

NMOGA

EXHIBIT C

JOSEPH J. BEER

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TECHNICAL EXPERTISE

- Liquids-rich and dry gas shale evaluation
- Core and log analysis
- Completions design and modeling
- Sedimentology and sequence stratigraphy
- Tight gas sand evaluation
- Geomechanics
- Geosteering
- Petra, Kingdom, Petrel, SES, Frac Pro, Spotfire, Microsoft Office Suite

EMPLOYMENT

Encana Oil & Gas (USA) Inc. January 2006 - Present

- | | |
|-----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sr. Manager Geo-
Science and Base
Asset Development | Western Operations: 06//2017 – Present
Manage Eagle Ford reservoir characterization group
Geoscience and development manager for San Juan and Wyoming properties |
| Geoscience and Base
Asset Dev Manager | Western Operations: 01//2017 – 06/2017
Manage team of geoscientists actively developing EF play
Development manager for 2-4 base assets. |
| Geoscience Manager | Eagle Ford: 06/2014 – Present
Grow team from 5 to 14 geoscientists focused on integrating new corporate asset
Planning and execution of \$500MM/yr, 2-5 rig horizontal development program
Team increased well inventory and reserves by designing and executing spacing and completions trials |
| Development Lead | Emerging Plays: 01/2014 – 06/2014
Evaluate commerciality and create development plan for Piceance Niobrara
Manage team of 4 geoscientists and reservoir engineers |
| Geologist | North Piceance: 01/2012 – 01/2014
Active exploration and delineation of the Niobrara formation
Developed strong liquids-rich shale evaluation techniques |
| Geologist | Wind & Green River Basins: 01/2010 – 01/2012
Geomechanics characterization and modeling
Help teach and advise geomechanics concepts and workflows across portfolio
Completions diagnostics, design, optimization, and execution |
| Geologist | New Ventures: 04/2007 – 01/2010
Exploration, delineation, leasing of Haynesville Shale
Gas shale core analysis, petrophysics, resource mapping, planning
Geologic execution of initial vertical pilots and first hz wells in the play |
| Geologist | DJ Basin: 01/2006 – 04/2007
Plan and execute active vertical program and early horizontal tests
Stratigraphic framework, petrophysical analysis, resource mapping |

