<table>
<thead>
<tr>
<th>Component</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Enterprise Value ($B)</td>
<td>$30</td>
</tr>
<tr>
<td>2013E Operating Cash Flow ($B)</td>
<td>~$2.3</td>
</tr>
<tr>
<td>2013E Drilling Expenditures ($B)</td>
<td>~$2.8</td>
</tr>
<tr>
<td>Q3 2013 Production - 65% Liquids (MBOEPD)</td>
<td>173</td>
</tr>
<tr>
<td>YE 2012 Proved Reserves (BBOE)</td>
<td>1.1</td>
</tr>
</tbody>
</table>

The Pioneer Overview highlights the large independent U.S. E&P Company’s key statistics and operating areas across various regions. The map visually represents the company's footprint, including the North Slope, various shale areas like Eagle Ford Shale, Raton, Hugoton, West Panhandle, Northern Spraberry/Wolfcamp, Southern Wolfcamp JV Area, and Barnett Shale Combo. The Dallas Headquarters is also marked on the map, indicating the company's central location. The image includes a legend for Operating Areas.
Pioneer At A Glance: Midland Basin Focus

- Second largest oil producer in Texas
- Resource-focused strategy, with activity concentrated in 3 of the most active U.S. fields
- Best performing energy stock in S&P 500 since 2009
- Operating in core Spraberry/Wolfcamp asset since early 1980s
  - PXD holds ~900,000 acres in Spraberry/Wolfcamp
  - Largest producer in Spraberry/Wolfcamp with 28 rigs operating (13 horizontal and 15 vertical) and 7,000+ producing wells
  - Preeminent, low-cost operator benefitting from vertical integration strategy
Largest Oil Fields Worldwide

Spraberry/Wolfcamp is the 2nd largest oil field in the world

1) Total recoverable reserves includes oil and gas for all fields
Source: Wood Mackenzie for international fields; Spraberry/Wolfcamp from Pioneer
1) Potential impediments to achieving this forecast include oil price, capital, infrastructure (Midland and oil field) and people
2) Assumes industry rig count ramps up from ~65 horizontal rigs currently to ~120 rigs per year in 2018 and thereafter (excludes Pioneer’s portion)
3) Includes royalties and joint interest partner’s share of production in southern Wolfcamp
Public Questions

- Wellbore Integrity
- Air Quality
- Seismicity
- Water Use
- Endangered Species
The Players

- Communities
- Regulators
- Lawmakers
- NGOs
- Service Companies
- Universities
- Oil & Gas Producers
Wellbore Integrity

- Objectives
  - Control wellbore pressure
  - Prevent pollution or groundwater contamination
  - Safely drill to total depth and produce oil/gas

- Texas Rule 3.13 revisions
  - Upgrade regulations for drilling and completions

- FracFocus reporting

- Fracture additive product assessment
Air Initiatives—Reducing GHG

- US GHG emissions are lower due in a large part to natural gas substitution for coal.

Air Initiatives—Methane Measurement Project

Part 1 Results

• Most hydraulically fractured well completions sampled had equipment in place that reduces methane emissions by nearly 99%. Methane emissions from well completions are 97% lower than calendar year 2011 national emission estimates, released by EPA in April 2013.

• Emissions from pneumatic devices are approximately 70% higher than current EPA net emissions estimates, and equipment leaks are ~50% higher than current EPA net emission estimates; collectively these emissions account for more than 40% of methane net emissions from natural gas production.

• Methane emissions from gas production, from all sources measured in the study, were comparable to the most recent EPA estimates.

• Emissions for completion flowbacks, pneumatics and equipment leaks, coupled with EPA national inventory estimates for other categories, leads to estimated 0.42% methane emissions from natural gas gross production.

Part 2 Plan

• Additional emission measurements from liquid unloadings (100 events) and pneumatic controllers (500 controllers) to supplement and enhance the data collected in Part 1 of the study.

