

# In the United States Court of Federal Claims

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ROGER BIRDBEAR, et al.

Plaintiffs,

v.

THE UNITED STATES OF AMERICA,

Defendant.

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No. 16-75L

(Filed: August 14, 2025)

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Thomas A. Benson, Nicholas A. McDaniel, and Amanda Stoner, Environment & Natural Resources Division, U.S. Department of Justice, Washington, D.C., with whom was Todd Kim, Assistant Attorney General, for Defendant. Karen Boyd, Christopher King, and Robert Merritt, Office of the Solicitor, U.S. Department of the Interior, Washington, D.C., Of Counsel.

## **OPINION AND ORDER**

### **Kaplan, Judge.**

Plaintiffs in this action are Roger Birdbear, Thomas Birdbear, Jamie Lawrence, Rae Ann Williams, and Nelson Birdbear. They are enrolled members of the Three Affiliated Tribes of the Fort Berthold Indian Reservation and beneficiaries of several thousand acres of allotted land on and around the Reservation that is held in trust for them by the United States.<sup>1</sup>

Pursuant to the Indian Long-Term Leasing Act of 1909, codified at 25 U.S.C. § 396, the Secretary of the Interior has statutory authority over mineral leasing on Indian lands. As this Court described in its opinion on the parties' cross-motions for summary judgment, the statute

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<sup>1</sup> The General Allotment Act of 1887, ch. 119, 24 Stat. 388, "authorize[d] the President to allot to each Indian residing on a reservation up to 80 acres of agricultural land or 160 acres of grazing land found within the reservation" and "provide[d] that the United States shall retain title to such allotted lands in trust for the benefit of the allottees." United States v. Mitchell, 445 U.S. 535, 540–41 (1980). It codified the federal government's then-existing practice of "divid[ing] Indian lands into individual parcels, taking lands that had been set aside for Indian tribes and allotting them to individual tribe members." Cobell v. Norton, 240 F.3d 1081, 1087 (D.C. Cir. 2001).

and its implementing regulations impose specific fiduciary obligations on the federal government with respect to the management of oil and gas leases on Plaintiffs' allotments. See Birdbear v. United States, 162 Fed. Cl. 225, 234 (2022) (Birdbear I).

In this action, Plaintiffs allege that the United States, through the Bureau of Land Management ("BLM"), an agency within the Department of the Interior, did not satisfy a number of those fiduciary obligations. They seek damages to compensate them for what they allege were tens of millions of dollars in royalty payments that they would have received but for the government's breaches.

The Court granted summary judgment to the government with respect to nine of the twelve counts in Plaintiffs' Third Amended Complaint (the operative pleading). Id. at 247–48 (entering summary judgment for the government as to the claims set forth at Counts 4, 6, 7, 9, and 10 and Count 1 as to leases entered before September 15, 2009, based on the six-year statute of limitations, 28 U.S.C. § 2501); Op. & Order 9, Nov. 21, 2023, ECF No. 290 (granting summary judgment for the government as to Counts 5 and 11). By the time of the trial, which was held in January 2024, the claims that remained were: (1) that the government breached its fiduciary duty "to properly manage, administer and supervise" Plaintiffs' lands "to prevent the avoidable loss of oil and gas through drainage," see 3d Am. Compl. ¶ 48, ECF No. 147 (Count 3); (2) that the Secretary breached his fiduciary duty to ensure the diligent development of Plaintiffs' leases by timely drilling oil and gas wells, see id. ¶¶ 82–88 (Count 8); and (3) that the Secretary violated his fiduciary obligation to ensure that Plaintiffs received royalties when the lessees of their lands engaged in the venting and flaring of gas if the loss of the gas was avoidable, see id. ¶¶ 108–22 (Count 12).

At trial, Plaintiffs called several current and former employees of the Department of the Interior to the stand as adverse witnesses. They included: (1) Alan Ollila, a longtime employee of BLM's North Dakota Field Office ("NDFO") with decades of experience in BLM's drainage protection and diligent development programs, most recently as NDFO's assistant manager; (2) John "Jack" Wunder, a geologist in BLM's state office in Billings, Montana, who was assigned to conduct a special drainage review that Plaintiffs requested; (3) Pasqual Laborda, a BLM supervisory petroleum engineer in the Montana State Office who had oversight responsibilities for the drainage and diligent development programs; (4) Jeffrey Hunt, a petroleum engineer most recently employed by the Bureau of Indian Affairs from 2000 up until his retirement and acting superintendent of the Fort Berthold Agency from 2012 to 2013; and (5) Lonnie Bagley, a BLM management official who provided oversight on drainage, diligence, and flaring in the NDFO from 2005 to 2012.

Plaintiffs also presented the expert testimony of John Akinboyewa, a petroleum engineer. Mr. Akinboyewa testified at length about the methodology that BLM employed to determine drainage and why, in his view, that methodology was invalid. He also testified at length about the results of the drainage and diligent development reviews of Plaintiffs' tracts that he conducted in connection with this litigation.

The government's primary witnesses were geologist Todd Reynolds and petroleum engineer Terry Payne. They provided expert testimony intended to rebut Mr. Akinboyewa's

criticisms of BLM’s methodology and performed their own drainage and diligent development reviews of Plaintiffs’ tracts.

The Court has carefully considered the testimony presented and the exhibits the parties offered into evidence. For the reasons set forth below, the Court finds that Plaintiffs have not proven that the United States violated the fiduciary obligations it owes to Plaintiffs with respect to the claims in Counts 3, 8, and 12 of their Third Amended Complaint. It will therefore direct the entry of judgment in favor of the government.

## **FINDINGS OF FACT AND CONCLUSIONS OF LAW**

### **I. Background**

#### **A. The Government’s Fiduciary Obligations**

In its first summary judgment opinion, the Court described at some length the statutes and regulations that give the Secretary of the Interior comprehensive control over the development of oil and gas on Indian lands. See Birdbear I, 162 Fed. Cl. at 233–34 (citing 25 C.F.R. pts. 211–12, 43 C.F.R. subpt. 3162). It held that a number of those regulations imposed specific fiduciary or other obligations on the government whose violation “can fairly be interpreted as mandating compensation by the Federal Government for the damages sustained.” See id. at 239 (quoting United States v. Mitchell (Mitchell II), 463 U.S. 206, 218 (1983)).

As the Court explained, BLM regulations and issuances impose requirements on lessees that are designed to protect the interests of Indian allottees. As relevant here, these include a requirement that lessees “[p]rotect the lease from drainage.” Id. at 236–37 (citing 25 C.F.R. § 211.47(b) (incorporated by reference in 25 C.F.R. § 212.47); 43 C.F.R. § 3162.2-3(a)–(b)). They also include the requirement that lessees “[e]xercise diligence in mining, drilling and operating wells on the leased lands,” Id. at 238 (citing 25 C.F.R. § 211.47(a)). And lastly, they mandate that lessees pay Indian allottees royalties on gas that is lost through venting or flaring, where such loss is avoidable. See Def.’s Ex. 131, at BRDESI0435440–41, ECF No. 355-1 (Notice to Lessees, “NTL-4A,” entitled “Royalty or Compensation for Oil and Gas Lost”).

The regulations charge BLM with enforcing these requirements for the benefit of the Indian lessors. See 43 C.F.R. § 3161.2 (stating that BLM “is authorized and directed . . . to require compliance with lease terms, with the regulations in this title and all other applicable regulations”). Therefore, as this Court held in its summary judgment opinion, the regulations impose fiduciary obligations on the part of the government to ensure that lessees protect Plaintiffs from the loss of royalties due to drainage, that they diligently develop Plaintiffs’ mineral interests, and that Plaintiffs are compensated for royalties lost as a result of venting and flaring.

#### **B. The Bakken Boom**

As noted, Plaintiffs’ leased tracts are located within the Fort Berthold Indian Reservation in northwestern North Dakota. The Reservation sits approximately 10,000 feet above the

Bakken, an enormous rock formation whose layers of shale stretch hundreds of miles. Tr. 33:2–10, ECF No. 339 (Ollila); Tr. 604:17–21, ECF No. 341 (Akinboyewa).<sup>2</sup>

The rock in the Bakken Formation is very dense. Tr. 574:25–575:1 (Akinboyewa); Tr. 1558:7–8, ECF No. 346 (Reynolds) (describing the rock in the Bakken as “almost like tombstone”). Much like a sponge holds water, the pores in the rock hold liquid. Tr. 575:8–15 (Akinboyewa). That liquid is a mixture of oil and water. Tr. 576:12 (Akinboyewa); see also Tr. 569:7–12 (Akinboyewa). The Bakken also holds natural gas that dissolves into the liquid as the rock formation is compressed under immense pressure deep underground. See Tr. 575:15–576:7 (Akinboyewa).

Historically, oil companies that attempted to extract oil from the Bakken through the installation of vertical wells had little success. As noted, the rock in the Bakken is “very dense” such that “oil and gas is typically not going to flow out of it.” Tr. 1558:7–8 (Reynolds). As the government’s expert Todd Reynolds noted, the rock “is not good reservoir quality rock like you would see in a conventional reservoir.” Tr. 1558:8–10 (Reynolds). The oil and gas in the Bakken are locked in the pores of the rock; as a result, little of the liquid will flow through the rock to the opening of a vertical well. See Tr. 633:15–19 (Akinboyewa). As such, although oil has been produced in the Bakken since the 1950s, vertical wells were “hit or miss.” Tr. 1699:16–18, ECF No. 348 (Payne).

By around 2010, however, oil production in the Bakken dramatically increased, sparking the beginning of the period referred to as “the Bakken boom.” Tr. 1699:19–21 (Payne).<sup>3</sup> The boom was driven primarily by technology, specifically the practice of hydraulic fracturing. See Tr. 1699:24–1700:4–6 (Payne). Hydraulic fracturing enabled oil companies to access the oil deep in the Bakken by drilling down vertically 10,000 feet or more until they reached a desired depth, usually in the Middle Bakken or in the Three Forks, then drilling horizontally creating a long lateral wellbore that can pull in oil and gas from a larger portion of the formation. See Tr. 633:13–22 (Akinboyewa); Tr. 1556:6–11, 1560:2–10 (Reynolds). The horizontal wells typically stretched 10,000 feet, roughly two miles, from the “heel”—i.e., the base of the vertical portion of the well and where it turns and begins to run horizontally—to the “toe”—i.e., the end of the horizontal well and far from the heel and the well pad on the surface. See Tr. 1556:19–1557:6 (Reynolds).

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<sup>2</sup> The Bakken Formation has two principal regions: the Bakken zone (the top layer) and the Three Forks zone (the layer below). See, e.g., Tr. 306:13–14, ECF No. 340 (Ollila); Tr. 1561:15–17, ECF No. 346 (Reynolds) (referring to various “interval[s]” in the formation); Tr. 1563:10 (Reynolds) (identifying separate “benches” in the formation). The Bakken zone in turn has three layers: the Upper Bakken Shale, the Middle Bakken, and the Lower Bakken Shale. Tr. 605:5–18 (Akinboyewa); see Tr. 1561:2–5 (Reynolds). And the Three Forks zone also consists of several separate layers. See Tr. 605:21–606:2 (Akinboyewa); Tr. 1561:3–6 (Reynolds); see also Tr. 1563:9–15 (Reynolds).

<sup>3</sup> Other witnesses at the trial pegged the beginning of the boom to sometime between 2008 and 2010, and its end around 2020. See Tr. 331:17–23 (Ollila); Tr. 1352:4–9, ECF No. 344 (Hunt).

Once the horizontal well was drilled, oil companies would install a casing, such as a steel pipe, through the horizontal wellbore. Tr. 633:9–12, 633:22–25 (Akinboyewa); Tr. 1556:12–18, 1557:7–8 (Reynolds). Then they would set off charges that would perforate the casing and fracture the rock around the well in a series of stages, starting at the well’s toe and working back to its heel. See Tr. 1557:12–24 (Reynolds); Tr. 634:1–12, 653:14–17, 654:10–11 (Akinboyewa). To boost production, oil companies would pump a slurry of water, chemicals, and “proppants,” such as sand, into the well at high pressure. See Tr. 634:10–17, 635:4–10 (Akinboyewa); Tr. 1558:22–25 (Reynolds). As the water solution pressed into the formation through the openings in the well casing, it would further fracture the rock. See Tr. 634:11–12 (Akinboyewa); Tr. 1559:1–5 (Reynolds). The sand or other proppants would then wedge into the fractures near the well, creating a “propped” region where the fractures would be held open to allow oil to pass into the well. See Tr. 635:9–17 (Akinboyewa); Tr. 1559:14–16 (Reynolds).

During the period dubbed the Bakken boom, there was “a very large, very rapid development” of oil exploration on and around the Fort Berthold Indian Reservation. Tr. 1350:22–1351:4, ECF No. 344 (Hunt). That rapid development resulted in “the biggest production [of oil] the U.S. has seen in over 50 years,” comparable to the oil boom on Alaska’s North Slope in the 1960s and in Osage County, Oklahoma in the 1920s. See Tr. 1332:16–17 (Hunt); see also Tr. 1351:7–10, 1351:11–24 (Hunt).

When the boom began, the number of oil and gas leases on the Reservation greatly increased. Before, oil companies had leased only “a dozen or so” tracts on the Reservation. Tr. 1353:18–21 (Hunt); see also Tr. 1488:13–24, 1490:17–21, ECF No. 345 (Bagley) (stating that before the Bakken boom, oil companies had leased approximately 14 tracts on the reservation). By around 2008, the number of leased tracts had increased to approximately 2,000. Tr. 1353:22–25 (Hunt).

### **C. BLM’s Role in the Management of Plaintiffs’ Mineral Interests**

BLM maintains a field office in Dickinson, North Dakota that is overseen by a state office in Billings, Montana, which is in turn overseen by BLM headquarters in Washington, D.C. Tr. 325:19–21, 326:3–11, ECF No. 340 (Ollila). The NDFO is roughly 60 miles south of the Fort Berthold Indian Reservation. Tr. 325:24–326:2 (Ollila). It administered BLM’s drainage and diligence programs with respect to leases on the Reservation, including those held on Plaintiffs’ tracts. Tr. 32:23–33:1 (Ollila).

Witnesses at the trial testified that the Bakken boom significantly increased the workload of the NDFO as well as the state office in Billings. See Tr. 332:4–6 (Ollila) (observing that “the boom affected the workload at the field office ‘to a great degree’”). One BLM official estimated that during the first few years of the boom, oil companies acquired “hundreds of leases,” and stated that, as a result, the field office’s “workload increased by 500 percent.” Tr. 1489:7–11, 1490:22–25 (Bagley).

During the boom, BLM was inundated with applications for permits to drill submitted by oil company lessees. See Tr. 58:16–59:9 (Ollila). Mr. Ollila testified that, at least initially, BLM “literally didn’t have enough hands onboard . . . to timely review every sundry notice, every application that came through there.” Tr. 332:8–10 (Ollila). Because he was required to pitch in

to help perform these tasks, the diligence and drainage programs were affected “to a degree” by the increased workload. Tr. 332:10–12 (Ollila).

Over time, BLM increased staffing levels in the NDFO to address the demands created by the Bakken boom. Mr. Ollila testified that the number of staff working at the field office increased substantially, doubling between 2009 and 2017, when he retired. Tr. 332:17–25 (Ollila).

## **II. Plaintiffs’ Claim that the United States Failed to Protect Plaintiffs’ Tracts Against Drainage**

One of the three issues before the Court concerns whether BLM adequately protected Plaintiffs against loss of royalties due to drainage. BLM defines drainage as “the uncompensated loss of hydrocarbons, inert gases or geothermal resources from . . . Indian allotted mineral lands from wells on adjacent nonjurisdictional lands or jurisdictional lands with lower participation, allocation, royalty rate, or distribution of funds, resulting in revenue losses to the . . . Indian lessors.” Pls.’ Ex. 198, at BRDESI0599057, ECF No. 352-13 (BLM, Instruction Memo. No. 99-051, Bureauwide Interim Guidance on Oil and Gas Drainage Production (1999));<sup>4</sup> see also 43 C.F.R. § 3160.0-5 (defining drainage as “the migration of hydrocarbons, inert gases (other than helium), or associated resources caused by production from other wells”).

Drainage may occur when a well is installed on an adjacent tract. As Mr. Akinboyewa testified, when fluids exit the well, it causes a depletion of surrounding pressure. Tr. 577:2–10, 582:25–583:6 (Akinboyewa). Because fluids within the reservoir naturally move from an area of high pressure toward one of lower pressure, the depletion of pressure near the well may cause oil to migrate from an adjacent tract to the offending well. Tr. 577:4–16, 317:5–19 (Akinboyewa); Tr. 417:11–418:1 (Ollila); Tr. 1649:6–14 (Reynolds).

One way to protect a tract against the loss of hydrocarbons caused by drainage is to timely drill a protective well. Such wells create a counteracting pressure response that helps retain migrating hydrocarbons within the tract. See Tr. 610:22–25 (Akinboyewa); see also Tr. 625:24–626:4 (Akinboyewa) (explaining that drilling a protective well can “create a no flow boundary” that stops drainage from expanding into a tract).

### **A. The 1999 Drainage Manual**

As noted, at the time of the events covered by this lawsuit, the NDFO enforced the obligations of lessees regarding drainage by employing the oil and gas drainage protection program described in BLM Instruction Memorandum No. 99-051 (“the 1999 drainage manual”). That manual provided “guidelines, standards, and procedures for protecting . . . allotted mineral

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<sup>4</sup> BLM Instruction Memorandum No. 99-051 went into effect January 27, 1999. See Pls.’ Ex. 198, ECF No. 352-13. BLM issued superseding guidelines in 2015 when it published an updated version of its Drainage Protection Manual. See generally Pls.’ Ex. 111, ECF No. 352-5. The requirements outlined in the 2015 manual are substantially similar to those set forth in Instruction Memorandum No. 99-051. Compare id. with Pls.’ Ex. 198.

interests from the loss of oil and gas or geothermal resources by drainage and the resulting loss of royalty revenues.” Pls.’ Ex. 198, at BRDESI0599030.

