



2012
OHIO
OIL
AND
GAS
SUMMARY

DIVISION OF OIL AND GAS RESOURCES MANAGEMENT

2012 was an exciting and busy year for the Ohio Department of Natural Resources (ODNR) Division of Oil and Gas Resources Management. The division is responsible for regulating Ohio's growing oil and natural gas industry for the protection of all Ohioans and our environment while ensuring the state's abundant natural resources are managed properly. All of us work to achieve this goal every day and we will continue to do so in 2013 and beyond.

The past year saw the implementation or adoption of several changes to Ohio law and rules that make our regulatory standards some of the most comprehensive in the country. Our regulations are written to protect Ohioans and our environment, but also to make sense to the companies we regulate. In 2012, ODNR enhanced well construction guidelines; saw the implementation of updates designed to deal with horizontal shale drilling; enacted new rules regarding underground injection control; and increased our staff to better regulate the state's growing oil and gas industry.

New well construction rules took effect Aug. 1, 2012. The division understands the importance of proper well construction, which is why these new rules were a priority. Ohio's standards now address state-specific geology, hydrology, surface conditions and drilling practices with solutions that have been praised by regulatory experts with extensive experience in Ohio.

Senate Bill 315 took effect on Sept. 11, 2012, providing ODNR the necessary regulations to oversee the increased activity in horizontal shale drilling. Ohio now has clear and consistent regulations dealing with chemical disclosure, brine hauling, water sampling and water use disclosure. These updates and others made in SB 315, all work to protect public health and safety while providing the industry with necessary regulations to safely develop the oil and natural gas resources.

New operating, monitoring and reporting rules for injection wells were implemented on Oct. 1, 2012. These new rules were created to further strengthen the state's Underground Injection Control monitoring program by requiring additional geologic evaluation, injection well monitoring and testing. These standards and a new seismic monitoring program will allow the division to better monitor and research seismicity across Ohio.

At the end of 2012, the Division of Oil and Gas Resources Management had 72 employees, an increase from just 54 a year before. We understand, and this document will prove, the responsible growth happening in the oil and gas industry in our state and we believe it's only appropriate to grow our staff to properly regulate that growth. We continue to hire the right people with the right training and will provide them with the equipment needed to provide Ohioans the peace of mind they deserve.

Thank you for your interest in the ODNR Division of Oil and Gas Resources Management.

Richard J. Simmers
Chief, Division of Oil and Gas Resources Management

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INTRODUCTION

This forty-eighth edition of the Ohio Oil & Gas Summary (The McCormac Report) remains dedicated to accurately presenting statistics that may reflect trends important to Ohio's oil and gas industry, citizens and other governmental agencies. This report includes data submitted through June 12, 2013.

You may also note that some 2011 statistics have been adjusted to include well completion reports received after last year's cut-off date. The 2011 report estimated 460 wells were drilled; the total number has been revised to 470.

Horizontal shale activity increased significantly in 2012 and its impact on permitting, drilling and production is reflected throughout the report.

Highlights include:

- 5,836 registered well owners, including 4,368 domestic owners operating 64,570 wells.
- Issued 1,825 permits, including 903 drilling permits.
- Issued 92 urbanized area permits in 15 counties.
- Drilled an estimated 553 oil and gas wells in 44 of Ohio's 88 counties.
- 198 wells were drilled to the Utica/Point Pleasant Shale formations accounting for 36% of all wells drilled.
- Carroll County was the most active with 87 wells drilled.
- Horizontal well drilled to a record-setting length of 16,664 feet in Jefferson County.
- 473 wells were plugged, including 50 contracted by the Orphan Well Program.
- Produced 4,974,359 barrels of crude oil, at an average price of \$92.05 per barrel.
- Produced more than 86 billion cubic feet of natural gas, at an average price of \$2.86 per mcf.
- The combined market value of crude oil and natural gas production was \$706,052,337.

To make oil and gas well data more accessible, the division:

- Distributed 220 copies of RBDMS, its oil and gas well database.
- Released the Oil and Gas Well Locator on our website which now combines the ability to search for a well and access its data in one location.

As a personal note, I retired on December 31, 2012 after working more than 32 years for the Division of Oil & Gas Resources Management. However, this report has been a "labor of love" for the past 28 years and I returned to the division on a part-time basis to do it once again.

Mike McCormac

PERMITTING

The division issued 1,825 permits, an increase of 292 (19%) from 2011 (*Figure 1*). This total includes permits issued to convert, deepen, drill, plug back, plug and abandon, reissue and reopen. Permits were issued in 14 days on average, the same as in 2011.

Permits issued to drill for oil and gas totaled 903, a 31% increase (213 permits) from last year. These permits included 756 new permits and 147 reissued permits. Utica/Point Pleasant shale permits increased by 393 for a total of 459, accounting for 51% of all drilling permits. Clinton sandstone permits decreased by 72 for a total of 198 (22%). Devonian shale permits increased by eleven for a total of 65, including seven issued for the Marcellus shale, and accounted for 7% of all drilling permits. Deep well permits decreased by sixty-five for a total of 87 (10%). Deep well permits are those issued to drill to formations below the Cambro-Ordovician Knox unconformity such as the Beekmantown dolomite, Rose Run sandstone, Trempealeau dolomite and Mt. Simon Sandstone. Berea Sandstone permits decreased by twelve for a total of 56 (6%).

Six hundred and seventeen plugging permits were issued, an increase of 46 (8.1%) from 2011, which includes 30 permits for the Orphan Well Program.

Notable permitting highlights for 2012 include:

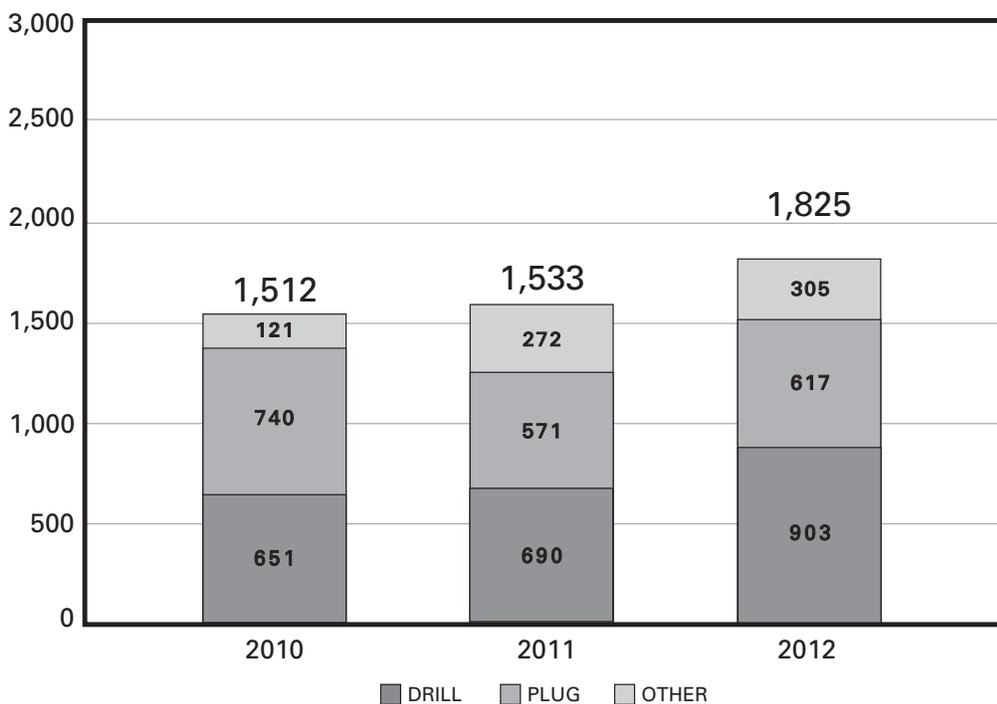
- issued 92 urbanized area permits (a decrease of 39) in 15 counties. The top five counties were Stark (18), Summit (16), Portage (11), Trumbull (9), Jefferson and Mahoning (7 each);
- reviewed 4 mandatory pooling applications;
- processed 51,320 production reports for 2011; and
- issued 203 stratigraphic test well permits.

BONDING/OWNERSHIP

Oil and gas well bond release does not occur until an owner has successfully plugged and restored or transferred ownership and liability of *all* oil and gas wells under the operator's permits in Ohio.

During 2012, 51 bonds were released and 155 new owners were registered.

Section staff also manages all information and records concerning current well ownership and well transfers. During 2012, records were managed for 5,836 registered well owners, including 4,368 domestic owners and 1,468 commercial owners. Staff also recorded 1,136 changes in well ownership. There are 64,570 active wells in Ohio.



**FIGURE 1:
OIL & GAS
PERMITS ISSUED
2010 – 2012**

The division issued 1,825 permits, an increase of 292 (19%) from 2011. This total includes permits issued to convert, deepen, drill, plug back, plug and abandon, reissue and reopen.

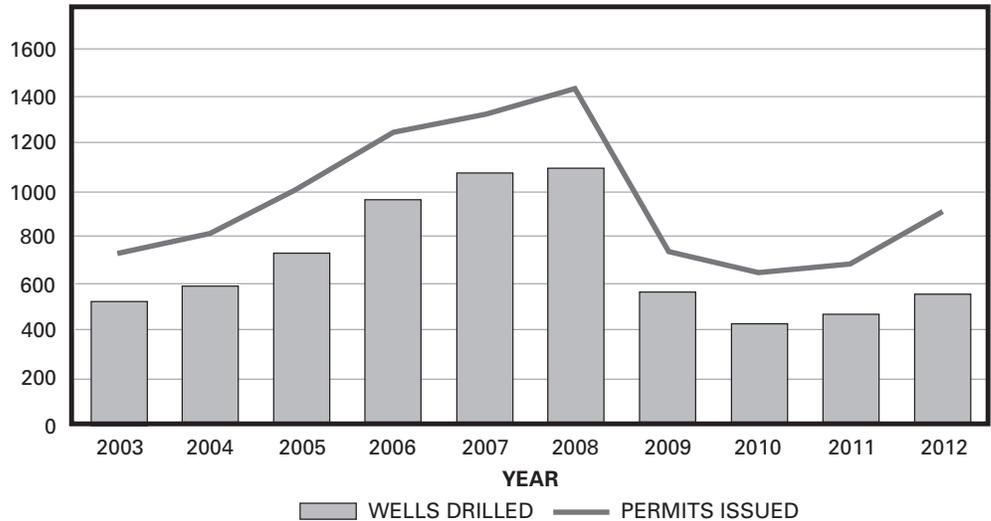
DRILLING

As anticipated, drilling to the Utica/Point Pleasant Shales increased the number of wells drilled in 2012. An estimated 553 oil and gas wells were drilled, which

was an increase of 83 wells (15%) from 2011 (Figure 2) (Appendix I). Wells were drilled in 44 of Ohio's 88 counties, an increase of two (Figure 3).

**FIGURE 2:
WELLS DRILLED V.
PERMITS ISSUED
2003 – 2012**

An estimated 553 oil and gas wells were drilled, which was an increase of 83 wells (15%) from 2011.



**FIGURE 3:
WELLS DRILLED
& COMPLETIONS
RECEIVED BY
COUNTY – 2012**

Wells were drilled in 44 of 88 counties, an increase of two.



