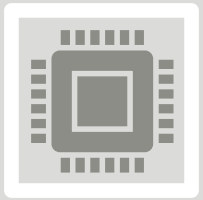
ALLOCATION WELLS:
LEASE LINE ALLOCATION WELLS, THE BOX RULE, & HOW TO CALCULATE THEM

SCOTT PETRY
PETRY, ROSIE & SINEX, PLLC

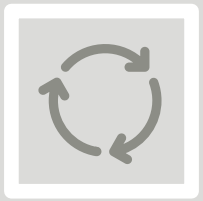
APRIL 25, 2023

Topics to Discuss:

What are allocation wells, production sharing agreement wells, and lease line allocation wells?

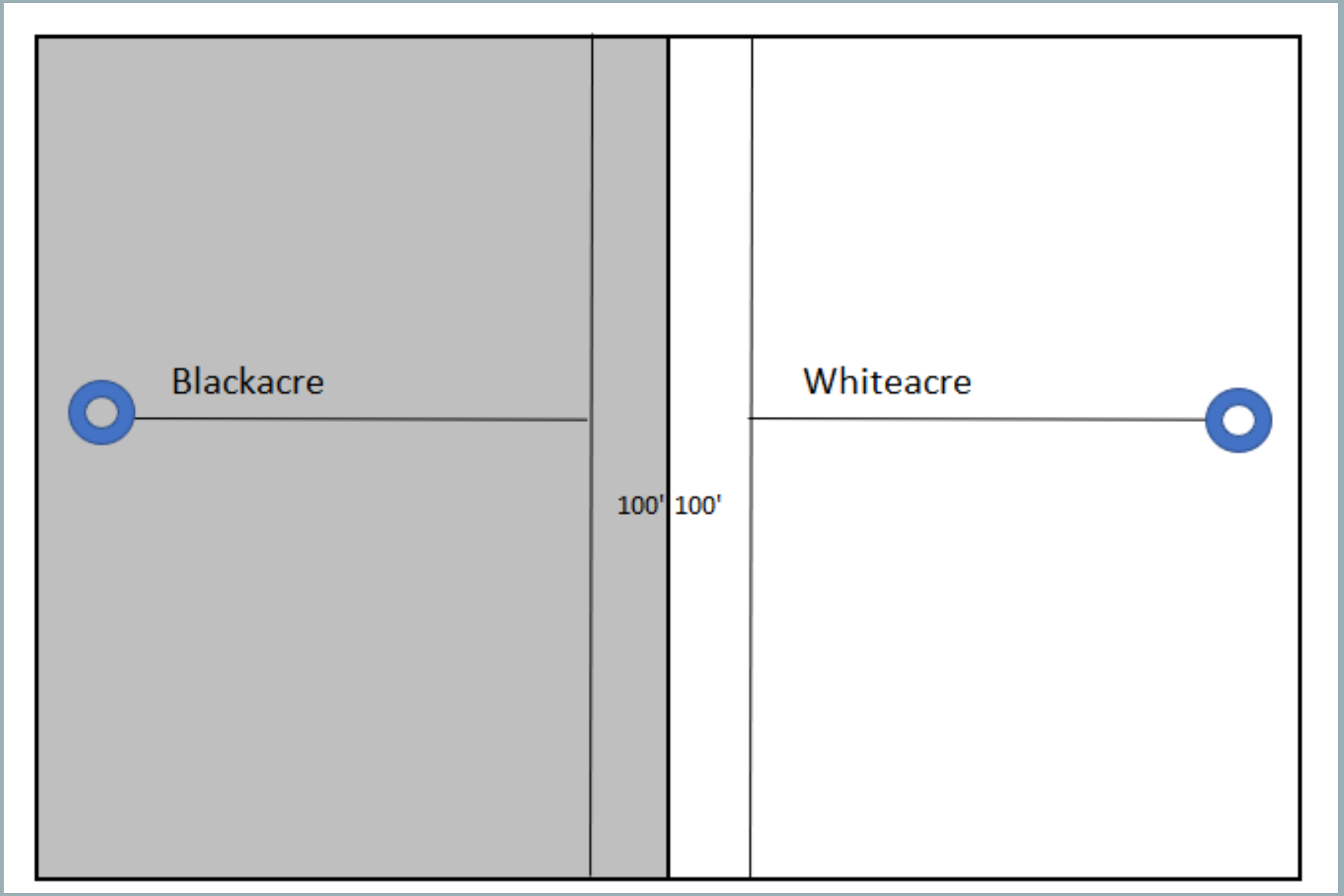


If you move forward, how do you use them? How do you calculate them?

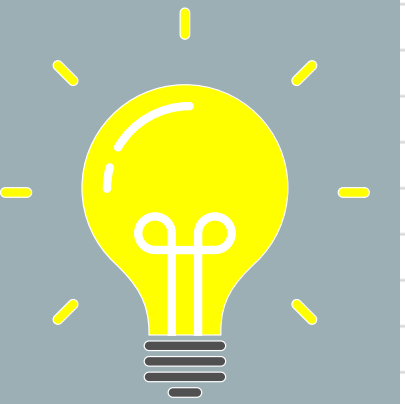


What are some protections in using them?

Isn't this wasteful?

