



Introduction to Oil and Gas Mineral and Royalty Interests

- **Introduction to minerals ownership**
 - Surface vs. mineral ownership
 - Mineral leasing process
- **Mineral and royalty interest versus working interest**
 - Margin comparison
 - Comparison of various types of mineral and royalty interests
 - Key distinctions between various types of royalties: Mineral Interests, Non-participating royalty interests, overriding royalty interests, and working interests
- **Mineral and royalty life cycle**
 - Revenue streams attributable to various royalties
 - Implications of E&P activity on perpetual and non-perpetual ownership
- **Mineral and royalty acquisition process**
 - Acquisition sourcing
 - Valuation
- **Comparing mineral and royalty companies**
 - Acreage calculation
 - Key terms and metrics

- **Mineral interests:**
 - Perpetual real property interests
 - Owns hydrocarbons and other minerals below the surface
 - Can lease the right to develop these hydrocarbons to an exploration and production (“E&P”) company
 - Primary lease term is typically one to three years
 - E&P company pays mineral owners an upfront payment, most often in cash, known as a lease bonus
 - E&P company pays mineral owner a percentage of production revenue
 - Can be sold, leased or gifted
- **Companies that acquire oil and gas mineral rights will typically purchase mineral interests from mineral owners for a negotiated amount commonly expressed in dollars per net royalty acre**
- **There are many benefits of mineral ownership:**
 - No capital expenditures to explore, develop, or operate
 - No direct exposure to fluctuating oilfield service costs
 - No environmental liabilities
 - Higher margins than E&P operators without associated operational risks
- **Other types of royalty interests include:**
 - Non-participating Royalty Interests (“NPRIs”), which are carved out of the mineral estate
 - Overriding Royalty Interests (“ORRIs”), which are carved out of the working interest and are further described later in this presentation

Surface vs. mineral ownership

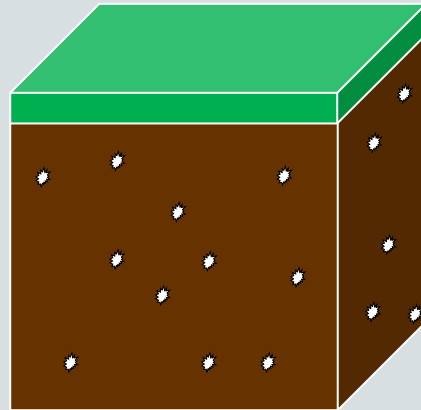
Illustrative Ownership

Surface ownership:

Right to use and build on the property

Mineral ownership:

Right to develop and extract the minerals located under the property



Surface ownership

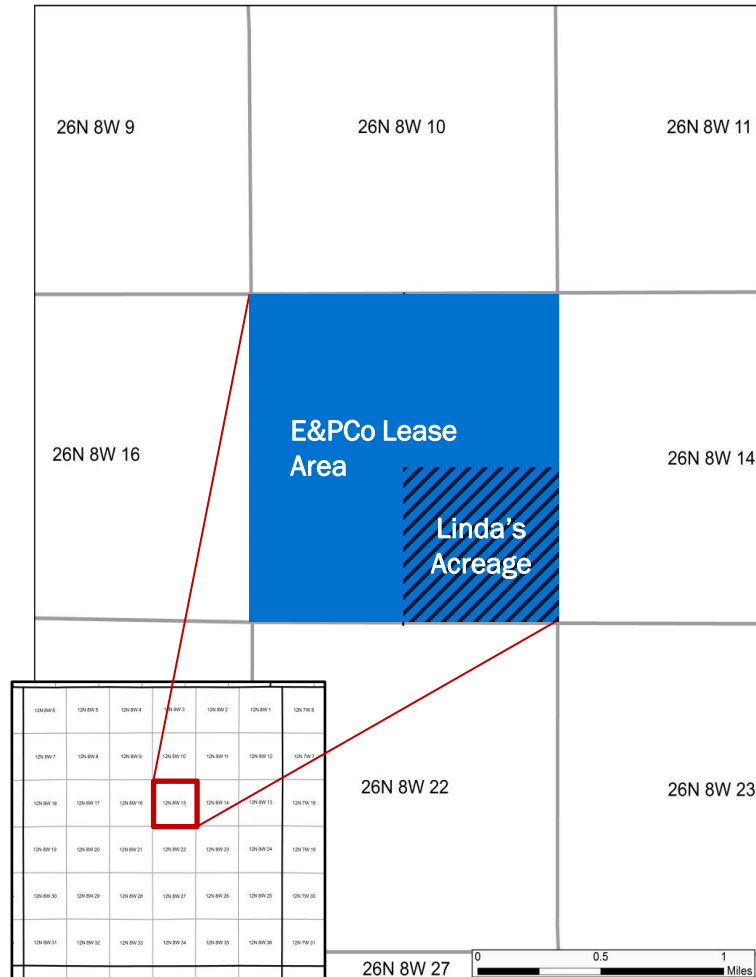
- Surface owners can sell, transfer, or develop land within the guidelines established by the governing jurisdiction
- Surface owners may or may not own the rights to the minerals
 - Surface and mineral rights may be severed and owned separately
 - Surface rights alone do not entitle an owner the right to lease the minerals to an exploration company nor the right to receive royalty payments
- Surface owners may receive consideration for surface locations and rights-of-way. They can receive payments related to fresh water production and saltwater disposal wells

