

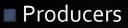
# KOGA

Issues and Trends in Kentucky's Oil and Gas Industry

Andrew V. McNeill Executive Director - KOGA

#### KOGA's Producers

2013



Service Co - Corporate

Service Co -Professional

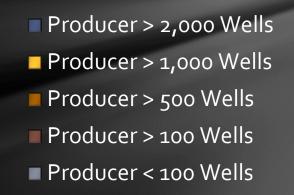
Associate Individual

Individual - Professional

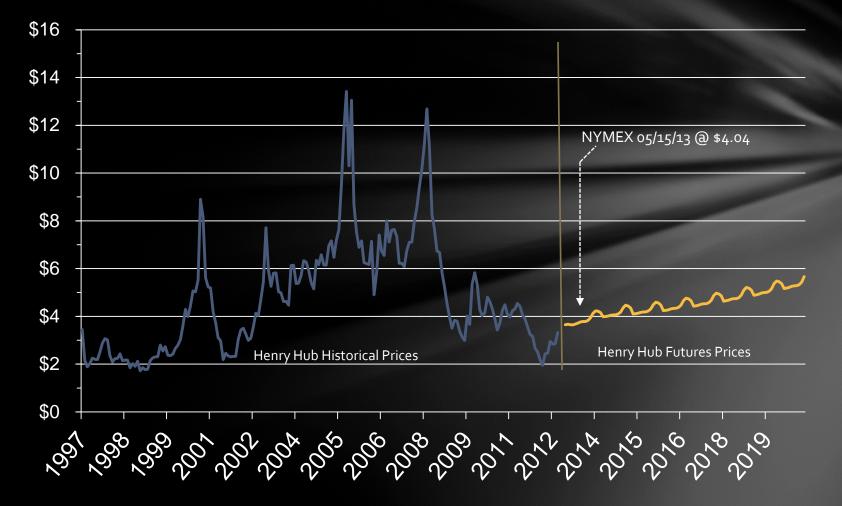
Royalty Owner

#### KOGA's Producers

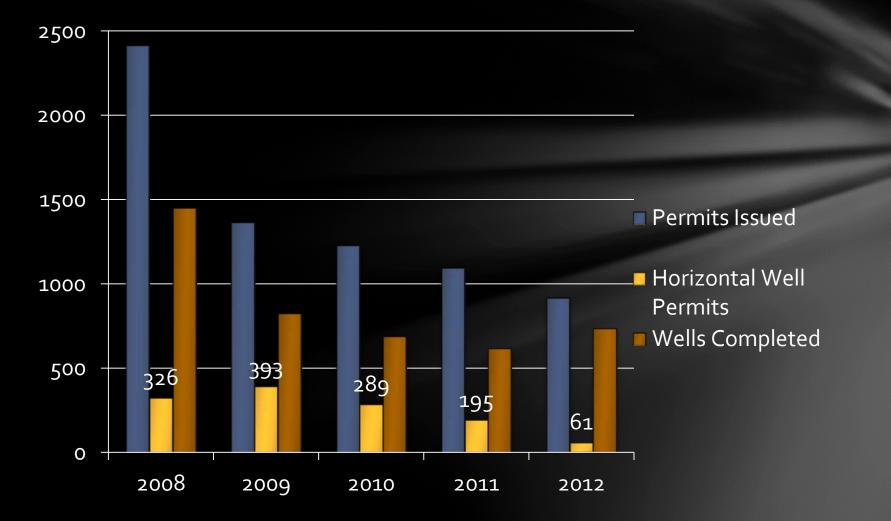
2013



#### Henry Hub Natural Gas Historical & Futures Prices



# 5 Year Trend



#### Oil & Gas Jobs in Kentucky: A Preview

| NAISC  | Sector                          | Total Wages   | Avg. Annual<br>Wage |
|--------|---------------------------------|---------------|---------------------|
| 211    | Oil & Gas<br>Extraction*        | \$53,956,295  | \$61,788            |
| 213111 | Drilling Oil &<br>Gas Wells     | \$17,310,996  | \$45,042            |
| 213112 | Support<br>Activities           | \$28,102,028  | \$53,681            |
| 324110 | Petroleum<br>Refineries         | \$73,425,467  | \$\$107,913         |
| 2212   | Nat Gas Distn                   | \$45,204,055  | \$57 <b>,</b> 190   |
| 32512  | Industrial Gas<br>Manufacturing | \$14,310,853  | \$59,238            |
| 486110 | Pipeline<br>Transport (Oil)     | \$5,377,967   | \$91,023            |
| 486210 | Pipeline<br>Transport (NG)      | \$73,023,259  | \$86,478            |
| Total  |                                 | \$310,710,920 | \$70,680            |

Average Annual Wage KY Oil & Gas Industry = \$70,680

- \* Wage and Salary only. Doesn't include "Proprietors".
- Source: Kentucky Office of Employment & Training 2011 Figures

www.kyoilgas.org

#### Production: 2001-2011

Union & Henderson Combine for 24% of Statewide oil production.

| Top 20 Producing Counties, Cumulative 2001-2011                    |                              |  |           |                      |  |
|--------------------------------------------------------------------|------------------------------|--|-----------|----------------------|--|
|                                                                    | Oil<br>(thousand<br>barrels) |  |           | Natural<br>Gas (Bcf) |  |
| UNION                                                              | 3,614                        |  | PIKE      | 375.1                |  |
| HENDERSON                                                          | 3,349                        |  | FLOYD     | 235.9                |  |
| LEE                                                                | 2,528                        |  | KNOTT     | 127.6                |  |
| LESLIE                                                             | 2,102                        |  | LETCHER   | 103.3                |  |
| MUHLENBERG                                                         | 1,167                        |  | PERRY     | 91.1                 |  |
