

**New York State
Leasing of State Lands for
Oil and Gas Development
2010 Report**

**New York State
Department of Environmental Conservation
Division of Mineral Resources
625 Broadway
Albany, New York 12233-6500**

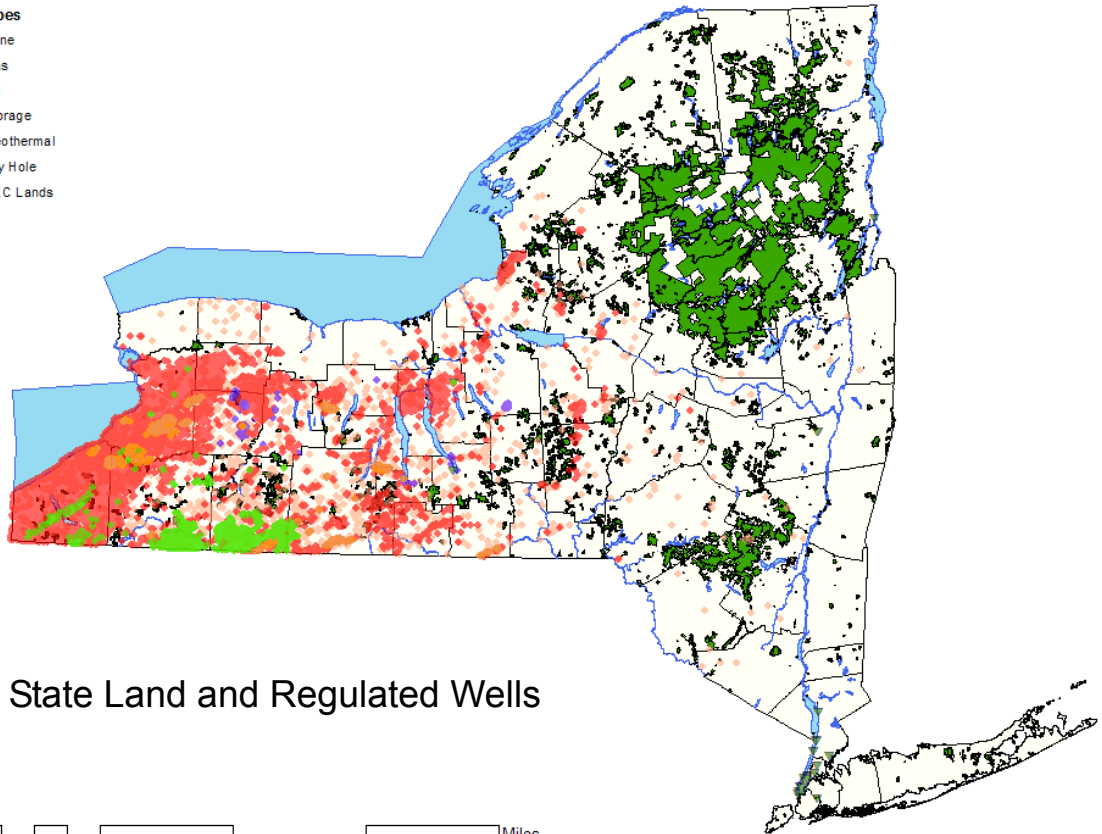
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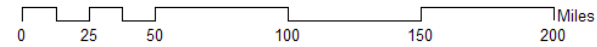
Andrew M. Cuomo, Governor

Joe Martens, Commissioner

- Well Types
- ◆ Brine
 - ◆ Gas
 - ◆ Oil
 - ◆ Storage
 - ▼ Geothermal
 - Dry Hole
 - DEC Lands



State Land and Regulated Wells



This report was produced by the
NYS Department of Environmental Conservation

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Introduction

This report describes oil and gas activity through year-end 2010 in New York State, focusing on activity on state lands. It contains detailed information on active state leases and revenues generated from oil and gas production on state lands. Additional information concerning leasing of state lands may be obtained by contacting the Division of Mineral Resources.

