Cartagena Refinery's Master Plan Dr. Carlos Alberto Sandoval Reyes Financial Vice President, Ecopetrol
10:15 a.m. – 10:45 a.m.	Financing Plan, Sebastopol Refinery Mr. Darryl Neider Finance Director Sebastopol Refinery
10:45 a.m. – 11:00a.m.	Coffee Break
11:00 a.m. – 11:20 a.m.	Cheryl Conlin Structured Finance Ex-Im Bank
11:20 a.m. – 11:40 a.m.	Pamela Bracey Sr. Insurance Officer OPIC
11:40 p.m. – 12:10 p.m.	Charles J. Murphy, VP Export Finance Division Allfirst Bank
12:10 p.m. – 12:30 p.m.	Matthias Hedinger IFC Oil & Gas
12:30 p.m. – 12:50 p.m.	Richard Grant Sextant Capital Strategies
1:00 p.m. – 2:30	Networking Lunch
Evening	Free
Night	Hyatt Arlington 1325 Wilson Blvd. Arlington, VA 22209 703-525-1234
Day 7 – Saturday, June 29 <sup>th</sup>	
11:30 a.m.	Depart Washington, DC for Houston, TX (Continental Airlines – FLT:0759) from Terminal B, Washington Reagan National
1:31 p.m.	Arrive in Houston at Terminal C, Geo Bush Airport
3:32 p.m.	Depart Houston, TX for Bogotá, Colombia (Continental Airlines – FLT:0883) from Terminal C
8:29 p.m.	Arrive in Bogotá, Colombia at Terminal 1

Appendix A Ecopetrol Refinery Information Memorandum Appendix B Presentation Material – Business Briefing Appendix C Promotional Flyer Appendix D Presentation Material – Financing Roundtable Discussion Appendix E Material Provided by U.S. Companies During Private Meetings E.1 ExxonMobil Refinery

E.2 Jacobs Consultancy, Inc.

**E.3** Foster Wheeler International Corporation

E.4 ABB Lummus Global, Inc.

E.5 Stone & Webster

E.6 GE Aero Energy Products

E.7 Parsons Energy & Chemicals

E.8 Taylor-DeJongh