| PERRY                                                              | 1,132                        |  | MARTIN    | 66.5                 |  |
| LETCHER                                                            | 1,008                        |  | HARLAN    | 40.2                 |  |
| HOPKINS                                                            | 995                          |  | LESLIE    | 35.7                 |  |
| WEBSTER                                                            | 973                          |  | CLAY      | 32.7                 |  |
| DAVIESS                                                            | 874                          |  | KNOX      | 32.6                 |  |
| MAGOFFIN                                                           | 743                          |  | BELL      | 30.3                 |  |
| WOLFE                                                              | 737                          |  | WHITLEY   | 21.9                 |  |
| ОНЮ                                                                | 642                          |  | MAGOFFIN  | 14.3                 |  |
| CLINTON                                                            | 633                          |  | JOHNSON   | 12.9                 |  |
| WARREN                                                             | 627                          |  | LAWRENCE  | 11.8                 |  |
| ADAIR                                                              | 600                          |  | MEADE     | 6.9                  |  |
| MCLEAN                                                             | 592                          |  | BREATHITT | 5.5                  |  |
| PIKE                                                               | 525                          |  | HOPKINS   | 1.9                  |  |
| HARLAN                                                             | 507                          |  | MCCREARY  | 1.6                  |  |
| BELL                                                               | 486                          |  | BOYD      | 1.5                  |  |
| Top 20 Counties                                                    | 23,832                       |  |           | 1,249.4              |  |
| Share of State                                                     | 85.50%                       |  |           | 99%                  |  |
|                                                                    |                              |  |           |                      |  |
| State Total                                                        | 27,861                       |  |           | 1,261.6              |  |
| Source: Kentucky Ge<br>receipts. Bcf: billion c<br>barrels of oil. |                              |  |           |                      |  |

Eighteen eastern Kentucky Counties make up 98% of Statewide natural gas production including:

