# FIGHTING METHANE EMISSIONS WITH THE FALSE CLAIMS ACT

by Patrick Reilly

*Patrick Reilly is a 2023 graduate of Georgetown University Law Center.*

Carbon dioxide gets most of the attention in the fight against climate change. Winning this fight, however, also requires reducing methane emissions. Each molecule of methane warms the planet dozens of times more effectively than a molecule of carbon dioxide.[1] An estimated 34% of humanity's methane emissions come from one sector: the oil and natural gas industry.[2] Methane, the main component of natural gas, leaks into the atmosphere from pipelines, refineries, and drilling sites—either by accident or on purpose. Natural gas extraction and refining often involves "venting" the gas—releasing it into the atmosphere—or "flaring" it—burning the methane off in an open flame, releasing carbon dioxide, airborne toxins, and, often, unburned methane.[3]

The U.S. government has recently begun four major efforts to reduce these emissions. The first two are regulatory. In December 2022, the U.S. Environmental Protection Agency (EPA) started developing requirements for better emissions control technology and more frequent methane-leak checks in the oil and gas industry.[4] Also in 2022, the Bureau of Land Management (BLM) started developing its own protocols to reduce venting and flaring by most of the federal government's onshore oil and gas lessees.[5]

The other two efforts are both prices on methane emissions created by the Inflation Reduction Act (IRA). The first fee, dubbed a "waste emissions charge," will fall on several classes of large industrial facilities that must already report their greenhouse gas emissions under EPA's Greenhouse Gas Reporting Program (GHGRP).[6] These facilities will eventually have to pay $1,500 for each metric ton of emitted methane, or meet stringent, Agency-determined criteria for an exemption.[7]

The Congressional Research Service has described this fee as the U.S. government's first direct charge on greenhouse gas emissions.[8] It estimates that 2,172 reporting facilities, whose methane emissions warm the planet as much as 78.3 million metric tons of carbon dioxide, will have to pay for those emissions[9]—and have an incentive to reduce them. In August 2023, EPA began a rulemaking process to update the GHGRP's methane protocols.[10] These new procedures will support the waste emissions charge's implementation via a separate, future rulemaking.[11]

The IRA's second methane fee covers a distinct, but overlapping, group of emitters: oil and gas producers with federal drilling leases.[12] As of late 2021, the U.S. Department of the Interior (DOI) had leased 26 million acres of public land and 12 million acres of U.S. waters for oil and gas production.[13] These lessees must pay the federal government royalties on the oil and gas they produce.[14] Drillers on leases issued after the IRA's passage will have to pay royalties not just on the gas they sell, but also on "all gas that is consumed or lost by venting, flaring, or negligent releases."[15]

*Author's Note: I am grateful to Profs. Lisa Heinzerling and Scott Altman, and my classmates in Professor Heinzerling's Spring 2023 Environmental Advocacy Seminar, for providing feedback on earlier drafts of this Comment. All mistakes are my own.*

1. *See* Jonathan Ramseur, Congressional Research Service, R47206, Inflation Reduction Act Methane Emissions Charge: In Brief 2 (2022) (citing U.S. Environmental Protection Agency (EPA) and Intergovernmental Panel on Climate Change reports that over 100 years, "methane's global warming potential (GWP) is 25 times greater than that of an equivalent mass of $CO_2$ [carbon dioxide]. Over a 20-year time period, methane's GWP is 72 times greater than that of $CO_2$.").
2. *See* U.S. Government Accountability Office, GAO-22-104759, Federal Actions Needed to Reduce Methane Emissions From Oil and Gas Development 1 (2022); Earthworks, Flaring Away: Damaging Our Health and Climate, and School Funds 4 (2021), https://earthworks.org/wp-content/uploads/2021/01/FlaringAway_TX-GLO_FINAL-1.pdf.
3. Earthworks, *supra* note 2, at 13-14.
4. Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review, 67 Fed. Reg. 74702 (Dec. 6, 2022) (to be codified at 40 C.F.R. pt. 60).
5. Waste Prevention, Production Subject to Royalties, and Resource Conservation, 87 Fed. Reg. 73588 (Nov. 11, 2022) (to be codified at 43 C.F.R. §§3160-3170).
6. Inflation Reduction Act of 2022, Pub. L. No. 177-169, 136 Stat. 1818, 2074 (codified at 42 U.S.C.A. §7436(c)).
7. *See id*.; Ramseur, *supra* note 1, at 2 ("The charge starts at $900 per metric ton of methane, increasing to $1,500 after two years.").
8. Ramseur, *supra* note 1, at 1.
9. *Id*. at 9.
10. Greenhouse Gas Reporting Rule: Revisions and Confidentiality Determinations for Petroleum and Natural Gas Systems, 88 Fed. Reg. 50282 (Aug. 1, 2023) (to be codified at 40 C.F.R. pt. 98, subpt. W).
11. *See id*. at 50284-86 (explaining that proposed requirement would "allow owners and operators of applicable facilities to submit empirical emissions data that could appropriately demonstrate the extent to which a [waste emissions] charge is owed," but also that "EPA intends to undertake one or more separate actions in the future to implement the waste emissions charge").
12. Inflation Reduction Act of 2022, Pub. L. No. 177-169, 136 Stat. 1818, 2059 (codified at 30 U.S.C.A. §1727(a)).
13. DOI, Report on the Federal Oil and Gas Leasing Program 4-5 (2021).
14. *Id*. at 7-8, 10-11.
15. *See* Inflation Reduction Act of 2022, Pub. L. No. 177-169, 136 Stat. 1818, 2074 (codified at 42 U.S.C.A. §7436(c)).

All four of these programs—the IRA's waste emissions charge, its new royalty calculations, and the EPA and BLM rulemaking processes—rely on honest reporting by the oil and gas sector.[16] Unfortunately, this industry has a track record of lying about its methane emissions. In May 2022, the investigative news program *FRONTLINE* reported that during the hydraulic fracturing boom of the 2010s, ExxonMobil and other fossil fuel companies claimed to seek reduced methane emissions when, in fact, they were not even monitoring these emissions.[17]

A month after *FRONTLINE*'s report, DOI's Office of Inspector General uncovered several suspicious practices by an unnamed energy company operating drilling leases in the Gulf of Mexico. It found that one of the company's facilities

> reported venting 36 MCF [million cubic feet] of gas each day for a period of nearly 2 years, regardless of the production volumes reported. Such consistency is unlikely because gas amounts would naturally fluctuate along with oil production. In addition, reports for two other facilities where the energy company regularly exceeded the daily average venting and flaring limit of 50 MCF frequently reported general equipment failure as the cause for exceeding the limit. This justification is not specific enough for the [government] inspector to determine whether the venting and flaring complied with regulations.[18]

The government's capacity to verify emissions reports and penalize wrongdoing is also questionable. One peer-reviewed study found that EPA underestimates the sector's oil and gas methane emissions by as much as 60%.[19] In the Gulf of Mexico case referenced above, the inspector general's report did prompt DOI's Bureau of Safety and Environmental Enforcement, which oversees offshore oil and gas leases, to collect more than $700,000 from the now-bankrupt energy company.[20] By then, unfortunately, 230 MCF of natural gas had escaped into the atmosphere, where it will warm the planet as much as 1,587 homes' annual energy use.[21]

