



**REPORT OF**

**THE**

**STATE AUDITOR**

**Severance Tax**  
**Department of Revenue**  
**Department of Natural Resources**

**Performance Audit**  
**June 2006**

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Members of the Legislative Audit Committee:

This report contains the results of a performance audit of the State's severance tax system. The audit was conducted pursuant to Section 2-3-103, C.R.S., which authorizes the State Auditor to conduct audits of all departments, institutions, and agencies of state government. The report presents our findings, conclusions, and recommendations, and the responses of the Department of Revenue and the Colorado Oil and Gas Conservation Commission.

A handwritten signature in black ink that reads "Sally Symanski".

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## TABLE OF CONTENTS

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	PAGE
<b>Report Summary</b> .....	1
Recommendation Locator .....	5
<b>Overview of Colorado’s Severance Tax</b> .....	7
<b>Chapter 1: Severance Tax Collection</b> .....	19
Production Measurement .....	20
Taxpayer Identification .....	24
Audit Coverage .....	27
Audit Work Plan .....	29
Audit Resources .....	31
<b>Chapter 2: Severance Tax Policy</b> .....	37
Severance Tax Structure .....	38
Oil and Gas .....	39
Coal .....	42
Policy Areas .....	43
<b>Appendix A - Colorado Severance Tax Rates By Mineral</b> .....	A-1
<b>Appendix B - Severance Tax Collections By State</b> .....	B-1
<b>Appendix C - Disposition of Prior Audit Recommendations</b> .....	C-1



## Severance Tax Performance Audit, June 2006

### Authority, Purpose, and Scope

This performance audit was conducted pursuant to Section 2-3-103, C.R.S., which authorizes the Office of the State Auditor to conduct performance audits of all departments, institutions, and agencies of the state government. The audit work, performed from February through June 2006, was conducted in accordance with generally accepted government auditing standards.

The purpose of the audit was to review the State's activities related to accurately determining and collecting all severance taxes owed to the State. We evaluated the processes used by the Department of Revenue and the Department of Natural Resources to ensure oil and gas production is accurately measured and severance taxes are accurately reported and collected. Specific areas of focus included the Department of Revenue's: (1) process for identifying all severance taxpayers, (2) audit coverage and selection methodology, (3) severance tax audit work plans, and (4) use and allocation of auditing resources.

### Overview

In 1977 Colorado adopted a severance tax on oil and gas, coal, metallic minerals, molybdenum ore, and oil shale. By statute, Colorado's severance tax is intended to recapture a portion of the wealth irretrievably lost when these nonrenewable natural resources are removed from the earth. According to Department of Revenue data, the State has collected almost \$950 million in severance tax revenue since the tax became effective. The State collected more than one-quarter of this total, or \$263 million, in the last two Fiscal Years—2004 and 2005. The Colorado Legislative Council expects severance tax collections to peak at almost \$242 million dollars in Fiscal Year 2006. Severance tax revenue from oil and gas production represents the majority of total severance tax collections and is the primary reason for the significant increase in severance tax collections from Fiscal Year 2000 to Fiscal Year 2005.

Revenue from severance taxes is deposited equally into two statutorily created funds. Of the total revenue realized from severance taxes, one-half is credited to the Severance Tax Trust Fund and one-half is credited to the Local Government Severance Tax Fund. By statute, monies in the Severance Tax Trust Fund are to be used for loans for water projects and for natural resource planning, management, and development programs in the Colorado Oil and Gas Conservation Commission, Colorado Geological Survey, Division of Minerals and Geology, and the Colorado

Water Conservation Board. Monies in the Local Government Severance Tax Fund are distributed to counties or municipalities in which mineral production employees live and to local governments to address the social or economic impacts from mineral production.

Colorado, like other western states, is experiencing a boom in the energy sector of its mineral industry. According to the Colorado Geological Survey, the energy industry benefits from a “win-win” scenario. That is, production of oil and natural gas continues to increase as prices for those commodities rise. Based on U.S. Department of Energy data, in 2004, Colorado ranked 11th among all states in oil production and 7th in natural gas production. Colorado’s coal, metallic minerals, and molybdenum ore industries have also enjoyed success in recent years.

Five state departments and Colorado’s 64 counties play a role in the regulation of the mineral industry, and the collection, administration and distribution of severance taxes. Most significantly, the Department of Revenue is responsible for collecting severance taxes and for enforcing the State’s tax laws. The Department’s Mineral Audit Program (Mineral Audits), is responsible for auditing taxpayers who have severance tax liabilities. Also, the Colorado Oil and Gas Conservation Commission and the Division of Minerals and Geology, both organizationally located within the Colorado Department of Natural Resources, regulate the mineral industries operating in Colorado and collect important production data.

## **Summary of Audit Comments**

### **Severance Tax Collection**

There are approximately 30,000 active oil and gas wells in Colorado. In Calendar Year 2005 the Colorado Oil and Gas Conservation Commission received more than 5,200 applications for new drilling permits. This figure represents a 58 percent increase from the applications received by the Commission in the prior year. Correspondingly, severance tax revenue collected by the State has increased significantly. As the level of drilling and other mineral production activity increases, so does the State’s need to ensure the adequacy of its controls over severance tax reporting and collection. We evaluated the State’s processes for ensuring mineral production data are accurately reported and severance taxes are adequately audited. We found:

- **Neither the Department of Revenue nor the Colorado Oil and Gas Conservation Commission have adopted adequate controls to ensure the accuracy of oil and gas production data.** We found that, unlike other states and the federal government, Colorado does not directly or indirectly inspect or verify the accuracy of metering instruments used by oil and gas producers. The severance taxes owed by mineral producers and royalty interest owners are based on the amount of minerals they extract and sell. If the amount of minerals extracted is incorrectly measured, the amount of severance tax due will be incorrectly calculated and remitted to the State.

- **The Department of Revenue lacks a process for systematically ensuring all individuals and entities required to file severance tax returns are doing so.** We analyzed tax, mineral production, and other data for Fiscal Years 2002 through 2004 and found that not all mineral producers or royalty interest owners who should have filed severance tax returns did so. For example, 8 of the 27 (30 percent) oil and gas producers in our sample did not file a severance tax return for the year in which they reported production and initial sales. The Department of Revenue was unaware of the taxpayers that we identified who did not comply with filing requirements. In the absence of a process for identifying all taxpayers, the Department cannot provide the statutorily mandated assurance that the State is collecting all of the severance taxes it is due.
- **The Department of Revenue's severance tax audit selection process does not provide adequate audit coverage.** We found that the Department's process for selecting severance tax audits neither exposes all severance taxpayers to potential audit, nor is it sufficiently risk-based. The Department's three-year audit plan, implemented in Fiscal Year 2006, includes only the 28 oil and gas companies that paid the majority (approximately 90 percent) of severance taxes in Fiscal Year 2002. The Department has no plans to audit companies or individuals required to pay severance taxes on coal, metallic minerals, or molybdenum ore production. The Department should include elements of random selection and additional risk assessment in its audit selection methodology.
- **The Department of Revenue's audit work plans lack all of the necessary components for verifying that taxpayers have paid the proper tax and are in compliance with state law.** We found that the oil and gas severance tax audit work plan is missing procedures for verifying self-reported production and pricing data and deductions for transportation, processing, and manufacturing. In addition, the Department has no audit work plans for metallic minerals or molybdenum ore.
- **The Department of Revenue has not effectively managed its resources to provide reasonable assurance that the State is receiving the severance taxes it is due.** The Department has audited 4 percent of the severance tax dollars collected between Fiscal Years 2001 and 2004. This means that 96 percent, or \$255 million, of severance taxes paid during this period remain unaudited. We found that several factors have reduced the productivity of the Department's Mineral Audits Unit. These factors are: (1) limited and unstable funding, (2) high staff turnover, and (3) inadequate severance tax training.

### Severance Tax Policy

Rising energy prices, increased mineral production activity, and record corporate profits are topics of discussion at both the national and state levels. In Colorado, questions have been raised about whether severance tax revenues, especially those derived from oil and gas operations, are sufficient to compensate communities for the social and economic impacts created by mineral industry

development and the extraction of the State's nonrenewable natural resources. The report discusses the structure of Colorado's severance tax and the various credits and exemptions that effect the amount of tax that is owed to and collected by the State. Where data are available, we compare Colorado's severance tax with that of other states.

We present several policy areas for decision makers to consider if changes to the severance tax structure are to be made. Some of these policy areas include: the taxpayer level at which the tax is imposed, the impact of the ad valorem credit on the administration of the tax, and the effect the stripper well and coal exemptions have on tax revenues. Whether changes are proposed to the severance tax in an effort to streamline its administration or to change the basis upon which the tax is set, any modification of the existing tax would require legislative action. Moreover, a change in severance tax policy could require a vote of the Colorado electorate under the Taxpayer's Bill of Rights, or TABOR, if the change directly causes a net revenue gain to the State.

Our recommendations and the responses of the Department of Revenue and the Colorado Oil and Gas Conservation Commission can be found in the Recommendation Locator on pages 5 and 6 and in the body of this report.

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## RECOMMENDATION LOCATOR

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Rec. No.	Page No.	Recommendation Summary	Agency Addressed	Agency Response	Implementation Date
1	23	Strengthen controls over oil and gas production measurement by adopting rules requiring producers to provide evidence of proper maintenance and calibration of measurement equipment. Work with the Department of Revenue to make data available and accessible.	Colorado Oil and Gas Conservation Commission	Agree	June 2007
2	23	Adopt procedures to ensure self-reported oil and gas production data are supported by independent calibration reports. Work with the Colorado Oil and Gas Conservation Commission to make data available and accessible.	Department of Revenue	Agree	September 2006, pending COGCC rule adoption
3	26	Ensure that all taxpayers subject to severance taxation have filed a return by: (a) accessing and using Department of Natural Resources production and permit data, (b) conducting data matches, (c) verifying royalty owners have filed a return, and (d) enforcing compliance with filing requirements.	Department of Revenue	Agree	October 2006
4	29	Improve audit selection methodology for severance tax audits by exposing all taxpayers to potential audit and using risk of noncompliance.	Department of Revenue	Agree	October 2006

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**RECOMMENDATION LOCATOR**

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<b>Rec. No.</b>	<b>Page No.</b>	<b>Recommendation Summary</b>	<b>Agency Addressed</b>	<b>Agency Response</b>	<b>Implementation Date</b>
5	31	Improve the quality of severance tax audit work plans by including all necessary steps to test production and transportation, processing, and manufacturing cost deductions; and developing standardized audit work plans for metallic minerals and molybdenum ore.	Department of Revenue	Agree	October 2006
6	35	Better manage resources to increase the number of severance tax audits completed by: (a) providing additional funding for severance tax audits, (b) developing a formal severance tax audit training program, and (c) obtaining instruction on the effective use of all necessary databases.	Department of Revenue	Agree	October 2006

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# Colorado's Severance Tax

## Overview

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Section 39-29-101, C.R.S., defines Colorado's severance tax as an excise tax imposed upon nonrenewable natural resources that are removed from the earth. By statute, severance taxes are intended to recapture a portion of the wealth that is irretrievably lost when nonrenewable natural resources are removed and sold for private profit. The tax applies to minerals severed or removed from all lands in Colorado whether the lands are privately or publicly owned by the state or federal government. Five natural resources are subject to severance taxation in Colorado. These minerals are (1) oil and gas, (2) coal, (3) metallic minerals, (4) molybdenum ore, and (5) oil shale. Depending upon the mineral extracted, the severance tax is set differently, as follows:

- **Oil and gas, metallic minerals, and oil shale.** The severance tax is applied on the income derived from the sale of these minerals. For example, as the table on the following page shows, if an oil producer's (individual or business entity extracting the mineral) and/or royalty interest owner's (individual or business entity that owns the mineral) gross income from the sale of oil is less than \$25,000, the severance tax is 2 percent. If the producer's or royalty interest owner's gross income is more than \$25,000 but less than \$100,000, the tax is 3 percent of the gross income.
- **Coal and molybdenum ore.** For these two minerals, the severance tax is based on the weight of the mineral that is produced (extracted) and not on the gross income derived from its sale. As such, only the producers of coal and molybdenum ore are required to pay the tax. As the table shows, the severance tax on coal, for example, is set at 54 cents per ton.

