COLORADO OFFICE OF THE STATE AUDITOR

Department of Natural Resources
Department of Public Health and Environment
Department of Revenue

Oil and Gas Reporting: Production, Emissions, and Severance Taxes

Performance Audit
November 2025
2464P



Legislative Audit Committee

Representative William Lindstedt Chair	**Senator Lisa Frizell** Vice Chair
Representative Max Brooks	**Senator Rod Pelton**
Representative Dusty Johnson	**Senator Mike Weissman**
Senator Dafna Michaelson Jenet	**Representative Jenny Willford**

Office of the State Auditor

State Auditor	**Kerri L. Hunter, CPA, CFE**
Deputy State Auditor	**Michelle Colin, JD**
Audit Manager	**Derek Johnson, MA**
Audit Supervisor	**Laura Russell, MA**
Audit Team	**Dante LoCicero** **Shaun Mitsky, MPP**

OFFICE OF THE STATE AUDITOR
C O L O R A D O

Working to improve government for the people of Colorado.

OFFICE OF THE STATE AUDITOR

KERRI L. HUNTER, CPA, CFE • STATE AUDITOR

November 21, 2025

Members of the Legislative Audit Committee:

This report contains the results of a performance audit of the Department of Natural Resources Energy and Carbon Management Commission, Department of Public Health and Environment, and the Department of Revenue. The audit was conducted pursuant to Section 2-3-128, C.R.S., which requires the State Auditor to conduct an audit of oil and gas reporting, including production reports, emissions, and severance taxes, and Sections 2-3-103(9) and 2-7-204(5), C.R.S., which requires the State Auditor to annually conduct performance audits of one or more specific programs or services in at least two departments for purposes of the SMART Government Act. The report presents our findings, conclusions, and recommendations, and the responses of the Departments.

Kerri L. Hunter

1375 Sherman Street, 5th Floor • Denver, Colorado 80203 • 303.869.2800 • osa.ga@coleg.gov • www.colorado.gov/auditor

Contents

Report Highlights

Oil and Gas Reporting: Production, Emissions, and Severance Taxes

Energy and Carbon Management Commission | Department of Public Health and Environment | Department of Revenue
Performance Audit • November 2025 • 2464P

Key Concern

Overall, we found that the Energy and Carbon Management Commission (ECMC) collected a majority of required production reports and conservation levies from oil and gas operators for Calendar Year 2023, but ECMC can make further improvements to its processes to ensure that it receives all required reports and levies. In addition, we found that although the Colorado Department of Public Health and Environment (CDPHE) collected emissions data from some oil and gas owners and operators for Calendar Year 2023, due to limitations of existing datasets, CDPHE does not know if it collected all of the required emissions data.

Key Findings

- ECMC collected a majority of required production reports for Calendar Year 2023; it approved about 674,000 oil and gas production reports. However, about 32,000 of these reports contained errors and ECMC reported that there were still about 11,600 reports missing for Calendar Year 2023, as of March 2025. We identified an additional 4,436 missing production reports for 2023 that were not reported by ECMC.
- ECMC did not collect more than 200 conservation levy payments on 1.7 million barrels of oil and 310 million MCF (one thousand cubic feet) of gas sold in Calendar Year 2023.
- CDPHE has not established a systematic process to determine the population of oil and gas owners or operators that are required to submit annual emissions data so that it can effectively determine which emissions reports are missing.

Background

- ECMC, a division within the Department of Natural Resources, is responsible for regulating the development and production of oil and gas in the state in a manner that protects public health, safety, welfare, the environment, and wildlife.
- CDPHE regulates air pollution in the state as part of its mission to protect the health and well-being of Coloradans by enforcing the State's air pollution laws and improving air quality, which includes collecting and reporting on emissions data provided by oil and gas owners or operators.
- The Department of Revenue is responsible for reviewing and processing severance tax filings and withholding statements, and conducting severance tax audits. Severance taxes are a state tax imposed upon nonrenewable resources removed from the earth such as oil and gas.

Audit Recommendations Made	Agency Responses		
	Agree	Partially Agree	Disagree
12	12	0	0

Chapter 1

Overview of Oil and Gas Industry Oversight

Oil and gas is the largest mineral extraction industry in Colorado. According to data from the Energy and Carbon Management Commission (ECMC), in Calendar Year 2023, there were 260 oil and gas operators in the state. An oil and gas operator oversees the daily operations of wells and equipment and their responsibilities include monitoring production, performing maintenance, and addressing equipment issues. These 260 operators had about 50,000 oil and gas wells that produced 167 million barrels of oil and 2.1 billion MCF (i.e., thousand cubic feet) of gas in Calendar Year 2023. Colorado oil and gas operators differ significantly in the number of wells they operate and volume of oil and gas produced. The largest operator reported production from 7,155 wells that produced about 800,000 barrels of oil and 226 million MCF of gas in Calendar Year 2023, while 102 operators had 5 or fewer wells that produced, in total, about 620,000 barrels of oil and 3 million MCF of gas. Most oil and gas produced in Colorado comes from low-producing wells, called "stripper wells," which are defined in statute as producing 15 barrels of oil or 90,000 cubic feet of natural gas or less "per day for the average of all producing days during the taxable year" [Section 39-29-105(1)(b), C.R.S.]. Throughout the report, we generally discuss Calendar Year 2023 data, as directed by Section 2-3-128(2)(a), C.R.S., which required this audit.

Three state agencies have oversight responsibilities over the oil and gas industry in Colorado. ECMC, which is a division within the Department of Natural Resources, and the Colorado Department of Public Health and Environment (CDPHE) each have direct regulation authority over the oil and gas industry in the state. The Department of Revenue (DOR) administers severance taxes on the sale of oil and gas produced in Colorado.

Energy and Carbon Management Commission

ECMC operates as a type-one agency, meaning it operates independently of the Department of Natural Resources' executive director and retains its own rulemaking authority [Section 24-1-105(1)(b), C.R.S.]. ECMC is comprised of the Energy and Carbon Management Commission (Commission) and ECMC staff. Statute requires ECMC to "Regulate the development and production of the natural resources of oil and gas in the State of Colorado in a manner that protects public health, safety, and welfare, including protection of the environment and wildlife resources" [Section 34-60-102(1)(a)(I), C.R.S.], and to "promulgate rules to ensure the accuracy of oil and gas production reporting by establishing standards" [Section 34-60-106(11)(b)(II), C.R.S.]. The Commission has seven members, five of whom are appointed by the Governor with consent of the Senate, and two other members who are the executive directors of the Department of Natural Resources and CDPHE [Section 34-60-104.3(2)(a), C.R.S.]. Of the five appointed members, one must have substantial experience in the oil and gas industry; one must have substantial expertise in planning or land use; one must have experience in environmental protection, wildlife protection, or reclamation; one must have substantial experience in public health; and one must have professional experience demonstrating an ability to contribute to the Commission's body of expertise [Section 34-60-104.3(2)(c), C.R.S.]. Statute and regulations require the Commission to identify the ownership and locations of all oil and gas wells, and issue permits for oil and gas extraction [Section 34-60-106(1), C.R.S.]; regulate the drilling, producing, and plugging of wells, and the location and spacing of wells [Section 34-60-106(2), C.R.S.]; and impose penalties for violations of regulations [2 CCR 404-1, 523(c)(3)(C) and 706(b)(2)]. In Fiscal Year 2024, ECMC had about 200 full-time equivalent staff to assist the Commission in carrying out its duties, which include collecting reports from operators regarding their production, collecting conservation levies from operators from the sale of oil and gas, reviewing mechanical integrity tests submitted by operators, and reviewing applications submitted by operators detailing the potential environmental impacts a new or expanding operation might have. We discuss ECMC's responsibilities and information systems and the related operator responsibilities in more detail below.

Production Reports. Operators are required to submit a monthly production report to ECMC for each oil and gas well they operate that includes what geological formation the oil or gas came from, from the time the well was drilled until it has been reported as plugged and abandoned for 1 month [2 CCR 404-1, 413]. These reports are required to include information such as the status of each well, the volume of oil or gas produced and sold, and the number of producing days. ECMC uses the production reports to identify low producing wells, report on the amount of oil and gas extracted in the state, and cross check production data with quarterly conservation levy payments made to ECMC.

Conservation Levies. Oil and gas operators in Colorado are required to a pay a quarterly fee to ECMC called a conservation levy that is based on their oil and gas sales and sale price for the quarter [Section 34-60-122(1)(a), C.R.S.]. Oil and gas produced on federal, state, or tribal land is exempt from conservation levies [Section 34-60-122(4), C.R.S.]. The purpose of the conservation levy is to help fund ECMC's operations through the Energy and Carbon Management Cash Fund. The conservation levy rate in Calendar Year 2023 was $0.0015 per dollar of oil and gas sales. Oil and gas operators use ECMC's online submission platform to report the total amount of oil or gas that they sold for each quarter, along with the volumes of any oil and gas that is exempt from conservation levy payments (i.e., oil or gas produced on state, federal, or tribal land). ECMC's online submission platform uses this information to calculate the total value of conservation levies owed by the operator. The operator can then submit their payment electronically or send a paper check through the mail. ECMC also allows other companies, called "payors," to pay conservation levies on behalf of oil and gas operators. Payors are a person or operator that submits conservation levy payments on behalf of another operator or themselves. For instance, in order to shift administrative burdens, a pipeline or transportation company could enter into an agreement to pay conservation levies on behalf of an operator.

Mechanical Integrity Tests. ECMC requires that operators perform mechanical integrity tests on oil and gas wells to ensure that they are not leaking fluids across subsurface formations. Operators perform these tests at set intervals depending on the status of the well and the length of time the well is in that status, and operators must report the test results to ECMC. If a well fails a mechanical integrity test, ECMC rule requires the operator to repair or plug and abandon the well within 6 months [2 CCR 404-1, 417(f)].

Emissions Data. Operators that want to construct or expand oil and gas facilities must submit an oil and gas development plan (development plan) to ECMC for approval before they can begin construction [2 CCR 404-1, 303(a)]. The development plan contains information on the facility's site location, the number of wells the facility has, and emissions estimates that the operator expects to occur during the pre-production (i.e., construction and drilling) and production phases. ECMC staff and the Commission review this information to determine the proposed site's positive impacts (e.g., plugging of old wells, closure and reclamation of old locations) and negative impacts (e.g., noise, light, dust, and odor) to the area, as well as any adverse impacts to water resources, ecosystems, soils, wildlife, public welfare, air quality, and public health.

ECMC Information Systems. In Calendar Year 2023 and most of Calendar Year 2024, ECMC used an information system called Webforms to receive production report information from operators, and then switched to a new platform, eForms, for this purpose in December 2024. ECMC staff are responsible for reviewing all of the information submitted by operators and then electronically transferring the information to its data system, the Colorado Oil and Gas Information System (COGIS). COGIS contains data on monthly production reporting, quarterly conservation levies, and mechanical integrity tests, all of which are available to the public through ECMC's website. ECMC stores each operator's development plans and emissions data on proposed oil and gas sites in its Cumulative Impacts Data Evaluation Repository (CIDER) system.

Department of Revenue

DOR's Taxpayer Services Division is responsible for reviewing and processing severance tax filings and withholding statements. The Mineral Audit unit in the Tax Auditing and Compliance Division conducts severance tax audits. Severance taxes are a state tax imposed upon nonrenewable resources removed from the earth, such as oil and gas. We discuss severance taxes, withholding statements, and DOR's information systems in more detail below.

