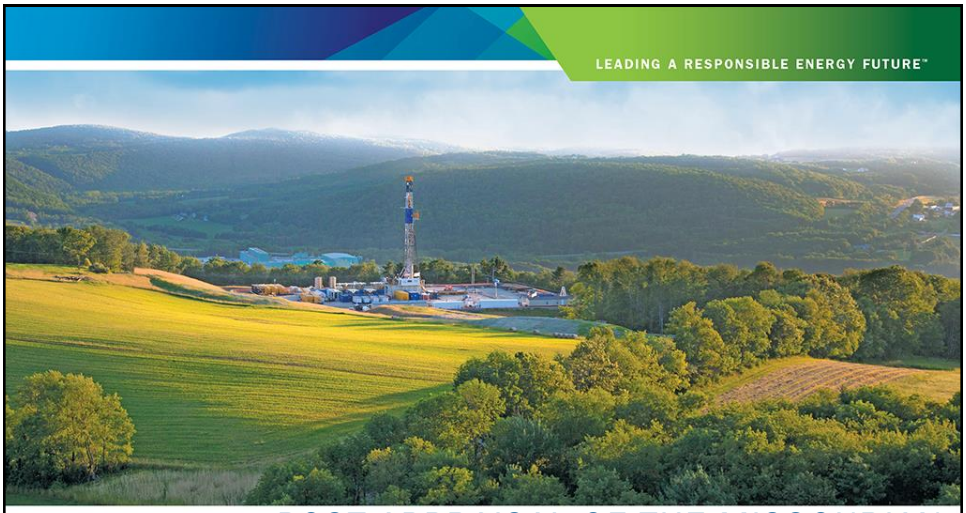


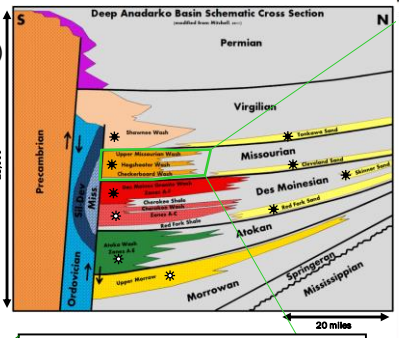
POST APPRAISAL OF THE MISSOURIAN HOGSHOOTER HYDROCARBON SYSTEM: IMPLICATIONS FOR FUTURE EXPLOITATION IN THE ANADARKO BASIN

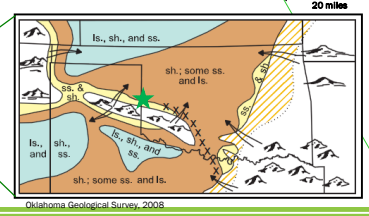
STEVE HOAGLUND (GEOLOGIST – CHESAPEAKE ENERGY)

BACKGROUND GEOLOGY

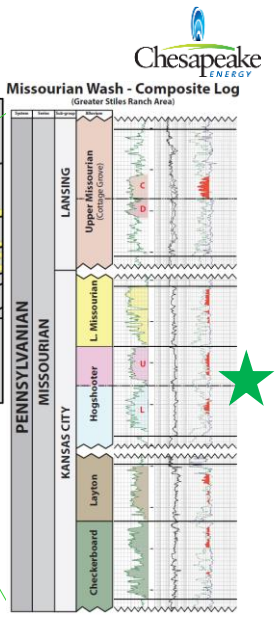
- Wichita Orogeny to the south (10k – 15k uplift)
- Rapid erosion and deposition of uplifted granitic basement rock

