

# Domestic Uranium Production Report - Annual

Data for 2009

Report Date: July 1, 2010

Next Release Date: May 2011

## Drilling

U.S. uranium exploration drilling was 1,790 holes covering 1.1 million feet in 2009. Development drilling was 3,889 holes and 2.7 million feet. Combined, total uranium drilling was 5,679 holes covering 3.7 million feet. Expenditures for exploration activities were \$24 million in 2009, and \$35 million for drilling activities.

## Mining

U.S. uranium mines produced 4.1 million pounds  $U_3O_8$  in 2009, 7 percent more than in 2008. Fourteen underground mines produced ore containing uranium during 2009, four more than during 2008. Four in-situ-leach mining operations produced solutions containing uranium, two less than during 2008. Overall during part or all of 2009, there were 18 U.S. mines that produced uranium to be processed into uranium concentrate (a yellow or brown powder obtained by the milling of uranium ore or processing of in-situ-leach mining solutions).

## Production and Shipments

Total production of U.S. uranium concentrate (yellowcake) in 2009 was 3.7 million pounds  $U_3O_8$ , 5 percent below the 2008 level, from one U.S. mill (White Mesa Mill) and four in-situ-leach plants (Alta Mesa Project, Crow Butte Operation, Kingsville Dome, and Smith Ranch-Highland Operation). All but one were in production for the entire year. Kingsville Dome produced uranium concentrate during the first half of 2009. Shipments of uranium concentrate from these facilities were 3.6 million pounds  $U_3O_8$  in 2009, 12 percent below the 2008 level.

## Facilities

At the end of 2009, one U.S. uranium mill was operating with a capacity of 2,000 short tons of ore per day. Three other existing U.S. mills with a total capacity of 4,150 short tons of ore per day were on standby. There was one planned mill under development.

Three U.S. uranium in-situ-leach plants were operating at the end of 2009, with a combined capacity of 7.5 million pounds  $U_3O_8$  per year. Six other existing U.S. in-situ-leach plants with a total capacity of 4.2 million pounds  $U_3O_8$  per year were on standby or permitted and licensed. There were eight planned in-situ-leach plants under development or partially permitted and licensed.

## Employment

Total employment in the U.S. uranium production industry was 1,096 person-years for 2009, a decrease of 30 percent from the 2008 total. Exploration employment decreased the most (62 percent). Uranium mining, milling and processing employment decreased 20 percent, while reclamation employment rose 5 percent from 2008 to 2009. Eight States (Arizona, Colorado, Nebraska, New Mexico, Texas, Utah, Washington and Wyoming) accounted for 99 percent of total employment of the uranium production industry in 2009.

## **Expenditures**

Total expenditures for land, exploration, drilling, production, and reclamation were \$281 million in 2009, 40 percent less than in 2008. Expenditures on U.S. uranium production, including facility expenses, were the largest category of expenditures at \$141 million in 2009, down 36 percent from 2008. Uranium exploration and drilling expenditures decreased 55 percent from 2008 to 2009. Expenditures for land were \$17 million, a 73 percent decrease compared with 2008.

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**Table 1. U.S. Uranium Drilling Activities, 2003-2009**

Year	Exploration Drilling		Development Drilling		Exploration and Development Drilling	
	Number of Holes	Feet (thousand)	Number of Holes	Feet (thousand)	Number of Holes	Feet (thousand)
2003	NA	NA	NA	NA	W	W
2004	W	W	W	W	2,185	1,249
2005	W	W	W	W	3,143	1,668
2006	1,473	821	3,430	1,892	4,903	2,713
2007	4,351	2,200	4,996	2,946	9,347	5,146
2008	5,198	2,543	4,157	2,551	9,355	5,093
2009	1,790	1,051	3,889	2,691	5,679	3,742

NA = Not available.