## **1. The Well Review**

The 1999 drainage manual states that “all wells” are to be evaluated “to determine the possibility of drainage by reviewing the contiguous spacing units by reservoir.” Id. at BRDESI0599037; see also id. at BRDESI0599058 (defining a “potential drainage situation”). The manual did not specify the frequency with which such reviews should be conducted. Nor did it specify a deadline within which BLM was required to begin performing such reviews. The Court will infer that to prevent drainage to the greatest extent possible, BLM would need to conduct its first drainage review within a reasonable time after a new well began production.

The 1999 manual states that what BLM calls “a potential drainage situation” exists on Indian lands “where there is production of oil or gas or geothermal resources from a well on adjacent lands not owned by the Indian tribe or allottee involved.” Id. at BRDESI0599034. The manual directed BLM to use “a production or similar type of screen, based on professional judgment and experience in the area . . . to retire potential drainage situations that are not likely to cause drainage.” Id. at BRDESI0599034.

Mr. Ollila testified that for some period of time the NDFO had screened out potential drainage cases that involved tracts whose boundaries were more than 3,000 feet from a lateral well. At some point, however, the cut-off was reduced to 1,500 feet at the instruction of Loren Wickstrom, assistant field manager for minerals. Tr. 271:2–272:22 (Ollila). Mr. Wickstrom reduced the cut-off distance after looking at the drainage cases the field office had reviewed and determining that none of the drained tracts had been more than 1,000 feet from the offending well. Tr. 271:24–272:7 (Ollila); see also Tr. 270:13–16, 337:3–5 (Ollila) (stating that officials at the NDFO “did not see any drainage 1,500 feet out from the wellbore”).

At trial, Plaintiffs’ expert, Mr. Akinboyewa, criticized BLM’s use of a 1,500-foot cut-off to screen potential drainage cases. He relied heavily on a paper authored by several employees of the Hess Corporation, published in 2018, and that describing a study Hess conducted concerning pressure in the Bakken Formation (“Hess paper”). See generally Joint Ex. 124, ECF No. 353-10. According to Mr. Akinboyewa, on the basis of that study, the paper’s authors had “concluded with great confidence that pressure depletion occurs over large distances” from producing wells and “that the drainage areas [around those wells] are quite large.” Tr. 624:5–13 (Akinboyewa).

In light of the findings in the Hess paper, Mr. Akinboyewa stated, BLM’s practice of using a 1,500-foot cut-off was “arbitrary” and caused the agency to overlook offending wells whose drainage areas have a larger radius. Tr. 722:10–23 (Akinboyewa); see also Tr. 640:21–641:3 (Akinboyewa) (contending that drainage can extend “great distances” and that, therefore, BLM mistakenly excluded wells that presented potential drainage situations when it applied the cut-off).

In response to Mr. Akinboyewa's opinion about drainage distances, the government presented testimony from Todd Reynolds, a geophysicist.<sup>5</sup> Mr. Reynolds testified that, given the Bakken's low permeability, areas in the formation that have not been fractured are "really not contributing . . . much production at all." See Tr. 1573:21–22 (Reynolds). Moreover, he testified, "the fracked area of influence is typically only extending about 500 feet on either side of the wells" and is delineated by the fractures that have been propped open. See Tr. 1555:21–23 (Reynolds). He concluded that wells cause "limited drainage" beyond the reach of their propped fractures, or about 500 feet. Tr. 1612:3–8 (Reynolds); see also Def.'s Ex. 308, at BRDEXP0269583, ECF No. 354-1 ("The [Hess paper drainage model] showed drainage extended approximately 500 ft on either side of the [well] lateral."). But see Def.'s Ex. 308, at BRDEXP0269583 ("The detailed measurements and comprehensive modeling provide compelling evidence that flowing fracture lengths in the [subject oil field] . . . are at least 500 ft and could easily be 1,000 ft or longer.").

The Court finds it unnecessary to wade into the highly technical debate over whether and to what extent drainage is likely to occur where a tract is more than 1,500 feet from a well. For one thing, the argument seems to have been waived. Despite the many hours Plaintiffs' counsel spent at trial questioning Mr. Akinboyewa about the Hess paper, Plaintiffs do not even mention the 1,500-foot cutoff in their post-trial briefs, much less make an argument regarding its validity. For another, Plaintiffs filed this lawsuit in 2016, Mr. Ollila retired in 2017, and the Hess paper was published in 2018. Therefore, during the period of time at issue in this case, the NDFO could not have taken into consideration what Mr. Akinboyewa says the Hess paper shows about drainage distances. Finally, even if it were theoretically possible for drainage to occur in the Bakken more than 1,500 feet from the wellbore, the 1999 drainage manual expressly contemplated that BLM was entitled to rely on its own professional judgment and experience to limit well reviews to those most likely to cause drainage, particularly during the period at issue in this case, when the number of new wells increased dramatically. See Pls.' Ex. 198, at BRDESI0599030.

## **2. Administrative Review and Notification Letter**

The 1999 drainage manual provided that if a potential drainage situation was identified during the well review, BLM was to attempt to identify a satisfactory "administrative resolution by which the . . . Indian lessors are already, or can be, protected [from drainage]." Id. at BRDESI0599037.<sup>6</sup> The agency was to create a case file for every potential drainage situation,

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<sup>5</sup> Mr. Reynolds worked for 30 years on oil and gas exploration projects before becoming a consultant. Tr. 1540:24–1541:2, 1542:16–1543:11, 1544:2–1545:2 (Reynolds). The Court certified him as an expert in geology and geophysics. Tr. 1549:9–10 (Reynolds).

<sup>6</sup> To provide an administrative resolution, BLM might identify "actual or proposed drilling, producing, or abandoned jurisdictional wells that may satisfy the requirements of protective wells." Pls.' Ex. 198, at BRDESI0599038. Or it might seek an agreement to join a tract potentially subject to drainage with neighboring tracts under a revenue-sharing arrangement known as a "communitization agreement." Id. at BRDESI0599037; see also Pls.' Ex. 143, at BIRDBEAR044623, ECF No. 352-7 (explaining BLM's policy on communitization agreements).



enter it into the drainage tracking system, and then assign it a “priority classification.” Id. at BRDESI0599038. It was also to send an initial notification letter to the lessee of the drained tract to inform it of the potential drainage situation and to “request protective action or technical data.” Id.

### **3. Technical Review**

Under the 1999 drainage manual, all potential drainage situations that were not resolved administratively would be subjected to a “technical review” that consisted of “a combination of geologic and reservoir engineering reviews.” Id. at BRDESI0599039. The technical review would determine first “whether it is geologically possible for drainage to occur.” Id. If not, then the drainage case would be “retired.” Id. On the other hand, if drainage was geologically possible, then BLM would go further and conduct a reservoir engineering review. See id. at BRDESI0599040.

To conduct the reservoir engineering review, BLM would determine the “estimated ultimate recoverable reserves” (“estimated ultimate recovery” or “EUR”) of the potentially draining well, that is, the amount of oil and gas that is expected to be recovered from a well by the end of its producing life. See id. at BRDESI0599040; Tr. 692:9–13 (Akinboyewa); see also Pls.’ Ex. 198, at BRDESI0599045. The drainage manual gave BLM staff discretion to use geologic and engineering data from a variety of sources to determine the EUR. See Pls.’ Ex. 198, at BRDESI0599045. It also provided that “[t]he method of analysis [for determining the EUR] will be determined by the parameters available and may include material balance, production decline curves, pressure analysis, and volumetric or geometric calculations.” Id. Finally, it directed that “[a]s necessary,” BLM was to examine the reservoir and fluid properties surrounding the draining well to determine among other characteristics, pressure history, recovery factor, permeability, net pay, residual oil saturation, production history, reservoir boundaries, viscosity, and gas/oil ratios. Id.

After BLM estimated a well’s ultimate recovery, the next step in the reservoir engineering review was to “estimate the probable drainage area and configuration.” Id. at BRDESI0599046. According to the manual, estimating the probable drainage area and its configuration required “a combined effort of reservoir engineering and geology,” and, in determining the drainage configuration, “[a]ll known or calculated flow boundaries, such as faults, permeability barriers, interference from nearby wells, etc., should be considered.” Id.

Finally, BLM would determine whether “the area drained by the potentially draining well intersects a property boundary.” Id. at BRDESI0599046. If a property boundary was intersected, BLM would “determine the reserves in the drained portion of the lease and the drainage factor,” i.e., “the percentage of the draining well’s production attributable to the drained jurisdictional lease.” Id. BLM would use the well’s drainage factor to calculate the volume of oil and gas that the well was draining from the tract and, as necessary, compute any royalties owed to the tract’s lessors. See id.

#### 4. Demand Letter and Final Technical Analysis

Under the manual, a demand letter was to be issued to all responsible lessees if the technical review “indicate[d] that drainage may exist for the subject lands.” *Id.* at BRDESI0599041. That letter would remind lessees of their obligations to protect the lease from drainage and would request that they submit a plan for doing so. *See id.* The letter would explain the lessee’s options, including, among others, drilling a protective well or paying compensatory royalties. *See id.* Alternatively, the lessees could “submit geologic, reservoir engineering or economic data sufficient to show that no drainage has occurred or is occurring, or that an economic protective well began [production].” *Id.*

The lessees would be given 60 days to either submit information refuting BLM’s potential drainage situation determination or propose a plan for protecting the tract from drainage. *Id.* If the lessee refuted BLM’s analysis or did not respond to the letter, BLM petroleum engineers and geologists were to conduct a final independent technical analysis with the data available to them. *Id.* at BRDESI0599042. The final analysis would include another geologic analysis “describ[ing] in detail how the geology affects drainage in the subject area” and “determin[ing] whether drainage is geologically possible” and another reservoir engineering analysis “determin[ing] whether drainage is occurring or has occurred.” *Id.* at BRDESI0599042, BRDESI0599045.

The 1999 drainage manual specified that where BLM’s final technical analysis still indicated drainage, it was to conduct “an economic well determination,” assessing whether a “prudent operator can or could have drilled a protective well on the lease being evaluated for drainage.” *Id.* at BRDESI0599047. The manual provided the methodology for making the economic well determination, stating that a lessee would not be required to drill a well to protect its lease from drainage “unless there [was] a sufficient quantity of oil or gas to pay a reasonable profit to the lessee over and above the cost of drilling and operating the well.” *Id.* at BRDESI0599035 (quoting Nola Grace Ptasynski, 89 Interior Dec. 208, 212 (IBLA 1982)).

The manual further provided that if a lessee “demonstrates that a protective well cannot and could not have been economically drilled on the . . . Indian lease being evaluated for drainage,” no compensatory royalty would be assessed. *Id.* On the other hand, if BLM determined that a protective well could be economically drilled, the lessee would be required to pay compensatory royalties to the lessor. *Id.* The royalties would be calculated beginning a “reasonable time” after the lessee had actual or constructive notice of facts sufficient to alert a reasonably prudent operator that drainage is or was occurring. *Id.* They would continue to be assessed until a satisfactory protective well had been drilled, or the draining well ceased production and was permanently plugged, or until the drained portion of the lease was relinquished. *Id.* at BRDESI0599035–36.

#### **B. The NDFO’s Compliance with the 1999 Drainage Manual During the Bakken Boom**

In their post-trial brief, Plaintiffs do not appear to take issue with whether the procedures and standards set forth in the 1999 drainage manual provide allottees with sufficient protection against the loss of royalties due to drainage. In fact, their expert, Mr. Akinboyewa testified that

his own drainage analyses were consistent with the manual. See Tr. 1066:8–10, ECF No. 343 (Akinboyewa) (confirming on cross-examination that his drainage analysis was consistent with BLM’s drainage guidance). Instead, Plaintiffs focus on establishing: (1) that BLM did not comply with the manual with respect to protecting their tracts against drainage and (2) that BLM abused its discretion by using volumetric equations to determine drainage rather than the Darcy’s law equation used to determine fluid flow rates. See Pls.’ Post-Trial Br. at 35–39, ECF No. 364 [hereinafter Pls.’ Br.].

To support their arguments, Plaintiffs called Allen Ollila as an adverse witness. Mr. Ollila’s testimony, however, undermined rather than advanced their case.

Mr. Ollila began working in the NDFO in 1982 and remained there until he retired from BLM in 2017. Tr. 328:16–329:5 (Ollila). During Mr. Ollila’s 38-year tenure with BLM, he served in many positions. These included petroleum engineer, supervisory petroleum engineer, branch chief, and assistant field manager. Tr. 329:6–14 (Ollila). He began working on reservoir programs, including the drainage and diligence programs, in the early 1980s. Tr. 329:15–20 (Ollila). He testified that he was “directly responsible for drainage” until he became assistant field manager, after which his work involved managerial oversight of that program. Tr. 330:7–20 (Ollila).

Plaintiffs’ apparent objective in putting Mr. Ollila on the stand was to establish that the demands placed on the field office during the Bakken boom were so overwhelming that the field office abandoned its adherence to the procedures and standards set forth in the 1999 drainage manual. See Pls.’ Br. at 12–19. But this effort fell short. Plaintiffs not only failed to prove BLM’s noncompliance with the 1999 drainage manual as to their tracts, they also failed to substantiate many of the specific instances of noncompliance they allege occurred. And even where the field office may have fallen behind and arguably deviated from the manual, Plaintiffs did not carry their burden to show what harm, if any, they suffered as a result of such deviation.

Mr. Ollila testified that while he was assistant director of the field office, and subject to the 1,500-foot cut-off described above, the NDFO identified every well that was drilled in the state to determine if it “could possibly be a drainage case . . .” Tr. 251:6–20 (Ollila); see Tr. 334:8–15 (Ollila). Mr. Ollila testified further that the NDFO performed well reviews on Plaintiffs’ tracts, as required by the drainage protection manual. Tr. 253:19–24 (Ollila).

Mr. Ollila also confirmed that, following well reviews, the field office conducted administrative reviews of wells that created potential drainage situations. Tr. 252:23–25, 334:18–335:10 (Ollila). Then, if the administrative reviews did not resolve the potential drainage situations, Mr. Ollila said, the field office would conduct geologic and reservoir engineering reviews, also as provided in the manual. See Tr. 254:6–255:14 (Ollila).

Mr. Ollila testified that in performing its geologic reviews, the field office relied on geologic files and information available in BLM’s Montana State Office or at the North Dakota Industrial Commission (“NDIC”). Tr. 254:8–19 (Ollila). He explained that the field office did not have a geologist on site but that in some cases it asked BLM geologist Jack Wunder, who was based in the state office, “for additional geologic review and interpretation.” Tr. 254:8, 254:19–25 (Ollila).

As noted, Mr. Ollila also testified that the NDFO conducted reservoir engineering reviews as required by the 1999 drainage manual, including reviews of wells near some of Plaintiffs' tracts. Tr. 255:12–14 (Ollila). Mr. Ollila explained that he conducted his “normal reviews . . . as wells were drilled and the [drainage] cases were set up” for wells near Plaintiffs' tracts. Tr. 255:17–19 (Ollila). He also testified that he had personally conducted “two or three [reservoir engineering reviews] on each of Plaintiffs' tracts upon their “special request,” on top of the special review Mr. Wunder conducted, discussed below. Tr. 255:16–17 (Ollila).

At trial Mr. Ollila had difficulty recalling the particulars of specific drainage reviews that the NDFO conducted during his tenure there. That is understandable given that—by the time of trial—he had been retired for about seven years. Moreover, Mr. Ollila testified that during his tenure he did not associate the leases that the field office reviewed with the names of the lessors. Tr. 136:18–24, 141:6–15 (Ollila); see also Tr. 142:14–21 (Ollila). Nonetheless, the Court finds Mr. Ollila's testimony credible regarding the NDFO's general practices and its compliance with the procedures and practices set forth in the 1999 drainage manual during the Bakken boom. His detailed account of the multi-step drainage review process—including initial well screenings, administrative evaluations, and follow-up geologic and reservoir engineering reviews—was consistent with the manual's requirements.

In contrast, Plaintiffs' arguments suggesting systemic noncompliance with the manual are scattershot and generally unsupported by the evidentiary record. For example, Plaintiffs assert that Mr. Ollila “developed his own drainage review process.” Pls.' Br. at 13. Although Plaintiffs barely develop this argument, the Court understands them to be claiming that Mr. Ollila employed a process that was somehow at odds with the one set forth in the drainage manual. They rely on a December 4, 2009 memorandum Mr. Ollila sent to NDFO management. See id. at 13–14 (citing Pls.' Ex. 229, ECF No. 352-19). Plaintiffs note that Mr. Ollila observed in this memorandum that the field office had “altered [its] process to maximize time (and \$),” and that “[i]f [the field office] had to complete each [drainage] review separately much more time would be required.” Id. at 14 (third alteration in original) (quoting Pls.' Ex. 229, at BRDESI1335562).

But in context, what Plaintiffs dub an “alternative” drainage review process that they imply gave short shrift to the interests of Indian lessors, refers to a modest modification of the NDFO's existing practices designed to address drainage cases more efficiently. Mr. Ollila drafted this memorandum after supervisors at the agency's state office in Montana expressed concern that the NDFO had been retiring some drainage cases before lessees responded to the initial notices that their leases were potentially subject to drainage. Tr. 259:2–10 (Ollila). He explained that the field office had modified its procedures to group drainage cases together for processing as a package where they involved the same offending well. Pls.' Ex. 229, at BRDESI1335562, ECF No. 352-19; see also Tr. 259:23–24 (Ollila) (observing that when drainage cases concerned “the same offending well,” the NDFO “grouped some of the cases” for review). The purpose of the modification was to allow the field office to begin its technical reviews sooner, rather than waiting for each lessee to respond to the initial contact letters sent to them when a drainage case file was established. See Pls.' Ex. 198, at BRDESI0599038.