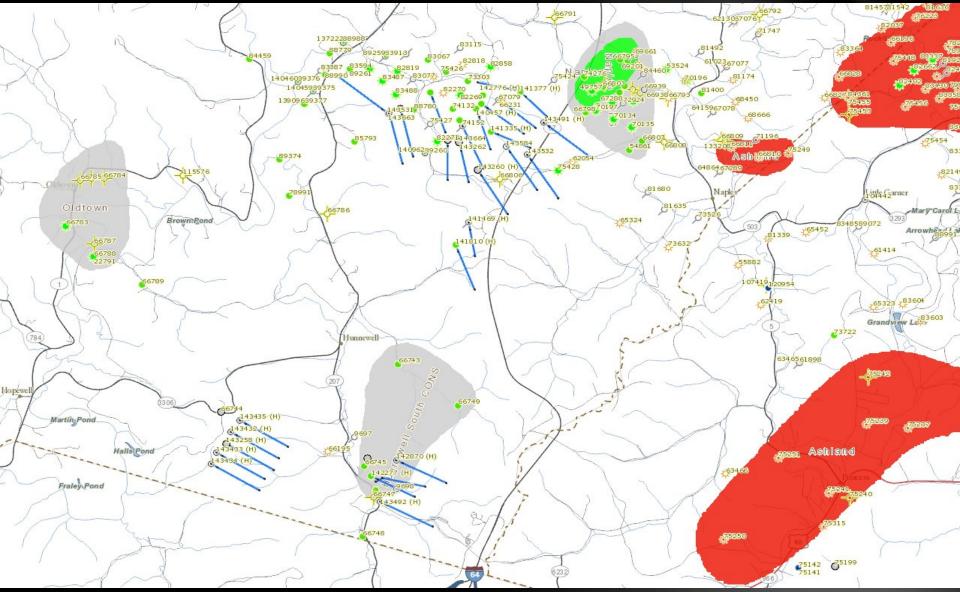
Pike County 29% Floyd County 18% Knott County 10% Letcher County 8% Perry County 7%

Total for Top 5 = 72%

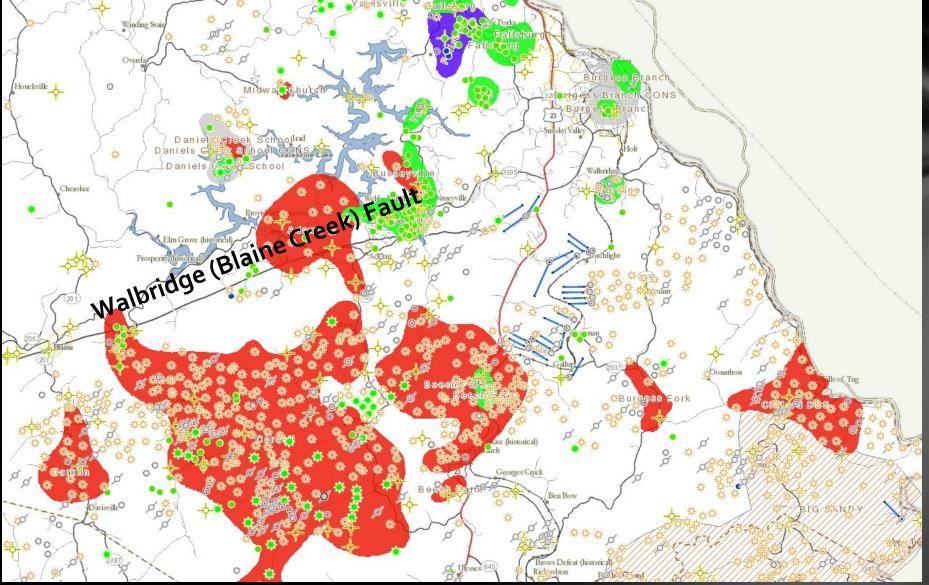
#### Kentucky State Tax Receipts from Production