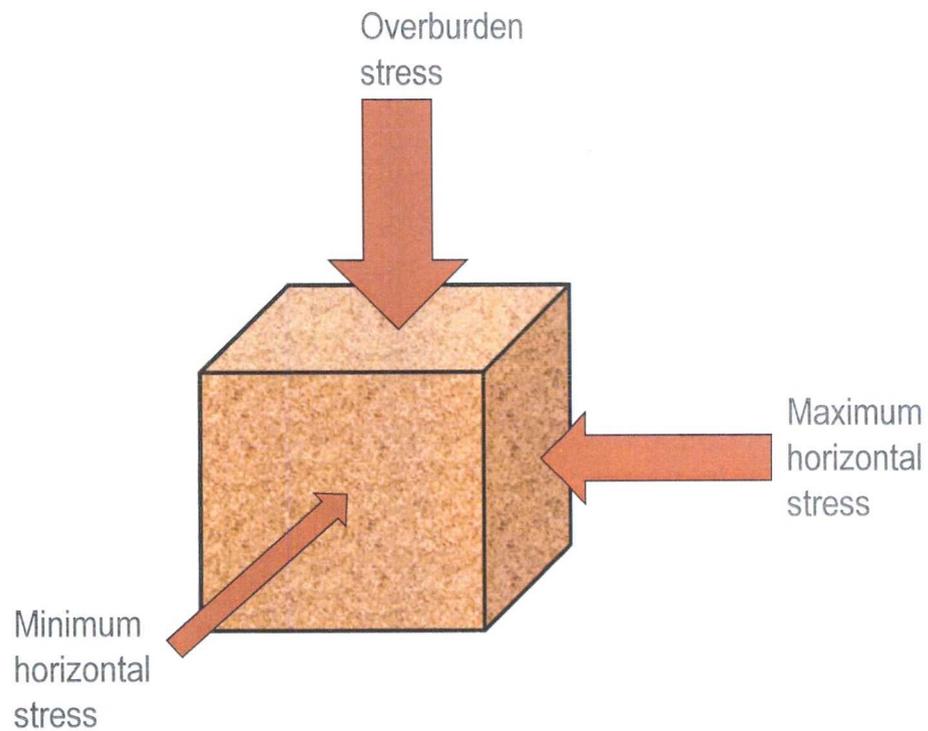
EDUCATION

- M.S. Geological Sciences. University of Minnesota Duluth. Spring 2006. GPA 4.0
- Wasatch-Uinta Field Camp, Utah. Summer 2003.
- B.A. Geology and Environmental Studies. Gustavus Adolphus College. 2003. GPA 3.66

PUBLICATIONS

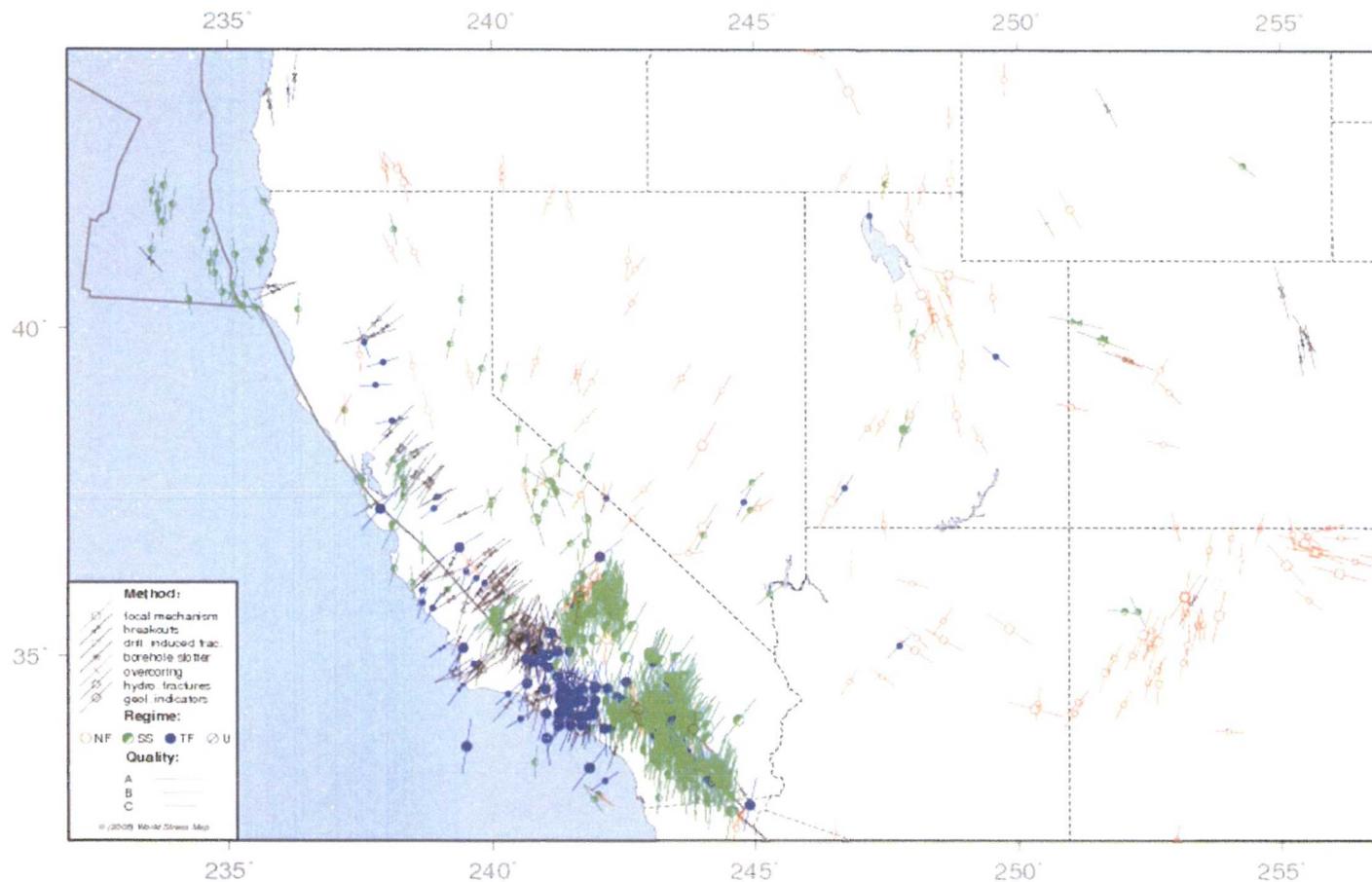
- Gorynski, K., Wallace, K., Beer, J., 2014, A Geomechanical Model for High-Volume, Proppantless, Slickwater Hydraulic Fracturing Operations in the Tight-Gas Sands of the Williams Fork Formation, Piceance Basin, Colorado, SPE 171625.
- Beer, J.J., 2009, Regional Depositional Controls on Reservoir Quality and Fracability of the Haynesville Shale, Haynesville Gas Shale Technology Symposium, Dallas, TX.
- Beer, J.J., 2005, Sequence stratigraphy of fluvial and lacustrine deposits in the lower part of the Chinle Formation, south central Utah, USA: Paleoclimatic and paleoecologic implications [MS Thesis]: Duluth, University of Minnesota, xxx p.
- Demko, T.M., Nicoll, K., Beer, J.J., Hasiotis, S.T., Park, L.E., 2005, Mesozoic Lakes of the Colorado Plateau, in Pederson, J., and Dehler, C.M., eds., Interior Western United States: Geological Society of America Field Guide 6, p xxx-xxx, doi: 10.1130/2005.fld006(16).
- Demko, T.; Beer, J. Gulbranson, E. 2005. Lakes in tropical western Pangaea: siliclastic- and carbonate-dominated lacustrine deposits of the Upper Triassic Chinle Formation, Colorado Plateau, U.S.A., American Association of Petroleum Geologists Bulletin, vxx, p. xx.
- Beer, J., Demko, T., 2005, Tectonic control on continental paleovalley fill architecture: evidence from the Upper Triassic, lower Chinle Formation, south central Utah, USA, Geological Society of America Abstracts with Programs, v. xx, no.x, p. Axx.