COMPLETIONS

Of the well completion reports submitted by June 12, 2013 to the division, 505 were productive and 33 were dry holes, for a 94% productive rate (*Table I*).

- Total footage is estimated at 3,927,345 feet compared to 2,017,414 feet for 2011.
- Average well depth was 7,102 feet, an increase of 2,810 feet per well.
- The median well depth was 4,630 feet.
- Total depths ranged from 610 feet in the Berea Sandstone (Licking County) to 16,664 feet in the Utica/Point Pleasant Shale for a horizontal well (Jefferson County).

A summary of oil and gas completion statistics by county appears in Table II.

Completion zones ranged from the Pennsylvanian Cow Run to the Cambrian Trempealeau dolomite. Monroe and Muskingum counties had wells drilled to five different geologic zones. The Clinton sandstone and Utica/Point Pleasant shales accounted for 66% of all wells drilled. A summary of oil and gas completion statistics by producing zones appears in Table III.

FORMATION HIGHLIGHTS

The Utica/Point Pleasant Shales were the most actively explored formations accounting for 36% of all wells drilled. Preceding this exploration, 72 stratigraphic test wells were drilled through these formations to obtain geological data (*Table I*). Of these, 57 were plugged back and horizontally drilled in the Utica/Point Pleasant formations. Overall, 198 wells were drilled, an increase of 173 wells from 2011. These wells were drilled in 19 counties compared to 10 in 2011.

Carroll County (86) was the most active followed by Columbiana (29), Harrison (22), Jefferson (16) and Noble (12). The average depth per well was 13,355 feet, an increase of 6,033 feet per well. Production reports were submitted for 85 wells in 2012. Of these, 63 were commercial producing wells, 19 were tested and shut-in and 3 were dry and abandoned (*Appendix II*).

The Clinton sandstone was the next most actively drilled zone accounting for 30% percent of all wells drilled. There were 165 wells drilled, 57 less than the 222 wells drilled in 2011. Clinton sandstone wells averaged 3,680 feet in depth, a decrease of 621 feet per well. Clinton sandstone wells were drilled in 18 counties, three less than last year. The most active counties were Licking (31), Knox (30) and Stark (27).

Eighty wells were drilled to the Ohio Shale, an increase of 29 wells. This includes 3 wells drilled to the Marcellus shale. Drilling occurred in five counties. Noble County led with 36 wells followed by Monroe (24). The average depth per well was 3,551 feet, an increase of 405 feet per well.

There were 41 Berea Sandstone wells were drilled, twelve less than last year. Drilling occurred in 14 counties. Meigs led with 14 wells. The average depth was 1,368 feet.

Drilling to the Knox formations decreased significantly. There were 59 wells drilled, 45 less than in 2011. Drilling occurred in these formations: Beekmantown (7), Rose Run (13) and Trempealeau (39). Drilling occurred in 18 counties with Morrow (10), Huron (9), Knox and Licking (7 each) the most active.

TABLE I: DRILLING OPERATIONS BY TYPE OF WELL – 2012			
	DRILLED	CONVERTED	TOTAL FOOTAGE
Productive Wells	505	—	3,651,322
Dry Holes	33	—	169,493
Reopened Wells	12	—	0
Lost Holes	14	—	23,852
Gas Storage Wells	1	0	4,350
Conventional Brine Injection Wells	3	2	14,202
Stratigraphic Test Wells	72	—	572,690
Solution Mining Wells	3	0	10,005
TOTAL	641	2	4,445,914

**TABLE I:
DRILLING
OPERATIONS BY
TYPE OF WELL
– 2012**

Of the well completion reports submitted by June 12, 2013 to the division, 505 were productive and 33 were dry holes, for a 94% productive rate.

TABLE II - OIL AND GAS COMPLETION STATISTICS BY COUNTY - 2012

COUNTY	DEPTH RANGE OF RESERVOIRS		MAJOR TARGETED RESERVOIRS	DEVELOPMENT		EXPLORATORY		TOTAL WELLS	PERCENT PRODUCTIVE	DRILLED FOOTAGE		TOTAL
	SHALLOW	DEEP		PRODUCTIVE	DRY	PRODUCTIVE	DRY			PRODUCTIVE	DRY	
Ashland	538	3,732	Berea	4	0	0	1	5	80.00	2,668	8,000	10,668
Ashtabula	2,747	6,698	Clinton	4	0	0	4	8	50.00	13,017	27,164	40,181
Athens	1,598	5,990	Berea	2	0	0	1	3	66.67	4,121	6,200	10,321
Belmont	1,686	10,231	Point Pleasant	6	0	6	0	12	100.00	94,579	0	94,579
Carroll	5,638	8,689	Point Pleasant	45	0	42	0	87	100.00	1,178,078	0	1,178,078
Clark	1,244	1,820	Trenton	0	0	1	0	1	100.00	1,820	0	1,820
Columbiana	5,746	7,866	Point Pleasant	4	0	26	0	30	100.00	390,147	0	390,147
Coshocton	960	6,500	Clinton	13	1	1	0	15	93.33	57,989	6,500	64,489
Cuyahoga	2,826	5,808	Clinton	5	1	0	1	7	71.43	17,437	8,836	26,273
Fairfield	3,682	3,909	Trempealeau	0	1	0	0	1	0.00	0	3,909	3,909
Geauga	3,570	4,186	Clinton	7	0	0	0	7	100.00	28,968	0	28,968
Greene	1,374	1,381	Trenton	0	0	1	0	1	100.00	1,820	0	1,820
Guernsey	942	7,130	Ohio Shale	7	3	6	1	17	76.47	72,455	8,001	80,456
Harrison	7,719	9,218	Point Pleasant	9	0	13	0	22	100.00	305,933	0	305,933
Hocking	3,123	4,771	Rose Run	2	0	0	0	2	100.00	8,088	0	8,088
Holmes	6,484	6,711	Rose Run	0	1	0	1	2	0.00	0	13,217	13,217
Huron	3,220	3,527	Trempealeau	7	1	1	0	9	88.89	27,129	3,338	30,467
Jefferson	7,947	10,135	Utica	6	0	10	0	16	100.00	233,742	0	233,742
Knox	804	4,857	Clinton	35	1	2	2	40	92.50	104,645	17,030	121,675
Licking	577	4,451	Clinton	40	0	1	1	42	97.62	109,308	4,449	113,757
Mahoning	5,300	7,230	Clinton	4	0	3	0	7	100.00	58,654	0	58,654
Medina	2,530	4,714	Clinton	2	1	0	1	4	50.00	5,859	13,526	19,385
Meigs	1,127	2,096	Berea	12	0	2	0	14	100.00	22,011	0	22,011
Miami	1,560	1,720	Knox Group	0	0	0	1	1	0.00	0	1,720	1,720
Monroe	1,402	9,152	Ohio Shale	23	0	8	0	31	100.00	144,987	0	144,987
Morgan	1,189	6,690	Beekmantown	1	0	3	2	6	66.67	21,247	13,070	34,317
Morrow	2,906	3,942	Trempealeau	7	3	0	0	10	70.00	25,912	10,584	36,496
Muskingum	1,192	7,047	Clinton	15	1	1	0	17	94.12	60,288	7,047	67,335
Noble	1,392	8,263	Ohio Shale	36	0	10	0	46	100.00	267,893	0	267,893
Perry	860	3,285	Clinton	2	0	0	0	2	100.00	4,602	0	4,602
Pickaway	2,464	2,690	Trempealeau	1	1	0	0	2	50.00	2,573	2,690	5,263
Portage	4,170	6,090	Clinton	6	0	1	0	7	100.00	44,853	0	44,853
Richland	4,513	4,572	Trempealeau	1	0	0	0	1	100.00	4,660	0	4,660
Sandusky	1,411	1,461	Trenton	1	0	0	0	1	100.00	3,526	0	3,526
Stark	4,326	7,518	Clinton	28	1	5	1	35	94.29	207,766	14,212	221,978
Summit	3,754	4,338	Clinton	6	0	0	0	6	100.00	24,669	0	24,669
Trumbull	4,953	5,370	Clinton	7	0	0	0	7	100.00	37,618	0	37,618
Tuscarawas	5,898	6,172	Point Pleasant	0	0	2	0	2	100.00	25,081	0	25,081
Vinton	1,024	1,040	Berea	1	0	0	0	1	100.00	1,225	0	1,225
Washington	682	2,028	Berea	4	0	0	0	4	100.00	5,947	0	5,947
Wayne	3,157	5,227	Clinton	5	0	1	0	6	100.00	28,822	0	28,822
Wood	1,145	1,185	Trenton	1	0	0	0	1	100.00	1,185	0	1,185
TOTAL				359	16	146	17	538	93.87	3,651,322	169,493	3,820,815

TABLE III: OIL & GAS COMPLETION STATISTICS BY PRODUCING ZONE – 2012											
PRODUCING ZONES	DEPTH RANGE OF RESERVOIRS		DEVELOPMENT		EXPLORATORY		TOTAL WELLS	PERCENT PRODUCTIVE	DRILLED FOOTAGE		
	SHALLOW	DEEP	PRODUCTIVE	DRY	PRODUCTIVE	DRY			PRODUCTIVE	DRY	TOTAL
Pennsylvanian (Cow Run)	682	968	2	0	0	0	2	100.00	1,937	0	1,937
Upper Mississippian (Keener)	1,402	1,419	1	0	0	0	1	100.00	1,590	0	1,590
Mississippian (1st & 2nd Berea)	538	2,054	35	2	2	0	39	94.87	50,928	2,420	53,348
Devonian (Ohio Shale - Marcellus)	1,454	6,358	64	1	10	1	76	97.37	264,275	5,581	269,856
Silurian (Clinton - Medina)	2,005	5,887	160	1	0	0	161	99.38	589,455	3,028	592,483
Ordovician (Utica/Point Pleasant)	3,427	10,231	67	0	125	3	195	98.46	2,580,039	24,222	2,604,261
Ordovician (Trenton)	1,145	6,200	2	0	2	1	5	80.00	8,351	6,200	14,551
Ordovician (Beekmantown)	5,765	7,249	1	1	3	2	7	57.14	26,181	20,117	46,298
Cambro-Ordovician (Rose Run)	3,916	7,427	4	3	0	6	13	30.77	23,896	61,093	84,989
Cambrian (Trempealeau)	1,560	5,808	23	8	4	4	39	69.23	104,670	46,832	151,502
PreCambrian			0	0	0	0	0	0.00	0	0	0
TOTAL			359	16	146	17	538	93.87	3,651,322	169,493	3,820,815



**TABLE II:
OIL AND GAS
COMPLETION
STATISTICS BY
COUNTY – 2012**

A summary of oil and gas completion statistics by county. Average well depth was 7,102 feet, an increase of 2,810 feet per well. The median well depth was 4,630 feet.



**TABLE III:
OIL AND GAS
COMPLETION
STATISTICS BY
PRODUCING
ZONE – 2012**

A summary of oil and gas completion statistics by producing zones.

WELLS COMPLETED BY MONTH AND OWNER

Drilling activity averaged 46 wells per month compared to 39 per month in 2011. June was the most active month with 61 wells (Figure 4).

One hundred and nineteen owners drilled wells in 2012. Ninety-three percent of these owners drilled less than 10 wells. The highest number of wells drilled by a single owner was 144 (Figure 5) and the 10 most active operators drilled 58% (318) of all wells.

