Production & Development

Beyond the Primary Term

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GOMR, Office of Production & Development
• BSEE Organization
• Laws – Regulations – Guidance
• Lease Holding
• Why Conservation?
• Premature Abandonments
• Conclusions
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Deputy Regional Supervisor

Development & Unitization Section
Mark Hanan
Section Chief

Resource Conservation Section
Steve Walsh
Section Chief
- Downhole Commingling
- 500’ Lease Line
- Gas Flaring
- Gas Cap Production
- Well Potential Tests
- Semiannual Well Tests

Measurement Approval & Enforcement Section
Fred Jacobs
Section Chief

Well Analysis Section
Becky D’Amico
Section Chief
- Pressure Gradients
- Idle Iron
- Enhanced Recovery

Development Unit
Brian Russo
Supervisor
- Premature Abandonments
- Reservoir Bypassing
- Paying Quantities
- Lease Suspensions

Unitization Unit
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- Unitization
- Unit Suspensions
- Gas Injection
- State/Fed Issues
- Need-based Royalty Relief
- International Boundary Issues

Comm. & Measurement Approval Unit
Kelly Johnson
Supervisor
- Surface Commingling & Production Measurement Applications

Measurement Verification Unit
Frank Yam
Supervisor
- LVS
- GVS
- Production Data

Measurement Inspection Unit
Jason Abshire
Supervisor
- Measurement Inspections
- Site Security
- Flare/vent Inspections
Production & Development

- **Conservation Enforcement**
  - Flaring & venting
  - Premature abandonment
  - Enhanced recovery
  - Etc.

- **Measurement**
  - Measurement approvals
  - Meter proving
  - Measurement inspections
  - Etc.

- **Other**
  - Suspensions
  - Paying Quantities
  - Pressure Gradients
  - Etc.
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Laws - Regulations - Guidance

Executive (Enforce Laws)
- BSEE & most other government agencies

Legislative (Write Laws)
- Congress, GAO

Judicial (Interpret Laws)
- Court system

President signs into law (OCSLA)

BSEE writes regulations (more detailed)

Oil companies comply with rules

BSEE issues NTL if needed (very detailed)

Congress writes bill

- Law change very rare (Congress)
- Regulation change takes years (BSEE)
  1. Publish proposed regulation
  2. Receive public comments
  3. Publish final regulation
- NTL faster, but only guidance (BSEE)
• **Spirit of laws & regulations**
  - Ever ask what min. threshold BSEE will accept?
  - Look beyond minimum compliance

• **Submitting false/misleading info**
  - 30 CFR 250.1460(b)(1) – (civil penalties)
  - 30 CFR 250.1480 – (criminal penalties)

• **Maximizing profit may sometimes conflict with regulations**
  - Job is to make $ for your company, but…
  - Company doesn’t want you committing violation on its behalf
Agenda

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Leases Beyond Primary Term

• Leasing (BOEM)
  • 5, 5+3, 7+3, or 10 year primary terms
  • Competitive lease sales / fair market value
  • Initial bonus $ for primary term only
  • Acreage desired by competitors

• Diligence (BSEE)
  • Held beyond primary term if …
    • Producing (in paying quantities)
    • Drilling
    • Reworking well
    • Suspension
    • Approval of more than 180-days
    • Any of above within Unit

} +180 days
• Operators must monitor – Lease terminates by operation of law

• 180-day sliding window
  • Last day of “production” doesn’t necessarily start new 180-day clock

• BSEE runs periodic checks
  • Letters sent for questionable leases

• NTL No. 2008-N09

• Positive stream of income after subtracting normal expenses
  • Normal expenses:
    • Min royalty or Actual royalty payments (greater of two) +
    • Direct lease operating costs:
      • Processing fees
      • Labor costs
      • Fixed & variable operating costs incurred on lease
      • Fixed & variable operating costs allocated to lease for off-lease processing
• Drilling
  • Purpose of establishing production in PQ
  • District decision

• Well Re-working
  • Downhole
  • Purpose of establishing production in PQ
  • District decision
Suspensions

**Suspension of Production (SOP)**
- Granted – BSEE defers requirement to produce
- Directed – BSEE prohibits production
- Extends term of lease
  - Unless gross negligence or willful violation

**Suspension of Operations (SOO)**
- Granted – BSEE defers requirement to perform drilling or well-reworking
- Directed – BSEE prohibits drilling and well re-working
- Extends term of lease
  - Unless gross negligence or willful violation
Important when discussing suspensions:

**OCSLA – Prompt & efficient exploration & development of leases**

- Operators should explore, develop, & begin production within primary term

**OIG and GAO expectations and investigations calling for diligence**

- Congress “use it or lose it” concerns
Submitting Requests

• **SOP**
  • Usually submitted ~3 weeks before lease would otherwise expire
  • Include structure maps, logs, reserve estimates, proposed schedule, etc.

