**Introduction**

In 1963, the Oklahoma Supreme Court handed down the “Blanchard” Decision\(^{40}\). This decision caused the “Blanchardizing” of one-eighth of all production from a unitized area. Under this decision, royalty owners received one-eighth of everyone's proceeds, not just one-eighth of the price for which their lessee sold his or her gas.

In 1985, the Oklahoma legislature enacted Senate Bill 160, which attempted to Blanchardize the excess royalty (i.e., royalty in excess of the normal one-eighth). However, certain pipeline companies immediately filed actions questioning the constitutionality of the legislation. All phases of the industry were in a quandary as to whether to comply with the new legislation or continue to pay under the Blanchard scheme. Companies asked their title examiners to break out the excess royalties while they internally tried to decide how to pay. It was safe to say that there was no consensus other than that something needed to be done.

A panel was assembled consisting of seventeen persons – lawyers, legislators, producers, royalty owners, pipeline representatives which met between the 1990 and 1991 legislative sessions. Senate Bill 168 was the result. Senate Bill 168 is codified as Oklahoma Statute, title 52, §§570.1 - 570.15 and 581.1 - 581.10. Sections 1 through 15 of the bill are now the Production Revenue Standards Act (PRSA), which became effective July 1, 1993. The statute also includes the Natural Gas Market Sharing Act (NGMSA), which eliminated the “Sweetheart Gas Bill”. This act requires a contract working interest owner (the “Designated Marketer”) to ratably share gas production and the resulting revenues with the non-contracted working interest owners in the same well who elect to share and who meet certain of the Act's requirements. The NGMSA became effective on September 1, 1992.

**Production Revenue Standards Act definitions**

To understand this Production Revenue Standards Act (PRSA), it is necessary to understand the definitions contained in it. All are in § 507.2 of the PRSA, but a select few are described here.

**Owner.** A person or governmental entity with a legal interest in the mineral acreage under a well which entitles that person or entity to oil or gas production or the proceeds or revenues from it.

**Producing Owner.** An owner entitled to produce who, during a given month, produces oil or gas for its own account or the account of subsequently created interests as they burden its interest.

**Proportionate Production Interest (PPI).** The interest in production which a working interest owner is entitled to produce in order to adjust for shifting of royalty burdens among working interest owners under the royalty payment provisions of this act. It is equal to the quotient of:

1. the sum of that working interest owner's net revenue interests plus the net revenue interests of any subsequently created interests as they burden the owner's working interest, and

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\(^{40}\)Shell Oil Co. v. Oklahoma Corporation Commission, 389 P.2d 951 (Okla. 1963)
2. the remainder of one (1) less the royalty share

**Proportionate Royalty Share (PRS).** The percentage of the royalty share owned by a royalty interest owner calculated by dividing the owner’s royalty interest in a well by the royalty share.

**Royalty Interest in a Well (RIW).** An owner’s royalty interest multiplied by the quotient of:

1. the gross mineral acres under the well attributable to such interest, and
2. the total mineral acres under the well.

**Royalty Proceeds.** The share of proceeds or other revenue derived from or attributable to any production of oil and gas attributable to the royalty share. It does not include payments of bonus, delay rentals, shut-in royalties or any additional royalty payable to the Commissioners of the Land Office or other governmental entity, pursuant to and valued according to the terms of its oil and gas lease, which is calculated separately from the royalty portion of actual proceeds from the sale of oil or gas.

**Royalty Share (RS).** The percentage of the well equal to the sum of all royalty interests in a well;

**Subsequently Created Interest.** Any interest carved from a working interest other than a royalty interest. In addition to the royalty interest contained in a lease, a nonparticipatory interest created by a working interest owner for the benefit of a mineral interest owner in excess of a one-eighth (1/8) royalty interest may, by separate agreement other than the oil and gas lease, be a subsequently created interest. It cannot thereby be communitized under the terms of the Production Revenue Standards Act, only if there is clear and unambiguous language expressing that intent in the creating document. The additional royalty payable to the Commissioners of the Land Office or other governmental entity, pursuant to and valued according to the terms of its oil and gas lease, which is calculated separately from the royalty portion of actual proceeds from the sale of oil or gas is also a subsequently created interest and thereby is not communitized under the Production Revenue Standards Act.

**Working Interest.** The interest in a well entitling the owner to drill for and produce oil and gas, including but not limited to the interest of a participating mineral owner to the extent set forth in Section 87.1 of Title 52 of the Oklahoma Statutes.

The PRSA applies to all owners and to all producing wells, regardless of the date pooled, drilled or the date of the underlying leases.

**Communitization of royalty**

Section 570.4 provides that each month every royalty owner shares in all the proceeds derived from the sale of gas production to the extent of the owner’s royalty interest in the well.

Each producing owner pays the operator the royalty share of its gas sales proceeds, valued according to the producing owner’s lease terms or the Corporation Commission force pooling order, from all gas produced from the well by the owner during that month. The operator is then required to pay each royalty interest owner in that well according to the
royalty interest owner’s proportionate royalty share. Section 570.12 then instructs the operator what information is to be included with that payment to the royalty owner.