Rock stress at depth



- Rocks are under compressive stress at depth
 - $\text{Stress} = \text{force}/\text{area}$
- Overcome stress to create hydraulic fractures
- Hydraulic fractures preferentially open perpendicular to minimum stress

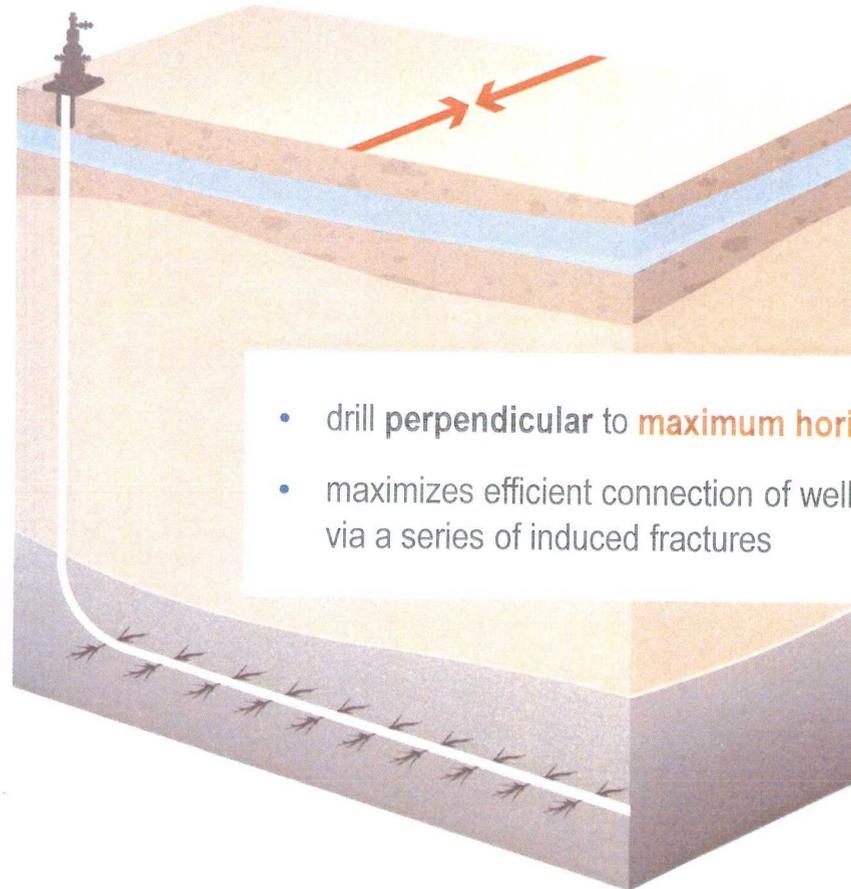
Regional map of tectonic stress orientation



