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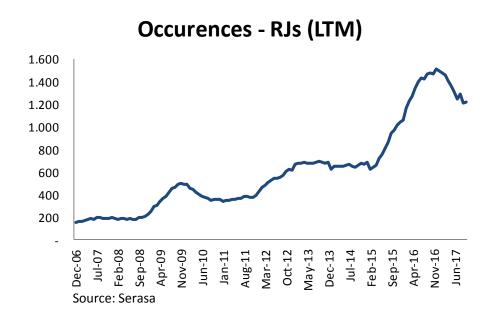
Distressed Market in Brazil

## **Distressed Market in Brazil**

#### **Highlights**

Set out below are some of the themes under discussion:

- Reorganization under Brazilian Insolvency Law does not work well. Historically, recoveries for creditors are materially lower than in other jurisdictions.
- The vast majority of companies under Judicial Reorganization ("RJ") never actually emerge.
- The basic problem is not the Judicial Reorganization Rules but the actual liquidation rules (Chapter 7 equivalent). In other words, the ability to effectively bankrupt a company in Brazil can take several years.
- Some of the proposed changes to the insolvency law could help improve recoveries:
  - DIP Facilities; and
  - Ability for creditors to submit alternative plans.
- Banks have been amending and pretending for a few years now. As such, while the trend in RJs is beginning to revert there is a large number of incremental filings waiting to take place.
- Current market favours distressed private equity.





# **Backdrop Oil and Gas Brazil**

#### **Selected Items**

Set out below are some of the themes under discussion:

- Activity expected to grow significantly in Brazil as a result of the relaxing of participation rules for Petrobras.
- Super majors expected to assist in the growth.
- Independents to require financing.
- RBLs represent an excellent strategy for a growing oil company to monetize reserves that may be reinvested in opportunities to accelerate growth. Main advantage is that the company retains the upside.
- Alternative funding structures will be needed.
- Lenders will be looking to the consistent application of rules and regulations affecting their exposure. So far, insolvency law is not providing such framework (until it evolves further), it will then be up to the regulator to establish criteria to foster an environment to attract capital.