Ron Blakey



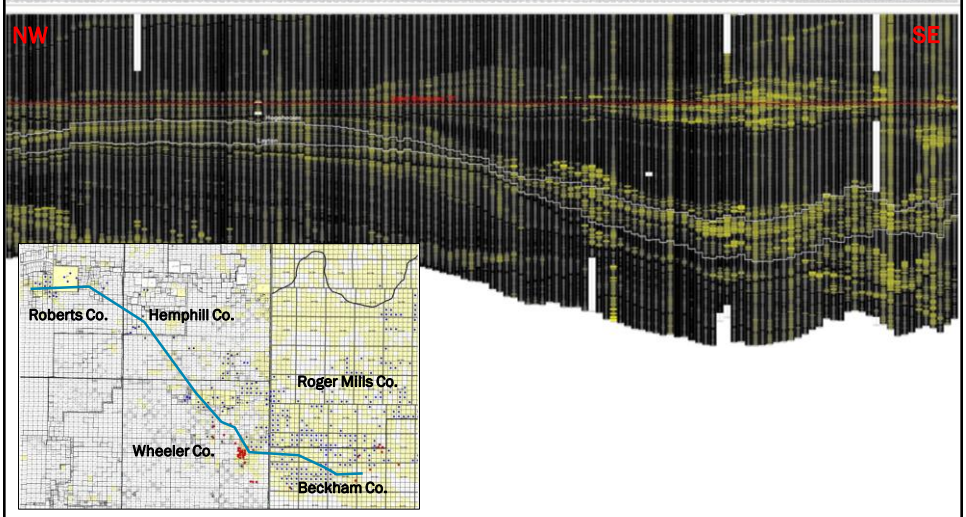


Oklahoma Geological Survey, 2008



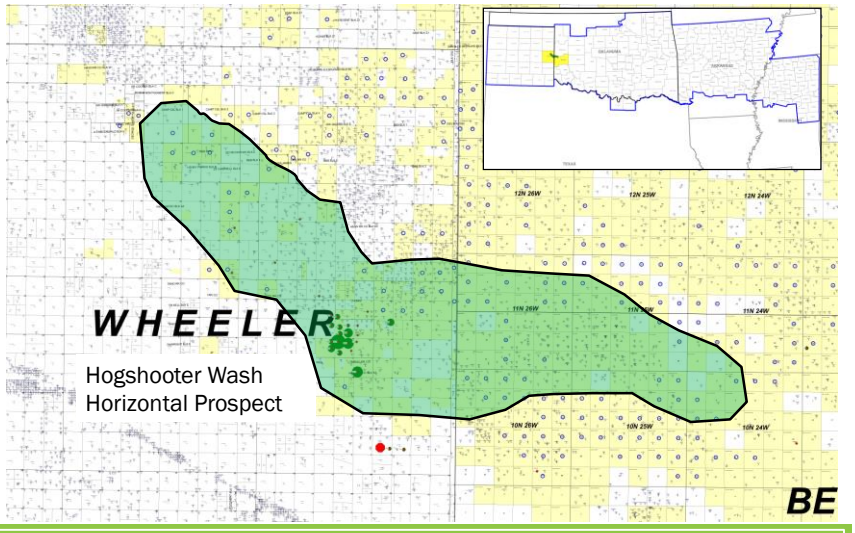
Thick accumulations of Missourian Aged Washes along the paleo-mountain front in Wheeler County, TX and Beckham County, OK