Severance Taxes. DOR collects severance tax returns from anyone who has at least $250 in income from the sale of oil and gas extracted in the state, who are referred to as "interest owners" in oil and gas wells, and severance tax withholding payments from operators or "first purchasers" of oil and gas [Section 39-29-112(7)(a), C.R.S.]. Oil and gas first purchasers are entities that make the first purchase of oil or gas after the oil or gas is extracted from the earth. Oil and gas severance taxes in Colorado are based on the total gross income that an individual receives from the sale of oil or gas extracted in the state [Section 39-29-105(1)(b), C.R.S.]. Although oil and gas interest owners are responsible for paying the tax [1 CCR 201-10, 39-29-111(4)], operators or first purchasers will withhold 1 percent of their gross income every month that oil or gas is sold to cover severance taxes for all interest owners in the well [1 CCR 201-10, 39-29-111(1)]. The operator will provide the interest owners with an Oil and Gas Withholding Statement form that states the amount that the interest owner earned for the year from that operator's wells, and the amount the operator submitted in withholdings to DOR on behalf of the interest owner. The interest owner must then file their own severance tax return annually as an individual based on the gross income they received from oil and gas sales in the previous year, and they can claim a credit for the severance tax already withheld by the operator and paid on their behalf [1 CCR 201-10, 39-29-111(4) and (5)]. DOR also collects severance taxes from oil and gas first purchasers, who can make payments on behalf of operators, through monthly withholding payments [1 CCR 201-10, 39-29-111(3)(a)]. The first purchaser or operator is responsible for the withholding payment if they distribute the funds to interest owners. DOR's Field Audit Division audits severance tax filings to ensure compliance with relevant statutes and regulations. DOR collected about $341 million in oil and gas severance taxes in Fiscal Year 2023.

DOR Information Systems. Taxpayers file severance tax returns using paper forms. The data from the paper returns is extracted and imported into GenTax, DOR's tax processing system. DOR relies on GenTax to complete automated verification of taxpayer filings, which includes checking if a taxpayer submitted enough information for GenTax to process the return, and determining if the taxpayer's math is correct on their returns. If GenTax determines that a taxpayer has not filed timely or properly, it generates non-filer notices or issues penalties, as needed.

Colorado Department of Public Health and Environment

CDPHE's Air Pollution Control Division regulates air pollution in the state. According to CDPHE's website, this Division "protect[s] the health and well-being of Coloradans by enforcing the state's air pollution laws and improving the quality of the air they breathe." One way it accomplishes this is through required emissions reporting and by taking enforcement action against businesses for emissions violations. We discuss emissions inventory reports and CDPHE's information systems in more detail below.

Emissions Inventory Reports. Oil and gas operators or owners are required to submit emissions inventory reports to CDPHE annually, which contain data on actual emissions from oil and gas operations by equipment or activity [5 CCR 1001-9, Part B, V]. It is up to the operator or owner to determine who will submit these reports. CDPHE uses these reports to determine total emissions for the Greenhouse Gas Inventory Report for the State, which CDPHE uses to determine the total emissions in the State, and if the State is on track to meet greenhouse gas reduction goals. If an operator or owner fails to submit emissions data, CDPHE may use enforcement processes to achieve compliance.

CDPHE Information Systems. Oil and gas operators or owners submit annual emissions inventory reports to CDPHE through the Oil and Natural Gas Annual Emission Inventory Reporting System (ONGAEIR). These reports must include a list of activities or equipment for which emissions are reported, a list of each well production facility, monthly actual emissions, and total annual actual emissions for the year [5 CCR 1001-9, Part B, V.B.1]. Emissions data in ONGAEIR can be filtered by equipment type, oil and gas company, or facility location.

Audit Purpose, Scope, and Methodology

We conducted this performance audit pursuant to Section 2-3-128, C.R.S., which requires the State Auditor to conduct an audit of oil and gas reporting, and Sections 2-3-103(9) and 2-7-204(5), C.R.S., which require the State Auditor to conduct performance audits under the State Measurement for Accountable, Responsive, and Transparent (SMART) Government Act. Audit work was performed from November 2024 through November 2025. We appreciate the cooperation and assistance provided by the management and staff of ECMC, DOR, and CDPHE during this audit.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Our key audit objectives were to:

- determine how oil and gas production reports and conservation levies collected by ECMC compare to severance tax filings collected by DOR,

- determine how emissions reports collected by ECMC compare to emissions reports collected by CDPHE,

- report on the number of ECMC, DOR, and CDPHE reports that were missing, incomplete, or incorrect for Calendar Year 2023, and determine if the agencies can make any improvements for identifying missing, incomplete, or incorrect reports, and

- report the total amount of penalties that ECMC, DOR, and CDPHE assessed to oil and gas operators in Calendar Year 2023.

To accomplish our audit objectives, we performed the following work:

- Reviewed applicable laws, rules, and agency policies, procedures, and guidance.

- Interviewed ECMC, DOR, and CDPHE staff to obtain an understanding of each agency's role in oil and gas reporting, how each agency ensures reports are complete and accurate, and how penalties are assessed at each agency against oil and gas operators that are out of compliance with laws or regulations.

- Reviewed oil and gas production reporting data, conservation levy payment data, emissions data, and mechanical integrity reports provided by ECMC for Calendar Year 2023.

- Compared Calendar Year 2023 ECMC production reports and conservation levies with severance tax withholding statements and annual severance tax filings provided by DOR for the population of oil and gas operators in the state during Calendar Year 2023 and for a sample of 30 operators.

- Reviewed ECMC's emissions data from development plans and compared them with the annual emissions inventories from CDPHE for Calendar Year 2023 for a sample of 30 operators.

- Reviewed agency-reported numbers of missing, incomplete, and incorrect oil and gas reports from ECMC, DOR, and CDPHE in Calendar Year 2023 for the entire population of oil and gas operators.

- Analyzed ECMC's oil and gas production data and its delinquent monthly oil and gas production report for Calendar Year 2023 to determine how many reports were missing and the accuracy of the delinquent monthly production report.

- Reviewed information from ECMC, DOR, and CDPHE on the amount of penalties assessed by each agency against the entire population of oil and gas operators in the state and for a sample of 30 oil and gas operators, by type and amount assessed for Calendar Year 2023.

We relied on sampling techniques to support our work. As required by statute [Section 2-3-128, C.R.S.], we selected a random sample of oil and gas operators representative of the state in Calendar Year 2023 by selecting 10 small operators, defined as operating up to 4 wells; 10 medium operators, defined as operating 5 to 24 wells; and 10 large operators, defined as operating 25 wells or more. The results of our sample cannot be projected to the population. However, the sample results are valid for confirming conclusions for our audit objectives and, along with the other audit work performed, provide sufficient, reliable evidence as the basis for our findings, conclusions, and recommendations.

As required by auditing standards, we planned our audit work to assess the effectiveness of those internal controls that were significant to our audit objectives. Details about the audit work supporting our findings and conclusions, including any deficiencies in internal control that were significant to our audit objectives, are described in the remainder of this report.

A draft of this report was reviewed by ECMC, DOR, and CDPHE. Obtaining the views of responsible officials is an important part of the Office of the State Auditor's (OSA) commitment to ensuring that the report is accurate, complete, and objective. The OSA was solely responsible for determining whether and how to revise the report, if appropriate, based on the agencies' comments. The written responses to the recommendations and the related implementation dates were the sole responsibility of the agencies.

Chapter 2
Oil and Gas Reporting

In 2022, the General Assembly passed House Bill 22-1361, which required the Office of the State Auditor (OSA) to conduct an audit of reporting by oil and gas operators in Colorado. According to the bill's legislative declaration, "The state and its citizens have a strong interest in ensuring that the information provided through oil and gas reporting is accurate and provided in a timely manner." In addition, the bill stated that the purpose of the bill was to ensure proper reporting related to oil and gas extraction through the audit and that the audit would "identify opportunities to improve interagency communication, leading to increased transparency and public confidence in the reporting process."

Statute required the OSA to report on and compare data provided by the Energy and Carbon Management Commission (ECMC), the Department of Revenue (DOR), and the Colorado Department of Public Health and Environment (CDPHE) for both a sample of oil and gas operators and for the entire population of operators in the state during Calendar Year 2023 [Section 2-3-128, C.R.S.]. In this chapter, we discuss the information provided by each agency, as directed by statute, the results of our comparisons of the various data and reports, and our findings and recommendations related to oil and gas reporting. We discuss some of the information that statute required the audit to include here in this introductory section of Chapter 2 if we did not have findings and recommendations associated with the requirement(s). We discuss the remaining required information in the associated findings discussions.

Required Analyses

Statute required the audit to describe the following information for both a sample of operators and the total population of operators in the state during Calendar Year 2023:

- The total amount of missing, incomplete, or incorrect oil and gas reports or severance tax documents due or submitted for Calendar Year 2023, as reported by ECMC and DOR [Section 2-3-128(3)(b)(I), C.R.S.]. This includes production reports, conservation levies, mechanical integrity tests, emissions reports, and severance tax documents.

- The total amount of penalties assessed for Calendar Year 2023, as identified by ECMC and DOR, with the data broken down by type of violation and penalty amounts assessed for the violations [Section 2-3-128(3)(b)(II), C.R.S.].

Energy and Carbon Management Commission

We discuss the information provided by ECMC related to oil and gas production reports and penalties assessed for missing, incomplete, and incorrect reports, and our analyses related to this information in Finding 1. We discuss the information provided by ECMC related to conservation levies and penalties assessed for missing levies and our analyses related to this information in Finding 2.

ECMC also provided information related to missing, incomplete, or incorrect mechanical integrity tests and emissions reports for the population of operators in Calendar Year 2023, including our sample of 30 operators, as directed by statute [Section 34-60-106(21)(b)(I), C.R.S.]. As discussed in Chapter 1, mechanical integrity tests look at whether oil and gas wells are leaking fluids across subsurface formations. Operators perform these tests at set intervals depending on the status of the well and the length of time the well is in that status, which can change across months and years, altering when a test is due. Operators must report the test results to ECMC. ECMC reported that there were 300 missing mechanical integrity tests for 30 operators out of the total population of 260 operators during Calendar Year 2023—4 of the 30 operators within our sample had 4 total missing tests. We did not review the missing mechanical integrity tests further because it would require reviewing multiple years of production data, and the audit focused on Calendar Year 2023, as directed by statute [Section 34-60-106(21)(b)(II), C.R.S.]. ECMC reported that it had issued a Notice of Alleged Violation (NOAV), which is the first step in the enforcement process, to 8 operators for a total of 18 violations related to mechanical integrity tests for Calendar Year 2023. In addition, ECMC reported that it assessed a total of $471,678 in penalties against 5 operators for mechanical integrity test violations in Calendar Year 2023. With respect to emissions data, ECMC reported that all operators, including the 30 in our sample, had provided all of the required data for Calendar Year 2023.

Department of Revenue

As discussed in Chapter 1, DOR collects severance tax returns from anyone who has at least $250 in income from the sale of oil and gas extracted in the state, referred to as "interest owners" in oil and gas wells, and severance tax withholding payments from operators or "first purchasers" of oil and gas [Section 39-29-112(7)(a), C.R.S.]. The operator or first purchaser submits a withholding payment to DOR and provides the interest owners with an Oil and Gas Withholding Statement that the interest owners are supposed to attach to their severance tax return. Since DOR does not know which interest owners received income from oil and gas sales each month, it does not know when an interest owner does not submit their severance tax return or withholding statements. Therefore, DOR was not able to tell us how many missing, incomplete, or incorrect severance tax returns or withholding statements there were for Calendar Year 2023. However, DOR does have some processes in place to identify potentially missing severance tax returns and withholding statements. GenTax, DOR's tax processing system, has an automated non-filer notice process built into it that is based on interest owners that filed a severance tax return and withholding statement in the prior year. According to this information, DOR reported that there were 13 operators that had previously submitted withholding payments, but that did not submit withholding payments in Calendar Year 2023.

We also reviewed DOR's data for the 30 operators in our sample and found that two operators had missing severance tax returns and two other operators had missing severance tax withholding payments for Calendar Year 2023. Without conducting an audit of each of these operators, DOR reported that it was not able to determine if they should have filed severance tax returns or made withholding payments in Calendar Year 2023. DOR staff also reported that they did not know if DOR assessed any penalties against oil and gas operators, including those in our sample, for Calendar Year 2023 because DOR does not track penalties on an aggregate level. We looked at penalty information for the 30 operators in our sample and found that DOR assessed a total of 5 penalties against 3 of the sampled operators for a total of $2,395.

In addition, statute required the audit to conduct the following comparisons for our sample of 30 operators and identify any gaps or inconsistencies in the payments or reporting:

- Compare the monthly production reports and quarterly conservation levies provided by ECMC with the severance tax withholding statements and annual severance tax returns submitted by DOR [Section 2-3-128(3)(a)(I), C.R.S.].