Based on the record before it, the Court finds no indication that the 1999 drainage manual precluded the field office from implementing this modest adjustment to its drainage review process to facilitate more efficient resolution of drainage analyses. To the contrary, the field

office's efforts to improve administrative efficiency during a period of exceptional operational strain were consistent with its fiduciary obligations.

Moreover, Mr. Ollila wrote the memorandum in question in 2009, which was at the very beginning of the Bakken boom and some seven years before Plaintiffs filed this action. See Pls.' Ex. 228, ECF No. 352-18; see also Compl., ECF No. 1. Plaintiffs did not present any evidence showing that the practice at issue adversely affected them or even that it was used with respect to their tracts.

Plaintiffs also claim in their post-trial brief that BLM contravened the requirements of the 1999 drainage manual by failing to create and maintain drainage case files for every potential drainage situation. Pls.' Br. at 13. It bears noting that, as was the case with respect to Mr. Ollila's alleged alternative review process, Plaintiffs do not claim that drainage case files were not kept for their tracts. Moreover, their contention regarding BLM's record keeping practices is not supported by the evidence. Mr. Ollila testified at trial that "[e]very lease has a drainage file as part of the lease history; and inside those drainage file folders is a copy of . . . the work [the field office] did on each [drainage] case." Tr. 256:6–8 (Ollila). He specifically confirmed that he created a drainage case file "with respect to each and every drainage review that [he] completed." Tr. 249:25–250:6 (Ollila).<sup>7</sup>

There is similarly no merit to Plaintiffs' contention that BLM violated its fiduciary obligations to them by allegedly "shut[ting] down" the NDFO's drainage protection program for roughly two years. Pls.' Br. at 12–13. That contention rests entirely on a sentence in a March 22, 2013 email from Mr. Ollila addressed to Dennis Roller, who was then an employee of the Department of the Interior's Minerals Management Service. Tr. 243:2–4; Pls.' Ex. 329, ECF No. 352-44. It stated that "[a]fter having our drainage program shut down for almost two years due to staffing problems in North Dakota[,] I am up and rolling again." Pls.' Ex. 329, at BRDESI0599194.

At trial more than ten years later, in early 2024, Mr. Ollila testified that he did not remember his email to Mr. Roller or recall a period when the NDFO literally shut down its drainage program. Tr. 242:17–244:1 (Ollila); see also Tr. 245:3–4 (Ollila) ("I absolutely don't remember this period.").<sup>8</sup> To be sure, Mr. Ollila acknowledged that around the time he sent the

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<sup>7</sup> The trial record includes several documents that appear to have come from drainage case files. See Pls.' Ex. 392, ECF No. 352-57; Pls.' Ex. 396, ECF No. 352-58; Pls.' Ex. 427, ECF No. 352-62; Pls.' Ex. 429, ECF No. 352-63; Pls.' Ex. 517, ECF No. 352-70; see also Tr. 347:24–349:10, 392:11–393:14 (Ollila) (discussing Plaintiffs' Exhibit 392); Tr. 387:8–15 (Ollila) (discussing Plaintiffs' Exhibit 396); Tr. 378:3–6 (Ollila) (discussing Plaintiffs' Exhibit 517); Tr. 981:6–8 (Akinboyewa) (discussing Plaintiffs' Exhibit 427); Tr. 982:8–10 (Akinboyewa) (discussing Plaintiffs' Exhibit 429); Tr. 985:3–6 (Akinboyewa) (discussing Plaintiffs' Exhibit 517).

<sup>8</sup> When Plaintiffs' counsel asked him initially if the field office had shut down its drainage program, Mr. Ollila answered "No." Tr. 242:17–19 (Ollila). After Plaintiffs' counsel confronted Mr. Ollila with his 2013 email and pressed him again, Mr. Ollila said that the program "must have been" shut down during that time, although he again stated that he "d[id] not remember it being shut down." Tr. 242:20–244:1 (Ollila).

email, the field office had developed a backlog of roughly 2,000 wells that needed review. Tr. 246:4–10 (Ollila); see also Pls.’ Ex. 329, at BRDESI0599194 (Mr. Ollila stating in his 2013 email that his office had “over 2000 wells to catch up on[] for drainage”). But it is not at all clear that this backlog resulted from a literal “shutdown” of the field office’s drainage program as opposed to a surge in well completions that outpaced the office’s capacity to keep up.

Further, two other witnesses with personal knowledge of the field office’s work during the period of the alleged shut down testified that they were not aware of a time when the NDFO shut down its drainage program. Pascual Laborda, who was a supervisory petroleum engineer in BLM’s Montana state office until sometime in December 2013, was copied on the email. See Tr. 1184:18–24 (Laborda). But he could not remember any shut down of the program. Tr. 1265:21–25 (Laborda). He testified that he visited field offices once every year or two to check their drainage case files and to make sure that the offices were “complying with” the agency’s 1999 drainage manual. Tr. 1262:10–1264:5 (Laborda). He explained that while the NDFO’s compliance with the guidelines during the Bakken boom “was not 100 percent,” the office was nonetheless “going crazy with establishing drainage cases” and identifying potentially offending wells. Tr. 1264:16–20 (Laborda). And when the government’s counsel asked Mr. Laborda if the field office “ever stop[ped] doing drainage analyses,” Mr. Laborda said that it did not. Tr. 1265:21–25 (Laborda).

Lonny Bagley, a BLM Acting Deputy Assistant Director who was the field manager of the NDFO from 2005 to 2012, supervised Mr. Ollila and other staff involved in the field office’s drainage program. Tr. 1492:1–20, 1483:14–16, 1484:11–13, 1485:12–18 (Bagley). Like Messrs. Ollila and Laborda, Mr. Bagley also was unaware of any shut down of drainage reviews during his tenure at BLM. Tr. 1494:6–9 (Bagley).

Based on the foregoing, the Court finds that Plaintiffs have failed to prove that BLM “shut down” the field office’s drainage program for two years before March 2013. In context, Mr. Ollila’s statement that the drainage program had been “shut down” is most likely a reference to the fact that the office was struggling to keep up with the demand for drainage reviews that resulted from the proliferation of new wells during the height of the Bakken boom.

Moreover, and more importantly, even assuming Plaintiffs had proved that the drainage program was “shut down” in some respect during this period, Plaintiffs have not shown that the alleged shutdown affected their interests. To the contrary, it was during this period of time that—as discussed below—BLM brought over staff from the state office to conduct a special drainage review of Plaintiffs’ tracts that was requested by Plaintiffs Nelson and Roger Birdbear.

Plaintiffs’ other claims challenging BLM’s compliance with its drainage manual are similarly unavailing. They include an assertion that BLM “failed to utilize enforcement mechanisms entrusted to [it] to prevent and remedy drainage.” Pls.’ Br. at 15. They base this assertion on the fact that, at trial, Mr. Ollila could not recall the specific tracts on which BLM directed Plaintiffs’ lessees to build two protective wells. Id. (citing Tr. 240:11–241:2 (Ollila)). Nor could he recall an instance in which an oil company lessee had conducted an economic review of a protective well with respect to Plaintiffs’ tracts. Id. (citing Tr. 165:21–24 (Ollila)).

But Plaintiffs' reliance on what Mr. Ollila could remember about BLM's enforcement actions with respect to Plaintiffs' tracts proves little. It is unsurprising that Mr. Ollila could not, some seven years after he retired, remember the specific tracts on which BLM directed the installation of protective wells or whether an economic review had been conducted on one of Plaintiffs' tracts. And his failure to remember particular enforcement efforts during this period does not establish that none were taken.

Plaintiffs also argue that BLM "withheld key information from Indian Mineral owners," specifically the pressure data that would be needed to compute drainage under Plaintiffs' preferred methodology, as described below. *Id.* They note that BLM generally had the authority to request information, including pressure data, from oil companies operating on allottees' lands. *Id.* at 14; *see also* 34 C.F.R. § 3162.1(b) (2025) (authorizing the government to "inspect lease sites and records"), 34 C.F.R. § 3162.4-1 (2025) (identifying certain categories of records that oil companies must maintain).

But there is nothing in the regulations that imposes on BLM an obligation to request such data or any other at the request of an Indian lessor. Moreover, as described in some detail below, BLM did not need pressure data to perform its analyses because it used a volumetric approach to determining the existence and extent of drainage. And the evidence shows that oil companies generally did not keep the type of pressure data to which Plaintiffs refer; thus, even if BLM had asked for its production, the agency would not have received such data.

Crucially, Plaintiffs have not shown that any of the alleged deficiencies they identify—whether procedural modifications, temporary backlogs, or supposed omissions—had any effect on drainage protection for their tracts. Assertions regarding BLM's use of volumetric methods, alleged failures to enforce lease obligations, or nonproduction of pressure data all suffer from the same flaw: Plaintiffs did not link these alleged shortcomings to any concrete harm to them. In short, Plaintiffs failed to carry their burden to establish that BLM materially deviated from its obligations under the 1999 drainage manual or that any such deviation adversely affected their interests.

**C. The Special Drainage Review Conducted at Plaintiffs' Request by Geologist Jack Wunder**

In 2012, Plaintiff Roger Birdbear emailed Pasqual Laborda requesting that BLM conduct additional drainage reviews of his tracts and supply him with certain data about all wells with a downhole location within one mile of his tracts. Pls.' Ex. 282, ECF No. 352-30; *see* Tr. 1237:22–1238:2 (Laborda). Specifically, for each producing well, he sought monthly production information, as well as "well logs showing thickness, porosity and resistivity." Pls.' Ex. 282.

Mr. Laborda responded a few hours after Mr. Birdbear sent his email. He identified contacts for Mr. Birdbear in the NDFO, including Mr. Ollila, and he requested legal descriptions of the tracts for which Mr. Birdbear was requesting drainage reviews. *Id.* With respect to Mr. Birdbear's requests for data, Mr. Laborda advised that BLM could not supply well logs because of its subscription agreements, but that Mr. Birdbear could secure copies of those logs from the NDIC. *Id.*; *see also* Joint. Ex. 127, at BRDBLM0009113, ECF No. 353-11.

Sometime in the next few days Mr. Laborda apparently informed Mr. Ollila of Mr. Birdbear's request. Pls.' Ex. 283, ECF No. 352-31. He asked Mr. Ollila if he would need any help from the Montana State Office to perform drainage reviews of some 53 wells as requested by Mr. Birdbear. Mr. Ollila responded that that the NDFO was "not going to drop everything and jump" to perform the reviews simply "when [Plaintiffs] ask." Id.; Tr. 276:10–14 (Ollila). At trial, when confronted with this email, Mr. Ollila explained that at the time Mr. Birdbear made his request, Mr. Ollila had only recently reviewed Mr. Birdbear's tracts and had "many, many, many other trust reviews" to work on. Tr. 283:21–23 (Ollila).<sup>9</sup>

Despite Mr. Ollila's dismissive comment, Mr. Laborda decided to accommodate Mr. Birdbear's request for additional drainage reviews by having Mr. Wunder, a BLM petroleum geologist working out of the state office, conduct the review under Mr. Ollila's supervision. Pls.' Ex. 283; Tr. 534:19–20 (Wunder); see also Tr. 404:3–405:16 (Wunder) (stating that Mr. Laborda asked Mr. Wunder to assist the NDFO in 2012 because it "was swamped with work"). Mr. Wunder "was to determine the [real] extent of . . . potential drainage[] at the end of the economic life of the well." Tr. 447:9–11 (Wunder).

Mr. Wunder testified that he followed the 1999 drainage manual when he conducted his review. Tr. 408:3–409:1 (Wunder). He began by excluding from review wells that were more than a half of a mile away from Plaintiffs' tracts, based on his understanding that drainage did not occur in the Bakken past that distance. See Tr. 538:9–11 (Wunder); Joint Ex. 127, at BRDBLM0009112, ECF No. 353-11 ("[T]he author of this report did not analyze the drainage radius of currently producing wells that are greater than approximately 2,640 feet (0.5 mile) from a subject tract."); Tr. 420:7–17 (Wunder). As a result, the number of wells to be reviewed was reduced from 53 to 36. Joint Ex. 127, at BRDBLM0009119.<sup>10</sup>

Mr. Wunder testified that—consistent with the 1999 drainage manual—he determined the estimated ultimate recovery of each potentially offending well. He used the production data he secured from the NDIC to perform decline curve analyses to estimate how much oil each well would produce over its lifetime. See id. at BRDBLM0009113, BRDBLM0009119; Tr. 538:18–539:1 (Wunder). He then reviewed well logs and oil companies' submissions to the NDIC to

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<sup>9</sup> Mr. Ollila was apparently referencing a review he conducted in 2010 or 2011. See Tr. 274:17–275:6 (Ollila). From what the Court can gather, Mr. Ollila conducted that drainage review in response to an earlier request from Mr. Birdbear. See Tr. 260:10–261:3, 261:10–13 (Ollila); Pls.' Ex. 254, at BRDBLM0009831, ECF No. 352-27.

<sup>10</sup> Plaintiffs complain that it was improper for Mr. Wunder to use what it calls "a one-size-fits-all cut-off of one-half mile" in his drainage review. Pls.' Br. at 16, ECF No. 364. But the establishment of a cut-off was consistent with the general practice of the field office which, as noted, used a 1,500-foot cut-off during its initial well reviews to decide whether a well presented a potential drainage situation. And it was also consistent with the drainage manual's recognition that professional judgment and experience was a key element to conducting drainage analyses. Pls.' Ex. 198, at BRDESI05990340, BRDESI0599037, BRDESI0599049.



determine various reservoir parameters that he used to calculate drainage areas. See Tr. 539:13–540:11 (Wunder).<sup>11</sup>

Finally, Mr. Wunder plugged the parameters he identified into volumetric equations that calculated the area that each well would drain over its lifetime based on the volume of oil Mr. Wunder estimated it would produce and the space that volume of oil would take up in the formation. See Tr. 541:1–4 (Wunder); Joint Ex. 127, at BRDBLM0009119–21. He then plotted the wells’ drainage areas on a map to see if they intersected with Plaintiffs’ tracts. See Tr. 541:4–5 (Wunder); see also, e.g., Joint Ex. 127, at BRDBLM0009292.

Mr. Wunder produced a detailed 188-page report in early 2013. See Joint Ex. 127. He concluded that there was a potential for drainage with respect to two of Plaintiffs’ tracts (M710A and M1969). Tr. 478:10–12 (Wunder); see also Joint Ex. 127, at BRDBLM0009111.

As Mr. Wunder noted, however, by the time he had finished his report, the lessee for one of the tracts (M710A) had submitted applications for permits to drill on the tract. Joint Ex. 127, at BRDBLM0009111. According to Mr. Ollila, the field office had sent several 60-day demand letters to the lessee of tract M710A, possibly around the time that Mr. Wunder was conducting his review. Tr. 351:4–15 (Ollila). Mr. Ollila explained that he ultimately determined that the lessee should drill a protective well on the tract. Tr. 351:16–352:1 (Ollila). The oil company operating on the tract eventually drilled two wells, he said. Tr. 352:5–10 (Ollila); see also Tr. 381:1–15 (Ollila). Those wells began production in 2015. See Pls.’ Ex 562, ECF No. 352-80; Def.’s Post-Trial Br. at 16, ECF No. 365 [hereinafter Def.’s Br.].

In addition, Mr. Wunder noted in his report that BLM had created a drainage case for tract M1969. Joint Ex. 127, at BRDBLM0009111, BRDBLM0009122. Mr. Ollila testified that the NDFO had sent a 60-day demand letter to the lessee of tract M1969 in 2010. See Tr. 347:19–23, 350:3–8 (Ollila). He further stated that the lessee had drilled wells on the tract that protected the tract from drainage. Tr. 350:9–15 (Ollila). In fact, according to information that Plaintiffs presented at trial, the two protective wells on tract M1969 began production only days after Mr. Wunder finalized his report. See Pls.’ Ex. 564, ECF No. 352-81; Joint Ex. 127, at BRDBLM0009109; Def.’s Br. at 14.

In their post-trial brief, Plaintiffs suggest that Mr. Wunder was not qualified to conduct a drainage analysis because he is not petroleum engineer. See Pls.’ Br. at 16. Further, Mr. Wunder himself acknowledged that he had never produced a drainage report “[o]f this magnitude” before undertaking his 2013 review of Plaintiffs’ 53 tracts, and he also conceded that the analyses he performed are typically done by petroleum engineers. Tr. 478:2–9 (Wunder).

However, BLM’s 1999 drainage manual does not specify that petroleum engineers, as opposed to petroleum geologists, must conduct the agency’s initial technical reviews. See Pls.’

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<sup>11</sup> The parameters used to perform the volumetric equation included “net pay,” i.e., the thickness of the formation in a given area; “porosity,” i.e., the amount of pore space available for storing fluid in that part of the formation; and “water saturation,” i.e., the percentage of the fluid in the formation that is comprised of water, as opposed to oil. See Tr. 500:7–15, 505:16–506:1 (Wunder); Joint Ex. 127, at BRDBLM0009113, ECF No. 353-11.

Ex. 198, at BRDESI0599039–40. Mr. Wunder had significant experience analyzing drainage at the time he was enlisted to review the Birdbear tracts, having conducted dozens of drainage reviews. Tr. 535:18–21 (Wunder). Moreover, Mr. Ollila and Mr. Laborda, each of whom are petroleum engineers, offered to assist Mr. Wunder, and both of them reviewed his report. Tr. 278:11–19 (Ollila); Tr. 547:10–18 (Wunder); see also Tr. 345:21–23 (Ollila) (“If [Mr. Wunder] had any questions on any of the engineering stuff that was required, he could ask [Mr. Ollila] or he could ask Pascual Laborda.”).

Finally, the Court notes that BLM selected and singled out Mr. Wunder’s 2013 report “as an example of a good drainage report . . . for horizontal wells,” Tr. 549:8–10 (Wunder), and incorporated portions of it into its updated 2015 drainage manual, Tr. 548:10–12 (Wunder); see also Tr. 548:25–549:4 (Wunder). The Court therefore concludes that Mr. Wunder was fully qualified to perform the drainage analyses and that his report was consistent with agency standards and technically sound. Plaintiffs have not shown otherwise.