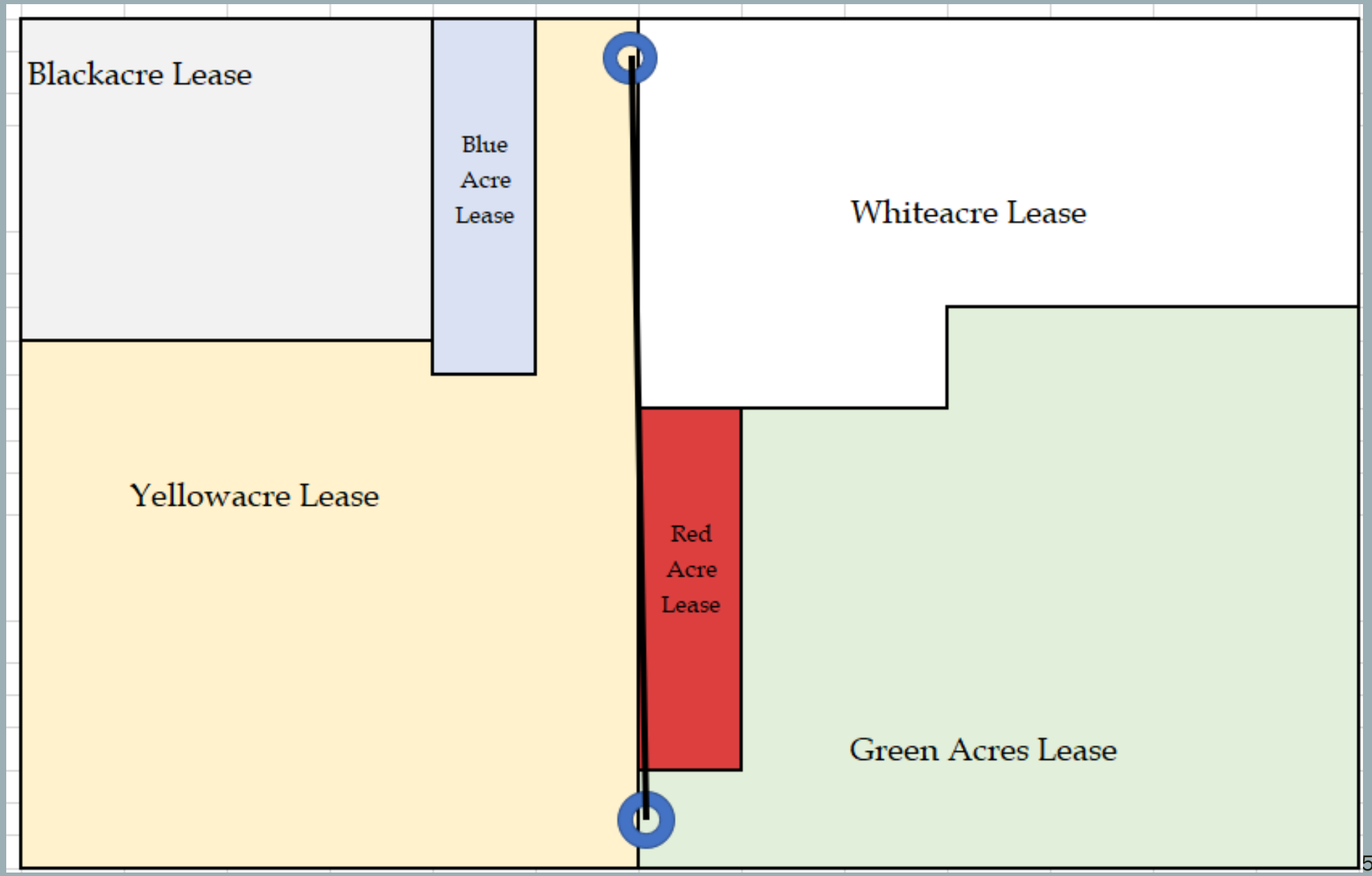


I. WHAT ARE PSA WELLS & ALLOCATION WELLS?

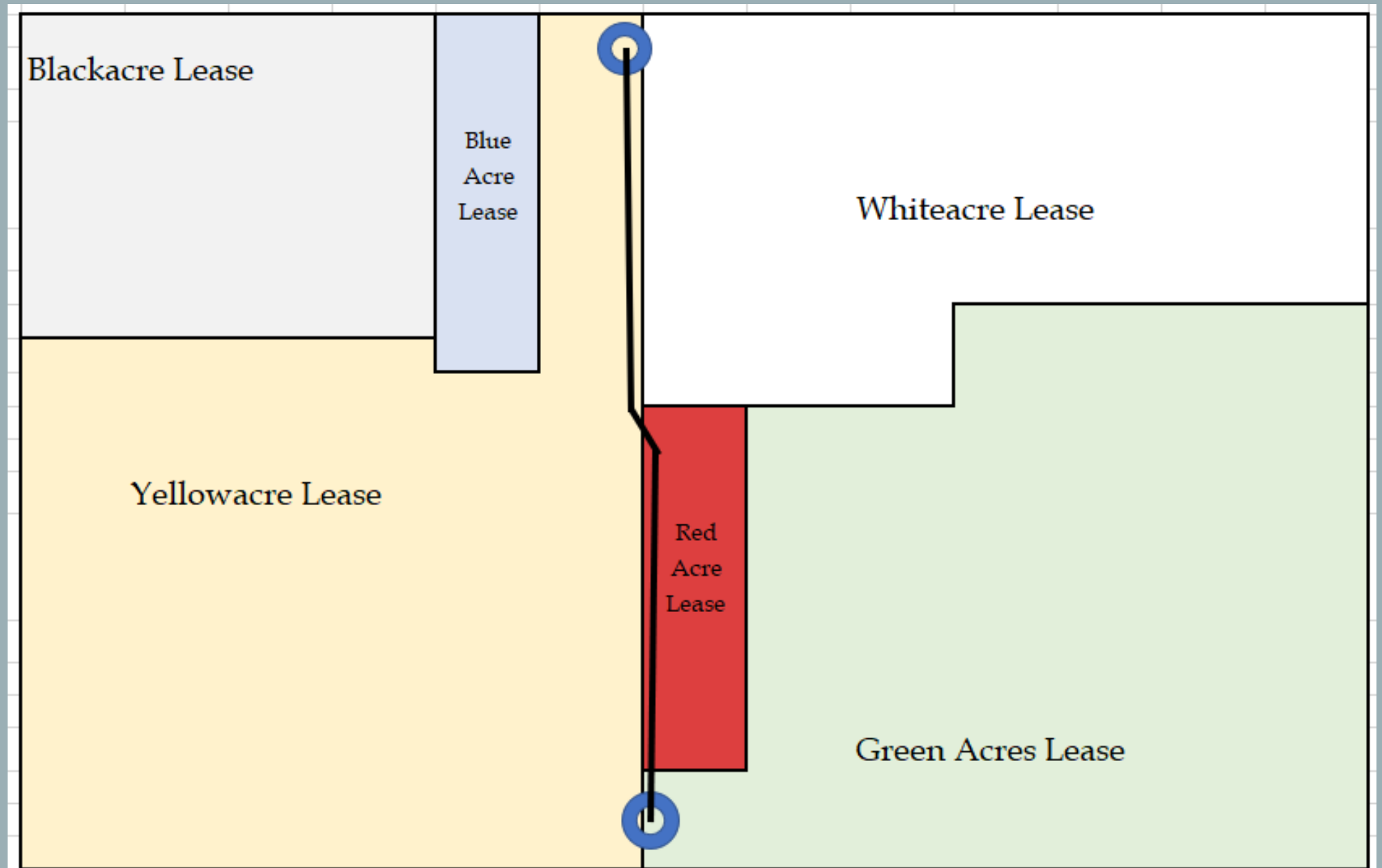


Someone has the idea to drill a lateral across already pooled units, *or* leases *or* units **with no pooling authority**?!.