At first glance, this combination of limited oversight capacity and an untrustworthy industry might seem to bode ill for the federal government's methane-reduction efforts. However, the two IRA provisions—the royalties and fees—present a new opportunity for private citizens and environmental groups to fight methane emissions. When these royalty and fee provisions take effect, lies about methane emissions will cheat the federal government out of revenue it otherwise would have collected. When private companies defraud the government, whistleblowers can use the federal False Claims Act (FCA) to sue these companies for treble damages.[22]

This Comment argues that the FCA can now be used to enforce the IRA's waste emissions charge and its royalties on vented and flared gas. It first explains why, unlike with other environmental violations, dodging either of these fees can trigger FCA liability. It then examines how two possible groups of plaintiffs—industry employees and outside observers—might discover unreported methane emissions and use the FCA against companies that dodge each of the IRA's methane fees.

## I. A New Tool for Holding Climate Polluters Accountable

Since 1863, the FCA has given individuals who discover fraud against the government a financial incentive to reveal that fraud. The statute lets these citizens, or "relators," sue in federal court for treble damages companies that defraud the federal government.[23] The relator takes between 15% and 30% of the damages awarded or the settlement, and the U.S. Treasury collects the rest.[24] FCA litigation recovered an estimated $38.9 billion for the federal government from 1986 to 2013.[25]

In addition to recouping stolen funds, the FCA—and the prospect of treble damages—helps deter further fraud. Two studies examining the health care industry found that each FCA settlement payment can deter 10 times as much additional fraud.[26] In his history of whistleblowing, *Crisis of Conscience*, journalist Tom Mueller estimated that FCA litigation had prevented $1 trillion in additional fraud against the government from 1986 to 2019.[27]

16. *See* Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review, 67 Fed. Reg. 74702, 74810 (Dec. 6, 2022) (to be codified at 40 C.F.R. pt. 60) (summarizing recordkeeping and reporting requirements for entities subject to Clean Air Act rulemaking for methane); *see also* 30 C.F.R. §1210.106; Waste Prevention, Production Subject to Royalties, and Resource Conservation, 87 Fed. Reg. 73588, 73604 (Nov. 11, 2022) (to be codified at 43 C.F.R. §3179.9); Office of Natural Resources Revenue, DOI, Minerals Production Reporter Handbook 5-16 (2014) [hereinafter ONRR Minerals Production Reporter Handbook] (placing the onus on lessees to report flared and vented gas).
17. *See FRONTLINE: The Power of Big Oil—Delay* (PBS television broadcast May 3, 2022), https://www.pbs.org/wgbh/frontline/documentary/the-power-of-big-oil/?#video-3.
18. Office of Inspector General, DOI, OI-OG-19-0577-I, Improvements Needed in the Bureau of Safety and Environmental Enforcement's Procedures Concerning Offshore Venting and Flaring Record Reviews (2022).
19. Ramseur, *supra* note 1, at 10.
20. Office of Inspector General, *supra* note 18, at 2.
21. *See id.*; U.S. EPA, *Greenhouse Gas Equivalencies Calculator*, https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator (last updated July 21, 2023).
22. 31 U.S.C.A. §§3729-3732.
23. *Id.*
24. *Id.* §3730(d)(1), (2).
25. *See* John T. Boese, Civil False Claims and Qui Tam Actions 1-26 (4th ed. 2016) (*cited in* John R. Thomas Jr. et al., *The False Claims Act Past, Present, and Future*, Fed. Law., Dec. 2016, at 67).
26. *See* Jetson Leder-Luis, Can Whistleblowers Root Out Public Expenditure Fraud? Evidence From Medicare (Apr. 2023) (conditionally accepted to the *Review of Economics and Statistics*), https://sites.bu.edu/jetson/files/2020/07/False-Claims-Act-Paper.pdf (estimating that "deterrence from $1.9 billion in whistleblower settlements generated Medicare cost savings of nearly $19 billion"); David H. Howard & Ian McCarthy, *Deterrence Effects of Anti-fraud and Abuse Enforcement in Health Care* (National Bureau of Economic Research, Working Paper No. 27900, 2020), https://www.nber.org/system/files/working_papers/w27900/w27900.pdf (after settling an FCA case that alleged wrongful Medicare billing for $280 million, hospitals made changes that saved the health care system $2.7 billion over 10 years).
27. Tom Mueller, Crisis of Conscience: Whistleblowing in an Age of Fraud 43 (2019).

The FCA authorizes lawsuits for several types of fraud. The main type, a false claim for payment, involves charging the government for products or services that were not delivered or do not meet contractual requirements.[28] However, the law also allows lawsuits for "reverse false claims": dodging obligations to pay the government.[29]

Since the 1990s, many environmental whistleblowers have tried to use the law's reverse false claims provision to sue illegal polluters. These plaintiffs have alleged that, by concealing violations of the Clean Air Act (CAA),[30] Clean Water Act (CWA),[31] and other environmental laws, corporations cheated the government out of fines that it might otherwise have collected pursuant to those statutes.[32]

These plaintiffs have had little success. Most of the statutes at issue in these cases give the federal government enforcement discretion; regulators can decide whether or not to issue fines. For that reason, courts have doubted that possible fines counted as an "obligation"—or, by extension, that the polluter committed a reverse false claim. For instance, when one plaintiff had used CAA violations to support a reverse false claim allegation, the U.S. Court of Appeals for the Fifth Circuit held that, although the defendant "was obligated to obey the law, . . . the mere contingent potential that such fines or penalties might be (but had not been) sought and imposed does not constitute 'an obligation to pay or transmit money or property to the Government.'"[33] Accordingly, it held that this alleged pollution could not support a reverse false claim.[34]

The CAA provisions at issue in that case stated that the EPA Administrator "may" assess a civil penalty for violations.[35] Sections of the CWA and the Toxic Substances Control Act (TSCA)[36] linked to other alleged reverse false claims also used permissive language when discussing penalties.[37] The government's enforcement discretion kept these penalties, too, from counting as "obligations" for reverse false claims purposes.[38]

Both of the IRA's methane charges—the royalties and the emission fees—avoid this problem. Both satisfy the FCA's definition of "obligation." The U.S. Court of Appeals for the Tenth Circuit has already ruled that reverse false claim liability reaches federal oil and gas lessees. It found that a defendant with one of these leases "cannot dispute that it [has] a legal obligation to transmit royalty payments to the Government."[39] The leasing statute at issue in that case, and the regulations that govern other federal oil and gas leases, all make clear that lessees *must* pay royalties to the federal government.[40] The rules that BLM started adopting in 2022 include an exemption for certain "unavoidably lost" methane emissions, and specify which emissions meet these criteria.[41] All methane emissions that are not "unavoidably lost" remain subject to royalties.[42] These royalties, unlike many environmental statutes' penalties, are non-discretionary.[43]

The IRA's waste emissions charge can also count as an "obligation" under the FCA. The CAA provisions at issue in *United States ex rel. Bain v. Georgia Gulf Corp.*, the Fifth Circuit case discussed above, stated that the EPA Administrator "may" assess a civil penalty for violations.[44] By contrast, the waste emissions charge section of the IRA states that the EPA Administrator "shall impose and collect a charge on methane emissions" above certain thresholds from qualifying facilities.[45] The statute specifies these thresholds, the types of facilities that qualify, and the fee's

28. *See* 31 U.S.C.A. §3729(a)(1)(A) (attaching FCA liability to anyone who "knowingly presents, or causes to be presented, a false or fraudulent claim for payment or approval").
29. *See id.* §3729(a)(1)(G), attaching FCA liability to anyone who
> knowingly makes, uses, or causes to be made or used, a false record or statement material to an obligation to pay or transmit money or property to the Government, or knowingly conceals or knowingly and improperly avoids or decreases an obligation to pay or transmit money or property to the Government.