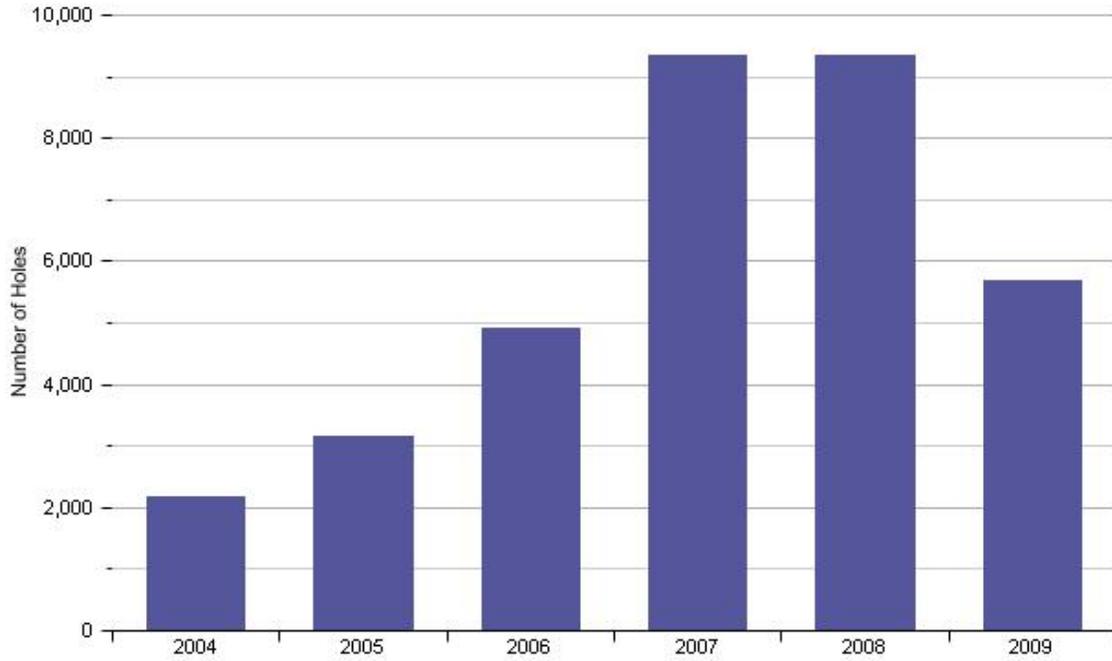
W = Data withheld to avoid disclosure of individual company data.

Note: Totals may not equal sum of components because of independent rounding.

Source: U.S. Energy Information Administration: Form EIA-851A, "Domestic Uranium Production Report" (2003-2009).

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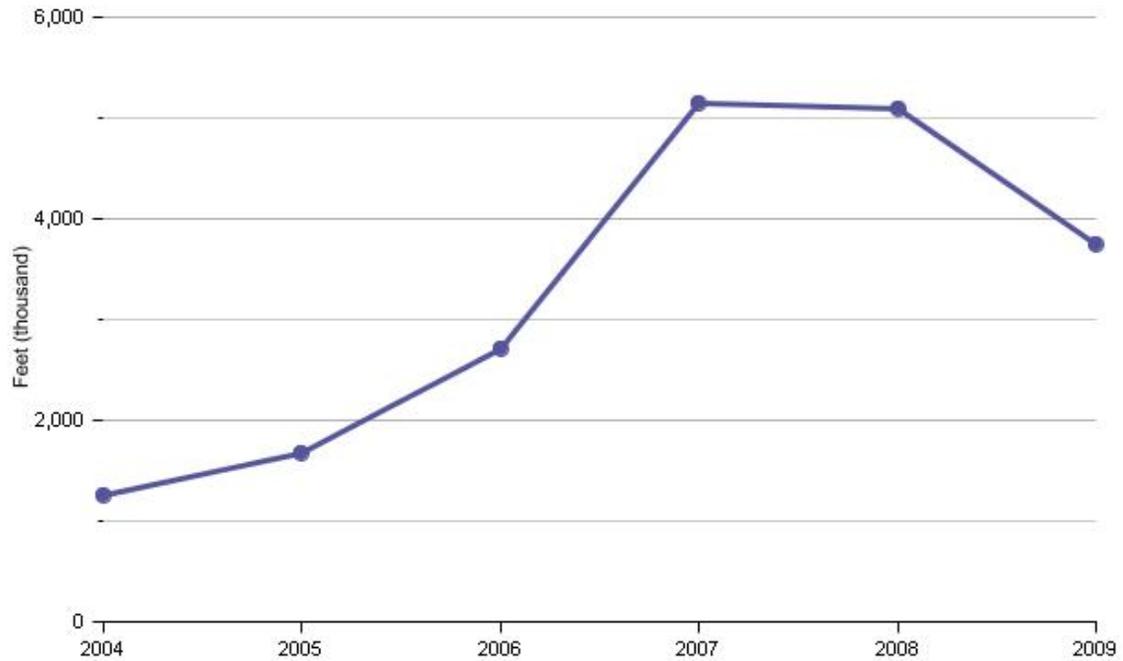
**Figure 1. U.S. Uranium Drilling by Number of Holes, 2004-2009**



Source: U.S. Energy Information Administration: Form EIA-851A, "Domestic Uranium Production Report" (2004-2009).