<b>Colorado Severance Tax Rates as of July 2006 By Mineral</b>	
<b>Mineral</b>	<b>Tax Rate</b>
Oil and Gas	Under \$25,000 of gross income - 2 percent of gross income
	\$25,000 and less than \$100,000 - 3 percent of gross income
	\$100,000 and less than \$300,000 - 4 percent of gross income
	\$300,000 and more - 5 percent of gross income
Coal <sup>1</sup>	\$0.54 per ton. By statute, the tax rate shall be increased/decreased by 1 percent for every full 1½ percent change in the index of producers' prices for all commodities as prepared by the U.S. Bureau of Labor Statistics.
Metallic Minerals <sup>2</sup>	Amount over \$19 million - 2.25 percent of gross income
Molybdenum Ore	\$0.05 per ton.
<p><b>Source:</b> Office of the State Auditor's analysis of Section 39-29-103 through Section 39-29-107, C.R.S.</p> <p><b>Notes:</b></p> <p><sup>1</sup> Section 39-29-106, C.R.S., sets a severance tax base rate of \$0.36 per ton of coal produced. As required by statute, the Department increased the base rate to \$0.54 in 1992. As discussed in Chapter 2, the Department has not changed the rate since that time.</p> <p><sup>2</sup> Metallic minerals include, but are not limited to, gold, silver, copper, uranium, vanadium, and zinc. The tax rates included in this table are subject to statutorily authorized exemptions, deductions, and credits.</p> <p>The authorized exemptions, deductions, and credits may be found in Appendix A. The tax rate for oil shale also may be found in Appendix A. It is not included here because it is not commercially produced at this time.</p>	

By statute, mineral producers and royalty interest owners may be eligible for exemptions, deductions, and credits that reduce the amount of severance taxes they owe the State. For example, oil from wells producing 15 or fewer barrels or less per day are exempt from the severance tax. A complete list of the statutorily authorized severance tax exemptions, deductions, and credits may be found in Appendix A. We also discuss the tax credits and exemptions in greater detail in Chapter 2.

## Severance Tax Collections

According to Department of Revenue data, from 1978, when the severance tax became effective, through 2005, Colorado had collected almost \$950 million in severance tax revenue. This is an annual average of about \$34 million. More than one-quarter of the total revenue, or \$263 million, was collected in the last two fiscal years. Specifically, in Fiscal Year 2005 the Department of Revenue collected the single largest one-year total, slightly more than \$143 million. This figure was about 20 percent more than the \$119 million collected in Fiscal Year 2004. According to the Colorado Legislative Council's March 2006 economic and revenue forecast, severance tax collections will peak at almost \$242 million in Fiscal Year 2006 and then begin a slight downward trend to \$217 million in Fiscal Year 2007.

The following table shows the severance taxes collected, by mineral, by the Department of Revenue between Fiscal Years 2000 and 2005:

Colorado Severance Tax Collections By Mineral Fiscal Years 2000 - 2005 (In Millions)								
Mineral	Fiscal Years						6-year Average	Percent of Total
	2000	2001	2002	2003	2004	2005		
Oil and Gas	\$28.93	\$61.36	\$42.33	\$17.50	\$110.39	\$132.32	\$65.47	88.4%
Coal	6.82	7.18	7.93	7.87	8.02	10.25	8.01	10.8%
Metallic Minerals	0.36	0.19	0.16	0.72	0.62	0.57	0.44	0.6%
Molybdenum Ore	0.13	0.17	0.13	0.14	0.10	0.25	0.15	0.2%
Oil Shale	0	0	0	0	0	0	0	0%
<b>Total</b>	\$36.24	\$68.90	\$50.55	\$26.23	\$119.13	\$143.39	\$74.07	100%

**Source:** Colorado Financial Reporting System (COFRS).

As the table shows, severance tax revenue from oil and gas production represented approximately 88 percent of total severance tax collections from Fiscal Year 2000 through Fiscal Year 2005. Additionally, oil and gas severance tax revenue increased by 360 percent during this period and is the primary reason for the significant increase in total severance tax collections. Although total severance tax collections

have increased significantly, revenue from this source represents only a small portion of total TABOR revenue collected by the State. The \$143 million in Fiscal 2005 severance tax collections represented only about 2 percent of the total \$8.5 billion in TABOR revenue collected in that year.

## Revenue Distribution

Revenue from severance taxes is to be deposited equally into two statutorily created funds. The monies in the funds are to be used as follows:

- **Severance Tax Trust Fund.** Of the total revenue realized from severance taxes, 50 percent is to be credited to the Severance Tax Trust Fund in the Office of the State Treasurer. By statute, the Fund is to be perpetual and held in trust "as a replacement for depleted natural resources and for the development and conservation of the state's water resources...and for the use in funding programs that promote and encourage sound natural resource planning, management, and development related to minerals, energy, geology, and water."

Revenue credited to the Severance Tax Trust Fund is to be divided equally into two accounts: (1) the perpetual base account and (2) the operational account. Monies in the perpetual account are to be used for loans for water projects that will either increase the beneficial consumptive use of Colorado's undeveloped compact-entitled waters and/or repair or rehabilitate existing water storage and delivery systems. The Colorado Water Conservation Board, a division of the Department of Natural Resources, administers this loan program. The monies in the operational account are to be used for natural resource planning, management, and development programs in the Colorado Oil and Gas Conservation Commission, Colorado Geological Survey, Division of Minerals and Geology, and the Colorado Water Conservation Board.

- **Local Government Severance Tax Fund.** The other one-half of total severance tax revenue is to be credited to the Local Government Severance Tax Fund in the Department of Local Affairs. Of the monies in the Local Government Fund, 15 percent is to be distributed directly to counties or municipalities in which mineral production employees reside. The majority of the monies in the Fund (85 percent) is distributed through grants to local governments to address social or economic impacts from minerals production. The grants may be used for planning, construction, and maintenance of public facilities and for providing public services, including the construction or expansion of wastewater treatment facilities.

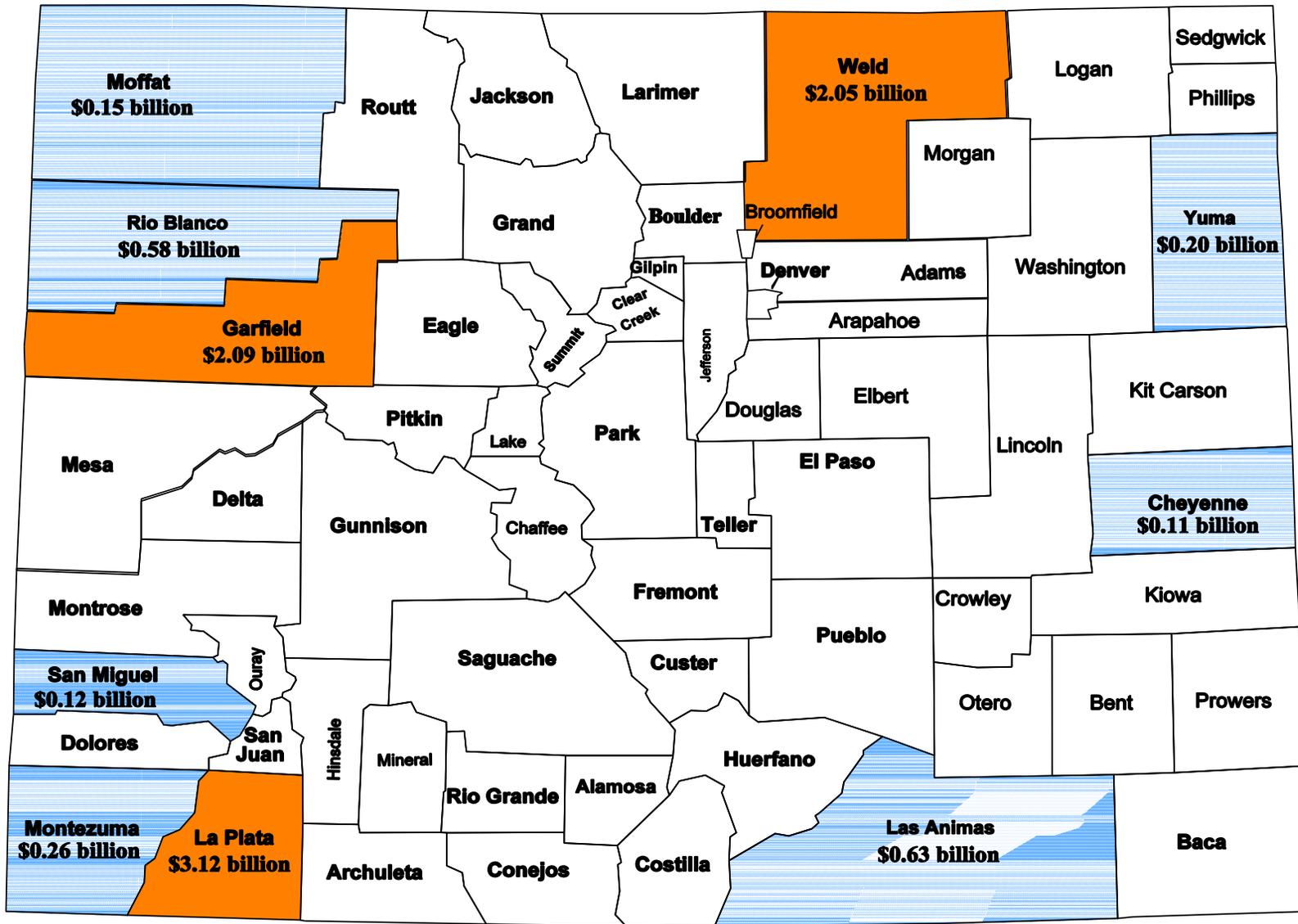
## Colorado's Mineral Industry

Colorado, like other western states, is experiencing a boom in the energy sector of its minerals industry. According to the Colorado Geological Survey, the energy industry benefits from a “win-win” scenario. That is, the production of oil and natural gas continues to increase as prices for those commodities rise. Data collected by the United States Department of Energy show that in 2004, the most recent year for which data are available, Colorado ranked 11th among all states in oil production and 7th in natural gas production. The following sections provide a brief description of the various minerals produced in Colorado that are subject to the severance tax.

### Oil and Gas

The combined value of oil and natural gas production in Colorado achieved an all-time high of \$9.71 billion in 2005. Of this total, 87 percent (\$8.48 billion) derived from the sale of natural gas. More than one-half (37) of Colorado's 64 counties produce oil and/or natural gas. Three counties (Garfield, La Plata, and Weld) each have an annual production value estimated by the Colorado Oil and Gas Conservation Commission to be \$1 billion or more. Seven counties (Cheyenne, Las Animas, Moffat, Montezuma, Rio Blanco, San Miguel, and Yuma) each have greater than \$100 million but less than \$1 billion in annual production value. As the following map illustrates, these ten counties accounted for almost 96 percent of the total estimated oil and gas production value for the State of Colorado in 2005.