**Commissioners of the Land Office Leases**

The additional value due the Commissioners of the Land Office (CLO) under their lease is not communitized under the Act. It is treated as a subsequently created interest. Similarly, restricted Indian leases (BIA, BLM) are not communitized under the Act at all. For an example of how this works, see the last two examples in the Calculations and Examples section of this paper.

If an owner, including the CLO, takes his or her royalty gas in kind, it is considered consumption of gas from a well by the royalty interest owner and is deemed production by the working interest owner burden by the CLO lease. The accounting is based on the average price, weighted by volume for gas sold by that working interest owner for that month. If the working interest owner does not sell that month, then it becomes the average price weighted by volume for gas sold by all the producing owners during that month.

**Interest on proceeds**

Any portion of the proceeds not paid within the applicable time (which starts six (6) months from the date of the first production) earns interest at the rate of 12% per annum compounded annually, calculated from the end of the month in which the production is sold until the day paid.

If an interest owner is not paid because his or her title is not marketable, the interest is 6% per annum compounded annually and calculated from the end of the month in which production is sold until the time the title becomes marketable.

**Balancing**

Under the PRSA, royalty owners should not get out of balance on a well. The Act did not address what happens if the royalty owners were out of balance when the Act became effective. Most of those problems have been resolved at this time. However, the PRSA did not require balancing at the time the Act became effective.

**Application of the PRSA**

Section 570.3 states:

The Production Revenue Standards Act shall apply to all owners and shall apply to all producing wells, regardless of the date pooled, drilled or of the date of the underlying leases; provided, however, that Sections 4, 5, 6 7 and 8 of this act shall not apply to wells in common sources of supply under unitized management pursuant to Section 287.1 of Title 52 of the Oklahoma Statutes or where royalty remittance is otherwise provided by written agreement among all owners in a well.

Especially important is the last phrase above “or where royalty remittance is otherwise provided by written agreement among all owners in a well.” This language allows the owners of interests in any well to remove themselves from the operation of the PRSA. Consequently, there are no PPI calculations

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41 Section 570.4.B

42 See § 570.7B
and no SCI tabulations. These companies require everyone to sign an agreement, usually as part of their division orders, that they agree to remove themselves from the effects of the Act. Otherwise, the operator states that he or she will charge the maximum overhead charge per month allowed to calculate and distribute proceeds. Most times the parties agree and remove themselves from the Act.

When are payments due

Section 570.10 sets up a detailed scheme of when payments are due. The general rule is: proceeds are payable commencing not later than six (6) months after the date of first sales and thereafter not later than the last day of the second succeeding month after the end of the month in which the production was sold.\(^43\)

- The purchaser and selling working interest owner are responsible for paying the royalty within two (2) months of sale.
- If proceeds are less than $25, they can be paid semi-annually.\(^44\)

If the operator distributes the royalty under § 570.4.B, a three (3) month rule applies to gas production proceeds. This extra month allows for the extra step in the distribution process.

There is not a section of the PRSA that explains how to treat ONRR formerly MMS/BIA/Indian leases. No cases have been heard on this issue. Because the lessee is included in the PRSA computations, it is possible that the lessee will not receive sufficient proceeds which can result in out of pocket royalties at the time the royalties are due.

Federal lands and restricted Indian leases

Since states cannot exercise jurisdiction over federal entities, it follows that the State of Oklahoma does not have jurisdiction over the Office of Natural Resources Revenue (ONRR), formerly known as Minerals Management Service (MMS) or Indian lands located within the state. This is the reason that Indian lands cannot be force pooled but must be included in a unit, if at all, under a communitization agreement. For the same reason, the ONRR, BIA or restricted Indian mineral interest is not communitized into the royalty pool since such federal entities do not have to submit to state enforced statutory payment plans.

The effects of this are:

- ONRR/formerly MMS/BIA/Indian Interest is valued based on terms of the lease and what the lessee recoups from its share of production.
- The ONRR/MMS/BIA/Indian royalty is excluded from the royalty pool.
- The ONRR/MMS/BIA/Indian Inter-est is excluded from RS and PRS computation.

\(^43\) § 570.10.B.1 
\(^44\) § 570.10.B.3

Natural Gas Market Sharing Act background
In the early 1980s, the biggest problem facing gas producers was finding someone to purchase their gas from their newly drilled wells. The general scheme up until this time was that the operator of the well entered into a sales contract. The non-operators in the well then either ratified the operator’s contract or the operator sold the uncontracted owners’ gas under his or her contract and disbursed the proceeds directly to the interest owners.

Through the late 1970s, gas prices were regulated. Since prices did not vary from contract to contract, it did not really matter who purchased the gas as long as the operator found someone who would. However, when natural gas prices were deregulated and the “gas bubble” formed in the early 1980s, gas purchasers had more gas than they wanted. Purchasers began strictly enforcing the quantity and dedication provisions of their contracts, especially new contracts that had higher priced gas payments. This left some producers without a market for their gas.

A panel of panicked producers convinced the Oklahoma legislature to enact what became known as the “Sweetheart Gas Act”. However, capitalism continued on its course, and new purchasers appeared to fill the gap previously held only by the traditional pipeline purchasers thus effectively curing the problems which spawned the Sweetheart Gas Act legislation. Disputes then arose concerning the sharing of revenues under the new out-of-date high price gas contracts. The Sweetheart Gas Act did not address this kind of problem. Instead the bill was designed to force those producers, primarily perceived as the major oil companies, to share those contract rights with smaller producers who did not have the leverage or the clout to obtain such contracts. However, market realities did not change: Under-produced owners were still out of balance with over-produced owners. The Sweetheart Gas Bill proved to be insufficient for the growing needs of the industry.