**D. BLM’s Alleged Manipulation of Parameters to Reduce the Size of Drainage Areas**

At trial, Mr. Akinboyewa testified that BLM in general, and Mr. Wunder in particular, had a practice of manipulating the results of their analyses so that they would reflect smaller drainage areas. He said that they did so by selecting values for reservoir characteristics like porosity or water saturation that would reduce the size of a well’s drainage area. See Tr. 729:15–19, ECF No. 342 (Akinboyewa). He alleged that “it was a common practice throughout [BLM’s] analys[e]s . . . to cherry-pick variables that favor” reducing a well’s drainage area. Tr. 732:25–733:9 (Akinboyewa); see Tr. 726:20–727:14, 732:19–24, 733:13–14 (Akinboyewa); Tr. 767:20–22. (Akinboyewa) (claiming that BLM “minimize[ed] intentionally the drainage area” of wells); Tr. 841:15–17 (Akinboyewa) (asserting that BLM “manipulated variables” in its drainage calculations “to arrive at a smaller drainage area”); Tr. 1146:15–19 (Akinboyewa) (declaring that BLM “manipulated” its drainage analysis “to magically state no drainage.”).

These accusations—if true—would strongly suggest if not establish bad faith on the part of Mr. Wunder and other BLM staff. But the allegations are not supported by the record.

For example, Mr. Akinboyewa accused Mr. Wunder of using artificially low water saturation levels in his 2013 report. See Tr. 741:19–22 (Akinboyewa). Mr. Akinboyewa stated that the levels Mr. Wunder used (generally between 25 and 35 percent) were considerably lower than the one he used in a later study, in 2015, in which he reported a 62 percent water saturation level. Tr. 746:8–14 (Akinboyewa); see Joint Ex. 127, at BRDBLM0009171–79; Pls.’ Ex. 525 at BRDBLM0012670, ECF No. 352-71.

To underscore his point, in 2018, Mr. Akinboyewa performed what he called a “lookback” on Mr. Wunder’s 2013 report. See Tr. 747:14–16, 748:1–2 (Akinboyewa). As part of that review, Mr. Akinboyewa assigned different values to certain reservoir characteristics to demonstrate how the drainage areas that Mr. Wunder calculated would have been larger if he had

used a lower porosity value and a higher water saturation level. See Tr. 750:25–752:24 (Akinboyewa).<sup>12</sup>

However, the study in which Mr. Wunder reported a 62 percent water saturation level concerned a single well that, as far as the Court can tell, was not a subject of his 2013 report. In addition, he conducted that study more than two years after he analyzed Plaintiffs’ tracts. See Pls.’ Ex. 525, at BRDBLM0012666, BRDBLM0012670. Likewise, it is unclear how the oil company document that Mr. Akinboyewa cited reporting 45 percent water saturation levels relates to the wells that Mr. Wunder analyzed in his report. See Pls.’ Ex. 181, ECF No. 352-9.

Nor did Mr. Akinboyewa persuade the Court that the 5 percent porosity value he used in his “lookback” was more accurate than the porosity values of 6 to 8 percent that Mr. Wunder used. In fact, Mr. Akinboyewa testified that the Bakken formation consists of “good porous rock” and that, in at least one instance, an oil company reported a porosity level above 8 percent. Tr. 596:24, 720:21–23 (Akinboyewa). The Court concludes that Plaintiffs presented virtually no evidence to prove that Mr. Wunder used unreasonable values for water saturation and porosity in his 2013 report—let alone that he and BLM intentionally selected inaccurate reservoir parameters to skew their drainage analyses, as Mr. Akinboyewa charged.

#### **E. Plaintiffs’ Challenges to BLM’s Volumetric Methodology**

Plaintiffs’ primary challenge to Mr. Wunder’s report—and to BLM’s drainage reviews generally—concerns the fact that BLM (and the government’s experts) used a volumetric approach to determine the drainage areas of potentially offending wells. See Pls.’ Br. at 36. A volumetric approach does not take into consideration reservoir pressure or how oil may move in response to pressure changes. See Tr. 1652:20–1653:3 (Reynolds). Instead, as the government’s expert Terry Payne testified, a volumetric equation is designed to calculate a drainage area—i.e. the amount of space in the Bakken Formation needed to account for the volume of oil that a well has produced, or will produce, over its lifetime. See Tr. 1729:18–22 (Payne). With this information—along with other data, including the path of a well and the orientation of its fractures—the agency could draw the shape of the area that the well has, or will ultimately, drain. See Tr. 1739:22–1740:20 (Payne). A volumetric approach “presents a drainage area” that BLM can map and compare to property boundaries, as the agency’s 1999 drainage manual required. See Tr. 1858:16–19 (Payne); see also Pls.’ Ex. 198, at BRDESI0599046 (requiring BLM to “estimate the probable drainage area and configuration” and to “establish if the drainage area . . . intersects a property boundary”).

Mr. Akinboyewa professed to be “very shocked” both that BLM used a volumetric methodology to conduct its drainage analyses of Plaintiffs’ tracts and that it neither gathered nor

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<sup>12</sup> For example, the porosity values that Mr. Wunder used in his well-by-well drainage analyses in his 2013 study ranged from 6 to 8 percent. See Joint Ex. 127, at BRDBLM0009171–79; Tr. 752:22–24 (Akinboyewa). Mr. Akinboyewa used 5 percent in his demonstration. See Tr. 751:25–752:5 (Akinboyewa).

factored in pressure data. Tr. 584:8–11 (Akinboyewa).<sup>13</sup> According to Mr. Akinboyewa, BLM could not “reliably” calculate the drainage area of a well without knowing the pressure within the reservoir. Tr. 583:7–10 (Akinboyewa). He repeatedly testified that pressure data is needed to determine “flow,” or “where the fluids are coming from.” Tr. 583:14–584:4 (Akinboyewa); see also, e.g., Tr. 584:9–15 (Akinboyewa) (“[P]ressure causes flow,” and “[i]t is hard to determine drainage if you don’t consider flow . . . which determines the area of where the fluids are coming from.”), Tr. 736:22–23 (Akinboyewa) (“Drainage cannot be computed without flow and pressure data helps estimate the flow.”).

The government’s expert, Terry Payne, opined that Mr. Akinboyewa’s focus on pressure data was misplaced. The volumetric calculation that BLM employed, he observed, “is not designed to take into account flow.” Tr. 1736:3–6 (Payne). Instead, he said, it was designed to calculate an area by using “other parameters” that would help to define a well’s drainage area. Tr. 1736:7–8 (Payne). He testified that the volumetric approach is one that he used “in the real world to demonstrate the need to drill additional wells and do workovers and spend money and make real business decisions.” Tr. 1736:11–14 (Payne). It was also the type of analysis used by regulatory authorities to “determine field rules and spacing and . . . the appropriate density for wells and spacing for wells.” Tr. 1736:15–17 (Payne). In his experience, operators use the volumetric approach to calculate drainage areas. Tr. 1736:23–1737:1 (Payne).

The Court finds Mr. Payne’s testimony endorsing BLM’s use of a volumetric approach more persuasive than Mr. Akinboyewa’s critiques of that approach. At the time of trial, Mr. Payne had roughly 40 years of experience in petroleum engineering, first for oil companies in the field and then as a consultant. See Tr. 1685:23–1690:6 (Payne). During much of that time, he conducted drainage reviews and estimated the ultimate recoveries of wells. See Tr. 1690:7–1691:23 (Payne). The Court certified him as an expert in petroleum engineering and found him to be both knowledgeable and credible. See Tr. 1695:17–18 (Payne).

Mr. Akinboyewa had far less relevant experience than Mr. Payne. Before this case, he had never been deposed or testified in court. Pls.’ Ex. 105A, ECF No. 352-3. At the time he prepared his original analysis in this case in 2018, he was an unlicensed petroleum engineering research assistant. Tr. 1159:18–21, 1161:1–1162:13 (Akinboyewa). He did not receive his professional engineering license until June 2020. Tr. 1161:10–12 (Akinboyewa). And over half of his petroleum engineering work since 2017 has been work dedicated solely to this case. Tr. 1162:14–1163:6 (Akinboyewa).

Mr. Akinboyewa’s inexperience was reflected in his frequent digressions in response to questions from his own counsel. Because of those frequent digressions, among other things, it

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<sup>13</sup> Mr. Akinboyewa has a B.S. in electrical engineering in 2006 and an M.S. in petroleum engineering in 2010, both from the Colorado School of Mines. Pls.’ Ex. 105A, at BRDEXP0269387, ECF No. 352-3. He testified at the time of trial that he was working as a consultant on petroleum engineering projects for the JeanAkins Company. Tr. 561:23–562:2 (Akinboyewa). The projects, he testified, have included subsurface reservoir studies, which he identified as “the core competency” of his specialty, reservoir simulation. Tr. 562:4–6. (Akinboyewa) The JeanAkins Company is not mentioned in his curriculum vitae. See Pls.’ Ex. 105A.

was very difficult to follow Mr. Akinboyewa's testimony at trial. See Tr. 711:18-23 (advising Mr. Akinboyewa and his counsel to make efforts to ensure that he answers the questions posed, and noting the Court's concerns about running out of time and the usefulness of his responses).

Moreover, Mr. Akinboyewa's testimony and demeanor at trial sometimes caused the Court to question his impartiality as an expert. At times he embellished his answers to questions with gratuitous and over-the-top assertions that undercut his credibility.<sup>14</sup> At one point, he interceded with his own objection, questioning the right of the government's expert witnesses to remain in the courtroom during his testimony. See Tr. 566:5 ("I'm not sure the other experts should be listening."). And even when not testifying and only observing the trial, Mr. Akinboyewa would sometimes react noticeably while sitting in the courtroom gallery—shaking his head or, occasionally, dropping his jaw in feigned disbelief of other witnesses' remarks.

By contrast, the government's experts, Mr. Payne and Mr. Reynolds, did not volunteer extraneous information and, most importantly, were able to explain complex concepts in a way that someone without an advanced degree in petroleum engineering might understand. The Court has therefore credited their testimony regarding the use of a volumetric approach to determine the existence and extent of drainage.

Further, the record shows that the type of pressure data that Mr. Akinboyewa testified was critical to a drainage analysis was not reasonably available. Mr. Wunder explained that when he analyzed well files to prepare his 2013 drainage report, "usually the only pressure data was for the initial drill stem test, the static bottom hole pressure." Tr. 413:22–24 (Wunder); see also Tr. 493:18–20 (Wunder) (testifying that Mr. Wunder "had no [pressure] data to consider" when preparing his report); Tr. 497:19–24 (Wunder) (explaining that oil companies often collected pressure data during "an initial drill stem test" but that they generally did not take additional pressure readings throughout wells' production periods); Tr. 553:5–8 (Wunder) (stating that "pressure data through time . . . [is] not available").

Mr. Ollila testified that the NDFO on occasion obtained the initial reservoir pressure at the site of a new well and wells' current pressure readings. Tr. 62:3–9, 63:7–64:4 (Ollila); see also Tr. 144:21–145:4 (Ollila) (explaining that the NDFO "sent out some 60-day drainage letters" to oil companies operating on and around the Fort Berthold Indian Reservation and that

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<sup>14</sup> For example, he stated at one point that BLM would have identified more instances of drainage if its engineers and geologists "were qualified in any way." Tr. 628:9–12 (Akinboyewa). He routinely called BLM's drainage analyses, which were generally compliant with the BLM guidance, "terrible" and "terribly wrong," and he said that the agency "followed a very terrible process," "got it completely wrong," and "failed incredibly." Tr. 614:16, 708:14, 744:8–9, 755:13–20 (Akinboyewa); see also, e.g., Tr. 692:5–6 (Akinboyewa) (stating that BLM used a "terribly wrongful method" when analyzing drainage); Tr. 689:11, 690:14 (Akinboyewa) (claiming that BLM's drainage analysis was "grossly wrong" and "terribly defective"). In addition to the aspersions cast upon their competence, as described above, he also accused BLM staff of deliberately cooking the books to harm Plaintiffs and other allottees, presumably to favor oil company operators. See, e.g., Tr. 732:10–733:9 (Akinboyewa) (accusing BLM of "cherry-pick[ing]" variables to manipulate data). The fact that Mr. Akinboyewa was willing to make such accusations without a clear justification also caused the Court to question his credibility.

“some of the information required in those drainage letters was the initial pressure of the formation and the current pressure of the formation if they knew it”). But Mr. Ollila also testified that very often oil companies operating in the Bakken did not have current pressure data. Tr. 157:17–24, 158:4–6 (Ollila).

Other witnesses testified similarly that oil companies generally did not gather pressure readings throughout the Bakken Formation. Mr. Reynolds said, for instance, that it is “very hard to get pressure data out within the reservoir.” Tr. 1591:9–10 (Reynolds). He explained that to track actual pressure in the Bakken, researchers would need to drill wells vertically into the formation and measure pressure at various locations—a process that would be “very expensive.” Tr. 1591:1–6 (Reynolds). Mr. Payne, the government’s petroleum engineering expert, similarly stated that while oil companies sometimes collect initial pressures on a new well, generally pressure data “doesn’t exist” and oil companies operating in the Bakken “don’t collect it.” Tr. 1804:18–1805:6, 1805:21–23, 1806:25–1807:6 (Payne). He explained that BLM had used a volumetric approach because that was “the method where all the data was available.” Tr. 1858:12–15 (Payne).

Indeed, Mr. Akinboyewa acknowledged that oil companies “do not spend \$10 million to collect a pressure measurement every hundred feet in the real world”; rather, he said, they collect a pressure reading from a well, incorporate production information from the well, “and create[] a simulation to understand what is flowing into the well.” Tr. 1095:6–12 (Akinboyewa). Likewise, the pressure data presented in well files, which Mr. Akinboyewa considered in calculating drainage percentages, reflected oil companies’ predictions about the reservoir pressure they would encounter when they drilled their wells and not actual pressure readings. Tr. 1096:25–1097:3, 1097:20–1098:10 (Akinboyewa).

In short, the Court credits the testimony of the government’s experts that the volumetric methodology that BLM used to determine the existence and extent of drainage on Plaintiffs’ tracts was a reasonable one and was consistent with the practice in the oil industry. It also finds based on the evidence that oil companies did not routinely collect the sort of pressure data that Plaintiffs claim BLM should have collected and considered. The Court concludes, therefore, that Plaintiffs have not proven that the United States violated its fiduciary obligation to protect Plaintiffs’ tracts against drainage by using a volumetric approach that did not take pressure data into consideration.

#### **F. BLM’s Alleged Animus**

In addition to their critiques of BLM’s methodology, Plaintiffs argue that BLM officials harbored animus toward them (and in particular toward Roger Birdbear) as reflected in emails between BLM officials. *See, e.g.*, Pls.’ Ex. 309, ECF No. 325-35; Pls.’ Ex. 324, ECF No. 352-43; Pls.’ Ex. 335, ECF No. 352-46; Pls.’ Ex. 362, ECF No. 352-52; Pls.’ Ex. 379, ECF No. 352-56; Tr. 284:10–286:18, 298:20–300:8, 303:8–304:7, 309:2–13, 311:13–312:14 (Ollila). Indeed, Plaintiffs argue, BLM “treat[ed] Plaintiffs as though they were inconsequential and inconvenient tenants on their own lands.” Pls.’ Br. at 1.

The Court agrees that some of the emails and other correspondence Plaintiffs cite reflect that Mr. Ollila and other BLM staff had become impatient with Plaintiff Roger Birdbear’s

requests for additional information and drainage reviews of his tracts. And, to be sure, some of the remarks Mr. Ollila made in his emails were less than professional. See, e.g., Pls.’ Ex. 362, at BRDESI0044260 (internal email from Mr. Ollila to his supervisor, referring to a request by Mr. Birdbear for additional data and reservoir engineering reviews, and stating that “[i]f I have to do this analysis again, I am going to puke”). But the remarks at issue were born of the challenges BLM faced to keep up with its obligations during the Bakken boom. See, e.g., Pls.’ Ex. 304, at BRDESI0012646, ECF No. 352-33 (2012 BLM email noting that the agency’s Montana state office, like the NDFO, was “swamped with work”). Mr. Birdbear was only one among many allottees whose tracts BLM was required to protect against drainage. Mr. Ollila was of the view that he and his colleagues “were spending many, many, many times more on one or two cases” related to Plaintiffs’ mineral resources than on “many of the other allottee issues.” Tr. 300:19–24 (Ollila); see also Tr. 310:24–311:4 (Ollila).

Of course, Plaintiffs had every right to be persistent and every reason to be concerned about drainage of their tracts as they observed the proliferation of new wells being installed at the Reservation. But the bottom line is that whatever resentment Mr. Ollila (or others) harbored about Mr. Birdbear’s persistence, they did not take actions against his interests. In fact, they did precisely the opposite. Mr. Birdbear’s persistence led BLM to conduct additional drainage reviews of Plaintiffs’ tracts that were beyond those it would have conducted in the normal course of administering its drainage program. See Tr. 274:17–25 (Ollila) (stating that Plaintiff Roger Birdbear specially requested drainage reviews on three separate occasions); Tr. 352:19–353:6 (Ollila) (noting that BLM “did extra reviews on the [Plaintiffs’] tracts two or three times” in addition to the reviews it conducted under its drainage program as oil companies completed new wells).

**G. The Government’s Motion to Exclude Consideration of Mr. Akinboyewa’s Drainage Analysis**

On the basis of the foregoing, the Court has found that Plaintiffs failed to establish that BLM violated its fiduciary obligation to protect their tracts against drainage. The record shows that BLM not only followed the review procedures set forth in its 1999 drainage manual with respect to Plaintiffs’ tracts, but that, even during the height of the Bakken boom, the agency went above and beyond the manual’s requirements by conducting special drainage reviews at the request of Roger Birdbear.