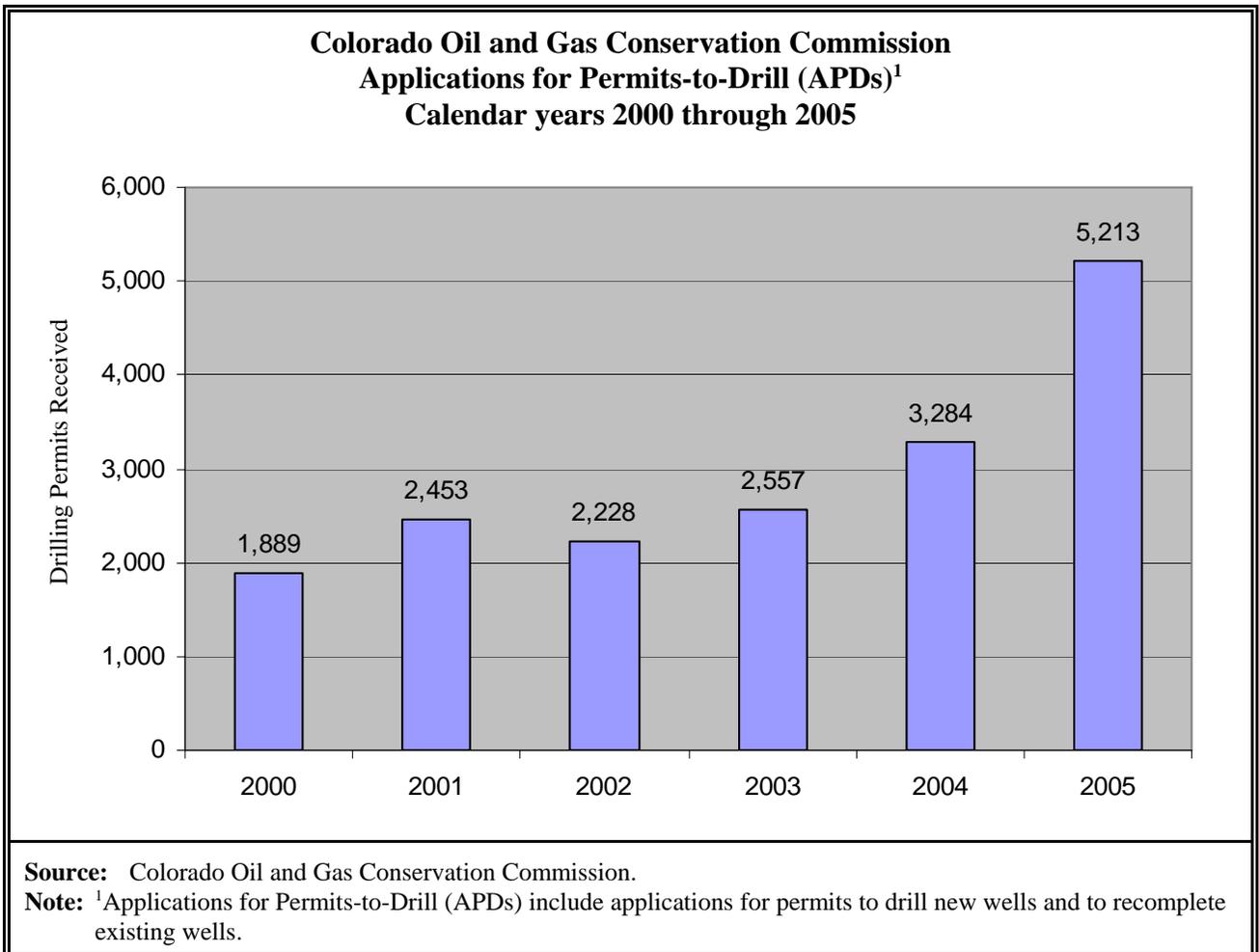
**Colorado Counties Estimated 2005 Oil and Gas Production Value  
Total for All Counties - \$9.71 Billion**



- 2005 estimated production value of \$1 billion or more.  
 - 2005 estimated production value of more than \$100 million but less than \$1 billion.

**Source:** Colorado Oil and Gas Conservation Commission.  
**Note:** Production Values for counties with \$100 million or less are not shown.

Two of the best indicators for future oil and gas production are the number of active or producing wells and the number of applications for permits to drill new wells and to recomplete existing wells. As of May 2006, there were approximately 30,000 active wells in Colorado. This is about 6,000 more wells (26 percent increase) than were active in January 2002. In addition, as the following table shows, the Department of Natural Resources' Oil and Gas Conservation Commission received more than 5,200 applications for Permits-to-Drill (APDs) during 2005, a 58 percent increase over the nearly 3,300 APDs received in 2004. As of May 2006, the Commission reports that it had received 2,657 applications for the current year. At this pace, the Commission will approve approximately 6,400 APDs in Calendar Year 2006.



## **Coal**

According to the Colorado Geological Survey, the highest level of coal production in the State's history—39.8 million tons—occurred in 2004. In 2005 Colorado coal mines produced the second highest level. Twelve Colorado mines produced 37.8 million tons of coal; of this amount, 28.5 million tons were produced from eight underground mines and 9.3 million tons were produced from four surface mines. According to the federal Energy Information Administration, Colorado ranks 7th among all states in annual coal production. Coal is produced in eight Colorado counties: Delta, Garfield, Gunnison, La Plata, Moffat, Montrose, Rio Blanco, and Routt counties. The Colorado Geological Survey attributes the high production levels to the significant interest in clean Colorado coal (i.e., low ash, mercury, and sulfur content), favorable mining conditions, larger mining equipment, and high coal prices.

## **Metallic Minerals and Molybdenum Ore**

Metallic minerals, as defined by statute, include all minerals except molybdenum ore, oil and gas, carbon dioxide, coal, oil shale, rock, sand, gravel, stone products, earths, limestones, and dolomite. Examples of metallic minerals are gold, silver, copper, uranium, vanadium, and zinc. According to the Colorado Geological Survey, globally, the metals mining industry is enjoying its first boom of the 21st century. Continuing the trend that began in 2002, the quantity and value of metals produced in Colorado rose significantly in 2005. The Colorado Geological Survey estimates that the gross value of metals mined in Colorado in 2005 was \$1 billion, a 116 percent increase from 2004. Colorado is the 4th leading gold-producing state and is ranked 1st in molybdenum ore, which is used to strengthen steel. Colorado is the only state currently producing vanadium ore and is one of the few states that produces uranium. Colorado counties with significant metallic minerals mining operations include Boulder, Grand, Hinsdale, Larimer, Montrose, Summit, and Teller.

## **Oil Shale**

Oil shale is a sedimentary rock containing kerogen, from which oil can be obtained. The technology to economically extract the oil has not yet been developed. As such, oil shale is not being commercially produced in Colorado; therefore, severance taxes on this mineral are not being collected by the State. However, there has been recent, revived interest in oil shale, which could result in future commercial production.

## Mineral Industry Participants

To understand the mineral industry in Colorado, it is important to understand the roles of three important parties:

- **Operator/Producer.** These two terms are used interchangeably, and refer to the individual or company that is responsible for the lease operations and the production of the mineral asset. Operators/producers are not always owners. However, anyone who owns an interest in the mineral asset may share in the profits in two ways. If they own royalty rights, they share the royalties with other royalty interest owners. If they own a “working interest,” they share in the remaining profits after the deduction of the royalties. This share of the profits is based on their “work” to extract and sell the minerals. Operators/producers who are working interest owners **are required by statute to pay severance taxes to the State.**
- **Transporter.** This is the purchaser of the mineral being produced. Depending on the type of mineral, the transporter may be a pipeline company, rail company, truck company, truck line, tank farm, or refinery. Ownership of the mineral passes to the transporter at the sales meter or scales. Generally, transporters are **not required to pay severance taxes.**
- **Royalty Interest Owner.** Minerals, especially oil and gas, can have numerous royalty interest owners. Royalty interest owners include private individuals and companies, as well as the federal and state governments. Royalty interest owners own the extracted minerals. Statutes **require them to pay severance taxes to the State** on the income earned from oil and gas and metallic minerals extraction and sales.

## Government Agencies

Five state departments and Colorado’s 64 counties have responsibilities related to the mineral industry. The responsibilities these government entities have for the mineral industry vary but include industry regulation and the collection, administration, and distribution of severance taxes. The departments’ and counties’ specific responsibilities are discussed below.

### Department of Natural Resources

The Department of Natural Resources is responsible for encouraging the development of the State’s natural resources, including its minerals. Two agencies

organizationally located within the Department—the Colorado Oil and Gas Conservation Commission (Commission) and the Division of Minerals and Geology—regulate the mineral industries operating in Colorado. In Fiscal Year 2005 the Commission spent about \$3.8 million and employed 35.3 FTE to regulate oil and gas producers. The Division of Minerals and Geology spent approximately \$5.6 million and employed 42.8 FTE to regulate the mining industry (including coal, metallic minerals, molybdenum ore, rock products, and oil shale). Both agencies issue permits for the extraction of the minerals they respectively regulate.

## **Department of Revenue**

The Department of Revenue is responsible for the collection of severance taxes and for the enforcement of the State's tax laws. The Department's Mineral Audit Program (Mineral Audits), within the Taxation and Compliance Division, is responsible for conducting audits of companies/persons who have a mineral or severance tax liability to the State. As will be discussed in more detail in Chapter 1, on average, between Fiscal Years 2002 and 2005 Mineral Audits assigned about 1.2 FTE to auditing severance taxes. The Department is also responsible for obtaining and reviewing annual employee reports submitted by oil and gas producers as required by Section 39-29-110, C.R.S. These reports are used by the Department of Local Affairs to distribute monies from the Local Government Severance Tax Fund for the purposes previously described.

## **Department of Public Health & Environment**

The Department of Public Health & Environment regulates the mineral industry with regard to water quality, air pollution, and hazardous and solid waste management. Specifically, any entity (including oil and gas and mining sites) that discharges into Colorado's waters must obtain a discharge permit with the Water Quality Control Division. In addition, the Water Quality Control Division adopts water quality standards for surface and groundwater. The Colorado Oil and Gas Conservation Commission and the Division of Minerals and Geology apply these standards in regulating their respective industries, under statutorily delegated authority. The Department's Air Pollution Control Division also requires permits from oil and gas and mining operations if emissions from these sites reach certain levels. The Department's Hazardous Material and Waste Management Division conducts limited work with the oil and gas and mining industries; primarily, it inspects the State's three oil refineries with regard to the treatment and safe storage of hazardous materials.

## Department of Local Affairs

The Department of Local Affairs is responsible for building community and local government capacity by providing training and technical and financial assistance to local governments. As part of these responsibilities, the Department administers the Local Government Severance Tax Fund, as previously described. In addition, the Department's Division of Property Taxation supervises property tax collection throughout Colorado, including training county assessors. The Division also ensures property assessment and valuation procedures are consistent throughout the State. The accuracy and consistency of property tax assessments is important because severance taxpayers can reduce their severance tax liability based on the amount of property taxes paid to counties.

## Department of Agriculture

The Department of Agriculture plays a limited role in the mineral industry in Colorado. Specifically, the Measurement Standards Section (Section) of the Department's Inspection & Consumer Affairs Division implements the requirements of the Colorado Measurement Standards Act (Sections 35-14-101 to 35-14-134, C.R.S.). Inspectors from the Section are statutorily required to test, at least every 12 months, the accuracy of the scales and meters used to measure the coal, metallic minerals, and molybdenum ore produced from Colorado mines.

## County Assessors

Colorado's county assessors are responsible for discovering, listing, and valuing all taxable property, including nonrenewable mineral resources, within their jurisdictions. By statute, severance taxpayers are allowed to reduce their severance tax liability by an amount equal to 87.5 percent of ad valorem taxes owed to the counties for oil and gas production and by an amount equal to 100 percent for ad valorem taxes assessed by the counties for metallic minerals (credit cannot exceed 50 percent of the tax on metallic minerals). The credit is based on the valuations and property tax assessments completed by Colorado's 64 county assessors. As will be discussed further in Chapters 1 and 2, the county assessors collect production data to complete valuations of Colorado's mineral resources. (It should be noted that by statute the ad valorem credit is based on the property taxes **assessed** by counties for taxpayers using accrual-based accounting and based on the actual property taxes **paid** to counties for taxpayers using cash-based accounting.)

## **Audit Scope**

Our audit focused on the State's activities related to accurately determining and collecting the severance taxes owed to the State. Specifically, we evaluated whether the State of Colorado's permitting and monitoring activities ensure that the minerals extracted are accurately measured and reported and that adequate controls exist to provide reasonable assurance all severance taxes owed are collected. As part of the audit, we conducted site visits to Garfield, Rio Blanco, and Weld counties, where we toured drilling sites, active wells, metering stations, and oil and gas processing facilities. We interviewed staff from the Departments of Natural Resources, Revenue, and Local Affairs, the Joint Budget Committee, and Legislative Council. We also interviewed representatives from royalty interest owners and private industry and staff from federal agencies, county assessors' offices, and other states that collect and audit severance taxes. Finally, we analyzed information about the State's current severance tax structure, taxpayer profiles, and economic data impacting severance tax revenue.

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# Severance Tax Collection

## Chapter 1

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### Overview

There are approximately 30,000 active oil and gas wells in Colorado. In Calendar Year 2005 the Colorado Oil and Gas Conservation Commission (Commission) received more than 5,200 applications for new drilling permits. This figure was a 58 percent increase from the approximately 3,300 permit applications the Commission received in the prior year. Correspondingly, severance tax revenue collected by the State has increased significantly. One-quarter, or approximately \$263 million, of the total severance tax revenue collected by the State since the tax became effective in 1978 was collected in the last two fiscal years, and estimates are that the State will collect as much as \$242 million in Fiscal Year 2006.