Some 2010 highlights pertaining to state land leasing include:

- State acreage currently under lease remained relatively unchanged at 63,677 acres in 2010. One non-competitive lease was finalized in 2010.
- Revenue from oil and gas leases on state lands totaled over \$746,133 in 2010, down from \$790,486 in 2009. The lack of a lease sale to generate bonus bids as well as declining production from state land wells caused the decrease. New York's last competitive state land lease sale was held in 2006.
- Although nearly 59,000 acres of state land have been leased since 1999, only 37 of these acres have been disturbed by well drilling, access road and pipeline construction. No wells have been drilled on the lands leased in 2006, although there was minor surface disturbance on a few parcels due to seismic data acquisition.
- Unless lessees commence drilling activities on the 2006 lease sale parcels, 19,227 acres will expire on November 15, 2011.

State Acreage Under Lease

Under the authority contained in Article 23, the New York State Oil, Gas and Solution Mining Law, the DEC acts as leasing agent for State Reforestation Areas, Multiple Use Areas, Wildlife Management Areas and other state lands such as Department of Transportation rights-of-way. The Department has had an active leasing program since the 1960's and some current state leases date back to 1977.

As of year-end 2010, state acreage leased for oil and gas development totaled 63,677 acres in 94 leases, an increase of one acre from the 2009 year-end total. One non-competitive leases for land in Chemung County was finalized. Approximately one-third of the state acreage under lease is in five-year primary terms and the state is due delay rentals. Delay rentals are yearly payments, typically five dollars per acre per lease. If the five year primary term of a lease ends without a well establishing production, the lease expires and oil and gas development rights return to the State.

If the lessee drills a well before the expiration of the lease and discovers and produces hydrocarbons, the lease enters its secondary term. The secondary term lasts as long as commercial amounts of hydrocarbons are produced from the leased tract. Delay rentals are no longer due but the State receives a percentage share of the proceeds from the sale of production, free of the costs of production. The current percentage share, or royalty, is one-eighth or 12.5% of gross production revenue.

After commercial production from all wells on a lease ceases, the lands utilized during the production phase are reclaimed to Department standards by the operator and the lease is terminated.

At year-end 2010, there were 32,537 state acres in 63 leases in their secondary terms. The State's royalty revenue was derived from these leases.

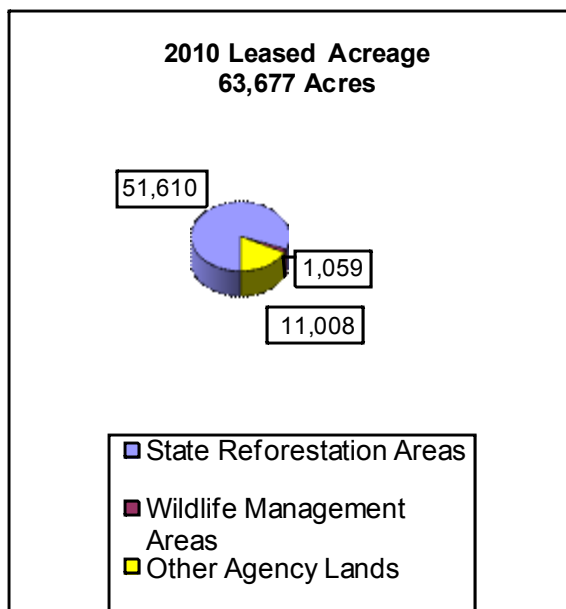


Figure 1. State leases by type and lease status.

| Acres Under Lease and Lease Status at Year-End 2010 | |
|---|---------------|
| State Reforestation Areas | |
| Delay Rental | 19,227 |
| Royalty | 30,192 |
| Storage | 2,191 |
| Wildlife Management Areas | |
| Delay Rental | 0 |
| Royalty | 1,004 |
| Storage | 55 |
| Other Agency Lands | |
| Delay Rental | 0 |
| Royalty | 1,342 |
| Storage | 9,666 |
| Total | 63,677 |