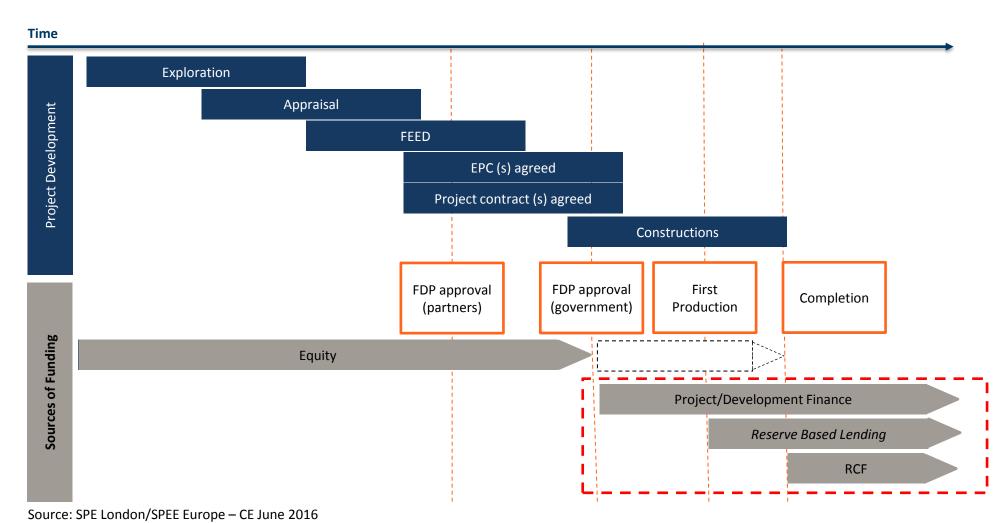


# **Main Examples**

Risk	SOURCE OF FUNDING	DESCRIPTION
	Reserve Based Lending	Fluctuating line of credit generally extended by a syndicate of banks and backed by a company's lower risk oil and gas reserves.
ı	Most prevalent among Midcap independents Highly structured transaction	Borrowing base determined by the NPV of cash flows generated by a portfolio of assets (itself dependent from the valuation of reserves).
ı		Purpose is primarily to fund acquisition and development for new reserves.
1		Financial covenants include cash flow leverage, interest coverage and current ratio covenants.
ı		Comprehensive security package highlighting that the main collateral is the revenue stream from oil exploration contracts ("anything you can get mentality").
П		Generally volatile to commodity prices. Long cash conversion cycles.
Н	Pre Export Finance	Specific to commodity payment flow/Typically backed by corporate credit.
	Second Lien	Generally pari passu in right of payment to RBL.
L	Corporate Line of Credit	Facility based on reserves but determined by backward looking financial metrics.
L	Mezzanine	Normally subordinated to RBL – usually paired with an equity kicker.
	Bonds	Normally subordinated to RBL.
	Equity	Traditional
<b>↓</b>	VPP (Volumetric Production Payments)	Non operating investment backed by a limited overriding interest in the producer lease of specifically identified reserves (transfers reserve risk).



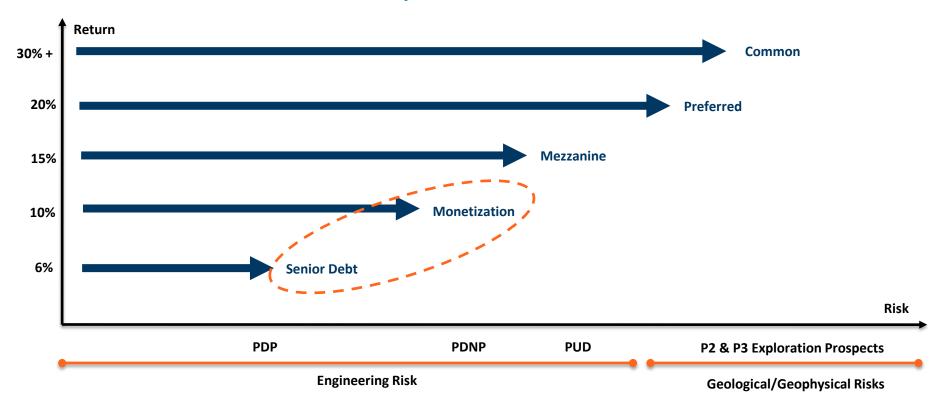
## **Cash flow based Structures Available at Different Stages of Asset Life**







#### Where does an RBL loan fit into the capital structure?



- The upstream oil and gas business is capital intensive and companies rely on all forms of debt and equity capital to finance their exploration, development and acquisitions activities.
- Banks are key capital providers to the upstream sector: Banks generally focus on the lower end of the reserve risk spectrum (Senior Debt).

Source: Energy Lending Presentation Texas RMA Spring Conference April 2015







## **Selected Items**

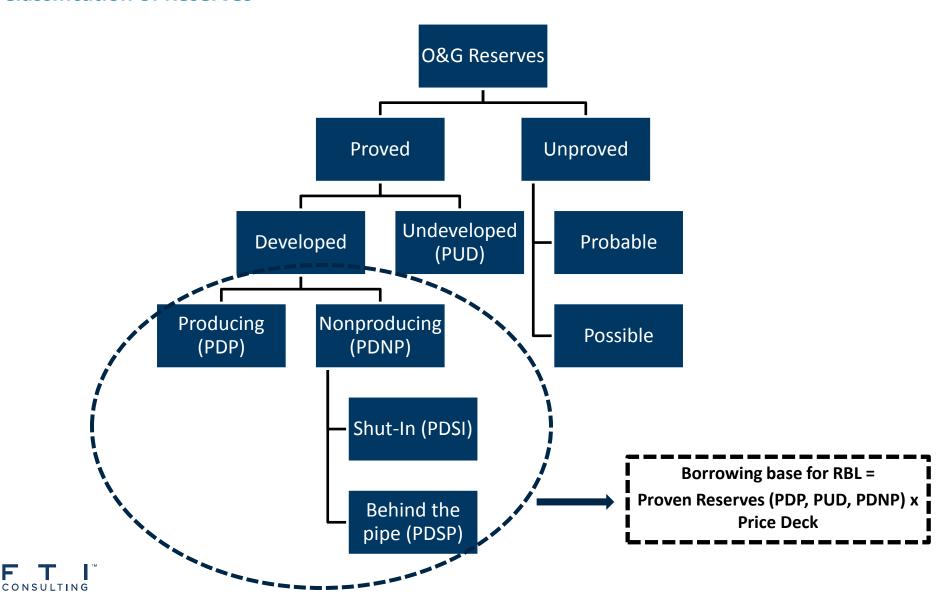
RBL performance in the US in bankruptcy:

Study	Date	Number of	Median	Mean
Study	Date	Companies	recovery	recovery
Standard & Poor's	1/18/2013	19	100.0%	100.0%
Moody's	1/16/2013	26	100.0%	98.5%
Wells Fargo unrated study	4/18/2014	11	96.0%	89.0%

Source: Reserve based lending and borrowing base methodology – March 2017



#### **Classification of Reserves**



## **Borrowing Base**

Set out below is an example of the borrowing base by Reserve Type:

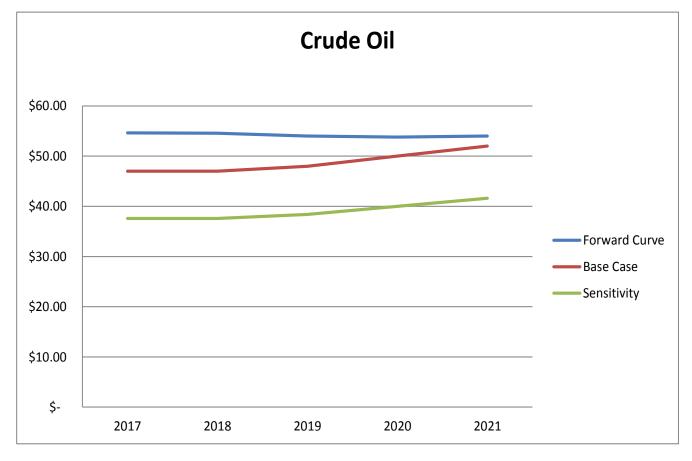
Reserve Type	Advance Rate ("AR")	Borrowing Base
Proved		
PDP	AR1: 95% - 99%	PDB (BB) = AR1 x PDP
PDNP	AR2: 95% - 99%	PDNB (BB) = AR2 x PDNP
PUD	AR3: 95% - 99%	PUD (BB) = AR3 x PUD
Total Proved		PDB (BB) + PDNB (BB) + PUD (BB)
Probable	N/A	No borrowing base credit extended
Possible	N/A	No borrowing base credit extended

Source: CENTER ON GLOBAL ENERGY POLICY | COLUMBIA SIPA (May 2017)



## **Borrowing Base**

Set out below is an example of a bank price deck:



Source: WFB Price Deck March 2017



#### **Cash Flows**

- Cash Flows Consist of:
  - (+) Bank Price Deck times Quantity Produced
  - (+/-) Basis Differential
  - (-) Gathering, Processing & Transportation
  - (-) Royalties
  - (-) Opex
  - (-) Taxes
  - (-) Capital Costs (Capex usually associated with PUD)
  - (=) Cash Flow
- Cash flows are subject to periodic redetermination of the borrowing base
- Cash Flows are projected and NPV at 9%



## **Highlights**

Set out below are some of the items that can lead to a reduction in the borrowing base:

#### **Reduction in the Borrowing Base**

Decline in commodity prices

Sudden rise in the Company's costs associated with drilling and production

Reserve write-down or other decline in reserves

Tightened underwriting standards by lenders

No liquidity to complete Capex

Total Funded Debt/EBITDAX is generally greater than 3.5x

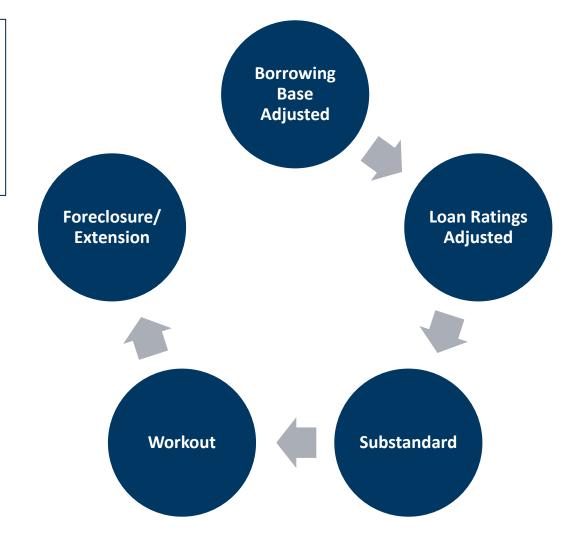


## **Workout Cycle**

Set out below is the general cycle of the workout process:

Lenders should be prepared to deal with foreclosure in local courts

Real value of taking collateral in Latam matters is for negotiating leverage







# Alternatives

# **Alternatives**

# **Main Examples**

	North Sea	US Off Shore	US On Shore	Mexico	Peru	Brazil
Reserves	Not pledged	Pledge of the lease Perfection is the issue	Pledge of the lease (real estate interest)	Not pledged	Not pledged	Not pledged
Refinancing Risk	Low	Bullet	High	na	Low	Evolving
Borrowing Base	Transparent	Black Box	Black Box	na	na	na
Selected comments	Pledge of stock that owns the concession as well as a pledge on proceeds	Bonding requirements	RBL Lenders concerned about foreclosing due to environment liabilities	Local solutions evolving Discomfort with legal solution Foreign lenders tend to avoid for now	Long dated bond in the context of a non-operating (non recourse to the Parent) Step in rights	Developing legislation



## **Alternatives**

#### **Highlights**

Set out below are some thoughts to circumvent the short-fall of the pledge of the mineral rights:

#### STRENGHTENING THE COLLATERAL PACKAGE

Assignment subject to prior approval by regulator (Key item to discuss)

- More structure closer to an international RBL;
- Step in Rights;
- Pledge over all contractual rights;
- Pledge over the sale of receivables;
- Cash lock box arrangements/Trust structures;
- Debt Service Reserve Account waterfall structures;
- Limit restriction on use of cash;
- Excess cash flow sweeps;
- Hedging obligation;
- Monthly updates;
- Third party financial monitoring;
- Independent reserve reports;
- Avoid assets coming close to the end of the economic life; and
- Personal and parent company corporate guarantees.





FTI at a Glance

# FTI Consulting at a glance

FTI Consulting is an independent global advisory firm dedicated to helping organizations manage change, mitigate risk and resolve disputes.



- Corporate Finance
   & Restructuring
- Forensic & Litigation Consulting
- Strategic
   Communications
- Economic Consulting
- Technology



#### **GLOBAL REACH**

With 4,600+ professionals and offices in 29 countries on six continents, our breadth and depth extends across every major social, political, and economic hub across the globe.



#### **INDUSTRY EXPERIENCE**

Our industry groups are staffed with seasoned practitioners who possess many years of hands-on management and operational experience in 16 industries.



#### **DEFINITIVE EXPERTISE**

Our professionals are experts, with extensive, practical experience in applying that expertise to generate a decisive impact.

#### FTI CONSULTING: EXPERTS WITH IMPACT

82

Offices in 82 cities around the globe

56

56 of Global 100 corporations are clients

97

Advisor to 97 of the world's top 100 law firms 10/10

Advisor to world's top 10 bank holding companies Global M&A Network
names FTI Consulting as
Three-Time Winner of the
Global Turnaround
Consulting Firm
of the Year Award

TURNAROUND
ATLAS AWARDS

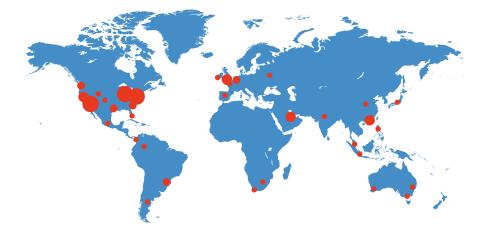
**FCN** 

Publicly traded

\$1.9 BLN

NYSE listed market capitalization<sup>1</sup>

(1)Total Shares outstanding times the closing share price as of December 30, 2016.