As the level of drilling and other mineral production activity increases, so does the State's need to ensure the adequacy of its controls over severance tax reporting and collection. The permitting of mineral production operations is the first control for ensuring that mineral operations are identified, and therefore, taxed by the State. Although the regulatory activities of the Department of Natural Resources were not the central focus of this audit, we did evaluate the likelihood that mineral producers could operate unknown to the State. We reviewed a sample of Department of Natural Resources' inspection files and interviewed state and local officials and mineral producers and interest owners. Based on our review, we found no record of mineral producers operating in Colorado without a permit. Overall, we concluded that existing permitting and other controls provide reasonable assurance that mineral producers are not operating in the state without the required permits.

In this chapter we discuss issues related to the State's controls for ensuring severance taxes are accurately determined and collected. Because oil and gas production is the source of the largest share of severance tax revenue (88 percent between Fiscal Years 2000 and 2005), much of our analysis focuses on these minerals. However, the control weaknesses we describe generally apply to all minerals subject to severance taxes in Colorado. Specifically, we found the need to strengthen controls over the accuracy of the equipment used to measure the oil and gas that is extracted. Accurate measurement is essential because it is the basis upon which sales are made and the severance tax is determined. We also identified areas for improving severance tax audits. Severance tax audits serve as the primary mechanism for ensuring that tax revenue due the State from the mineral industry's operations is

correctly reported and collected. We found several improvements are needed to ensure that all taxpayers who should be filing tax returns and paying severance taxes are identified, and that the audits conducted by the Department of Revenue are comprehensive enough to detect discrepancies and ensure proper tax payments. Finally, we found that more needs to be done to ensure that adequate staffing and information resources are available to and accessed by the Department of Revenue.

## **Production Measurement**

The severance taxes owed by mineral producers and royalty interest owners are based on the amount of minerals they extract and/or sell. If the amount of minerals extracted is incorrectly measured, the amount of severance tax due will be incorrectly calculated and remitted to the State. Therefore, accurate production measurement is essential. The United States Bureau of Land Management (BLM), Colorado State Board of Land Commissioners, and other states report that controls over the measurement of oil and gas production are necessary to ensure accurate royalty and severance tax payment.

When oil and gas are extracted from the earth, instruments are used to meter, or measure, the volume of minerals passing through them. According to the Council of Petroleum Accountants, production measurement equipment must be maintained and periodically calibrated to ensure accuracy. Because oil and gas meters are exposed to outdoor conditions, dirt and grease may accumulate. Such deposits can affect the accuracy of metering instruments. Consequently, the volume of minerals flowing through the meter may be miscalculated, resulting in under- or overreporting. Routine calibration is needed to ensure meter equipment is functioning properly. Calibration refers to the process of comparing a meter's measurements with accepted standards of measurement. Typically, oil and gas meter calibrations are conducted by professional service companies and require on-site testing and adjustments.

We evaluated whether the equipment used to measure the oil and gas extracted from wells in Colorado can be relied upon for accuracy. We found that, unlike other states and the federal government, Colorado does not directly or indirectly inspect or verify the accuracy of the metering instruments used by oil and gas producers. Specifically, neither the Colorado Oil and Gas Conservation Commission, which is responsible for permitting and inspecting drilling operations, nor the Department of Revenue, which is responsible for auditing and collecting severance taxes, directly test, calibrate, or witness the calibration of metering devices. In addition, neither agency requires oil and gas producers to provide verification of periodic meter calibration.

Other state and federal agencies verify the accuracy of the production equipment used to measure the minerals extracted on lands within their jurisdictions. For example, federal Bureau of Land Management inspectors trained in oil and gas measurement routinely inspect oil and gas wells and meters on federal lands. The Colorado State Board of Land Commissioners contracts for similar inspections and meter testing on the oil and gas wells located on its lands. In Wyoming, two positions were recently added to that state's Mineral Audit Division. The two staff are responsible for conducting well inspections, meter calibrations, gas processing plant inspections, and field schematic verifications. In Alaska, meter inspection is the responsibility of that state's oil and gas conservation commission. Alaska's inspectors monitor the calibration of volumetric provers (used to calibrate meters) and witness proving operations at oil and gas operations; these staff also verify other production measurements. Typically, the inspectors witness gas meter calibrations every six months at major custody transfers and annually at minor transfer locations. North Dakota's oil and gas commission requires operators to file an inventory of all meters used for custody transfer (typically the point of severance taxation). Regulations establish time periods for the completion of calibration for each type of meter. Meter test reports must be filed with the commission within 30 days of the completion of proving or calibration testing.

In contrast, we found that Colorado does require the inspection of the equipment used to weigh extracted coal, molybdenum ore, and metallic minerals. These minerals, however, generated only about 12 percent of total severance tax revenue between Fiscal Years 2000 and 2005 compared with oil and gas production, which generated 88 percent during the same period. The Measurement Standards Section of the Department of Agriculture's Inspection & Consumer Services Division enforces the statutory requirements of the Colorado Measurement Standards Act. The Act requires every scale or meter for which a license has been issued by the Department of Agriculture to be tested at least annually. This requirement applies to the scales used in mining operations. Staff from the Department of Agriculture report that the Measurement Standards Act does not include a licensing category for oil and gas meters; therefore, they do not regulate or inspect these devices.

## Measurement Accuracy

We believe Colorado needs to adopt controls to ensure the accuracy of oil and gas production data. In the absence of such controls, the State lacks the first component necessary for accurately determining and collecting the severance taxes it is due. There are several options available for addressing the absence of controls in this area. These include:

- **First**, similar to Alaska and Wyoming, either the Oil and Gas Conservation Commission or the Department of Revenue could hire or train existing staff

to conduct on-site inspections and either calibrate or witness the calibration of oil and gas production equipment.

- **Second**, similar to the State Land Board, responsibility for inspection and calibration could be contracted with a private firm having the expertise necessary to conduct and/or witness the calibration of oil and gas measurement equipment.
- **Third**, similar to North Dakota's approach, oil and gas producers could be required, as part of the permitting process and periodically throughout the life of the well, to provide documentation of meter calibration. The Department of Revenue's Mineral Audits Unit could also request, as part of its audit process, copies of meter calibration documentation from severance taxpayers.

We understand that minerals production data are not needed by the Oil and Gas Conservation Commission to issue permits. Rather, because production data serve as the basis for calculating the amount of severance tax due, the data are critical for the Department of Revenue to ensure the proper amount of taxes are paid and collected. Statutes authorize the Commission to require metering or other measurement of oil and gas, and the Commission has adopted rules requiring that **oil** be measured by properly calibrated meters. The Commission has not, however, clearly defined the term "properly" and does not require producers to provide verification of proper calibration. In addition, the Commission's rules do not expressly require **gas** meters to be properly calibrated.

Accurate measurement of production is the first step to ensure the State collects all severance taxes due. To accomplish this, we believe the Oil and Gas Conservation Commission and the Department of Revenue each needs to implement the necessary policies, procedures, and practices. First, the Commission should adopt rules requiring evidence of proper calibration for both oil and gas meters from all producers. This would include defining the appropriate industry standards by which all meters should be calibrated (e.g., the American Petroleum Institute's measurement standards for oil and the American Gas Association's measurement standards for gas). The Department of Revenue should ensure its severance tax audits include steps to verify that self-reported production data are supported by the required calibration statements. Finally, the Oil and Gas Conservation Commission and the Department of Revenue should work together to ensure necessary data are accessible and available.

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**Recommendation No. 1:**

The Colorado Oil and Gas Conservation Commission should strengthen controls over oil and gas production measurement by adopting rules requiring producers to provide evidence of the proper maintenance and calibration of production measurement equipment and by working with the Department of Revenue to ensure calibration report data are available and accessible.

**Colorado Oil and Gas Conservation Commission  
Response:**

Agree. Implementation Date: June 2007.

The Colorado Oil and Gas Conservation Commission will work with the Department of Revenue and other stakeholders to review the adequacy of the Commission's production measurement rules and recommend any necessary rule changes. Specific attention will be given to the requirements that meter calibration reports must be included in the records that the oil and gas operators keep on file and available for inspection. The Commission's regulatory authority allows the Commission to assist the Department of Revenue in their oil and gas severance tax audits. The Commission will evaluate, with the Department of Revenue, the appropriate role for the Commission during the audit and enforcement process. The Commission will implement the appropriate rules and processes to ensure that meter calibration verification issues are identified and resolved.

**Recommendation No. 2:**

The Department of Revenue should adopt audit procedures to ensure self-reported oil and gas production data are supported by independent calibration reports. This should include working with the Colorado Oil and Gas Conservation Commission to ensure calibration report data are available and accessible.

**Department of Revenue Response:**

Agree. Implementation date: September 2006, pending OGCC rule adoption.

The Department will work with the Colorado Oil and Gas Conservation Commission (OGCC) to obtain independent calibration reports, consistent with rules to be developed by OGCC, to assist its auditors in confirming the

accuracy of taxpayer-reported oil and gas production data. In addition, the Department's Mineral Audit Section will strengthen its audit procedures to verify reported gas and oil production by adding an explicit audit step requiring auditors to review independent calibration reports as a basis for determining the reliability of reported production and facilitating appropriate assessments.

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## Taxpayer Identification

Section 39-29-112 (1), C.R.S., requires every person subject to severance taxation to file an annual return with the Department of Revenue. Additionally, this return is to be separate and apart from other tax returns (e.g., corporate or individual income tax). Statutes also create a mineral audit program within the Department of Revenue. The statutory purpose of the program is to "develop reasonable assurance that all mineral revenues due to the state are received." This assurance is to be provided through audits of "oil, gas, and mineral rents and royalties...and severance taxes accruing to the state from federal, state, and private lands." According to Section 24-35-115 (2), C.R.S., these audits are to be conducted by a special unit that shall not have any other duties. In compliance with statutes, the Department established a Mineral Audits Unit (Mineral Audits) within the Field Audit Section (Field Audits) of the Department's Tax Auditing and Compliance Division.

For the Mineral Audits Unit to fulfill its statutory mandate to provide reasonable assurance that all mineral revenue is received, it must first identify all of the taxpayers who should be filing severance tax returns. Comprehensive identification is critical to ensuring that all revenue is collected and that every tax return has the potential for being audited. We analyzed tax, mineral production, and other data for Fiscal Years 2002 through 2004 to determine taxpayer compliance with severance tax filing law. We found that not all mineral producers or royalty interest owners who should have filed an annual severance tax return during this period did so. Specifically, we found:

- **Eight of the twenty-seven (30 percent) oil and gas producers in our sample did not file a severance tax return** for the year in which they reported production and initial sales data to the Colorado Oil and Gas Conservation Commission. Although we did not have data to determine if a severance tax liability existed, these producers were required by statute to file a severance tax return.
- **Eleven of the twenty-six (42 percent) royalty interest owners whose tax data we reviewed did not file returns.** The Department of Revenue did not

have data available to determine whether the royalty interest owners had severance tax liabilities.

- **Four coal companies failed to file severance tax returns for one or more years from 2002 through 2004.** Based on production levels reported to the Division of Minerals and Geology, these companies did not appear to have a severance tax liability. However, coal producers must file tax returns with the Department of Revenue for all extracted coal, regardless of their tax liability.
- **Only three companies producing metallic minerals and one producing molybdenum ore filed severance tax returns in 2004.** Yet more than 90 companies held active metallic minerals and molybdenum ore mining permits during this period. Because the Division of Minerals and Geology does not collect production data for these particular minerals, we were unable to determine whether any or all of these companies were actually mining minerals, and therefore, subject to the tax filing laws during the period under review.

The Department of Revenue was unaware of the taxpayers that we identified who did not comply with filing requirements. We found the Department had not identified these taxpayers because it does not have a process for systematically and thoroughly ensuring all of the individuals and entities required to file severance tax returns are doing so. Consequently, the Department cannot provide the statutorily mandated assurance that the State is collecting all of the severance taxes it is due.

The Department needs to adopt a process for identifying all severance taxpayers and following up on discrepancies. To accomplish this, the Department needs to identify and gain access to all sources of mineral production and permitting data. For example, as stated above, the Division of Minerals and Geology has more than 90 active permits on file for metallic minerals and molybdenum ore mining operations. However, the Department does not access Division of Minerals and Geology permit data to identify potential severance taxpayers. To identify royalty interest owners required to file severance tax returns, the Department could select a sample of producer tax returns and verify that the royalty interest owners for whom taxes were withheld, have filed tax returns.

