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The Market Environment
Selected U.S. E&P Themes

Commodity prices lower for longer
- Commodity prices have declined rapidly from their 2014 peaks. Unlike the 2008-2009 price decline, supply is expected to significantly outstrip demand throughout 2016
- U.S. production growth is slowing as operators reduce rig counts. Since September 2014, total rig count has decreased by more than 1,200 rigs, but a recent uptick in permitting indicates a near bottom in rig count
- The backlog of uncompleted wells is still significant as operators postpone selling flush production at depressed prices. Completion of these wells could mitigate the production decline
- Market expectations are for crude oil to approach cash costs and not rebound until it rebalances in 2H16

E&P companies substantially reducing budgets
- Limited 2016 hedges and current strip prices forcing companies to substantially reduce drilling capex
- Financial distress / bankruptcies will continue to increase rapidly if commodities stay at current levels
  — 40 companies filed for bankruptcy in 2015 with over $17bn in debt
- Debt restructuring is buying time but not solving fundamental problem
- Most companies have not released 2016 budgets but are expected to live within cash flows
  — Living within cash flow likely leads to reduced production
- Do investors really want growth now? Are wells really economic or are companies destroying value?

Capital markets closed except for selected companies
- High yield market is currently closed
- After nearly $40bn of IPOs from 2013 to 2014, the IPO market remains closed
- Through the first half of 2015, nearly $15bn of equity was raised to “survive the coming storm”
- During the remainder of the year the market became very selective with approximately $3bn of equity offerings from predominantly well-capitalized operators in the Permian Basin
  — January 2016: Pioneer’s $1.4bn and Diamondback’s $226mm bought-deal well received by the market

Customized solutions
- Debt and hedge restructures
- Farm in debt finance
- First and second lien finance
- Pre-acquisition close hedging
- Physical structures
U.S. Crude Oil Price Outlook
Street Consensus Well Above Strip

- Growth in North American production levelling after sharp drop in commodity prices and a resultant drop in rigs
  - Current total production sitting at ~9.2MM Bbls/d with production expected to decline in 2016 and 2017
  - Declining domestic operating and capital costs
- Demand growth expected to remain relatively healthy, with North American strength offset by weakness in Europe and Asia Pacific
- Glut in Cushing inventories combined with world oversupply will work to keep spread narrow between WTI & Brent
- In addition, first U.S. Crude export sailed in December 2015
- Storage overhang will limit upside in the medium term
- Well productivity remains in an upward trend but might be nearing peak
  - Production per lateral foot increasing
  - Larger laterals / completion intensity
- Strong U.S. Dollar exacerbating the situation

Source: NYMEX WTI and Brent Futures via Factset as of January 14, 2016, Bloomberg, EIA
Production beginning to plateau in the Marcellus
   — Slowing crude oil and wet gas growth can partly offset ongoing production growth in 2015
   — Production declines projected in the Haynesville and Fayetteville shales
El Niño and resulting warmer than normal weather
Coal-to-gas switching still key price driver
   — Switching continues to be a balancing factor in the $2.50 - $3.00/MMBTU range, which has contributed to strong burn
Longer term demand growth expected over next five years
   — Petrochemical expansions
   — 10 Bcf/d of liquefaction capacity by 2020
   — Exports to Mexico
   — Coal plant retirements and coal-to-gas switching

Source: Energy Information Administration as of January 14, 2016; NYMEX Henry Hub Natural Gas Futures via FactSet as of January 14, 2016
The Macquarie Oil & Gas Team

**Oil & Gas Investment Banking**

- **Brady Parish**
  - Senior Managing Director
  - Head of U.S. Oil & Gas

- **Joel Saber**
  - Senior Vice President
  - U.S. Oil & Gas

**Commodities and Financial Markets**

- **Paul Beck**
  - Senior Managing Director
  - Head of Upstream Capital
  
- **Ozzie Pagan**
  - Senior Managing Director
  - Energy Markets

- **Nicole Jasper**
  - Managing Director
  - Upstream Capital
  
- **David Simpson**
  - Managing Director
  - Upstream Capital
  
- **Greg Smith**
  - Managing Director
  - Upstream Capital

**Oil & Gas A&D**

- **Grant Butkus**
  - Senior Vice President
  - Head of A&D Advisory

- **Michael Verhagen**
  - Associate
  - U.S. Oil & Gas

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Overview of Macquarie
Macquarie Group