Mineral ownership

- The mineral estate is dominant to the surface estate
- Subsurface rights extend to the center of the earth but may have different ownership by depth
- Minerals owners have the right to explore, extract, and develop naturally occurring deposits found beneath the land's surface
- The ownership of minerals extends into perpetuity
- Like surface rights, mineral rights can be acquired and sold

Mineral leasing process

Illustrative 640-acre drilling unit



Illustrative scenario



- Linda is the owner of 100% of the minerals in the southeast quarter (SE/4) totaling 160 net mineral acres
- Leases to E&P operator "E&PCo" for a primary term of 3 years for \$15,000 per acre, lease bonus of \$2.4mm and 25% lease royalty applicable to future production

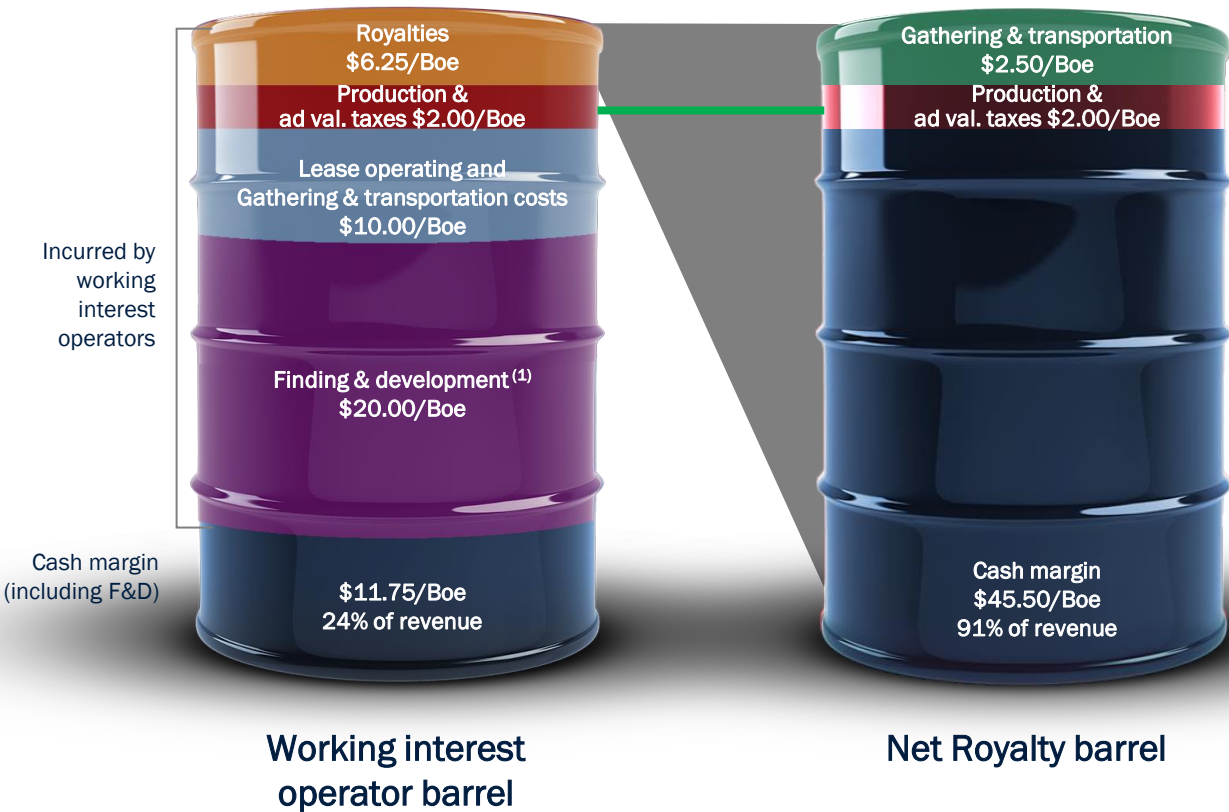


- E&PCo leases the other 480 acres from third parties to form a full 640-acre section and forms a Drilling Spacing Unit ("DSU") through filing a permit with the state regulatory agency
- E&PCo drills horizontal wells within the DSU during the primary term
- Linda's lease covers 25% of the DSU (160 / 640) so she will receive a royalty of 6.25% (160 / 640 x 25% lease royalty) of all production in the DSU

Working interest vs. mineral and royalty interest

Illustrative cash margin per barrel (\$/Boe)