Working interest owners began to dispose of whatever production was available on the spot market. The centralized control traditionally enjoyed by the operator or first purchaser was lost. The resulting confusion culminated in the enactment of SB 160 (Blanchard) in 1985. This legislation was immediately disfavored because it made the first purchaser liable for all royalty payments.

**Natural gas market sharing act definitions.**

To understand this Natural Gas Market Sharing Act (NGMSA), it is necessary to understand the definitions contained in it.

**Designated marketer.** The operator of the well or a producing owner substituted for the operator as provided in Section 22 of this act.

**ELECTING owner.** Any owner who elects to produce and market his or her share of production pursuant to the provisions of this act.

**Nonexempt sales.** Those gas sales which are subject to the provisions of this act and do not qualify for exemptions as set forth in Section 21 of this act.

**Overproduced owner.** An owner who has produced and sold a volume of gas in excess of his or her working interest percentage of cumulative sales from a well.

**Owner.** A person or persons who own a working interest in a well.

**Producing owner.** An owner who produces...
and sells gas from a well for its own account.

**Working interest.** The interest in a well, calculated prior to deduction for royalty, overriding royalty and other non-cost-bearing interests burdening production, entitling the owner to drill for and produce oil and gas, including the interest of a participating mineral owner to the extent set forth in Section 87.1 of Title 52 of the Oklahoma Statutes.

### Calculations and Examples

#### Sample Calculation 1 – No Overriding Royalty Interests.

**640 Acre Section**

<table>
<thead>
<tr>
<th></th>
<th>W/2</th>
<th>E/2</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1/8 Royalty</td>
<td>1/4 Royalty</td>
</tr>
<tr>
<td>B</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Step 1: Identify Parties**

AR = Royalty Interest Owner in Tract A  
AW = Working Interest Owner in Tract A  
BR = Royalty Interest Owner in Tract B  
BW = Working Interest Owner in Tract B

**Step 2: Identify the Royalty Interest**

AR = 1/8 .125  
BR = 1/4 .250

**Step 3: Calculate the RIW (Royalty Interest in the Well)**

AR = 1/8 x 320/640 = 1/16 .125 x .5 = .0625  
BR = 1/4 x 320/640 = 1/8 .25 x .5 = .125

**Step 4: Calculate the RS (Royalty Share)**

[This is the weighted average Royalty for the whole unit]  
RS = Sum of all RIW’s in Unit:
1/16 + 1/8 = 3/16  
.0625 + .125 = .1875

**Step 5: Calculate the PRS (Proportionate Royalty Share)**

\[ \text{RIW/RS} \]

\[
\begin{align*}
\text{AR} &= \frac{1}{16} \div \frac{3}{16} = \frac{1}{3} \\
\text{BR} &= \frac{1}{8} \div \frac{3}{16} = \frac{2}{3}
\end{align*}
\]

\[ .0625 \div .1875 = .333 \quad \text{and} \quad .125 \div .1875 = .667 \]

**Step 6: Calculate WIW (Working Interest in the Well)**

- Note: WIW is not defined in the Statute (§ 507.2)
- This is necessary for the PPI formula

\[
\begin{align*}
\text{AW} &= \frac{7}{8} \times \frac{320}{640} = \frac{7}{16} \\
\text{BW} &= \frac{3}{4} \times \frac{320}{640} = \frac{3}{8}
\end{align*}
\]

\[ .875 \times .5 = .4375 \quad \text{and} \quad .75 \times .5 = .3750 \]

*This is what is described as the “Working Interest Owners’ Net Revenue Interest” in § 570.2(4).*

**Step 7: Calculate WS (Working Share)**

- Note: WS is not a defined term
- This is the total of all the WIWs
- This is part of the PPI formula

\[ \frac{7}{16} + \frac{3}{8} = \frac{13}{16} \quad .4375 + .375 = .8125 \]

**Note:** The WS + RS always equals 1.000. Stated another way, \(1 - WS = RS\).

**Step 8: Calculate the PPI (Proportionate Royalty Share)**

Remember: The PPI is the interest in proceeds that a Working Interest Owner is entitled to in order to adjust for the shifting of the royalty burdens among the Working Interest Owners.

*In this example, even though the AW Lessee has a lease with only a 1/8 royalty burden, AW has to pay 3/16 in royalties out. So, to balance this out, AW will receive a larger share of the Net Revenue Interest.*

\[
\begin{align*}
\text{AW} &= \frac{7}{8} \div \frac{13}{16} = \frac{7}{13} \\
\text{BW} &= \frac{6}{16} \div \frac{13}{16} = \frac{6}{13}
\end{align*}
\]

\[ .4375 \div .8125 = .53846154 \quad \text{and} \quad .3750 \div .8125 = .46153846 \]

**Note:**

**Step 9: Calculating Proceeds**

Assume sales of 1000 mcf

AW contracts to sell at $5.00
BW contracts to sell at $10.00

What does each lessee pay towards his royalty owner?
a) Calculate AW's contribution:

\[
1000 \times \text{Total Sales} \times 0.53846154 \times 5.00 = \$538.46
\]

\[
2692.30
\]