WELLS COMPLETED BY TYPE OF TOOL

Rotary tools drilled the majority of wells. Cable-tool rigs drilled 36 wells and operated in ten counties. Knox County (13) had the highest number of cable tool operations followed by Licking (6). Cable tool depths ranged from 610 feet (Licking County) to 3,653 feet (Morrow County). The majority of wells were drilled to the Clinton (20) and Berea (13) sandstones. The average depth per well drilled by cable tool was 2,153 feet, an increase of 281 feet; rotary-drilled wells averaged 7,446 feet, an increase of 2,946 feet per well.

FIGURE 4:
WELLS COMPLETED BY MONTH 2011 v. 2012
Drilling activity averaged 46 wells per month compared to 39 per month in 2011.

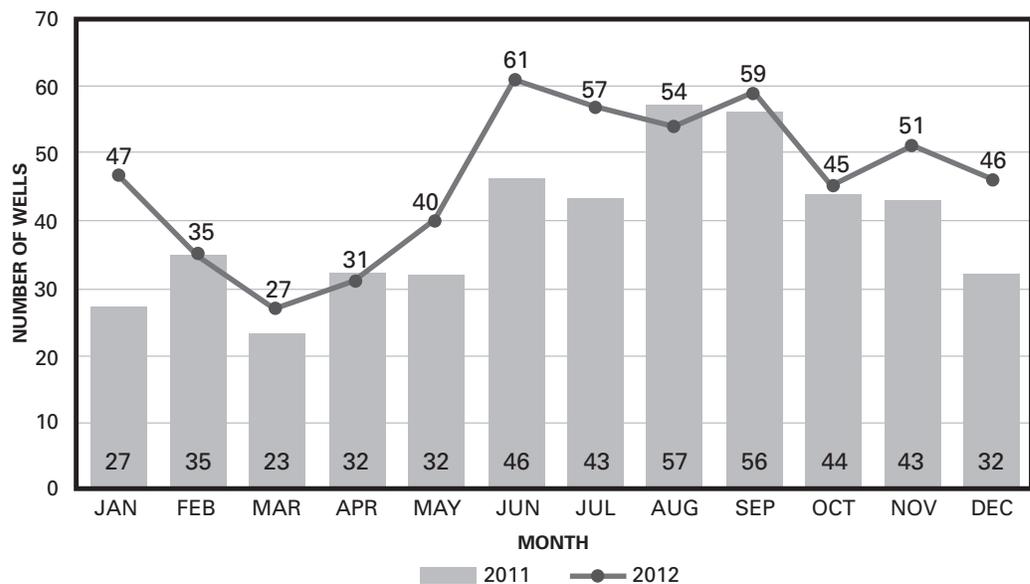
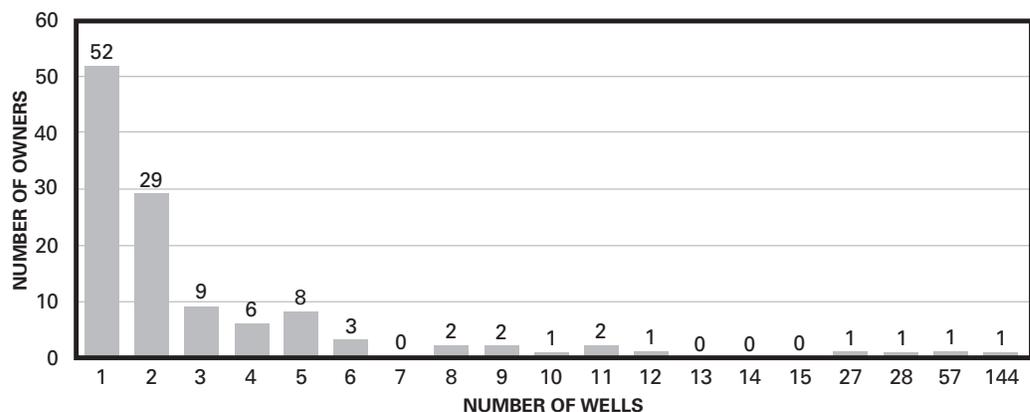


FIGURE 5:
NUMBER OF WELLS BY OWNER - 2012
Of the 119 owners that drilled wells in 2012, 93% drilled less than 10 wells.



PLUG-BACK AND DEEPEN OPERATIONS

Thirteen wells were dry in their permitted formation but plugged back to produce a shallower zone. Another 15 existing wells were plugged back to producing zones; one well was drilled to a deeper formation.

TEN MOST ACTIVE COUNTIES

Carroll County was the most active county with 87 wells drilled (*Table IV*). Noble which had no wells drilled in 2011, was second with 49 wells. Knox and Stark counties, tied for first in 2011, remained in the top-ten dropping to fourth and fifth, respectively. The focus of drilling to the Utica/Point Pleasant shales was clearly seen in these top-ten counties. Every well in Harrison and all but one well in Carroll and Columbiana had these shales as the target. Additionally, many of these counties had stratigraphic test wells drilled in them which are not included in these totals.

Only five of these counties were in the top-ten last year. Overall, the largest increase occurred in Carroll County (70 wells) putting it in the top-ten for the first time

since 1977. Columbiana was last in the top-ten in 1987 and Harrison is in for the first time ever. The biggest well decreases took place in Tuscarawas (17), Belmont (16), Mahoning (14) and Summit (13) counties.

DIRECTIONAL AND HORIZONTAL DRILLING PERMITS

This technology is used to access oil and gas in the following ways: under environmentally sensitive or densely populated areas, and to drill horizontally to enhance production. There were eight directional drilling and four hundred and fifty horizontal permits issued to drill oil and gas wells in 21 counties, an increase of 316 permits from 2011. Horizontal permits were issued to these formations: Utica/Point Pleasant Shale (440), Marcellus Shale (7), Berea Sandstone, Upper Devonian Shale and Clinton sandstone (1 each). Directional permits were issued to the Clinton sandstone (3), Utica/Point Pleasant shale (3) and Rose Run sandstone (2). The most active counties were Carroll (170), Harrison (68), Columbiana (59), Monroe (26) and Jefferson (21).

TABLE IV: TEN MOST ACTIVE COUNTIES – 2012

2012 RANK	COUNTY	WELLS DRILLED	2011 RANK	AVERAGE DEPTH PER WELL	ESTIMATED FOOTAGE DRILLED
1	Carroll	87	(12)	13,541	1,178,078
2	Noble	49	(43)	5,824	285,376
3	Licking	42	(6)	2,709	113,757
4	Knox	40	(1)	3,042	121,675
5	Stark	36	(1)	6,342	228,312
6	Monroe	31	(12)	4,677	144,987
7	Columbiana	30	(35)	13,005	390,147
8	Harrison	22	(31)	13,906	305,933
9	Coshocton	18	(4)	4,299	77,382
9	Guernsey	18	(8)	4,733	85,194

TABLE IV: TEN MOST ACTIVE COUNTIES – 2012

Carroll County was the most active county with 87 wells drilled. Noble which had no wells drilled in 2011, was second with 49 wells.

EXPLORATORY WELLS

One hundred and sixty-three wells (29% of all wells completed) were classified as exploratory which is more than double compared to 2011 (*Figure 6*). Of these, 146 were productive and 17 were dry, representing a 90% success rate.

Continued exploration in the Utica/Point Pleasant Shales resulted in 128 exploratory wells being drilled compared to 24 in 2011. Drilling below the Knox unconformity decreased to 19 wells. Wells drilled to formations below the Knox unconformity such as the Beekmantown dolomite (5), Rose Run sandstone (6) and Trempealeau dolomite (8) are almost always seismic prospects. Twelve of these wells were dry holes. The Ohio Shale was also active with eleven wells.

Wells were drilled in 29 counties. Carroll (42) was the most active county, followed by Columbiana (26), Harrison (13), Jefferson and Noble (10 each).

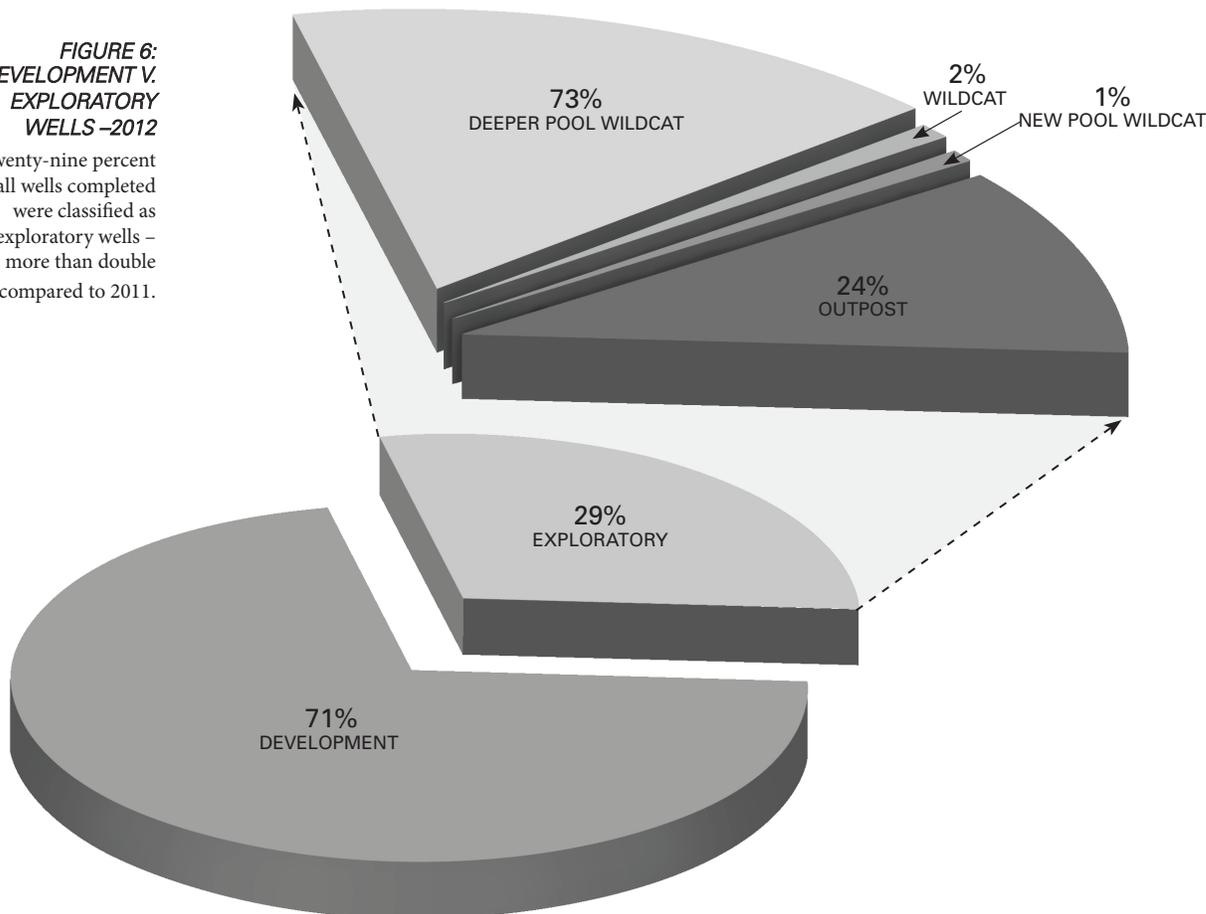
The majority of exploratory wells were classified as either ‘deeper pool wildcats’ (119) or ‘outposts’ (39). Productive rates were as follows: ‘deeper pool wildcats’ – 91% and ‘outposts’ – 90%.