Illustrative revenue: \$50.00/Boe



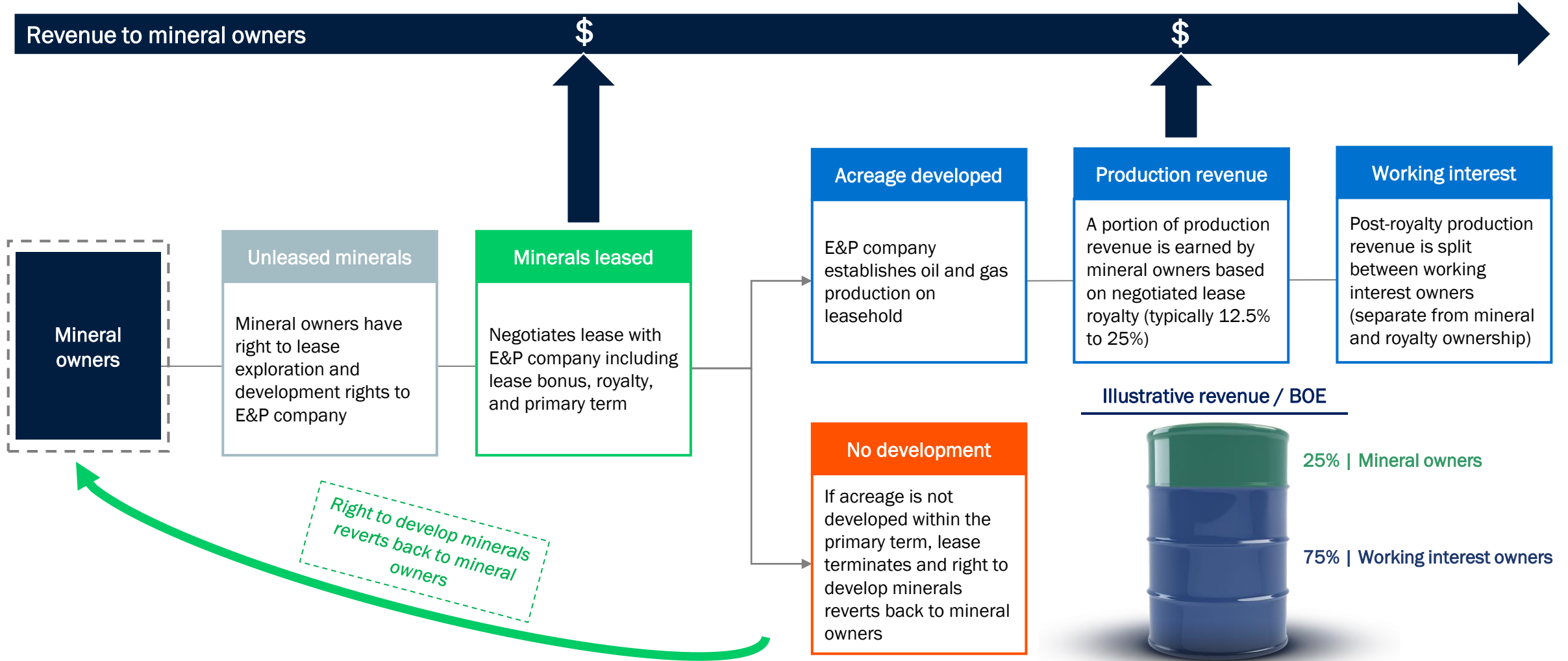
Royalty barrel advantage

- ✓ Assuming the same revenue per barrel of oil equivalent (BOE), a royalty barrel generates significantly more cash flow margin per BOE than working interest models
- ✓ No capital spending or operating costs
- ✓ No exposure to oilfield services costs
- ✓ No abandonment or environmental liabilities

Comparison of various types of mineral and royalty interests

Mineral interests	Nonparticipating royalty interest (NPRI)	Overriding royalty interest (ORRI)	Working interest
<ul style="list-style-type: none"> • Perpetual right to develop or produce minerals from land; includes right to lease this right to others • Typically receives lease benefits when executing a lease with a third party: bonus payments, royalty payments, delay rentals, etc. • At expiration of lease, all development rights revert back to mineral interest owner 	<ul style="list-style-type: none"> • Royalty interests that are carved out of mineral interests • Similar to mineral interests except: <ul style="list-style-type: none"> – No “Executive Right” to negotiate leases – Does not receive lease bonuses, delay rentals, etc. 	<ul style="list-style-type: none"> • Royalty interests carved out of Lessee’s leasehold interest • ORRI burdens working interest and not the mineral interest • Expires with underlying lease from which it is carved 	<ul style="list-style-type: none"> • Right to participate in drilling activities, including income and costs from production • Burdened with drilling capital costs and lease operating expenses • Almost exclusively owned by E&P and non-op companies • Environmental and plugging and abandonment obligations
Perpetual rights		Non-perpetual rights	Non-perpetual rights

Mineral and royalty life cycle



Minerals acquisition process

Who are minerals
sourced from?

Direct with selling mineral
owners / aggregators

Brokers

Marketed transactions
& A&D firms

Through which channels
are minerals sourced?

Direct outreach

Broker networks