Another method for identifying potential non-filers is to compare returns filed in previous years with current tax returns. For example, we compared the 50 oil and gas producers with the highest tax liabilities who filed returns in Tax Year 2002 with those filing returns in Tax Years 2003 and 2004. We found eight companies that filed returns in Tax Year 2002 that did not do so in Tax Year 2003. Two other companies did not file in Tax Year 2004. We recognize that some or all of these

companies may not have been in business, may have been bought by another company, or may have undergone name changes in the subsequent years. However, such comparisons help to identify potential problem taxpayers. For example, 1 of the 10 companies we identified as not having filed a return was recently audited by the Mineral Audits Unit. Auditors determined that not only did the company fail to file a return, but the company also failed to pay severance taxes and owed the State approximately \$100,000.

If, after accessing production and other data and making the appropriate comparisons and verifications, the Department identifies delinquent taxpayers or those who did not file, it should take action to ensure compliance. This action could involve including the taxpayer(s) in a subsequent audit cycle and/or direct contact with the taxpayer to prompt proper tax return filing.

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### **Recommendation No. 3:**

The Department of Revenue should ensure that all taxpayers subject to severance taxation have filed a return. This should include:

- a. Accessing and using production data available through the Department of Natural Resources to verify that those subject to severance taxation have filed a return.
- b. Conducting data matches between permit and production data, names of registered oil and gas and mine operators, and tax returns.
- c. Verifying, on a sample basis, that royalty owners listed on oil and gas operators' withholding statements have filed a return.
- d. Enforcing compliance with filing requirements.

### **Department of Revenue Response:**

Agree. Implementation date: October 2006.

- a. The Department will obtain and use information available from the Department of Natural Resources (DNR) to assist in identifying non-filers, and will follow-up with taxpayers who do not file required returns. In addition, the Department has begun the process of verifying non-filer status for the taxpayers identified by the auditors using DNR data. As noted by the auditors, we are finding that many of these taxpayers either

filed under another name or were not required to file. Others are already under audit by the Department. Remaining taxpayers appearing to be non-filers will be contacted by the Department to ensure that required returns are filed and taxes paid.

- b. The Department will perform data matches to identify non-filers using information made available by the Department of Natural Resources as well as data from the Department's own databases and other sources, and will include data such as permits and production data, registered names of oil and gas operators and mine operators, and previous tax return data.
- c. The Department's Mineral Audit Section will verify on a sample basis that royalty owners listed on oil and gas operators' withholding statements have filed a return, and will follow up with taxpayers who appear to be non-filers.
- d. The Department's Fair Share Section has already initiated a pilot program to identify non-filers of oil and gas severance tax, since oil and gas represents almost 90 percent of severance tax revenue. As of this date, inquiry letters have been sent to all potential non-filers, but the results of the project are pending since the response period has not yet expired. When the results of the project are known, the Department will follow up with noncompliant taxpayers and take appropriate steps to increase compliance. The Department will also schedule non-filer projects for other minerals based on relative priority with other Department projects.

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## Audit Coverage

After the Department of Revenue has ensured all severance taxpayers have filed tax returns, the next step in providing reasonable assurance that severance taxes will be collected is to provide adequate audit coverage. Because audits are conducted on a sample basis, it is critical that adequate audit selection methods and processes exist to ensure coverage is sufficient and that the risk of noncompliance among all taxpayers is considered. Targeting those taxpayers at risk for noncompliance is also important because statutes limit the time within which the Department can assess unpaid severance taxes. Generally, the Department cannot assess a taxpayer for unpaid severance taxes if three years has elapsed since the date the tax return was filed. At present, this means the Department cannot recover any tax revenue associated with returns filed prior to June 2003. Audit coverage should also encompass all taxpayers, if even on a limited basis. Audit presence or the potential for audit helps promote compliance with the State's tax laws among all taxpayers.

We reviewed the Department's plan for selecting severance taxpayers for audit and found that it neither exposes all taxpayers to potential audit nor is sufficiently risk-based. Specifically, beginning in Fiscal Year 2006, the Department has a three-year plan to audit the 28 oil and gas companies that paid the majority (approximately 90 percent) of severance taxes for these minerals in Fiscal Year 2002. Based on past audits and the complexity of Colorado's severance tax laws, Department staff believe oil and gas producers present the greatest risk of tax noncompliance. Therefore, the Department has no plans to audit companies or individuals required to pay severance taxes on coal, metallic minerals, or molybdenum ore production.

Also, unlike several of the other states we contacted and the Department's method for selecting other types of businesses to audit, Mineral Audits' methodology does not include risk of severance tax noncompliance, aside from tax liability, as a criterion for audit selection. For example, Texas evaluates several risk areas including the amount of tax paid, problems identified in prior audits, date of last audit, number and amounts of deductions taken, oil and gas volumes produced, and number of leases operated. Louisiana evaluates risk by determining if companies paying severance taxes are involved in non-arm's length transactions (sales to related parties or to parties without opposing economic interests) or are reporting sales of minerals at prices that appear to be lower than published market rates. Another alternative the Department could consider to increase coverage is to conduct a more limited scope review on audits deemed to be lower risk. For example, rather than going on-site, the Department could conduct more limited procedures in a desk review. If problems are identified, the scope of the audit could be expanded.

We agree that taxpayers with the greatest tax liability generally pose a higher risk in terms of potential revenue lost to the State. However, we believe the Department should incorporate an element of random selection for taxpayers to audit, regardless of the type of mineral produced or the tax liability. The Department should also include additional risk factors, other than the amount of tax paid to the State, in its severance tax audit selection methodology. For example, interviews with audit staff and a review of prior severance tax audits indicate that changes to the structure or ownership of a company present a high risk for taxpayer noncompliance. The Department's auditors have identified instances in which mineral company ownership changed and problems with severance tax payments and filings subsequently occurred. A comprehensive review of prior severance tax audits that resulted in tax assessments could help auditors to identify risk factors for tax noncompliance. The Department could then incorporate these factors in its audit selection methodology. For example, we found that the Department can identify changes to company ownership by using data already collected by the Colorado Oil and Gas Conservation Commission (the Commission). The Commission requires oil and gas producers to file a Change of Operator Form within 15 days of an operator change for any well. These data can be used to identify companies that have merged, changed owners, or

gone out of business. The Department should use these data and other risk factors, in conjunction with the taxpayer's tax liability, to select the highest- risk taxpayers for audit.

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### **Recommendation No. 4:**

The Department of Revenue should improve its audit selection methodology for severance tax audits by exposing all taxpayers, regardless of tax liability and type of mineral produced, to potential audit, and by reviewing change in ownership information and prior severance tax audits to identify factors contributing to noncompliance. The Department should use these factors to assess risk among all taxpayers.

### **Department of Revenue Response:**

Agree. Implementation date: October 2006.

The Department's Mineral Audit Section will expand its consideration of risk to ensure that all taxpayers are subject to audit selection. In addition to the actual size of a company, the Department will also consider other risk factors such as: fluctuations in severance tax paid by a company, significant changes (such as operations growth or new Colorado operations, changes in ownership, or mergers/acquisitions), prior audit findings, ad valorem tax credits claimed on returns, as well as companies appearing to be under reporting or non-filers.

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## **Audit Work Plan**

An audit program is the basic work plan for an audit that details the procedures to be followed. The audit program helps to ensure professional standards are met and appropriate, adequate, and objective testing is performed. For severance tax purposes, audit programs should contain procedures to verify the appropriate tax liability was calculated, only eligible deductions were claimed, and production was measured accurately. We evaluated the Department of Revenue's severance tax audit programs and found that the program for oil and gas does not contain all of the necessary components for verifying that taxpayers have paid the proper tax and are in compliance with state law. Specifically, we found the following components to be missing:

- **Production and pricing.** For natural gas severance tax audits, the audit program does not require auditors to collect heating value readings for a sample of wells or to verify that the conversion of gas from volume to heating value was correctly calculated by the taxpayer. It is important for auditors to verify the correct calculation because natural gas is measured at the well by its volume but is typically sold by its heating value. Other states, royalty owners, and the BLM have found cases in which companies used the incorrect conversion factor and, therefore, paid the incorrect amount of taxes and/or royalties. Further, the Department's audit program does not contain a step for auditors to verify that all oil and gas production reported to the Colorado Oil and Gas Conservation Commission has been included on the taxpayer's return. Additionally, auditors are not required to confirm that all wells operated by the taxpayer, as recorded by the Colorado Oil and Gas Conservation Commission, are included on the severance tax return. The audit program only requires auditors to trace production totals reported on the severance tax return to supporting documentation provided by the operator on a sample basis. Finally, as previously discussed, Mineral Audits does not verify that metering instruments are accurately measuring and recording the amount of oil and gas produced.
- **Transportation, processing, and manufacturing deductions.** Section 39-29-102(3)(a), C.R.S., allows mineral operators to deduct the costs of transportation, manufacturing, and processing oil and gas from their gross incomes. As previously noted, Colorado's oil and gas severance tax rate is based on a percentage of the producer's gross income, net of these deductions. Thus, incorrectly applied transportation, manufacturing, and processing cost deductions will affect the amount of severance taxes owed to the State. The states of Alabama, Kansas, Louisiana, Texas, and Wyoming have all found that one of the more common problems identified during severance tax audits is improper or unauthorized cost deductions. As such, it is important for Mineral Audits to verify the accuracy of these deductions. At the time of our audit, the oil and gas severance tax audit program did not require auditors to verify these costs to supporting documentation or to determine that the deductions were only attributable to the transportation, processing, and manufacturing costs of the product. It should be noted that before the conclusion of our audit, Mineral Audits management updated the oil and gas severance tax audit program and included procedures for testing these deductions.

We also found the Department has no audit program for conducting audits of metallic minerals or molybdenum ore severance taxes. Metallic minerals and molybdenum ore generated about \$800,000 in severance taxes in Fiscal Year 2005. Although revenue from these minerals represents only a small portion of total severance tax revenue, the

Department needs to expose all severance taxpayers to potential audit. Prior to conducting these audits, the Department should have a standardized work plan for staff to follow because the severance tax laws and exemptions differ from those applied to oil and gas.

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### **Recommendation No. 5:**

The Department of Revenue should work to improve the quality of its severance tax audit work plans by:

- a. Updating its oil and gas audit program to include all necessary steps for testing production and transportation, processing, and manufacturing cost deductions.
- b. Developing standardized audit work plans for metallic minerals and molybdenum ore production.

### **Department of Revenue Response:**

Agree. Implementation date: October 2006.

- a. The Department's Mineral Audit Section recently completed efforts that began before the audit to strengthen its oil and gas audit program. More robust audit procedures, including those suggested by the auditors, have been added to the program including specific steps for testing production and transportation, processing, and manufacturing cost deductions.
- b. In addition to the existing audit programs for gas and oil audits and coal audits, the Department's Mineral Audit Section will develop standard audit programs for other types of minerals subject to taxation, including solid minerals, oil shale and molybdenum.

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## **Audit Resources**

According to the Department of Revenue, based on assessments per staff hour expended, severance tax audits result in larger assessments for unpaid business taxes than all other categories of tax audits it conducts with the exception of out-of-state corporate income tax audits. Based on historical data, the Department reports that severance tax audits result in approximately \$1,800 in tax assessments for each hour

staff spend conducting these audits. Additionally, the rate of severance taxpayer noncompliance appears to be high. Of the 21 severance tax audits completed by the Department's Mineral Audits Unit since Fiscal Year 2001, more than one-half (12 audits) resulted in assessments for unpaid severance taxes. To ensure the Department uses its resources in the most effective manner, it should audit more severance taxpayers.

The Mineral Audits Unit has established a schedule for the severance tax audits it plans to complete each year. As the following table shows, however, the Unit has not met this schedule since it adopted it in 2004. On average, between Fiscal Years 2004 and 2006, the Unit completed only about 4 of the 11 audits scheduled each year.

<b>Department of Revenue Mineral Audits Unit Severance Tax Audits Targeted and Completed Fiscal Years 2004 Through 2006<sup>1</sup></b>				
	<b>Fiscal Year 2004</b>	<b>Fiscal Year 2005</b>	<b>Fiscal Year 2006<sup>1</sup></b>	<b>Three-Year Average</b>
<b>Targeted Audits</b>	12	12	10	11
<b>Audits Completed</b>	4	3	5	4
<b>Percent of Targeted Audits Completed</b>	33%	25%	50%	36%
<b>Source:</b> Office of the State Auditor analysis of the Department's annual audit plans and severance tax audit records for Fiscal Years 2004 through May 2006.				
<b>Note:</b> <sup>1</sup> As of May 2006.				