- Compare the emissions data submitted by ECMC with the emissions data submitted by CDPHE [Section 2-3-128(3)(a)(II), C.R.S.].

Comparison of Oil and Gas Production Data with Severance Tax Data

We could not make a full comparison of operators' oil and gas production reports and annual severance tax returns and withholding statements because ECMC and DOR collect different data on these forms. Production reports do not include any financial information that connects to severance taxes paid or withholding payments because ECMC does not have data on the interest owners for wells or the sale price of oil and gas. Annual severance tax returns do not require interest owners to list the volume of oil and gas produced or sold. Similarly, when an operator makes a severance tax withholding payment to DOR, it does not include the volume of oil or gas produced or sold that is associated with that payment. Therefore, we were not able to draw any definitive conclusions showing matches or discrepancies between production reports, annual severance tax returns, and severance tax withholding statements.

If the State wanted production report data and annual severance tax return data, along with withholding statement payment data, to match, it would require a statutory change to make operators responsible for paying the oil and gas severance tax instead of interest owners. This aligns with a recommendation from a 2021 Severance Tax Working Group's report, which was required by

Senate Bill 21-281 to improve the State's severance tax system. In addition, statute would need to require that operators include the volume and sale price of oil and gas that they extracted and sold for each well on their annual severance tax returns and withholding statements.

Notwithstanding the limitations of comparing ECMC and DOR data, we compared ECMC production data for our sample of 30 operators with DOR severance tax return and withholding statement data. We found that only 25 of the 30 operators reported production amounts in Calendar Year 2023. Of those 25 operators, we found:

- 13 operators reported production to ECMC that was not subject to severance tax because it was from stripper wells. As defined by statute, these wells produce less than 15 barrels, or 90,000 cubic feet of gas per day, and are not subject to the tax [Section 39-29-105(1)(b), C.R.S.]. Of these 13 operators that reported stripper well production, 3 filed annual severance tax returns with DOR so that the operators could claim a refund of some or all of the withholding payments they made to DOR in Calendar Year 2023.

- 12 operators reported taxable production to ECMC (i.e., production from non-stripper wells), and 10 of these 12 operators also filed a 2023 severance tax annual return with DOR. According to DOR, it is possible that the 2 operators that did not file a severance tax return were not interest owners in the wells that it operated and, therefore, the operator would not have been required to file a severance tax return, but it was not able to confirm this was the case. An operator that is not an interest owner in a well would only be required to provide the interest owners with an Oil and Gas Withholding Statement form that states how much the interest owner earned for that year from that operator's wells, the amount of severance taxes that were withheld and submitted to DOR on behalf of the interest owner and, therefore, how much the interest owner could claim in credits on their severance tax return. A first purchaser could also provide interest owners with Oil and Gas Withholding Statements on behalf of a non-interest owner well operator.

- 14 operators made at least 1 withholding payment to DOR in Calendar Year 2023. Of those 14 operators, 10 had taxable oil and gas production (i.e., production reported to ECMC from non-stripper wells) in Calendar Year 2023, and 4 did not. Two operators that had taxable production did not make withholding payments in Calendar Year 2023. According to DOR, it is possible that a first purchaser made withholding payments on behalf of these 2 operators without disclosing that to DOR, but it was not able to confirm this was the case.

Comparison of Quarterly Conservation Levies with Severance Tax Data

We could not make a full and accurate comparison of conservation levies paid and annual severance tax returns or withholding payments filed by operators. Although both conservations levy payments and severance taxes are based on sales, they are paid by different entities; operators pay conservation levies and make withholding payments, while interest owners file severance tax returns. Additionally, production that occurs on state, federal, or tribal land is exempt from conservation levy payments, but it is not exempt from severance tax. Similarly, stripper well production is exempt from severance taxes, but not from conservation levy payments. Given that there is no correlation between the amount of conservation levies owed by an operator and the amount of severance tax that must be paid on that operator's production, we were not able to draw any definitive conclusions showing matches or discrepancies between quarterly conservation levy payments and annual returns or withholding payments.

If the State wanted quarterly conservation levy payment data and annual severance tax return data to match, it would require a statutory change to impose oil and gas severance tax on operators rather than interest owners. In addition, statute would need to require operators to include the amount of conservation levies paid or total value of oil or gas sold for the calendar year on their annual severance tax return. However, such a statutory change could be problematic because DOR would not be able to share any taxpayer information with ECMC due to its confidentiality requirements.

If the State wanted quarterly conservation levy payment data and withholding statement data to match, it would need to require that operators or first purchasers report to DOR the amount of conservation levies paid to ECMC. However, this change could also be problematic because DOR would not be able to share any taxpayer information with ECMC due to its confidentiality requirements.

Notwithstanding the limitations of comparing ECMC and DOR data, for our sample of 30 operators, we compared operators that made conservation levy payments to ECMC for at least one quarter of Calendar Year 2023 and operators that filed an annual severance tax return or withholding payment with DOR for 2023. As noted above, 13 of the 30 operators filed an annual severance tax return, and all 13 also made conservation levy payments for at least 1 quarter of 2023. See Finding 2 for further discussion on conservation levy payments.

Comparison of ECMC and CDPHE Emissions Data

We could not make a full and accurate comparison of ECMC emissions data and CDPHE emissions data because the two agencies collect data at different phases of operations, from different levels of operations, and at different time intervals. ECMC reported that it designed its development plan forms that include emissions data to be complementary with CDPHE's emissions data so that ECMC and CDPHE emissions data could be used to identify the cumulative environmental impacts of oil and gas operations in the state. However, through conversations with ECMC and CDPHE and our own reviews of both agencies' data, we found that the emissions data from Calendar Year 2023 could not reasonably be compared for four reasons, as follows:

1. ECMC collects estimated emissions for a planned site, while CDPHE collects actual emissions data for the site that was constructed. The site that is actually constructed may differ from the planned site.

2. ECMC collects emissions data based on operating phases, which could cross over calendar years, while CDPHE collects emissions data based on the calendar year. This means that you would need several calendar years of CDPHE emissions data be able to compare it with ECMC data.

3. ECMC collects emissions data for locations, while CDPHE collects emissions for facilities; there can be multiple facilities at one ECMC location, which makes comparison difficult.

4. Operator and facility names differ across ECMC and CDPHE data, with no common identifier.

When the audit team compared the ECMC and CDPHE data for our sample of 30 operators, we identified five facilities that matched across ECMC and CDPHE emissions data, but only one of these facilities had completed the pre-production phase of reporting, which we needed for comparison. We found that the one operator that completed the pre-production phase had over-estimated emissions for certain equipment, while underestimating emissions for other equipment.

Finding 1 – Production Reports

As required by statute and rule, ECMC collects a Report of Monthly Operations (production report) from oil and gas operators, which is due within 45 days after the end of each month [Section 34-60-106(1), C.R.S., and 2 CCR 404-1, 413]. Production reports contain the status of each well that the operator owns (such as if a well is producing or temporarily shut down), the producing geological formations, volumes of oil and gas produced and sold, and beginning- and end-of-month oil inventories. ECMC staff use information from the production reports to determine operator compliance with various state rules, such as well structural soundness rules for mechanical integrity tests. Oil and gas operators submit production reports electronically on what is known as a Form 7 using ECMC's eForms submission platform (prior to 2024, ECMC used a platform called Webforms). Once approved by ECMC staff, the information submitted by the operator automatically transfers from eForms into ECMC's Colorado Oil and Gas Information System (COGIS). Rule requires that production reports "will be timely filed, accurate, complete, and comply with the requirements set forth in the Commission's Rules or any requirement set by the Director or the Commission" [2 CCR 404-1, 207]. To help ensure that operators comply with production reporting requirements, ECMC issues guidance, and provides operator training and direct staff support, on how to report on the various production elements.

If an operator fails to submit a complete and accurate production report on time, ECMC staff report that they will send an email notifying the operator of the specific information that is missing or incorrect, such as the months and wells that are missing from the report and any missing geologic formation information. If ECMC does not receive a response from the operator, ECMC staff reported that they can issue Warning Letters, which state that ECMC may pursue enforcement action if the operator does not come into compliance with reporting requirements. ECMC will issue an NOAV to begin the enforcement process, which can ultimately lead to levying financial penalties for violations of rule, order, or permit. ECMC reports that it can take from several months to multiple years from the time it first issues an NOAV to when a fine is levied and collected due to multiple steps in the enforcement process, such as hearings, and the notice time required between those steps.

In January 2020, our office released a performance audit of Severance Taxes that found that ECMC did not ensure that oil and gas operators consistently reported required information related to the amount of oil and gas produced and sold. Specifically, the audit found that 66 percent of oil and gas operators had not submitted required monthly reports and 10 percent of operators submitted incomplete reports. The audit recommended that ECMC use its Delinquent Production Report (Delinquent Report) to identify missing production reports and to implement a process to identify incomplete reports, and take enforcement action against operators that fail to comply with reporting requirements. In July 2020, ECMC reported that it had implemented the recommendations.

In August 2021, our office released a performance audit of ECMC's Oil and Gas Production Reporting. The audit found that ECMC did not have an effective or efficient process for following up on delinquent production reports because there was not an easy way to determine the reason a production report was showing up as missing on ECMC's Delinquent Report. As a result, ECMC used the same approach to follow up on missing production reports that an operator had never submitted as it did to follow up on reports that an operator had submitted but ECMC had rejected and returned to the operator because they had errors. Therefore, ECMC was pursuing the same enforcement action for operators that had never submitted a report as it did for operators that had tried to comply with the reporting requirement but their report contained errors. The audit recommended that ECMC improve the effectiveness and efficiency of its processes for following up on delinquent production reports by implementing changes to the reporting system to distinguish between missing delinquent reports and rejected reports. This information would help ECMC determine the most appropriate type of enforcement action for each type of delinquency. For example, stronger enforcement actions may be more appropriate for an operator that has consistently failed to submit monthly production reports versus an operator that has tried to comply with the rules by submitting reports but submitted reports with errors that ECMC rejected. In August 2022, ECMC reported that it had implemented the audit recommendation and modified the Delinquent Report to distinguish between missing and rejected reports. ECMC reported at that time that its staff were using this information to prioritize their efforts to obtain missing reports, and enforcement officers were using this report to take enforcement action against operators that had never submitted the required reports.

What audit work was performed and what was the purpose?

Section 2-3-128, C.R.S., which directed the OSA to conduct this audit, required the OSA to select a random sample of oil and gas operators in the state that was representative of the total population of operators in the state during Calendar Year 2023. We selected a sample from the list of the population of operators who filed a monthly production report in Calendar Year 2023 that ECMC provided. We divided the operators into three equal groups based on the number of wells reported by the operators. The three groups, as defined by the audit team, were: small operators (those that reported on 1 to 4 wells), medium operators (those that reported on 5 to 24 wells), and large operators (those that reported on over 25 wells). We randomly selected 10 operators from each group—a total of 30 operators—for review.

For the total population of oil and gas operators in the state during Calendar Year 2023, which includes the operators in our sample, statute [Section 34-60-106(21)(b), C.R.S.] directed the OSA to:

- Describe the total amount of missing, incomplete, or incorrect reports due or submitted for Calendar Year 2023, as identified by ECMC.
- Describe any incomplete or incorrect oil and gas reports that were accepted by ECMC without a request for completion or correction.
- Describe the total amount of penalties assessed by ECMC, broken down by type of violation and penalty amount assessed against a person for the violation.
- Describe any notices given by ECMC to an operator.

Statute also directed ECMC to provide the information necessary for the OSA to fulfill this directive [Section 34-60-106(21)(c), C.R.S.]. ECMC provided all oil and gas production reports received from oil and gas operators and accepted by ECMC for Calendar Year 2023; the Delinquent Report for Calendar Year 2023, which includes missing and rejected reports that were due that year; and reports for all individual operators that listed any missing or rejected production reports for the operator for Calendar Year 2023 (Individual Operator Reports). ECMC queried all of the reports from COGIS. We also reviewed information provided by ECMC on any enforcement actions taken against operators in Calendar Year 2023, such as issuing NOAVs or assessing penalties for oil and gas violations.