- orientation of maximum horizontal stress varies regionally
- hydraulically induced fractures grow parallel to maximum horizontal stress direction (easier to open width against minimum stress magnitude)

Map source: Heidbach, O., Tingay, M., Barth, A., Reinecker, J., Kurfeß, D. and Müller, B., The World Stress Map database release 2008 doi:10.1594/GFZ.WSM.Rel2008, 2008.

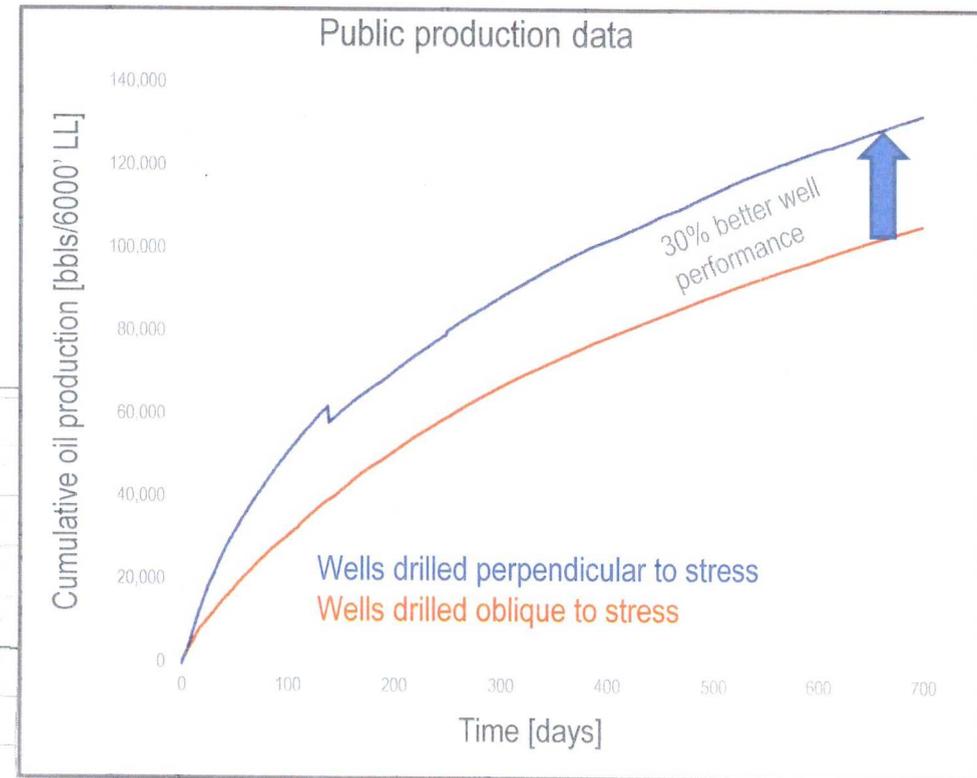
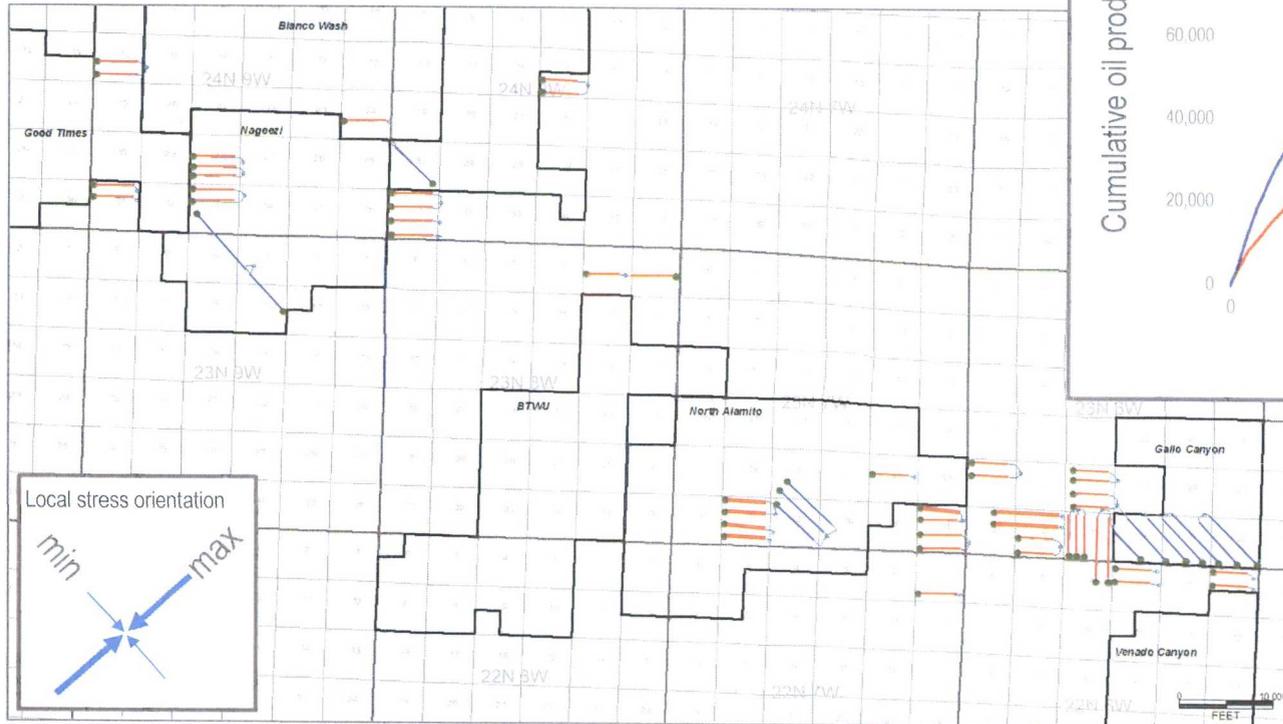
Local development



- drill perpendicular to **maximum horizontal stress**
- maximizes efficient connection of wellbore to reservoir via a series of induced fractures