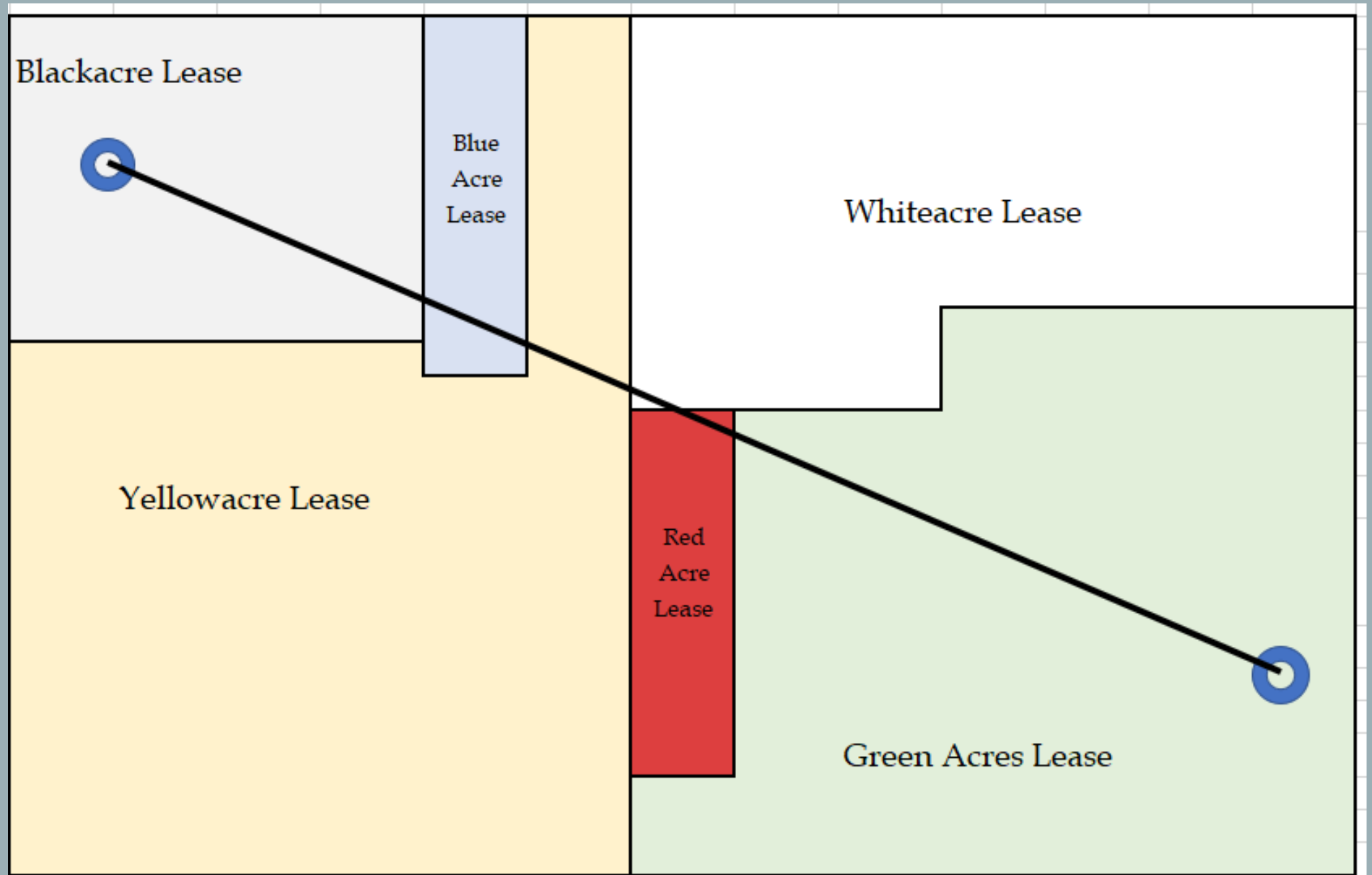
But what about…



...or...


Blackacre Lease
Blue Acre Lease
Whiteacre Lease
Yellowacre Lease
Red Acre Lease
Green Acres Lease

…or…


Blackacre Lease
Blue Acre Lease
Whiteacre Lease
Yellowacre Lease
Red Acre Lease
Green Acres Lease


POISONING THE WELL

(A) PSA Wells

Operators want to drill laterals that cross boundaries of pooled units or leases, but they don't have pooling authority!

- The PSA well was created to deal with this situation.
  - *It is a contractual agreement in two (or more) pooled units that allows a horizontal well to be drilled with part of its productive drainhole under each unit.*
  - *It generally affects only production from wells that cross leases or units, and purports to increase the ultimate recovery of hydrocarbons.*
- QUESTION: Which policy is more important in the regulatory world – reduction of waste, or protection of correlative rights?

YEAR	RRC Policy/Procedure
October 23, 1998	Industry representatives meet with Larry Borella, RRC Assistant General Counsel, and RRC staff to established procedure for permitting vertical PSA wells drilled on or near lease lines.
June 22, 2006	Industry representatives meet with Colin Lineberry, RRC Director of Hearings, and RRC staff to establish procedure for permitting horizontal PSA wells.
June 13, 2007	Devon representatives meet with RRC staff "for the purpose of clarifying the process to ensure compliance and full disclosure".
June 14, 2007	RRC issues "RRC Guidance Document Newark, East (Barnett Shale) Horizontal Wells Drilled Pursuant to Production Sharing Agreements".
October 23, 2007	RRC Commissioners vote 2-1 to approve Rule 37 Case No. 0253549, where Devon had 98% sign-up in one tract and 100% in the second tract. **This is the 1st PSA horizontal well!!!**
September 22, 2008	In a separate application, RRC staff denied a PSA well permit because less than 90% of the interest owners were signed up. Devon appealed again and won. Informal RRC policy is permit approval with 65% of interest owners signed up.
April 21, 2010	Devon Energy files a well permit application for its "Taylor-Abney-Obanion Allocation Well". Even though Devon did not have the requisite 65% of interest owners for a PSA, the RRC still approved the permit. **This is the 1st Allocation Well!!!!**

(B) Allocation Wells

- An allocation well is a horizontal well that traverses the boundary between two or more existing units (or leases that have not been pooled), *and for which no agreement exists among interest owners as to how production will be shared.*

- Yes, emphasis added. Read that again.

No. Agreement. Exists.

…ON THE BASIS OF ACTUAL PRODUCTION FROM EACH UNIT?”

(C) Lease Line Allocation Wells

Then.

Now.

(C) Lease Line Allocation Wells

Special Field Rules for most horizontal shale plays typically have lease line spacing of 330' parallel to the wellbore and 100' perpendicular to the wellbore.