Additionally, we reviewed statutes and rules related to oil and gas production reporting requirements and ECMC's enforcement authority when an operator fails to submit required reports. Finally, we interviewed ECMC staff on their processes for reviewing production report submissions, obtaining missing and corrected production reports from operators, and taking enforcement actions when operators do not provide required reports.

The purpose of our audit work was to:

1. Determine if the total population of oil and gas operators in the state during Calendar Year 2023, including for the 30 operators in our sample, submitted all of the required production reports during Calendar Year 2023.
2. Report on the number of missing, incomplete, or incorrect production reports due or submitted for Calendar Year 2023 for the total population of oil and gas operators in the state during Calendar Year 2023, including for the 30 operators in our sample.
3. Report on the number of incomplete or incorrect oil and gas production reports that were accepted by ECMC in Calendar Year 2023 without a request for completion or correction.

4. Determine if ECMC consistently took enforcement action against operators that did not submit required production reports in Calendar Year 2023.

5. Report on the total amount of penalties assessed by ECMC for Calendar Year 2023.

How were the results of the audit work measured?

Operators are required to submit production reports monthly. Statute directs ECMC to regulate the development and production of oil and gas in a manner that protects public health, safety, and welfare, including protection of the environment and wildlife resources [Section 34-60-102 (1)(a), C.R.S.]. Statute grants ECMC the authority to require "the making and filing with the commission of copies of well logs, directional surveys, and reports on well location, drilling, and production" [Section 34-60-106(1), C.R.S.]. ECMC rule requires operators to report within 45 days of the end of the month all existing oil and gas wells, by completed formation, every month from the time the well is spud (i.e., the beginning of drilling a well) until it has been reported as plugged and abandoned on a production report [2 CCR 404-1, 413].

Operators that fail to submit production reports are subject to uniform, consistent enforcement action. Any operator that violates ECMC statute, rule, or permit is subject to a penalty of no more than $15,000 for each act of violation per day that the violation continues [Section 34-60-121 (1)(a), C.R.S.]. Statute states that when ECMC has reasonable cause to believe a violation of any statute, rule, or permit has occurred, ECMC "shall provide written notice to the ECMC operator…The notice must be served personally or by certified mail, return receipt requested, to the ECMC operator…and must state the provision alleged to be violated…and any corrective action and abatement deadlines" [Section 34-60-121(4)(c), C.R.S.]. ECMC established its own Enforcement Guidance and Penalty Policy [Enforcement Policy] to "provide stakeholders with a clear roadmap as to how and when [ECMC] will enforce the Statute and Rules that guide oil and gas development." The Enforcement Policy states that a "strong enforcement program plays a pivotal role in ensuring responsible oil and gas development. To achieve this goal, ECMC staff works together with operators to ensure they are complying with the governing statute and rules through outreach, corrective actions, warning letters, and NOAVs….[ECMC's] enforcement and penalty program is designed to deter violations and encourage compliance." According to ECMC, its Enforcement Policy is designed to ensure that penalties are assessed equitably and consistently, are appropriate in view of the seriousness of the violation, eliminate any economic benefit of noncompliance, and are administered to encourage a quick return to compliance. ECMC's Enforcement Policy states that for production reports, the first day of the violation would be 46 days after the end of the reported month, as reports are due 45 days after the end of the month and "the start date would be on the 46th day because it is the first day after the report was due." It also establishes a fine of $200 per day, per well, for violations of production reporting requirements.

What problems did the audit work identify?

Overall, we found that ECMC collected the majority of the required production reports from operators for Calendar Year 2023. However, we found that, as of March 2025, some of the production reports required for 2023 were still missing, ECMC had accepted incorrect reports with errors without requiring the errors to be corrected, and ECMC had not pursued consistent enforcement action against operators that failed to provide required reports. Through both our overall testing of the population of oil and gas operators in the state during Calendar Year 2023 and our detailed testing of a sample of oil and gas operators, we found the following:

1. ECMC received a majority of the required production reports, but not all.

2. There were inaccuracies in the Delinquent Report, including production reports that were missing but were not identified on the Delinquent Report, production reports that were received by ECMC but were erroneously identified as missing on the Delinquent Report, and discrepancies between the Delinquent Report and the underlying Individual Operator Reports.

3. ECMC received incorrect production reports but did not follow up with operators to address the issues.

4. ECMC did not consistently pursue enforcement actions, such as imposing penalties, against operators that failed to submit required production reports.

Missing Production Reports

As of December 2024, ECMC had approved 673,987 production reports submitted by oil and gas operators for Calendar Year 2023. As of March 2025, ECMC reported that there were still 11,620 delinquent production reports from Calendar Year 2023 that were missing, incomplete, or incorrect. As shown in Exhibit 2.1, these 11,620 delinquent reports were associated with 134 different operators and 1,360 wells. The number of delinquent reports per operator ranged from 1 to 3,180 reports, with an average of 87 delinquent reports per operator.

Exhibit 2.1
Number of Delinquent[1] Oil and Gas Production Reports by Operator, Calendar Year 2023

Number Range of Delinquent Production Reports by Operator	Number of Operators within Each Range of Delinquent Reports	Total Number of Wells with Delinquent Reports
1-12	69	111
13-25	16	40
26-50	18	116
51-99	13	153
100-199	9	121
200-499	6	322
500-3,180	3	497
Total: 11,620	**134**	**1,360**

Source: Office of the State Auditor analysis of the Delinquent Production Report for Calendar Year 2023 provided by the Energy and Carbon Management Commission.
[1] Delinquent includes production reports that are missing, incomplete, or incorrect.

As shown in Exhibit 2.2, there were 221 of the delinquent reports that were associated with 8 of the 30 sampled operators. The number of delinquent reports per sampled operator ranged from 2 to 85 reports, with an average of 28 delinquent reports per operator.

Exhibit 2.2
Number of Delinquent[1] Oil and Gas Production Reports by Sampled Operator, Calendar Year 2023

Number Range of Delinquent Production Reports by Sampled Operator	Number of Sampled Operators Within Each Range of Delinquent Reports	Total Number of Wells with Delinquent Reports
1-12	5	7
13-25	0	0
26-50	1	3
51-85	2	25
Total: 221	**8**	**35**

Source: Office of the State Auditor analysis of the Delinquent Production Report for Calendar Year 2023 provided by the Energy and Carbon Management Commission.
[1] Delinquent includes production reports that are missing, incomplete, or incorrect.

According to ECMC, 4,356 of the 11,620 (37 percent) delinquent reports were reports that the operators had never submitted or reports that the operators had submitted, but ECMC rejected due to incomplete or incorrect information. ECMC reported that the other 7,264 of the 11,620 (63 percent) delinquent production reports were for wells in the process of becoming orphaned wells, so

ECMC did not consider these reports to be missing; the Delinquent Report did not indicate that these wells were in the process of becoming orphaned wells. An orphaned well is an unplugged oil or gas well for which no owner or operator can be found, or where such owner or operator is unwilling or unable to plug and abandon the well. ECMC's Orphaned Well Program identifies and addresses these wells and takes over the process of permanently sealing or plugging them. However, while an operator is in the process of an Orphaned Well Program determination from the Energy and Carbon Management Commission (Commission), neither rule nor statute exempt the operator from complying with reporting requirements.

We compared the list of 7,264 missing production reports that ECMC stated were for wells in the process of becoming orphaned wells to the list of wells where the formal orphaned well hearing process had been completed by Calendar Year 2023. From this comparison, we found that 17 of the 7,264 missing production reports noted by ECMC had started the process of being designated as orphaned wells but had not completed the formal process. Therefore, when adding these additional 17 missing reports that were not formally designated as orphaned wells with the 4,356 identified in the Delinquent Report, there was a total of 4,373 production reports that should have been submitted or corrected and returned in Calendar Year 2023. There are additional missing reports ECMC did not include as missing that should be included as missing reports, which we discuss below.

Inaccuracies in the Delinquent Report

Through our comparison of the total population of production reports and the Delinquent Report, we identified 4,436 additional production reports that were missing for Calendar Year 2023, but were not listed on the Delinquent Report. We reviewed all ECMC production data for Calendar Year 2023 to identify any wells that should have submitted monthly production reports for the year, but had not submitted all 12 required monthly reports. We compared this information to the wells listed on the Delinquent Report and found that an additional 4,436 production reports were missing but not listed on the Delinquent Report. ECMC does not conduct this comparison and, instead, only uses its Delinquent Report to identify missing production reports; since these reports were not on the Delinquent Report, ECMC did not follow up with operators to obtain them.

We then compared the Delinquent Report to all production reports received and accepted by ECMC in Calendar Year 2023 and found that 37 reports were incorrectly listed as missing on the Delinquent Report, when ECMC had documentation to show that they had been received and approved by ECMC staff.

We also noted that the Delinquent Report did not match more detailed Individual Operator Reports—a more detailed list of delinquent reports by operator that ECMC provided to us—for the same time period. ECMC staff reported that it sends operators their Individual Operator Report every month, and that the Individual Operator Reports should match the Delinquent Report. When we compared the Delinquent Report to the various Individual Operator Reports for Calendar Year 2023, we found 277 missing reports listed in the Delinquent Report that were not listed in the

Individual Operator Reports; as a result of the omissions, operators were not made aware that these reports were missing.

Therefore, a more accurate number of missing reports for Calendar Year 2023 is 8,772 reports. This total represents the 4,356 reports ECMC identified as missing, plus the 17 reports that were not associated with an orphaned well operator, plus the 4,436 reports we identified that should have been on the Delinquent Report but were not, minus the 37 reports that were incorrectly listed as missing when they had been received.

Incomplete or Incorrect Accepted Production Reports

In total, oil and gas operators submitted 673,987 production reports for Calendar Year 2023 that ECMC accepted. According to ECMC, it does not have data to show that any of these reports were incomplete and it does not approve incorrect production report submissions. Our analysis confirmed there were no incomplete production reports in ECMC's approved production data. However, out of the 673,987 production reports, we identified 32,391 errors and/or omissions across 32,003 reports (4.7 percent) from 139 different operators that ECMC did not identify and follow up on with the operators. Specifically, we found:

- 7,661 instances where ECMC accepted production reports that included incorrect calculations or negative values. For example, we found an operator had reported their gas used as a negative number, meaning the operator was reporting they used negative units of gas in production, despite ECMC guidance stating that data field in the report must be a whole number.

- 1,738 instances where ECMC accepted production reports where the end-of-month inventories from 1 month differed from the beginning-of-month inventories from the next month by five or more barrels. For example, one operator submitted four separate production reports for four different wells where the total end-of-month inventory amount was 1,134 barrels lower than the total beginning-of-month inventory amount for the following month.

- 168 instances where ECMC accepted production reports from one operator for July 2023 that included duplicated production amounts, resulting in the operator over-reporting the amount of oil produced by 1,104 barrels, the amount of oil sold by 932 barrels, and both the amount of gas produced and sold by 30,540 MCF.

- 22,824 instances where ECMC accepted production reports for wells that had previously been plugged and abandoned, with some wells having been plugged and abandoned since 2014. For example, an operator submitted a production report for a well showing 76 barrels of oil produced and sold in April 2023, even though the well had been reported as plugged and abandoned since September 2021.

For the 30 oil and gas operators in our sample, we identified 1,964 errors in 1,953 production reports that were submitted by 10 of the operators. These errors are included in the aggregate numbers reported above. Specifically, we found:

- 1,355 instances where ECMC accepted production reports from sampled operators that included incorrect calculations or negative values.

- 372 instances where ECMC accepted production reports where the end-of-month inventories from 1 month differed from the beginning-of-month inventories from the next month by five or more barrels.

- 237 instances where ECMC accepted production reports for wells that had previously been plugged and abandoned and, therefore, should not have been submitted.

According to ECMC, the Commission plans to modernize the COGIS database and made changes to the monthly production report in December 2024 that may have addressed these errors. The audit team was not able to test or verify whether the changes addressed these errors since the system changes had not been implemented at the time of our audit review period.