STRATIGRAPHY



Regionally extensive flooding surfaces can be correlated throughout the basin

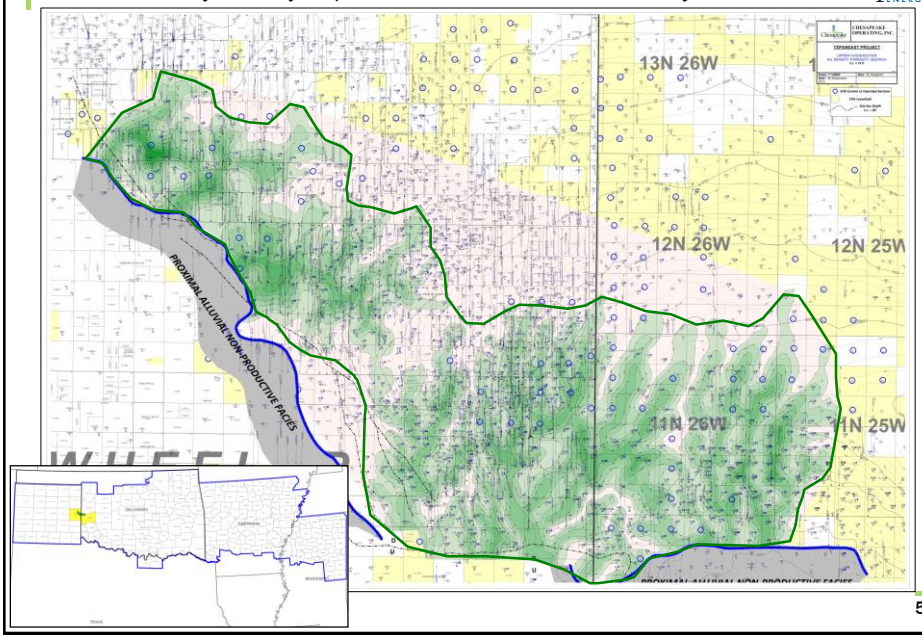
PRODUCTION HISTORY



Vertical production is not always indicative of horizontal potential

UPPER HOGSHOOTER WASH: PLAY EXTENTS

6% Density Porosity Isopach with Subsea Structure Overlay



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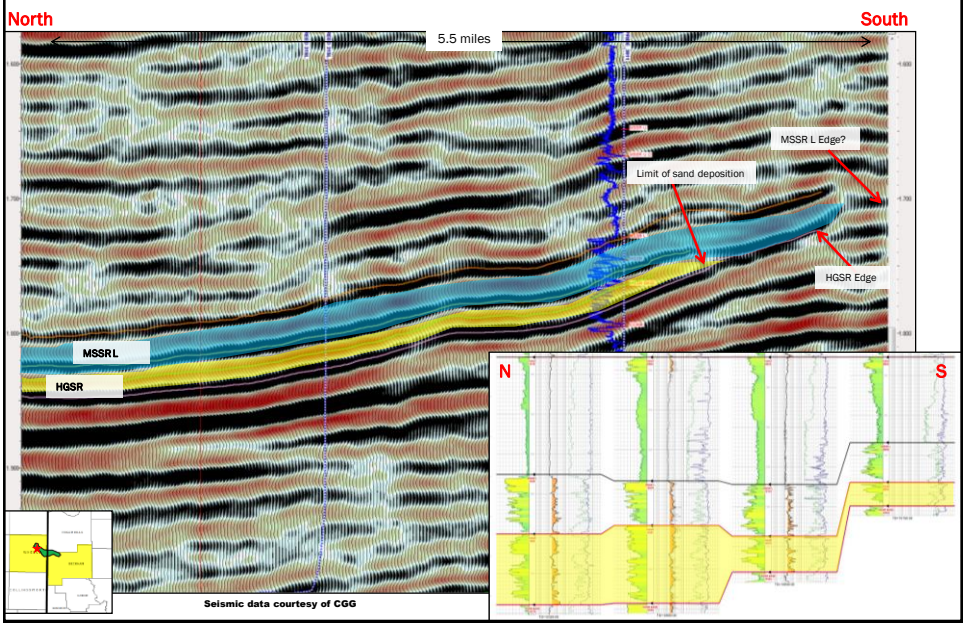
UPPER HOGSHOOTER WASH: STRATIGRAPHIC TRAP

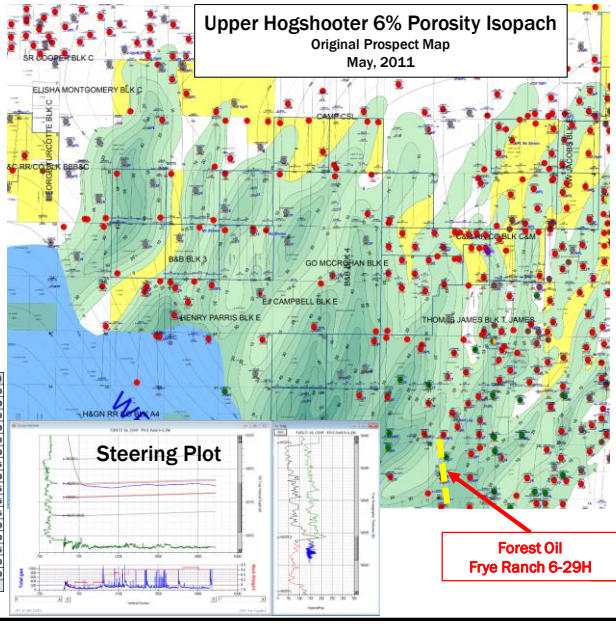


EXPLORATION STRATEGY

- **Forest Frye Ranch 6-29H**
  - Non-Op Well proposal (2011)
  - Located in a mapped thick
  - Steered 100% in zone
  - Cum 64 MBO in first month of production
  - EUR 1.4 BCF + 320 MBO