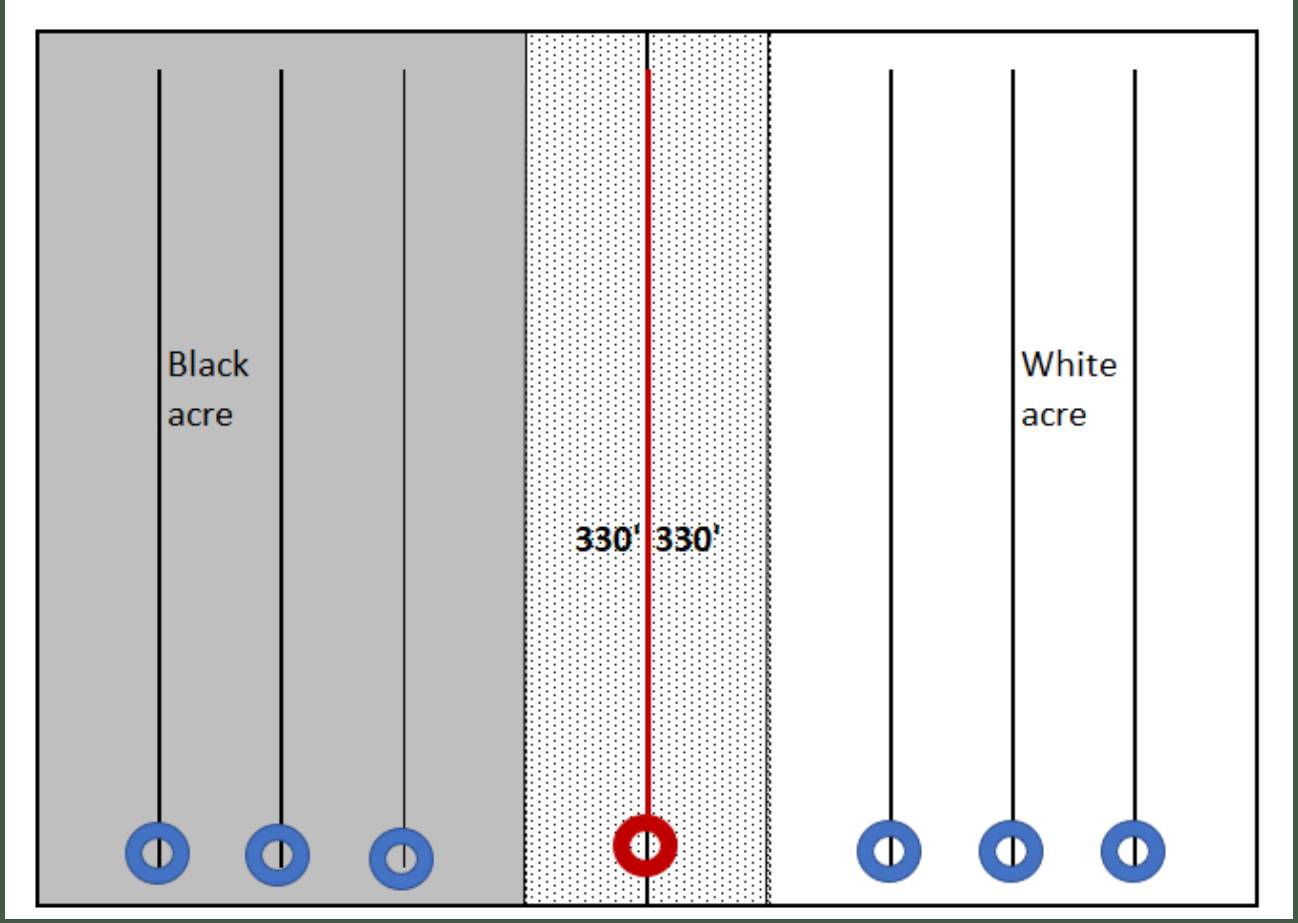
Technical data shows additional recoverable reserves in the 660' "box" around the lease line area.

But how does the interplay of the RRC and the real world affect this?

(C) Lease Line Allocation Wells

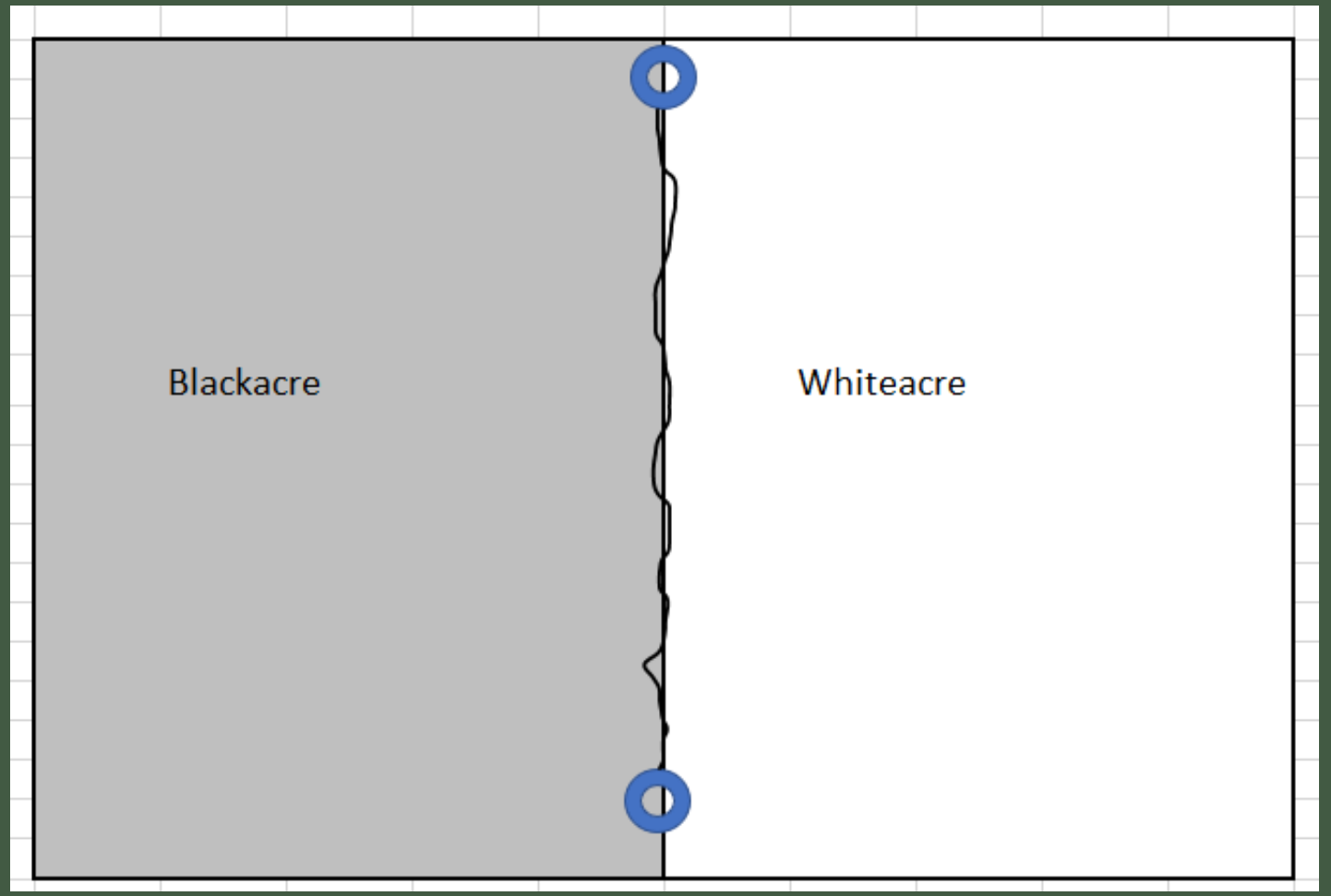
(C) Lease Line Allocation Wells

Solution? Threading the needle! Drill down the lease line!