Enforcement Actions

ECMC reported that it assessed 56 penalties against 50 operators for a total of $6.3 million during Calendar Year 2023. According to ECMC, it assessed approximately $200,000 of the $6.3 million against 10 of the 50 operators for failure to submit required production reports. Our sample of 30 operators included 5 of these 50 operators that were assessed penalties. ECMC reported that it assessed 7 penalties totaling $357,633 for Calendar Year 2023 against these 5 operators (these totals are included in the overall total for all operators). According to ECMC data, none of these penalties were due to the operators' failure to submit required production reports. It is important to note that the amount of penalties assessed does not mean that the full amount assessed was collected. According to ECMC, as of October 2025, it has collected about $1.2 million of the $6.3 million in penalties assessed in Calendar Year 2023.

In addition, we found that ECMC did not consistently issue an NOAV against operators that failed to submit required production reports for Calendar Year 2023. ECMC reported that, in total, it issued 99 NOAVs to oil and gas operators in 2023. Of those, ECMC reported that it issued NOAVs to 2 operators in Calendar Year 2023 for violation of production reporting requirements. Specifically, ECMC issued an NOAV to one of the operators in 2023 for failing to submit 4 production reports in 2022 and for failing to conduct a well mechanical integrity test. ECMC issued two NOAVs to the second operator in 2023 for failing to submit at least 137 production reports from 2017 through 2023 and numerous other violations; however this operator did not appear on the Delinquent Report because they may have submitted the reports from the time that ECMC issued the NOAV to when the Delinquent Report was generated for this audit. As of March 2025, ECMC had not issued any NOAVs to the 134 operators listed on the Delinquent Report for missing production reports from Calendar Year 2023. This includes an operator that has almost 3,200 missing reports for Calendar Year 2023. This operator did receive an NOAV in 2023 for other violations, but ECMC did not cite failure to submit required reports on this NOAV.

For our 30 sampled operators, ECMC issued 6 NOAVs in Calendar Year 2023 for violations of rule related to spills and releases, financial assurance, pollution, and mechanical integrity tests. ECMC issued an NOAV to 2 of the 8 operators in our sample that had missing reports from Calendar Year 2023, but neither of the NOAVs cited a violation of production reporting; in total, these 2 operators were missing 112 production reports for Calendar Year 2023.

Why did these problems occur?

The issues that we identified related to missing, incomplete, and incorrect production reports are due to the following:

ECMC did not have policies and procedures related to production reporting for wells in the process of becoming orphaned wells or a way to identify these wells in the Delinquent Report. According to ECMC, its informal practice is to ignore missing reports for wells that are in the process of becoming orphaned wells, but this practice is not consistent with rules and has not been established in ECMC's policies and procedures. In addition, ECMC's Delinquent Report does not indicate if a well is currently in the formal process of becoming an orphaned well, and therefore, not considered by ECMC to be a missing production report. Staff must manually go through each operator on the report or rely on their knowledge of specific wells in order to exclude wells from the list of missing reports that are in the process of becoming orphaned wells.

The Delinquent Report did not accurately capture what production reports were missing. According to ECMC, it does not know why the Delinquent Report was not accurately reporting out what production reports were missing or why it did not match the Individual Operator Reports that ECMC staff send out to operators detailing what production reports are missing. ECMC would need to look into the issues that we identified further to determine why the Delinquent Report was not accurate and make any necessary revisions.

ECMC did not use the modified Delinquent Report that distinguishes between missing, incomplete, or incorrect production reports to inform the follow-up or enforcement process. According to ECMC, although COGIS has the ability to distinguish between missing and incomplete or incorrect reports that have been rejected, ECMC had not developed policies and procedures nor trained staff on how to use this function. When we asked why this was the case given that ECMC reported that it had implemented the recommendation from our 2021 Oil and Gas Reporting performance audit to include this functionality in COGIS and for staff to use this information to inform the follow up and enforcement process, ECMC responded that, due to staff turnover, current staff were never trained on how to use it or implement the changes into their production report processing. As a result, staff continued to manually review the status of reports and rely on their knowledge of operators to determine which production reports might truly be missing.

ECMC's electronic form submission system (Webforms) had ineffective validation controls. When asked about some of the errors that we identified, such as incorrect calculations, negative numbers, and duplicate reports, ECMC reported that the errors we identified in some production reports that were not followed up on by ECMC were caused by the system validation controls failing to catch errors. For example, the submission system had a validation rule to ensure an operator does not submit a production report containing a formation code that has not been approved by ECMC; however, we found that reports with formations that were not approved by ECMC made it through the system's controls. In addition, ECMC did not have robust monitoring to identify when or if validation rules are not working as intended. ECMC staff currently do not test the validation rules to ensure they are working or test the approved reports to make sure they are accurate. ECMC reports it plans to modernize the COGIS database and has made changes to the monthly production report, and that its transition to the electronic form submission system from Webforms to eForms in December 2024 may have addressed these errors. The audit team was not able to test or verify whether the changes addressed these errors since the system changes had not been implemented at the time of the audit review period.

ECMC did not have a formalized process for systematically reviewing production reports to identify and remediate errors and incomplete information. According to ECMC, staff manually review production reports and the Delinquent Report to look for errors and incomplete information but it did not have a formalized process for conducting these reviews. For example, ECMC had not established policies or procedures on how to conduct reviews, when to conduct reviews, or how to document and ensure remediation of any identified errors or incomplete reports.

The issues that we identified related to ECMC's lack of enforcement actions for missing, incomplete, and incorrect production reports are due to the following:

ECMC's Enforcement Policy is not consistent with statute and lacks specific direction for staff to help ensure consistent enforcement. Statute states that when ECMC has reasonable cause to believe a violation of any statute, rule, or permit has occurred, ECMC "**shall** (emphasis added) provide written notice to the [ECMC] operator … and must state the provision alleged to be violated … and any corrective action and abatement deadlines" [Section 34-60-121(4)(c), C.R.S.]. In addition, ECMC's Enforcement Policy states that for production reports, the first day of the violation would be 46 days after the end of the reported month, as reports are due 45 days after the end of the month and "...the start date would be on the 46th day because it is the first day after the report was due." However, ECMC's Enforcement Policy also states that if staff believe there has been a violation, they "**may** (emphasis added) issue a Warning Letter, Corrective Action Required Inspection Report, or an NOAV." The fact that ECMC's Enforcement Policy says that staff "may" issue written notice to an operator for missing production reports and, therefore, may also choose to not issue written notice, conflicts with statute, which says that they "shall" issue the written notice. According to ECMC, its current process is to send an email to operators when they are missing reports, and the email serves as the notice required by statute. However, ECMC does not verify that an operator received the email and, therefore, received notice of the alleged violation.

In addition, ECMC's Enforcement Policy states that "Generally, Warning Letters or Corrective Action Required Inspection Reports are reserved for less serious violations; they do not carry the threat of a penalty." However, the Enforcement Policy does not indicate to staff when to pursue a warning letter versus an NOAV against an operator that has failed to submit production reports. According to ECMC, it does not typically issue NOAVs to operators for failing to provide required production reports because most of the operators with missing reports are either headed to the orphaned well program or have been cited in prior years for missing reports, and that additional NOAVs would "deplete ECMC's limited enforcement resources without a corresponding benefit in compliance or improved environmental outcomes." In addition, ECMC stated that it does not issue NOAVs solely for production report violations; rather, they are only added on to an NOAV issued for other violations and staff have discretion on whether to add missing production reports to an NOAV. However, this discretion does not align with statute, which requires ECMC to provide written notice to the operator and require that the operator remedy the violation, regardless of operator status or prior notices.

Why do these problems matter?

When ECMC does not collect all of the required oil and gas production reports and does not consistently take enforcement actions against operators that do not submit the reports, the State does not have complete oil and gas production data and operators are treated inconsistently.

ECMC and other agencies and stakeholders rely on data contained in production reports. For example, ECMC uses production data to help ensure that operators comply with various rules, such as ensuring that operators are conducting mechanical integrity tests at intervals required by rule to ensure that oil and gas wells are not leaking. CDPHE reported using production data to help identify oil and gas operators that are required to submit annual emissions data and contribute to CDPHE's Greenhouse Gas Emissions Inventory Report. As part of its severance tax audit process, DOR's Field Audit Division uses production report data to identify the oil and gas operators with the highest production amounts that it might select for a severance tax audit as well as to compare pricing and volume with what the operator reported to ECMC. When operators do not submit required production reports, these departments and public stakeholders do not have complete information to fulfill their responsibilities or have accurate and complete public information available.

Operators may not be able to come into compliance. Operators rely on ECMC to provide complete, accurate, and reliable delinquent reporting data to help them determine if they are complying with reporting requirements. Without proper monitoring, evaluation, and remediation of its Delinquent Report, ECMC may send an operator a delinquent report containing production reports that are not due, reports ECMC has already received and approved, or may omit production reports that are, in fact, delinquent. If operators are given an incorrect or incomplete list of missing reports, operators may not be aware of the steps needed to come into full compliance or may waste time resubmitting a report that it had already submitted to ECMC.

Operators are treated inconsistently across violations. All oil and gas operators are subject to the same statutory production reporting requirements and should be subject to the same enforcement actions when they fail to comply with these requirements. By not consistently enforcing these reporting requirements, ECMC is treating operators differently. For instance, when one operator that is missing approximately 3,200 production reports does not receive an NOAV, and another operator that is missing only 5 reports does receive an NOAV, it could send a message to operators that ECMC is subjectively determining who should and should not face enforcement action. Further, when ECMC does not consistently pursue enforcement action against operators that have failed to comply with reporting requirements, it could undermine ECMC's ability to deter operators from noncompliance and fulfill its statutory responsibilities of regulating the oil and gas industry while protecting the environment.

Recommendation 1

The Energy and Carbon Management Commission (ECMC), within the Department of Natural Resources, should ensure that it collects all required production reports from oil and gas operators by:

A. Establishing written policies and procedures that are consistent with rules related to production reporting for wells that have begun the formal orphaned well program process and train staff on these policies and procedures.

B. Reviewing its Delinquent Report to determine why it is not accurately capturing missing, incomplete, or incorrect reports; excluding production reports that ECMC has received; and matching the Individual Operator Reports ECMC staff send out to operators. Once ECMC determines the reason for these issues with the Delinquent Report, it should make necessary revisions to the report, including indicating which reports ECMC does not expect to receive due to the operator's standing.

C. Establishing written policies and procedures directing employees to use the field in its Delinquent Production Report that indicates if a report is missing or rejected with errors and use the Delinquent Production Report to follow up with operators with missing reports, incomplete or incorrect reports, and reports for operators that are in the process of becoming classified as an orphaned well.

D. Developing and implementing controls within its information system, Colorado Oil and Gas Information System, to validate data fields to ensure they are within the parameters established in rule. This should include ongoing testing and monitoring of validation rules to ensure they are working as prescribed.

E. Establishing a formal monitoring process for monitoring production reports to identify and remediate errors that includes how often staff should conduct monitoring activities, what monitoring activities to conduct, and how to document and remediate deficiencies.

Response

Department of Natural Resources

A. Agree
Implementation Date: September 2026

ECMC's Quality Assurance (QA) Unit will develop a tracking spreadsheet to track wells that have begun the formal orphaned well process until the Colorado Oil and Gas Information System (COGIS) modernization has been completed and a new process is created for the tracking of this information (expected 2027). Additionally, ECMC's QA and Enforcement Units will create and publish internal policies and procedures for this new reporting process. The QA Unit will then work with the Strategic Development Unit training team to design, develop, and implement training for this new process.

B. Agree
Implementation Date: December 2027

ECMC's QA Unit will review the Delinquent Report to determine why it is not accurately capturing missing, incomplete, or incorrect reports, excluding production reports that ECMC has received, and match the Individual Operator Reports ECMC staff send out to operators. ECMC will develop a comprehensive manual tracking system to document every instance of missing, incomplete, or incorrect reporting, including indicating which reports ECMC does not expect to receive due to the operator's standing. ECMC will use this data to inform the COGIS modernization project to create a new automated production reporting process and system including the creation of a new automated Delinquent Report.