• **SOO**
  • Usually submit closer to expiration date

• **BSEE must receive request before ‘expiration date’**
  • Including cost recovery fee

• **BSEE may approve/deny after ‘expiration date’**
  • Regulatory requirements must be met before ‘expiration date’
  • Can submit data after to demonstrate facts as they existed on ‘expiration date’
  • Lessee cannot perform lease-holding operation after expiration date unless & until approval granted
  • Lessee can perform non-lease-holding activities
• Completed exploration within initial lease term

• Demonstrate firm and definite commitment to produce reserves proven by well penetration
  • Obtained & evaluated sufficient technical data (e.g., drilling, seismic, well testing, etc.)
  • Determined project to be economic when considering all costs
  • Made firm decision to proceed to production (by the proper management level)
  • Assured availability of production facility
  • Not contingent on factors beyond your control
  • Not just commitment to development activities
  • Required before date lease would otherwise expire

• Reasonable schedule – Measurable milestones that will lead to production
• Prevented from leaseholding operation for “reasons beyond your control” (e.g., unexpected weather, unavoidable accidents, rig delay)
  • Must demonstrate operations were scheduled to begin prior to lease expiration
  • Must have all required permit approvals (e.g., EP, APD)

• Additional time needed for geophysical work - subsalt prospect

• Additional time needed for geophysical work - deep prospect (>25,000 TVD SS)
• “You may ask the Regional Supervisor to allow you more than 180 days to resume operations on a lease continued beyond its primary term when operating conditions warrant…” (30 CFR 250.180(e))

• BSEE must determine:
  • National interest, and
  • Conserves resources, prevents waste, or protects correlative rights

National Interest – 43 U.S.C. 1802

Waste:
  • Physical waste of hydrocarbons
  • Inefficient, improper, etc. use of reservoir energy
  • Locating, operating, etc. wells in way that reduces recoverable hydrocarbons or causes surface loss of hydrocarbons

Correlative Rights:
  • Right of each lessee to explore, develop & produce hydrocarbons from common source
  • Federal royalty interests
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Why Conservation?

- Prevent physical waste
- Maximize recovery
- Minimize footprint
  - Facilities
  - Wells
1886 – “Karg” gas well discovery in Findlay, Ohio

“Findlay possesses what now appears to be an inexhaustible supply of natural gas … though wells may give out, and local supplies may fail here and there, like the great natural product of spring water, it will keep flowing from the earth forever.” (from History of Hancock County, Ohio, 1886).
• 1886 – Findlay becomes known as the “City of Light”
  • Gas burns from perforated iron pipes 24/7/365
  • Calls for conservation went largely unheeded

• 1890 – Gas output on decline

• By 1920’s – Gas boom over
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• Regulations prohibit abandoning economic zone to move to more profitable zone

• **BSEE ensures economic zones not prematurely abandoned**
  - NTL 2003-G02
  - >50 BOPD or >300 MCFD
  - PD & District offices work together
  - PD calculates remaining reserves & evaluates economics
  - If still economic, District denies APM

• ~200 per year
### Proposed Zone

- **430 BOPD**
- **500 MCFD**
- **0 BWPD**

### Producing Zone

<table>
<thead>
<tr>
<th>Proposed Abandonment Rates</th>
<th>Actual Abandonment Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>430 BOPD</td>
<td>32 BOPD</td>
</tr>
<tr>
<td>500 MCFD</td>
<td>40 MCFD</td>
</tr>
<tr>
<td>0 BWPD</td>
<td>300 BWPD</td>
</tr>
</tbody>
</table>
• Lease obligation to produce for mutual benefit of Lessee and Lessor

• APM – To abandon a zone, you must demonstrate its lack of capacity for further profitable production (30 CFR 250.1712(a))

  If still economic:
  • APM may not be approved
  • Can request departure (30 CFR 250.142)

• ~1.5 Million barrels/year saved
• Actual production, not estimated
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