30. 42 U.S.C. §§7401-7671q, ELR Stat. CAA §§101-618.
31. 33 U.S.C. §§1251-1387, ELR Stat. FWPCA §§101-607.
32. *See* United States ex rel. Pickens v. Kanawha River Towing, 916 F. Supp. 702 (S.D. Ohio 1996); United States ex rel. Marcy v. Rowan Cos., Inc., 520 F.3d 384, 38 ELR 20060 (5th Cir. 2008); United States ex rel. Coppock v. Northrop Grumman Corp., No. CIV.A. 398-cv-214-D, 2002 WL 1796979 (N.D. Tex. Aug. 1, 2002); United States ex rel. Darian v. Accent Builders, Inc., No. CV 00-10255 FMC (JWJx), 2005 WL 8161567 (C.D. Cal. Jan. 7, 2005); United States ex rel. RBC Four Co., Inc. v. Disney, No. CV 12-08036 DMG (PLAx), 2013 WL 12131741 (C.D. Cal. Aug. 9, 2013); United States ex rel. Stevens v. McGinnis, No. C-1-93-442, 1994 WL 799421 (S.D. Ohio Oct. 26, 1994) (all unsuccessful FCA claims that stemmed from violations of the CWA). *See also* United States ex rel. Simoneaux v. E.I. duPont de Nemours & Co., 843 F.3d 1033 (5th Cir. 2016); United States ex rel. Kasowitz Benson Torres LLP v. BASF Corp., 929 F.3d 721 (D.C. Cir. 2019) (unsuccessful FCA case based on violations of the Toxic Substances Control Act (TSCA)). *See also* United States ex rel. Bain v. Georgia Gulf Corp., 386 F.3d 648, 34 ELR 20103 (5th Cir. 2004) (unsuccessful FCA claim based on violations of the CAA).
33. *Bain*, 386 F.3d at 658.
34. *Id. See also Simoneaux*, 843 F.3d at 1040 (observing that "most regulatory statutes . . . impose only a duty to obey the law, and the duty to pay regulatory penalties is not 'established' until the penalties are assessed"); *Kasowitz Benson Torres LLP*, 929 F.3d 721 (holding that "[t]he phrase 'in lieu of any civil penalty' [in TSCA] means that not every TSCA violation carries a civil penalty. In short: [the whistleblower's] theory of automatic civil penalty liability is incorrect.").
35. 42 U.S.C.A. §7413(d)(1) (*cited in Bain*, 386 F.3d at 654-58).
36. 15 U.S.C. §§2601-2692, ELR Stat. TSCA §§2-412.
37. *See* 33 U.S.C.A. §1321(b)(6) (an entity that illegally discharges oil "may be assessed" a civil penalty, and then only after a hearing and other procedures); *Marcy*, 520 F.3d at 390-92 (reaching same conclusion about these penalties); *see also* 15 U.S.C. §2615(a)(2)(C) (stating that EPA "may compromise, modify, or remit, with or without conditions, any civil penalty which may be imposed" for a TSCA violation); *Kasowitz Benson Torres LLP*, 929 F.3d at 726 (finding that possible penalties under this section were not obligations).
38. *Marcy*, 520 F.3d at 390-92; *Kasowitz Benson Torres LLP*, 929 F.3d at 726.
39. Kennard v. Comstock Res., Inc., 363 F.3d 1039, 1048 (10th Cir. 2004).
40. *See* 30 U.S.C. §1712 ("a lessee who is required to make any royalty or other payment under a lease or under the mineral leasing laws, shall make such payments in the time and manner as may be specified by the Secretary"); 30 C.F.R. §556.604(a) (stating that a lessee in the outer continental shelf is "responsible for all administrative and operating performance on the lease, including paying any rent and royalty due"); 43 C.F.R. §3137.63(b)(1) (unit operators in the National Petroleum Reserve-Alaska liable for all rental and royalty payments).
41. Waste Prevention, Production Subject to Royalties, and Resource Conservation, 87 Fed. Reg. 73588, 73602 (Nov. 11, 2022) (to be codified at 43 C.F.R. §§3179.4-.5).
42. *Id.*
43. *See id.*; 30 C.F.R. §1210.106.
44. 42 U.S.C.A. §7413(d)(1) (*cited in* United States ex rel. Bain v. Georgia Gulf Corp., 386 F.3d 648, 654-58, 34 ELR 20103 (5th Cir. 2004)).
45. Inflation Reduction Act of 2022, Pub. L. No. 177-169, 136 Stat. 1818, 2074 (codified at 42 U.S.C.A. §7436(c), (d), (e), (f)).

amounts.[46] Only in limited circumstances may the Administrator exempt a facility from these fees.[47]

This provision resembles the binding administrative fees that count as "obligations" in a valid reverse false claim. In 2016, the U.S. Court of Appeals for the Third Circuit considered a reverse false claims case involving certain types of customs duties. The duties at issue are owed automatically when certain statutory criteria are triggered, unless a senior official—in this case, the Secretary of the Treasury—has authorized an exemption for reasons specified in the statute.[48] Noting these factors, the Third Circuit found that they counted as "obligations" and could support a reverse false claim.[49]

The waste emissions charge, like those customs duties, eschews permissive language in favor of a clear statement that certain entities "shall" pay.[50] For FCA purposes, it is an "obligation" to pay the government. When a company avoids this charge, the royalties, or both by hiding its methane emissions, it can therefore be sued under the FCA.

## II. How Insiders Can Bring an FCA Case Against Methane Emitters

The strategies that will win an FCA case against a methane emitter depend on both the type of obligation at issue—the waste emissions charge or the royalties—and the plaintiff's relationship to the defendant—that is, whether he or she is an outside observer or an industry insider.