Divestitures by
mineral acquisition
companies, family offices, etc.

Key considerations
when acquiring minerals

Geologic
assessment of rock
quality

Number of
prospective horizons

Well performance
and % oil
by horizon

Operator evaluation

Commodity prices

Development
timeline

Acquisition
modeling

Title and other
diligence / closing

Mineral and royalty acreage calculations

	Gross DSU acres	Net mineral acres	100% royalty acres	Net royalty acres (standardized to 1/8th royalty)
Description	Total acres within DSU	The acreage owned by the mineral owner	The net mineral acres owned by a mineral owner multiplied by the royalty interest	The implied acreage based on a standardized 1/8th royalty (12.5%)
Assumption	640 total acres within one DSU	MineralCo owns a 50% undivided interest across the entire 640 gross acres in the DSU	Assumes 25% lease royalty	Assumes a hypothetical, standardized royalty of 12.5%
Number of acres	640 gross DSU acres	320 net mineral acres	80 100% royalty acres	640 net royalty acres
Calculation	Provided by permit filing	<i>Gross acres x mineral interest</i> (640 x 50% = 320)	<i>Net mineral acres x Lease royalty interest</i> (320 x 25% = 80)	<i>100% royalty acres / 12.5% standard royalty</i> (80 / 12.5%) = 640 NRA

Minerals evaluations key terms and metrics

Key terms

Key metrics

1

Acreage / development

- DSUs (Drilling and Spacing Units)
- Net mineral acres
- 100% royalty acres
- Net royalty acres (normalized to 1/8th)

- Gross DSU acreage
- DUCs (Drilled and uncompleted)
- Spuds
- Permits

2

Reserves / inventory

- PDP and Spud reserves
- Reserves from permits and remaining locations
- DUCs
- Locations / spacing

- PDP / DSU
- DUCs and Permits / DSU
- Undeveloped locations / DSU

3

Operators

- DSUs
- Acreage in basin
- Rigs in basin
- Permits in basin

- % Operator DSUs
- % Operator rigs on acreage
- % Operator wells drilled on acreage
- % Operator permits on acreage

4

Leases

- Average royalty
- % Leases on production
- Net revenue interest (NRI) / well
- CDCs (continuous development clauses)