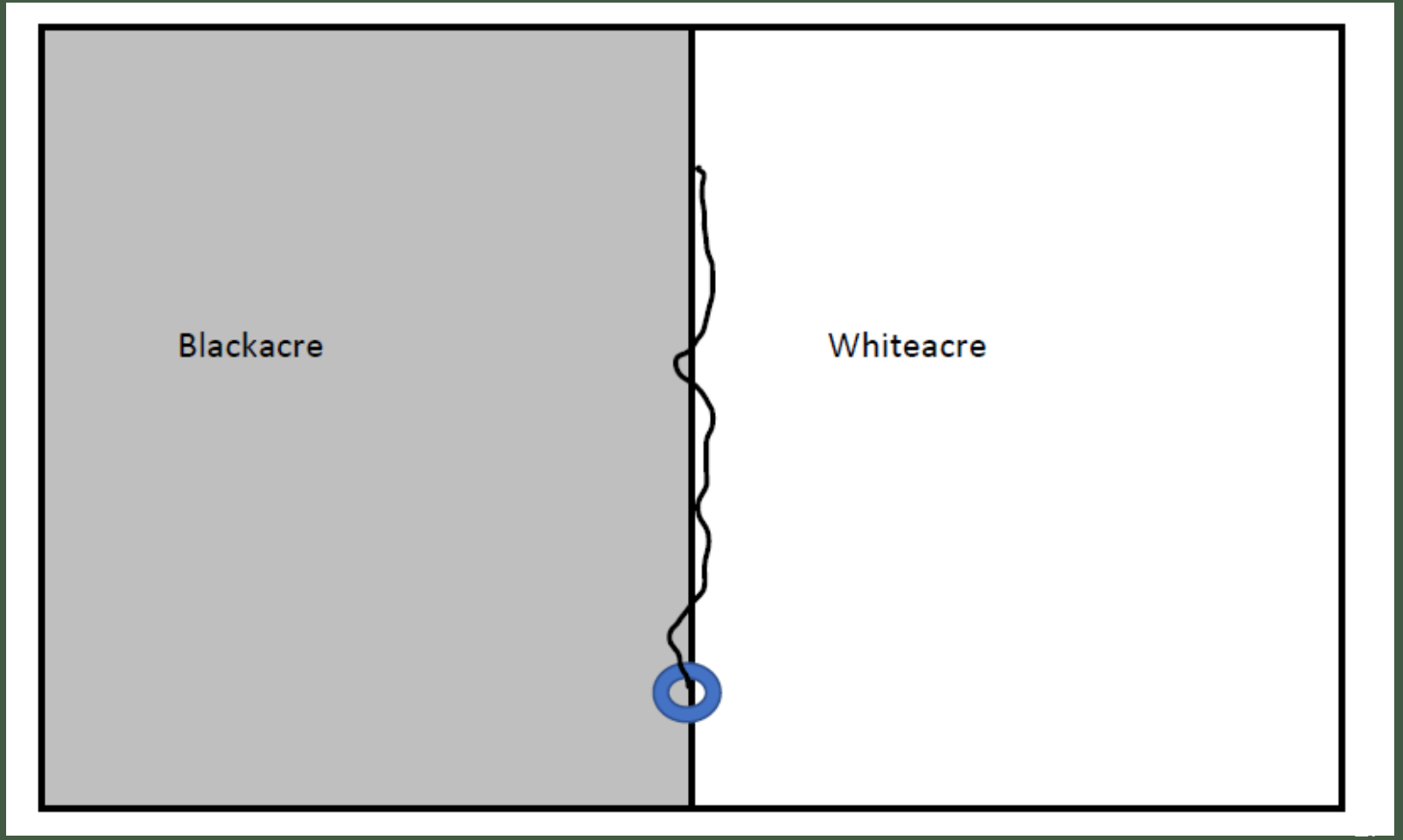
(C) Lease Line Allocation Wells

If lucky:



(C) Lease Line Allocation Wells

Bad Day:



(C) Lease Line Allocation Wells

- Are production allocation agreements part of your materials? If not, how are royalty owners being paid?
- What if royalty owners refuse to sign a division order agreeing to this?
- Typically see one of two approaches:
  - (1) 50/50 Approach
  - (2) "Box Rule"

(C) Lease Line Allocation Wells

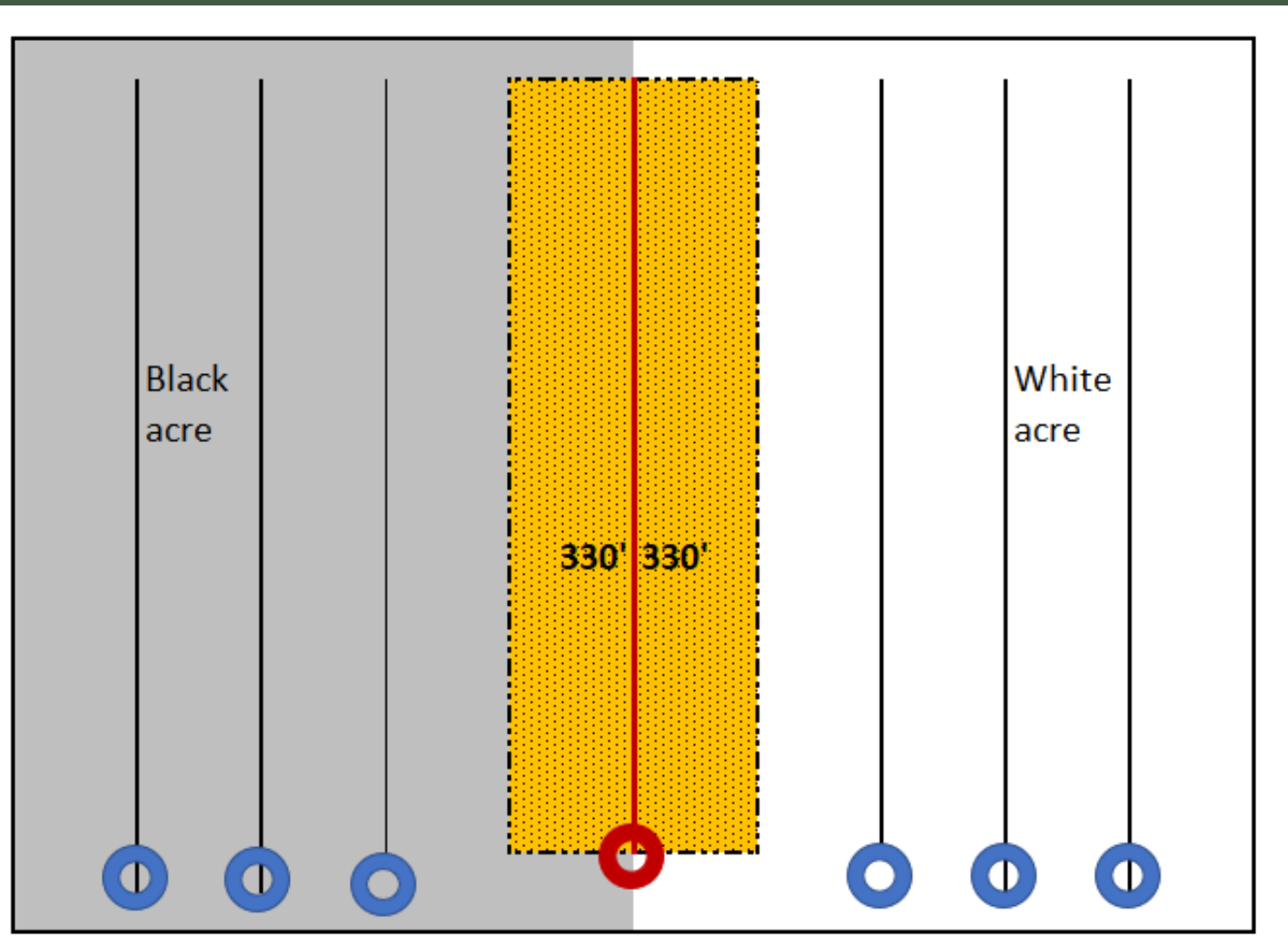
50/50 Approach:

> *"For the portion of the Productive Drainhole Length adjacent to or on the Tract 1, proceeds from production shall be paid according to the terms and provisions of the applicable Lease(s) but allocated fifty percent (50%) to the Interest Owner(s) in Tract 1 multiplied by the Allocation Factor and fifty percent (50%) to the Interest Owners in Tract 2 multiplied by the Allocation Factor."*

(C) Lease Line Allocation Wells

BOX

RULE:



(C) Lease Line Allocation Wells

Box Rule Approach:

> *"For purposes of allocating production and payment of royalties attributable to the Subject Well, the production shall be allocated to each tract on its percentage surface acreage basis of the Production Sharing Area. Each tract's percentage acreage basis is a fraction, the numerator of which is the number of surface acres from that tract which lie within the Production Sharing Area and the denominator of which is the total number of surface acres in the Production Sharing Area. Proceeds from such allocated production will be paid to the Interest Owner's current and collective pro rata ownership interest in the Leases (and/or unit, as the case may be) as if it were production from their respective tract."*

(D) How to Calculate?

PSA or Allocation Well Between Leases or Units?

Lease Line Allocation Well Between Leases or Units?

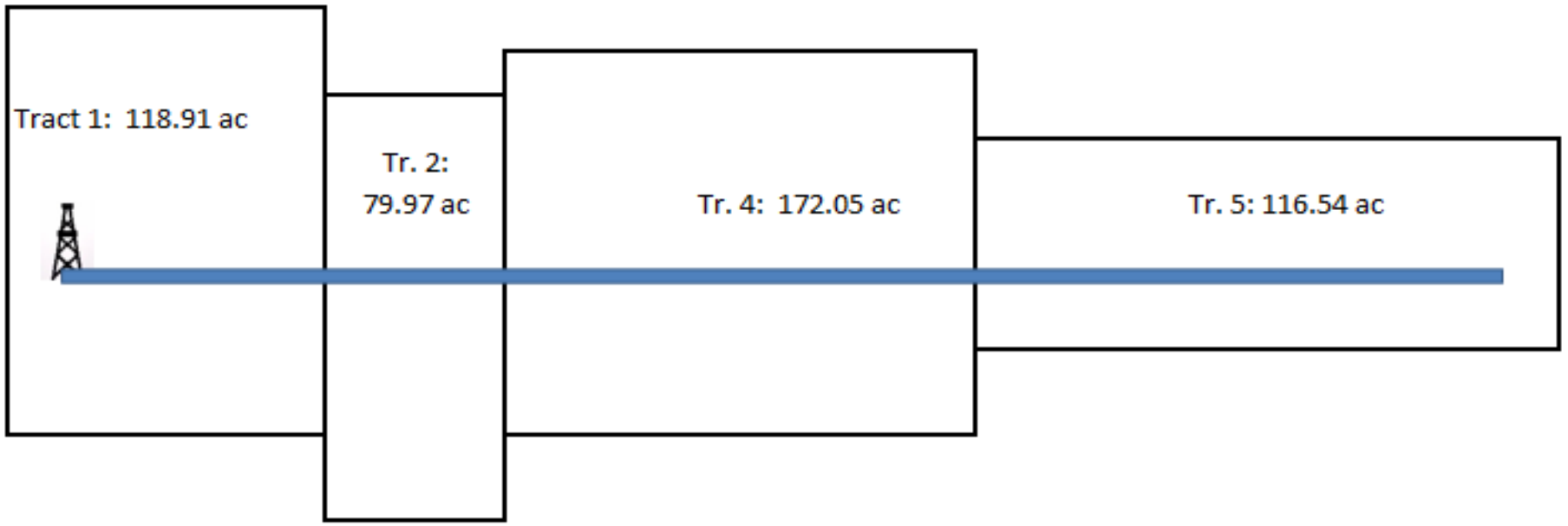
If Lease Line Allocation Well, which approach are you using? Box Rule or 50/50?

Are production allocation agreements included as part of your materials examined?

A PICTURE IS WORTH

A THOUSAND WORDS

(D) How to Calculate Regular Allocation?