Some members of the latter group have already proven willing to reveal the oil and gas industry's irresponsible handling of methane. One former ExxonMobil engineer, Dar-Lon Chang, drew attention to problems with his employer's liquefied natural gas technology and experienced retaliation; after leaving ExxonMobil, Dr. Chang disclosed that the company had failed to monitor its fracking methane emissions while publicly claiming otherwise.[51] Another oil and gas engineer, Touché Howard, filed a complaint with EPA's Office of Inspector General in 2016,[52] alleging that EPA scientists with industry connections had covered up serious problems with the Agency's methane-monitoring procedure.[53] Likewise, a confidential complaint prompted DOI's inspector general to investigate emissions by Gulf of Mexico lessees and take corrective action.[54]

The FCA gives principled insiders like these a means to expose and mitigate fraud against the federal government. The law not only encourages these individuals to sue with the prospect of a cash bounty; it also protects them from retaliation by keeping the claims under seal during the initial stages of litigation.[55] These benefits will now cover oil and gas industry employees who discover underreporting of methane emissions on royalty reports, the GHGRP forms that underpin the waste emissions charge, or both.

As we have seen, these two charges are "obligations" under the FCA. Across the country, many facilities will likely owe both. BLM oversees 96,100 oil and gas wells on federal land that must pay royalties for the oil and gas they produce.[56] Those wells' operators will also need to report annual methane emissions to EPA if they exceed the equivalent of 25,000 tons of carbon dioxide.[57] In that case, they could also owe the waste emissions charge. A whistleblower will need to make slightly different arguments to adequately plead a reverse false claim for evading each of these two obligations.

### A. *Suing Companies for Evading Royalties*

Once an employee building an FCA case has identified the exact obligations that have been shirked, he or she will also need to show that his or her employer committed at least one of two types of fraud: "mak[ing] . . . a false record or statement material" to the payment obligation, or "conceal[ing] or knowingly and improperly avoid[ing] or decreas[ing]" such an obligation.[58] For both claims, the plaintiff will need to allege that the oil or gas company carried out these actions "knowingly."

To demonstrate knowledge of royalty fraud, a plaintiff will need to allege that the defendant either knew that the volumes of flared or vented gas on the reporting forms were false, or that the defendant submitted those reports in reckless disregard or deliberate ignorance of their truth or falsity.[59] A unanimous U.S. Supreme Court recently clarified that these showings must relate to the defendant's actual state of mind, not any kind of hypothetical reasonable-person standard.[60]

The 2018 case *United States ex rel. Silingo v. Wellpoint, Inc.* illustrates how a plaintiff can demonstrate knowledge of a reverse false claim. In that case, the U.S. Court of Appeals for the Ninth Circuit held that a complaint "must set out sufficient factual matter from which a

46. *Id.*
47. 42 U.S.C.A. §7436(f)(5) and (6).
48. *See* 19 U.S.C.A. §1304(a)(3) and (i).
49. United States ex rel. Customs Fraud Investigations, LLC v. Victaulic Co., 839 F.3d 242, 254 (3d Cir. 2016).
50. 42 U.S.C.A. §7436(c).
51. *See* Nicholas Kusnetz, *A Disillusioned ExxonMobil Engineer Quits to Take Action on Climate Change and Stop "Making the World Worse,"* Inside Climate News (Feb. 8, 2021), https://insideclimatenews.org/news/08022021/a-disillusioned-exxonmobil-engineer-quits-to-take-action-on-climate-change-and-stop-making-the-world-worse/; *FRONTLINE*, *supra* note 17.
52. *See* NC Warn, Complaint and Request for Investigation of Fraud, Waste, and Abuse by a High-Ranking EPA Official Leading to Severe Underreporting and Lack of Correction of Methane Venting and Leakage Throughout the U.S. Natural Gas Industry (2016), https://www.ncwarn.org/wp-content/uploads/EPA-OIG_NCWARN_Complaint_6-8-16.pdf.
53. *Id.*
54. *See* Office of Inspector General, *supra* note 18, at 1.
55. *See* 31 U.S.C.A. §3730(b)(2), (3), and (4) (requiring that an FCA complaint be filed in camera, under seal, until the government decides whether or not to join the case on the plaintiff's side).
56. DOI, *supra* note 13, at 4.
57. 40 C.F.R. §98.231(a).
58. 31 U.S.C.A. §3729(a)(1)(G).
59. *See id.* §3729(a)(1)(G) and (b)(1)(A) (defining knowledge for FCA purposes). *See also id.* §3729(b)(1)(B) (requiring no proof of specific intent to defraud).
60. *See* United States ex rel. Schutte v. SuperValu, Inc., No. 21-1326, slip op. at 8 (U.S. June 1, 2023).

defendant's knowledge of a fraud might reasonably be inferred."[61] The court identified several factors that might support such an inference. While *Silingo* concerned health care fraud, oil and gas royalty fraud could also include several of these factors:

- *Corporate supervisors approving the submission of forms with information that is "too good to be true"—that is, more favorable to the corporation than circumstances would suggest*.[62] The initial complaint in *Kennard v. Comstock Resources*, the Tenth Circuit case establishing that royalties count as "obligations" under the FCA, gives one example of "too good to be true" data in oil and gas leasing. The leases at issue in that case required operators to report and pay royalties based on the highest prices in the oil and gas field.[63] The relator drew on his own experience in the industry to allege that it would have been impossible for the defendant operator not to know that it was reporting lower prices than other nearby operators.[64] Given the advanced technical knowledge required of oil and gas lessees, a wide range of other facts may suffice to show submission of "too good to be true" data.
- *Corporate supervisors signing off on forms not prepared according to government requirements*.[65] The two main forms that oil and gas lessees must submit to DOI—ONRR-4054, used primarily to monitor operations, and ONRR-2014, used mainly for financial accounting—both have extremely detailed preparation requirements. The manuals for completing each are more than 300 pages long.[66] Lessee supervisors approving forms that violate these requirements could support an inference of knowledge.
- *Use of illegal and/or patently impractical methods to collect needed information*.[67] The methods that lessees may use to collect gas production data are highly regulated. Either BLM or the Bureau of Safety and Environmental Enforcement must approve both the meter used and the point at which gas is metered.[68] Lessees using non-approved means to collect gas production data could also give rise to a knowledge inference.
- *The existence of an "incentive to pass along fraudulent data*."[69] This last factor is clearly present whenever oil and gas producers vent or flare methane into the atmosphere; omitting that methane from reporting forms would reduce the producer's royalty burden.

Any reverse false claim lawsuit will require a plaintiff to demonstrate knowledge using some combination of these factors. Once the plaintiff has established knowledge, he or she will also need to show that the defendant evaded an obligation to pay the federal government—in this case, royalties on flared or vented methane—or made "a false record or statement material to an obligation to pay" the government.

In 2009, the U.S. Congress amended the FCA to recognize these two acts—avoiding an obligation and falsifying a statement material to the obligation—as distinct grounds for liability.[70] For companies that pay royalties for oil and natural gas extraction on public lands, however, the two acts would typically go hand-in-hand: a leaseholder would avoid or reduce its royalties by lying on certain reporting forms. The IRA requires federal oil and gas lessees to pay royalties on almost all natural gas produced—including gas that is vented into the atmosphere or flared.[71] Lessees must already provide the total volumes of flared and vented gas on the monthly reporting forms that underpin royalty calculations.[72] A plaintiff alleging royalty fraud can therefore allege both types of reverse false claim: reducing an obligation and making a false statement material to that obligation.