Moreover, to prevail in this case, Plaintiffs must show not only “a breach of the trustee’s duty” but also “a resulting loss.” See Confederated Tribes of Warm Springs Rsrv. of Or. v. United States, 248 F.3d 1365, 1371 (Fed. Cir. 2001). Plaintiffs rely upon the drainage reviews Mr. Akinboyewa performed to prove that oil was drained from their tracts and to establish the extent of the alleged drainage. However, the government has moved to exclude Mr. Akinboyewa’s testimony regarding drainage percentages and volumes, arguing that it fails to meet the standards of reliability set forth in Rule 702 of the Federal Rules of Evidence and Daubert v. Merrell Dow Pharm., Inc., 509 U.S. 579 (1993). See Def.’s Mem. in Supp. of Its Mot. to Exclude Op. Test., at 1, ECF No. 334 [hereinafter Def.’s Mot. to Exclude]. The Court agrees and so will grant the government’s motion to exclude.

At trial, Mr. Akinboyewa testified that his drainage analyses were based on the results of his application of Darcy's law, an equation that is used to calculate the rate at which a fluid will flow from one point to another through a porous material. See Tr. 598:13–24 (Akinboyewa). Darcy's law incorporates several variables. These include: (1) the permeability of the rock formation; (2) the viscosity of the fluid passing through the formation; (3) the size of the two-dimensional rock face through which the fluid is passing; (4) the distance the fluid is traveling from a tract toward an offending well; and (5) the pressure difference between the tract and the well. See Tr. 598:14–24, 916:1–22, 919:1–922:24 (Akinboyewa).

According to Mr. Akinboyewa, he used the rate of flow he determined based on Darcy's law to calculate the volume of oil migrating from one of Plaintiffs' tracts toward an offending well during a specified period of time. See Tr. 917:3–6 (Akinboyewa). He then divided that volume by the well's production over the same period. See Tr. 930:1–14 (Akinboyewa). The result, Mr. Akinboyewa said, was a drainage percentage that reflected the amount of an offending well's overall production that is attributable to the tract being drained. See Tr. 930:14–15 (Akinboyewa).

Ultimately, Mr. Akinboyewa found that Plaintiffs' tracts were being drained by 42 offending wells and he calculated the volume of the drainage employing the method described above. See Tr. 914:24–915:6 (Akinboyewa). Plaintiffs' expert, Jane Kidd, accepted the volumes Mr. Akinboyewa had identified as accurate and conducted a pricing analysis that ultimately determined that Plaintiffs were due drainage royalties in the amount of \$2,112,052. See Pls.' Ex. 531B, ECF No. 352-74.

For several independent reasons, the Court is not persuaded that Mr. Akinboyewa's calculations of drainage percentages or volumes were "the product of reliable principles and methods" or that his opinion "reflects a reliable application of the principles and methods to the facts of the case." Fed. R. Evid. 702.

First, the Court has no basis for finding that Mr. Akinboyewa used the appropriate inputs for the variables used in the Darcy's law equation. Plaintiffs did not identify the actual values that Mr. Akinboyewa used for the Darcy's law variables until December 28, 2023. See Order, January 28, 2024, at 3–4, ECF No. 335. On that day, they provided the government with a 142-page spreadsheet that, for the first time, supplied tract-by-tract and well-by-well fluid flow calculations using Darcy's law. See id. at 1. But by then, the parties had already gone through two rounds of expert discovery, and the trial was only 11 business days away. See id. at 2. There would be no time for the government's experts to review and respond to the new information. The Court therefore declined to allow either the spreadsheet or any testimony about it into evidence. See id. at 4.

Without the inputs that Mr. Akinboyewa used for his Darcy's law equations, Plaintiffs cannot prove that his expert opinions are "the product of reliable principles and methods" or that his opinion "reflects a reliable application of the principles and methods to the facts of the case." Fed. R. Evid. 702. There is no way to determine if his conclusions regarding fluid flow rate were valid. In fact, there is no way to determine if his calculations were even mathematically accurate. Nor can his work be replicated.



Second, Mr. Akinboyewa did not identify the source or sources of the values he assigned to the variables in Darcy's law for each of the tracts he reviewed. When asked whether he had used well files to obtain the values, he responded vaguely that he got the information he used "from discovery." Tr. 930:20 (Akinboyewa). He continued that "I obviously have my knowledge and professional experience there, and I also look at the technical publications, such as the Hess paper, but I was consistent to—in order to be conservative and understand at minimum, these are the values that are flowing across these tracts, I remained with the information I could scavenge out of discovery." Tr. 930:21–931:2 (Akinboyewa). Similarly, Mr. Akinboyewa testified that—because he was not supplied with actual pressure data by the government—he had performed "research" to "understand what are average properties and ranges for these properties in the Bakken, and on Fort Berthold Reservation and with the offending wells." Tr. 923:18–21 (Akinboyewa).

To be sure, Mr. Akinboyewa testified that his analysis was generally informed by studies and drainage files when deciding what values to assign to the variables in his well-by-well fluid flow equations. See, e.g., Tr. 971:3–14, 975:7–986:15 (Akinboyewa); Pls.' Ex. 202, ECF No. 352-14; Pls.' Ex. 204, ECF No. 352-16; Pls.' Ex. 245, ECF No. 352-24; Pls.' Ex. 246, ECF No. 352-25; Pls.' Ex. 311, ECF No. 352-37; Pls.' Ex. 331, ECF No. 352-45; Pls.' Ex. 427, ECF No. 352-62; Pls.' Ex. 429, ECF No. 352-63; Pls.' Ex. 443, ECF No. 352-67; Pls.' Ex. 517, ECF No. 352-70; Pls.' Ex. 525, ECF No. 352-71. But the studies and drainage files only reflected "the range of values that [he] considered" for the variables in his fluid flow equations. See, e.g., Tr. 981:18–20 (Akinboyewa); see also Tr. 979:16–17, 980:19–21 (Akinboyewa) (explaining that the information gave Mr. Akinboyewa "ranges of reservoir pressures" and a "range of what is possible" among other variables). For some variables, like permeability, Mr. Akinboyewa testified that he used "average parameters" from the studies, drainage files, and values that "were repeatedly consistently reported by the operators." Tr. 994:12–13, 995:3–4 (Akinboyewa).

Third, Plaintiffs have not shown that Mr. Akinboyewa's drainage percentages, which he used to determine drainage volumes, were the product of reliable methods. Mr. Akinboyewa acknowledged that in some instances, he did not apply the drainage percentages derived from his Darcy's law analysis when he computed the volume of oil that had been drained from Plaintiffs' tracts. See, e.g., Tr. 995:3–14 (Akinboyewa). He explained that the drainage percentages he came up with were only estimates because some of the values he assigned to the variables in the equation were themselves estimates. And those estimates in turn were based on reservoir characteristics that he reviewed in studies and drainage files; they were not "measured data" specific to allegedly offending wells. See Tr. 995:7–10 (Akinboyewa). Therefore, Mr. Akinboyewa testified, he might "cut [the drainage percentages derived from his calculations] some to build confidence that [his figure] is the minimal amount of drainage . . . happening." See Tr. 995:16–20 (Akinboyewa).

But the cuts he made were not based on any apparent objective methodology. For instance, he testified, if his fluid flow equation produced a drainage percentage of 10 percent, he might then reduce that well's drainage percentage to 5 percent "to be conservative." See Tr. 995:4–6 (Akinboyewa). In other instances when, for example, he calculated the drainage percentage from the toe of a well, Mr. Akinboyewa might reduce the percentage further, to 3 or 1 percent, because he "knew" that the percentage was "far lower than what [he] had calculated." See Tr. 997:19–998:6 (Akinboyewa); see also Tr. 1004:23–1005:9 (Akinboyewa) (explaining

that Mr. Akinboyewa would calculate “considerable volumes” of oil draining toward the toes of wells, but in an effort to be “conservative,” he would claim in his final opinion on drainage only “a very small fraction” of those volumes); Tr. 1058:20–22 (Akinboyewa) (“[T]he numbers I eventually present were more conservative than what I computed because I understand the variation [among reservoir characteristics] that can occur.”).

Finally, as noted, Mr. Akinboyewa testified that he relied on the flow rates he derived from Darcy’s law to come up with the volume of oil drained from a tract by an offending well and ultimately a drainage percentage. But at trial, he never connected the dots. He never provided a coherent explanation of how he used Darcy’s law to determine the volumes of oil drained from specific tracts. For example, when asked directly how he determined drainage percentages for five specific wells that he found were draining one of Plaintiffs’ tracts (Tract M1969), his response was essentially incomprehensible:

I’d compute what is possible to be drained from the tract towards the well, and I’d get some considerable volumes but I was—as I was conservative when I’m looking at the laterals[—]I was even more conservative when I’m looking at the toes of the well, because I would have preferred some more reservoir pressure data and more detailed fracture information, hydraulic fracture information, but when I computed volumes that were greater than 5, 10 percent, when it was to the toe, I would only appropriate a very small fraction of my answer to confident conservative drainage. When the proximity was close enough and there were several indicators of what the reservoir was doing, then that number could go up to make sure that I am performing good engineering.

Tr. 1004:16–1005:13 (Akinboyewa).

The Court has also carefully reviewed Plaintiffs’ post-trial briefs, in search of a better explanation of Mr. Akinboyewa’s reasoning regarding drainage percentages and volumes. Remarkably, however, the sum total of Plaintiffs’ discussion of Mr. Akinboyewa’s testimony regarding drainage in its post hearing brief is a single sentence stating that “Mr. Akinboyewa concluded that forty-two (42) cases of drainage existed using a flow analysis and methodology.” Pls.’ Br. at 19.

As the foregoing demonstrates, Mr. Akinboyewa’s testimony regarding drainage damages is unreliable and inadmissible under Rule 702 of the Federal Rules of Evidence. Thus, even if the Court were to find that BLM violated its fiduciary obligations to prevent Plaintiffs’ tracts from being drained, Plaintiffs failed to provide the evidence necessary to show the effect, if any, of its breaches on them. The Court will therefore enter judgment for the government as to Count 3.

### **III. Count 8: Diligent Development**

In its earlier opinion on the parties’ cross-motions for summary judgment, the Court held that the government “has a specific fiduciary obligation to ensure that lessees exhibit reasonable diligence in their development of mineral resources.” Op. & Order at 13, Sept. 16, 2022, ECF No. 207 (denying Plaintiffs’ motion for partial summary judgment, granting Plaintiffs’ motion to

supplement pleadings, and granting-in-part and denying-in-part the government’s cross-motion for partial summary judgment). The source of that obligation is 43 C.F.R. § 3161.2. It directs BLM to require compliance with lease terms, the regulations in title 43 of the C.F.R., “and all other applicable regulations.” The “other applicable regulations” include those at 25 C.F.R. § 211.47(a) (incorporated by reference in 25 C.F.R. § 212.47) which require lessees to, among other things, “[e]xercise diligence in mining, drilling and operating wells on the leased lands.”

In Count 8 of their Third Amended Complaint, Plaintiffs claim that the Secretary—in violation of his fiduciary obligations—“took no action to require that drilling and completion for oil and gas actually occur on Plaintiffs’ land in a proper and timely manner.” 3d Am. Compl. ¶ 86. They further allege that BLM “allowed operators to deviate from the existing drilling schedules so that other allotments were drilled in advance of Plaintiffs[’],” *id.*, which “result[ed] in increased drainage from Plaintiffs’ land,” *id.* ¶ 87.

Plaintiffs appear to have abandoned their allegation that BLM permitted operators to deviate from existing drilling schedules, favoring the development of other tracts ahead of Plaintiffs’. Instead, their focus is on BLM’s alleged failures “to follow mandated, material provisions” of the BLM’s 1991 Indian Diligent Development manual (the “diligence manual”). See Pls.’ Ex. 109, ECF No. 352-4; see also Pls.’ Br. at 3. Specifically, they claim that the NDFO failed to: (1) conduct annual diligence reviews; (2) maintain records of those reviews; (3) conduct further reviews of not diligently developed leases; and (4) direct oil companies to remedy allegedly unreasonable delays in developing leases. Pls.’ Br. at 3–8.

The Court finds that Plaintiffs did not prove that BLM failed to comply with the review procedures set forth in the diligence manual generally, or with respect to their allotments in particular. As explained below, Plaintiffs never asked the government to produce copies of the individual diligence files that BLM maintains, which would have provided information about the specific diligence reviews the agency conducted. As a result, their case is almost entirely dependent on the Court drawing inferences from a few emails and bits of testimony wrenched out of context.

Moreover, the testimony of Mr. Akinboyewa regarding his diligent development review was based on an arbitrary methodology that did not conform to the requirements of the diligence manual, including the so-called prudent operator rule. As a result, the Court affords little weight to Mr. Akinboyewa’s testimony that BLM violated its fiduciary obligations to Plaintiffs regarding diligent development. It also rejects his calculation of the volumes of oil that would have been recovered on Plaintiffs’ tracts, had BLM required Plaintiffs’ lessees to drill additional wells. For these reasons, the Court must enter judgment for the government as to Count 8 of the Third Amended Complaint.

#### **A. The Diligence Manual**

BLM’s diligence manual, as discussed in greater detail below, established “the procedures necessary to assure the diligent development of producing Indian oil and gas leases in an orderly and timely manner.” Pls.’ Ex. 109, at BRDESI0910722. It provides that “[a]ll Indian leases with actual or allocated production,” (also referred to as “producing leases”) “shall be reviewed for diligence,” and that the review should occur on an annual basis. *Id.* at

BRDESI0910728. It further states that where BLM is unable to conduct reviews of all producing wells on an annual basis, the agency may establish another “reasonable review cycle.” Id. “[A]t a minimum,” that alternative review cycle must include 20 percent of all leases that are not fully developed. Id.

Under the manual, diligence reviews begin with a “ cursory review of the administrative records and exploration and development history of a lease” to determine whether the lease is “fully developed.” Id. at BRDESI0910730.<sup>15</sup> If so, then no further review is required. Id. On the other hand, if a producing lease is not fully developed, BLM must determine whether it has nonetheless been “diligently developed” during the review period. Id.

“A diligently developed lease is a producing lease that is not yet fully developed but as of the review date the lessee has demonstrated diligent development to the satisfaction of the authorized officer.” Id.<sup>16</sup> The diligence manual specifies that “[d]iligent development can be demonstrated if one or more of” drilling, recompletion, testing, or “[o]ther operations that lead to the enhancement of production” “has occurred within the previous twelve months.” Id.

If BLM determines that a producing lease has not been diligently developed during the review period, BLM must conduct a technical review. Id. at BRDESI0910731. The technical review includes geologic, reservoir engineering, and economic reviews. Id. The purposes of the geologic review are to determine whether there is a reservoir beneath the undeveloped spacing units of the lease and to develop reservoir parameters for use in the reservoir engineering review. Id. The purpose of the reservoir engineering review is to “determine the ultimate recoverable reserves and producing characteristics for development well(s) in the undeveloped spacing units determined by the [geologic review] to be underlain by hydrocarbons.” Id. Finally, the purpose of the economic review is to “determine whether a prudent operator can drill an economic well on any undeveloped spacing unit of the lease.” Id. The diligence manual provides that a well is considered “economic” under the “prudent operator rule” if “it can produce a sufficient quantity of oil or gas to pay reasonable profit to the lessee over and above the cost of drilling and operating the well.” See id. at BRDESI0910735.

After BLM concludes the geologic, reservoir engineering, and economic analyses that comprise its technical review, an authorized officer makes a determination whether the lease is fully, diligently, or not diligently developed. Id. at BRDESI0910731. If the authorized officer concludes that a lease was not diligently developed during the review period, the lessee is notified that, within 60 days, they must either propose a diligent development plan, submit information contesting the authorized officer’s determination, relinquish undeveloped spacing

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<sup>15</sup> A lease is fully developed where each spacing unit on the lease “has (1) a producing or producible well or operations that lead to the enhancement of production, (2) been adequately tested by a well, or (3) been determined by a geologic and engineering analysis to be devoid of recoverable reserves.” Pls.’ Ex. 109, at BRDESI0910730, ECF No. 352-4.

<sup>16</sup> The diligence manual identifies the BLM State Director or his designee as the authorized officer. Pls.’ Ex. 109, at BRDESI0910726.

units, or—under certain leases—make additional payments in lieu of further developing the lease. Id. at BRDESI0910731–33.

If the lessee proposes a plan, the authorized officer must determine whether that plan “provides for the orderly and timely development of the lease.” Id. at BRDESI0910732. On the other hand, if the lessee disputes the authorized officer’s finding that the lease has not been diligently developed, “[t]he geologic, engineering, or economic data submitted by the lessee should be reviewed for validity and the [technical review] modified if appropriate.” Id. If the authorized officer maintains that the lease is not diligently developed, “the lessee will be notified of the lessee’s obligation to drill within [a] specified period.” Id. The lessee may still elect to relinquish undeveloped lease acreage or make additional payments to the Indian lessor if authorized under the lease. Id. at BRDESI0910732–33.

Finally, the manual states that “[a]ny party who is adversely affected by a decision letter sent by the authorized officer has the right to request a State Director Review (SDR), and, if adversely affected by the SDR decision, to appeal that decision to the Interior Board of Land Appeals.” Id. at BRDESI09107233 (citations omitted) (citing 43 C.F.R. § 3165.3–4).

**B. Plaintiffs’ Claim that BLM Failed to Maintain Records of Its Diligence Reviews**

Under BLM’s diligence manual, the NDFO was required to establish diligence case files for all producing leases. Pls.’ Ex. 109, at BRDESI0910728. The case files would include maps, technical analyses, and other information regarding the agency’s diligence reviews. See id. at BRDESI0910728–29. Plaintiffs assert that the government “notably failed to produce any such files related to the Plaintiffs’ tracts while this case . . . has been pending,” and allege on that basis that the NDFO did not, in fact, maintain them. See Pls.’ Br. at 5–6.