1st 15 days production

Date	Gas Prod (Mcf)	Oil Prod (bbl)	Prod (Mcfe)	Water Prod (bbl)	Casing (psig)
9/30/2011	785	171	1,809	4,684	1,450
10/1/2011	2,459	987	8,381	4,202	1,500
10/2/2011	3,023	1,454	11,749	3,199	1,500
10/3/2011	3,377	2,014	15,462	2,829	1,500
10/4/2011	3,649	2,056	15,985	2,411	1,450
10/5/2011	3,750	2,141	16,597	1,797	1,400
10/6/2011	4,056	2,267	17,657	1,532	1,375
10/7/2011	3,701	2,304	17,527	1,428	1,300
10/8/2011	4,384	2,446	19,060	1,317	1,225
10/9/2011	4,658	2,427	19,217	1,279	1,125
10/10/2011	4,744	3,027	22,907	1,118	1,025
10/11/2011	4,695	2,515	19,783	1,176	950
10/12/2011	4,608	2,726	20,961	1,151	850
10/13/2011	4,895	2,758	21,442	1,156	775
10/14/2011	4,856	2,722	21,190	1,173	700
10/15/2011	4,924	2,786	21,637	1,167	700
TOTAL CUM	655,165	226,599	2,014,757	77,575	



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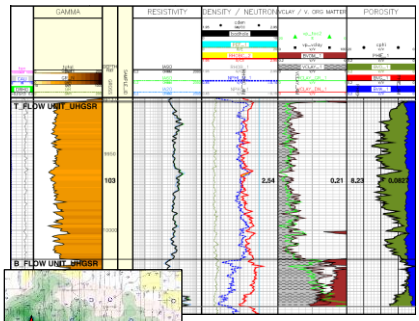
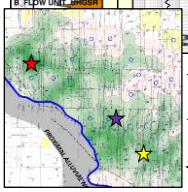
Chesapeake ENERGY

Pilot Hole Logs





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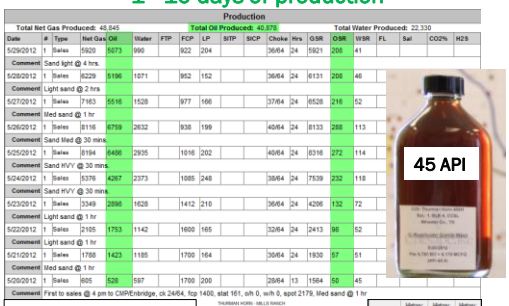

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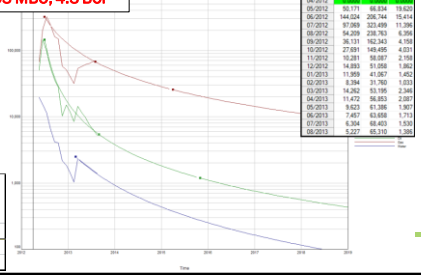

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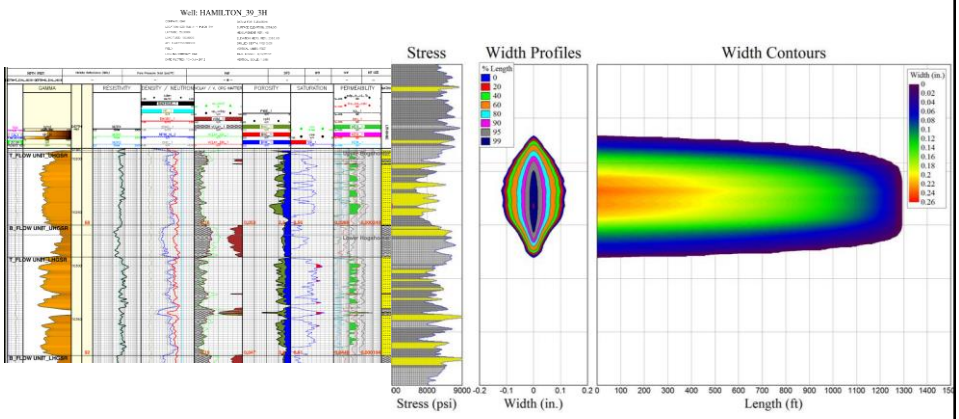

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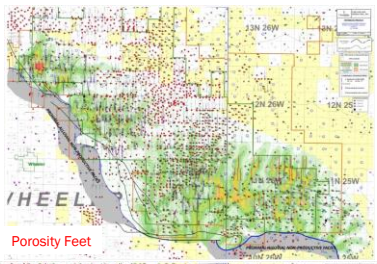