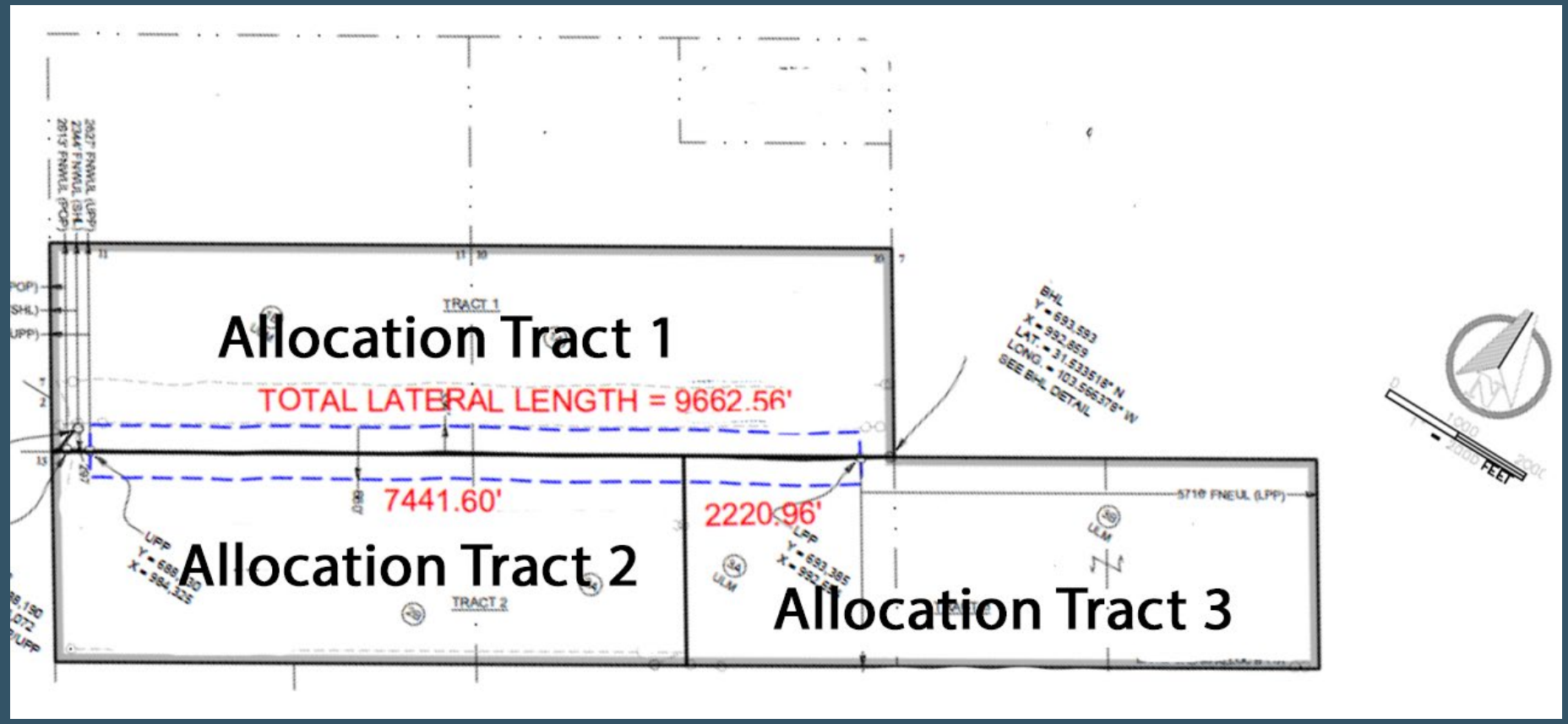


Lateral Section 1:	1000'	Lateral Section 2:	1500'	Lateral Section 3:	2000'	Lateral Section 4:	2500'

KEY POINTS FOR REGULAR ALLOCATION WELLS:

1. EVERYTHING TIED TO PRODUCTIVE LATERAL LENGTH.
2. EACH DRILLSITE PRODUCTIVE LATERAL LENGTH DIVIDED BY TOTAL PRODUCTIVE LATERAL LENGTH.
3. ADD UP ALL THE ALLOCATION FACTORS, YOU GET 1.00000000.
4. HAVE YOU DOUBLE CHECKED INDIVIDUAL TRACT BASIS VS TOTAL CUMULATIVE BASIS?
5. FORMULA: MI*RI (LESS NPRI IF APPLICABLE) * ALLOCATION FACTOR. EACH INDIVIDUAL TRACT TOTALS → 100% RI, NPRI, ORRI, NRI.
6. <u>ALWAYS SHOW THE WORK.</u>

(D) HOW TO CALCULATE LEASE LINE ALLOCATION ON 50/50 BASIS?



KEY POINTS FOR 50/50 LEASE LINE ALLOCATION:

1. BEST FOR WHEN WELLBORE IS REASONABLE EQUIDISTANT FROM EACH UNIT ON THE LEASE LINE.

2. AGAIN, EVERYTHING TIED TO PRODUCTIVE LATERAL LENGTH.
   TRACT PRODUCTIVE LATERAL LENGTH / TOTAL PRODUCTIVE LATERAL LENGTH.

3. ALWAYS SHOW THE WORK. WHAT IS YOUR DPU TRACT FACTOR?

4. ADDING A FACTOR → MI*RI (LESS NPRI IF APPLICABLE) * DPU FACTOR * YOUR ALLOCATION FACTOR * 50%.

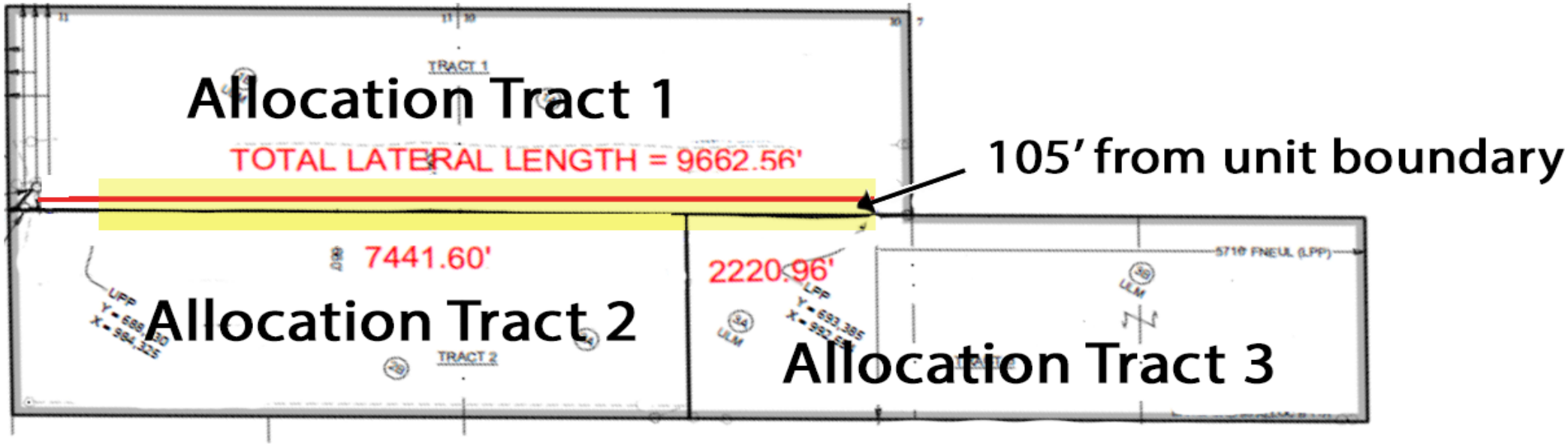
5. EACH INDIVIDUAL TRACT SHOULD TOTAL → 100% RI, NPRI, ORRI, NRI.

6. EACH UNIT ON EITHER SIDE OF LEASE LINE WILL TOTAL 50%

7. AGAIN, DOUBLE CHECK AND VERIFY.

(D) HOW TO CALCULATE LEASE LINE ALLOCATION ON BOX RULE?

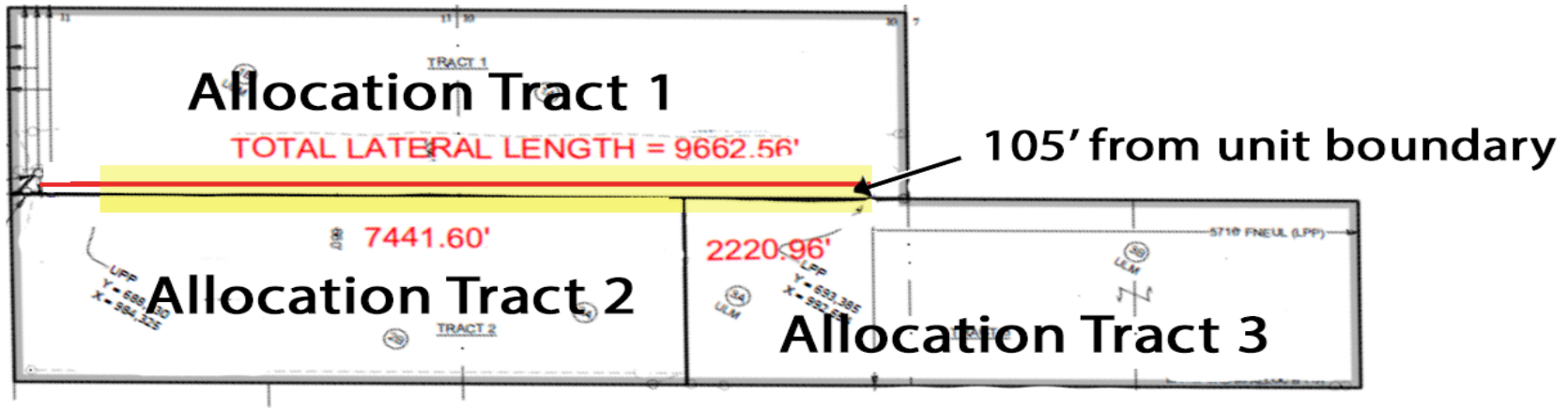
LLAW Box: 330’ Parallel on either side of wellbore; 100’ perpindicular box around the subject well, using FTP to LTP.