• Conduct sampling September 2013 through early 2014 and submit final report for publication in March 2014.
Air Initiatives—Internal Plans

- **Internal Plans**
  - Estimate comprehensive emissions inventory
  - Evaluation of upwind/downwind measurement methods
  - Direct emissions measurement (ex. pneumatic devices)
  - Voluntary emissions reduction measures (instrument air pneumatic controllers, green completions, infrared surveys on production equipment, natural gas-fueled fleet and drilling rigs)

- **Compliance with new rules**
  - New Source Performance Standards (NSPS) – EPA
Source Water Background

- TWDB data indicates that West Texas aquifers have been stable or slightly rebounding since the 1980’s
- Most O&G activity used fresh nearby groundwater
Data indicates that Edwards-Trinity aquifer level has increased since 1985 by about 5 feet on average.

EDWARDS-TRINITY Aquifer
5 County Average
Water Well - Ft. Below Surface Trend
Source: TWDB Groundwater Database
Recent Average Edwards-Trinity Aquifer Level

EDWARDS-TRINITY in Andrews, Glasscock, Irion, Midland, Reagan, & Upton Co - Avg Water Level

TWDB Data indicates that Edwards-Trinity aquifer level has increased 35’ feet since 2009
## Permian Water Sources

<table>
<thead>
<tr>
<th>Source</th>
<th>Summary of Challenges</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fresh</strong> (less than 1,000 ppm TDS)</td>
<td>Local: Concern that volumes are limited. Distant: Texas still has limited fresh water &amp; cost to transport</td>
<td>5.4 B ac-ft*</td>
</tr>
<tr>
<td><strong>Brackish</strong> (1,000 – 10,000 ppm TDS)</td>
<td>Local: Drilled 40 wells for brackish water with mixed results. Distant: Cost to transport is significant</td>
<td>2.7 B ac-ft*</td>
</tr>
<tr>
<td><strong>Recycling</strong></td>
<td>Clean Brine: ~Low cost; Storage, transport &amp; frac chemistry challenges. Desalination: Highest cost; Solids or brine concentrate disposal</td>
<td></td>
</tr>
</tbody>
</table>

All options have challenges... *Volumes statewide per TWDB
Pioneer’s Permian Water Plans:

- Brackish sourced water
- Blending and Treating water to keep TDS below 3,000

**Positives:**
- Reduces fresh water demand
- Provides long-term water source for Pioneer
- TDS below 3,000 reduces risks in transport and storage

**Challenges:**
- Requires long term commitment
- Transportation required
Network to Distribute Useable Water

Plan:
- Build a network to move useable water close to frac sites
- Build storage ponds spread around acreage (red dots)

Why?
- Reduced need for trucking water
- Transport water more effective for long term
- Allows flexible use of water sources and storage capacity
Other Parts of the Plan

Continue to evaluate other sources
- In-field brackish wells
- Municipal waste water sources
- Pipelines from outside of basin

Recycling projects
- 4 recycling projects by Q1 2014 - 20,000 BWPD
  - 3 desalination projects
  - 1 clean brine project

Evaporation Control Covers (ECCs)
- Can save 6 feet of evaporation per year in W. Texas
- Economically viable if pond needed for several years
- Approximately 6 ECCs installed by year-end 2013
- More installations planned
Endangered Species

- Endangered Species Act Reform
  - Industry groups lobbying Congress for targeted reforms to ESA that are pragmatic and based on sound science, not politics
  - ESA should not be utilized as a land and water management tool but for its intended purpose of wildlife protection
- An “endangered” or “threatened” listing places communities and future development at risk
- 250+ candidate species must be reviewed by 2016
- Voluntary Conservation Agreements help protect species and may prevent listings
Induced Seismicity from Fluid Disposal

- Long history of water injection by O&G
  - Very few cases of seismicity, minimal surface impact

- Studies are ongoing
  - Induced seismicity is hard to differentiate from natural seismicity
  - Nature is often hard to predict

- Potential impact may be evaluated case-by-case
  - Risks can be managed
  - Industry and States addressing
Conclusions

- Hydraulic Fracturing of shale is game changing and very positive for the USA
- O&G has taken steps on the major areas
- Many studies and programs are ongoing
- O&G cares about community support & sustainability