Despite the few number of audits it completes, the Mineral Audits Unit does generate a significant return for its efforts. For example, in audits completed between Fiscal Years 2002 and 2005, the Mineral Audits Unit identified approximately \$15 million in unpaid severance taxes. This means that for each dollar spent auditing severance taxes during that period, Mineral Audits assessed \$23 (net of tax refunds) that would otherwise have been lost to the State. In comparison, the entire Field Audits Section, during this same period, assessed less than \$15 for each dollar spent auditing all other taxes.

## Budget and Staffing

There are several factors that contribute to Mineral Audits' inability to complete its targeted audits. Most importantly, we found that the Department needs to identify ways in which to better manage its resources so that appropriate attention is directed toward severance tax audits. Specifically, the Department needs to address the following:

**Budget.** The Department allocates limited funding to severance tax audits. Annually, the Department budgets approximately \$150,000 in personal services, including benefits, for severance tax audits. On average, between Fiscal Year 2002 and 2005 the number of FTE assigned to severance tax audits was about 1.2. Although staff assigned to severance tax audits are not required to have severance tax auditing experience, they frequently have experience auditing other mineral programs for the Department. Consequently, salaries may represent more senior staff levels. Staff report that, typically, the budget for severance tax audits is expended one to two months prior to the end of the fiscal year. When this occurs, management reassigns severance tax audit staff to other types of audits. As the following table shows, Mineral Audits' expenditures have remained relatively stable over the past four fiscal years, despite the significant growth of minerals operations and severance tax revenues generated during this period.

Colorado Department of Revenue Mineral Audits Revenues and Expenditures Fiscal Years 2002 Through 2005					
	Fiscal Year 2002	Fiscal Year 2003	Fiscal Year 2004	Fiscal Year 2005	Percent Change 2002 - 2005
<b>Total Expenditures<sup>1</sup></b>	\$155,000	\$155,000	\$184,000	\$153,000	-1%
<b>Severance Tax Revenues</b>	\$50,550,000	\$26,230,000	\$119,130,000	\$143,390,000	184%

**Source:** Colorado Financial Reporting System (COFRS) and Department of Revenue internal reports.  
**Note:** <sup>1</sup>Includes expenses for personal services, health, life, dental, and short-term disability insurance.

Mineral Audits' ability to efficiently conduct audits is also negatively affected by the funds available for travel. The headquarters and accounting offices of more than 60 percent of the taxpayers scheduled for audit in Fiscal Years 2006- 2008 are not located in Colorado. Consequently, in the absence of travel funds, audit staff must request tax returns and other supporting documents electronically or by mail. Audit staff report that although this practice minimizes travel costs, the inability to conduct

on-site document reviews significantly increases the time required to complete audits and increases the chances that incomplete documentation will be provided.

**Staffing.** Staff turnover within Mineral Audits is high. The two auditors assigned to severance tax audits during our review had approximately two years of combined severance tax audit experience. According to current management staff, it generally takes about one year for an auditor to become proficient at auditing severance taxes. Less experienced staff require longer to complete audits, ultimately reducing the number of audits completed.

**Training.** Mineral Audits staff do not receive adequate severance tax training. Typically, the only formal training new hires and Department staff receive in this area is provided by the United States Department of the Interior. Although the federal training provides staff with an understanding of the oil and gas industry, it is limited to federal royalty audits and does not address the complexities of and specialized knowledge required to effectively audit Colorado's severance tax. Because new hires and Department transfers are unlikely to have prior severance tax audit training or experience, the lack of adequate training on Colorado's severance tax laws is problematic. Furthermore, we found that auditors are not trained in the effective use of all databases and tools necessary for verifying the data accuracy. For example, the Oil and Gas Conservation Commission's Colorado Oil and Gas Information System (COGIS) contains production data for all wells located in the State. Auditors are required to verify a sample of production numbers reported on severance tax returns with the production data contained in COGIS. Although the Department's auditors routinely rely on COGIS, the Mineral Audits Unit never sought training on the system's potential capabilities. We found the Department's auditors were manually entering data from COGIS. According to staff from the Colorado Oil and Gas Conservation Commission, these data could be electronically exported, thereby reducing the time needed to conduct this audit activity.

The Mineral Audits Unit completed 11 audits that examined the severance tax revenue paid to the State between Fiscal Years 2001 and 2004. The severance tax revenue associated with these 11 audits represented 4 percent of total severance tax revenue collected in Fiscal Years 2001-2004. This means that 96 percent, or \$255 million, of severance taxes paid during this period remain unaudited. Furthermore, as time passes, a greater percentage of this revenue will become out of reach for audit purposes due to the three-year statute of limitations on severance tax audit assessments. With the high rate of noncompliance identified in prior audits, the State could potentially lose millions of dollars in unpaid severance taxes if the number of audits completed by the Department is not increased.

The Department should explore options for increasing the number of severance tax audits it completes. Management has the budgetary authority to shift resources, including travel funds, within its Tax Audit and Compliance Division. Therefore, one option is for the Department to consider the relative productivity of the various types of business audits and reallocate resources and staff from other audit areas within the Division to the severance tax audit unit. As another option, the Department could re-examine its current mix of staff assigned to audit severance taxes. Senior staff, although more experienced, are also more costly. The Department, after creating a formal severance tax auditing training program, may be able to conduct more audits by assigning a mix of personnel that includes more junior staff to the Mineral Audits Unit. Finally, the Department could consider requesting additional funding from the General Assembly. Sources of this funding could be severance tax revenue recoveries from audits completed in prior years or monies in the Severance Tax Trust Fund.

The Department should also seek ways to increase its current staff's efficiency and effectiveness. Most importantly, the Department should develop a formal severance tax audit training program and provide this training to all new hires and Department transfers to the Mineral Audits Unit. Formal training on Colorado's severance tax laws will decrease the amount of time it takes new staff to complete audits. The Department should also seek training for its Minerals Audit staff from the Colorado Oil and Gas Conservation Commission on the uses and capabilities of the COGIS. Finally, the Department should assess the need to request additional funding for severance tax audits.

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## **Recommendation No. 6:**

The Department of Revenue should better manage its resources to increase the number of severance tax audits it completes. This should include:

- a. Considering audit risk and productivity when allocating audit funds, and providing additional funding for severance tax audits, including travel and training.
- b. Developing a formal severance tax audit training program and providing this training to all new hires and Department transfers.
- c. Obtaining instruction on the effective use of all databases necessary to verify the accuracy of information contained on severance tax returns.

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## **Department of Revenue Response:**

Agree. Implementation date: October 2006.

- a. In September 2005, the Department reallocated one other person to the Mineral Audit Section for the purpose of auditing severance tax. In addition, the Department will conduct an analysis of the productivity of all types of audits to determine if a greater portion of audit resources as well as necessary travel funds should be assigned to severance tax audits. Training is addressed in the following section.
  - b. Agree. Due to its small staff of severance tax auditors, the Department traditionally relied on the formal oil and gas training provided by the federal government for our severance tax auditors. Additional training was provided through on-the-job training. Based on suggestions in this audit, the Department will develop a formal training program that will include PowerPoint presentations, handouts, case study, etc. The training will be video recorded for reference.
  - c. The Department has already met with the Colorado Oil and Gas Conservation Commission to identify methods to improve our auditors' proficiency in the use of currently available Commission databases. The Department will continue to work with the Department of Natural Resources to improve proficiency in accessing and using any DNR information that will add value to severance tax audits.
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# Severance Tax Policy

## Chapter 2

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### Background

The primary purpose of this audit was to determine whether the State is collecting the severance tax revenue it is due. In the first chapter, we discussed our findings and recommendations for ensuring mineral production data are accurately reported and severance taxes are adequately audited. These two activities are critical controls for providing reasonable assurance that severance taxes, as they are currently structured, are correctly applied and collected. The issues addressed in Chapter 1, however, do not answer broader questions about severance taxes. Rising energy prices, increased mineral production activity, and record corporate profits are topics of discussion at both the national and state levels. At the federal level, debate has focused on whether oil and gas producers are being taxed appropriately in relation to the record profits they are earning. In Colorado, policy questions have been raised on whether severance tax collections, especially those derived from oil and gas operations, are sufficient to compensate communities for the social and economic impacts created by mineral industry development and the extraction of the State's nonrenewable natural resources.

In making decisions about these issues, policymakers must consider many factors, including the way in which Colorado's severance tax currently operates. In this chapter, we discuss the structure of Colorado's severance tax and the various credits and exemptions that affect the amount of tax that is owed to and collected by the State. As part of our discussion, we describe some of the administrative aspects of the tax, such as the complexity created by credits allowed under current law that appear to increase the risk of noncompliance, taxpayer confusion, and auditing difficulty. In addition, we discuss several policy areas for decision makers to consider if changes to the tax's structure are to be made. Where data were available, we have compared Colorado's severance tax with that of other states.

Whether changes are made to the severance tax in an effort to streamline its administration or to change the basis upon which the tax is set, any modification of existing severance tax policy would require legislative action. Most importantly, severance tax policy changes could require a vote of the Colorado electorate under the Taxpayer's Bill of Rights, or TABOR. Specifically, Article X, Section 20 of the Colorado Constitution mandates that **any tax policy changes directly causing a net**

**revenue gain** to the State be referred to the voters of the State in advance. (Emphasis added).

## Severance Tax Structure

Section 39-29-101, C.R.S., states that when nonrenewable resources are removed from the earth, the value of these resources to Colorado is irretrievably lost. Therefore, the General Assembly established a special excise tax intended to recapture a portion of the wealth lost to the State when these natural resources are removed and sold for private profit. The special excise, or severance tax, is in addition to other business taxes. As described in the Overview, statutes stipulate that the revenue from the severance tax be (1) used by the State for public purposes, specifically for sound planning, management, and development related to minerals, energy, geology and water; (2) held by the State in a perpetual trust fund for state water projects; and (3) made available to local governments to offset the impact created by nonrenewable resource development.

Statutes do not quantify the term "portion" of wealth that is to be recaptured by the tax. One way in which to view or measure the wealth that is recovered, however, is to compare revenue collections with the value of the minerals produced. The term "value" as used here is defined as the amount of minerals produced in a given year multiplied by the average price received by the producer for those minerals. As the following table shows, Colorado's severance tax recaptured, on average, about 1.0 percent of the value of the minerals produced in the State between Fiscal Years 2000 and 2004. Due to fluctuations in mineral prices, the effects from tax exemptions, credits, and other factors, this percentage can vary from year to year.

<b>Colorado Severance Taxes</b> <b>As a Percentage of Total Mineral Production Value</b> <b>Fiscal Years 2000 - 2004</b> <b>(In Millions)</b>						
	2000	2001	2002	2003	2004	5-Year Avg.
Severance Taxes Collected	\$36	\$69	\$51	\$26	\$119	\$60
Estimated Mineral Production Value <sup>1</sup>	\$4,600	\$4,900	\$4,100	\$6,800	\$8,700	\$5,820
<i>Portion of Production Value</i>	<i>0.8%</i>	<i>1.4%</i>	<i>1.2%</i>	<i>0.4%</i>	<i>1.4%</i>	<i>1.0%</i>
<b>Source:</b> Office of the State Auditor’s analysis of information contained in the Colorado Financial Reporting System (COFRS) and reported by the Department of Local Affairs. <b>Note:</b> <sup>1</sup> Estimated mineral production value does not include the value for metallic minerals or molybdenum ore.						

Data are not available to compare Colorado's severance tax collections with those of other states using this particular measure. However, based on total severance tax revenue collected, we found that in 2005, Colorado ranked 10<sup>th</sup> among other states in total severance tax collections. (See Appendix B for a complete list of 2005 severance tax collections by state.)

Colorado's severance tax is not profit-based. Therefore, severance tax revenues are not designed to parallel changes in producer profits. Rather, Colorado's severance tax, like the severance tax in all states, is based on production, or more precisely, on the gross income derived from production. Severance taxes based on some measure of the value of production, like Colorado's, are considered production taxes. In Colorado, severance tax revenues are a function of the tax rate, the prices paid for the minerals that are produced, the interaction between the taxes levied at the state and local levels, and the authorized exemptions and credits. In the following sections, we analyze Colorado's severance tax structure, including tax rates, exemptions, and credits. Our discussion focuses on the two largest sources of severance tax revenues: (1) oil and gas production and (2) coal production.