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**Figure 2. U.S. Uranium Drilling in Footage, 2004-2009**



Source: U.S. Energy Information Administration: Form EIA-851A, "Domestic Uranium Production Report" (2004-2009).

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**Table 2. U.S. Uranium Mine Production and Number of Mines and Sources, 2003-2009**

<b>Production / Mining Method</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Underground (estimated contained thousand pounds U <sub>3</sub> O <sub>8</sub> )	W	W	W	W	W	W	W
Open Pit (estimated contained thousand pounds U <sub>3</sub> O <sub>8</sub> )	0	0	0	0	0	0	0
In Situ Leaching (thousand pounds U <sub>3</sub> O <sub>8</sub> )	W	W	2,681	4,259	W	W	W
Other <sup>1</sup> (thousand pounds U <sub>3</sub> O <sub>8</sub> )	W	W	W	W	W	W	W
<b>Total Mine Production</b> (thousand pounds U <sub>3</sub> O <sub>8</sub> )	<b>E2,200</b>	<b>2,452</b>	<b>3,045</b>	<b>4,692</b>	<b>4,541</b>	<b>3,879</b>	<b>4,145</b>
<b>Number of Mines Operated</b>							
Underground	1	2	4	5	6	10	14
Open Pit	0	0	0	0	0	0	0
In Situ Leaching	2	3	4	5	5	6	4
Other Sources <sup>1</sup>	1	1	2	1	1	1	2
<b>Total Mines and Sources</b>	<b>4</b>	<b>6</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>17</b>	<b>20</b>

<sup>1</sup> Other includes, in various years, mine water, mill site cleanup and mill tailings, and well field restoration as sources of uranium.

E = Estimated data.

W = Data withheld to avoid disclosure of individual company data.

Notes: Totals may not equal sum of components because of independent rounding. Table does not include byproduct production and sources. The 2003 annual production amount was estimated by rounding to the nearest 200,000 pounds to avoid disclosure of individual company data.

Source: U.S. Energy Information Administration: Form EIA-851A, "Domestic Uranium Production Report" (2003-2009).

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**Table 3. U.S. Uranium Concentrate Production and Shipments, 2003-2009**

Activity at U.S. Mills and In-Situ-Leach Plants	2003	2004	2005	2006	2007	2008	2009
<b>Estimated contained U<sub>3</sub>O<sub>8</sub> (thousand pounds)</b>							
Ore from Mines and Stockpiles Fed to Mills <sup>1</sup>	0	W	W	W	0	W	W
Other Feed Materials <sup>2</sup>	W	W	W	W	W	W	W
<b>Total Mill Feed</b>	<b>W</b>						
<b>Uranium Concentrate Produced at U.S. Mills</b>							
(thousand pounds U <sub>3</sub> O <sub>8</sub> )	W	W	W	W	W	W	W
<b>Uranium Concentrate Produced at U.S. In-Situ-Leach Plants</b>							
(thousand pounds U <sub>3</sub> O <sub>8</sub> )	W	W	W	W	W	W	W
<b>Total Uranium Concentrate Production</b>							
(thousand pounds U <sub>3</sub> O <sub>8</sub> )	E2,000	2,282	2,689	4,106	4,534	3,902	3,708
<b>Total Uranium Concentrate Shipped From U.S. Mills and In-Situ-Leach Plants</b>							
(thousand pounds U <sub>3</sub> O <sub>8</sub> )	E1,600	2,280	2,702	3,838	4,050	4,130	3,620

<sup>1</sup> Uranium ore "fed to mills" in any year can include: ore mined and shipped to a mill during the same year, ore that was mined during a prior year and later shipped from mine-site stockpiles, and/or ore obtained from drawdowns of stockpiles maintained at a mill site.

<sup>2</sup> Includes for various years uranium from mill cleanup, mine water, tailings water, and other materials.

E = Estimated data.

W = Data withheld to avoid disclosure of individual company data.

Notes: The 2003 annual amounts were estimated by rounding to the nearest 200,000 pounds to avoid disclosure of individual company data. Totals may not equal sum of components because of independent rounding.

Source: U.S. Energy Information Administration: Form EIA-851A, "Domestic Uranium Production Report" (2003-2009).