However, as the Court has already held, the government did not withhold production of the diligence files; the Plaintiffs simply never requested them or sought to compel their production during discovery or thereafter. See Op. & Order at 4, Feb. 9, 2024, ECF No. 359 (denying Plaintiffs’ motion to exclude argument that Defendant performed diligence reviews). Further, Plaintiffs’ claim that the field office did not maintain diligence files is rebutted by the testimony of Messrs. Ollila and Laborda, both whom the Court found credible. Mr. Ollila stated several times at trial that during the period that he managed the NDFO’s diligence program—until 2016—the office “had case files for every lease.” Tr. 111:17–24 (Ollila); see also Tr. 111:25–112:1, 112:24–113:5, 113:12–17, 114:2–5 (Ollila). He also confirmed that the files had not been destroyed and “would still be [in the field office].” Tr. 114:17–19 (Ollila).

Mr. Laborda corroborated Mr. Ollila’s testimony. Until he retired in 2013, Mr. Laborda performed annual reviews of the diligence program at the NDFO. Tr. 1261:2–19, 1262:10–1264:9 (Laborda). He testified that the field office had both a drainage database and an Indian diligence database that they used to track BLM’s work. Tr. 1217:8–18 (Laborda). Mr. Laborda explained that prior to 2013, when he oversaw reviews, he would “actually go out there to the individual office,” “verify what they had in those databases, drainage or diligence,” and then “write a report.” Tr. 1217:19–22 (Laborda). He testified that “[e]very producing lease is required to have a diligence file” and that “they do.” Tr. 1217:23–1218:2 (Laborda). He further testified

that when the diligence manual first came out, BLM “basically committed to doing diligence reviews on a yearly basis, and that’s why I did those annual review reports at each of the offices.” Tr. 1261:2–19 (Laborda).

Both Mr. Ollila and Mr. Laborda were credible witnesses who were, by virtue of their responsibilities, familiar with the NDFO’s practices with respect to the maintenance of diligent development records. The Court finds, therefore, that Plaintiffs have failed to prove that BLM violated the diligence manual’s requirement that it maintain records of its diligence reviews.

**C. Plaintiffs’ Claims that BLM Exempted the NDFO from the Requirement that It Conduct Annual Diligence Reviews of at Least 20 Percent of Leases that Were Not Fully Developed**

As noted, the diligence manual requires that BLM conduct annual diligence reviews for at least “20 percent of all not fully developed leases.” Pls.’ Ex. 109, at BRDESI0910728. Plaintiffs contend that—in the wake of the Bakken boom—BLM “exempted” the NDFO from the manual’s requirements regarding the frequency of diligence reviews. Pls.’ Br. at 3. Plaintiffs fail to identify when this alleged exemption was implemented, by whom it was authorized, or its scope. They simply assert that it lasted through fiscal year 2015. Id.

Plaintiffs have not proven this claim by preponderant evidence. No witness testified that the NDFO had ever been exempted from its obligation to perform diligence reviews. To the contrary, every relevant witness denied the existence of such an exemption. Plaintiffs base their claim entirely on a passage in an unsigned and undated document apparently attached to an email sent by Mr. Ollila to Loren Wickstrom, manager of the NDFO, on September 29, 2016. Id. at 4 (citing Pls.’ Ex. 423, ECF No. 352-60). The file name assigned to the attachment was “2016 justification for hiring Vice Griffiths.” See Pls.’ Ex. 423A, ECF No. 352-61.

The Court cannot with any confidence determine the provenance of the attachment or its purposes. It appears to have originated in connection with a workforce review concerning whether the field office should fill a vacant petroleum engineer position. The attachment includes a listing of the tasks and responsibilities assigned to petroleum engineers in the field office. Pls.’ Ex. 423, at BRDESI1022190. It also contains statistics about the field office’s workload in fiscal year 2016 and predictions about what could be expected in fiscal year 2017. Id. at BRDESI1022191–92.

Included in the attachment is a short passage, captioned “Indian Diligence.” The passage states as follows:

Each office is required to review 20% of their “producing” Indian leases on a yearly basis to determine if the operators have fully developed the leases. The NDFO was exempt from this requirement through FY15 due to high drilling activity. However, the diligence program was reinstated in FY16. NDFO did not meet the 20% requirement, approximately 400 during the year. NDFO did complete over 200 diligence reviews. It is anticipated the number of producing Indian leases will increase to 3000 leases in the near future which would mean the NDFO would be required to review 600 leases on a yearly basis.

Id. at BRDESI1022191–92.

In their post-trial brief, Plaintiffs mischaracterize this passage as an “order” or “declaration” that the field office was exempted from conducting diligence reviews as required by the diligence manual. Pls.’ Br. at 3–4. But the document is not an order, directive, or formal policy statement. At most, the passage reflects the understanding of the unknown author that some sort of “exemption” from diligence requirements had been granted and had lasted through fiscal year 2015.

Further, every witness in a position to know denied any exemption existed and expressed skepticism that one had been granted. When Mr. Ollila was asked if the field office “ever decide[d] that it was exempt from the obligations to conduct diligence reviews,” he answered “no.” Tr. 91:2–5 (Ollila). When asked about Plaintiffs’ Exhibit 423 (the attachment drafted by the unknown author), he said that he had “never seen it before” and had “no idea who wrote it.” Tr. 94:11–95:7 (Ollila); see also Tr. 238:4–5 (Ollila). Mr. Ollila further testified that the field office was not exempt from the 20 percent requirement and that he had never before heard about such an exemption. Tr. 91:2–5, 96:20–97:1 (Ollila). To the contrary, he testified that “up through fiscal year [2015] . . . [he] reviewed 100 percent of the leases every year.” Tr. 95:25–96:2 (Ollila). Mr. Ollila also testified that during his time at the NDFO, BLM “monitored every producing, allotted, or tribal lease that had production to see . . . if there [were] additional wells that should be drilled on that tract.” Tr. 359:21–24 (Ollila).

Similarly, BLM petroleum geologist Jack Wunder testified that he had never heard that the NDFO was exempted from conducting the required diligence reviews. Tr. 426:18–25 (Wunder). Mr. Laborda testified that the NDFO never stopped conducting diligence reviews during the period of time that he provided oversight of the office. Tr. 1267:8–11 (Laborda). He also testified that he had never seen a document declaring the field office exempt from the requirement to conduct diligence reviews, and he expressed skepticism that such an exemption would ever be provided. See Tr. 1277:23–1279:12 (Laborda); see also Tr. 1290:11 (Laborda) (declaring that the field office “would never be exempt” from its obligation to review leases for diligent development). Mr. Bagley, too, said that he had not seen the document referencing the field office’s supposed exemption and was unaware of any time when the field office stopped reviewing leases for diligence. Tr. 1494:22–25, 1510:6–16 (Bagley).

Plaintiffs also assert that during his testimony Mr. Ollila “admitted that the ‘exemption’ originated at BLM’s Billings office.” Pls.’ Br. at 4 (citing Tr. 238:25–239:8 (Ollila)). They also assert that “[w]hatever its source, Mr. Ollila followed the exemption directive on [the Fort Berthold Reservation].” Id. (citing Tr. 239:10–14 (Ollila)). They cite an email in which “Mr. Ollila confirmed in writing to BLM employees Pascual Laborda and Mr. Wunder in 2013” that he and Mr. Laborda had on several occasions discussed diligence on the Reservation during the boom. And, in particular, that they had “agreed that diligence isn’t an issue right now because the operators are drilling wells as fast as they can get approved permits and/or as fast as they can get rigs on the locations.” Pls.’ Br. at 4 (emphasis omitted) (quoting Pls.’ Ex. 313, at BRDESI0053099, ECF No. 352–38).

The Court is unpersuaded by Plaintiffs’ assertions that Mr. Ollila “admitted that the ‘exemption’ originated at BLM’s Billings office.” Id. Mr. Ollila never acknowledged that the

NDFO received the exemption in question in the first place. Nor did he admit the origin of a practice he expressly denied was ever adopted. Instead, he testified that if such an exemption had been granted, it would have originated in BLM's state office.<sup>17</sup>

Plaintiffs' citation to the following colloquy between Mr. Ollila and Plaintiffs' counsel is similarly misleading:

[Plaintiffs' Counsel]: And you followed that directive [exempting the office from the 20 percent minimum]; did you not?

[Mr. Ollila]: The memo that I saw yesterday said that I assigned more than 20 percent of the cases to the engineers to do, so apparently I saw the directive and I acted on the directive.

[Plaintiffs' Counsel]. Meaning you followed it?

[Mr. Ollila]. Yes.

Tr. 239:9–14 (Ollila). This exchange does not support Plaintiffs' claim. Mr. Ollila's statement that he "assigned more than 20 percent of the cases to the engineers to do" does not show that he followed a directive exempting the field office from conducting diligence reviews as required by the manual. Instead, it is evidence that the NDFO met or exceeded the diligence manual's minimum requirements. See Pls.' Ex. 109, at BRDESI0910728.

Finally, Plaintiffs make much of the observation in Mr. Ollila's February 11, 2013 email to Mr. Wunder that he and Mr. Laborda had "agreed that diligence isn't an issue right now because the operators are drilling wells as fast as they can get approved permits and/or as fast as they can get rigs on the locations." Pls.' Br. at 4 (emphasis omitted) (quoting Pls.' Ex. 313, at BRDESI0053099). Although less than clear, Plaintiffs appear to be arguing that Mr. Ollila's observation that "diligence is not an issue now," somehow shows that the NDFO had stopped conducting diligence reviews. But the evidence discussed above demonstrates that this remark did not reflect a suspension of diligence reviews. Rather, it acknowledged the reality that operators were drilling as fast as they could. The Court therefore concludes Mr. Ollila's statement that "diligence is not an issue now" reflected his assessment that, given the exponential increase in drilling activity at Fort Berthold, the shortage of rigs, and the backlog in applications to drill, it was unlikely lessees could be reasonably faulted for delays in developing their leases. See also Pls.' Ex. 313, at BRDESI0053099 (email from Mr. Ollila discouraging Mr. Wunder from including language about diligence in his drainage report because doing so could reinforce

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<sup>17</sup> In the transcript pages cited in Plaintiffs' brief, Mr. Ollila reiterated that he did not recall a directive exempting the field office from diligence reviews. Pls.' Br. at 4 (citing Tr. 238:25–239:4 (Ollila)). Plaintiffs' counsel then asked him "where did this directive come from," to which he responded "[a]gain, I haven't seen the e-mail, but the only place it could have come from to us was through the state office in Billings." Tr. 239:5–8 (Ollila).



Plaintiffs' expectations--"that might not be realistic"—with respect to development on their tracts).<sup>18</sup>

Indeed, in a February 2014 email, Mr. Ollila reported—albeit with apparent frustration—that Plaintiff Roger Birdbear had been making information requests to staff about many matters, including diligence. See Pls.' Ex. 379, at BRDESI0051124–25, ECF No. 352-56. Mr. Ollila further shared that he had told Mr. Birdbear “many times” that BLM “currently consider[ed] the [oil company] operators about as diligent as they can be.” Id. at BRDESI0051124; see also Tr. 145:24–146:1 (Ollila). In so stating, Mr. Ollila appears to have been attempting to moderate Mr. Birdbear's expectations about the prospect of BLM ordering the construction of additional wells on his tracts; the statement does not purport to address BLM's compliance with its diligence review obligations.

Plaintiffs further challenge the basis for Mr. Ollila's belief that oil companies operating in the Bakken could not drill wells any faster because of the limited number of oil drilling rigs available, see Tr. 109:1–110:14 (Ollila); Pls.' Ex. 313, at BRDESI0053099, arguing that Mr. Ollila “just took the oil company operators at their word,” Pls.' Br. at 5. But the record shows otherwise. Though Mr. Ollila acknowledged he did not ask oil companies to provide data concerning the availability of rigs he explained that formal data requests were unnecessary. Tr. 109:1–20 (Ollila). According to Mr. Ollila, the NDFO had visibility into drilling conditions on the ground because:

We knew how many wells were being drilled in the state. We knew how many operators there were. We knew how long it took rigs to drill the wells. Through many meetings, through state hearings, through operators' submittals, it was very clear that operators could not call today and get a rig tomorrow. They had to schedule those rigs out. Sometimes . . . those rigs were scheduled out for over a year.

Tr. 109:25–110:7 (Ollila).

Mr. Bagley similarly testified that the Bakken boom overwhelmed regional infrastructure, creating delays in transporting rigs and other equipment, materials, and personnel to drilling sites. See Tr. 1495:25–1496:20 (Bagley). As he explained, the area on and around the Fort Berthold Indian Reservation lacked “enough hotels, places to stay, [and] roads” to support the surge of the drilling during the boom. Tr. 1496:2–4 (Bagley).

The testimony of Messrs. Ollila and Bagley aligns with the broader evidentiary record. As described above, the Bakken boom was unprecedented in scope. Indeed, as noted above, one witness described the increase in oil exploration on and around the Fort Berthold Indian Reservation as “the biggest production [of oil] the U.S. has seen in over 50 years.” See Tr. 1332:16–17 (Hunt); see also Tr. 1351:6–24 (Hunt). In that context, the Court credits the

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<sup>18</sup> When Plaintiffs' counsel asked Mr. Ollila about his statements, Mr. Ollila agreed that in early 2013 he thought that “diligence was not an issue.” Tr. 97:18–98:1 (Ollila). But Mr. Ollila rejected counsel's subsequent suggestion that he believed that the NDFO therefore “did not have to spend any time on diligence reviews.” Tr. 98:14–17 (Ollila).

testimony of BLM officials that operators were developing leases as rapidly as conditions permitted.

The Court finds, therefore, that Plaintiffs have failed to establish that the NDFO was ever exempted from diligence review requirements. Their claim to the contrary is not supported by the record and must be rejected.

**D. Plaintiffs' Argument that BLM Violated Its Fiduciary Obligations by Not Resolving Applications for Permission to Drill Quickly Enough**

BLM's regulations required that oil companies submit and receive approval of applications for permission to drill ("APDs") before they begin drilling operations. 43 C.F.R. § 3162.3-1(c) (2016). To be approved, the application had to be "administratively and technically complete." *Id.* § 3162.3-1(d). Operators were required to submit a number of documents whose content is described in the regulations, including, among others, a drilling plan, a surface use plan of operations, and evidence of bond coverage. *Id.* § 3162.3-1(d)(1)–(3).

Under applicable regulations, once BLM received an APD that was administratively and technically complete, the agency had the option of taking one of three actions within 30 days. It could either:

- (1) Approve the application as submitted or with appropriate modifications or conditions; (2) Return the application and advise the applicant of the reasons for disapproval; or (3) Advise the applicant, either in writing or orally with subsequent written confirmation, of the reasons why final action will be delayed along with the date such final action can be expected.

*Id.* § 3162.3-1(h).

Plaintiffs note that processing and approving APDs is "an integral part of BLM's diligent development responsibilities." Pls.' Br. at 4–5. They assert that BLM shirked this responsibility by "allow[ing] a backlog of APDs" to develop for years during the Bakken oil boom and which continued until at least 2016. *Id.* at 5.

The evidence does show that early in the Bakken boom (in 2011 and 2012) a backlog of APDs developed because there was not enough staff to process them. *See* Pls.' Ex. 437, at BRDESI0428155, ECF No. 352-65 (stating that a "backlog of drilling permits begins in 2011 and continues through 2012 as the BLM has problems hiring and retaining permitting staff" and that "this issue is being addressed by BLM and the backlog is being eliminated"); *see also* Tr. 74:6–12 (Ollila). Mr. Ollila testified that "[a] lot of that was corrected to, to some point, with additional staff members, but there was always some delay in . . . some permits." Tr. 103:20–23 (Ollila). Those delays could have resulted from operators failing to submit the required paperwork, BLM awaiting the Bureau of Indian Affairs' consent to approve the project in its environmental document, or operators not providing BLM with necessary information. Tr. 103:23–104:4 (Ollila). Delays could also result from BLM management decisions. *See* Pls.' Ex. 442, at BRDESI0582096, ECF No. 352-66 (May 12, 2016 email from Mr. Ollila reporting that—although drilling was down—certain new computer software that was "forced" on the field office

by the Washington office had significantly increased the amount of time needed to review APDs); see also Tr. 107:19–108:20, 127:21–128:3 (Ollila).

BLM regulations do not impose hard deadlines that require the agency to take final action on an APD. To the contrary, the regulations described above contemplate the possibility that final action will be delayed, imposing only a requirement that—where there is such a delay—BLM must provide the operator with an explanation for it. See 43 C.F.R. § 3162.3-1(h)(3).

Nonetheless, the Court agrees that BLM had a fiduciary obligation to take final action within a reasonable period of time and not allow APDs to languish. But what is reasonable depends on the totality of the circumstances. Mr. Bagley, who at the time of trial was an acting deputy assistant director at BLM and who, until 2012, had been the manager of the NDFO, testified that during the Bakken boom the NDFO processed APDs “at a rate we hadn’t seen before.” Tr. 1484:11–13, 1485:12–18, 1495:19–22 (Bagley). The fact that backlogs nonetheless developed for a period of time does not prove that BLM was being unreasonably unresponsive. As Mr. Ollila testified, “[t]he backlog that existed in 2012 was significantly smaller” by the time he retired in 2017. Tr. 166:12–13 (Ollila).

Moreover, and more importantly, Plaintiffs have not shown that BLM unreasonably delayed action on any applications for permits to drill on their tracts or that they were injured by such delay. At most, Plaintiffs cite an instance when, in the wake of Mr. Wunder’s 2013 drainage report, the NDFO asked the lessee of a Birdbear tract to move up its timeline for drilling protective wells. See Tr. 304:8–11, 305:1–5 (Ollila). The lessee responded that it had already submitted APDs more than a year earlier. See Tr. 304:12–17 (Ollila).<sup>19</sup>

There is little if any evidence before the Court that reveals the circumstances surrounding the processing of these APDs, except that they were apparently under review at the Bureau of Indian Affairs. See Pls.’ Ex. 376, ECF No. 352-55; Tr. 304:15–17 (Ollila). Moreover, Plaintiffs have made no attempt to show how they were harmed by the length of time that it took to act on these APDs. Therefore, the Court finds that Plaintiffs have failed to prove that BLM violated its fiduciary obligation by failing to act within a reasonable time on applications to conduct drilling on Plaintiffs’ tracts.