C. Agree
Implementation Date: September 2026

ECMC's QA Unit will establish written policies and procedures directing employees to use the field in the Delinquent Production Report that determines if a report is missing or rejected with errors to follow up with operators regarding missing reports, incomplete or incorrect reports, and reports for operators that are in the process of becoming classified as an orphaned well.

D. Agree
Implementation Date: December 2027

This finding will be implemented by the COGIS modernization team in the new COGIS modernization project, which is expected to be completed in 2027. It is expected that all production reporting validation rules will be reviewed, updated, tested and monitored to make sure they are working as prescribed as part of the creation of a new automated production reporting process.

E. Agree
   Implementation Date: October 2026

   ECMC's QA team will establish a formal manual production report monitoring process to identify and remediate errors that includes how often staff should conduct monitoring activities, what activities to conduct, and how to document and remediate deficiencies until the creation of an automated production reporting system in the new COGIS.

Recommendation 2

The Energy and Carbon Management Commission, within the Department of Natural Resources, should ensure that it takes consistent enforcement action against operators that fail to comply with reporting requirements, as required by statute, by aligning its Enforcement Guidance and Penalty Policy with statute.

Response

Department of Natural Resources

Agree

Implementation Date: September 2026

ECMC's Enforcement Unit will align its Enforcement Guidance and Penalty Policy to ensure that it describes how ECMC takes consistent enforcement action against operators that fail to comply with reporting requirements and will publish the policy on the ECMC website. Additionally, ECMC will ensure that staff follow revised policies, and that enforcement action is taken as guided by the policies, by designing and delivering enforcement guidance and penalty policy training to all required staff. The training will address a staff procedure that ensures alleged non-compliance of reporting, and other instances of alleged non-compliance, are consistently elevated to the Enforcement Unit.

Finding 2 – Conservation Levies

ECMC collects quarterly conservation levies from oil and gas operators that sell oil and gas produced in Colorado. Statute gives ECMC the authority to set the conservation levy rate [Section 34-60-122(1)(a), C.R.S.], which is currently set at $0.0015 per dollar of oil or gas sold. ECMC uses conservation levy revenue to fund the Energy and Carbon Management Cash Fund, which funds several ECMC functions related to ECMC's mission to "Regulate the development and production of the natural resources of oil and natural gas in the State of Colorado in a manner that protects public health, safety, and welfare, including protection of the environment and wildlife resources" [Section 34-60-102(1)(a)(I), C.R.S.]. These include investigating, preventing, monitoring, and mitigating conditions that could negatively impact the environment; gathering information on potential environmental impacts from energy and carbon management operations; and investigating alleged violations of statute, ECMC rule, and Commission orders that threaten the environment [Section 34-60-124(4)(a), C.R.S.]. Sales of oil and gas are exempt from the levy if the producing wells are on state, federal, or tribal lands [Section 34-60-122(4), C.R.S.].

What audit work was performed and what was the purpose?

Statute required ECMC to provide us with the total amount of missing, incomplete, or incorrect quarterly conservation levies for the 30 oil and gas operators in our sample and for the total population of oil and gas operators in the state during Calendar Year 2023 [Section 34-60-106(21)(b)(II), C.R.S.]. In addition, ECMC was required to provide us with the total amount of penalties assessed against operators for violations of conservation levy requirements, including for the operators in our sample [Section 34-60-106(21)(b)(IV), C.R.S.].

As directed by statute, we reviewed the total amount of conservation levies paid by oil and gas operators in Calendar Year 2023, including the 30 operators in our sample [Section 2-3-128(3)(a)(III), C.R.S.]. We also reviewed ECMC's monthly production reports and quarterly conservation levy data for all operators that reported having a producing well during at least one month during Calendar Year 2023 to determine if operators that filed production reports also paid conservation levies. In addition, we reviewed statutes and rules related to ECMC's collection of conservation levies and interviewed ECMC staff to understand the purpose of the levy and ECMC's process for collecting levies and ensuring that operators have paid levies. We reviewed NOAVs issued by ECMC for Calendar Year 2023 to determine if ECMC pursued enforcement actions for any conservation levies that were owed by operators but not paid. Finally, we used crude oil first-purchase prices according to the U.S. Energy Information Administration (EIA), an agency within the U.S. Department of Energy, to calculate estimates of conservation levy payments that would have been owed based on the amount of oil produced by operators that did not pay levies. The EIA stopped tracking the price of gas when it is first sold after extraction, called the "first purchase price" or "price at the wellhead," in 2012, so we were unable to find an accurate price for gas sales in 2023 for Colorado or nationally. However, we calculated how much gas was sold that did not have a conservation levy paid out of the total volume of gas produced in 2023.

The purpose of our audit work was to determine if oil and gas operators that reported oil or gas sales in their monthly production reports during Calendar Year 2023, including the 30 operators in our sample, made conservation levy payments for that period.

How were the results of the audit work measured?

Statute requires all oil and gas operators to submit quarterly conservation levies "showing the volume of oil [and], natural gas…produced or purchased during the preceding calendar quarter, and the actual sales value of such oil [and] natural gas…including the total consideration due or received at the point of delivery" [Section 34-60-122(2)(a), C.R.S.]. According to ECMC, in this context, the "total consideration due" refers to the amount of money due or received at the point of sale. Operators must make required conservation levy payments within 2 months of the end of each quarter [Section 34-60-122(2)(a), C.R.S.]. Operators must submit conservation levies to ECMC on the Oil and Gas Conservation Levy form, referred to as Form 8 [2 CCR 404-1, 217].

What problems did the audit work identify and why do they matter?

Overall, we found that ECMC did not collect conservation levies from all operators in the state that reported selling oil or gas on their monthly production reports in Calendar Year 2023 and did not take enforcement actions against those operators that did not pay required levies, as discussed below.

ECMC did not collect conservation levies for all of the oil and gas reported as being sold in Calendar Year 2023. ECMC reported to us that there were 5 missing conservation levy payments from 2 operators out of the total population of 193 operators that made conservation levy payments for Calendar Year 2023 and no missing payments from our 30 sampled operators. However, we identified 242 missing conservation levy payments, including the 5 ECMC identified, from 70 operators including the 2 that ECMC identified from the total population of 211 operators that submitted monthly production reports, which we discuss below.

We estimate that in 2023, ECMC did not collect conservation levies on 1,701,457 barrels of oil, and 310,536,480 MCF of gas. Conservation levies are paid by quarter, so if an operator reported sales for at least 1 month on the monthly production report for those 3 months, the operator was required to pay a conservation levy. Exhibit 2.3 shows the number of operators that did not make required conservation levy payments and the volume of oil sold without a corresponding conservation levy payment made for each quarter in Calendar Year 2023. In total, 36 operators did not pay all required conservations levies for the volume of oil that they reported was sold in Calendar Year 2023. Some operators missed levy payments for multiple quarters during the year.

Exhibit 2.3
Operators That Did Not Pay Oil Conservation Levies during Calendar Year 2023, by Quarter

Quarter	Total Number of Operators that Reported Oil Sales	Non-Compliant Operators	Percentage of Non-Compliant Operators	Total Oil Volume Sold in Barrels (BBL)	Total Oil Volume Sold by Non-Compliant Operators in Barrels (BBL)	Percentage of Total Oil Sold by Non-Compliant Operators
1	131	26	20%	38,661,832	607,112	2%
2	142	23	16%	41,973,366	490,827	1%
3	144	24	17%	42,672,325	180,972	0.4%
4	135	20	15%	44,756,009	422,546	1%
Total[1]	**157**	**36**	**23%**	**168,063,532**	**1,701,457**	**1%**

Source: Office of the State Auditor analysis of ECMC monthly production reports and conservation levies.
[1]The total number of operators that reported oil sales, non-compliant operators, and percentage of non-compliant operators represent any operators that reported oil sales at any point in 2023, as reported through production reports filed with ECMC. Operators may appear in multiple quarters; the total reflects the number of operators for the year.

Exhibit 2.4 shows the number of operators that did not make required conservation levy payments and the volume of gas sold without a corresponding conservation levy payment made for each quarter in Calendar Year 2023. In total, 51 operators did not pay all required conservations levies for the volume of gas sold in Calendar Year 2023.

Exhibit 2.4
Operators That Did Not Pay Gas Conservation Levies during Calendar Year 2023, by Quarter

Quarter	Total Number of Operators That Reported Gas Sales	Non-Compliant Operators that Did Not Pay Conservation Levies	Percentage of Non-Compliant Operators	Total Gas Volume Sold (MCF)	Total Gas Volume Sold by Non-Compliant Operators (MCF)	Percentage of Total Gas Sold by Non-Compliant Operators
1	138	35	25%	489,737,312	83,174,918	17%
2	141	40	28%	515,194,550	79,735,059	15%
3	139	37	27%	522,233,749	70,752,812	14%
4	134	37	28%	537,287,834	76,873,691	14%
Total[1]	**150**	**51**	**34%**	**2,064,453,445**	**310,536,480**	**15%**

Source: Office of the State Auditor analysis of monthly production reports and conservation levies.
[1]The total number of operators that reported gas sales, non-compliant operators, and percentage of non-compliant operators represent any operators that reported gas sales at any point in 2023, as reported through production reports filed with ECMC. Operators may appear in multiple quarters; the total reflects the number of operators for the year.

In total, 211 operators submitted an oil and/or gas monthly production report at some point in Calendar Year 2023. Seventy of these 211 operators (34 percent) did not make a conservation levy payment for at least 1 quarter in 2023, based on their reported oil or gas sales from their monthly production reports. These 70 operators missed, in total, 242 conservation levy payments in Calendar Year 2023. Using 2023 average crude oil prices, we estimate that ECMC could have collected up to an additional $190,844 from the 36 operators that sold oil in Calendar Year 2023, based on the amount of oil they reported selling.

We were unable to estimate the amount of conservation levies for gas sales that ECMC could have collected from noncompliant operators due to a lack of information on the price of gas in Colorado or nationally, for Calendar Year 2023. However, the volume of gas that operators sold and failed to pay conservation levies on represents about 15 percent of the total gas sold by all operators in Colorado in 2023. We also saw that some operators had not paid conservation levies for multiple years. For example, one operator reported to ECMC on its monthly production reports that it produced about 6,600 MCF of gas from 2019 through 2023, but that operator did not pay any conservation levies for those 4 years.

For the 30 operators in our sample, we found that 3 of the operators that reported oil or gas production in at least 1 quarter of Calendar Year 2023 did not make quarterly conservation levy payments. One operator reported selling 1,495 barrels of oil during Calendar Year 2023 but did not make any conservation levy payments for the year. We estimate that this operator's 4 missing quarterly payments would have totaled about $168. The other 2 operators reported selling a combined total of 124,422 MCF of gas in 2023. These 2 operators missed 6 conservation levy payments in Calendar Year 2023.

ECMC did not take enforcement action against oil and gas operators that did not pay required conservation levies. For the 70 operators that did not pay the required conservation levies for oil and gas produced and sold at some point in Calendar Year 2023, ECMC did not take enforcement action against them to obtain the payments; this included not issuing any NOAVs or penalties for failure to pay conservation levies. Failing to enforce conservation levy requirements can lead to lower revenue for ECMC, inconsistent treatment of operators, and risk of statutory noncompliance.

Why did these problems occur?

ECMC does not have policies and procedures or a process for monitoring oil and gas operator compliance with conservation levy requirements. ECMC staff reported that they do not have documented policies and procedures or a process that they can use to determine if all operators that reported sales of oil and gas on their monthly production reports also paid conservation levies for the reported production. For some of the operators that we identified that did not make any conservation levy payments to ECMC for Calendar Year 2023, despite reporting oil and gas sales on their 2023 monthly production reports, ECMC told us that these operators did owe the payments, but that ECMC staff did not identify them as missing or take other steps to collect the payments. Although conservation levy form submissions and electronic payment data are stored in COGIS with production reports, ECMC staff do not compare conservation levy payments and monthly production reports to verify that operators have paid required conservation levies. ECMC reported that staff keep a document outside of COGIS that records which operators have paid a levy that have production. However, this document does not contain any production information and ECMC could not provide documentation to show that this document is updated monthly using COGIS reports. If an operator is new, or did not previously have production but does the following month, this operator may not be captured on the document.