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**Table 4. U.S. Uranium Mills by Owner, Capacity, and Operating Status at End of the Year, 2005-2009**

Mill Owner	Mill Name	Milling Capacity (short tons of ore per day)	Operating Status at End of the Year				
			2005	2006	2007	2008	2009
Cotter Corporation	Canon City Mill	400	Operating	Standby	Standby	Standby	Standby
Denison White Mesa L.L.C.	White Mesa Mill	2,000	Operating-Processing Alternate Feed	Operating-Processing Alternate Feed	Operating-Processing Alternate Feed	Operating	Operating
Energy Fuels Resources Corp.	Piñon Ridge Mill	500	-	-	-	Developing	Developing
Kennecott Uranium Company/Wyoming Coal Resource Company	Sweetwater Uranium Project	3,000	Standby	Standby	Standby	Standby	Standby
Uranium One Exploration U.S.A. Inc	Shootaring Canyon Uranium Mill	750	Reclamation	Standby	Changing License To Operational	Changing License To Operational	Standby
<b>Total Milling Capacity</b>		<b>6,650</b>					

- = No data reported.

Notes: Milling capacity for 2009. An operating status of "operating" usually indicates the mill was producing uranium concentrate at the end of the year.

Source: U.S. Energy Information Administration: Form EIA-851A, "Domestic Uranium Production Report" (2005-2009).

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**Table 5. U.S. Uranium In-Situ-Leach Plants by Owner, Capacity, and Operating Status at End of the Year, 2005-2009**

In-Situ-Leach Plant Owner	In-Situ-Leach Plant Name	Production Capacity (pounds U <sub>3</sub> O <sub>8</sub> per year)	Operating Status at End of the Year				
			2005	2006	2007	2008	2009
COGEMA Mining, Inc.	Christensen Ranch	650,000	Reclamation	Reclamation	Changing License To Operational	Standby	Standby
COGEMA Mining, Inc.	Irigaray Ranch	-	Reclamation	Reclamation	Inactive	Standby	Standby
COGEMA Mining, Inc.	Texas Operations	-	Reclamation	Reclamation	Reclamation	Reclamation	Reclamation
Cameco Corporation	Crow Butte Operation	1,000,000	Operating	Operating	Operating	Operating	Operating
HRI, Inc.	Church Rock	1,000,000	Permitted And Licensed	Partially Permitted And Licensed	Partially Permitted And Licensed	Partially Permitted And Licensed	Partially Permitted And Licensed
HRI, Inc.	Crownpoint	1,000,000	Partially Permitted And Licensed	Partially Permitted And Licensed	Partially Permitted And Licensed	Partially Permitted And Licensed	Partially Permitted And Licensed
Lost Creek ISR LLC	Lost Creek Project	2,000,000	-	-	-	Developing	Developing
Mestefia Uranium LLC	Alta Mesa Project	1,000,000	Operational	Operational	Producing	Producing	Producing
Power Resources, Inc. dba Cameco Resources	Smith Ranch-Highland Operation	5,500,000	Operating	Operating	Operating	Operating	Operating
Powertech Uranium Corp.	Centennial Project	-	-	-	-	Undeveloped	Undeveloped
Powertech Uranium Corp.	Dewey Burdock Project	-	-	-	-	Undeveloped	Undeveloped
South Texas Mining Venture, LLP	Hobson ISR Plant	1,000,000	Standby	Standby	Under Construction	Permitted And Licensed	Permitted And Licensed
South Texas Mining Venture,LLP	La Palangana	500,000	-	Developing	Partially Permitted And Licensed	Partially Permitted And Licensed	Permitted And Licensed
URI, Inc.	Kingsville Dome	1,000,000	Standby	Operational	Producing	Producing	Standby
URI, Inc.	Rosita	1,000,000	Standby	Standby	Standby	Standby	Standby
URI, Inc.	Vasquez	800,000	Producing	Producing	Producing	Restoration	Restoration
Uranerz Energy Corporation	Nichols Ranch ISR Project	-	-	-	-	Developing	Developing
Uranium Energy Corporation	Goliad ISR Uranium Project	1,000,000	-	-	-	Partially Permitted And Licensed	Partially Permitted And Licensed
Uranium Energy Corporation	Nichols Project	500,000	-	-	-	Developing	Developing
Uranium One Americas, Inc.	Jab and Antelope	2,000,000	-	-	-	Developing	Developing
Uranium One Americas, Inc.	Moore Ranch	500,000	-	-	-	Developing	Partially Permitted And Licensed
<b>Total Production Capacity</b>		<b>20,450,000</b>					

- = No data reported.

Notes: Production capacity for 2009. An operating status of "operating" and "operational" usually indicates the in-situ-leach plant was producing uranium concentrate at the end of the year.

Source: U.S. Energy Information Administration: Form EIA-851A, "Domestic Uranium Production Report" (2005-2009).