| 2010 Leasing Summary by County | | | | | | | | | |
|--------------------------------|---------------|---------------|---------------|---------------|--|------------------|-----------|-----------|-----------|
| Amount of Acres Leased | | | | | | Number of Leases | | | |
| County | Rental | Royalty | Storage | Total | | Rental | Royalty | Storage | Total |
| Allegany | | 126 | | 126 | | | 1 | | 1 |
| Broome | 512 | | | 512 | | 1 | | | 1 |
| Cattaraugus | | 62 | 9,981 | 10,043 | | | 2 | 8 | 10 |
| Cayuga | | 62 | | 62 | | | 4 | | 4 |
| Chautauqua | | 15,715 | | 15,715 | | | 29 | | 29 |
| Chemung | 730 | 667 | | 1,396 | | 3 | 10 | | 13 |
| Cortland | 7,791 | | | 7,791 | | 4 | | | 4 |
| Erie | | 10 | 255 | 265 | | | 2 | 2 | 4 |
| Ontario | | | 55 | 55 | | | | 1 | 1 |
| Schuylar | 2,416 | 10,019 | 1 | 12,436 | | 1 | 6 | 1 | 8 |
| Seneca | | 17 | | 17 | | | 1 | | 1 |
| Steuben | 685 | 5,859 | 1,620 | 8,164 | | 1 | 8 | 2 | 11 |
| Tioga | 6,179 | | | 6,179 | | 6 | | | 6 |
| Tompkins | 915 | | | 915 | | 1 | | | 1 |
| | | | | | | | | | |
| Total | 19,228 | 32,537 | 11,912 | 63,677 | | 17 | 63 | 14 | 94 |

Figure 2. Tabulation of leases by location, acres leased and status. The amount of state acres leased in each county and the lease status of these acres is detailed on the left. The number of active state leases in each county and their status is detailed on the right.

Several companies purchase and inject natural gas into depleted gas fields or caverns dissolved in salt beds in New York to balance seasonal differences in gas supply and demand. New York's gas storage fields also supply gas to meet short term peak demand.

State lands may be used for such storage projects when a storage lease is granted by the State. The

State receives yearly rental fees from storage fields under state lands and additional fees based on the volumes of natural gas injected and withdrawn during a given year.

The year-end 2010 total of acreage under storage leases was 11,912, the same as the previous year.

2010 Leasing Revenue Results

Total revenues in 2010 decreased to \$746,133 from \$790,486 in 2009 due to declining Trenton-Black River production from existing wells. No new wells have been drilled on state land and no state land lease sales have been held since 2006. In 2007, the state posted \$8.9 million in bonus bids from the 2006 sale.

Royalties are dependent on drilling and production and are the on-going source of leasing revenues given that lease sales are not held annually. The upswing in royalty revenue between 2001 and 2005 was attributable to production from the Trenton-Black River play in the central part of the State and to the leasing of state lands in the play area in 1999, 2003 and 2006.

The State began receiving Trenton-Black River royalties from the first well on these lands in 2000 and royalty revenue sharply increased as more wells were completed with state lands in producing units (Figure 3 below and Figure 4). As of year-end 2010, the State was receiving royalties from 30 Trenton-Black River wells.

Royalty revenue for 2010 was approximately \$581,824, a decrease of \$55,176 from 2009. Decreasing natural gas production from some of the older Trenton-Black River wells contributed the decline first seen in 2006.

Since the State first began receiving Trenton-Black River royalties in 2001, yearly royalty revenue increased from \$75,000 to over \$3 million in both 2005 and 2006. Larger royalty decreases occurred from 2008 to 2009 as Trenton-Black River production continued its decline. Total Trenton-Black River royalties at year-end 2010 were \$12.4 million.

Royalties are also paid on wells producing from the Medina sandstone in Chautauqua County but these are low volume wells in comparison to the Trenton wells. Industry interest in the Marcellus and Utica shale formations in south-central New York remains relatively low due to the state's moratorium on wells which propose to utilize high-volume hydraulic fracturing.

