

6/9/16 Comments as to rules from Jim Classen:

In reviewing the rules again... It strikes me that we should make the default oil spacing read "up to" forty (40) acres as there could be circumstances where the trap under control (leased) could be economical with less than 40 acres.

Operators typically would try to tie up as much acreage around a successful well as possible if their income share remains the same. The larger the unit, the more folks get paid the royalty and the real owners receive less. In the same fashion, a gas well default spacing should read a minimum of 160 acres up to 640 acres.

Think of down the road, whereby an operator doesn't own all the leases in the section but his 160 acres covers the seismic trap. The trap is worthy of drilling if they estimate the pay thickness to be thick enough and the structural closure appears to be within their proposed 160 acre outline. They would not want to, nor would they need to, have a larger initial unit. When we eventually get competition going in the area, the new folks would not likely be able to lease a whole lot of acreage if AM extends or re-leases some of their existing acreage. We do not want to discourage a new party from drilling a well by forcing them to have to have a 640 acre default unit. This would likely dilute their interest in their prospect. Kristina said she interprets the statute to say a unit boundary line does not have to be a township or section line so this means we can move the box around a successful well any way that seems appropriate. There does not seem to be any restriction of asking for a smaller initial unit either.

The problem remains that we have no apparent system, rule or statute that says an operator must come back to the Commission after drilling a successful well to adjust the producing unit to fit the seismic and log information, and form a better unit that outlines the initial interpreted pool outline. This is not appropriate. It is our job to just and fairly allow the folks who own the mineral interest in the discovered pool to get their share of the royalty income. The Commission must step in when we have information available, to ensure just and fair operations. We cannot allow an operator to operate improperly when we know there is gross injustice. The Commission must have authority to call the operators in for a review of the information as to any well. For those wells already allowed to be drilled close to the section line with obvious cross section drainage, we need to review these current units. I think the Commission already has this power but it needs to be spelled out more clearly in the rules. We need to clarify in the rules

that the Commission\IDL has the right to call an operator in and review the information to more properly adjust the unit outlines if we suspect or already have information that indicates drainage. Even with the dream and euphoric 2 years of production data often touted, there is no way to clearly call the operators in for discussion and adjustment of the unit outline.

The initial production unit outline should be formed after the discovery of the pool, after drilling and log integration. The initial unit needs to be adjusted based on geologic data and all other information BEFORE allowing the well to be produced. Remember, the operator uses seismic to map a trap and hopefully with amplitude information as support, to risk spending \$2,000,000 to drill and complete a well. Certainly after finding log pay, the same information should be used to outline a temporary box around the well until some magic future date whereby someone thinks they know how to draw a better box. If the seismic shows it is an up-thrown fault trap, it is ridiculous to include a lot of downthrown leasehold in the mineral interests to be paid. We draw a better box and yes it is just an approximation. The key is that once the well indicates a new pool, the information has to be reviewed and a more just unit outline initially derived. Remember thus far, these are discrete structural traps. Locations are not a dart throw. There is science available or callable from an operator to come up with a more appropriate initial producing unit. The Commission has a responsibility to the public to be just and fair in allocating royalty payments instead of allowing ongoing injustice under the current operations.

Please consider re-doing the default wording to incorporate these suggestions. Please also consider adding a rule whereby the Commission or now IDL staff have the right to call in an operator to review the information to form a proper unit. Also consider adding a review with all data for unit formation BEFORE allowing any production to commence.

As to the setbacks, outside of a standard 330', I really see no need to have other or larger setbacks IF you initially put the well location in the central area of a temporary box. The size of the box determines who gets integrated and/or who pays for the well if multiple operators are involved. If you need to drill on a section line it could be allowed. If you want to keep the setbacks, there would be

a lot more exception location permits. If the geology/seismic or nearby experience shows there would be no cross-section drainage, it could also be allowed.

As to the production report data, section 400, the first sentence seems to cover everything but then more is added. If you want details, we need two Well Potential Reports each year for every well. This is the information we need to help guess at the drainage area for the well. At this point we have 11 months of production and counting with no useable pressure information. These reports detail one day of production with totals of gas, oil & water, test date, report date, choke size, flowing tubing pressure, shut in pressures, and any bottom hole pressure data taken during the last 6 months. I have sent copies we use in LA as examples before and I will forward them again. These are most important.

We will have more open meetings to discuss these issues also.