ECMC also reported that staff responsible for administering the conservation levy process conduct a crosscheck when other ECMC staff notify them about problems with certain operators, such as an operator bankruptcy, or if an operator is missing other reports such as for a mechanical integrity test. However, ECMC does not have policies and procedures that state how staff should complete a crosscheck of the production reports and payment data, how often it should be completed, or what staff should do with the results of the crosscheck. According to ECMC staff, COGIS does not have functionality that allows them to complete comparisons between production reports and payments automatically within COGIS. When a crosscheck is done, it is a manual rather than system-driven process, which introduces risk for human error. ECMC should assess whether this automated check can be added to COGIS' functionality. The Standards for Internal Control in the Federal Government, known as the Green Book, says that "Automated control activities tend to be more reliable because they are less susceptible to human error and are typically more efficient" [Green Book, Principle 10.06]. The Green Book also highlights the importance of consistency, stating, "A control activity that is performed routinely and consistently generally is more precise than one performed sporadically" [Green Book, Principle 10.11].

ECMC's practice is to not pursue enforcement action for missing conservation levies. ECMC staff told us that they recognize conservation levy payments are required for all operators that sell oil or gas, but they do not pursue enforcement for missing payments. For operators that are in an enforcement process that may result in assets going to an orphaned well program, ECMC reported that they do not pursue enforcement because they do not expect these financially distressed operators to pay and, therefore, it is not worthwhile for ECMC to spend the resources to pursue payment. In addition, ECMC staff reported that they usually only cite one violation on NOAVs and do not cite all possible violations, such as if an operator failed to pay conservation levies. However, statute does not allow for an exception for any operator to not pay conservation levies, such as due to financial distress, and requires that oil and gas operators that sell any quantity of oil or gas in a given quarter must pay conservation levies to ECMC, regardless of well status [Section 34-60-122(2)(a), C.R.S.]. Statute also requires that, when ECMC has reasonable cause to believe a violation of any statute, rule, or permit has occurred, ECMC "shall provide written notice to the ECMC operator…and must state the provision alleged to be violated" [Section 34-60-121(4)(c), C.R.S.]. The statutory language does not provide the option for ECMC to choose which violations to cite when an operator is in violation of multiple rules or statutes.

Recommendation 3

The Energy and Carbon Management Commission, within the Department of Natural Resources, should ensure that it is collecting conservation levies from all operators that produce and sell oil and gas, as required by statute, by:

A. Implementing policies and procedures for monitoring oil and gas operator compliance with conservation levy requirements. This should include identifying ways to automate monitoring processes using the data within the Colorado Oil and Gas Information System to verify if operators that submitted monthly production reports with sales of oil or gas made conservation levy payments.

B. Pursuing enforcement action, such as issuing Notices of Alleged Violation, against operators that fail to pay conservation levies.

Response

Department of Natural Resources

A. Agree
Implementation Date: December 2027

ECMC's Quality Assurance (QA) Unit will document and implement policies and procedures for the manual monitoring of oil and gas operator compliance with conservation levy requirements and the crosschecking of all levy payments against production reporting until the COGIS automated system is completed in 2027.

B. Agree
Implementation Date: September 2026

ECMC's Enforcement Unit will align its Enforcement Guidance and Penalty Policy to ensure that it describes how ECMC takes consistent enforcement action against operators that fail to pay conservation levies and will publish the policy on the ECMC website. Additionally, ECMC will ensure it takes enforcement action as guided by the policies by designing and delivering conservation levy policy and enforcement training to all required staff. The training will be designed to deliver procedures so that instances of alleged non-compliance with conservation levies, and other instances of alleged non-compliance, are consistently elevated to the Enforcement Unit.

Finding 3 – Emissions Data

In 2019, Colorado passed legislation that established statewide greenhouse gas reduction goals to be met over the next 25 years. Statute states, "a current and accurate inventory of actual emissions of air pollutants from all sources is essential" [Section 25-7-102(1), C.R.S.]. CDPHE is required to publish an updated statewide Greenhouse Gas Inventory Report every 2 years [Section 25-7-140(2)(a)(II), C.R.S.]. In order to fulfill statutory requirements, CDPHE collects and reports on greenhouse gas data, including data on emissions created by oil and gas operations. To prepare a current inventory of emissions and to meet reporting responsibilities, CDPHE began collecting emissions inventory forms (emissions data) annually to quantify greenhouse gas emissions levels around the state, and by industry, such as oil and gas. Specifically, CDPHE requires either the owner or operator of an oil and gas facility to report data on annual actual emissions by, or on, June 30 each year for each of their production facilities [5 CCR 1001-9, Part B, Sections V.A. and V.B.]. There is no specific rule or guidance on whether an owner or operator submits emissions data. An oil and gas production facility (facility) can have several oil and gas wells and/or oil and gas equipment that transports or refines the product. Any facility that has emissions is required to submit an annual emissions report to CDPHE, regardless of whether it has a well on site. CDPHE uses the emissions reports to identify all emissions resulting from oil and gas operations, and to create an inventory of oil and gas equipment in the state.

What audit work was performed and what was the purpose?

Statute required CDPHE to provide us with emissions data for our sample of 30 operators for Calendar Year 2023 [Section 25-7-132(2)(b), C.R.S.]. As required by statute, we reviewed the emissions data provided by CDPHE for our sample of 30 operators that submitted a production report to ECMC in Calendar Year 2023 [Section 25-7-132(2)(b), C.R.S.]. For the 30 operators in our sample, we compared the emissions data from CDPHE with production data provided by ECMC to determine if operators reporting production to ECMC in Calendar Year 2023 also reported emissions data to CDPHE. In addition, although not required by statute, we requested that CDPHE provide us with a description of the total missing, incomplete, and incorrect emissions reports for the total population of oil and gas owners and operators in the state from the Calendar Year 2023 reporting period. We also reviewed statutes and rules related to required emissions reporting by oil and gas owners or operators in Colorado. Additionally, we interviewed CDPHE staff to understand how CDPHE collects and processes emissions data and determines when it is missing.

The purpose of our audit work was to determine if CDPHE collected all emissions data required to be reported by oil and gas owners or operators during Calendar Year 2023.

How were the results of the audit work measured?

Statute provides CDPHE the authority to require owners or operators that are the source of any air pollution to monitor, record, and report emissions [Section 25-7-106(6), C.R.S.]. CDPHE rule requires oil and gas owners or operators to submit emissions reports containing self-reported, actual oil and gas emissions to CDPHE on or before June 30 each year [5 CCR 1001-9, Part B, Section V.A.]. Only tribal lands are exempt from reporting requirements and CDPHE staff reported that all active facilities are required to submit emissions data, regardless of the amount of emissions produced.

What problems did the audit work identify?

CDPHE reported that it is unable to identify missing emissions data because it cannot fully rely on existing datasets to identify the total population of oil and gas owners and operators that should submit emissions data each year or any missing data. Therefore, we found that CDPHE does not know if it collected all of the required emissions data from oil and gas owners or operators in Calendar Year 2023. For the 30 oil and gas operators in our sample, we found that 14 did not file any emissions data with CDPHE for Calendar Year 2023 and 7 submitted emissions data for only some of their facilities. Seven operators in our sample submitted emissions data for all of their facilities, and 2 operators were exempt from reporting emissions for their facilities because they had discontinued or suspended operations in 2023. For the 14 operators in our sample that did not file any emissions data with CDPHE and the 7 operators that reported incomplete emissions data, we found that they had reported to ECMC that they produced, in total, more than 26,000 barrels of oil and 24 million MCF (one thousand cubic feet) of gas at the unreported facilities in Calendar Year 2023.

Why did the problems occur?

According to CDPHE, it has only been collecting emissions data from oil and gas owners and operators since 2021, and it is still working on developing a systematic process for determining which owners or operators should be reporting emissions data each year and whether they have done so. Additionally, CDPHE staff reported that they currently use three different sources of information to try to identify any missing emissions data, each of which has shortcomings for identifying oil and gas owners or operators that should be filing emissions reports.

According to CDPHE, its staff currently review ECMC production data, CDPHE emissions permitting data, and prior year's emissions data to try to identify any oil and gas owners or operators that likely should have filed emissions reports for their facilities. However, for Calendar Year 2023, CDPHE staff reported that the data it used to determine whether or not an owner or operator filed emissions reports were not always comparable. For example:

- **Operators file production data with ECMC for each well that they operate, while it can be either the owner or operator of an oil and gas facility that files emission reports with CDPHE.** In some instances, the operators submitting production data to ECMC may have different names from the owner or operator reporting emissions data to CDPHE. For example, an owner could have more than one operator that produces oil and gas on its behalf. The owner may be the one that submits emissions data to CDPHE for all of its facilities, while each of the operators working for the owner submit production reports to ECMC for each well that they operate. In this case, CDPHE would not be able to match the name of the owner submitting the emissions data with the name of the operators submitting the production data. Additionally, facilities can contain multiple sites and wells or, in some instances, a facility might not have any wells and it may be used only for storing, processing, or transporting oil and gas. This makes it very difficult to compare a production report for an individual well with an emissions report for a facility.

- **CDPHE's permitting requirements are different from CDPHE's emissions requirements.** The second source of data CDPHE staff review to try to identify missing emissions reports is CDPHE's internal permitting system, the Colorado Air Inventory System (CAIS), which contains the data for facilities that are required to have an emissions permit. Any facility that produces at least two tons of volatile organic compounds a year is required to have a permit to emit from CDPHE. However, all facilities that emit any amount of emissions, even amounts below permitting thresholds, are required to submit emissions data to CDPHE annually [Section 25-7-140(2)(a)(I), C.R.S.]. Therefore, there is a limit in CDPHE's ability to use available data to compare facilities in the permitting system to facilities in the emissions data.

- **CDPHE prior year's emissions data may not be complete.** The third source of data CDPHE analyzes to identify missing emissions reports is the prior year's emissions data. When receiving the reports in June for the prior calendar year from all owners and operators, CDPHE reviews to see if an individual oil and gas owner or operator submitted emissions data to CDPHE in the prior year but has not submitted it in the current year. If so, CDPHE reviews other sources of information, such as media articles, to determine if a facility is still operational or if ownership has changed. Conversely, an owner or operator may have emissions one year when they did not the previous year, but since they would not be included in the prior year's emissions data, CDPHE would not know that they should report data in the current year.

Why do these problems matter?

When CDPHE does not collect complete emissions inventory data, it cannot report "a current and accurate inventory of actual emissions of air pollutants from all sources," as required by statute [Section 25-7-102(1), C.R.S.]. This may affect the emissions reporting totals, which CDPHE uses as a framework to base its discussions and implementation of reduction strategies. In addition, CDPHE is unable to identify any owners or operators that have repeatedly failed to file emissions data and may, therefore, be subject to enforcement actions. CDPHE has the authority to issues penalties of up to $47,357 per day to owners or operators for failing to report the required emissions data, in order to try to ensure compliance [Section 25-7-122(1)(b), C.R.S.]. However, if it does not know what reports are missing, it does not have a basis for issuing a penalty. Additionally, according to CDPHE, it is in the early stages of implementing all of the requirements for oil and gas emissions reporting and believes that educating companies is a better course of action than pursing penalties to ensure that it receives required reports. As of April 2025, CDPHE had not issued any penalties for missing emissions reporting. However, going forward, having quality data on which oil and gas owners or operators should be submitting emissions data will allow CDPHE to take appropriate enforcement action against those that fail to comply with reporting requirements.

Additionally, when CDPHE does not receive complete emissions data, it can have an impact on other agencies that rely on the data. For example, ECMC uses CDPHE's emissions data to develop a chapter in its Cumulative Impact Report, which reports emissions data and trends to help evaluate statewide emissions and their impacts on the environment. If CDPHE's emissions data is incomplete, then ECMC's Cumulative Impact Report will also be incomplete.