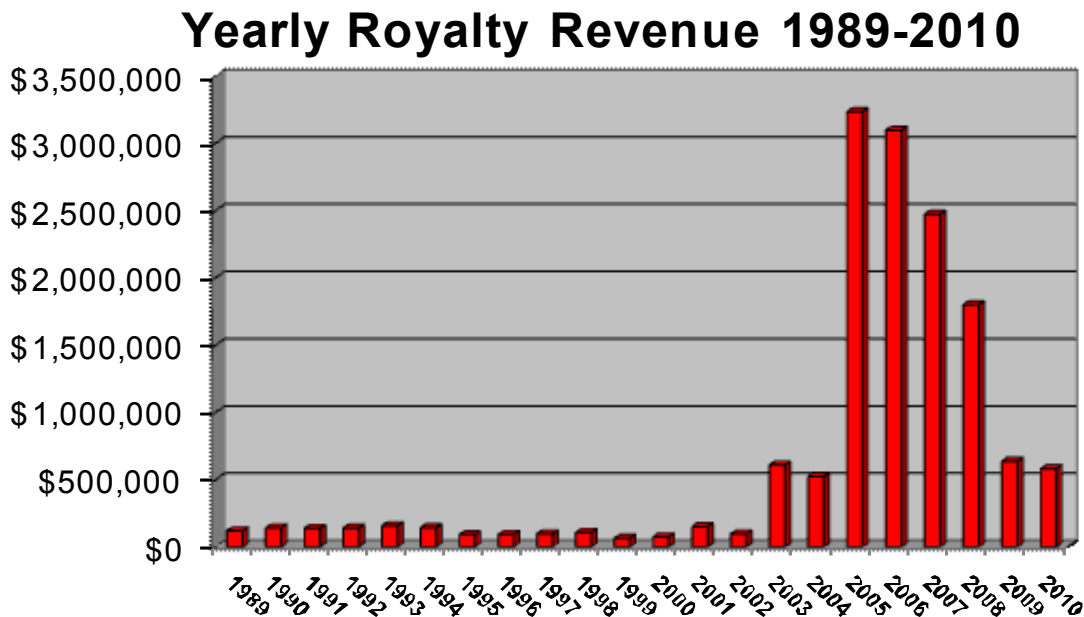


Figure 3. Royalty revenue received by the State from oil and gas production on state lands. The State receives one-eighth of the revenue generated by wells on state lands, in the proportion that state acreage comprises the producing unit.

| Leasing Revenue By Payment Type 1988-2010 | | | | | |
|--|---------------------|----------------------|---------------------|---------------------|---------------------|
| Year | Bonus Bids | Delay Rentals | Royalties | Storage Fees | Yearly Total |
| 1988 | \$70,070 | \$9,646 | \$113,581 | \$34,249 | \$227,546 |
| 1989 | \$86,188 | \$10,337 | \$120,391 | \$29,104 | \$246,020 |
| 1990 | \$53,051 | \$20,647 | \$142,635 | \$43,610 | \$259,943 |
| 1991 | \$42,070 | \$33,490 | \$138,092 | \$42,972 | \$256,624 |
| 1992 | | \$39,578 | \$139,978 | \$28,542 | \$208,098 |
| 1993 | \$3,970 | \$37,812 | \$155,963 | \$37,950 | \$235,695 |
| 1994 | | \$12,285 | \$144,336 | \$33,019 | \$189,640 |
| 1995 | \$13,837 | \$4,574 | \$92,449 | \$32,809 | \$143,669 |
| 1996 | | \$3,595 | \$92,817 | \$47,180 | \$143,592 |
| 1997 | \$31,424 | \$4,006 | \$97,502 | \$35,096 | \$168,028 |
| 1998 | \$137,951 | 0 | \$107,789 | \$33,783 | \$279,523 |
| 1999 | \$3,027,580 | \$43,365 | \$65,771 | \$69,689 | \$3,206,405 |
| 2000 | | \$42,280 | \$75,327 | \$9,781 | \$127,388 |
| 2001 | | \$118,732 | \$150,922 | \$178,128 | \$447,782 |
| 2002 | | \$79,435 | \$96,620 | \$73,617 | \$249,672 |
| 2003 | \$4,583,239 | \$16,486 | \$609,821 | \$117,381 | \$5,326,927 |
| 2004 | | \$130,746 | \$525,050 | \$109,986 | \$765,782 |
| 2005 | | \$80,534 | \$3,235,206 | \$123,930 | \$3,439,670 |
| 2006 | | \$75,305 | \$3,096,620 | \$125,007 | \$3,296,932 |
| 2007 | \$9,001,335 | \$166,868 | \$2,466,312 | \$133,298 | \$11,767,812 |
| 2008 | | \$97,269 | \$1,866,519 | \$211,927 | \$2,175,715 |
| 2009 | | \$96,136 | \$637,254 | \$50,960 | \$790,486 |
| 2010 | \$2,922 | \$96,377 | \$581,824 | \$65,010 | \$746,133 |
| Total | \$17,053,637 | \$2,256,149 | \$14,752,779 | \$1,667,028 | \$34,699,083 |

Figure 4. Revenue generated from leasing of state lands for oil and gas development. Over 90% of the \$34.6 million has been received in the last twelve years.