COUNTY DRILLING DEPTH RECORDS

Continuing exploration to the Utica/Point Pleasant Shales resulted in 3 new drilling depth records (*Appendix III*). In Jefferson County, a well was drilled 10,320 feet into the Trenton Limestone, 620 feet deeper than the former record holding well drilled in 2011. In Monroe County, a well was drilled 10,980 feet into the Trenton Limestone, 1,670 feet deeper than the former record holding well drilled in 2011. In Washington County, a well was drilled 10,220 feet into the Trenton Limestone, 20 feet deeper than the former record holding well drilled in 1989. Additionally, in Jefferson County, a horizontal well was drilled 16,664 feet into the Point Pleasant Shale, making it the longest well ever drilled.

**FIGURE 6:
DEVELOPMENT V.
EXPLORATORY
WELLS – 2012**

Twenty-nine percent of all wells completed were classified as exploratory wells – more than double compared to 2011.



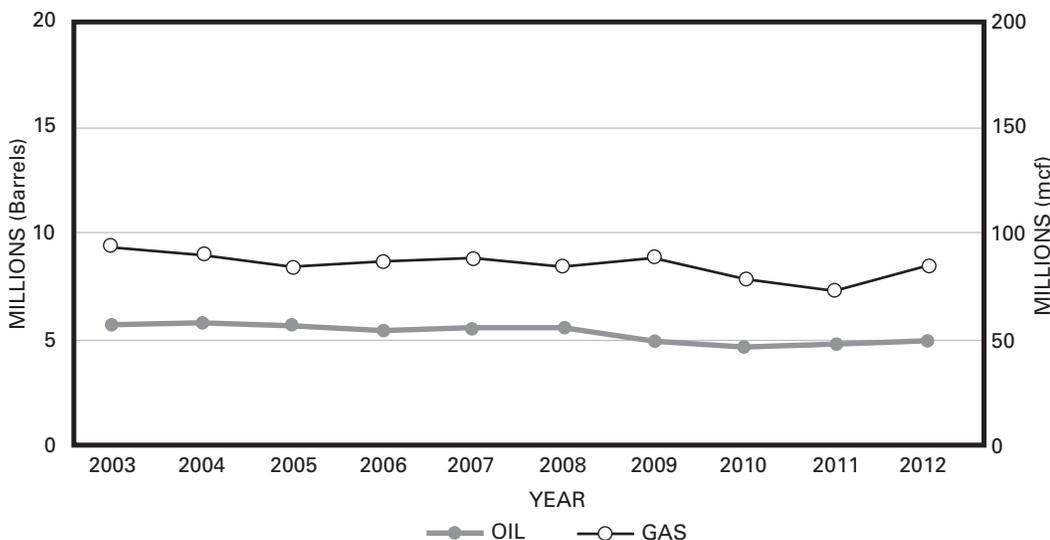
PRODUCTION

Ohio's total reported crude oil production was 4,974,359 barrels (*Figure 7, Table V*), an increase of 121,395 barrels (2.5%) from 2011. In 2012, daily production averaged 13,628 barrels compared to 13,296 barrels in 2011. Through 2012, Ohio wells have produced 1,146,355,065 barrels.

Ohio wells produced 86,770,137 mcf of natural gas, an increase of 13,480,299 mcf (18.39%) from 2011 (*Figure 7, Table V*). Gas production figures include an estimated 732,015 mcf of natural gas used on the lease. In 2012, daily production averaged 237,726 mcf compared to 200,794 mcf in 2011. Through 2012, Ohio wells have cumulatively produced 8,680,158,222 mcf of natural gas.

This year's production was influenced by the producing horizontal wells from the Utica and Point Pleasant shale formations. Eighty wells reported 635,876 barrels of oil (12.8% of total production) and 12,831,292 mcf of natural gas (14.8% of total production) (*Appendix II*).

The 2012 production numbers are an estimate based on available data reported to the Division of Oil and Gas Resources Management; oil reserve, gas reserve and gas consumption totals are based on data from the Department of Energy, Energy Information Administration.



**FIGURE 7:
OIL & GAS
PRODUCTION
2003-2012**

Ohio's total reported production of crude oil in 2012 was 4,974,359 barrels, and production of natural gas was 86,770,137 mcf.

TABLE V: CRUDE OIL & NATURAL GAS PRODUCTION, RESERVES & CONSUMPTION 2003 - 2012					
YEAR	OIL (Thousands of Barrels)		GAS (mcf)		
	PRODUCTION	RESERVES	PRODUCTION	RESERVES	CONSUMPTION
2003	5,647	66,000	93,641	1,126,000	848,388
2004	5,785	49,000	90,301	974,000	825,753
2005	5,652	46,000	84,135	898,000	825,961
2006	5,422	49,000	86,315	975,000	742,359
2007	5,455	48,000	88,095	1,027,000	806,350
2008	5,554	38,000	84,858	985,000	792,339
2009	5,009	38,000	88,824	896,000	740,925
2010	4,785	42,000	78,122	832,000	784,293
2011	4,853	41,000	73,290	758,000	820,485
2012	4,974	N/A	86,770	N/A	N/A

**TABLE V:
CRUDE OIL &
NATURAL GAS
PRODUCTION,
RESERVES &
CONSUMPTION
2003-2012**

In 2012, daily production of crude oil averaged 13,628 barrels compared to 13,296 barrels in 2011. In 2012, daily production averaged 237,726 mcf compared to 200,794 mcf in 2011.

MARKET VALUE

Crude oil production valued at \$457,889,746 increased 4.77% (\$20,834,506) from its 2011 value. The average price per barrel was \$92.05, an increase of \$1.99 from 2011's average price of \$90.06 per barrel (*Table VI*). Posted oil prices ranged from a low of \$75.49 (June 28th) to a high of \$106.82 (Feb. 24th) per barrel.

The market value of natural gas decreased 20.12% (\$62,496,977) to \$248,162,591. The average price paid per

mcf was \$2.86 in 2012, a decrease of \$1.42 per mcf from 2011 (*Table VI*). The Appalachian price index ranged from a low of \$2.05 in May to a high of \$3.76 in December.

Ohio's combined oil and gas market value decreased by 5.57% (\$41,662,471). The total dollar value was \$706,052,337 (*Figure 8*).

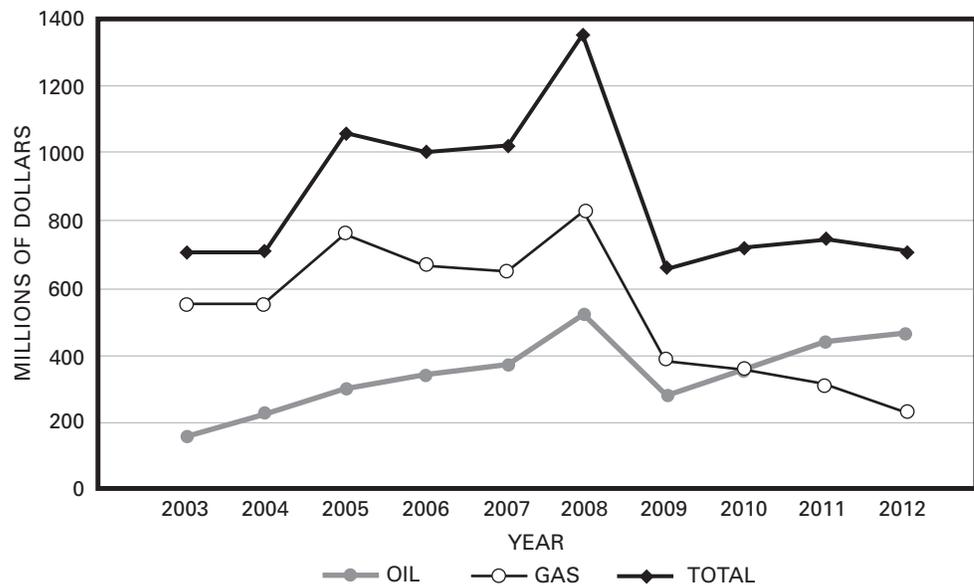
**TABLE VI:
AVERAGE
WELLHEAD PRICE
OF OIL AND GAS
2003-2012**

The average price per barrel of oil was \$92.05, an increase of \$1.99 from 2011. The average price paid per mcf was \$2.86 in 2012, a decrease of \$1.42 per mcf from 2011.

TABLE VI: AVERAGE WELLHEAD PRICE OF OIL AND GAS 2003-2012		
YEAR	OIL \$/Bbl	GAS \$/mcf
2003	\$27.64	\$5.90
2004	\$38.00	\$6.65
2005	\$53.03	\$9.03
2006	\$62.43	\$7.75
2007	\$67.69	\$7.40
2008	\$93.79	\$9.77
2009	\$55.56	\$4.36
2010	\$74.42	\$4.68
2011	\$90.06	\$4.28
2012	\$92.05	\$2.86

**FIGURE 8:
DOLLAR VALUE
OF OIL AND GAS
2003-2012**

Ohio's combined oil and gas total dollar value was \$706,052,337.



PLUGGING ACTIVITY

Plugging activity increased by 118 wells. Figure 9 compares plugging and drilling activity. In 2012, 473 wells were plugged compared to 355 in 2011. This total does not include dry or lost holes that were plugged in 2012. Fifty of these wells were plugged through the Orphan Well Program, including nine funded through the Landowner Grants Program. Additionally, four previously plugged wells were reopened for the purpose of replugging them.

Wells were plugged in 43 counties (Figure 10). Washington County (35) was the most active plugging county followed by Coshocton (29), Holmes (28), Licking (26) and Huron (25). Every well in Huron County was plugged by the Orphan Well Program.

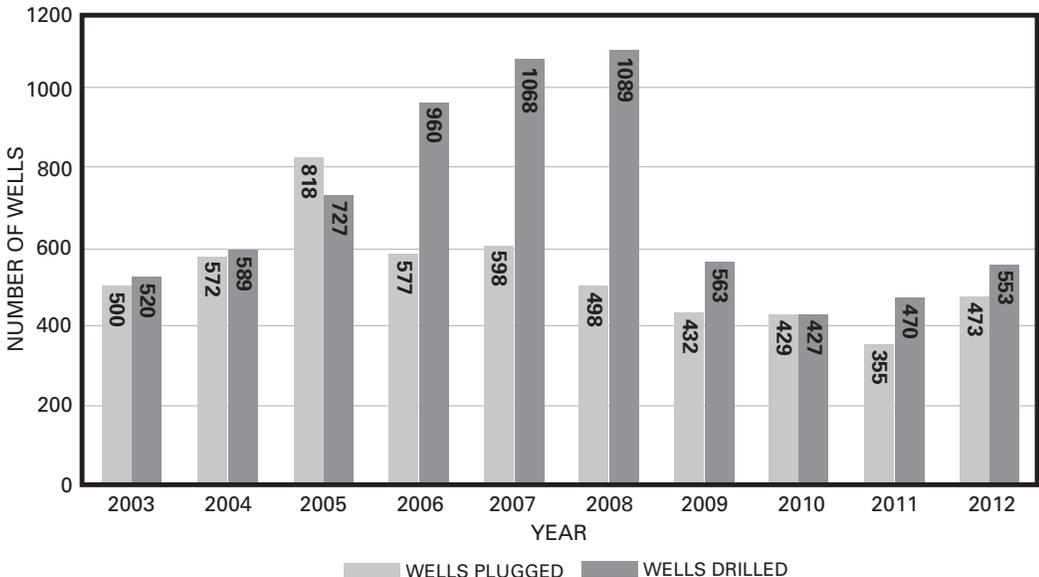


FIGURE 9:
WELLS PLUGGED
V. WELLS DRILLED
2003 – 2012
Plugging activity in 2012 increased by 118 wells.