Industry insiders should have little trouble showing materiality in cases of royalty fraud. Any lie that merely has the potential to reduce an obligation is material for FCA purposes.[73] Under the IRA, unreported methane emissions

61. United States ex rel. Silingo v. Wellpoint, Inc., 904 F.3d 667, 679-80 (9th Cir. 2018).
62. *See id*. at 680 (contractor in charge of Medicare submission forms "allegedly obtaining worse-than-average diagnostic information from enrollees who did not otherwise visit a healthcare provider during a calendar year, and thus would not seem to be in such dire health").
63. *See* Relators' First Amended Original Complaint, Kennard v. Comstock Res., Inc., No. 1:99-MD-01293-WFD, 2001 U.S. Dist. Ct. Pleadings LEXIS 1539, at *87-*92 (D. Wyo. Aug. 14, 2001).
64. *Id.*
65. *Silingo*, 904 F.3d at 680.
66. *See* ONRR Minerals Production Reporter Handbook, *supra* note 16; Office of Natural Resources Revenue, DOI, Minerals Revenue Reporter Handbook (2022), https://onrr.gov/document/RRM-Printable.Minerals.Revenue.Handbook.pdf [hereinafter ONRR Minerals Revenue Reporter Handbook].
67. *Silingo*, 904 F.3d at 680 (contractor indicated that it was using individuals who lacked the legal qualifications to make complex diagnoses, during brief visits during which such diagnoses could typically not be made).
68. *See* ONRR Minerals Production Reporter Handbook, *supra* note 16, at 5-11, 5-41; ONRR Minerals Revenue Reporter Handbook, *supra* note 66, at 4-105 (DOI agencies must approve both the meters oil and gas lessees use to measure production and the points at which they measure).
69. *Silingo*, 904 F.3d at 680-81.
70. *See* United States ex rel. Customs Fraud Investigations, LLC v. Victaulic Co., 839 F.3d 242, 253-55 (3d Cir. 2016) (citing Fraud Enforcement and Recovery Act of 2009, Pub. L. No. 111-21, 123 Stat. 1617 (codified at 31 U.S.C.A. §3729(a)(1)(G))).
71. Inflation Reduction Act of 2022, Pub. L. No. 177-169, 136 Stat. 1818, 2059 (codified at 30 U.S.C.A. §1727(a)).
72. *See* 30 C.F.R. §250.1163(b) (requiring offshore oil and gas lessees to report flared and vented natural gas on Form ONRR-4054); *see also id*. §1210.106 (referring all lessees to the ONRR Minerals Production Reporter Handbook for guidance on how to complete mandatory reporting forms); ONRR Minerals Production Reporter Handbook, *supra* note 16, at 5-16 (requiring reporting of flared and vented gas).
73. *See* United States ex rel. Bahrani v. Conagra, 465 F.3d 1189, 1204 (10th Cir. 2006); Franchitti v. Cognizant Tech. Sols. Corp., Inc., 555 F. Supp. 3d 63, 71 (D.N.J. 2021) (false statements found "material because if it accurately represented the nature of its employees' work, its visa applications would likely have been rejected or its employees' visas revoked, consistent with USCIS [U.S. Citizenship and Immigration Services] policy and practice" and a higher fee would have been charged for the desired visas).

will reduce federal lessees' royalties—and make any form that omits these emissions "material" to the underpayment.

### B. Suing Companies That Fail to Pay the Waste Emissions Charge

Employees of companies that flout the IRA's waste emissions charge can also expose this fraud using the FCA. This provision covers entities that must already report their emissions under EPA's GHGRP: some oil and gas production facilities, as well as oil refineries and other facilities.[74] These entities will need to pay a fee on their methane emissions above a certain threshold, unless the EPA Administrator exempts them under certain narrowly defined conditions.[75]

These entities, too, could defraud the federal government by underreporting their methane emissions to the GHGRP—and incur FCA liability.[76] The *Silingo* factors that can establish a "reasonable inference" of knowledge of royalty fraud can do the same for GHGRP fraud. This program's regulations for oil and gas production and refineries suggest that, when permittees lie to the GHGRP, three *Silingo* factors are particularly likely to arise:

- *Corporate supervisors signing off on forms not prepared according to government requirements*.[77] Like with royalties, the GHGRP reporting regulations for oil and gas production and other petroleum facilities are extremely detailed and specific.[78] Covered entities' submission of forms that did not meet these requirements could suggest knowledge of fraud.
- *Entities in charge of reporting using illegal and/or patently impractical methods to collect needed information*.[79] Entities covered by the GHGRP must also follow highly detailed monitoring and measurement requirements. Failure to use approved methods and equipment could also support a "reasonable inference" of knowledge.
- *The existence of an "incentive to pass along fraudulent data."*[80] This incentive exists for any entity covered by the GHGRP; underreporting methane emissions will reduce the waste emissions charge owed.

By demonstrating some combination of these factors, an industry insider can demonstrate that his or her employer knew it was underreporting methane emissions to the GHGRP—and avoiding its obligations under the IRA. Having demonstrated both knowledge and an unpaid obligation, a whistleblower inside the oil and gas industry can hold that company accountable with the FCA.

## III. How Outside Observers Can Bring an FCA Case Against Methane Emitters

Industry insiders are not the only ones who can reveal illegal methane emissions. In recent years, new imaging technologies have enabled environmental nonprofits to detect fugitive methane emissions from oil and gas wells, even without direct access to those wells' property. These groups' employees and volunteers use handheld infrared cameras to detect plumes of methane rising from individual wells and refineries.[81] Sensors mounted on aircraft, drones, and even satellites let these nonprofits and scientists gauge leaks and emissions over a large area.[82] In Texas, Earthworks and the Environmental Defense Fund have been able to both pinpoint specific unpermitted methane flares and estimate the overall scope of unpermitted flaring.[83]

To date, these groups have mainly used this information to demand that regulators take action against illegal emitters.[84] The industrywide monitoring requirements that EPA proposed in late 2022, separate from the IRA, include a process to authorize third parties to detect and report large-scale methane emissions.[85] Environmental groups can participate in this program while also watching for possible FCA liability. However, if these groups choose to pursue FCA lawsuits, they will need to use different investigative and legal strategies than industry insiders.