# FTI Consulting: Experts with Impact

FTI Consulting is an independent global business advisory firm dedicated to helping organizations manage change, mitigate risk and resolve disputes. Due to our unique mix of expertise, culture, breadth of services and industry experience, we have a tangible impact on our clients' most complex opportunities and challenges

**3,600**Consultants & Professionals

**440**+ SMDs

#### **Definitive Expertise**

- **2016** America's Best Management Consultant Firm, *Forbes*
- 2015 Winner AMCF Spotlight Award for Finance and Risk Management
- Best Economics Firm in the World, Global Competition Review's Economics 21
- PR Firm of the Year, 2015 M&A Atlas Awards

FCN

NYSE

\$1.7BLN

Market

Capitalization<sup>(1)</sup>

#### **A Culture That Delivers**

**Practical** in our communication and approach to outcomes

**Judicious** in complex, multi-party situations

**Collaborative** with clients and colleagues

**Professional** in our commitment to work with the highest caliber

#### **Comprehensive Services**



**Financial** 



Legal



Operational



Political & Regulatory



**Transactional** 



Reputational

Advisor to **92** of the world's top **100** law firms

**48** of Fortune Global **100** corporations are clients

Advisor to world's top 10 bank holding companies

#### **Industry Experience**

Construction

Retail & Consumer Products

Energy Power & Products

Healthcare & Life Sciences

Financial Institutions

Mining & Mining Services

Insurance

Insurance

Real Estate & Infrastructure

29

Countries

81

Cities



# Our Global Reach

With offices in every major financial center and every corner of the globe, we successfully serve our clients wherever challenges and opportunities arise.



Dublin



1. Affiliate



FTI Energy, Power & Products Practice – Overview



- The FTI Consulting Energy, Power & Products Practice is comprised of a dedicated team of professionals focused on the unique challenges impacting the complex energy sector. The group includes many of the energy industry's most respected names in consulting, energy economics and corporate finance.
- In today's increasingly challenging energy industry, companies must contend with significant oil and gas market volatility with prices falling from historic highs to recent market lows, escalating development costs, declining traditional growth prospects, global climate change and national security concerns.
- At the same time, the industry continues to cope with conflicting regulatory frameworks, power industry restructuring, pervasive contractual disputes and costly litigation. To assist our clients in these demanding times, FTI Consulting professionals provide a wide array of economic and business consulting services that address the strategic, financial, regulatory and legal needs of the industry.
- FTI Consulting's professionals collaborate across the entire firm to bring the right resources together, whether it is in the U.S. Congress seeking to understand the intricacies of energy trading and market formation or a Latin American energy producer fighting to optimize their asset base. We work in all the major producing areas, including sub-Saharan Africa, the Middle East, South America and Asia.

FTI Consulting energy professionals have worked on many of the energy industry's highest profile business issues.

#### **Representative Clients Include:**

Amerada Hess Corporation

BP plc

Burlington Resources, Inc.

Chevron Corporation

ConocoPhillips Company

**Dow Chemical Company** 

Duke Energy Corporation

El Paso Corporation

**Entergy Corporation** 

**Enterprise Products Partners LP** 

**Exelon Corporation** 

**Exxon Mobil Corporation** 

Florida Power and Light

Frontier Oil Corporation

Hunt Oil Company

Idaho Power Company

Kerr McGee Corporation

Kinder Morgan Energy Partners LP

Koch Industries Inc. Kuwait Petroleum Magellan Midstream Partners LP

Marathon Oil Corporation

Mirant Corporation

**Pacific Energy Partners** 

PacifiCorp

Pacific Gas & Electric Company

Petróleos de Venezuela SA (PDVSA)

Plains All American Pipeline LP

Statoil ASA

The Royal Dutch / Shell Oil Group



# FTI Energy, Power & Products Practice Market Leader in Fast-paced Restructuring Assignments

FTI Consulting is the clear market leader in fast-paced restructuring assignments.

For many of the reasons noted at right, FTI Consulting is often referred to as the "gold standard" by management and boards of directors in the restructuring of large and complex companies.