| Fiscal Year | Oil Production Tax | Natural Gas Severance Tax | Total         |
|-------------|--------------------|---------------------------|---------------|
| 2001-02     | \$2,590,722        | \$12,301,781              | \$14,892,503  |
| 2002-03     | \$3,116,954        | \$14,713,486              | \$17,830,440  |
| 2003-04     | \$3,387,884        | \$22,511,188              | \$25,899,072  |
| 2004-05     | \$4,710,832        | \$25,307,125              | \$30,017,957  |
| 2005-06     | \$6,386,501        | \$36,199,516              | \$42,586,017  |
| 2006-07     | \$6,198,342        | \$32,339,897              | \$38,538,239  |
| 2007-08     | \$10,201,113       | \$33,794,313              | \$43,995,426  |
| 2008-09     | \$8,430,228        | \$42,155,501              | \$50,585,729  |
| 2009-10     | \$7,564,121        | \$24,373,188              | \$31,937,309  |
| 2010-11     | \$8,287,566        | \$24,938,411              | \$33,225,977  |
| 2011-12     | \$11,955,261       | \$22,538,258              | \$34,493,519  |
|             |                    |                           |               |
| Total       | \$72,829,524       | \$291,172,664             | \$364,002,188 |
| Average     | \$6,620,866        | \$26,470,242              | \$33,091,108  |

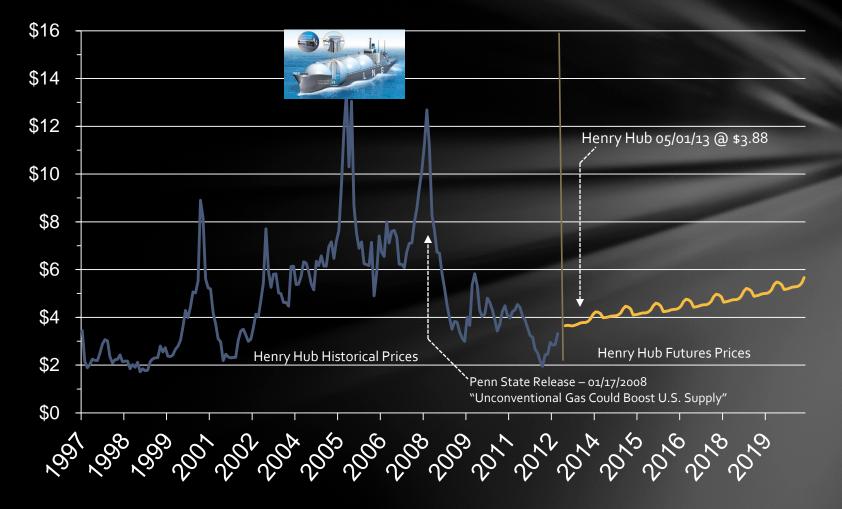
### Berea Sandstone Play: Greenup Co. Horizontal Well Locations



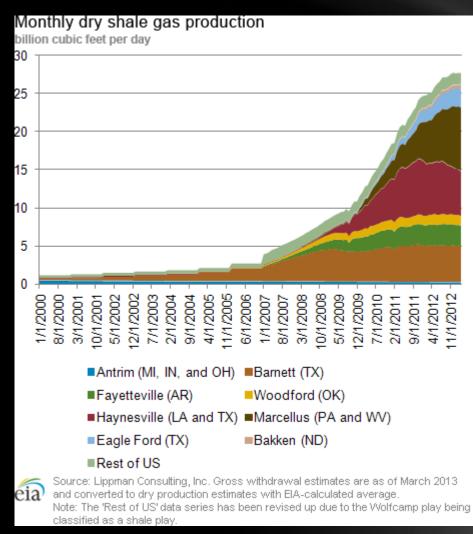
#### Berea Sandstone Play: Lawrence Co. Horizontal Well Locations



#### Henry Hub Natural Gas Historical & Futures Prices



# U.S. Shale Production



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