### A. Environmental Groups Can Participate in EPA's Super-Emitter Response Program

To bring an FCA case against methane emitters, environmental groups will have to conduct the following investigation: use technology to determine how much methane a source has emitted over a certain time period, then find out how much methane its owner has *reported* emitting over the same time period. If the observed methane emissions exceed the reported methane emissions, the source's owner

74. *See* Inflation Reduction Act of 2022, Pub. L. No. 177-169, 136 Stat. 1818, 2074 (codified at 42 U.S.C.A. §7436); 40 C.F.R. §§98.230-.258, 98.390-.408.
75. 42 U.S.C.A. §7436(c), (d), (e), and (f).
76. *See* 40 C.F.R. §98.3 (specifying current procedures for reporting annual methane emissions under the GHGRP); 42 U.S.C.A. §7436(h) (requiring the EPA Administrator, within two years of the IRA's passage, to revise these regulations to ensure that methane emissions reporting and calculation "allow owners and operators of applicable facilities to submit empirical emissions data, in a manner to be prescribed by the Administrator, to demonstrate the extent to which a charge under subsection (c) is owed"); Greenhouse Gas Reporting Rule: Revisions and Confidentiality Determinations for Petroleum and Natural Gas Systems, 88 Fed. Reg. 50282 (Aug. 1, 2023) (to be codified at 40 C.F.R. pt. 98, subpt. W) (rulemaking process to make these revisions).
77. United States ex rel. Silingo v. Wellpoint, Inc., 904 F.3d 667, 680 (9th Cir. 2018).
78. *See* 40 C.F.R. §§98.230-.258, 98.390-.408; 88 Fed. Reg. 50282.
79. *Silingo*, 904 F.3d at 680 (contractor indicated that it was using individuals who lacked the legal qualifications to make complex diagnoses, during brief visits during which such diagnoses could typically not be made).
80. *Id.* at 680-81.
81. *See*, *e.g.*, Earthworks, *supra* note 2.
82. *Id.*
83. *Id.*
84. *Id.*
85. Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review, 67 Fed. Reg. 74702, 74747-56 (Dec. 6, 2022) (to be codified at 40 C.F.R. pt. 60).

may well have avoided its obligation to pay the waste emissions charge, royalties on flared or vented methane, or both. As discussed further below, environmental groups should be able to obtain industrial facilities' methane emissions reports in at least some situations. These groups have also marshaled the resources and technical expertise necessary to observe methane plumes with infrared cameras, airplane flyovers, and satellite imaging.[86]

EPA has already recognized these groups' potential to support its upcoming methane regulations.[87] The monitoring-and-inspection rules that the Agency released for public comment in late 2022 include a "Super-Emitter Response Program" that would authorize third-party monitors for methane leaks.[88] Once approved by EPA, these groups would observe potential methane emission sites with Agency-sanctioned technology.[89] Upon detecting a "super-emitter" event—currently defined as a leak rate greater than 100 kilograms per hour—these groups would inform the polluting facility.[90] These facilities would, in turn, be required to investigate and fix the problem.[91]

This program could help curb large-scale releases of a dangerous greenhouse gas, but it will not stop methane-fee evasion on its own. The Super-Emitter Response Program does not directly support the IRA's waste emissions charge or its royalty requirements.[92] The response program will also only authorize environmental groups to respond to one-off leaks that exceed 100 kilograms per hour. But emissions-fee fraud, and the harm it causes the climate, could take place via smaller leaks over a longer time frame. The IRA's royalties on flared and vented methane are computed monthly, while the waste emissions charge is computed yearly.[93]

Environmental groups can participate in the Super-Emitter Response Program, and watch for large-scale methane plumes, while also watching for smaller, longer-term methane emissions that could create FCA liability. These two activities may require slightly different technologies. EPA is currently only "proposing to allow the use of remote-sensing aircraft, mobile monitoring platforms, or satellites [by program participants] to identify super-emitter emissions events."[94]

But policing methane-fee fraud will require getting a long-term picture of a source's methane emissions through long-term monitoring. The mobile sensors that EPA is considering for its program may not be ideal for this task. Long-term monitoring would likely be best performed by commercially available sensors that can continuously monitor and quantify methane leaks from fixed locations hundreds of meters away.[95] A nonprofit that wants to participate in EPA's program while watching for FCA liability may need to invest in both mobile and fixed monitoring technologies.

Environmental groups may want to encourage EPA to expand the list of program-approved technologies to include fixed sensors. They could, alternatively, rely mainly on fixed sensors but deploy program-approved mobile technologies when larger leaks are detected, or coordinate use of several different Agency-approved mobile sensors to quantify as much of a source's emissions as possible for a long period of time: at least one month if the source owes royalties, and at least one year if it owes the waste emissions charge. Once an oil or gas facility's methane emissions have been quantified using some mix of these technologies, they can be checked against what the source has reported to the government to see if the source's owner has underreported—and, by extension, face FCA liability.

### *B. The Waste Emissions Charge Offers a Better Target for FCA Litigation*

Environmental groups would pinpoint royalty and waste emissions charge fraud using the same basic process: determine a point source's reported emissions, use technology to determine actual emissions, and check to see if the latter exceeds the former. However, environmental groups may find waste emissions charge fraud a better target for investigation and FCA litigation, for three practical reasons.

First, the waste emissions charge—and the potential scope of FCA liability for not paying it—could extend much further than the new royalty provisions. The royalties for vented and flared methane only cover oil and gas leases issued *after* the IRA's passage[96]—not the 38.6 million acres already under lease when that bill was signed, nor the millions more acres of state and private land devoted to oil and gas production.[97] The GHGRP, on the other

86. *See*, *e.g.*, Earthworks, *supra* note 2 (report drawing on data from these technologies to document methane emissions in Texas).
87. Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review, 67 Fed. Reg. 74702 (Dec. 6, 2022) (to be codified at 40 C.F.R. pt. 60).
88. *Id.* at 74747-56.
89. *Id.*
90. *Id.*
91. *Id.*
92. *See id.* (no mention of either program in *Federal Register* section discussing the Super-Emitter Response Program).
93. *See* 42 U.S.C. §7436(c) ("The Administrator shall impose and collect a charge on methane emissions that exceed an applicable waste emissions threshold under subsection (f) from an owner or operator of an applicable facility that reports more than 25,000 metric tons of carbon dioxide equivalent of greenhouse gases emitted *per year*.") (emphasis added); ONRR Minerals Revenue Reporter Handbook, *supra* note 66, at 2-6 (requiring payments on a monthly basis).
94. Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review, 67 Fed. Reg. 74702, 74750 (Dec. 6, 2022) (to be codified at 40 C.F.R. pt. 60).
95. *See*, *e.g.*, Carbon Limits, Overview of Methane Detection and Measurement Technologies for Offshore Applications 60-63 (2020) (discussing commercially available fixed sensors that can quantify methane emissions), https://uploads-ssl.webflow.com/63e3b74820155d49e193aa74/64f1d080e26beb03b4886b39_Methane-measurement-technologies-offshore_for-website.pdf.
96. 30 U.S.C.A. §1727(a) ("For all leases issued after August 16, 2022, . . . royalties paid for gas produced from Federal land and on the outer Continental Shelf shall be assessed on all gas produced, including all gas that is consumed or lost by venting, flaring, or negligent releases through any equipment during upstream operations.").
97. *See* DOI, *supra* note 13, at 4-5 (explaining that, as of late 2021, approximately 26.6 million acres of federal land and 12 million acres of the outer continental shelf had been leased for oil and gas production, and that leases respectively provided 7% of U.S. oil and 8% of U.S. gas production, and

hand, covers all large-scale oil and gas wells, refineries, and pipelines.[98] Under the IRA, all these entities will need to either pay the waste emissions charge or obtain a waiver by meeting stringent requirements.[99] Environmental groups could have a much larger, geographically dispersed class of potential targets by focusing on entities that owe the waste emissions charge.