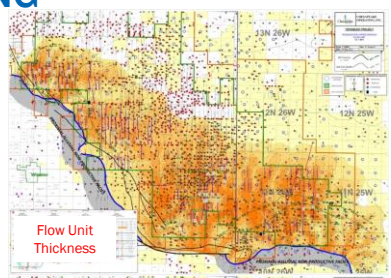

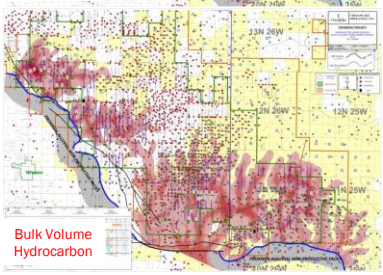

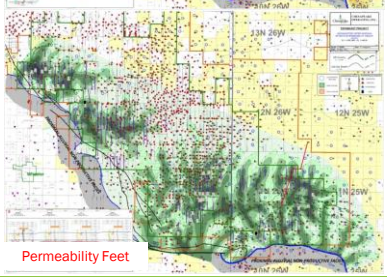

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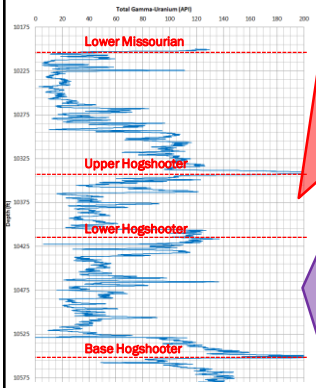

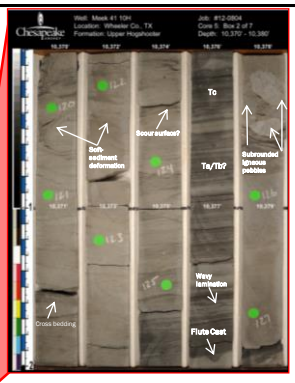

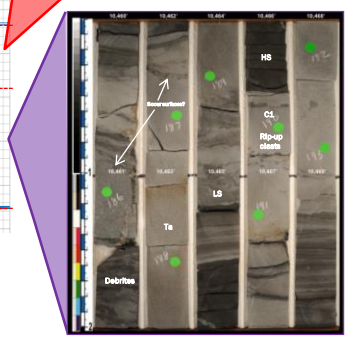

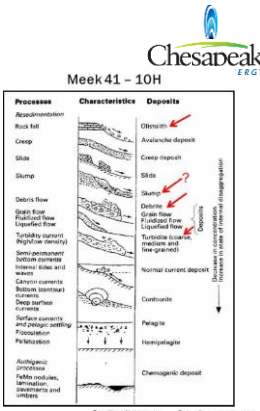

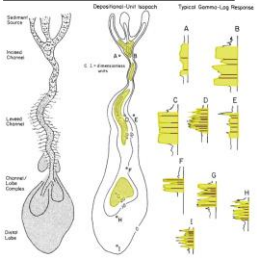

A. Seyedolali and S. Hoaglund (2012) Chesapeake Energy

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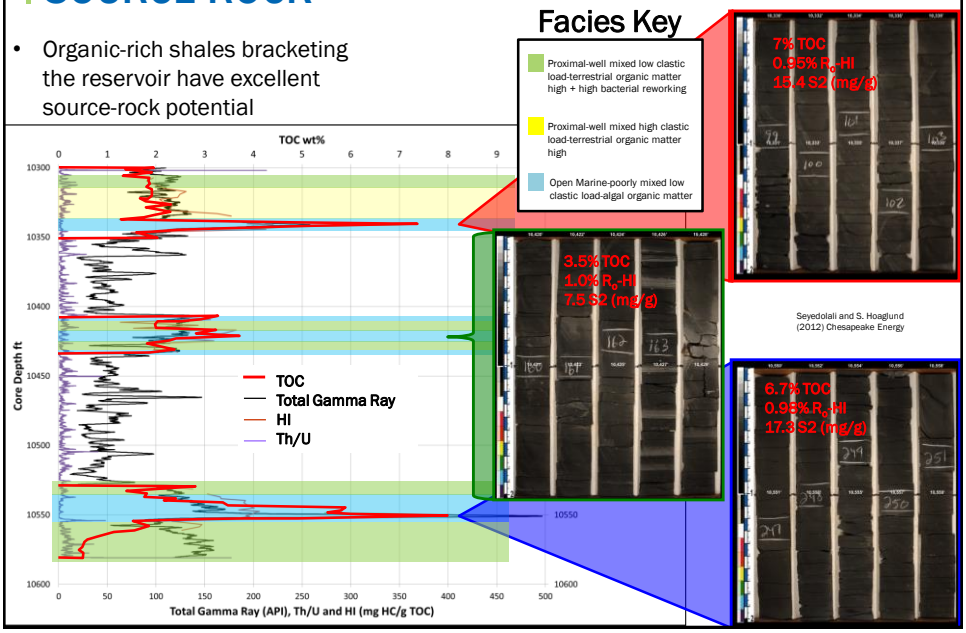