#### **E. Plaintiffs’ Exhibit 189—The Spreadsheet**

At trial, Plaintiffs’ counsel questioned Mr. Ollila about a spreadsheet that the NDFO had apparently once used to track its diligence reviews. Tr. 115:5–116:11 (Ollila); see also Pls.’ Ex. 189, ECF No. 352-12. Plaintiffs contend that the spreadsheet reflects that BLM failed to conduct the diligence reviews required under the diligence manual. That contention lacks merit.

Mr. Ollila testified that he began maintaining the spreadsheet at some point “well before the [Bakken] boom.” Tr. 127:16–18 (Ollila). The spreadsheet includes a row for each producing lease and a column captioned “Date Last Reviewed.” See Pls.’ Ex. 189. Mr. Ollila explained

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<sup>19</sup> Mr. Ollila recounted this exchange in a 2014 email to Mr. Wunder stating that an oil company had reminded him that certain APDs had been “pending for over a year and they still are not approved.” Pls.’ Ex. 376, ECF No. 352-55; see also Tr. 304:22–305:5 (Ollila).

that, for each lease that was producing and not yet fully developed, he would record the date of the field office's most recent diligence review. Tr. 128:7–18, 129:5–9 (Ollila).

As Plaintiffs' counsel pointed out, however, much of the column that was supposed to record the date of the most recent diligence review is blank. Tr. 129:10–13, 129:25–130:1 (Ollila); see Pls.' Ex. 189. And for some leases, the column includes a BLM employee's first name, such as "Beth" or "Bob," rather than a date. See, e.g., id. at BRDESI0008584–85.

Mr. Ollila cautioned that the spreadsheet "doesn't look like it's complete." Tr. 131:12–15 (Ollila). He testified that he did not know when the copy of the spreadsheet presented to him was made. Tr. 131:17–18 (Ollila). He also speculated that the field office engineers who took over responsibility for performing diligence reviews after Mr. Ollila assumed a management role and before his retirement "did not keep this up to date . . . because they were working on a [different] database to put everything in." Tr. 132:21–133:11 (Ollila); see also Pls.' Ex. 442, at BRDESI0582096.

Plaintiffs sought to establish that the field office was still using the spreadsheet around 2016. They introduced a 2015 email from Mr. Ollila that included an attachment titled "Diligence Review Lease List," which Plaintiffs suggest was the spreadsheet. See Pls.' Ex. 188, ECF No. 352-11. In the email, Mr. Ollila wrote to several colleagues that the attachment "is the table I used to assign the Indian leases." Id. As Plaintiffs' counsel noted, the Bates numbering of the spreadsheet and the 2015 email are sequential. See Tr. 135:12–15 (Ollila); Pls.' Ex. 188 (Bates stamp BRDESI0008579); Pls.' Ex. 189 (beginning with Bates stamp BRDESI0008580). And the spreadsheet's title, which includes the phrase "Diligence Review List," is similar to the title of the document attached to Mr. Ollila's email. See Pls.' Ex. 188; Pls.' Ex. 189, at BRDESI0008580.

Even if the Court found that Mr. Ollila reviewed the spreadsheet as recently as 2015, when he apparently sent it via email to several colleagues and explained that he "used [it] to assign the Indian leases," the Court would not conclude that any gaps in the spreadsheet provided evidence that the NDFO failed to conduct diligence reviews during the gap periods. See Pls.' Ex. 188. By 2015, Mr. Ollila was an acting assistant field manager. See Tr. 31:6–18 (Ollila). He wrote in the 2015 email that he used the spreadsheet only to assign leases to other engineers in the field office who were performing the diligence reviews. See Pls.' Ex. 188. And he suggested that the names listed in the column captioned "Date Last Reviewed" referred to the engineers who were tasked with reviewing certain leases. Tr. 129:16–24 (Ollila). Also around that time, Mr. Ollila said, the engineers in the field office were using a new database to track their diligence reviews and may not have been maintaining the spreadsheet. Tr. 133:8–11 (Ollila); see also Pls.' Ex. 442, at BRDESI0582096 (May 2016 email from Mr. Ollila stating that "at this time my engineers are developing a database"). He further reported that the field office was "building the [c]ase files for each lease as [engineers] review them." Pls.' Ex. 442, at BRDESI0582096.

The Court concludes that although Mr. Ollila may have used the spreadsheet in 2015 to assign tasks to engineers in the NDFO, the spreadsheet was not being used at the time to record the dates of the field office's diligence reviews. Moreover, Plaintiffs did not present other evidence to establish when the version of the spreadsheet they introduced was created. The most recent date of a diligence review listed in the spreadsheet is 2010. See, e.g., Pls.' Ex. 189, at

BRDESI0008710.<sup>20</sup> Yet Plaintiffs did not offer evidence, nor did they claim, that the NDFO stopped conducting all diligence reviews that year. The Court finds that the incomplete and undated spreadsheet did not present a complete and up-to-date picture of the state of diligence reviews in the NDFO and cannot be relied upon to show if or when diligence reviews were performed.

**F. Plaintiffs' Other Claims that BLM Failed to Comply with the Diligence Manual**

As the foregoing demonstrates, Plaintiffs have not proven by preponderant evidence that BLM failed to conduct diligence reviews or comply with other requirements in the diligence manual. The Court concludes that Plaintiffs' other claims are equally without merit.

For example, Plaintiffs assert that the government "failed to establish that any of Plaintiffs' tracts were fully developed." Pls.' Br. at 6. They then identify the steps that BLM is required to take when a tract is "not diligently developed," and note that Mr. Ollila "could not identify" any of Plaintiffs' tracts where BLM conducted a geologic, reservoir engineering, or economic review. *Id.* at 6–7 (citing Tr. 140:11–16, 141:8–15 (Ollila)).

Plaintiffs' argument improperly shifts the burden of proof to the government. To establish that BLM violated its obligations under the diligence manual, it was Plaintiffs' burden to show which of their tracts were not fully developed, which among those not fully developed tracts had not been diligently developed, and that BLM had failed to conduct the appropriate technical reviews with respect to those not diligently developed tracts. But Plaintiffs presented virtually no evidence about specific leases in particular years to establish that the leases were not diligently developed under the diligence manual's terms and that BLM did not perform technical reviews of those leases in those years. They cite the testimony of Mr. Ollila, but he understandably could not remember the particulars of each of the field office's many diligence reviews so many years later. He did not recall if the field office conducted technical reviews of Plaintiffs' leases specifically or whether it determined that Plaintiffs' leases were diligently developed. *See* Tr. 136:11–142:5 (Ollila).

Mr. Ollila explained that he did not associate the leases that the field office reviewed with the names of the lessors. Tr. 136:18–24, 141:6–15 (Ollila); *see also* Tr. 142:14–21 (Ollila). And the fact that Mr. Ollila could not remember reviewing Plaintiffs' leases specifically does not establish either that their leases were not diligently developed or that the field office failed to conduct required technical reviews. *See* Tr. 139:24–141:15. Plaintiffs mistake Mr. Ollila's lack of personal recollection of their specific leases as affirmative evidence that the NDFO therefore failed to review them for diligent development.

Plaintiffs also claim that BLM failed to enforce diligent development requirements and to remedy oil companies' delays in developing leases. Pls.' Br. at 8. Plaintiffs note that the diligence manual provided that leases may be diligently developed in a number of ways,

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<sup>20</sup> There are also nonspecific dates such as "09/01," which do not clarify when the spreadsheet was in use or last updated. *See, e.g.*, Pls.' Ex. 189, at BRDESI0008580.

including by “drilling . . . additional well(s),” making “payments in lieu of diligent drilling,” and “relinquish[ing] . . . undeveloped acreage.” See id.; Pls.’ Ex. 109, at BRDESI0910725. Plaintiffs once again rely on Mr. Ollila’s testimony to prove their claim. See Pls.’ Br. at 8. He testified that the NDFO did not direct oil companies to take any of the actions provided in the diligence manual for accomplishing diligent development at Plaintiffs’ properties. See Tr. 86:4–87:15 (Ollila).

As noted, however, Plaintiffs have not identified which lessees, if any, BLM found did not diligently develop their leases during the Bakken boom. Nor have they shown that any lessees failed to undertake one of the permissible alternative actions outlined in the diligence manual. See Pls.’ Ex. 109, at BRDESI0910725, BRDESI0910732–33. Plaintiffs’ assertion that BLM should have compelled additional action rests on the flawed premise that, because no enforcement action was taken, lessees must have been noncompliant. But absent a showing that BLM identified a failure to diligently develop, Plaintiffs cannot establish that the field office—by declining to direct lessees to take additional steps to diligently develop Plaintiffs’ tracts—therefore failed to enforce its diligence obligations.

Finally, Plaintiffs suggest that the NDFO staff did not receive training concerning BLM’s fiduciary obligations to Indian lessors. See Pls.’ Br. at 2–3. According to Plaintiffs, “Mr. Ollila allegedly conducted diligent development reviews at [the Fort Berthold Indian Reservation], yet notably testified that he ‘couldn’t say for sure’ whether BLM had even published a diligent development manual.” Pls.’ Br. at 3 (citing Tr. 80:19–21 (Ollila)).

Plaintiffs have misrepresented Mr. Ollila’s testimony. Counsel for Plaintiffs asked Mr. Ollila whether he knew “at the time before [he] retired if the BLM had published a diligent development manual,” and he responded that he thought there was such a manual but that he “[could not] say that for sure.” Tr. 80:19-21 (Ollila). But when Plaintiffs’ counsel followed up and specifically asked him about the diligence manual, Pls.’ Ex. 109, Mr. Ollila affirmed that he had seen it before, that he had a copy of it in the field office, that he regularly referred to it, that at that time he “kn[e]w full well the terms and conditions and regulations set forth in [the] diligent development manual,” and that he had considered the manual “important to the performance of BLM’s trust obligations regarding diligent development of [Plaintiffs’] tracts.” Tr. 80:25–81:18 (Ollila). In all likelihood, therefore, his statement that he could not say for sure whether BLM had published a diligent development manual at the time before he retired reflects that he could not recall whether BLM had published a new manual around the time of his retirement. It certainly could not reflect a lack of knowledge of the diligence manual.

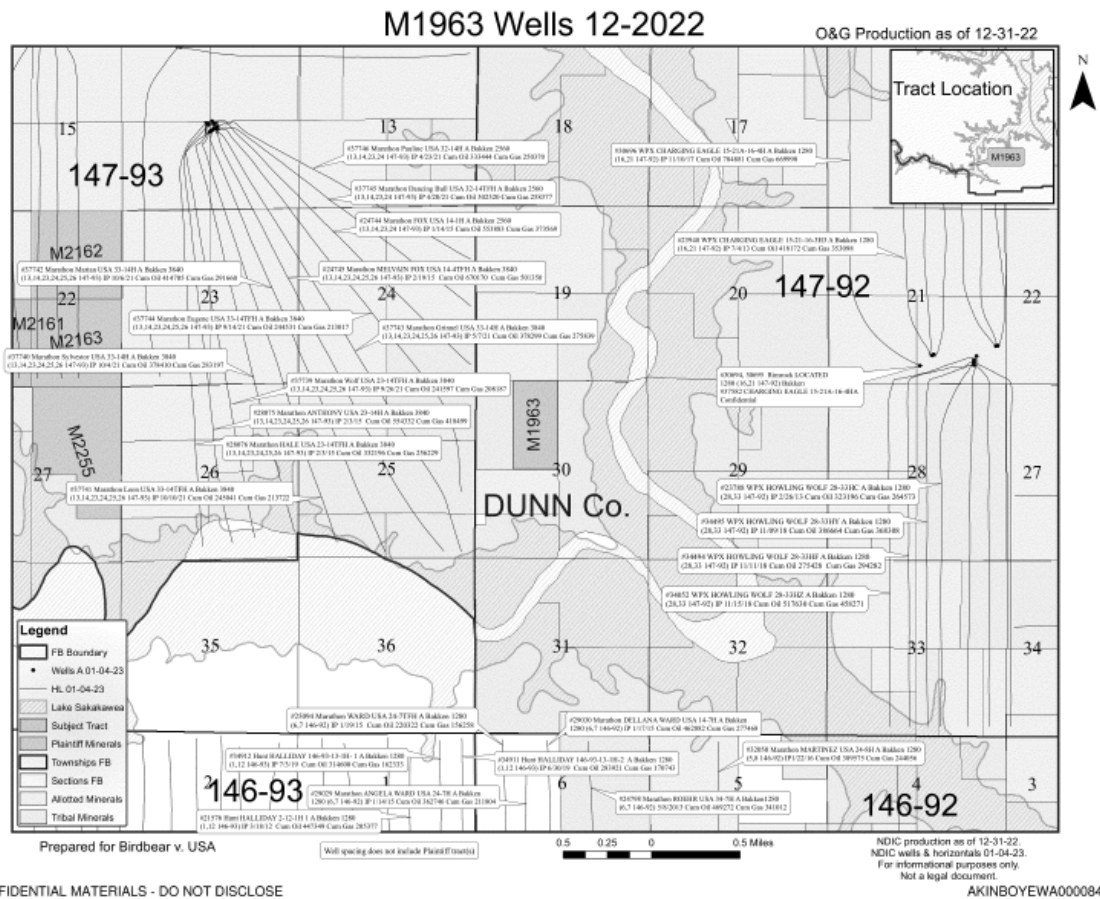
#### **G. Mr. Akinboyewa’s Diligence Analysis**

Plaintiffs contend that—in deciding whether BLM met its obligations to ensure that lessees diligently developed their tracts as well as the extent of their damages—the Court should credit the opinion of their expert, John Akinboyewa. See Pls.’ Br. at 19–32. Mr. Akinboyewa concluded that 16 of Plaintiffs’ tracts were not diligently developed, see Tr. 819:4–822:20 (Akinboyewa), and asserted that—had BLM been doing its job—it would have directed the lessees of those tracts to drill dozens of additional wells that would have produced an additional total of 7,112,575 barrels of oil and 12,283,644 million cubic feet of gas, Tr. 822:21–25 (Akinboyewa).

But Mr. Akinboyewa did not employ the procedures set forth in the diligence manual to reach his conclusions. Nor did he clearly articulate replicable methodology grounded in the criteria BLM uses to evaluate diligent development.

Mr. Akinboyewa testified that his diligent development conclusions were based primarily on comparisons he made between the well density on each of Plaintiffs' tracts and the well density on tracts within two to three miles of Plaintiffs' tracts. See Tr. 780:12–781:6 (Akinboyewa). Based on this comparison, he decided how many wells BLM should have directed lessees to drill on Plaintiffs' tracts. See Tr. 781:4–6 (Akinboyewa). Then, with the benefit of hindsight, he prepared a cumulative frequency plot to determine when the wells should have been completed. See Tr. 781:7–11 (Akinboyewa). Finally, he used production data from the comparator wells to predict the production on the hypothetical wells he concluded should have been drilled. See Tr. 781:12–783:19 (Akinboyewa).

For example, Mr. Akinboyewa described how he used his methodology to arrive at his opinion that Plaintiffs' tract M1963 was not diligently developed. See Tr. 785:17–787:11, 793:14–794:3, 795:8–25 (Akinboyewa). He prepared the following map, which portrays development around the tract as of December 2022:



Pls.' Ex. 570, ECF No. 352-87; see also Tr. 785:17–786:6 (Akinboyewa).

Mr. Akinboyewa noted at trial that there had been considerable development of many of the tracts that surrounded Plaintiffs' tracts. Tr. 786:7–787:11 (Akinboyewa). He explained that, under his methodology, “the closeness of drilling activity for wells surrounding the tract helps determine how many wells can go in the tract.” Tr. 795:8–11 (Akinboyewa). According to Mr. Akinboyewa, given the well density on the tracts surrounding tract M1963, oil companies should have drilled at least two wells on M1963 by May 2017. See Tr. 795:12–19 (Akinboyewa). He identified May 2017 as the deadline for completion of the wells based on his “observation of when wells were drilled within that two-to-three-mile area.” Tr. 793:18–19 (Akinboyewa).

Mr. Akinboyewa then gathered oil production data for all of the wells depicted on his map as of December 31, 2022. See Tr. 788:4–790:25, 800:5–10 (Akinboyewa). He testified that he prepared a “diligent development well profile” by looking at the gas/oil ratios, water production, and the timing of the wells that were drilled. Tr. 791:25–792:2 (Akinboyewa). He then applied the profile to “determine what fraction of the tract for the length of the well would pass through.” Tr. 792:2–4 (Akinboyewa). He would then credit that fraction against his diligent development volumes. Tr. 792:5–6 (Akinboyewa). Despite the Court’s best efforts, this portion of Mr. Akinboyewa’s testimony was particularly vague and difficult to follow.

Mr. Akinboyewa explained at trial that he “want[ed] the Court to understand that the closeness of drilling activity for wells surrounding the tract helps determine how many wells can go in the tract.” Tr. 795:8–11 (Akinboyewa). He hypothesized that “if you could visually take [tract M]1963 and slide [it] all the way over . . . where you see sections 28 and 27 . . . two to three wells will go on the tract.” Tr. 795:12–16 (Akinboyewa) (referring to Pls.’ Ex. 570). And “[i]f you took [M]1963, the dark-shaded box, and moved it over to the right, two to three wells will easily fit on that tract.” Tr. 795:17–19 (Akinboyewa) (same). He therefore “assigned a diligent development quantity of two wells, and 25 percent of the well’s . . . lands would run through the tract and operationally the plaintiffs would be credited with 25 percent of the two wells’ volumes.” Tr. 795:20–24 (Akinboyewa).