APPENDIX 1 – WELLS DRILLED IN OHIO 1888 – 2012									
YEAR	PRODUCTIVE	DRY	TOTAL	BEREA	OHIO SHALE	CLINTON	TRENTON	ROSE RUN	CAMBRIAN
Prior (a)	---	---	---	---	---	---	---	---	---
1888 (b)	6,022	---	6,022	---	---	---	2,234	---	---
1888 (1)	617	---	617	---	---	---	542	---	---
1889	1,590	132	1,722	---	---	---	702	---	---
1890	2,497	96	2,593	---	---	---	2,151	---	---
1891	1,709	56	1,765	---	---	---	1,572	---	---
1892	1,551	38	1,589	---	---	---	1,465	---	---
1893	2,067	46	2,113	---	---	---	1,877	---	---
1894 (c)	3,216	85	3,301	---	---	---	3,001	---	---
1895	6,020	127	6,147	---	---	---	5,559	---	---
1896 (d)	5,600	856	6,456	---	---	---	4,339	---	---
1897	3,442	300	3,742	---	---	987	2,755	---	---
1898	3,338	172	3,510	---	---	132	2,852	---	---
1899	6,399	408	6,807	---	---	151	4,469	---	---
1900	6,098	457	6,555	---	---	116	5,013	---	---
1901	4,559	573	5,132	---	---	148	3,524	---	---
1902	5,651	649	6,300	---	---	306	4,213	---	---
1903	5,880	777	6,657	---	---	352	4,072	---	---
1904	4,974	858	5,832	---	---	382	3,141	---	---
1905	3,027	680	3,707	---	---	400	1,578	---	---
1906	2,903	681	3,584	---	---	388	1,535	---	---
1907	2,146	611	2,757	---	---	521	890	---	---
1908	2,083	695	2,778	---	---	522	848	---	---
1909	2,881	966	3,847	---	---	694	873	---	---
1910	2,059	670	2,729	---	---	668	572	---	---
1911	2,270	507	2,777	---	---	641	527	---	---
1912	3,527	956	4,483	---	---	926	551	---	---
1913	2,560	603	3,163	---	---	643	972	---	---
1914	2,371	534	2,905	---	---	943	861	---	---
1915	1,672	498	2,170	---	---	952	260	---	---
1916	2,028	525	2,553	---	---	469	699	---	---
1917	1,864	504	2,368	---	---	587	535	---	---
1918	1,708	446	2,154	---	---	605	466	---	---
1919	2,486	585	3,071	---	---	940	385	---	---
1920	2,421	722	3,143	---	---	1,240	565	---	---
1921	1,675	620	2,295	---	---	853	461	---	---
1922	1,989	607	2,596	---	---	906	522	---	---
1923	1,779	537	2,316	---	---	642	697	---	---
1924	1,704	439	2,143	---	---	605	592	---	---
1925	1,680	414	2,094	---	---	434	627	---	---
1926	1,722	382	2,104	---	---	522	460	---	---
1927	1,286	337	1,623	---	---	---	262	---	---
1928	1,305	395	1,700	---	---	---	204	---	---
1929	1,936	634	2,570	---	---	---	191	---	---
1930	1,562	572	2,134	---	---	---	205	---	---
1931	789	287	1,076	---	---	---	148	---	---
1932	546	224	770	---	---	---	124	---	---
1933	496	183	679	---	---	---	123	---	---

APPENDIX 1 – WELLS DRILLED IN OHIO 1888 – 2012 *(page 2)*

YEAR	PRODUCTIVE	DRY	TOTAL	BEREA	OHIO SHALE	CLINTON	TRENTON	ROSE RUN	CAMBRIAN
1934	883	276	1,159	---	---	---	103	---	---
1935	544	192	736	---	---	---	94	---	---
1936	754	246	1,000	---	---	---	81	---	---
1937	813	432	1,245	---	---	---	---	---	---
1938	622	288	910	---	---	---	---	---	---
1939	713	319	1,032	---	---	---	---	---	---
1940	818	410	1,228	---	---	---	---	---	---
1941	1,034	527	1,561	---	---	---	---	---	---
1942	652	356	1,008	---	---	---	---	---	---
1943	625	391	1,016	---	---	---	---	---	---
1944	647	393	1,040	---	---	---	---	---	---
1945	649	385	1,034	---	---	---	---	---	---
1946	885	408	1,293	---	---	---	---	---	---
1947	899	484	1,383	---	---	---	---	---	---
1948	921	534	1,455	---	---	---	---	---	---
1949	626	426	1,052	---	---	---	---	---	---
1950 (2)	666	476	1,142	436	8	418	25	---	3
1951	626	435	1,061	394	10	406	18	---	6
1952	670	470	1,140	368	15	459	47	---	2
1953 (e)	711	386	1,097	359	21	402	30	---	6
1954	788	407	1,195	441	13	395	25	---	2
1955	898	336	1,234	---	---	---	---	---	---
1956	878	367	1,245	364	13	663	32	---	5
1957	773	268	1,041	260	12	579	21	---	2
1958	852	316	1,168	303	13	650	19	---	5
1959	843	315	1,158	300	11	672	20	---	13
1960	707	309	1,016	218	5	597	7	---	20
1961	809	295	1,104	257	10	619	4	---	42
1962	820	326	1,146	358	2	542	10	---	72
1963 (f)	748	407	1,155	266	2	443	14	4	302
1964	1,075	1,579	2,654	197	2	499	34	9	1,800
1965 (g)	904	801	1,705	195	2	635	53	16	729
1966	872	399	1,271	227	4	692	18	8	261
1967	953	258	1,211	170	17	853	18	4	132
1968	988	229	1,217	136	66	832	21	6	81
1969	926	183	1,109	104	17	863	13	10	56
1970	1,165	190	1,355	84	15	1,146	5	6	42
1971	1,065	173	1,238	98	11	1,038	5	5	37
1972	1,125	168	1,293	112	21	1,082	3	10	32
1973	1,337	166	1,503	76	31	1,345	5	5	26
1974	1,601	167	1,768	91	13	1,587	3	8	31
1975	1,105	115	1,220	62	6	1,103	5	17	22
1976	1,774	164	1,938	165	30	1,631	38	18	16
1977	2,455	171	2,626	390	34	2,083	33	11	15
1978 (h)	3,132	283	3,415	430	22	2,834	22	27	12
1979	3,480	179	3,659	542	131	2,848	22	29	23
1980	4,935	165	5,100	867	78	3,734	1	24	31
1981	5,685	400	6,085	733	543	4,366	---	16	50

APPENDIX 1 – WELLS DRILLED IN OHIO 1888 – 2012 <i>(page 3)</i>									
YEAR	PRODUCTIVE	DRY	TOTAL	BEREA	OHIO SHALE	CLINTON	TRENTON	ROSE RUN	CAMBRIAN
1982	4,488	342	4,830	756	458	3,426	---	11	4
1983	4,000	299	4,299	557	533	3,203	1	7	51
1984	4,593	370	4,963	612	329	3,827	---	9	65
1985	3,546	214	3,760	345	315	3,042	---	19	94
1986	1,725	125	1,850	185	76	1,482	---	28	62
1987	1,721	161	1,882	153	40	1,454	---	70	55
1988	1,267	156	1,423	112	43	1,037	---	94	62
1989	1,153	159	1,312	69	145	890	---	92	77
1990	1,147	180	1,327	61	97	863	---	143	102
1991	1,001	170	1,171	89	89	794	---	116	108
1992	710	165	875	100	51	465	---	139	87
1993	643	180	823	60	35	330	2	260	89
1994	601	182	783	26	13	301	9	269	75
1995	507	163	670	25	11	253	2	202	94
1996	559	166	725	35	42	253	1	219	90
1997	620	178	798	33	20	277	0	223	110
1998	383	135	518	66	16	154	0	161	61
1999	407	95	502	32	65	177	5	106	55
2000	455	112	567	18	14	281	3	124	77
2001	599	100	699	36	29	396	1	113	58
2002	432	72	504	8	48	265	0	88	47
2003	455	65	520	30	60	258	2	82	40
2004 (i)	534	55	589	32	97	319	1	66	24
2005	658	69	727	48	116	409	7	45	50
2006	915	45	960	90	134	636	8	18	23
2007	1,022	46	1,068	90	157	672	7	35	32
2008	1,028	61	1,089	124	155	662	1	21	38
2009	517	46	563	43	97	320	2	30	25
2010 (j)	382	45	427	47	40	228	5	18	42
2011	443	27	470	53	51	222	3	26	47
2012 (k)	517	36	553	41	80	165	7	13	39
TOTAL (l)	222,164	42,633	264,797	12,981	4,634	80,752	71,130	3,080	5,799

REFERENCES

- Years 1888-1950: Alkire, Robert L., 1951, Oil and Gas Production, History, Regulation, Secondary Recovery and Bibliography, 8, part 2 of Ohio Division of Geological Survey Report of Investigations: 45-46 pp.
- Years 1950-2011: Statistics from Annual Oil & Gas Statistical Reports published by Ohio Divisions of Oil & Gas Resources Management and Geological Survey. Numbers were not available for blank formation fields.