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**Table 6. Employment in the U.S. Uranium Production Industry by Category, 2003-2009  
 (Person-Years)**

Year	Employment Categories					Total
	Exploration	Mining	Milling	Processing	Reclamation	
2003	W	W	W	W	117	<b>321</b>
2004	18	108	W	W	121	<b>420</b>
2005	79	149	142	154	124	<b>648</b>
2006	188	121	W	W	155	<b>755</b>
2007	375	378	107	216	155	<b>1,231</b>
2008	457	558	W	W	154	<b>1,563</b>
2009	175	441	W	W	162	<b>1,096</b>

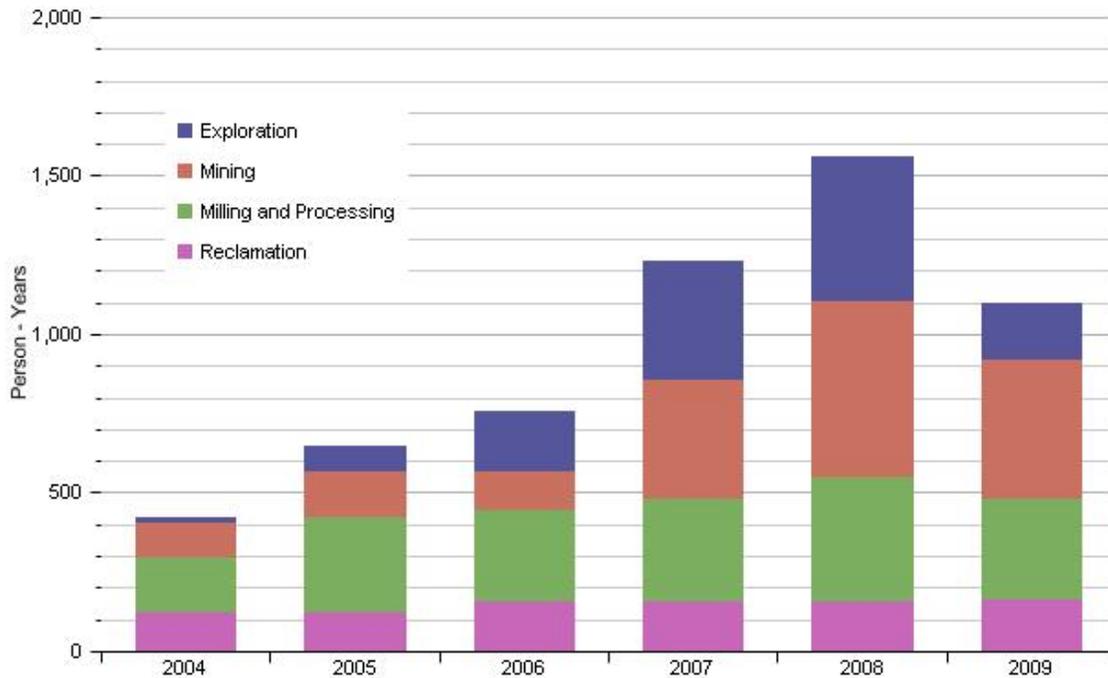
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**Table 7. Employment in the U.S. Uranium Production Industry by State, 2003-2009  
 (Person-Years)**

<b>State(s)</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Wyoming	134	139	181	195	245	301	308
Colorado and Texas	48	140	269	263	557	696	340
Nebraska and New Mexico	92	102	123	160	149	160	159
Arizona, Utah and Washington	47	40	75	120	245	360	273
Alaska, Michigan, Nevada, and South Dakota	0	0	0	16	25	30	W
Other	0	0	0	0	9	17	W
<b>Total</b>	<b>321</b>	<b>420</b>	<b>648</b>	<b>755</b>	<b>1,231</b>	<b>1,563</b>	<b>1,096</b>

W = Data withheld to avoid disclosure of individual company data.

Notes: Totals may not equal sum of components because of independent rounding. Other includes Montana, North Dakota, Oklahoma and Virginia.

Source: U.S. Energy Information Administration: Form EIA-851A, "Domestic Uranium Production Report" (2003-2009).