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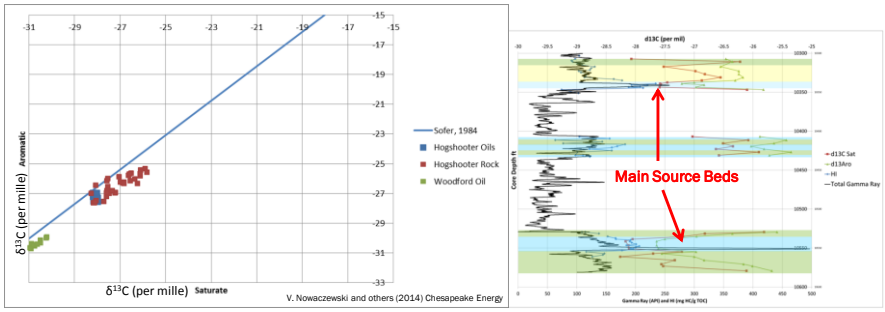

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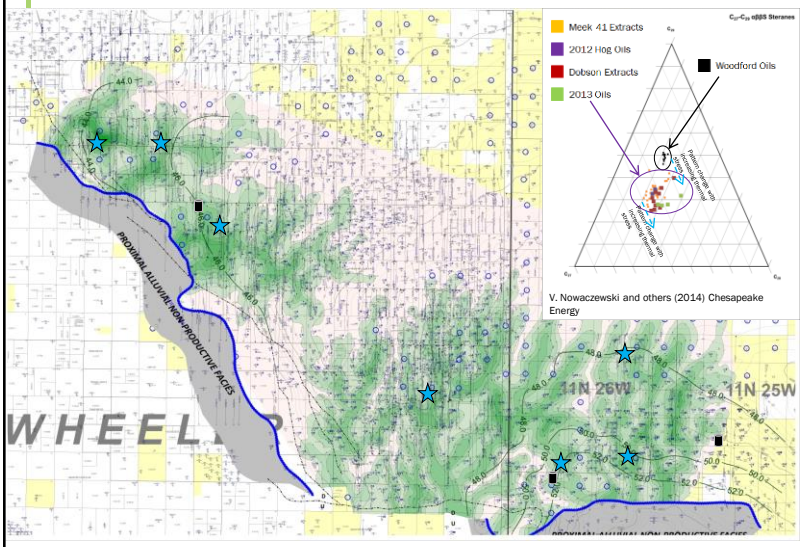

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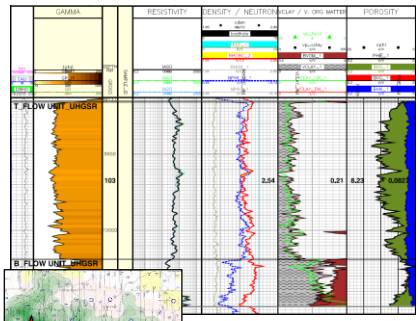

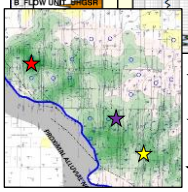

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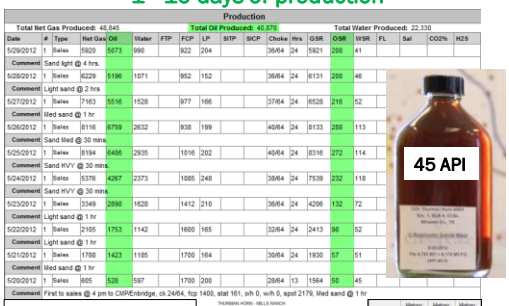

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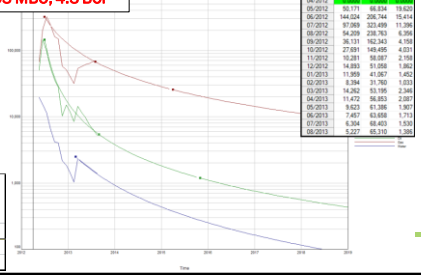