Second, determining reported emissions would likely prove easier for claims involving the waste emissions charge than for claims involving royalties. The oil and gas lessees that owe royalties report their emissions monthly to DOI.[100] Observers would need to obtain these reporting forms—ONRR-4054, ONRR-2014, or both—from an inside source or by using the Freedom of Information Act (FOIA). DOI may resist releasing these forms through FOIA. Current regulations state that the Department will keep this information "as confidential to the extent permitted by" FOIA.[101] That statute, in turn, exempts "confidential business information" from public release.[102] By contrast, each facility that will owe the waste emissions charge will have its methane emissions reports published on EPA's Facility Level Information on Greenhouse Gases Tool (FLIGHT) website.[103]

In the long term, environmental groups should pressure the Joseph Biden Administration to require, or at least favor, release of royalty reporting forms through FOIA. In the short term, however, the waste emissions charge's easily accessible data make this fee a more promising route to hold methane emitters accountable using the FCA.

Finally, environmental groups may have greater flexibility in monitoring waste emissions charge-covered entities off public lands, rather than oil and gas lessees on public lands. Installing a methane sensor with a clear line of sight to oil and gas wells on BLM land—or even monitoring those wells with drones, aircraft, and other mobile sensors—would likely require a minimum impact permit, a scientific research authorization, or other approvals from the agency.[104] By contrast, the waste emissions charge will likely cover facilities built on private land—facilities that can be surveilled from public roads and adjacent properties without BLM approval. For these reasons, these facilities will likely prove an easier target for environmental groups.

### C. *Legal Strategy Against Waste Emissions Charge Fraud*

An environmental nonprofit may not be one of the inside whistleblowers who typically files an FCA case, but it would nonetheless have standing to sue under this statute. The Supreme Court has held that the prospect of a financial reward alone confers standing on FCA plaintiffs.[105] When filing suit, these environmental groups, like industry insiders, will have to argue that the defendant knowingly avoided an obligation to pay the government, knowingly made or used a false record material to an obligation, or both. The *Silingo* factors that industry insiders can use to create a "reasonable inference" of fraud knowledge can also help outside observers build such an inference. Once an environmental group plaintiff has demonstrated knowledge using some combination of these factors, it will probably face two defenses that industry insiders would not.

First, the defendant corporation may claim that the case is blocked by the FCA's public disclosure bar. This provision of the law requires dismissal of claims whose allegations were already "publicly disclosed."[106] The public disclosure bar is unlikely to block an industry insider who discovers a previously hidden fraud. It may, however, pose an issue for a third party monitoring methane on public land.

The Fifth Circuit found that the public disclosure bar blocks reverse false claims when the plaintiff "'could have produced the substance of the complaint merely by synthesizing [previous] public disclosures' description' of [the fraudulent] scheme."[107] The Tenth Circuit applied it when a previous public disclosure is sufficient "to have set the government on the trail of [defendant's] alleged fraud without [relator's] help."[108] Given that potential defendants are already required to report their methane emissions,[109] at least one of these circuits might decide that the public disclosure bar applies to claims brought by third-party methane observers.

Fortunately, these observers can probably slip through the public disclosure bar's one major exception. They can demonstrate that they qualify as an "original source"—an individual who "has knowledge that is independent of and materially adds to the publicly disclosed allegations or transactions, and who has voluntarily provided the information to the Government before filing" an FCA lawsuit.[110]

The Tenth Circuit's ruling in *Kennard*, the natural gas royalty-fraud case, specified what warrants this exemption.

16% of oil and 3% of gas production, suggesting that the remainder must come from state and private land).

98. *See* 40 C.F.R. §§98.230, 98.231, 98.240, 98.241, 98.250, and 98.251 (defining these sources and setting thresholds at which they must report their emissions).
99. *See* 42 U.S.C. §7436(c) and (f).
100. *See* 30 C.F.R. §1210.102(a) (requiring federal oil and gas lessees to submit Form ONRR-4054 monthly); ONRR Minerals Production Reporter Handbook, *supra* note 16, at 5-16 (requiring them to report flared and vented emissions on this form).
101. 30 C.F.R. §1210.40.
102. 5 U.S.C. §552(b)(4).
103. EPA FLIGHT, *Facility Level Information on Greenhouse Gases Tool (FLIGHT)*, https://ghgdata.epa.gov/ghgp/main.do (last visited Sept. 10, 2023).
104. *See* 43 C.F.R. §2920.2-2 (discussing BLM's minimum-impact permits); DOI, BLM, *Recreation and Permit Tracking Online Reporting—Scientific Research*, https://permits.blm.gov/raptor/home-gensc (last visited Sept. 10, 2023).
105. Vermont Agency of Nat. Res. v. United States ex rel. Stevens, 525 U.S. 765, 773-74 (2000).
106. 31 U.S.C.A. §3730(e)(4)(A).
107. Little v. Shell Expl. & Prod. Co., 690 F.3d 282, 293-94 (5th Cir. 2012) (citing United States ex rel. Jamison v. McKesson Corp., 649 F.3d 322, 331 (5th Cir. 2011)).
108. United States ex rel. Reed v. KeyPoint Gov't Sols., Inc., 923 F.3d 729, 750 (10th Cir. 2019) (citing In re Natural Gas Royalties, 562 F.3d 1032, 1043 (10th Cir. 2009)).
109. *See* 30 C.F.R. §1210.102(a) (requiring federal oil and gas lessees to submit Form ONRR-4054 monthly); ONRR Minerals Production Reporter Handbook, *supra* note 16, at 5-16 (requiring them to report flared and vented emissions on this form).
110. 31 U.S.C.A. §3730(e)(4)(B).

It held that private relators "who sorted through relatively obscure public documents and, together with personal royalty records, used these documents to discover and support their claim of the alleged fraud" had earned the original source exception. "This case would not exist but for relators sniffing it out," the court concluded.[111]

This holding set a bar that environmental groups can clear when suing over waste emissions charge fraud. When a lessee underreports its total emissions to EPA, an observer that documents higher emissions can use those findings to bring an FCA suit. This suit would not have existed but for these groups "sniffing out" the unreported methane. Even if this observer participates in the Super-Emitter Response Program, in that capacity it only would have alerted the government to individual leaks that exceeded 100 kilograms per hour—not the total annual emissions used to calculate the waste emissions charge.[112] Even when groups help catch large leaks under the Super-Emitter Response Program, then, their year's worth of observations from the same source, coupled with their review of public data to catch underreporting by that source, will qualify them for the original source exception.