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**Table 8. U.S. Uranium Expenditures, 2003-2009  
 (Million Dollars)**

Year	Drilling	Production	Land and Other				Total Expenditures
			Total Land and Other	Land	Exploration	Reclamation	
2003	W	W	31.3	NA	NA	NA	W
2004	10.6	27.8	48.4	NA	NA	NA	86.9
2005	18.1	58.2	59.7	NA	NA	NA	136.0
2006	40.1	65.9	115.2	41.0	23.3	50.9	221.2
2007	67.5	90.4	178.2	77.7	50.3	50.2	336.2
2008	81.9	221.2	164.4	65.2	50.2	49.1	467.6
2009	35.4	141.0	104.0	17.3	24.2	62.4	280.5

Drilling: All expenditures directly associated with exploration and development drilling.

Production: All expenditures for mining, milling, processing of uranium, and facility expense.

Land and Other: All expenditures for land; geological research; geochemical and geophysical surveys; costs incurred by field personnel in the course of exploration, reclamation and restoration work; and overhead and administrative charges directly associated with supervising and supporting field activities.

NA = Not available.

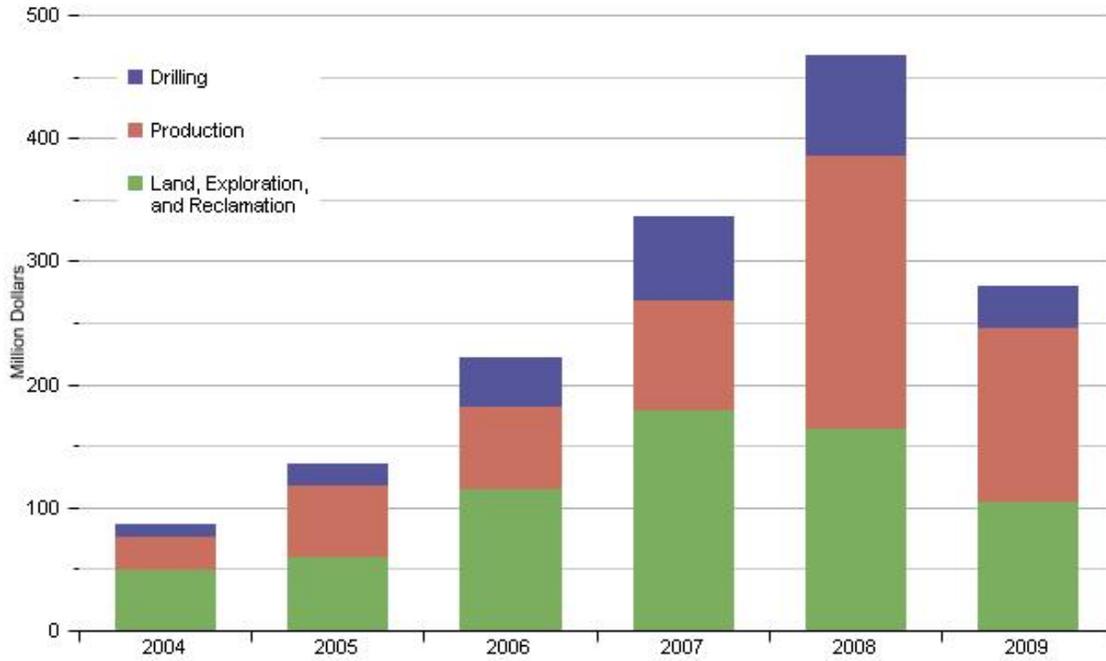
W = Data withheld to avoid disclosure of individual company data.

Notes: Expenditures are in nominal U.S. dollars. Totals may not equal sum of components because of independent rounding.

Source: U.S. Energy Information Administration: Form EIA-851A, "Domestic Uranium Production Report" (2003-2009).

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**Figure 4. U.S. Uranium Expenditures, 2004-2009**



Source: U.S. Energy Information Administration: Form EIA-851A, "Domestic Uranium Production Report" (2004-2009).

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**Table 9. Summary Production Statistics of the U.S. Uranium Industry, 1993-2009**

Item	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	E2003	2004	2005	2006	2007	2008	2009
<b>Exploration and Development</b>																	
Surface Drilling (million feet)	1.1	0.7	1.3	3.0	4.9	4.6	2.5	1.0	0.7	W	W	1.2	1.7	2.7	5.1	5.1	3.7
Drilling Expenditures (million dollars) <sup>1</sup>	5.7	1.1	2.6	7.2	20.0	18.1	7.9	5.6	2.7	W	W	10.6	18.1	40.1	67.5	81.9	35.4
<b>Mine Production of Uranium</b>																	
(million pounds U <sub>3</sub> O <sub>8</sub> )	2.1	2.5	3.5	4.7	4.7	4.8	4.5	3.1	2.6	2.4	2.2	2.5	3.0	4.7	4.5	3.9	4.1
<b>Uranium Concentrate Production</b>																	
(million pounds U <sub>3</sub> O <sub>8</sub> )	3.1	3.4	6.0	6.3	5.6	4.7	4.6	4.0	2.6	2.3	2.0	2.3	2.7	4.1	4.5	3.9	3.7
<b>Uranium Concentrate Shipments</b>																	
(million pounds U <sub>3</sub> O <sub>8</sub> )	3.4	6.3	5.5	6.0	5.8	4.9	5.5	3.2	2.2	3.8	1.6	2.3	2.7	3.8	4.0	4.1	3.6
<b>Employment</b>																	
(person-years)	871	980	1,107	1,118	1,097	1,120	848	627	423	426	321	420	648	755	1,231	1,563	1,096