SOME QUICK MATH TO CREATE A FAUX BOX:

Portion of the imaginary box that is 330' to the NORTH of the wellbore and WHOLLY on Tract 1 (i.e. 330') PLUS portion of the imaginary box that is to the SOUTH of the wellbore and WHOLLY on Tract 1 (i.e. 105')	435.00’	Divided by 660 Total	0.65909091
Portion of the imaginary box that is 330' to the SOUTH of the wellbore and WHOLLY on Tracts 2 or 3 (i.e. 330' - 105')	225.00’	Divided by 660 Total	0.34090909
		TOTAL:	1.00000000

LLAW Box: 330’ Parallel on either side of wellbore; 100’ perpindicular box around the subject well, using FTP to LTP.



KEY POINTS FOR LEASE LINE BOX RULE:

1. AGAIN → TRACT PRODUCTIVE LATERAL LENGTH / TOTAL PRODUCTIVE LATERAL LENGTH. ALWAYS SHOW THE WORK → RESPECTIVE DPU'S W/ DPU TRACT FACTOR.

2. BOX RULE USES "FAUX POOLING", I.E., FAUX LEASE LINE SPACING BOX.

3. ADDS ANOTHER FACTOR → MI*RI (LESS NPRI IF APPLICABLE) * DPU FACTOR * YOUR ALLOCATION FACTOR * BOX RULE PERCENTAGE.

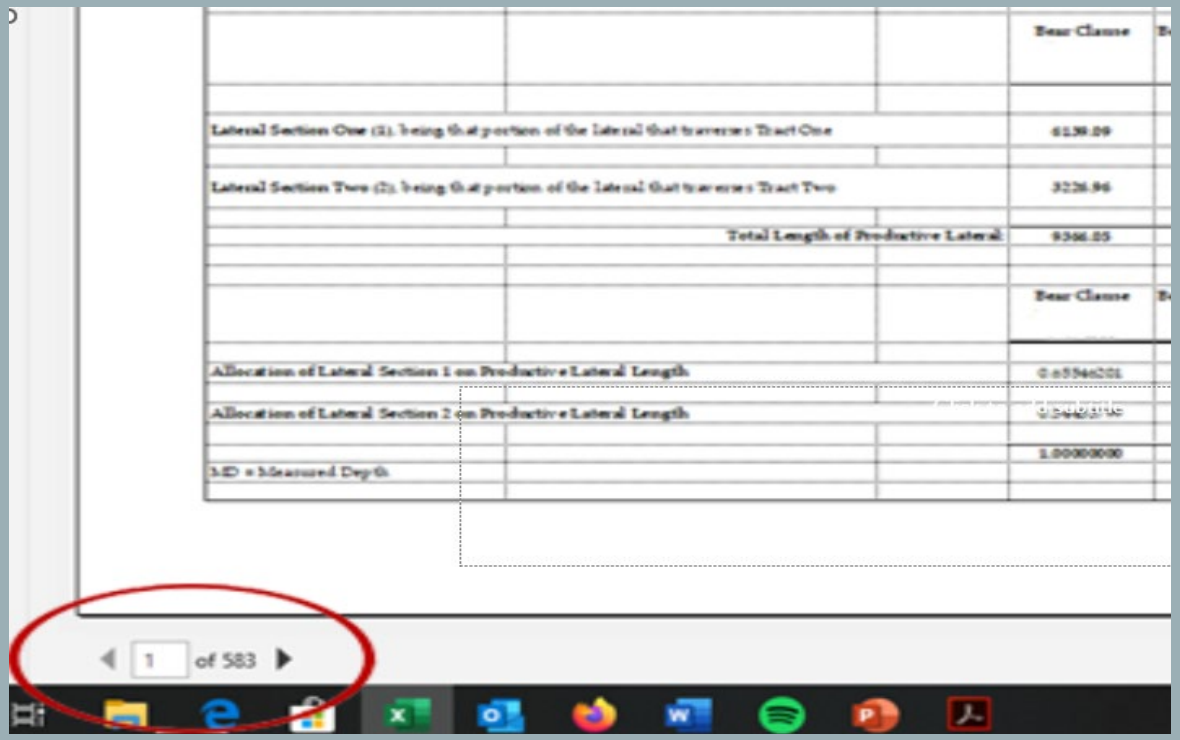
4. EACH INDIVIDUAL TRACT TOTALS → 100% RI, NPRI, ORRI, NRI.

5. EACH UNIT ADDS TO FAUX POOL PERCENTAGE, BUT COLLECTIVELY 1.00000000.

YEAH, BUT THAT SEEMED LIKE A WHOLE LOT THERE.

WHAT ABOUT BIGGER PROJECTS?

BIG OR SMALL.



	Bear Clause
Lateral Section One (1), being that portion of the lateral that traverses Tract One	6138.09
Lateral Section Two (2), being that portion of the lateral that traverses Tract Two	3226.96
Total Length of Productive Lateral	9365.05

	Bear Clause
Allocation of Lateral Section 1 on Productive Lateral Length	0.65546201
Allocation of Lateral Section 2 on Productive Lateral Length	0.34453799
	1.00000000

MD = Measured Depth

1 of 583

III. BEST PRACTICES. WHY?

See, *Railroad Commission of Texas and Magnolia Oil & Gas v. Elsie Opiela and Adrian Opiela, Jr.*

Cause No. 03-21-00258-CV, Third Court of Appeals of Texas

III. BEST PRACTICES WITH PRODUCTION ALLOCATION AGREEMENTS

Recommend a Production Allocation Agreement with mineral owners if at all possible!!!!

Your Production Allocation Agreement should:

1. Use credible methodology in determining how your production is allocated, e.g. actual production versus "estimated drainhole length".
2. If you have NPZ's or acreage deemed non-productive, exclude that from your acreage allocation formula.
3. Risk reduction with as many interest owners as possible.
4. Follow *Springer Ranch* "first to last take point" in correlative interval as part of your methodology.
5. Remember: **CREDIBLE ALLOCATION!**

CONCLUSIONS…..

Thank you for your time! If you have any questions, please feel free to contact me:

SCOTT PETRY

281.677.2529, EXT. 700

SPETRY@PETRYSINEX.COM

PETRY, ROSIE & SINEX, PLLC

WWW.PETRYSINEX.COM