A defendant may also seek dismissal by arguing that, for one reason or another, the royalty reporting forms were not "material" to an obligation, and that the plaintiff therefore did not adequately allege that the polluter "knowingly ma[de], use[d], or cause[d] to be made or used, a false record or statement material to an obligation" to pay the government.[113] In *Victaulic*, the reverse-FCA case involving customs duties, the Eastern District of Pennsylvania found this argument adequate to warrant dismissal.[114]

The Third Circuit reversed on appeal. As noted in the previous section, these two actions—avoiding an obligation to pay the government and making a false statement material to that obligation—are distinct types of reverse false claims.[115] This had not been the case before Congress revised the statute in 2009. After these revisions, the Third Circuit observed that "a false statement is no longer a required element, since the post-[revision] FCA specifies that mere knowledge and avoidance of an obligation is sufficient, without the submission of a false record, to give rise to liability."[116] Failure to show that a false statement was material can no longer sink a plaintiff's claim. Like with industry insiders, plaintiffs only need to show that waste emissions charges were improperly reduced to adequately plead at least one type of reverse false claim.

### *D. Legal Strategy Against Royalty Fraud*

As discussed above, environmental groups will likely find investigating royalty fraud much more difficult than investigating sources off federal land that only owe the waste emissions charge. Still, if environmental groups manage to obtain a source's royalty reporting forms for a certain period, monitor its total emissions over that period, and uncover royalty fraud, they can apply the same basic strategy to an FCA lawsuit.

First, these observers will have to establish knowledge by showing some combination of the *Silingo* factors at work in the company's decision to underreport its flared and vented methane to the federal government. These plaintiffs can also claim the original source exception by showing that the case would not have existed "but for" them "sniffing it out."[117] Finally, the Third Circuit's decision in *Victaulic* will enable the plaintiff to sidestep any claims that these forms were not material. Like with the waste emissions charge, then, FCA case law gives environmental groups a powerful new tool to hold federal oil and gas lessees accountable for royalty fraud.

## IV. Conclusion

In recent years, two of the nation's most powerful courts have shown deep skepticism toward climate action. In January 2020, the Ninth Circuit held that 21 young Americans lacked standing to sue the federal government to compel action on climate change, and that solving this crisis is the responsibility of the executive and legislative branches—not the courts.[118] Since that ruling, the plaintiffs have amended their complaint and continued to spar with the federal government and some state attorneys general about their ability to litigate this issue.[119] In June 2022, meanwhile, the Supreme Court curbed the executive branch's ability to take action, holding in *West Virginia v. Environmental Protection Agency* that the major questions doctrine prohibits EPA from regulating power plants' greenhouse gas emissions beyond the fenceline.[120]

The *West Virginia* ruling seemed to leave legislation as the federal government's last available tool to curb climate change. The IRA signed by President Biden in August 2022 will indeed make progress on this issue—not just with its hundreds of billions of dollars in investment and incentives for renewable energy, but also by putting a price on methane.

The law's two methane fees will not only make the oil and gas industry pay for its methane emissions. These fees give climate advocates a way back into federal court. They provide a time-tested legal tool—one not burdened by recent rulings on standing or the major questions doc-

111. Kennard v. Comstock Res., Inc., 363 F.3d 1039, 1046 (10th Cir. 2004).
112. *See* Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review, 67 Fed. Reg. 74702, 74749 (Dec. 6, 2022) (to be codified at 40 C.F.R. pt. 60) (summarizing design of the Super-Emitter Response Program).
113. 31 U.S.C.A. §3729(a)(1)(G).
114. United States ex rel. Customs Fraud Investigations, LLC v. Victaulic Co., No. 13-2983, 2014 WL 4375638 (E.D. Pa. Sept. 4, 2014).
115. United States ex rel. Customs Fraud Investigations, LLC v. Victaulic Co., 839 F.3d 242, 253-55 (3d Cir. 2016) (citing Fraud Enforcement and Recovery Act of 2009, Pub. L. No. 111-21, 123 Stat. 1617 (codified at 31 U.S.C.A. §3729(a)(1)(G))).
116. *Id.* at 255.
117. Kennard v. Comstock Res., Inc., 363 F.3d 1039, 1046 (10th Cir. 2004).
118. Juliana v. United States, 947 F.3d 1159, 50 ELR 20025 (9th Cir. 2020).
119. Our Children's Trust, *Juliana v. United States*, https://www.ourchildrenstrust.org/juliana-v-us (last visited Sept. 23, 2023).
120. West Virginia v. Environmental Prot. Agency, 142 S. Ct. 2587, 52 ELR 20077 (2022).

trine—to hold methane emitters accountable and deter emissions of a potent greenhouse gas.

When an oil and gas industry insider discovers that his or her employer is underreporting its methane emissions, and therefore skirting its obligations under the IRA, the FCA's reverse false claims provision will give the insider a right-of-action, procedural safeguards, and a financial reward for revealing this information. These two fees satisfy the law's definition of an "obligation" to pay the government—and are therefore some of the first environmental penalties to trigger FCA liability. In many circumstances, these employees can plead the other key requirement of an FCA case: demonstrating that these companies knowingly avoided their obligations.

The environmental groups that already observe oil and gas facilities and measure their methane emissions can also use the FCA. By monitoring these facilities and comparing their measured emissions against the facilities' reported emissions, environmental watchdogs can catch oil and gas facilities cheating on royalties, the waste emissions charge, or both. These groups may not be the inside whistleblower that the FCA primarily exists to serve, but they can nonetheless receive the law's original source exception and obtain standing to sue.

This litigation would have narrower goals than other climate lawsuits. Using the FCA against methane emitters would simply aim to enforce existing restrictions on one industry's emissions of one greenhouse gas. Compared to defending broad energy-sector regulations or compelling a shift away from fossil fuels, this may be a modest win. But it would still be a worthy one—for taxpayers, for those who live near these dangerous fumes, and for the planet.

Greenhouse gas emissions are pushing the climate closer to several "tipping points"—catastrophic and irreversible events like the collapse of Antarctica's ice sheet or dieback of the Amazon rain forest.[121] Preventing even small-scale emissions of greenhouse gases—especially ones as strong as methane—can stave off those tipping points and buy time for more lasting solutions.

Judge Josephine Staton recognized this reality in her dissent from the Ninth Circuit's January 2020 majority opinion in *Juliana v. United States*, the youth climate case. "The majority portrays any relief we can offer [as judges] as just a drop in the bucket," she wrote, referring to the majority's finding that the plaintiffs lacked standing because a court order alone could not redress their grievances. Judge Staton argued that courts *could* have a meaningful impact on climate change. She observed that in our current climate moment, "we are perilously close to an overflowing bucket. These final drops matter. *A lot*. Properly framed, a court order—even one that merely postpones the day when remedial measures become insufficiently effective—would likely have a real impact on preventing the impending cataclysm."[122]

A majority of Judge Staton's colleagues declined to provide relief in that ruling. But plaintiffs who use the FCA to sue methane emitters have a strong chance of prevailing: they will be grounding their claims in a statute that has recovered money stolen from the American people, and deterred further fraud, for 160 years. When used against methane emitters, the FCA can stop and deter releases of a powerful greenhouse gas and help avert climate catastrophe.

121. *See* David I. Armstrong McCay et al., *Exceeding 1.5*°C Global Warming Could Trigger Multiple Climate Tipping Points, 377 Science 6611 (2022).
122. *Juliana*, 947 F.3d at 1182 (Staton, J., dissenting).