**Remember:** RS is the weighted average for the whole unit

\[
\times 0.1875 \times \text{RS} = \$504.81
\]

b) Calculate BW's contribution:

\[
1000 \times \text{Total Sales} \times 0.46153846 \times 10.00 = \$461.54
\]

\[
4615.40
\]

\[
\times 0.1875 \times \text{RS} = \$865.39
\]

c) **TOTAL:** \$504.81 + \$865.39 = \$1370.20

**Step 10: Royalty Owners’ Share**

AR had a PRS of 1/3 (See Step 5)
BR had a PRS of 2/3 (See Step 5)

So:

\[
\text{Total in Royalty Pool} = \$504.81 \text{ (from AW)} + \$865.39 \text{ (from BW)} = \$1370.20
\]

\[
\begin{align*}
\text{AR} & = \$1370.20 \times \frac{1}{3} = \$456.73 \\
\text{BR} & = \$1370.20 \times \frac{2}{3} = \$913.47
\end{align*}
\]
Step 11: What this would look like in a title opinion:

**ROYALTY**

<table>
<thead>
<tr>
<th>Tract</th>
<th>Owner</th>
<th>Acres</th>
<th>Royalty</th>
<th>PRS</th>
<th>RIW/NRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>W/2</td>
<td>AR</td>
<td>320</td>
<td>1/8</td>
<td>.3333333</td>
<td>.0625000</td>
</tr>
<tr>
<td>E/2</td>
<td>BR</td>
<td>320</td>
<td>1/4</td>
<td>.6666667</td>
<td>.1250000</td>
</tr>
</tbody>
</table>

1.0000000 (RS) .18750000

**LEASEHOLD**

<table>
<thead>
<tr>
<th>Tract</th>
<th>Owner</th>
<th>Acres</th>
<th>GWI</th>
<th>Revenue Interest</th>
<th>WIW</th>
<th>PPI</th>
<th>NRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>W/2</td>
<td>AW</td>
<td>320</td>
<td>.5000</td>
<td>7/8</td>
<td>.4375000</td>
<td>.5384615</td>
<td>.4375000</td>
</tr>
<tr>
<td>E/2</td>
<td>BW</td>
<td>320</td>
<td>.5000</td>
<td>3/4</td>
<td>.3750000</td>
<td>.4615385</td>
<td>.3750000</td>
</tr>
</tbody>
</table>

1.0000 .8125000 1.0000000 .8125000

**RECAP**

| Total Unit Royalty Interest: | .1875000 |
| Total Unit Working Interest:  | .8125000 |
|                               | 1.0000000 |
Sample Calculation 2: Subsequently Created Interests ("SCI") a/k/a Overriding Royalty Interests

<table>
<thead>
<tr>
<th>320 Acres</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>AR – 1/8</td>
<td>(AS – 1/16 ORRI)</td>
</tr>
<tr>
<td>BR – 3/16</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>160 Acres</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR – 15</td>
<td></td>
</tr>
<tr>
<td>DR – 1/4</td>
<td></td>
</tr>
</tbody>
</table>

A’s Lease covers 1/2 Tract
B’s Lease covers 1/2 Tract

Step 1: Identify Parties

<table>
<thead>
<tr>
<th>AR</th>
<th>= RIO under 1/2 of Tract 1</th>
<th>AR = 1/8 x 320/640 x 1/2</th>
</tr>
</thead>
<tbody>
<tr>
<td>AW</td>
<td>= WIO under 1/2 of Tract 1</td>
<td>BR = 3/16 x 320/640 x 1/2</td>
</tr>
<tr>
<td>AS</td>
<td>= SCIO under 1/2 of Tract 1</td>
<td>CR = 1/5 x 160/640</td>
</tr>
<tr>
<td>BR</td>
<td>= RIO under 1/2 of Tract 1</td>
<td>DR = 1/4 x 160/640</td>
</tr>
<tr>
<td>BW</td>
<td>= WIO under 1/2 of Tract 1</td>
<td></td>
</tr>
<tr>
<td>CR</td>
<td>= RIO under Tract 2</td>
<td></td>
</tr>
<tr>
<td>CW</td>
<td>= WIO under Tract 2</td>
<td></td>
</tr>
<tr>
<td>DR</td>
<td>= RIO under Tract 3</td>
<td></td>
</tr>
<tr>
<td>DW</td>
<td>= WIO under Tract 3</td>
<td></td>
</tr>
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</table>

Step 2: Calculate Royalty Interest

<table>
<thead>
<tr>
<th>AR</th>
<th>= 1/8</th>
<th>.125</th>
</tr>
</thead>
<tbody>
<tr>
<td>BR</td>
<td>= 3/16</td>
<td>.1875</td>
</tr>
<tr>
<td>CR</td>
<td>= 1/5</td>
<td>.20</td>
</tr>
<tr>
<td>DR</td>
<td>= 1/4</td>
<td>.25</td>
</tr>
</tbody>
</table>