A global, diversified financial services provider

Macquarie Group at a Glance

- Global provider of banking, financial advisory, investment and funds management services in major international financial centers
- Founded in 1969 as the Australian subsidiary of UK merchant bank Hill Samuel
- Established and growing presence in the U.S. since 1994
- Listed on Australian Securities Exchange (ASX:MQG) since 1996

Macquarie Capital Overview

- Debt Capital Markets
- Equity Capital Markets
- Private Capital Markets
- Principal Investments
- Restructuring
- M&A Advisory

Focus on 7 Core Industries

- Financial Institutions
- Telecom, Media, & Technology
- Natural Resources
- Industrials
- Real Estate
- Gaming
- Infrastructure & Utilities

Macquarie Group by the Numbers

- $17.2bn+ Market Capitalization
  (Market capitalization in USD as of January 14, 2016)
- $368bn+ in total AUM
  (AUM in USD as of year-end March 31, 2015)
- 14,000+ staff across 70+ offices in 28+ countries

Macquarie Capital by the Numbers

- $310bn+ advising on 500+ M&A deals since 2009
- $85bn+ in debt financing raised globally in 2014
- $133bn+ of equity raised as bookrunner since 2009

Macquarie Capital statistics include acquisitions

(1) Market capitalization in USD as of January 14, 2016
(2) AUM in USD as of year-end March 31, 2015
Macquarie Group
Committed to the Energy Sector

300+ people in Houston focused on the Energy sector

- Over $1.1+bn invested to support clients in the U.S.
- Over $5.0bn in capital deployed to 200+ E&P companies in past 12 years
- Largest non-producing gas trader in the U.S.
- 8.7 Bcf of physical gas traded each day
- Over $85.7bn in Energy related M&A and A&D transactions since 2008
- 239 energy companies covered by 37 equity analysts in 24 countries
- Almost $3.0bn AUM invested in 13 energy assets globally
- Over $58bn of energy-related debt restructured since 2000

Note: “Commodities and Financial Markets” (CFM) is part of Macquarie Bank Limited. Principal Transactions, Mergers, Acquisitions & Divestitures, and Capital Markets are all part of “Macquarie Capital”

(1) Includes transactions across all industry verticals
(2) Mergermarket as of January 5, 2016; universe includes transactions with target assets located in the Americas, Africa, Europe, Middle East, and Asia Pacific; includes transactions of Tristone Capital acquired by Macquarie in 2009
(3) Natural Gas Intelligence Press Inc for 3Q 2015
### Depth of Macquarie Capital Energy Sector Expertise

#### Corporate M&A and Asset Divestment Advisory
- Team has executed over $100bn of Corporate M&A
- Leveraging A&D platform
- $15bn+ of U.S. divestitures over past 8 years
- Deep technical expertise across lower 48 E&P basins and credibility with operators and financial sponsors
- Strategic alternatives
- Experienced energy teams and established relationships in major energy hubs
- Global presence and capability drives cross border activity
- Complex transaction structuring experience

#### Debt & Equity Capital Markets
- Leading global debt & equity underwriter
- Arranger of acquisition financing
- Dedicated equity sales and capital markets teams
- Top ten equities research house globally with over 2,400 stocks under coverage
- 155 US ECM transactions since 2009, including 53 as a bookrunner

#### Restructuring & Special Situations Advisory
- Advise clients through recapitalizations and balance sheet restructurings
- Develop innovative advisory solutions which draw upon global product capabilities and client relationships
- Raise special situation capital, including senior stretch, mezzanine and/or equity capital
- Provides distressed M&A advisory for clients leveraging deep contacts with industry players and special situation investors
- Assessment of strategic alternatives