Recommendation 4

The Department of Public Health and Environment should ensure that it receives all required oil and gas emissions data by establishing a systematic process to determine the population of oil and gas owners and operators that are required to submit emissions data to so that it can determine which data are missing. This should include determining what data sources to utilize, identifying proper procedures when contradictions in the data exist, how to reconcile the various sources of data, and when to pursue enforcement action against owners or operators that fail to submit required reports.

Response

Department of Public Health and Environment

Agree
Implementation Date: December 2026

CDPHE agrees that developing a process is an important part of understanding and validating reported emissions. CDPHE has been developing this process concurrently with this audit, and expects that future improvements to the reporting database will enable adjustments allowing faster and more complete evaluation of emission reporting.

The 2023 annual emissions report, collected in mid-2024, was the first year that CDPHE had a working database to intake the reports since the effectiveness of the reporting requirement in 2021. CDPHE was thus able to begin fully developing the processes to validate reports beginning in 2024 as the new (though temporary) system allowed for more complete assessment of reports. CDPHE expects to undertake a process of continual improvement of the reporting processes and evaluation of reported emissions data.

CDPHE has already implemented comparisons to ECMC reported data for upstream oil and gas sources as well as underground injection wells. CDPHE is undertaking a significant effort to create updated and more comprehensive and permanent database systems and is coordinating with ECMC to make this type of future review more streamlined. CDPHE anticipates that these systems will be developed during calendar years 2026 and 2027, with a goal of December 2027 for full implementation of the new databases and processes for comparison.

Finding 4 – Annual Emissions Report

State regulations encourage "collaboration between [CDPHE] and [the Energy and Carbon Management Commission] to ensure that the State can meet its air quality goals, including reducing greenhouse gas emissions…and reducing 'cumulative impacts' of oil and gas development" [5 CCR 1001-9, Part C, X. Annual Information Reporting: Section V.D.]. In 2021, ECMC established a rule to facilitate emissions data sharing between CDPHE and ECMC to help CDPHE achieve its air quality responsibilities [2 CCR 404-1, 904].

What audit work was performed and what was the purpose?

We reviewed statutes and CDPHE and ECMC rules regarding the collecting, reporting, and sharing of oil and gas emissions data. We also interviewed CDPHE and ECMC staff about the emissions data shared between the two entities, how and when the data is shared, and how each entity uses the data to further their respective missions. The audit team reviewed the information CDPHE reported they sent over to ECMC to fulfill their annual reporting obligations for Calendar Year 2023, including emissions data, monitoring reports, CDPHE staff presentations on greenhouse gas emissions and air quality, and website information on air monitoring.

The purpose of our audit work was to evaluate whether CDPHE is fulfilling information-sharing requirements in rule, and if both CDPHE and ECMC agree that the current information-sharing requirements and processes meet their respective business needs.

How were the results of the audit work measured?

Rule states that each calendar year, CDPHE "must prepare and send **an** (emphasis added) annual information report to the [Air Quality Control] Commission and the Energy and Carbon Management Commission, [5 CCR 1001-9, Part B, Section V.D.]. According to rule, the information report must contain a summary and analysis of oil and gas emissions data received or produced by CDPHE [5 CCR 1001-9, Part B, Section V.D.]. In addition, rule requires that CDPHE "make **the report** (emphasis added) available to the public on the [CDPHE] website" [5 CCR 1001-9, Part B, Section V.D.2].

What problems did the audit work identify, why did they occur, and why do these problems matter?

We found that CDPHE has been providing ECMC with the required emissions information. However, CDPHE staff report that they do not send a single, annual information report to ECMC, as indicated in rule, but, instead, they track the annual report data requirements and send the information throughout the year to ECMC as materials are made publicly available and on the schedule needed to support ECMC's development of its Cumulative Impacts Report. ECMC staff reported that they also request specific information from CDPHE, as needed, such as when a unique situation happens with an operator that requires collaboration. When we asked ECMC about the information that it receives from CDPHE, ECMC responded that "ECMC does not receive one single annual information report, so we do not have specific uses for this report; however, we use the information provided by CDPHE as outlined in the rule requirement for this report to conduct daily work." Therefore, it appears that the emissions data that CDPHE sends to ECMC is useful for ECMC and meets its business needs. However, CDPHE has not updated its rules to reflect current practice.

According to CDPHE staff, it has not sent an annual information report to ECMC because CDPHE does not interpret the rule as requiring a single annual report based on the Statement and Purpose located in the rules [5 CCR 1001-9, Part C, X. Annual Information Reporting Section V.D..] According to CDPHE staff, the Statement and Purpose indicate that this rule was adopted to facilitate information sharing between CDPHE and ECMC through sharing several reports between CDPHE and ECMC. However, the Statement and Purpose rule says "annual reporting to both [CDPHE] and [ECMC] will ensure that collaboration is ongoing and effective" and "[CDPHE] agrees and has adopted Section V.D. [on annual reporting] to facilitate that information sharing" [5 CCR 1001-9, Part C, X. Annual Information Reporting: Section V.D.]. Because of this understanding, CDPHE has not developed policies or procedures for creating, processing, or sending an annual information report to ECMC, nor has it amended the rules to reflect the true intentions of the Commission. Instead, CDPHE reported that staff provide the required information throughout the year, as the materials are presented publicly, and track the required annual report information to ensure that all information has been shared. CDPHE staff also work directly with ECMC to refine and send data, as needed, to support ECMC's business needs. This process, however, has not been formalized in rule or CDPHE policies and procedures.

Additionally, we found that since CDPHE is not preparing an annual report, it is also not posting a summarized report of the emissions data for oil and gas operators on its website, as required by rule [5 CCR 1001-9, Part B, Section V.D.]. The data is on CDPHE's website through various reports, presentations, and data dashboards but it is difficult to combine all of this information into one comprehensive report and the information is not available in one single location. As a result, the information is not easily accessible to the public.

Recommendation 5

The Department of Public Health and Environment (CDPHE) should ensure that it shares required emissions information provided by oil and gas owners or operators with the Energy and Carbon Management Commission (ECMC) and makes that information readily accessible to the public by:

A. Revising rules to align with oil and gas emissions information reporting practices between CDPHE and ECMC.

B. Creating policies and procedures to direct what information it will share with ECMC and when and how it will be shared with ECMC.

C. Establishing a process for posting applicable information in a designated location on CDPHE's website to make it more easily accessible to the public.

Response

Department of Public Health and Environment

A. Agree
Implementation Date: June 2026

CDPHE will seek to revise Regulation 7, Part B, Section V to conform with the current practice for providing data and information to ECMC, with an anticipated rulemaking hearing in May 2026. CDPHE has ensured that ECMC has all necessary information and all of that information has been made available for the public via a number of mechanisms, including publicly held Air Quality Control Commission meetings, ECMC Cumulative Impacts Report, reports to the General Assembly, and various databases on the CDPHE website.

B. Agree
Implementation Date: December 2026

CDPHE agrees that providing information to ECMC is important and supports ECMC's development of the annual Cumulative Impacts Report. CDPHE has worked closely with ECMC to develop an understanding of what data is needed and on what timeline over the last two years and has been developing documentation of the process, which CDPHE will turn into policies and procedures.

C. Agree
Implementation Date: June 2026

CDPHE will seek to revise Regulation 7, Part B, Section V to conform with the current practice for providing data and information to ECMC, including how that fully reviewed and finalized information will be made publicly available, with an anticipated rulemaking hearing in May 2026.

Alongside the development of a new database for annual emission reporting, CDPHE will develop a reporting tool to improve public access to emissions reporting data for oil and gas operators, with an anticipated availability to be established once the reporting database has progressed sufficiently to inform timing for the new public facing data portals.

STATE · OF · COLORADO

UNION AND CONSTITUTION

NIL SINE NUMINE

1876

Appendix

Oil and Gas Glossary

Term	Definition
Annual Emissions Data	Emission totals during the calendar year for any activity or equipment related to an oil and gas facility [5 CCR 1001-9, Part B, V.B.1]. This emissions data is submitted by an oil and gas operator or owner and is due on or before June 30th of the following reporting year [5 CCR 1001-9, Part B, V.A.1 and 5 CCR 1001-9, Part B, V.B.1] (CDPHE).
Annual Reconciliation of Severance Tax Withheld from Oil and Gas Payments (Form DR 0456)	An annual severance tax form that operators or first purchasers of oil and gas that distribute funds to oil and gas interest owners must file that states the dollar amount of withholding payments the operator or first purchaser made each month of the tax year [1 CCR 201-10, 39-29-111(3)(b)(ii)] (DOR).
Annual Severance Tax Return (Form DR 0021)	The tax return form that oil and gas interest owners must file with the Department of Revenue (DOR) if they earned more than $250 in oil and gas income in a given year (DOR).
Conservation Levy	A quarterly charge imposed on the value of oil at the wellhead equal to $0.0015 per dollar of oil or gas produced and sold in Colorado [2 CCR 404-1, 217] (ECMC).
Facility	"All equipment at a single stationary source directly associated with one or more oil wells or natural gas wells… This equipment includes, but is not limited to, equipment used for storage, separation, treating, dehydration, artificial lift, combustion, compression, pumping, metering, monitoring, and flowline" [5 CCR 1001-9, Part B, I.B.33] (CDPHE).
First Purchaser	The first entity that purchases oil or gas after it is extracted from the earth by an oil or gas operator. First purchasers are often oil and gas transportation or pipeline companies, and often handle withholding payments on behalf of an oil and gas operator (DOR).
Gross Income	The net amount of income realized by a taxpayer after transportation, manufacturing, and processing costs are deducted [Section 39-29-102(3)(a), C.R.S.] (DOR).
Interest Owner	An individual or entity that receives income from an operator or first purchaser of oil or gas [1 CCR 201-10, 39-29-111(4)] (DOR).
Mechanical Integrity Test	A test conducted "to determine if there is a significant leak in the well's casing, tubing, or mechanical isolation device, or if there is significant fluid movement through vertical channels to other formations" [2 CCR 404-1, 417] (ECMC).
Oil and Gas Development Plan	"A plan to develop oil or gas resources at one or more oil and gas locations" [2 CCR 404-1, 100] (ECMC).
Oil and Gas Location	"A definable area where an operator has disturbed or intends to disturb the land surface in order to locate an oil and gas facility" [2 CCR 404-1, 100] (ECMC).

Term	Definition
Operator	Any person who exercises the right to control the conduct of any operation subject to the regulatory and permitting authority of the Commission [2 CCR 404-1, 100] (ECMC).
Orphaned Well	"A well for which no owner or operator can be found, or where such owner or operator is unwilling or unable to plug and abandon such well" [2 CCR 404-1, 100] (ECMC).
Payor	Any person, company, or operator approved by ECMC to submit a conservation levy form and payment on behalf of themselves or another operator (ECMC).
Plugged and Abandoned	"The permanent plugging of a well, the removal of its associated production facilities, and the abandonment of its flowline(s)" [2 CCR 404-1, 100] (ECMC).
Pre-production Phase of Emissions	Emissions estimates based on both stationary and mobile sources of emissions during the construction, drilling, and completions phase of an oil and gas development plan [2 CCR 404-1, 303(a)(5)(B)(i)] (ECMC).
Production Phase of Emissions	Emissions estimates based on both stationary and mobile sources of emissions during the first year of production based on all proposed wells and equipment [2 CCR 404-1, 303(a)(5)(B)(i)] (ECMC).
Producer	Any entity that extracts oil or gas from deposits in Colorado [Section 39-29-111(3), C.R.S.] (DOR).
Production Report	A monthly report submitted by an operator for each oil or gas well in which the operator reports, among other things, the status, formation, production volumes, and sales volumes [2 CCR 404-1, 413]. The reporting requirements are for all wells from the month they are SPUD (constructed) until they have been reported as plugged and abandoned for one month [2 CCR 404-1, 413] (ECMC).
Stripper Well	Any oil or gas well which produces 15 barrels of oil or 90,000 cubic feet of natural gas per day or less for the average of all producing days during the year [Section 39-29-105(1)(b), C.R.S.] (DOR).
Withholding	A monthly payment made to DOR by an oil and gas operator or first purchaser equal to 1 percent of each interest owner's gross income [Section 39-29-111(1)(a), C.R.S.] (DOR).