Oil & Gas Law

Class 26:

New Developments / Review – Fracing, Horizontal Drilling and Garza
ADMIN STUFF…

- Evaluations
- TH, April 24: Optional review session
- Recognitions
- **Final Exam!!!**
“Tests make you nervous and break out in what?”
Final Exam – 1: Basics

- **Details**
  - **TH 5/8, 6:00-9:00 PM;** Location: **TU2 – 144**

- **Format**
  - 18-25 M/C and FitB Questions
  - 2-3 essay questions (if 3, 1 essay could be replaced by a “medium length” question)

- **SIMPLE CALCULATORS PERMITTED …**
  - **NOT** smartphones (or Internet-connected devices)
Final Exam – 2: Scope

Per Syllabus
- RoC/Corr. Rts./ Reg. Resp. 31
- OGL 27
- L’or Convey. 23
- L’ee Convey. 15
- New Dev. 4

100

Modified (approx.)
- OGL 30-33
- L’or Convey. 25-28
- L’ee Convey. 18-20
- New Dev. 4

100
Shale, Fracing & HZ Drilling – Intro

- Unprecedented opportunity and challenges
- A “technological revolution”
- Formations once thought to be uneconomical are now very profitable
- Evolution occurring at high speed
Shale, Fracing & HZ Drilling – Intro

- *3 factors?*
- Technical advances in HZ drilling
- Technical advances in fracing
- Higher gas prices
What IS Shale?

- a very fine-grained sedimentary rock that (unlike traditional granite- or sandstone-based formations) can be **easily broken** into thin, parallel layers

- shale can contain a large amount of natural gas
  - but the gas not necessarily mobile

- natural gas produced from shale is one of several "unconventional" sources of natural gas
  - other unconventional sources include natural gas produced from coalbeds and from "tight" (impermeable) sandstone or chalk formations.
Natural Gas
Shale Plays in Lower 48 States

Source: Energy Information Administration based on data from various published studies.
Updated: May 9, 2011
Horizontal Drilling and Fracing
Fracing

Hydraulic fracturing makes it possible to extract large amounts of natural gas by drilling into rock to depth of 7,000 feet or more. Here’s how it works:

1. Pumper truck
2. Sand, water, and chemicals are pumped into ground at high pressure to fracture shale
3. Fractures enable natural gas to flow into the well
4. Natural gas flows out of well and stored in tanks
5. Recovered water stored in pit before treatment
HZ Drilling

Why it’s so profitable:

- HZ drlg exposes more of the producing portion of the reservoir over what vertical drlg does
  - → efficiency gains can be exponential

- More source rock exposed = higher prod. rates
  - tens / 100+ feet → many hundreds / thousands of feet
  - Operators produce more of the reservoir before they have to move to secondary recovery operations
  - Access more formation(s) with fewer surface locations

- Inaccessible areas now accessible
  - Parks, cemeteries, business districts/downtown areas, rivers, residential neighborhoods, etc.

- 6-8 horizontal wells = 16 vertical wells
HZ Drilling: Terminology

- Wellhead
- Surface
- Boundary line
- Surface Owner A
- Surface Owner B
- Horizontal drainhole
- First Take Point
- Boundary Line
- Last Take Point
- Penetration point
- Distance A
- Distance B
- Distance C
HZ Drilling: State Regulation

- Statewide Rule 86 (vs. Rules 37 / 38)
  - Adopted in 1990
  - 1st reg of its kind in US

- Terminology
  - Correlative Interval
  - Penetration Point
  - Terminus
  - Horizontal Drainhole – all pts must comply w/ applicable leaseline and spacing requirements

- 2 tables that add more acreage to Rule 38

Density limits
Fracing & HZ Drilling

- Unprecedented opportunity → challenges
  - Water use / access
  - Environmental (chemical injection)
  - Environmental (other effects)
  - Drilling / prod. in urban areas
  - Litigation
  - Technological changes coming faster than ability of the legal system to keep up
  - Higher capital / operating costs

Challenges are what make life interesting.
Overcoming them is what makes it meaningful.
HZ Drilling – Litigation Issues

- Because HZ drilling crosses multiple tracts of land, the associated issues then to focus on the kinds of issues we see where we have multiple mineral owners, royalty holders, etc.