Step 3: Calculate RIW

<table>
<thead>
<tr>
<th>AR</th>
<th>= 1/8 x 1/2 x 320/640 = 1/32</th>
<th>.125 x .5 x .5 = .03125</th>
</tr>
</thead>
<tbody>
<tr>
<td>BR</td>
<td>= 3/16 x 1/2 x 320/640 = 3/64</td>
<td>.1875 x .5 x .5 = .046875</td>
</tr>
<tr>
<td>CR</td>
<td>= 1/5 x 160/640 = 1/20</td>
<td>.2 x .25 = .050000</td>
</tr>
<tr>
<td>DR</td>
<td>= 1/4 x 160/640 = 1/16</td>
<td>.25 x .25 = .062500</td>
</tr>
</tbody>
</table>

Step 4: Calculate Royalty Share (RS)
(Sum of all RIWs)
\[
\frac{1}{32} + \frac{3}{64} + \frac{1}{20} + \frac{1}{16} = \frac{10}{320} + \frac{15}{320} + \frac{16}{320} + \frac{20}{320} = \frac{61}{320}
\]

\[
.03125 + .046875 + .05 + .0625 = .190625
\]

**Step 5:** Calculate Proportionate Royalty Share (PRS)

RIW ÷ RS

\[
\begin{align*}
AR &= \frac{10}{320} \div \frac{61}{320} = \frac{10}{61} \quad \text{.03125} \div \text{.190625} = \text{.16393443} \\
BR &= \frac{15}{320} \div \frac{61}{320} = \frac{15}{61} \quad \text{.046875} \div \text{.190625} = \text{.24590164} \\
CR &= \frac{16}{320} \div \frac{61}{320} = \frac{16}{61} \quad \text{.05} \div \text{.190625} = \text{.26229508} \\
DR &= \frac{20}{320} \div \frac{61}{320} = \frac{20}{61} \quad \text{.0625} \div \text{.190625} = \text{.32786885}
\end{align*}
\]

TOTAL: \[\frac{61}{61} = 1.000000\]

**Step 6:** Calculate Working Interest in a Well (WIW)

\[
\begin{align*}
AW &= \frac{7}{8} \times \frac{1}{2} \times \frac{320}{640} = \frac{7}{32} \quad .875 \times \frac{1}{2} \times \frac{1}{2} = \text{.218750} \\
BW &= \frac{13}{16} \times \frac{1}{2} \times \frac{320}{640} = \frac{13}{64} \quad .8125 \times \frac{1}{2} \times \frac{1}{2} = \text{.203625} \\
CW &= \frac{4}{5} \times \frac{160}{640} = \frac{4}{20} \quad .8 \times \frac{1}{4} = \text{.200000} \\
DW &= \frac{3}{4} \times \frac{160}{640} = \frac{3}{16} \quad .75 \times \frac{1}{4} = \text{.187500}
\end{align*}
\]

TOTAL: \[.809375\]

**Step 7:** Calculate Working Share (“WS”)

\[
[1 - \text{RS}] \quad \text{(Sum of all the WIW)}
\]

\[
\begin{align*}
7/32 + 13/64 + 4/20 + 3/16 &= 259/320 \quad .21875 + .203125 + .20 + .1875 = .809375 \\
70/320 + 65/320 + 64/320 + 60/320 &= 259/320
\end{align*}
\]

\[
[1 - \text{RS}]
\]

**Step 8:** Calculate PPI

(WIW ÷ WS)

\[
\begin{align*}
\text{PPI} &= \frac{7/32}{70/259} = \text{.21875} \quad \frac{79/320}{259/320} = \text{.27027027} \\
\text{PPI} &= \frac{13/64}{65/259} = \text{.203125} \quad \frac{65/320}{259/320} = \text{.25096525}
\end{align*}
\]
Do not subtract ORRI for PPI computation! SCIO will be paid solely out of that owner’s (that created it) PPI.

**Step 9A: How this would look in a basic division order title opinion**

All of Section 5-5N-5W, Ralph County, Oklahoma
Containing 640 acres, more or less

Unit Summary
All of Section 5-5N-5W, Ralph County, Oklahoma
Containing 640 acres, more or less

**ROYALTY INTEREST:**

<table>
<thead>
<tr>
<th>Tract</th>
<th>Royalty Owner</th>
<th>PRS</th>
<th>(RIW) NRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>AR</td>
<td>.16393443</td>
<td>.03125000</td>
</tr>
<tr>
<td>I</td>
<td>BR</td>
<td>.24590163</td>
<td>.04687500</td>
</tr>
<tr>
<td>II</td>
<td>CR</td>
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<tr>
<td>III</td>
<td>DR</td>
<td>.32786886</td>
<td>.06250000</td>
</tr>
</tbody>
</table>

**WORKING INTEREST:**

<table>
<thead>
<tr>
<th>Tract</th>
<th>Working Interest Owner</th>
<th>Acreage</th>
<th>GWI</th>
<th>WIW</th>
<th>PPI</th>
<th>NRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>AW</td>
<td>160.00000</td>
<td>.25000000</td>
<td>.21875000</td>
<td>.27027027</td>
<td>.2031250</td>
</tr>
<tr>
<td>I</td>
<td>BW</td>
<td>160.00000</td>
<td>.25000000</td>
<td>.20312500</td>
<td>.20312500</td>
<td>.2031250</td>
</tr>
<tr>
<td>II</td>
<td>CW</td>
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<td>.25000000</td>
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<td>.24710425</td>
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<tr>
<td>III</td>
<td>DW</td>
<td>160.00000</td>
<td>.25000000</td>
<td>.18750000</td>
<td>.23166023</td>
<td>.18750000</td>
</tr>
</tbody>
</table>