<sup>1</sup> Expenditures are in nominal U.S. dollars.

E = Estimated data.

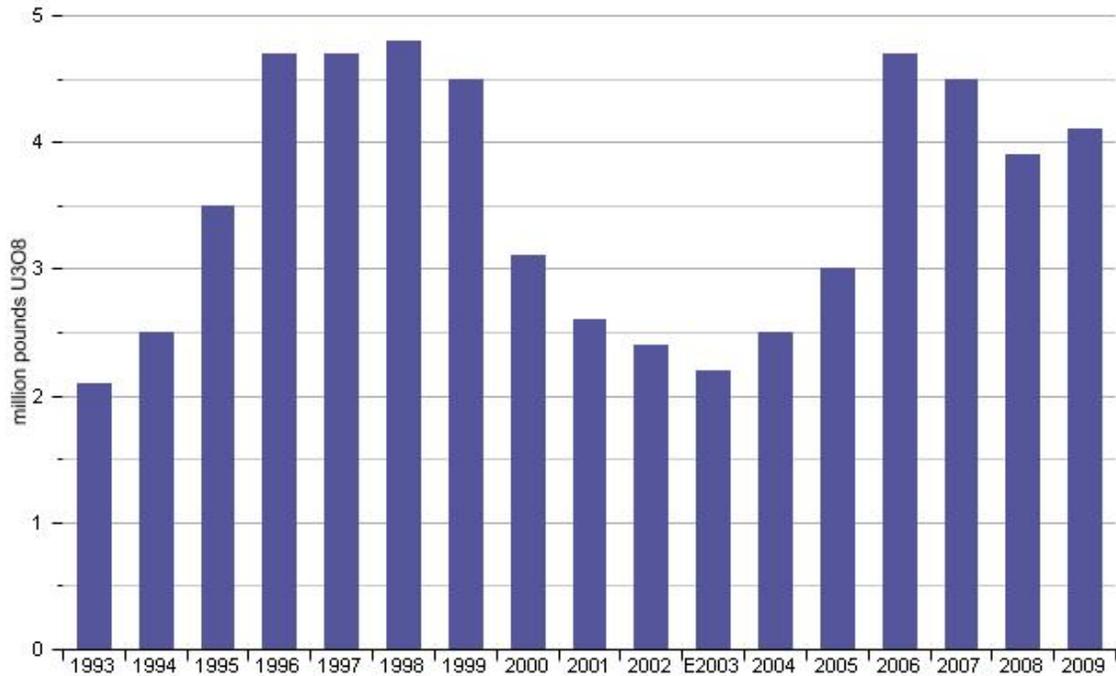
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Note: The 2003 annual production and shipment amounts were estimated by rounding to the nearest 200,000 pounds to avoid disclosure of individual company data.

Source: U.S. Energy Information Administration: 1993-2002-Uranium Industry Annual 2002 (May 2003), Table H1 and Table 2. 2003-2009-Form EIA-851A, "Domestic Uranium Production Report" (2003-2009).

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**Figure 5. U.S. Mine Production of Uranium, 1993-2009**