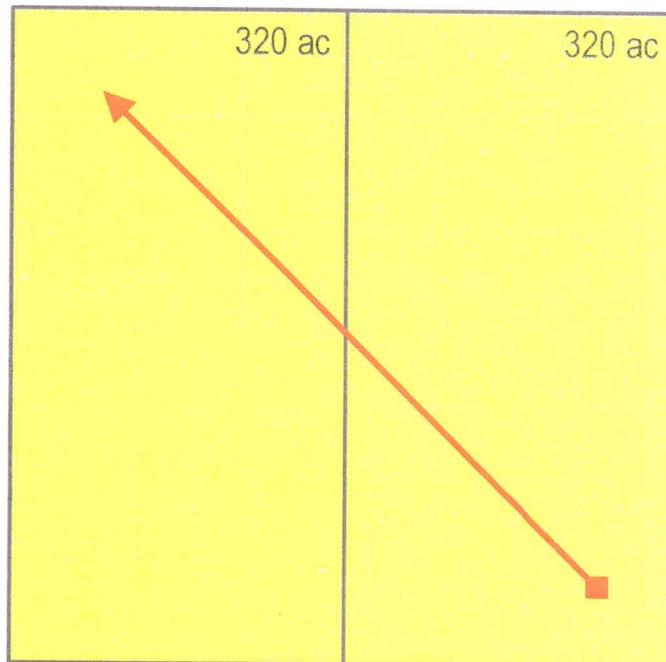
Results from NW New Mexico

Existing wells from San Juan Basin Gallup Oil Play



Having the option to drill perpendicular to local maximum horizontal stress direction allows for more effective and efficient resource development.