## Oil and Gas

Section 39-29-105 (1)(b), C.R.S., imposes a tax upon the gross income from the sale of oil and gas severed from all lands in Colorado. Gross income, for severance tax purposes, is statutorily defined as the net amount of income realized by the taxpayer from the sale of oil and gas. By statute, the net amount shall be calculated on the

basis of the gross lease revenues, less deductions for any transportation, manufacturing, and processing costs borne by the taxpayer.

The tax rate for oil and gas production is graduated, which means the rate changes according to the amount of gross income earned by the taxpayer. The statutorily set tax rates for the gross income earned from the production of oil and gas in Colorado are:

- 2 percent for gross income below \$25,000.
- 3 percent for gross income of \$25,000 and below \$100,000.
- 4 percent for gross income of \$100,000 and below \$300,000.
- 5 percent for gross income of \$300,000 and above.

In Fiscal Year 2005, Colorado collected slightly more than \$132 million in severance taxes from oil and gas production.

## **Ad Valorem Credit**

Statutes permit oil and gas producer-taxpayers to reduce their severance tax liabilities through a tax credit that is based on the property taxes the producer is assessed at the local government level. Specifically, Section 39-29-105(2)(b), C.R.S., authorizes an ad valorem tax credit. The credit reduces each oil and gas producer's severance tax liability by an amount equal to 87.5 percent of all ad valorem taxes. Depending upon where a wellhead is located, an oil or gas producer will be subject to the county property tax in addition to property taxes imposed by other taxing districts, such as school, fire, or improvement districts. Each of these taxing authorities sets its own mill levy. One mill is 1/10 of \$0.01 (one thousandth of \$1, or \$.001). Therefore, a mill levy refers to the amount a taxpayer must pay for every \$1,000 of assessed value on real personal property. Each taxing entity's mill levy is determined by dividing its budget by the total taxable assessed value within its taxing jurisdiction.

County tax assessors are responsible for the valuation of all taxable property within their jurisdictions, including oil and gas lands. Oil and gas land valuation is based on a percentage of the sale price obtained for the mineral produced at the wellhead location being taxed. County assessors certify the valuation to the taxing districts, which, in turn, apply their respective mill levies. The county assessor then calculates a total ad valorem tax, including both the county's and the special taxing districts' taxes.

At the state level, taxpayers are allowed an ad valorem severance tax credit for oil and gas production equal to 87.5 percent of their total local ad valorem tax. For accrual basis taxpayers, the credit is based on the assessed ad valorem taxes. For cash basis taxpayers, the credit is based on the ad valorem taxes actually paid. For example, if an oil producer has a severance tax liability of \$50,000 and paid a total of \$10,000 in ad valorem taxes, then 87.5 percent, or \$8,750, can be applied as a credit against the severance tax liability. The resulting severance tax owed to the State is \$41,250 ( $\$50,000 - \$8,750 = \$41,250$ ).

The Department of Revenue's taxpayer information system does not track ad valorem credits taken against severance taxes. Therefore, we were unable to determine the actual amount of the ad valorem credits claimed on oil and gas severance tax returns. However, due to the ad valorem tax credit, the majority of oil and gas tax filers do not have a severance tax liability. Rather, the majority of severance tax filings result in taxpayer refunds. For example, for 2004, oil and gas taxpayers filed 8,007 severance tax returns with the Department of Revenue. More than 6,500 (81 percent) of these returns resulted in taxpayer refunds.

## Stripper Well Exemption

Unlike the ad valorem credit that reduces the amount of severance tax due, Colorado law exempts certain oil and gas production from taxation. One such exemption applies to marginal or "stripper" wells. The term stripper well does not refer to a type of oil or gas well. Rather, in Colorado, the definition of a stripper well is one in which 15 barrels or less of oil or 90 thousand cubic feet or less of gas are produced per day for the average of all producing days during the taxable year. Section 39-29-105 (1)(b), C.R.S., states that oil and gas produced from wells meeting these specifications *shall be exempt* from the tax. (Emphasis added). According to Department of Natural Resources personnel, the purpose of the exemption is to maximize recovery from a well or a field. That is, the exemption provides an economic incentive for producers to continue extracting minerals from a well even after production levels decline and operations become marginally profitable. By statute, the ad valorem taxes paid on oil and gas produced at a stripper well cannot be used as a credit against an individual's or company's severance tax liability.

Wells in Colorado typically produce both oil and gas. According to 2005 mineral production data from the Colorado Oil and Gas Conservation Commission, about 40 to 50 percent of Colorado's 30,000 wells produced oil, gas, or both, at levels below the statutory threshold for severance taxation. Based on these data, approximately 15 million barrels of oil and 142 billion cubic feet of gas would have been exempt from severance taxes in 2005. Therefore, using these data and the average price for these minerals during this period, we estimate the stripper well exemption was approximately \$19 million.

## Coal

Section 39-29-106, C.R.S., imposes a tax upon the severance of all coal in the State. From Fiscal Year 2000 through Fiscal Year 2005, Colorado collected, on average, about \$8 million annually in severance taxes from this source. The amount of revenue derived from the severance tax on coal is second only to the average \$65 million per year collected from oil and gas severance taxes during the same period. Anyone engaged in coal production is subject to the tax. Statute sets a severance tax **base rate** of \$0.36 per ton of coal produced, subject to change. Specifically, Section 39-29-106 (5), C.R.S., requires the Executive Director of the Department of Revenue to increase or decrease the \$0.36 per ton rate by 1 percent for every full 1-1/2 percent change in the index of producers' prices for all commodities, as prepared by the United States Bureau of Labor Statistics. Consequently, the current severance tax on coal production is \$0.54 per ton produced. However, the \$0.54 rate has been in effect since 1992. According to Department of Revenue staff, the tax rate has not been increased to reflect subsequent changes in the index of producers' prices because of the requirements of the Taxpayer's Bill of Rights (TABOR), which became law in that year. Under prior management, the Department decided shortly after the enactment of TABOR that because TABOR requires a vote of the electorate in advance of any **tax policy changes directly causing a net revenue gain** to the State, any upward adjustments in the severance tax rate on coal were effectively precluded. Currently the Department of Revenue is reassessing this prior decision. Department staff report that in December 2005 they requested an opinion from the Colorado Office of the Attorney General on whether the Executive Director can legally increase the tax rate, in accordance with statute, without a vote of the people as required by TABOR. At the time of our audit, the Department had not yet received the opinion of the Office of the Attorney General.

## Coal Production Tax Credits

Two tax credits apply to coal production; these are:

**Credit for Coal Produced Underground.** Section 39-29-106 (3), C.R.S., allows a credit in the amount of 50 percent against the standard tax rate (currently \$0.54 per ton) for all coal produced from underground mines. Thus, coal produced from underground mines is taxed at a rate of \$0.27 cents per ton. Using coal production data maintained by the Department of Natural Resources, we estimate that a total of 21.5 million taxable tons were produced from underground mines in 2005. The total value of the credit during this period was about \$5.8 million.

**Credit for Lignitic Coal.** Section 39-29-106 (4), C.R.S., allows an additional credit in the amount of 50 percent against the standard tax rate (currently \$0.54) for the production of lignitic coal. Lignitic coal, also known as brown coal, is defined as a carbonaceous fuel intermediate between coal and peat. The heating power from this coal is low. The Colorado Geological Survey reports that no lignitic coal is currently being produced in the State. Thus, this credit currently has no effect on the amount of severance tax revenue collected by the State.

## **Coal Production Exemption**

According to Division of Minerals and Geology staff, the exemption on coal production was established to make Colorado coal more competitive with the coal produced in surrounding states. Section 39-29-106 (2)(b), C.R.S., states that no tax shall be imposed on the first 300,000 tons of coal produced in each quarter of the taxable year. This means a total annual production of 1.2 million tons of coal per mine is not subject to severance taxation. The 1.2 million tons could represent as much as \$648,000 in severance taxes, per mine, that will not be collected by the State. Based on Department of Natural Resources coal production data, we estimate that a total of 10.8 million tons, representing \$4 million in potential severance tax collections, were exempted from taxation in 2005. Three of the twelve mines operating in Colorado during this period did not incur a severance tax liability because of this exemption.

## **Policy Areas**

Modifications to Colorado's severance tax would necessitate careful consideration. Changes to the tax structure, including the tax rate and the associated credits and exemptions, would require legislative action. Moreover, any changes resulting in a net tax gain would require a statewide vote, in accordance with TABOR. The information discussed in the remainder of this chapter is intended to identify policy areas for consideration. Additional analysis would be needed to assess the broader effects from any severance tax policy changes, such as possible impacts on the mineral industry in the State and potential tax implications at both the federal and local levels. Finally, regardless of the tax structure, it is important to remember that oil and gas are among the most economically volatile minerals produced. Market prices of crude oil and natural gas can fluctuate considerably from year to year. When prices rise and fall, the production volumes of these commodities tend to increase or decrease in harmony with price changes. Therefore, severance tax revenues, regardless of the tax policy, can vary widely from year to year.

According to the American Institute of Certified Public Accountants, (AICPA), a "good tax" is one that achieves a number of objectives. Among these is that the tax

should not impede or reduce the productive capacity of the economy and that the tax should be neutral. That is, the tax should not affect a taxpayer's decisions regarding the ways in which particular transactions are carried out or whether to engage in a transaction. Furthermore, the tax should be structured to minimize errors, noncompliance, and the administrative costs for collection. In the following sections, we discuss several policy areas related to Colorado's severance tax. We identified these areas as critical to any discussion of severance tax policy based on our analyses of other states' severance tax systems and of the concepts of a good tax.

## **Tax Application**

One area in which changes to Colorado's severance tax policy could significantly improve the administration of the tax would be to apply it only at the producer level. We found that the severance tax is a complex tax to administer. This includes the processing and auditing of returns to ensure proper tax payment and collection. One of the major reasons for the complexity of the tax is that it is applied at the interest owner level. This means that producers, working interest owners, royalty interest owners, and those with any other interest from oil and gas produced in Colorado, must file a severance tax return. Taxing to the interest owner level makes auditing severance taxpayers difficult and labor-intensive. A single oil or gas well in Colorado may have many interest owners. Of these interest owners, any number could own only a small percentage of the income derived from the well. As the tax is currently applied, owners are responsible only for the severance taxes associated with their respective ownership percentage. For example, a taxpayer with a 2 percent interest in a well producing \$1 million in gross income would be responsible for severance taxes on \$20,000 of gross income (\$1 million x 2 percent). In addition, this taxpayer would be allowed to reduce their severance tax liability by an equivalent percentage of the total ad valorem taxes paid to the county by the producer. Because each owner is only responsible for reporting a percentage of the gross income, Department of Revenue staff report that it is difficult to verify that the total amount of oil and gas produced by a well has been reported and the appropriate taxes paid. To ensure this degree of verification, auditors must audit the tax returns for every owner of the well.

We also found that applying the tax to the interest owner level may increase the risk of taxpayer noncompliance with filing requirements. Some royalty interest owners we spoke with told us that they simply do not file because the costs associated with completing the complicated return are often greater than the refunds they are due. As we previously reported, the Department of Revenue does not identify all interest owners who should be filing severance tax returns. Currently producers are not required to submit withholding statements along with their returns when they withhold taxes from interest owners. Consequently, in the absence of the

withholding statements, efficient methods of verifying that all interest owners who are required to file, have indeed filed, do not exist.

Between Tax Years 2002 and 2004, on average, 7,800 taxpayers filed severance tax returns on oil and gas income with the Department of Revenue. We found that approximately 6,600 of the 7,800 taxpayers (85 percent) had overpaid and filed for a tax refund. Of the 6,600 who filed for a refund, more than 6,100 (92 percent) requested refunds of \$1,000 or less. Processing such a high volume of small dollar refunds is administratively burdensome and costly for the Department of Revenue, and, thus, the State. Other states, like New Mexico, do not require royalty interest owners to pay oil and gas severance taxes or file severance tax returns. Only oil and gas producers are required to file and pay severance taxes. New Mexico reports that it receives approximately 450 severance tax returns per year compared with the 7,800 returns currently filed in Colorado. In our Fiscal Year 2004 Statewide Single Audit, we identified similar problems with the severance tax. (See Appendix C for the status of the audit's recommendations as of Fiscal Year 2005.)

Requiring only producers to file returns for and pay severance taxes is one option for simplifying the severance tax and for significantly increasing administrative efficiencies. By applying the severance tax only to producers of oil and gas, we estimate the number of tax returns filed with the Department each year would decrease from approximately 7,800 to fewer than 100. Producers could then allocate the severance tax among interest owners.