- **What situations have we seen this?**

- **Pooling / Unitization !!!**
HZ Drilling – Litigation Issues

- OGLs w/ different (or conflicting) pooling cl.
- Older OGL forms that don’t comply / accommodate HZ drilling
- OGL partially expired (Pugh clause)
- Multiple OGLs for different depths
- Sharing / allocating royalties from the spacing unit – wellbore length, not acreage
- NPRI owners: HZ well crosses multiple tracts; t/f there are multiple “drillsite tracts” and each NPRI owner can elect in or out
- Subsurface Trespass
Subsurface Trespass [ from CL 3 ]

Based on common law principles of above-ground trespass → **WHAT’S THE ISSUE?**

**Considerations:**
- What is crossing the property line
- What kind of formation / zone is being entered
- Remedy sought
- Good faith vs. bad faith – affects damages
- Trespasser’s intent: irrelevant (except re good / bad faith)
In O&G context, TX Sup. Ct. considered such a situation in 1950 (Hastings Oil Co. v. Texas Co.)

- **Sfce Locations**
2008 …

- … a momentous year in TX oil & gas law !
- August – Garza
- November – Wagner Brown v. Sheppard
Garza

**Relevant facts?**
- Share 13 well 3 – strong producer
- Share 12 well 1 – drilled as close to Share 13 as regs allow
- Share 12 well 1 fraced – hydraulic length designed to reach 1,000 ft.
- 80-acre unit (73 ac. from Share 13; 7 from Share 12 → Share 13 wells 2V and 4 included, but NO WELLS from Share 12)
- Tr. Ct. judgment = $15 million → industry fear that increasingly common act would lead to liability
  - Amici briefs from “every corner of the industry”

**Issues?**
Garza: 5 Issues
(not incl. the procedural one re standing)

1. Can a Lessor w/ a reversionary interest (i.e., the Lease still exists) sue for trespass?  YES

2. Is subsurface fracing that extends into other property a trespass?  AVOIDED

3. Breach of the I/C to develop and to protect vs. drainage  Damages analysis

4. Bad faith pooling  Damages analysis

5. What is the measure of damages?
Garza: Rulings

- Avoided addressing whether fracking can constitute subsurface trespass
  - Instead: trespass needs injury, and under the RoC Garza had no injury

- 4 reasons not to change the RoC
  - Mineral owner being drained already has recourse
  - Usurps RRC authority
  - Determining the value of O&G drained by fracking is not the kind of issue litigation can address
  - RoC shouldn’t be changed, b/c no one in the industry appears to want or need the change
Garza: Other Interesting Points 1

- **p. 72:** “The ‘H & H Doctrine’ has no place in the modern world.” – quoting from the Causby case in FN 9

- **p. 77 (dissent):** “… maximizing recovery via fracing is essential; enshrining trespass liability for fracing is not. … Open-ended liability [would ensure] that much of our State’s undeveloped energy supplies would stay that way – undeveloped. TX O&G law favors drilling wells … Amid soaring demand and sagging supply, Texas common law must accommodate cutting-edge technologies able to extract untold reserves from unconventional fields.”
pp. 74 (Maj.) and 90 (dissent): differentiating between a deviated well that bottoms on another’s property and a fractured well

p. 73: “The rule of capture is a cornerstone of the oil and gas industry and is fundamental both to property rights and to state regulation.”
Garza: Aftermath & the “Real” Lessons Learned

- “no one in the industry appears to want or need …” a decision which would create liability for frac projects

- $ and the TX O&G industry win

- April 2013: W Va Federal Ct. rejects Garza
  - Stone v. Chesapeake Appalachia, LLC
  - “hydraulic fracturing under the land of a neighboring property without that party’s consent is not protected by the ‘rule of capture’, but rather constitutes an actionable trespass.”
Objectives – from Course Overview

- understand the concepts involved in leasing property for oil and gas exploration, development and production
- possess a basic knowledge of the oil and gas business and its essential terminology
- recognize and understand the business and legal issues found in fundamental oil and gas documents, such as leases, farmout agreements, and joint operating agreements
- recognize legal issues and legal problems within the framework of the oil & gas industry, and determine which legal principle(s) will apply
- answer, in a passing fashion, a Bar Exam question involving oil and gas