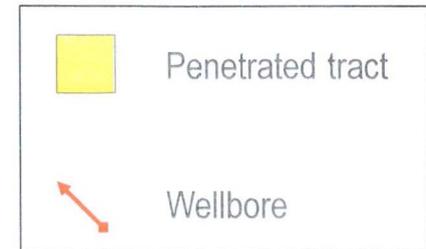
Limitations of current rule



We have been able to drill transverse only in unique scenarios

- Wellbore > 330' from non-penetrated tracts
- Penetrated tracts form rectangle

Transverse wells: Existing Rule

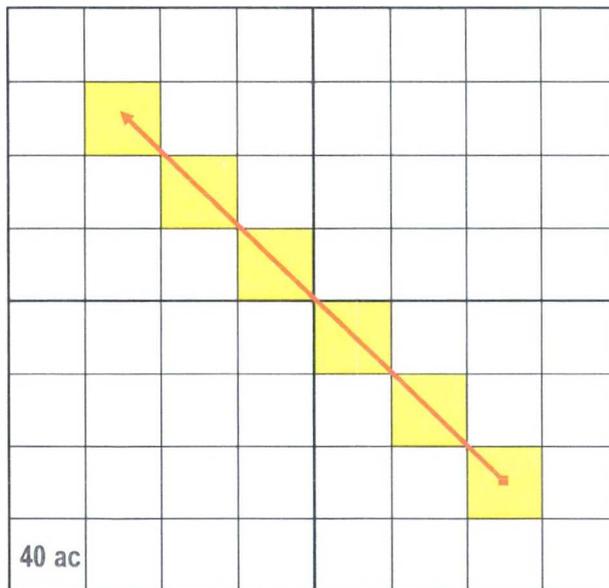


Non-standard location

- penetrated tracts <330' from offset tracts

Non-standard spacing unit

- penetrated tracts non-rectangular

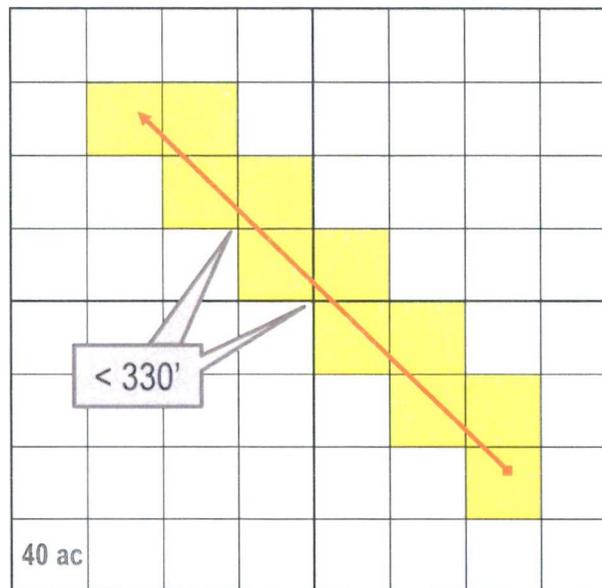


Non-standard location

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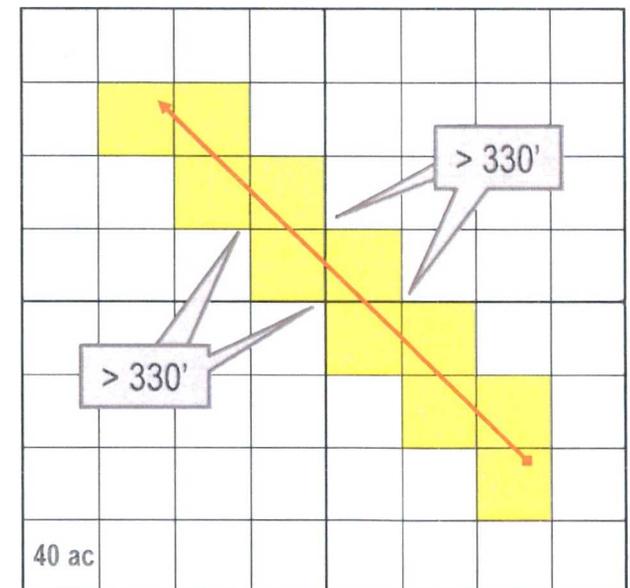


Standard location

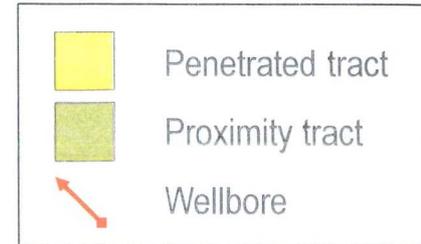
- penetrated tracts >330' from offset tracts

Non-standard spacing unit

- penetrated tracts non-rectangular



Transverse wells: Proposed Rule

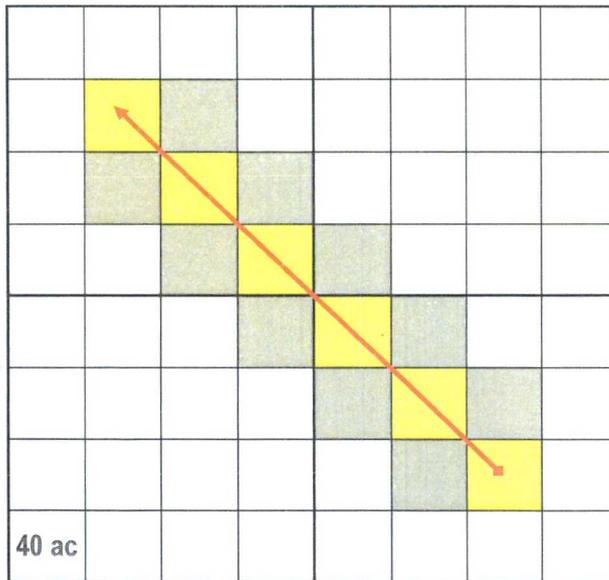


Standard location

- Obeys 330' setback

Standard spacing unit

- Include proximity tracts within 330'
- Rectangular shape unnecessary

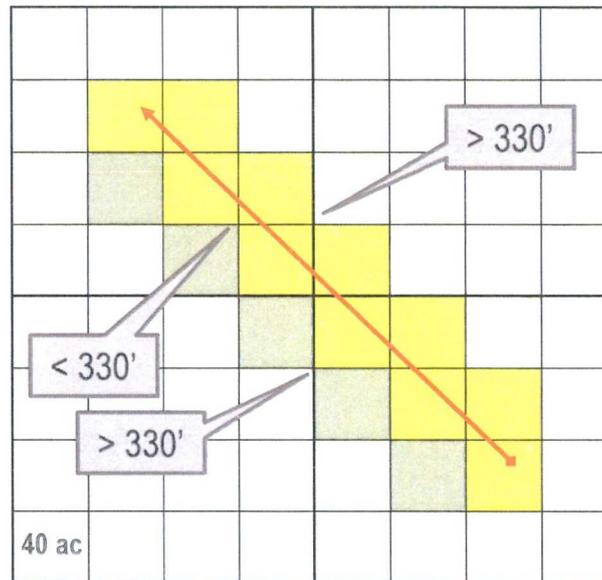


Standard location

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Standard spacing unit

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Standard location

- penetrated tracts >330' from offset tracts

Standard spacing unit

- Rectangular shape unnecessary