## **Tax Rate**

The most straightforward way in which to affect severance tax revenues is to simply raise or lower the existing tax rate. Also, similar to past and currently proposed federal legislation, different tax rates could apply based on market conditions or other indicators. For example, federal legislation has been discussed that imposes an additional excise tax on every barrel of oil selling for more than \$40. A similar federal law took effect in 1980. In addition, Colorado's oil and gas tax rate, rather than applying to the gross income from production, could be applied on the basis of a different unit. For example, California, Indiana, and Ohio apply the oil severance tax on a per barrel basis.

For coal, the tax could be applied similarly to the severance tax on oil and gas production. Rather than being applied to the weight, or tons extracted, the tax could apply to value of or the gross income derived from the sale of the coal.

## Ad Valorem Tax Credit

Other than a change in the severance tax rates, the elimination of or a substantial reduction in the ad valorem tax credit for oil and gas production would result in the single most significant change in the severance tax, from both a revenue and administrative standpoint. As previously stated, the majority of oil and gas severance tax filings result in taxpayer refunds due to the ad valorem credit. For example, for 2004, taxpayers filed 8,007 severance tax returns with the Department of Revenue. More than 6,500 (81 percent) of these returns resulted in taxpayer refunds.

Of the 29 states for which we were able to analyze severance tax data, only Colorado and Kansas have ad valorem tax credits. Unlike Colorado, Kansas's ad valorem credit is not based on a percentage of the property taxes paid or assessed by the local governments. Rather, if property taxes were paid, Kansas reduces the severance tax rate from 8 percent to 4.33 percent.

According to staff from the Department of Revenue, the most confusing aspect of Colorado's severance tax for both government personnel and taxpayers is the ad valorem tax credit. Department of Revenue severance tax auditors report that the application of the ad valorem credit is the most problematic aspect of severance tax returns and may contribute to taxpayer noncompliance. In our review of 10 completed audits, severance tax auditors found misapplications of the ad valorem credit in 5 of the audits. Because there are more than 2,600 mill levy rates in Colorado, application of the credit can be confusing for taxpayers. Further, one mineral lease can be subject to several different mill levy rates because the wells associated with one mineral lease can be located in or extend into more than one county or different tax districts.

Also, the credit makes it difficult for auditors to determine whether the correct amount of tax has been reported and collected. Compounding the confusion is the fluid nature of local government mill levies. For example, La Plata County's rural mill levy, as calculated by the Department of Local Affairs, has varied significantly over the past 16 years, with a high of 6.1 percent and a low of 2.9 percent. Auditors must reconcile the credit amount claimed on a tax return and the amount of property tax accrued or paid. For example, one company the Department audited in 2005 had overstated its ad valorem credit in three previous years. The company overestimated the amount of ad valorem taxes it would pay and reported the estimate on its severance tax return. This resulted in an overstatement of the credit used in computing the severance tax owed and in a refund for the company. When the actual ad valorem tax was used to calculate the credit, the taxpayer owed the State approximately \$6 million.

## Stripper Well and Coal Exemptions

Like Colorado, other states allow tax credits and exemptions for low-producing, marginal, or stripper wells. However, only Colorado and Utah exempt stripper wells entirely from severance taxes. The stripper well exemption was intended to allow wells with marginal production to be economically viable. Some have argued, however, with oil and gas prices reaching record highs, that the exemption may no longer be serving its original purpose. For example, a stripper well producing 15 barrels of oil per day, being sold at \$70 a barrel, will produce \$383,250 in gross income per year, prior to any deductions that may be applicable. However, the producer will not be subject to the severance tax because of the 15 barrel per day exemption specified in statute.

There are a number of changes Colorado could make to the stripper well exemption. The exemption could be eliminated, or eliminated and replaced with a reduced tax rate. Alabama, Florida, Louisiana, New Mexico, and Wyoming have lower tax rates for stripper wells than for higher producing oil and gas operations. Colorado could change the statutory definition of stripper well. For example, Kansas exempts wells having an average daily gross production value of \$87 or less; Alabama defines a stripper well as one that produces 25 barrels or less of oil per day and 200,000 cubic feet or less of gas per day compared with Colorado's 15 barrel and 90,000 cubic feet specifications.

According to the Department of Revenue, the stripper well exemption contributes to more complex filing and auditing. Because wells often produce both oil and gas, companies must track each mineral's production to determine eligibility for the stripper well exemption. If a well qualifies for the exemption for oil, it may not necessarily qualify for the exemption for its gas production. Also, stripper well production is not eligible for the ad valorem credit because it is exempt from the severance tax. Therefore, Department of Revenue auditors must determine stripper well status to ensure the ad valorem credit is not claimed. To do this, auditors review county property tax assessments. Counties do not always separate the assessments for oil from the assessments for gas. Consequently, auditing is much more complicated and time-consuming. The inability to easily verify stripper well reporting increases the possibility of taxpayer noncompliance.

Similar to the stripper well exemption, changes could be made to the coal production exemption. For example, as previously noted, the first 300,000 tons of coal produced per quarter are exempt from severance taxation. The exempted weight could be increased or decreased or a reduced tax rate applied. Of the nine states for which we were able to find coal severance tax data, only one had a coal production exemption.

## Appendix A

<b>Colorado Severance Tax Rates as of July 2006 By Mineral</b>			
<b>Mineral</b>	<b>Tax Rate</b>	<b>Credits</b>	<b>Deductions/ Exemptions</b>
Oil and Gas	Under \$25,000 of gross income - 2 percent of gross income	<p><b><u>Ad Valorem Credit</u></b> 87.5 percent of all ad valorem taxes assessed/paid to the county may be taken as a credit against the state tax.</p>	<p><b><u>Stripper Well Exemption</u></b> Oil from wells producing 15 barrels of oil per day or less and gas from wells producing 90,000 cubic feet of gas per day or less are exempt from tax.</p> <p>Transportation, manufacturing, and processing costs may be deducted from gross income if the product is sold at a location other than at the wellhead.</p>
	\$25,000 and less than \$100,000 - 3 percent of gross income		
	\$100,000 and less than \$300,000 - 4 percent of gross income		
	\$300,000 and more - 5 percent of gross income		
Coal	\$0.54 per ton.	<p><b><u>Underground Mines</u></b> Coal produced underground is taxed at 50 percent of the rate for surface mines or \$0.27 per ton produced.</p> <p><b><u>Lignitic Coal</u></b> Lignitic coal is taxed at 50 percent of the base rate or \$0.27 per ton produced.</p>	<p>First 300,000 tons of coal produced per quarter are exempt from taxation.</p>
	By statute, the tax rate <b><u>shall be</u></b> increased/decreased by 1 percent for every full 1 ½ percent change in the index of producers' prices for all commodities as prepared by the U.S. Bureau of Labor Statistics.		
Metallic Minerals <sup>1</sup>	Amount over \$19 million - 2.25 percent of gross income	<p><b><u>Ad Valorem Credit</u></b> All ad valorem taxes assessed/paid to the county can be taken as a credit against the state tax. However, the credit cannot exceed 50 percent of the tax.</p>	<p>No tax on first \$19 million of gross income.</p>
Molybdenum Ore	\$0.05 per ton.	No credits authorized.	<p>No tax on the first 625,000 tons per quarter.</p>
Oil Shale	1 <sup>st</sup> year of production - 1 percent of gross income; 2 <sup>nd</sup> year - 2 percent of gross income; 3 <sup>rd</sup> year - 3 percent of gross income; and 4 <sup>th</sup> and each succeeding year - 4 percent of gross income.	No credits authorized.	<p>First 15,000 tons per day or 10,000 barrels per day of oil shale, whichever is greater, is exempt from tax.</p>
<p><b>Source:</b> Section 39-29-105, C.R.S.; Section 39-29-106, C.R.S.; Section 39-29-103, C.R.S.; Section 39-29-104; and Section 39-29-107, C.R.S.</p> <p><b>Note:</b> <sup>1</sup>Metallic minerals means all minerals except molybdenum ore, oil and gas, carbon dioxide, coal, oil shale, rock, sand, gravel, stone products, earths, limestones, and dolomite.</p>			

## Appendix B

<b>Severance Tax Collections By State and Per Capita in 2005</b>				
State	Total Collections (In Millions)	Rank	Total Collections per Capita	Rank
Texas	\$2,350	1	\$100	8
Alaska	\$930	2	\$1,400	2
Wyoming	\$810	3	\$1,600	1
Oklahoma	\$760	4	\$200	5
New Mexico	\$710	5	\$400	4
Louisiana	\$710	6	\$200	7
West Virginia	\$310	7	\$200	6
North Dakota	\$260	8	\$400	3
Kentucky	\$230	9	\$50	10
<b>Colorado</b>	<b>\$150</b>	<b>10</b>	<b>\$30</b>	<b>13</b>
Alabama	\$140	11	\$30	12
Kansas	\$120	12	\$40	11
Montana	\$90	13	\$100	9
Utah	\$70	14	\$30	14
Michigan	\$70	15	\$7	18
Mississippi	\$70	16	\$20	15
Florida	\$60	17	\$3	24
Washington	\$40	18	\$7	17
Nevada	\$40	19	\$20	16
Minnesota	\$30	20	\$6	20
Arizona	\$30	21	\$4	21
Arkansas	\$20	22	\$7	19
California	\$10	23	\$0.4	29
Oregon	\$10	24	\$3	23
Ohio	\$10	25	\$1	27
<b>Source:</b> U.S. Census Bureau.				
<b>Note:</b> Only top 25 states, ranked according to total collections, are listed.				

## Appendix C

The following audit recommendations are from the Office of the State Auditor’s Statewide Audit for Fiscal Year 2005 and include only disposition of those recommendations related to the processing of severance tax returns and the collection of oil and gas severance taxes owed to the State. These recommendations were initially reported in the Statewide Audit for Fiscal Year 2004.

<b>Disposition of Prior Audit Recommendations Statewide Audit for Fiscal Year 2005</b>		
<b>Rec. No.</b>	<b>Recommendation</b>	<b>Disposition</b>
21	<p>Improve controls over processing severance tax returns by (a) following up with taxpayers who do not submit required supporting documents with returns, (b) entering all critical data from returns and supporting documents, (c) implementing additional math edits to match information from supporting documents to that reported on returns and to recalculate the tax liability owed, as well as penalties and interest due, (d) establishing more rigorous review procedures for returns that exceed the Department’s internal threshold for refund requests, and (e) seeking statutory change to allow enforcement of the withholding requirement in cases where the producer fails to withhold and submit the statutorily required 1 percent of gross income from interest owners on a quarterly basis.</p>	<p>a. Deferred. The Department plans to fully implement this part of the recommendation by the October 2005 implementation date.</p> <p>b. and c. Deferred. The Department plans to fully implement these parts of the recommendation by the June 2006 implementation date.</p> <p>d. Implemented.</p> <p>e. Deferred. The Department completed an evaluation of existing withholding requirements, but decided not to seek legislative changes at this time. Because there may be other legislation on this issue during the current legislative session, the Department will reconsider the need for legislation to enforce the withholding requirement after the 2006 Legislative Session. See Fiscal Year 2004 Recommendation No. 23.</p>

**Disposition of Prior Audit Recommendations  
Statewide Audit for Fiscal Year 2005**

22	<p>Improve controls over severance tax quarterly withholding and annual reconciliations by (a) identifying all producers who file quarterly withholding returns but fail to file annual reconciliations and taking appropriate action, including assessing penalties and interest, and (b) reviewing annual reconciliations to ensure that supporting documentation is submitted and agrees to the reconciliation and following up as appropriate.</p>	<p>a. Partially Implemented. The Department identified and contacted all producers who filed quarterly withholding returns but failed to file annual reconciliations for tax year 2004. However, as of the end of our audit, the Department had not received the required documents from taxpayers. Once the supporting documentation is obtained, the Department will evaluate whether penalties and interest should be assessed on tax returns not filed in a timely manner. The Department anticipates fully implementing this recommendation in February 2006.</p> <p>b. Deferred. The Department plans to fully implement this part of the recommendation by the June 2006 implementation date.</p>
23	<p>Investigate more effective ways to collect oil and gas severance taxes owed to the State.</p>	<p>Deferred. The Department completed an evaluation of existing withholding requirements, but decided not to seek legislative changes at this time. Because there may be other legislation on this issue during the 2006 Legislative Session, the Department will reconsider the need for legislation to enforce the withholding requirement after the session ends. The Department intends to fully implement this recommendation by December 2006.</p>

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