Revenue for all leasing categories over the last 23 years is displayed in Figure 4. Leasing revenue for the period from 1988 to 1998 averaged approximately \$214,000 per year.

The average yearly revenue for the last twelve years has increased thirteen-fold to over \$2.69 million per year. The primary reasons for the increased revenue average are the large lease-sale bonuses in 1999, 2003 and 2006 and the royalty revenue from the Trenton-Black River wells on state land.

Delay rentals, the yearly fee for undeveloped state land, increased slightly in 2010.

Storage fees for natural gas storage fields on, or under, state land increased to \$65,010 in 2010 from \$50,960 in 2009. Most state storage lease fees are tied to the price of natural gas and, as the price of gas rises or falls, the fees due the State also increase or decrease accordingly.

| State Reforestation Area Lands in Producing Trenton-Black River Units | | | | | | |
|--|---------------------|------------------------------|--------------------|-------------------------|------------------------|--------------------------|
| State Land (year leased) | Well Name | State Acres Disturbed | Well Status | Gross Production | NYS Net Royalty | State Net Royalty |
| Chemung SRA 1 (1999) | Chemung SRA #1 | 1.5 | Producing | 4.28 BCF | 2.90% | \$752,800 |
| | Root #1 | 0 | Producing | 3.50 BCF | 0.36% | \$79,479 |
| | Hardy #1447A | 0 | Producing | 1.88 BCF | 2.80% | \$259,828 |
| Schuyler SRA 1 (1999) | Grand Prix#2 624066 | 7.7 | Producing | 3.58 BCF | 8.47% | \$2,512,200 |
| | Schuyler 1B | 5.7 | Shut-in | NA | TBD | \$0 |
| | Aletto | 1.01 | Producing | 0.67 BCF | 0.005% | \$28,703 |
| Schuyler SRA 2 (1999/2003) | SRA 2 #1 | 2.5 | Producing | 1.38 BCF | 11.55% | \$1,005,532 |
| | | | | | | |
| Steuben-Schuyler 1 (2003) | Frost #1 | 0 | Producing | 2.20 BCF | 5.80% | \$99,904 |
| | | | | | | |
| Steuben SRA 5 (1999) | Howe #1A | 0 | Producing | 9.30 BCF | 0.16% | \$84,607 |
| | Van Vleet #1 | 0 | Producing | 3.58 BCF | 1.00% | \$213,171 |
| Steuben SRA 7 (2003) | Swan #1 | 0 | Producing | 1.82 BCF | 5.20% | \$658,827 |
| | | | | | | |
| Steuben SRA 3 (2003) | SRA 3 #1 | 5 | Producing | 3.91 BCF | 7.70% | \$2,403,603 |
| | SRA 3 #2 | 3 | Producing | 3.81 BCF | 10.40% | \$3,446,365 |
| | Drumm #1 | 0 | Producing | 1.89 BCF | 0.02% | \$2,079 |
| | Grand Prix#2 624066 | 0 | Producing | NA | 0.57% | \$146,306 |
| | Frost #1 | 0 | Producing | NA | 0.14% | \$3,538 |
| Steuben SRA 14 (2003) | Behm #1 | 0 | Producing | 0.26 BCF | 7.22% | \$93,875 |
| Total | | 36.5 acres* | | 42.06 BCF | | \$11,790,817 |
| *includes acreage disturbed by dry holes & pipelines | | | | | | |

Figure 5. Numbers as of December 31, 2010

BCF = Billion Cubic Feet of gas

T/A = Temporarily Abandoned

TBD = To Be Determined

NA=Not Applicable

State Net Royalty= % of state lands in unit times 12.5%

Wells with DOT lands in the producing unit are excluded from this table.

Trenton-Black River gas production from state lands continued to comprise the bulk of leasing revenues (Figure 4). The State received royalties from 236 wells, 106 wells located on state lands and 130 wells unitized with state lands at the end of 2010. Royalties from 10 Trenton-Black River wells accounted for 84% of all royalties received in the last 12 years. Three of these 10 wells, the Grand Prix #2, Steuben SRA #3-1 and Steuben SRA #3-2 wells, were responsible for 71% of that revenue. These three wells had each been producing for less than 7 years.