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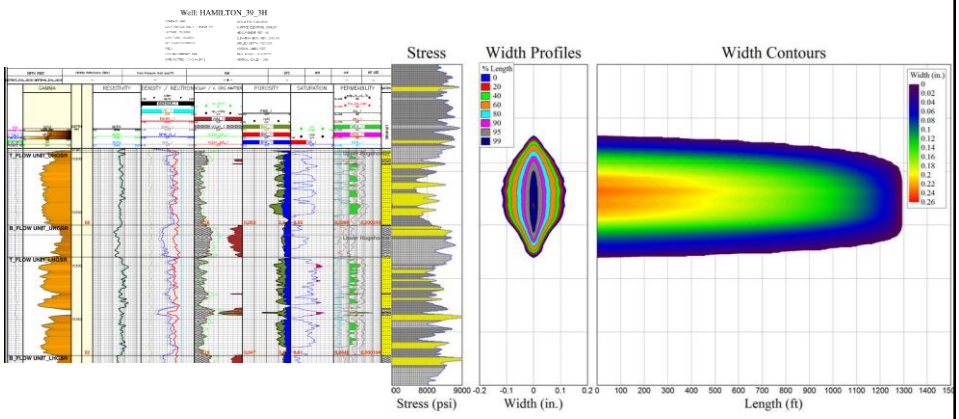

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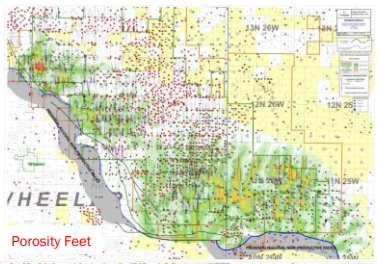

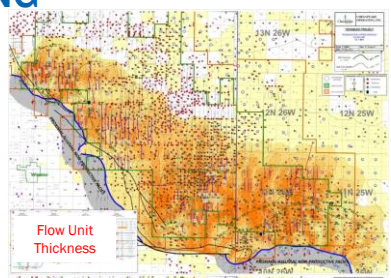

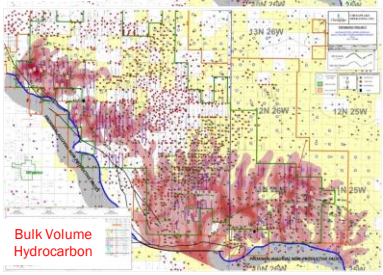

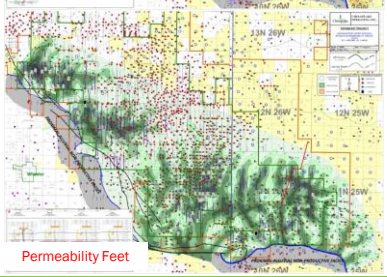

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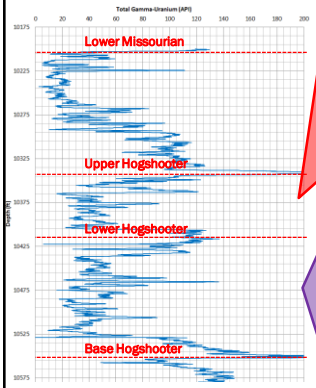