Track Record	■ FTI Consulting has numerous recent, relevant successes in high profile, complex restructuring situations in the energy industry.
Right Team	Local, national and global resources, without egos but with knowledge of Company and energy industry, will hit the ground running.
Highly Developed Analytics	■ FTI Consulting's tools to evaluate integrated financial and operational restructuring scenarios result in "getting to the solution" faster.
Unmatched Credibility	■ Constituent groups know and respect FTI Consulting's brand and team.
Human Capital	■ Expertise in assisting companies and lending groups in managing the human resource challenges associated with restructuring efforts.
Collaborative Approach	■ FTI Consulting's teams are comfortable in both "behind the scenes" and leadership roles.
Experienced Professionals	■ FTI Consulting will provide industry-leading and benchmark process expertise to assist the client formulate strategies and implement critical decisions.
'Road Tested' Analytical Tools	■ FTI Consulting quickly assesses situations and provides deliverables significantly faster than other restructuring firms.
Consensus Builders	Management, board of directors and other professionals typically see FTI Consulting as the driver that brings all parties together.
Engaged with Critical Constituents	■ FTI Consulting's industry-leading relationships encourage meaningful discussions and foster a partnership atmosphere.



# FTI Energy, Power & Products Practice FTI Platt Sparks

FTI Platt Sparks is a registered petroleum engineering consulting firm. Our staff includes ten engineers and one geologist - geophysicist. Prior to joining FTI Platt Sparks, our professionals worked in the oil and gas industry for major oil companies, mid-size and small independent oil companies, technical service providers and government regulatory agencies. Our industry experience includes onshore and off-shore, as well as domestic and foreign operations. On average, our professionals have more than 25 years of petroleum industry experience. All of our engineers are licensed. Our professionals are members and officers in professional organizations such as the SPE, SPEE, SPWLA, AAPG and SEG. FTI Platt Sparks has practiced around the globe, analyzing oil and gas properties onshore and offshore in North America, South America, Europe, Asia, Africa and Australia.

Oil & Gas Reserves and Economic Evaluations	<ul> <li>Determine oil and gas reserves in-place and develop production forecasts.</li> <li>Develop reserve estimates and oil and gas property valuations based on future expected production, product prices, ownership, costs (development, operating, transportation, processing), taxes, royalty burdens, product prices, etc.</li> <li>Employ oil and gas reserves valuation software such as ARIES and PhDWin that are used throughout the industry.</li> <li>Support Financial Advisors in understanding a Company's oil and gas assets and perform analyses testing valuation sensitivity to various scenarios: future pricing, capital costs, development plans, etc.</li> <li>Provide economic studies and prepare reserve studies, reserve audits, due diligence studies and other analyses used in property appraisals for investments, litigation, financing, M&amp;A, tax valuations and other fair market value purposes.</li> <li>Maintain and employ technical and value databases from The Railroad Commission of Texas and the Texas Comptroller.</li> </ul>
Litigation - Expert Witness - Court's Expert	<ul> <li>Litigation experience before state courts, federal courts, arbitration panels, state regulatory commissions and federal agencies. We also have the unique experience of serving as a court's expert, advising the court on the significance and meaning of technical evidence presented in oil and gas litigation.</li> <li>Coordinate/interface with other litigation team experts to construct a seamless presentation linking geology/geophysics, petroleum engineering, field operations, oil and gas lease requirements, regulatory issues, joint-venture contract issues, economics, finance and petroleum law issues.</li> <li>Analyze opposing parties' expert reports and advise on strengths/weaknesses of the analyses and opinions presented.</li> </ul>
Regulatory Experts	<ul> <li>Advise our clients on compliance with state and federal oil and gas regulations.</li> <li>Analyze data from field operations and make routine regulatory filings required for our clients' oil and gas operations.</li> <li>Perform studies and develop reports and non-routine regulatory filings on behalf on our clients who wish to propose/oppose changes to existing authorizations or create new authorizations. Prepare supporting exhibits and testify at regulatory hearings relating to the proposed authorizations.</li> <li>Permitting oil and gas waste disposal, underground hydrocarbon storage and brine mining.</li> </ul>
Oil and Gas Industry Generalists	• Analyze and report on various oil and gas industry topics. Explain to courts, juries, arbitration panels, regulatory agencies, investors, etc. the real-world aspects of oil and gas exploration, development, production, processing and transportation. These general topics include oil and gas leasing, royalty obligations, well drilling and completion, waterflood, CO <sub>2</sub> flood and other enhanced oil recovery operations, field unitization and field rules, gathering, transportation and processing.
Reservoir Studies	Analyze geologic, geophysical, well log, well test, PVT (pressure-volume-temperature) analyses, production data, etc. to develop a reservoir model including volumes, pressures, hydrocarbon contacts and drive mechanisms. Use standard reservoir engineering methods, including reservoir simulation to analyze various reservoir development and production scenarios. Estimate capital and operating costs to apply to the various production scenarios to optimize field development.
Geologic /	<ul> <li>Analyze seismic data and integrate with well log data and regional published data to develop a geologic model.</li> </ul>