640.00000 | 1.00000000 | .80937500 | 1.00000000 | .79375000 | 0 | 0 |
**OVER RIDING ROYALTY INTEREST:**

<table>
<thead>
<tr>
<th>Tract</th>
<th>Overriding Royalty Owner</th>
<th>SCIO-Factor</th>
<th>NRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>AS</td>
<td>.015625/.27027027</td>
<td>.01562500</td>
<td></td>
</tr>
<tr>
<td>(ORRI)=NRI/PPI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ORRI’s WIO’s PPI</td>
<td>.0578125</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **TOTAL UNIT ROYALTY INTEREST**: .19062500
- **TOTAL UNIT WORKING INTEREST**: .79375000
- **TOTAL UNIT OVER RIDING ROYALTY INTEREST**: .01562500
  
  **1.00000000**
TRACT 1

N/2

Acreage Content: 320
Unit Participation: .50000000

ROYALTY OWNERSHIP:

<table>
<thead>
<tr>
<th>Lease</th>
<th>Owner</th>
<th>Net Acres</th>
<th>Fractional Interest</th>
<th>Net Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>AR</td>
<td>160.00000</td>
<td>1/2 x 1/8 x 320/640</td>
<td>.03125000</td>
</tr>
<tr>
<td>B</td>
<td>BR</td>
<td>160.00000</td>
<td>1/2 x 3/16 x 320/640</td>
<td>.04687500</td>
</tr>
</tbody>
</table>

320.00000  .07812500

WORKING INTEREST OWNERSHIP:

<table>
<thead>
<tr>
<th>Lease</th>
<th>Owner</th>
<th>Net Acres</th>
<th>Fractional Interest</th>
<th>Net Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>AW</td>
<td>160.00000</td>
<td>1/2 x 7/8 x 320/640</td>
<td>.21875000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>less 1/2 x 1/16 x 320/640</td>
<td>.01562500</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>320/640 =</td>
<td>.20312500</td>
</tr>
<tr>
<td>B</td>
<td>BW</td>
<td>160.00000</td>
<td>1/2 x 13/16 x 320/640 =</td>
<td>.20312500</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>320/640 =</td>
<td>.40625000</td>
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</tbody>
</table>

OVERRIDING ROYALTY INTEREST OWNERSHIP:

<table>
<thead>
<tr>
<th>Lease</th>
<th>Owner</th>
<th>Fractional Interest</th>
<th>Net Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>AS</td>
<td>1/2 x 1/16 x 320/640 =</td>
<td>.01562500</td>
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</tbody>
</table>
TRACT 2

SW/4

Acreage Content: 160
Unit Participation: .25000000

ROYALTY OWNERSHIP:

<table>
<thead>
<tr>
<th>Lease</th>
<th>Owner</th>
<th>Net Acres</th>
<th>Fractional Interest</th>
<th>Net Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>CR</td>
<td>160.00000</td>
<td>100% x 1/5 x 160/640</td>
<td>.05000000</td>
</tr>
</tbody>
</table>

WORKING INTEREST OWNERSHIP:

<table>
<thead>
<tr>
<th>Lease</th>
<th>Owner</th>
<th>Net Acres</th>
<th>Fractional Interest</th>
<th>Net Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>CW</td>
<td>160.00000</td>
<td>100% x 4/5 x 160/640</td>
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</tbody>
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TRACT 3

SE/4

Acreage Content: 160
Unit Participation: .25000000

ROYALTY OWNERSHIP:

<table>
<thead>
<tr>
<th>Lease</th>
<th>Owner</th>
<th>Net Acres</th>
<th>Fractional Interest</th>
<th>Net Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>DR</td>
<td>160.00000</td>
<td>100% x 1/4 x 160/640</td>
<td>.06250000</td>
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</table>

WORKING INTEREST OWNERSHIP:

<table>
<thead>
<tr>
<th>Lease</th>
<th>Owner</th>
<th>Net Acres</th>
<th>Fractional Interest</th>
<th>Net Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>DW</td>
<td>160.00000</td>
<td>100% x 3/4 x</td>
<td>.18750000</td>
</tr>
</tbody>
</table>
Step 9B: How This Would Look in a Basic Division Order Title Opinion Where Someone Has Gone Non-Consent

All of Section 5-5N-5W, Ralph County, Oklahoma
Containing 640 acres, more or less

Non-Consent Unit Summary
All of Section 5-5N-5W, Ralph County, Oklahoma
containing 640 acres, more or less

ROYALTY INTEREST:

<table>
<thead>
<tr>
<th>Tract</th>
<th>Royalty Owner</th>
<th>PRS</th>
<th>(RIW) NRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AR</td>
<td>.16393443</td>
<td>.03125000</td>
</tr>
<tr>
<td>1</td>
<td>BR</td>
<td>.24590163</td>
<td>.04687500</td>
</tr>
<tr>
<td>2</td>
<td>CR</td>
<td>.26229508</td>
<td>.05000000</td>
</tr>
<tr>
<td>3</td>
<td>DR</td>
<td>.32786886</td>
<td>.06250000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.00000000</td>
<td>.19062500 [RS]</td>
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</table>