HISTORICAL FOOTNOTES

- Ohio lays claim to the first discovery of oil from a drilled well. In 1814, saltwater well drillers struck oil in Olive Township of Noble County at 475 feet.
- Ohio's first commercial oil and gas well was put into production in 1860 at Macksburg in Washington County.
- Alkire notes that the statistics for years 1894-1904 were incomplete and estimated that the total number of wells not accounted for during those years is approximately 12,000.
- Ohio was the nation's leading oil producer in 1896.
- Widespread acceptance of the hydraulic fracture method for increasing production in 1953.
- Morrow County Oil Boom in 1963.
- Creation of Ohio Division of Oil and Gas in 1965.
- Tight formation tax credit.
- Urbanized Drilling Law (HB 278) went into effect September 16, 2004.
- Senate Bill 165 went into effect June 30, 2010.
- Senate Bill 315 went into effect September 10, 2012.
- Total number of wells may actually be 276,797. (See footnote c)

APPENDIX II: 2012 UTICA-POINT PLEASANT PRODUCTION									
OWNER NAME	PERMIT NUMBER	COUNTY	TOWNSHIP	WELL NAME/ WELL NUMBER	OIL (BARRELS)	GAS (MCF)	BRINE (BARRELS)	DAYS	# OF WELLS
ANADARKO E & P ONSHORE LLC	27190	COSHOCTON	MILL CREEK	COSH MILL CREEK A-1H	641	0	22159	66	
ANADARKO E & P ONSHORE LLC	24200	GUERNSEY	SPENCER	FREC GUER SPENCER A-5H	26420	81644	8532	276	
ANADARKO E & P ONSHORE LLC	24190	GUERNSEY	SPENCER	FREC GUER SPENCER A1H	13564	41153	11704	293	
ANADARKO E & P ONSHORE LLC	28749	MUSKINGUM	MEIGS	FREC MEIGS C-1H	6531	0	12787	121	
ANADARKO E & P ONSHORE LLC	24350	NOBLE	BROOKFIELD	FREC NOBL BROOKFIELD A-3H	38313	193797	22972	292	
ANADARKO E & P ONSHORE LLC	24349	NOBLE	OLIVE	FREC NOBL OLIVE A-1H	2970	0	4812	35	
ANADARKO E & P ONSHORE LLC	24348	NOBLE	SHARON	FREC NOBL SHARON A-1H	30287	126703	24247	252	
TOTALS					118,726	443,297	107,213	1,335	7

ANTERO RES APPALACHIAN CORP	24366	NOBLE	BUFFALO	SANFORD UNIT 1H	13675	37693	4499	27	
ANTERO RES APPALACHIAN CORP	24331	MONROE	SENECA	ET RUBEL UNIT 1H	733	0	0	0	
ANTERO RES APPALACHIAN CORP	24346	NOBLE	SENECA	MILEY UNIT 5HA	7114	0	0	0	
TOTALS					21,522	37,693	4,499	27	3

CHESAPEAKE EXPLORATION LLC	22127	CARROLL	AUGUSTA	LOZIER 14-15-5 3H	1008.56	8337	3602.5	6	
CHESAPEAKE EXPLORATION LLC	22111	CARROLL	AUGUSTA	MANGUN 22-15-5 3H	1731.79	24002	6838.5	17	
CHESAPEAKE EXPLORATION LLC	22140	CARROLL	AUGUSTA	MANGUN 22-15-5 6H	2784.32	12974	6028.5	13	
CHESAPEAKE EXPLORATION LLC	22171	CARROLL	AUGUSTA	LOZIER 14-15-5 8H	18.81	535	2142.5	3	
CHESAPEAKE EXPLORATION LLC	22073	CARROLL	AUGUSTA	CALVIN MANGUN 8H	7144.12	239021	3741	152	
CHESAPEAKE EXPLORATION LLC	22082	CARROLL	AUGUSTA	WEST 4-15-5 3H	6478.57	45590	7176	102	
CHESAPEAKE EXPLORATION LLC	22141	CARROLL	BROWN	WHITACRE 26-17-7 8H	1673.71	0	4705.24	5	
CHESAPEAKE EXPLORATION LLC	22081	CARROLL	CENTER	SHAW 20-14-5 5H	24313.32	344387	20325	306	
CHESAPEAKE EXPLORATION LLC	22085	CARROLL	CENTER	BURGETT 7-15-6 8H-RS	46914.01	332445	17082.5	206	
CHESAPEAKE EXPLORATION LLC	22110	CARROLL	CENTER	BURGETT 7-15-6 6H	11759.61	56364	7217.07	52	
CHESAPEAKE EXPLORATION LLC	22084	CARROLL	EAST	CONIGLIO 7-14-4 6HH	15209.83	360575	4929	119	
CHESAPEAKE EXPLORATION LLC	22103	CARROLL	EAST	BUCEY 21-14-4 5H	4852.1	349980	9681.54	168	
CHESAPEAKE EXPLORATION LLC	22104	CARROLL	EAST	BUCEY 21-14-4 6H	1408.77	212812	6126.83	166	
CHESAPEAKE EXPLORATION LLC	22121	CARROLL	EAST	BURRY 20-14-4 8H	982.23	41073	4846	18	
CHESAPEAKE EXPLORATION LLC	22074	CARROLL	EAST	BUCEY 3H	5501.89	539293	11230.83	231	
CHESAPEAKE EXPLORATION LLC	22088	CARROLL	LEE	WHITE 17-13-5 8HA	16258.73	277744	17853.14	135	
CHESAPEAKE EXPLORATION LLC	22089	CARROLL	LEE	BAILEY 35-12-4 6H	7561.71	423350	12701.91	164	
CHESAPEAKE EXPLORATION LLC	22090	CARROLL	LEE	TANNER 24-12-4 10HL	0	297456	6627	75	
CHESAPEAKE EXPLORATION LLC	22096	CARROLL	LEE	HOUYOUSE 15-13-5 8H	14792.12	351781	6756.35	93	
CHESAPEAKE EXPLORATION LLC	22100	CARROLL	LEE	HOUYOUSE 15-13-5 6H	11078.81	279204	4363.78	82	
CHESAPEAKE EXPLORATION LLC	22099	CARROLL	LEE	HOUYOUSE 15-13-5 1H	12439.53	208308	5343.78	74	
CHESAPEAKE EXPLORATION LLC	22092	CARROLL	LEE	WHITE 17-13-5 10H	14896.23	255957	10520.85	134	
CHESAPEAKE EXPLORATION LLC	22095	CARROLL	LEE	WHITE 17-13-5 3H	12916.45	196679	10316.05	128	
CHESAPEAKE EXPLORATION LLC	22097	CARROLL	LEE	SNODDY 11-13-5 5H	10982.95	198922	8866.95	124	
CHESAPEAKE EXPLORATION LLC	22098	CARROLL	LEE	SNODDY 11-13-5 1H	19196.24	291227	8856.95	146	
CHESAPEAKE EXPLORATION LLC	22102	CARROLL	LEE	BAILEY 35-12-4 1H	7853.17	386714	12789.2	130	
CHESAPEAKE EXPLORATION LLC	22101	CARROLL	LEE	BAILEY 35-12-4 3H	8049.61	466973	8314.77	158	
CHESAPEAKE EXPLORATION LLC	22105	CARROLL	LEE	SNODDY 11-13-5 6H	12384.94	258817	5597.47	126	
CHESAPEAKE EXPLORATION LLC	22139	CARROLL	LEE	P BROWN 9-13-5 1H	4805.18	90263	4962.4	35	
CHESAPEAKE EXPLORATION LLC	22122	CARROLL	PERRY	WALTERS 30-12-5 8HH	7265.29	105553	7150	36	
CHESAPEAKE EXPLORATION LLC	22119	CARROLL	PERRY	SCOTT 24-12-5 3H	480.61	0	4654.52	2	

APPENDIX II: 2012 UTICA-POINT PLEASANT PRODUCTION (page 2)

OWNER NAME	PERMIT NUMBER	COUNTY	TOWNSHIP	WELL NAME/WELL NUMBER	OIL (BARRELS)	GAS (MCF)	BRINE (BARRELS)	DAYS	# OF WELLS
CHESAPEAKE EXPLORATION LLC	22091	CARROLL	WASHINGTON	SCHMUCK FARMS 22-14-5 3H	11126.15	121176	7967	81	
CHESAPEAKE EXPLORATION LLC	22124	CARROLL	WASHINGTON	NEIDER 10-14-5 8H	327.4	11706	3393.29	5	
CHESAPEAKE EXPLORATION LLC	22123	CARROLL	WASHINGTON	NEIDER 10-14-5 6H	858.83	34570	4343.29	14	
CHESAPEAKE EXPLORATION LLC	22125	CARROLL	WASHINGTON	NEIDER 10-14-5 10HH	970.33	48316	3868.29	21	
CHESAPEAKE EXPLORATION LLC	22151	CARROLL	WASHINGTON	NEIDER 10-14-5 5H	1448.04	51909	9898.29	22	
CHESAPEAKE EXPLORATION LLC	22153	CARROLL	WASHINGTON	NEIDER 10-14-5 1H	489.61	18875	4892.29	13	
CHESAPEAKE EXPLORATION LLC	22075	CARROLL	WASHINGTON	NEIDER 3H	5043.53	234428	4410.58	120	
CHESAPEAKE EXPLORATION LLC	22076	CARROLL	WASHINGTON	HARVEY 8H	6122.05	322213	6587	295	
CHESAPEAKE EXPLORATION LLC	21734	COLUMBIANA	HANOVER	JAN PAUL FARMS 17-15-4 8H	307.92	0	6545.48	4	
CHESAPEAKE EXPLORATION LLC	21694	COLUMBIANA	KNOX	SANOR FARMS 23-17-5 3H	8832.99	54730	12752.11	204	
CHESAPEAKE EXPLORATION LLC	21697	COLUMBIANA	WEST	AYRVIEW ACRES 27-16-5 3HT	2811.43	18772	4757.38	23	
CHESAPEAKE EXPLORATION LLC	21701	COLUMBIANA	WEST	AYRVIEW ACRES 27-16-5 1HT	3031.28	18434	6102.38	19	
CHESAPEAKE EXPLORATION LLC	21702	COLUMBIANA	WEST	AYRVIEW ACRES 27-16-5 5HT	9101.63	40663	5757.38	32	
CHESAPEAKE EXPLORATION LLC	21057	HARRISON	ARCHER	KENNETH BUELL 8H	9778.97	1657548	3597	341	
CHESAPEAKE EXPLORATION LLC	21064	HARRISON	STOCK	STUART HENDERSON 11-12-6 1H	1660.3	0	4018.93	6	
CHESAPEAKE EXPLORATION LLC	20507	JEFFERSON	BRUSH CREEK	BROWN 36-11-3 10H	25	615710	9925.52	112	
CHESAPEAKE EXPLORATION LLC	20514	JEFFERSON	SPRINGFIELD	CAIN 16-12-4 3HE	0	58517	2278	16	
CHESAPEAKE EXPLORATION LLC	20520	JEFFERSON	SPRINGFIELD	CAIN SOUTH 16-12-4 8HA	0	49287	3333	14	
CHESAPEAKE EXPLORATION LLC	23135	MAHONING	MILTON	GEATCHES MAH 3H	816.87	0	2799	36	
CHESAPEAKE EXPLORATION LLC	24420	PORTAGE	SUFFIELD	HOSEY POR 6H-X	0	0	7207.17	0	
CHESAPEAKE EXPLORATION LLC	25747	STARK	OSNABURG	DREVN 29-18-7 8H	9077.36	48262	11774.85	125	
CHESAPEAKE EXPLORATION LLC	25483	TUSCARAWAS	FAIRFIELD	GRIBI 1-9-1 3HE)	7638.81	31249	24259.83	102	
TOTALS					372,212	10,092,701	401,816	4,811	53

CNX GAS COMPANY LLC	25485	TUSCARAWAS	AUBURN	TROYER TUSC3AHSU	10015	9986	1284	50	
TOTALS					10,015	9,986	1,284	50	1

DEVON ENERGY PRODUCTION	24160	ASHLAND	CLEAR CREEK	EICHELBERGER DAVID 1H	0	0	23598	102	
DEVON ENERGY PRODUCTION	24219	GUERNSEY	CENTER	CHUMNEY FAMILY TRUST 1H	2149	0	0	23	
DEVON ENERGY PRODUCTION	24554	KNOX	MORGAN	SENSIBAUGH 1H	0	0	9078	44	
DEVON ENERGY PRODUCTION	25037	MEDINA	HARRISVILLE	RICHMAN FARMS 1H	0	0	20217	75	
DEVON ENERGY PRODUCTION	25669	WAYNE	EAST UNION	HERSHBERGER 1H	0	0	16899	50	
TOTALS					2,149	-	69,792	294	5