As of year-end 2010, less than 37 acres of state land leased in the 1999, 2003 and 2006 lease sales had been disturbed by drill sites or gas pipelines (Figure 5). No wells had been drilled on the 2006 lease sale lands at year end 2010. The revenue per acre of disturbed land from these sales will continue to grow as the State receives additional royalty revenue from the already existing producing wells located on these lands.

Financial results from the last twelve years displayed in Figure 6 show that the Department received a majority of leasing revenue from guaranteed bonus income followed by substantial royalty revenue. Storage and delay rental revenues are significantly less.

The Department awards a lease to the company that submits the highest, sealed bonus bid, which reflects the winning bidder's pre-drilling evaluation of potential for oil and gas production. Lease bonuses are guaranteed income to the State.

Royalty revenue is only received if, and when, a well drilled on state land produces oil or gas. While royalty revenue from a well may ultimately yield more revenue than bonus income, exploration is a risky venture and there is no guarantee that any royalty revenue will be generated from a lease. Of the 32 leases awarded by the State in the 1999, 2003 and 2006 leases sales, only ten of these leases have had wells drilled on them or a portion of the acreage included in a producing unit.

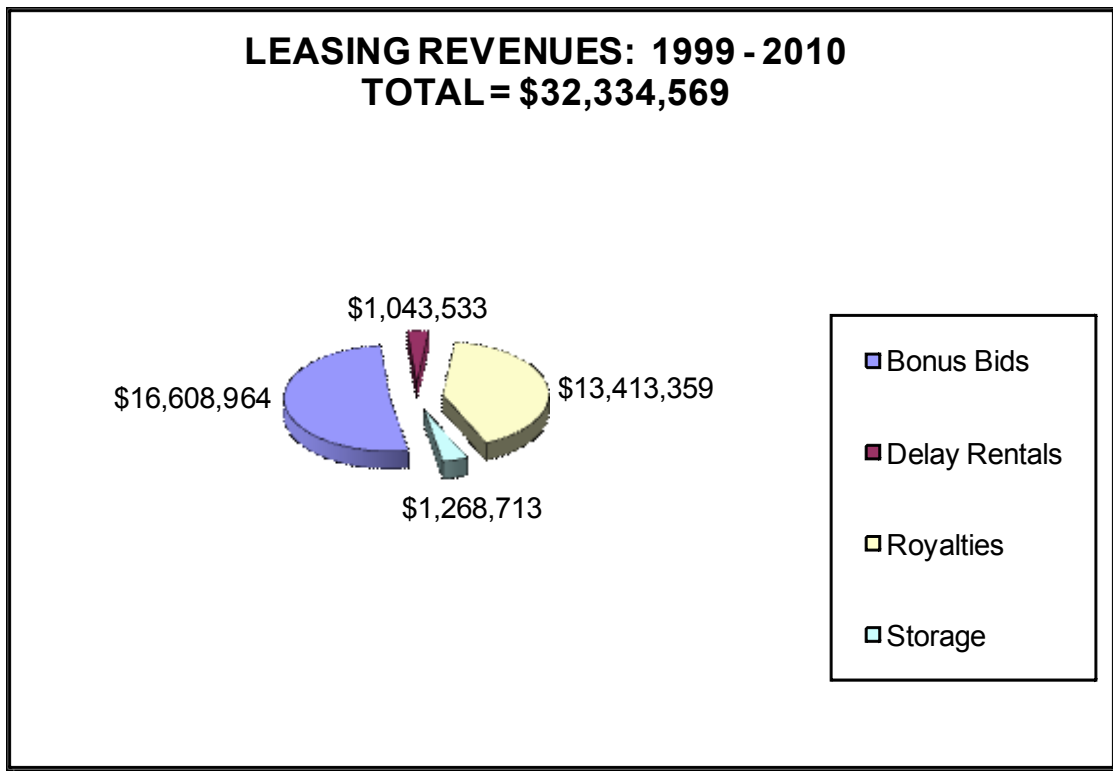


Figure 6. A summary of leasing revenue by type of payment for the last twelve years.