WORKING INTEREST:

<table>
<thead>
<tr>
<th>Tract</th>
<th>Working Interest Owner</th>
<th>Acreage</th>
<th>GWI</th>
<th>WIW</th>
<th>PPI</th>
<th>NRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AW</td>
<td>213.33333</td>
<td>.33333333</td>
<td>.28645833</td>
<td>.35392535</td>
<td>.27083333</td>
</tr>
<tr>
<td>1</td>
<td>BW</td>
<td>-0-</td>
<td>-0-</td>
<td>-0-</td>
<td>-0-</td>
<td>-0-</td>
</tr>
<tr>
<td>1 and 2</td>
<td>CW</td>
<td>213.33333</td>
<td>.33333333</td>
<td>.26770833</td>
<td>.33075933</td>
<td>.26770833</td>
</tr>
<tr>
<td>1 and 3</td>
<td>DW</td>
<td>213.33334</td>
<td>.33333334</td>
<td>.25520834</td>
<td>.31531532</td>
<td>.25520834</td>
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<tr>
<td></td>
<td></td>
<td>640.00000</td>
<td>1.00000000</td>
<td>.80937500</td>
<td>1.00000000</td>
<td>.79375000</td>
</tr>
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OVERRIDING ROYALTY INTEREST:
<table>
<thead>
<tr>
<th>Tract</th>
<th>Overriding Royalty Owner</th>
<th>SCIO-Factor</th>
<th>NRI</th>
</tr>
</thead>
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<tr>
<td>1</td>
<td>AS</td>
<td>.0441477</td>
<td>.01562500</td>
</tr>
<tr>
<td></td>
<td>.015625/.35392535</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AS’s NRI/AW’s PPI</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Share nonconsent interest *not* on PPI but on the gross interest

TOTAL UNIT ROYALTY INTEREST .19062500
TOTAL UNIT WORKING INTEREST .79375000
TOTAL UNIT OVERRIDE ROYALTY INTEREST .01562500

**TRACT 1**

**N/2**

Acreage Content: 320
Unit Participation: .50000000

ROYALTY OWNERSHIP:

<table>
<thead>
<tr>
<th>Lease</th>
<th>Owner</th>
<th>Net Acres</th>
<th>Fractional Interest</th>
<th>Net Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>AR</td>
<td>160.00000</td>
<td>1/2 x 1/8 x 320/640</td>
<td>.03125000</td>
</tr>
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<td>B</td>
<td>BR</td>
<td>160.00000</td>
<td>1/2 x 3/16 x 320/640</td>
<td>.04687500</td>
</tr>
</tbody>
</table>

WORKING INTEREST OWNERSHIP:

<table>
<thead>
<tr>
<th>Lease</th>
<th>Owner</th>
<th>Net Acres</th>
<th>Fractional Interest</th>
<th>Net Revenue</th>
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<tbody>
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<tr>
<td></td>
<td></td>
<td></td>
<td>less 1/2 x 1/16 x 320/640</td>
<td>.01562500</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>320/640 =</td>
<td>.20312500</td>
</tr>
<tr>
<td></td>
<td></td>
<td>53.33333</td>
<td>ORRI =</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>AW</td>
<td>213.33333</td>
<td>1/3 x 1/2 x 13/16 x 320/640 =</td>
<td>.06770833</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>213.33333</td>
<td>.27083333</td>
</tr>
</tbody>
</table>
B CW  53.33333 1/3 x 1/2 x 13/16 x 320/640 = .06770833
B DW  53.33334 1/3 x 1/2 x 13/16 x 320/640 = .06770834

OVERRIDING ROYALTY INTEREST OWNERSHIP:

<table>
<thead>
<tr>
<th>Lease</th>
<th>Owner</th>
<th>Net Acres</th>
<th>Fractional Interest</th>
<th>Net Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>AS</td>
<td>1/2 x 1/16 x 320/640 =</td>
<td></td>
<td>.01562500</td>
</tr>
</tbody>
</table>

TRACT 2

SW/4

Acreage Content: 160

ROYALTY OWNERSHIP:

<table>
<thead>
<tr>
<th>Lease</th>
<th>Owner</th>
<th>Net Acres</th>
<th>Fractional Interest</th>
<th>Net Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>CR</td>
<td>160.00000</td>
<td>100% x 1/5 x 160/640 =</td>
<td>.05000000</td>
</tr>
</tbody>
</table>

WORKING INTEREST OWNERSHIP:

<table>
<thead>
<tr>
<th>Lease</th>
<th>Owner</th>
<th>Net Acres</th>
<th>Fractional Interest</th>
<th>Net Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>CW</td>
<td>160.00000</td>
<td>100% x 4/5 x 160/640 =</td>
<td>.20000000</td>
</tr>
</tbody>
</table>

TRACT 3
Acreage Content: 160
Unit Participation: .25000000

ROYALTY OWNERSHIP:

<table>
<thead>
<tr>
<th>Lease</th>
<th>Owner</th>
<th>Net Acres</th>
<th>Fractional Interest</th>
<th>Net Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>DR</td>
<td>160.00000</td>
<td>100% x 1/4 x</td>
<td>.06250000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>160/640 =</td>
<td></td>
</tr>
</tbody>
</table>