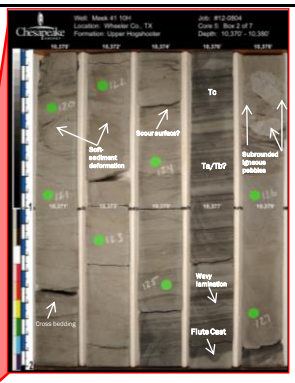

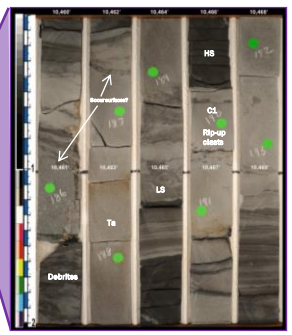

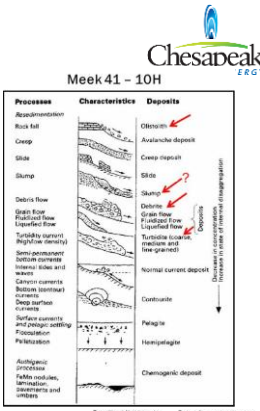

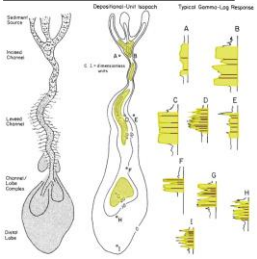

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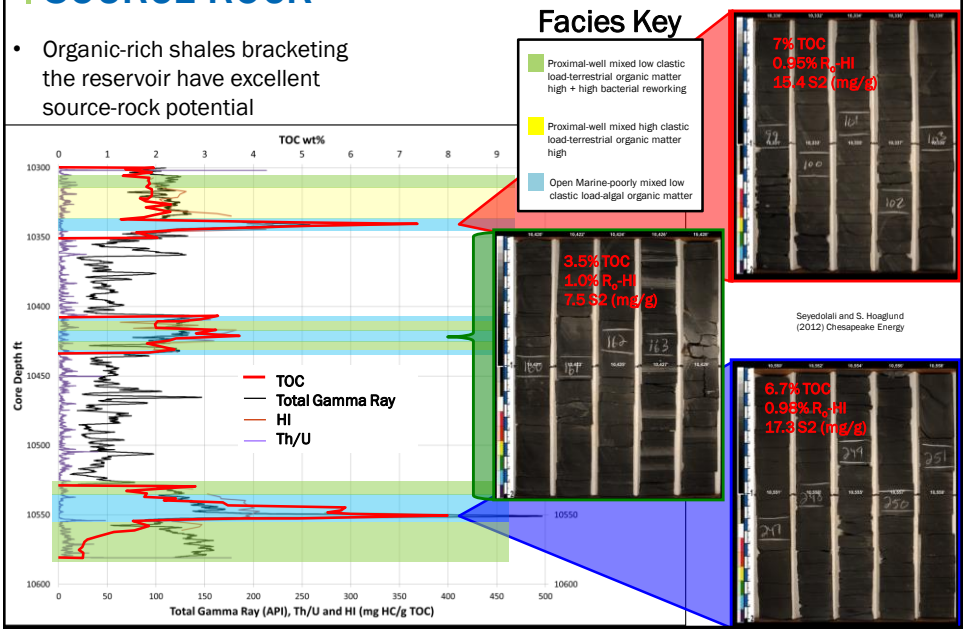

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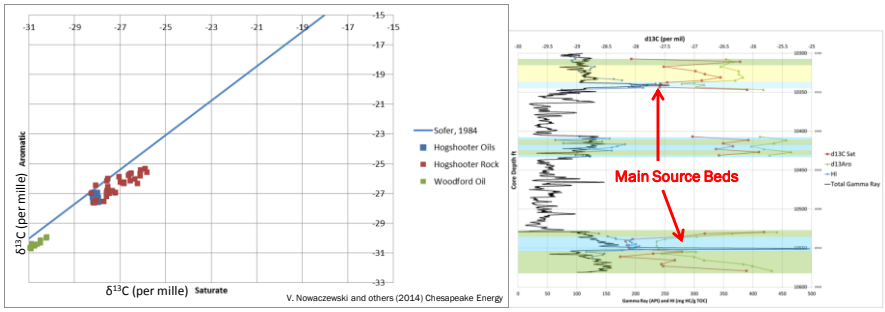

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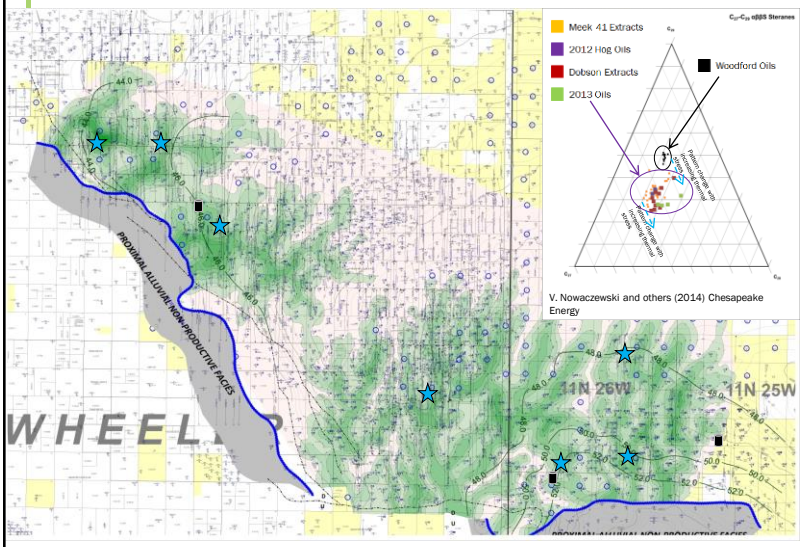

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