ENERVEST OPERATING LLC	22093	CARROLL	HARRISON	CAIRNS #5H	20951	92860	8266	120	
ENERVEST OPERATING LLC	24183	GUERNSEY	WHEELING	RHDK #8H	2958	8670	6201	111	
ENERVEST OPERATING LLC	25735	STARK	MARLBORO	FRANK UNIT #2H	8637	58679	8543	73	
TOTALS					32,546	160,209	23,010	304	3

APPENDIX II: 2012 UTICA-POINT PLEASANT PRODUCTION (page 3)

OWNER NAME	PERMIT NUMBER	COUNTY	TOWNSHIP	WELL NAME/WELL NUMBER	OIL (BARRELS)	GAS (MCF)	BRINE (BARRELS)	DAYS	# OF WELLS
GULFPORT ENERGY CORP	20658	BELMONT	WARREN	SHUGERT 1H	373	0	16501	5	
GULFPORT ENERGY CORP	24206	GUERNSEY	MADISON	GROH 1H	5231	0	7198	6	
GULFPORT ENERGY CORP	21062	HARRISON	ATHENS	WAGNER 1H	12147	644276	3250	129	
GULFPORT ENERGY CORP	21078	HARRISON	FREEPORT	CLAY 1H	890	0	4994	2	
GULFPORT ENERGY CORP	21072	HARRISON	MOOREFIELD	B. K. STEPHENS 1H	6406	0	3204	5	
GULFPORT ENERGY CORP	21071	HARRISON	MOOREFIELD	RYSER 1H	628	0	3254	1	
GULFPORT ENERGY CORP	21065	HARRISON	NOTTINHAM	BOY SCOUT 1H	37235	122853	6168	32	
TOTALS					63,167	767,129	46,912	185	8

HESS OHIO DEVELOPMENTS LLC	21074	HARRISON	ATHENS	CNXHAR9N5W 1H-24	533	22657	1002	4	
HESS OHIO RESOURCES LLC	20503	JEFFERSON	WAYNE	NAC GAS UNIT B 3H-3	27	900322	1283	292	
TOTALS					560	922,979	2,285	296	2

HG ENERGY LLC	24302	MONROE	WASHINGTON	WHITACRE N-2H	0	232847	4334	247	
TOTALS					-	232,847	4,334	247	1

PDC ENERGY INC	24211	GUERNSEY	WILLS	ONEGA COMMISSIONERS 14-25H	2100	5238	1758	4	
TOTALS					2,100	5,238	1,758	4	1

REX ENERGY	22132	CARROLL	WASHINGTON	BRACE UNIT 1	12879	159213	18786	119	
TOTALS					12,879	159,213	18,786	119	1

TOTALS					635,876	12,831,292	681,689	7,672	85
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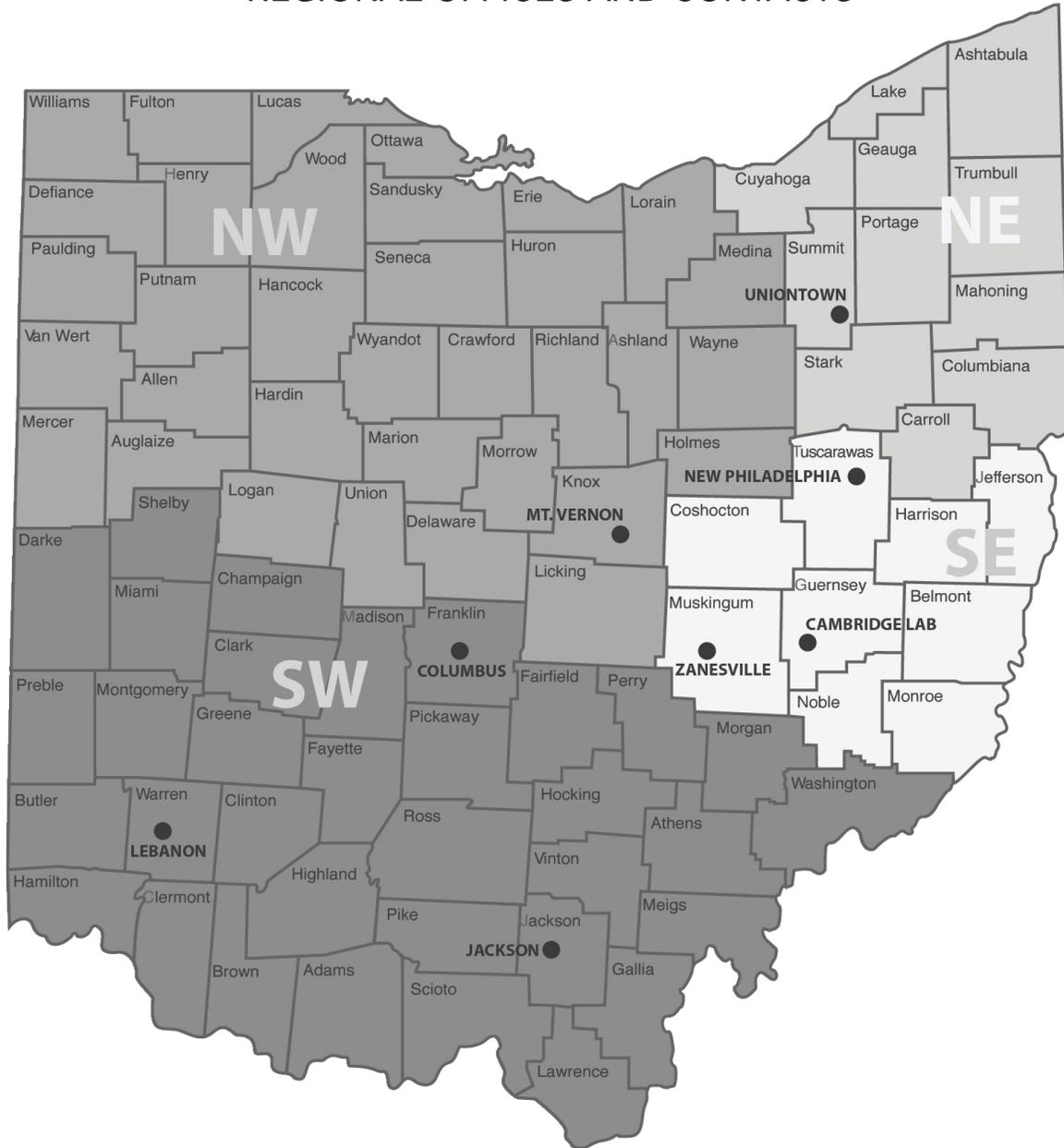
APPENDIX III - COUNTY DRILLING DEPTH RECORDS - 2012

COUNTY	TOWNSHIP	PERMIT NO.	OPERATOR	WELL NO.	LEASE NAME	COMPLETION DATE	TOTAL DEPTH	FORMATION AT TOTAL DEPTH	WELL CLASS
ADAMS	FRANKLIN	11	OXFORD OIL CO.	1	J. RUSSELL & M. TENER	07/07/79	3,886	GRANITE WASH	FWC
ALLEN	SPENCER	64	ALCO OIL CO.	2	POHLMAN, FRUEND, ETZ HORN	12/31/65	3,266	GRANITE	FWC
ASHLAND	LAKE	1762	ROY STEWART	1	KENNETH & REX MASHER	02/04/60	5,485	TREMPEALEAU	DPWC
ASHTABULA	NEW LYME	2272	POI ENERGY	1	LAUTANEN	09/01/85	7,124	GRANITE	DPWC
ATHENS	DOVER	3062	QUAKER STATE	2	MILLFIELD COAL & MINING	07/17/84	6,525	ROSE RUN	FWC
AUGLAIZE	ST. MARYS	71	WEST OHIO OIL & GAS	1	D. & B. HOELSCHER	12/05/70	3,067	GRANITE	DPWC
BELMONT	PEASE	611	DAVID R. HILL INC.	1	GEORGETOWN MARINE	12/06/10	13,727	GRANITE	DPWC
BROWN	STERLING	6	SPENCER PETROLEUM CORP.	1	GRIFFITH	03/13/93	3,350	GRANITE	FWC
BUTLER	LEMON	4	ARMCO STEEL CORP.	1	ARMCO STEEL CORP.	03/12/67	3,296	"MIDDLE RUN"	IWDW
CARROLL	LEE	2059	ANSCHUTZ EXPLOR. CORP.	1	WHITE	09/15/10	9,503	ROSE RUN	DPWC
CHAMPAIGN	WAYNE	20	INDUSTRIAL GAS ASSOC.	1	P. & C. HOFFMAN	06/26/78	3,325	MT. SIMON	FWC
CLARK	MADISON	D 2	T. D. FRIEND	1	MATTISON	06/14/26	4,647	PRE MT. SIMON	FWC
CLERMONT	STONELICK	3	CONTINENTAL OIL CO.	1	C. WIKOFF	07/03/60	3,435	MT. SIMON	FWC
CLINTON	WILSON	10	STOCKER & SITLER INC.	1	COY	01/18/83	3,603	GRANITE	FWC
COLUMBIANA	HANOVER	648	MANAGEMENT CONTROL	3	F. MURRAY	07/28/70	10,242	GRANITE	DPWC
COSHOCTON	CRAWFORD	6397	LAKE REGION OIL INC.	2	LEVI M. TROYER	07/23/92	7,950	MT. SIMON	DPWC
CRAWFORD	VERNON	6	HAYNES O&G ENTERPRISES	1	DON D. CRUM	01/09/63	3,879	EAU CLAIRE	FWC
CUYAHOGA	MAYFIELD	1625	BASS ENERGY CO. INC.	1	MARCONI MEDICAL SYSTEMS	03/07/01	6,550	GRANITE	DPWC
DARKE	GREENVILLE	13 A	UNKNOWN	1	EDWARD BARNES	05/26/06	2,850	CAMBRIAN	FWC
DEFIANCE	MARK	28	S. E. BROWN	1	P. HAVER	10/22/62	3,606	MT. SIMON	FWC
DELAWARE	TRENTON	354	R.C. POLING CO. INC.	1	COCKRELL-GODSHALL UNIT	01/22/91	4,873	GRANITE	DPWC
ERIE	FLORENCE	19	SUN OIL CO.	1	A. HERMAN ETAL.	05/01/67	4,466	GRANITE	SWIW
FAIRFIELD	RUSH CREEK	1136	HOPEWELL O. & G. DEV. CO.	1	R. BIGHAM	06/16/94	5,924	GRANITE	DPWC
FAYETTE	UNION	1	KEWANEE OIL CO.	1	E. HOPKINS	07/12/57	4,708	GRANITE	FWC
FRANKLIN	PLEASANT	7	BARNWELL PRODUCING CO.	1	OAKHURST COUNTRY CLUB	08/08/64	3,753	MT. SIMON	FWC
FULTON	CHESTERFIELD	47	LIBERTY PETR. CORP.	1	CLYDE JOHNSTON	03/21/69	3,793	MT. SIMON	FWC
GALLIA	HARRISON	985	BAKERWELL INC.	1	JARRELL UNIT	03/24/04	7,146	TREMPEALEAU	FWC
GEAUGA	TROY	1534	LOMAK PETROLEUM	1	J. VOYTKO	07/01/88	6,888	TREMPEALEAU	DPWC
GREENE	ROSS	4	TATUM PETR. CO. LLC.	1	KELLY GREENE	08/17/10	3,347	GRANITE	FWC
GUERNSEY	WESTLAND	4067	DAVID R. HILL, INC.	1	DEVCO UNIT	03/16/08	8,897	GRANITE	DPWC
HAMILTON	CROSBY	1	CONTINENTAL OIL CO.	1	WALTER C. BRISBIN	11/01/59	2,730	EAU CLAIRE	FWC
HANCOCK	UNION	139	FRANK M. DEVER	1	C. & M. FRAZIER	06/02/64	3,017	GRANITE	FWC
HARDIN	DUDLEY	79	MCMAHON-BULLINGTON	1	WOLF	01/07/64	3,002	KNOX	FWC
HARRISON	GREEN	355	STOCKER & SITLER INC.	1	CHARLENE SCHANEY ETAL.	07/30/79	10,288	TREMPEALEAU	DPWC
HENRY	HARRISON	36	CALLANDER & KIMBREL	1	K. HALL	10/10/73	3,480	GRANITE	DPWC
HIGHLAND	FAIRFIELD	7	OHIO VALLEY OIL & GAS	1	COURTNEY	01/20/72	3,610	GRANITE	FWC
HOCKING	STARR	1222	E. J. DUNIGAN	1	M. & H. HOCKMAN	06/30/66	6,495	MT. SIMON	FWC
HOLMES	SALT CREEK	1283	G.C. & J.A. PARKER	1	DAN D. TROYER	11/12/63	7,369	TREMPEALEAU	FWC
HURON	WAKEMAN	103	APPALACHIAN EXPLOR. INC.	1	WOLF	10/05/81	4,574	GRANITE WASH	FWC
JACKSON	FRANKLIN	76	WORTHINGTON OIL CO.	1	G. & I. WOOD	07/08/64	6,320	GRANITE	FWC
JEFFERSON	WARREN	536	CHESAPEAKE EXPL., LLC	25-5-2	CREAMER	10/10/12	10,320	TRENTON	ST
KNOX	PIKE	1413	DAVID L. CANTWAY	1	E. CUNNINGHAM	08/07/61	5,745	GRANITE	FWC
LAKE	LEROY	1094	GREAT PLAINS EXPL. LTD.	1	VROOMAN	01/24/04	6,355	GRANITE	DPWC
LAWRENCE	SYMMES	174	J. STANLEY GOLDBERG	1	A. PAYNE	04/01/66	7,002	GRANITE	FWC