#### Principal Capital Investments
- Flexible capital capabilities with an established track record of principal investing
- Appetite to invest in a wide variety of opportunities
- Typical investments in the $25 - $150 million range
- Capital often utilized to facilitate acquisitions, refinancing of capital stakeholders or organic capex/project and asset development needs
- Variety of structured solutions ranging from debt/preferreds through common equity with flexibility in tenor

#### Infrastructure, Midstream Advisory & Project Finance
- Strong understanding of investor appetite, requirements and investment processes
- Extensive industry, development and project finance experience with balance sheet support to provide financing solutions for midstream clients
- Leading energy and midstream equity raising and financing capability with over $1.5bn in equity raised over last 2 years
- Midstream sector focus includes storage, pipelines, gathering & processing & LNG

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**Macquarie’s Commitment to the Energy Sector**

**Depth of Macquarie Capital Energy Sector Expertise**

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Our Services and Capabilities

- Ability to customize our marketing process to fit the clients’ needs
- Technical credibility with buyers
  - Respected technical staff with reputation for achieving maximum value
  - Experts in working with potential buyers and mitigating concerns
- Technical knowledge and presentations tailored to capture value of upside reserves
  - Present assets clearly and accurately
  - Capture value of upside reserves often overlooked by potential buyers
- Extensive experience in all major US basins with numerous repeat clients
  - $15+ billion of US properties sold in the last eight years
- We know the buyer universe – best and worst
  - Constant interaction with the most active US buyers
  - Relationship with non-U.S. Buyers
- We do the bulk of the work, so you can focus on your core business and creating value
  - Allows for an efficient and effective process
Extensive Macquarie A&D Experience in U.S. Basins
$15+ Billion of U.S. Properties Sold in Last 8 Years

Permian Basin
- Anadarko
- Cimarex Energy
- Kerr-McGee
- Tom Brown, Inc.
- Nadel & Guzman
- PITCO
- Kinder Morgan
- Opal Resources

Green River Basin
- Hunt Petroleum
- Suncor Energy
- Berco Resources
- Jetta Operating
- PITCO
- Merit Energy
- Anadarko
- SM Energy
- Medicine Bow

Williston Basin
- Chaparral Energy
- Merit Energy
- Anadarko
- Haynesville
- PITCO
- Agate Petroleum
- Kerogen

DJ Basin
- Sunoco Energy
- ExxonMobil
- Willmac
- Jetta Operating
- Primary
- PITCO
- NiMin Energy

Powder River / Big Horn Basins
- Anadarko
- Exxomobil
- Willmac
- Jetta Operating
- Primary
- PITCO
- NiMin Energy

Illinois Basin
- Plains E&P

Appalachia
- EOG Resources
- Saga Petroleum
- Victory Energy
- Mega

Kansas
- Lario Oil & Gas
- Amadeus Energy
- Medicine Bow
- Rockford Energy
- Sawtooth Energy
- States Inc.
- Merit Energy
- GMX Resources

Cherokee Basin
- Devon Energy
- Rockford Energy

Arkoma Basin
- Samson
- Merit Energy
- PITCO
- Kerogen

E. Texas / N. Louisiana
- Navidad
- SandRidge
- Hunt Petroleum
- Will-Drill
- Hyperion
- States Inc.
- Ocean Energy
- Burk Royalty
- PITCO
- Geo-Vest

Gulf Coast
- Swift Energy
- Anadarko
- Venoco
- ConocoPhillips
- Devon Energy
- Tri-CJAMEX
- Delta Petroleum
- Kerns Oil & Gas
- Encon Services
- Hilcorp Energy
- PITCO
- Hess Corporation
- Hunt Petroleum
- Manti Operating
- Moran Resources
- States Inc.
- Entré Energy
- CDX Gas LLC
- JM Huber
- Brigham
- White Oak
- Cimarex Energy
- Merit Energy
- Jetta Operating
- Alpine Resources
- Magnum
- EXCO Resources
- Legend
- Virtex Petroleum
- Range Resources