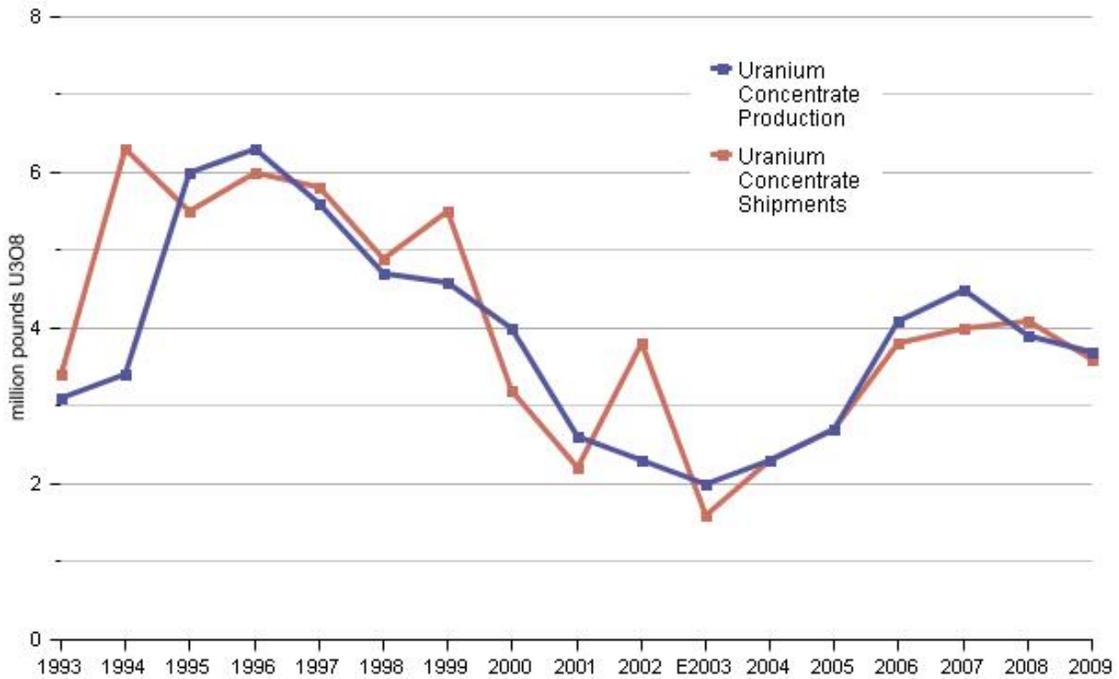


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**Figure 6. U.S. Uranium Concentrate Production and Shipments, 1993-2009**

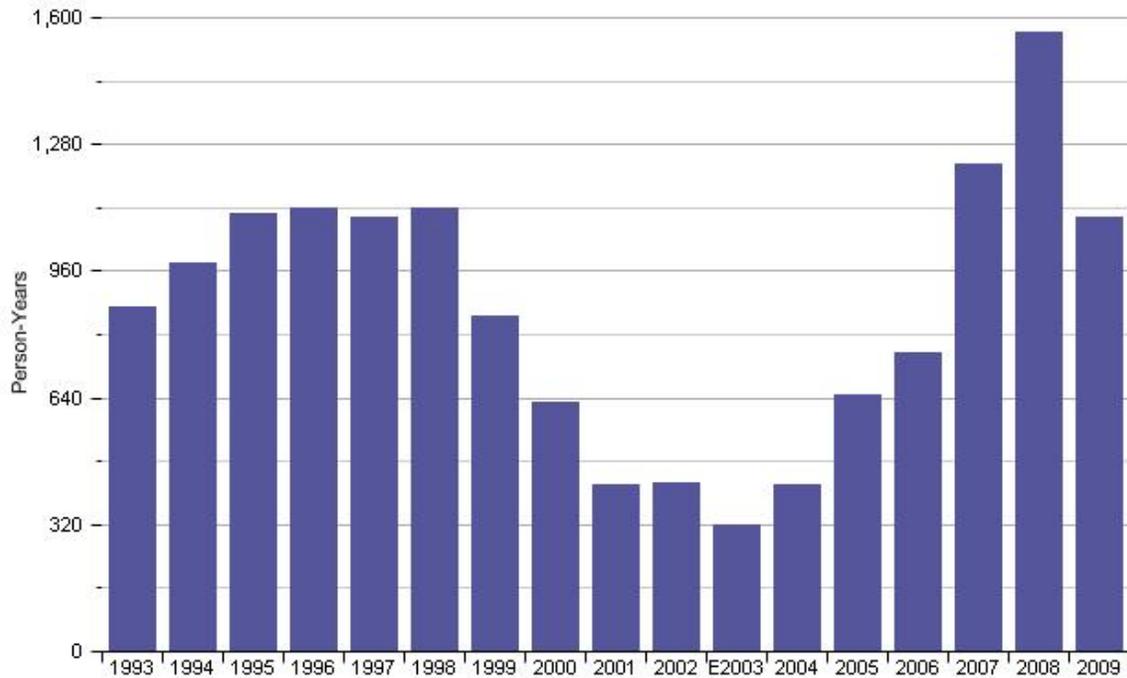


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**Figure 7. Employment in the U.S. Production Industry, 1993-2009**



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