WORKING INTEREST OWNERSHIP:

<table>
<thead>
<tr>
<th>Lease</th>
<th>Owner</th>
<th>Net Acres</th>
<th>Fractional Interest</th>
<th>Net Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>DW</td>
<td>160.00000</td>
<td>100% x 3/4 x</td>
<td>.18750000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>160/640 =</td>
<td></td>
</tr>
</tbody>
</table>
Sample Calculation 3: ONRR/formerly MMS Interest and ORRI\text{s}

AR owns 320 acres
BR owns 200 acres
ONRR owns 80 acres
CR owns 40 acres

640 acres

AR leases to AW with a 3/16 royalty.
BR leases to BW with a 1/8 royalty.
ONRR leases to CW with a 1/4 royalty.
CR leases to CW with a 3/16 royalty.

BW grants a 1/16 ORRI (of 8/8) to Bob.
CW grants a 1/8 ORRI (of 8/8) to Chuck.

<table>
<thead>
<tr>
<th>Mineral/ Royalty Owner</th>
<th>Acreage</th>
<th>Royalty</th>
<th>Royalty Fraction</th>
<th>Royalty Interest</th>
<th>RIW</th>
</tr>
</thead>
<tbody>
<tr>
<td>AR</td>
<td>320/640 x</td>
<td>3/16</td>
<td>3/32</td>
<td>.0937500</td>
<td></td>
</tr>
<tr>
<td>BR</td>
<td>200/640 x</td>
<td>1/8</td>
<td>5/128</td>
<td>.0390625</td>
<td></td>
</tr>
<tr>
<td>ONRR</td>
<td>80/640 x</td>
<td>1/4</td>
<td>1/32</td>
<td>.0312500*</td>
<td>.0000000**</td>
</tr>
<tr>
<td>CR</td>
<td>40/640 x</td>
<td>3/16</td>
<td>3/256</td>
<td>.0117188</td>
<td>.0117188</td>
</tr>
</tbody>
</table>

\*
This is shown here only to reflect the ONRR /MMS’ royalty in the unit.

\**
The ONRR is excluded from the Royalty in Well and Royalty Share calculation.

PRS = Used to divided the communitized royalty pool and is the percentage of the Royalty Share (RS) owned by each Royalty Interest Owner (RIO).

PRS = RIW/RS
MINERAL/ROYALTY OWNER   RIW/RS       PRS

AR  .0937500/.1445313 =  .6486484
BR  .0390625/.1445313 =  .2702704
ONRR 0/0 =  .0000000
CR  .0117188/.1445313 =  .0810812
1.0000000

ORRI Calculations

ORRIs are now called Subsequently Created Interests (“SCI”). Not only does SCI include
overriding royalty interests, but it also includes production payments and “extra” payments
(added value payments) as found in Commissioners of the Land Office leases. SCIs are
interests created by contract/agreement other than the oil and gas lease.

ORRI Fractional Decimal
Owner Interest Interest

Bob  1/16 x 8/8 x 200/640  .0195313
Chuck 1/8 x 8/8 x 40/640  .0078125
.0273438 (Total SCI)

Leasehold Calculations

Gross working interest less royalty burdens less SCI equal NRI

Leasehold Royalty
Owner GWI Burden SCI NRI

AW (320/640) .0937500 -.0000000 = .4062500
BW (200/640) .0390625 -.0195313 = .2539063
MW (80/640) .1250 -.0312500 -.0000000 = .0937500
CW (40/640) .0625 -.0117188 -.0078125 = .0429688
1.0000-.1757819 -.0273438 = .7968750
**PPI (Proportionate Production Interest)**

The Proportionate Production Interest (“PPI”) is the amount that the leasehold owner is entitled to receive of the gas production/proceeds. This shifts the Royalty burdens to make sure the Royalty Interest Owners stay in balance. This calculation takes the NRI and adds back in any SCI then divides it by the RS to get the PPI.

\[
\text{NRI} + \frac{\text{SCI}}{1 - \text{RS}} = \text{PPI}
\]

\[
[1-.145313 = .8554688]
\]

<table>
<thead>
<tr>
<th>Leasehold Owner</th>
<th>NRI</th>
<th>SCI</th>
<th>1-RS</th>
<th>PPI</th>
</tr>
</thead>
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<tr>
<td>AW</td>
<td>.4062500 +</td>
<td>.0000000</td>
<td>.8554688 =</td>
<td>.4748859</td>
</tr>
<tr>
<td>BW</td>
<td>.2539063 +</td>
<td>.0195313 ÷</td>
<td>.8554688 =</td>
<td>.3196347</td>
</tr>
<tr>
<td>MW</td>
<td>.0937500 +</td>
<td>.0312500*</td>
<td>.8554688 =</td>
<td>.1461187</td>
</tr>
<tr>
<td>CW</td>
<td>.0429688 +</td>
<td>.0078125 ÷</td>
<td>.8554688 =</td>
<td>.0593607</td>
</tr>
</tbody>
</table>

.7968750 + \frac{.0585938}{.8554688} = 1.0000000

*The ONRR Royalty interest is treated as a SCI for PPI calculations and burdens *only* the lease that created it.*