Ft. Worth Basin / Barnett Shale
- Beacon E&P
- SPICE Inc.
- Gaedeke
- Wagner Oil
- Devon Energy
- Van Operating
- EOR
- Macquarie

Macquarie
- EOR
- Manti
- Manti
- Kerr-McGee
- Ocean Energy
- Cimarex
- Tana Expl.
- Marathon
- Maxus
- Manti
- Merit Energy
Commodities & Financial Markets
Macquarie Energy Capital

World leader in natural resource investments: 200+ deals and $5bn funded since 2002

Tailored solutions including a wide array of debt and equity capital for the upstream oil and gas industry

- Conforming Senior Debt (Borrowing Base Lending)
- Pre-paid Swaps and Volumetric Production Payments
- Uni-tranche / Nonconforming Senior Debt
- Subordinated Debt
- Structured and Project Finance
  - Term loan structure that may include warrants or after-payout real property interests (NPIs or ORRIs)
- Convertible Debt
- Alternative JV Development Capital
- Public and Private Equity Capital
  - Often combined with debt investments including common, preferred and convertible stock and warrants and options

$US20—$150m
DEBT DEAL SIZE

$US5—$50m
EQUITY HOLD

Commodities & Financial Markets
Macquarie Energy Capital

Risk

Return

Proved Producing Portion of Reserve Base

0%

100%

L+2%

6-9%

20%+

Commercial Banks – Senior Debt
Volumetric Production Payments
Subordinate Loans
Structured Project Loans
Convertible Debt
JV Capital

Private Equity & Industry Farm-outs
Commodities & Financial Markets
Commodities Division

Global presence across key energy centers with financial and physical commodity capabilities

### Top North American gas marketers: Q3 2015
By wholesale physical volumes sold, second quarter (in Bcf/d)

<table>
<thead>
<tr>
<th>Company</th>
<th>Bcf/d</th>
</tr>
</thead>
<tbody>
<tr>
<td>BP</td>
<td>21.9</td>
</tr>
<tr>
<td>Shell Energy</td>
<td>9.8</td>
</tr>
<tr>
<td>ConocoPhillips</td>
<td>8.9</td>
</tr>
<tr>
<td><strong>Macquarie Energy</strong></td>
<td>8.7</td>
</tr>
<tr>
<td>Tenaska</td>
<td>7.5</td>
</tr>
<tr>
<td>Sequent</td>
<td>6.4</td>
</tr>
<tr>
<td>J. Aron / Goldman Sachs</td>
<td>5.3</td>
</tr>
<tr>
<td>EDF</td>
<td>5.0</td>
</tr>
<tr>
<td>Chevron</td>
<td>4.0</td>
</tr>
<tr>
<td>Direct Energy</td>
<td>3.9</td>
</tr>
</tbody>
</table>

Note: Data compiled from quarterly filings with the Securities and Exchange Commission. In cases where such data was not available, a certified statement from a company executive was required. Data from some producers reflect average production.

9+ year track record of serving North America at all major points in the U.S. and Western Canada

- Includes structured supply solutions, asset management, and physical pipeline and index options

### Commodities & Financial Markets

- **Oil**
  - Physical crude and product marketing and trading
    - Crude oils, diesel, gasoline, jet fuel, fuel oil
  - Financial options and derivatives
    - Crude oil basis hedging (WTI, Brent, Dubai)
    - Crude differentials (WTS, Mid/Cush, LLS, Mars, WCC, WCS)

- **Natural gas**
  - Physical natural gas marketing and trading
    - Henry Hub & UK NBP
    - Basis locations
  - Financial options and derivatives
    - Henry Hub & NBP
    - Most N.A. basis points
  - Optimization of storage and pipeline capacity

- **Natural gas liquids**
  - Physical and financial natural gas liquids marketing and trading
    - Mont Belvieu/Conway
    - Ethane, propane, butanes, natural gasoline
    - Out to 48 months
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