APPENDIX III - COUNTY DRILLING DEPTH RECORDS - 2012 (page 2)

COUNTY	TOWNSHIP	PERMIT NO.	OPERATOR	WELL NO.	LEASE NAME	COMPLETION DATE	TOTAL DEPTH	FORMATION AT T.D.	WELL CLASS
LICKING	PERRY	4792	RONALD F. MORAN	1	RON MORAN	03/08/84	6,237	GRANITE	SWIW
LOGAN	JEFFERSON	86	WORTHINGTON OIL CO.	1	LENA COMER	05/11/76	3,402	MT. SIMON	FWC
LORAIN	GRAFTON	1370	KENOIL/KEN R. MILLER	1	LAWRENCE PALL	08/24/91	5,018	TREMPEALEAU	DPWC
LUCAS	HARDING	60	LIBERTY PETR. CORP.	1	KETRING UNIT	08/24/72	3,915	GRANITE	FWC
MADISON	FAIRFIELD	3	AMERADA PETR. CORP.	1	J. HUME	11/01/65	3,631	GRANITE	FWC
MAHONING	BEAVER	3158	D & L ENERGY, INC.	4	NORTHSTAR LUCKY	10/21/11	10,088	GRANITE	SWIW
MARION	CLARIDON	8	UNITED PRODUCING	1	H. & M. MITCHELL	03/14/62	3,672	GRANITE	FWC
MEDINA	HINCKLEY	1143	WISER OIL CO.	1-A	F. L. SMITH	01/03/59	7,040	GRANITE	FWC
MEIGS	LEBANON	3651	MURPHY OIL CO.	3	M. MCKELVEY	02/10/09	9,082	TREMPEALEAU	DPWC
MERCER	CENTER	141	HARNER UNION OIL CO.	2	M. & M. YEWY	02/09/71	3,215	GRANITE	DPWC
MIAMI	LOST CREEK	3	NATIONAL ASSOC. PETR.	1	E. WALKER	10/30/58	3,513	GRANITE	FWC
MONROE	OHIO	4305	PROTÉGÉ ENERGY II, LLC	1	DANGEL	01/18/12	10,980	TRENTON	ST
MONTGOMERY	MAD RIVER	D-2	DAYTON	M	DAYTON	01/1887	2,440	UNKNOWN	UNKN.
MORGAN	CENTER	4533	ARTEX OIL COMPANY	1	BICKFORD UNIT	08/20/05	8,222	ROSE RUN	DPWC
MORROW	PERRY	3737	STAR EXPL. CORP.	1	R. & W. BREWER	12/19/86	5,000	GRANITE	DPWC
MUSKINGUM	HIGHLAND	7959	CGAS EXPLORATION INC.	7-2108	G. VICKERS	07/07/97	7,316	TREMPEALEAU	DPWC
NOBLE	ELK	1278	AMERADA PETR. CORP.	1	R. ULLMAN	02/01/67	11,442	GRANITE	DPWC
OTTAWA	CARROLL	50	FRED E. FITZGERALD	1	RAYMOND ARNDT	08/07/68	2,287	ST. PETER	FWC
PAULDING	JACKSON	13	MT. PLEASANT MINES LTD.	1	H. & E. AREND	10/30/76	3,440	GRANITE	FWC
PERRY	JACKSON	6595	R.C. POLING CO. INC.	1	RUSH CREEK PARTNERS, ETAL.	04/20/85	6,395	GRANITE	SWIW
PICKAWAY	PICKAWAY	24	RAMCO OIL & GAS CORP.	1	M. KERNS	01/17/85	4,500	GRANITE	FWC
PIKE	BEAVER	1	FRANK D. STAHLER	1	R. BAPST	06/14/50	4,227	ST. PETER?	FWC
PORTAGE	DEERFIELD	2860	VIKING RESOURCES CORP.	1	VIKING RESOURCES CORP.	05/24/82	8,800	GRANITE WASH	DPWC
PREBLE	WASHINGTON	D-3	DOC TOLLIVER	3	A. H. CHRISTMAN	06/01/29	1,750	ST. PETER	FWC
PUTNAM	LIBERTY	31	OHIO OIL CO.	1	L. BARLAGE	03/21/44	3,377	GRANITE	FWC
RICHLAND	WASHINGTON	431	TRI STATE PRODUCING CO.	2	C. & K. SCOTT	09/05/66	5,503	GRANITE	DPWC
ROSS	GREEN	8	WELL SUPERVISION INC.	1	M. IMMELL	08/24/64	4,168	MT. SIMON	FWC
SANDUSKY	TOWNSEND	77	EAST OHIO GAS CO.	2	V. & I. HAFF	11/17/60	3,128	GRANITE	FWC
SCIOTO	GREEN	212	USS CHEMICALS/US STEEL	1	USS CHEMICALS/US STEEL	07/05/68	5,617	GRANITE	IWDW
SENECA	ADAMS	128	ASHLAND OIL	1	W. STIGAMIRE	01/24/65	3,175	MT. SIMON	FWC
SHELBY	SALEM	13	GUMP OIL CO.	1	J. & B. FOGY	11/10/56	3,360	GRANITE	FWC
STARK	PARIS	5052	VIKING RESOURCES CORP.	1	HANNA UNIT	09/02/97	8,292	ROSE RUN	POOL
SUMMIT	TWINSBURG	1591	K.S.T. OIL & GAS CO.	5	K.S.T. OIL & GAS CO.	07/18/84	7,225	GRANITE WASH	SWIW
TRUMBULL	LIBERTY	4043	D & L ENERGY, INC.	2	NORTHSTAR UNITED	08/21/11	9,038	GRANITE	SWIW
TUSCARAWAS	OXFORD	5465	RED HILL DEVELOPMENT	1	GENERAL CLAY	01/23/11	8,720	GRANITE	DPWC
UNION	DOVER	69	FUNK EXPLORATION	1	YODER	08/15/84	3,500	GRANITE	FWC
VAN WERT	JENNINGS	44	WEST OHIO GAS CO.	5	A. & M. MILLER	01/05/73	3,242	GRANITE	DPWC
VINTON	VINTON	924	COLUMBIA NAT. RES. INC.	723984	MORRIS	03/25/00	5,700	TREMPEALEAU	FWC
WARREN	WAYNE	C-2627	OHIO GEOLOGICAL SURVEY	DS 2	AMERICAN AGGREGATES CORP.	04/26/89	5,380	"MIDDLE RUN"	CORE
WASHINGTON	GRANDVIEW	9717	FLAT ROCK DEV. LLC	19	COLLINS	10/17/12	10,220	TRENTON	ST
WAYNE	CHIPPEWA	71	EAST OHIO GAS CO.	2	N. STEINER	08/12/61	6,919	GRANITE	DPWC
WILLIAMS	BRIDGEWATER	46	COLUMBIA GAS TRANS.	11061	COOK	12/31/71	4,497	GRANITE WASH	FWC
WOOD	LIBERTY	D-6	J. S. BRAILEY	1	S. KILLIAN	08/25/37	2,927	GRANITE	DPWC
WYANDOT	JACKSON	D-8	DIBBLE & MILLER	1	P. PARSELL	03/07/47	5,632	GRANITE	FWC

DIVISION OF OIL AND GAS RESOURCES MANAGEMENT REGIONAL OFFICES AND CONTACTS



CENTRAL OFFICE

2045 Morse Rd. Bldg. F
Columbus, OH 43229
P: (614) 265-6922
F: (614) 265-6910

NORTHWEST REGION

Mount Vernon Office
116 East High St.
Mount Vernon, OH 43050
P: (740) 392-4499
F: (740) 393-6705

NORTHEAST REGION

Uniontown Office
3575 Forest Lake Dr., Ste. 150
Uniontown, OH 44685
P: (330) 896-0616
F: (330) 896-1849

SOUTHWEST REGION

Lebanon Office
505 South S.R. 741
Lebanon, OH 45036
P: (513) 933-6717
(513) 933-6718
F: (513) 933-9245

Jackson Office
34 Portsmouth St.
Jackson, OH 45640
P: (740) 286-6411
F: (740) 286-1868

SOUTHEAST REGION

Zanesville Office
5880 Memory Rd.
Zanesville, OH 43701
P: (740) 588-0631
F: (740) 588-0659

New Philadelphia Office
2207 Reiser Ave. SE
New Philadelphia, OH 43701
P: (330) 308-0007
F: (330) 308-0011



Ohio Department of Natural Resources
DIVISION OF OIL & GAS RESOURCES MANAGEMENT

2045 Morse Rd., Bldg. F-2, Columbus, OH 43229-6693 • oilandgas.ohiodnr.gov

John R. Kasich, Governor • James Zehringer, Director • Richard J. Simmers, Chief