■ Prospect evaluation, project development and drill-site selection using seismic data and subsurface well log data. Design and supervise 3-D seismic projects from acquisition and processing to final interpretation. Utilize AVO and advanced seismic attribute

analysis to define and map the extent of productive reservoirs.

■ Develop 3-D volumetric models of the reservoir for reserves in-place and drainage analysis.



**Geophysical Studies** 



Corporate Finance/Restructuring – Qualifications & Representative Engagements



# Qualifications and Relevant Experience Upstream Experience

Over the last three years, FTI Consulting has advised management, bank groups, unsecured creditors and other stakeholders in the most significant energy related restructurings and turnarounds in recent years.



Financial Advisor to the Secured Lenders



Financial Advisor to the First Lien Lenders



Financial Advisor to the Unsecured Creditors Committee



Financial Advisor to the Lenders



Financial Advisor to the Secured Lenders



Financial Advisor to the First Lien Lenders



Financial Advisor to the First Lien Lenders



Financial Advisor to the Second Lien Lenders



Financial Advisor to the Official Committee of Unsecured Creditors



Financial Advisor to the Senior Lenders



Financial Advisor to the Canadian Subsidiary



Financial Advisor to the Bondholders



Financial Advisor to the Official Committee of Unsecured Creditors



Financial Advisor to the Unsecured Creditors



Financial Advisor to the Secured Lenders





# Qualifications and Relevant Experience Oilfield & Energy Services/Midstream Experience

Over the last three years, FTI Consulting has advised management, bank groups, unsecured creditors and other stakeholders in the most significant energy related restructurings and turnarounds in recent years.



Financial Advisor to the Indenture Trustee



C&J Energy Services

Financial Advisor to the Revolver and Term Lenders



Financial Advisor to the Company



Financial Advisor to the ABL Lenders



Financial Advisor to the Secured Lenders



Financial Advisor to the Revolver and Term Lenders



Financial Advisor to the Term Lenders



**Chief Restructuring Officer** 



Financial Advisor to the First Lien Lenders



Financial Advisor to the Senior Lenders



**Chief Restructuring Officer** 



Receiver



Financial Advisor to the Bondholders



Interim Chief Financial Officer



Financial Advisor to the Secured Lenders





# Qualifications and Relevant Experience Other Relevant Industry Experience

Over the last three years, FTI Consulting has advised management, bank groups, unsecured creditors and other stakeholders in the most significant energy related restructurings and turnarounds in recent years.



Financial Advisor to the Secured Lenders

**Private** 



Financial Advisor to the Lenders



Receiver



Financial Advisor to the Lenders



Advisor to the Senior Lenders

Midstream Oil **Company with** Assets in the **Mississippi** Lime and Ft. Financial Advisor to the Secured Lenders



Financial Advisor to the Official Committee of Unsecured Creditors

**Energy Future Holdings** 

Financial Advisor to the Official Committee of Unsecured Creditors



Financial Advisor to the **Unsecured Creditors** 



Financial Advisor to the **Unsecured Creditors** 



Chief Restructuring Officer and Interim Chief Financial Officer

\$20 Billion **Global Oilfield Services** Company

> Financial Advisor to the Company

Coast Resources

Receiver



Financial Advisor to the Senior Secured Bondholders



Financial Advisor to the Secured Lenders





#### **About FTI Consulting**

FTI Consulting, Inc. is a global business advisory firm dedicated to helping organizations manage change, mitigate risk and resolve disputes: financial, legal, operational, political & regulatory, reputational and transactional. With more than 4,600 employees located in 29 countries, FTI Consulting professionals work closely with clients to anticipate, illuminate and overcome complex business challenges and make the most of opportunities.

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