According to Plaintiffs, Mr. Akinboyewa “employed the same methodology” as the applicable regulations and BLM manuals “in reaching his diligent development conclusions.” Pls.’ Br. at 19. But that assertion is unsupported by the record. The methodology Mr. Akinboyewa used is not based on BLM’s regulatory requirements or the guidance in the diligence manual.

Neither the regulations nor the diligence manual suggests that whether a lessee has diligently developed a tract is determined by the well density on other tracts in the surrounding area two to three miles away. Rather, under the manual, diligence determinations are based on whether a BLM authorized officer is satisfied that—as of the date of their review—the lessee has taken reasonable steps to develop the tract. Pls.’ Ex. 109, at BRDESI0910730 (stating diligent development can be demonstrated if drilling, recompletion, testing, or “[o]ther operations that lead to the enhancement of production” have occurred within the previous 12 months).

Further, Mr. Akinboyewa did not perform several important steps in reaching his conclusions regarding Plaintiffs’ tracts. He did not perform a geologic or reservoir engineering analysis to determine the likelihood that any additional wells drilled would be productive ones. Id. at BRDESI0910731. Most critically, Mr. Akinboyewa did not perform an economic review to



evaluate “whether a prudent operator [could] drill an economic well” on the tracts he reviewed. Id.

Although Mr. Akinboyewa acknowledged that he did not include a discussion of the prudent operator rule in his expert report, he asserted on cross examination at trial that he had taken it into consideration when performing his analysis. Tr. 1135:16–1137:7 (Akinboyewa). He asserted that he had not “engaged in a discussion in [his] report about [the prudent operator rule], just because it was considered incorporated in [his] decisions to drill a well or not.” Tr. 1131:7–16 (Akinboyewa). In other words, he explained, his “diligent development wells are guaranteed all economic because wells are actually being drilled while [he’s] calling for [his] to be drilled.” Tr. 1136:3–5 (Akinboyewa).

Mr. Akinboyewa’s testimony was circular and arguably disingenuous. See Tr. 1130:7–1133:17 (Akinboyewa). As Mr. Payne testified, “[y]ou can’t just look across the lease line and determine economic viability.” Tr. 1765:24–25 (Payne). “[T]hese are \$10 million projects,” he observed. Tr. 1759:22–23 (Payne). Before undertaking such a project, a prudent operator in the real world would have to consider, among many other things, drilling and completion costs; drilling rig and proppant availability; and well location and surface restrictions. See Tr. 1759–1764 (Payne).

Mr. Payne testified that an oil company would also have to consider operating expenses, which can be different depending on the location of a tract and when the well is being drilled. Tr. 1760:4–20 (Payne). The price of oil is also an important factor in deciding whether a well is economic. Tr. 1763:9–22 (Payne).

Further, Mr. Payne elaborated that it is “very important to consider the surface conditions” when deciding where to place a well. Tr. 1761:25–1762:1 (Payne). Citing the map Mr. Akinboyewa prepared to portray development around Plaintiff’s tract M1963, Pls.’ Ex. 570, Mr. Payne observed that it showed several river channels and a lake, and he characterized the terrain in the area as “very rough.” Tr. 1762:1–6 (Payne). As an example, he postulated that although there was a cluster of wells off to the east and west of tract M1963, these were a distance away from the lake, and there were not any wells near tract M1963 because it is located too close to “this area around the lake.” Tr. 1762:7–12 (Payne). “[T]hat’s a consideration that an operator would have to think about in terms of where to locate a well.” Tr. 1762:12–14 (Payne).

Moreover, as Mr. Payne pointed out, Mr. Akinboyewa’s analysis suggests that many of the wells he would have drilled should have been drilled in 2013, 2014, and 2015. Tr. 1761:5–11 (Payne). But that was during the height of the Bakken boom, when there were rig shortages and fracking crews had to be hired months to years in advance. Tr. 1761:12–17 (Payne). It is clear from the record that Mr. Akinboyewa’s analysis did not account for this.

Further, even if BLM concluded on its initial review that the lease had not been diligently developed during the review period, that determination did not necessarily mean that the lessee would be required to drill additional wells. See Tr. 1261:23–1262:9 (Laborda). Rather, as noted, BLM would conduct geologic, reservoir engineering, and economic reviews. Those reviews and the responses of the lessee to BLM’s findings would be taken into consideration before BLM

decided that the lessee should be required to drill a new well or wells, or to implement a different remedy. Pls.’ Ex. 109, at BRDESI0910730–31.

Finally, the Court notes that—as was the case with Mr. Akinboyewa’s testimony regarding drainage—his testimony with respect to diligent development was often vague and almost always very difficult to follow. For example, on cross examination Mr. Akinboyewa explained that under his methodology, as the Court summarized above, he identified some of the wells should have been drilled as protective wells for drainage, and others as diligent development wells. Tr. 1149:17–1151:21 (Akinboyewa). These are two distinct justifications for hypothetical wells. Yet in his testimony he did not explain or justify why he treated a well as one or the other. See Tr. 1149:17–1151:21 (Akinboyewa).<sup>21</sup>

The fault for the vagueness and lack of clarity in Mr. Akinboyewa’s testimony cannot be laid entirely at his feet. As noted, Mr. Akinboyewa never served as an expert witness before Plaintiffs engaged him here. Unfortunately, Plaintiffs’ counsel failed to guide Mr. Akinboyewa’s testimony regarding diligence so that it might be presented in a manner that the Court could comprehend.

In short, the Court finds that Mr. Akinboyewa’s diligent development methodology does not comport with the diligence manual and fails to provide a reliable basis for determining either BLM’s compliance with its obligations or Plaintiffs’ alleged damages. The Court therefore does not credit his opinions regarding BLM’s obligation to require the drilling of diligent development wells or the damages due for the alleged violation of that obligation.

#### **IV. Count 12: Venting and Flaring**

Plaintiffs’ final claim is that, in violation of its fiduciary obligations, BLM failed to ensure that they received royalties on natural gas that was lost through venting or flaring. For the reasons set forth below, the Court finds this claim lacks merit.

##### **A. NTL-4A**

To produce oil from wells, operators must either capture the natural gas that is cased in the reservoir or release it by flaring (burning) or venting (releasing the gas into the atmosphere). Tr. 1498:25–1499:15 (Bagley); see also Tr. 1319:4–18 (Hunt). During the Bakken boom, the profit margins for oil were greater than they were for natural gas. Tr. 1324:2–6 (Hunt); Tr. 1499:18–24 (Bagley). For that reason, and because pipelines and infrastructure are needed to

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<sup>21</sup> Counsel for the government asked Mr. Akinboyewa which of the additional hypothetical wells that he would have drilled on tract 997A would be a timely protective well and which would be a diligent development well. Tr. 1149:24–1150:1 (Akinboyewa). He responded, “Throughout my analysis, on every single tract, I am not designating out of my diligent development volumes which wells are timely protective and which wells are diligent development, but that reasoning was put into my assignment of start dates, for example.” Tr. 1150:2–6 (Akinboyewa); see also Tr. 1151:18–21 (Akinboyewa) (“Q. And just to clarify my simple question, you don’t identify wells you’re placing as timely protective wells or diligent development wells, right? A. No, I don’t put labels on that in the production.”).

capture and distribute gas for sale, operators frequently opted to instead release it through venting or flaring. Tr. 183:23–184:4 (Ollila); see also Tr. 1324:10–18 (Hunt).

The parties agree that lessees’ obligations to pay royalties to Indian lessors for gas lost through venting or flaring is controlled by the Department of Interior’s Notice to Lessees 4A entitled “Royalty or Compensation for Oil and Gas Lost” (“NTL-4A”). See Def.’s Ex. 131; Tr. 1505:1–2 (Bagley). NTL-4A came into effect in 1980. There have been numerous attempts to promulgate regulations that would have superseded it, but those regulations have been mired in litigation for most of the last ten years.<sup>22</sup>

NTL-4A provides that operators must pay royalties on gas that is captured for sale or for the benefit of the lease. Def.’s Ex. 131, at BRDESI0435440. It further states, however, that:

No royalty obligation shall accrue on any produced gas which (1) is used on the same lease, same communitized tract, or same unitized participating area for beneficial purposes, (2) is vented or flared with the Supervisor’s prior authorization or approval during drilling, completing, or producing operations, (3) is vented or flared pursuant to the rules, regulations, or orders of the appropriate State regulatory agency when said rules, regulations, or orders have been ratified or accepted by the Supervisor, or (4) the Supervisor determines [the gas] to have been otherwise unavoidably lost.

Id. at BRDESI0435440.

NTL-4A also states that—subject to specified exceptions—“oil well gas may not be vented or flared unless approved in writing by the Supervisor.” See id. at BRDESI0435442 (authorizing operators to vent gas on a short-term basis without incurring a royalty obligation during temporary emergency situations, when performing well purging and evaluation tests, initial production tests, or routine or special well tests). The Supervisor may approve an application for the venting or flaring of oil well gas if justified either by the submittal of:

(1) an evaluation report supported by engineering, geologic, and economic data which demonstrates to the satisfaction of the Supervisor that the expenditures necessary to market or beneficially use such gas are not economically justified and that conservation of the gas, if required, would lead to the premature abandonment of recoverable oil reserves and ultimately to a greater loss of equivalent energy than would be recovered if the venting or flaring were permitted to continue or (2) an

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<sup>22</sup> See Wyoming v. United States Dep’t of Interior, 493 F. Supp. 3d 1046, 1057 (D. Wyo. 2020), opinion vacated, appeal dismissed, No. 20-8072, 2024 WL 3791170 (10th Cir. Aug. 13, 2024); California v. Bernhardt, 472 F. Supp. 3d 573, 582–83 (N.D. Cal. 2020)); Wyoming v. United States Dep’t of Interior, No. 20-8072, 2024 WL 3791170, at \*1 (10th Cir. Aug. 13, 2024); North Dakota v. United States Dep’t of Interior, No. 24-66, 2024 WL 4164939, at \*11 (D.N.D. Sept. 12, 2024), appeal pending No. 24-3299 (8th Cir.).

action plan that will eliminate venting or flaring of the gas within 1 year from the date of application.

Id. at BRDESI0435443; see also Tr.1503:19–1504:17 (Bagley) (describing application process).

## **B. Plaintiffs’ Claims**

In Count 12 of their Third Amended Complaint, Plaintiffs allege that beginning by at least the start of 2010 BLM stopped enforcing its rules governing the venting and flaring of gas. 3d. Am. Compl. ¶ 115. According to Plaintiffs, the NDFO was instructed to continue accepting applications to vent or flare gas but not to issue any decisions on the applications or require payment of royalties for any vented or flared gas. Id. Plaintiffs further allege that “[d]espite Interior’s failure to issue any approvals, the oil and gas companies have continued to vent and flare natural gas from Plaintiffs’ mineral interests,” and that “[t]hese companies have not paid royalties for any of the gas so vented or flared.” Id. at ¶ 118.

At trial, Plaintiffs presented the testimony of petroleum engineer Jeffrey Hunt, who worked for the Bureau of Indian Affairs’ Fort Berthold Agency around the time of the Bakken boom and served for several years as its acting superintendent. Mr. Hunt was critical of the practice of flaring and venting gas because of its environmental impact and because it resulted in a waste of resources. Relying on production reports on file at the Department of the Interior’s Office of Natural Resources Revenue, Mr. Hunt calculated that oil companies had flared more than 60 million cubic feet of natural gas from allotted lands on the Fort Berthold Indian Reservation. Tr. 1329:2–1330:3 (Hunt); Pls.’ Ex. 152, ECF No. 352-8; see also Tr. 1337:13–1338:2 (Hunt). He opined that the volume of gas being released was excessive, and that more of it should have been captured. In his view, “we have a problem with methane being flared and vented out at Fort Berthold,” and also nationwide. Tr. 1332:10–23 (Hunt).

At the outset, the Court notes that Plaintiffs are mistaken when they contend that their lessees were required to pay them royalties on gas solely because BLM did not approve its venting or flaring in advance. While the “plain language” of NTL-4A provides that “flaring without prior approval [outside of certain specified short-term circumstances] constituted a royalty-bearing loss of gas, regardless of the economic circumstances,” the policy “was changed by BLM Instruction Memorandum No. 87-652 (Aug. 17, 1987).” See 87 Fed. Reg. 73588, 73594.

Under Instruction Memorandum No. 87-652, operators would not be required to secure advance authorization to vent or flare gas royalty-free for wells completed after January 1, 1980. Instead, they were permitted to demonstrate, after the fact, that capturing the gas was not economically justifiable, that the loss of the gas was therefore “unavoidable,” and that they therefore would not be required to pay royalties on the gas. Id. (citing Ladd Petroleum Corp., 107 IBLA 5 (1989)); see also BLM, Instruction Memo. No. 87-652, Policy for Avoidably Lost Gas – Onshore Federal and Indian Oil and Gas Leases (1987), 1987 WL 144794 at \*3; Tr. 1536:13–1537:20 (Bagley) (stating that under the policy set forth in the 1987 instruction memorandum, oil companies can continue producing oil and flaring gas while their applications for approval to flare are pending with the NDFO, observing that it is not the case that “all of the development has to stop and wait for the royalty determinations to be made”).

As Mr. Bagley testified at the trial, to secure after-the-fact approval to vent or flare gas royalty-free, operators would be required to provide information to BLM showing that it would not have been economical to capture the gas. Tr. 1505:9–16 (Bagley). NDFO engineers would review the application and determine its merits subject to a right of appeal to the Interior Board of Land Appeals. Tr. 1505:17–1506:1. “[U]ntil BLM affirmatively determine[d] that the oil-well gas was avoidably lost” no royalty would be owed on the vented or flared gas. Hess Corp., 197 IBLA 299, 300 (Dec. 17, 2021).

In their post-trial reply brief, Plaintiffs shift their focus. They argue that—irrespective of whether venting and flaring without prior approval triggers an obligation to pay royalties—BLM violated its fiduciary obligations by not acting promptly on applications to vent or flare gas and by allowing a backlog of such applications to develop. See Pls.’ Post-Trial Reply Br. at 10–11, ECF No. 366.

Plaintiffs’ allegation that the NDFO at some point and for some period of time stopped processing applications to flare gas is supported by the testimony of Mr. Bagley, Mr. Ollila, and Mr. Hunt. Mr. Bagley testified that BLM paused its processing of the applications for a period of several years because of the continuing uncertainty about where BLM would land in its rulemaking concerning revisions of its flaring regulations and the replacement of NTL-4A. See Tr. 1506:10–12 (Bagley) (acknowledging that there was a time when the field office stopped processing the applications); see also Tr. 31:6–8, 192:8–9 (Ollila) (testifying that before he retired in November 2017, efforts were underway in the upper ranks of BLM to revise the rules concerning venting and flaring); Tr. 1324:19–1325:1 (Hunt) (testifying that NTL-4A was being rewritten and that “it was a moving target for a time”); Tr. 192:6–12 (Ollila) (testifying that “decisions were not being made on gas flaring” at the NDFO because the employees there “were waiting for [BLM] to make a final decision on how to handle [issues concerning applications to vent or flare gas]”).

Mr. Bagley acknowledged that, at the time of trial, the NDFO still had about 900 applications from oil companies to vent and flare gas from Indian allotments, as well as another 900 federal applications. See Tr. 1506:2–16 (Bagley). He further testified that the field office “ha[s] made determinations on some of [the applications],” and that it is “processing those that are currently in front of [it].” Tr. 1506:6–9 (Bagley); see also Tr. 1538:2–11 (Bagley). He also testified that when BLM found royalty payments due, it required operators to make those payments. See Tr. 1506:17–1507:6 (Bagley).

The Court agrees with Plaintiffs that applications to vent or flare gas became backlogged during the Bakken boom and finds that the decision to suspend processing those applications was related to ongoing uncertainties arising out of the on-again-off-again rulemaking process. But Mr. Bagley’s testimony that BLM has since been working through the backlog is unrebutted.

Moreover, Plaintiffs’ claims about backlogged applications to vent or flare gas lack any specificity. Plaintiffs did not provide any examples of pending applications to flare or vent gas on their tracts. They did not show how long any such applications have been pending, or why they remain pending. Nor did they provide evidence that they have not received royalties where BLM has denied such applications.

The Court notes that in their post-trial brief, Plaintiffs rely almost exclusively on the testimony of Mr. Ollila to support their claims related to flaring and venting. Pls.’ Br. at 46–47. But Mr. Ollila was unable to say whether the NDFO’s delay in reviewing oil companies’ applications to vent and flare gas affected any of Plaintiffs’ leases specifically. Tr. 192:23–193:3 (Ollila). In fact, he could not remember if BLM had or had not approved flaring on Plaintiffs’ leases. Tr. 188:9–10 (Ollila).

Further, Mr. Ollila would not have had first-hand knowledge of flaring and venting applications related to Plaintiffs’ tracts because he was “not responsible” for administering the requirements of NTL-4A and because oversight of the field office’s role in venting and flaring “was not part of [his] job.” Tr. 184:18–21 (Ollila); see also Tr. 193:11 (Ollila) (“I did not work on . . . flaring.”); Tr. 205:8–9 (Ollila) (“I didn’t review gas flaring. It was not part of my duties.”).

The Court also notes that Plaintiffs have mischaracterized some of Mr. Ollila’s testimony regarding venting and flaring. For example, Plaintiffs contend that Mr. Ollila “confirmed that there was no instance in which gas was vented or flared on the Reservation, where one of the four exceptions to royalty obligations stated on Page 1 of NTL-4A” applied. Pls.’ Br. at 10–11. As noted above, one of those exceptions applies where BLM has given prior approval for venting and flaring. Mr. Ollila’s actual testimony was not that prior approval had never been given, as Plaintiffs contend. It was that he could not remember one way or the other whether the NDFO had ever given an operator prior authorization to flare gas. Tr. 190:14–25 (Ollila).

Similarly, another of the four exceptions to the royalty obligation applies where the loss of natural gas was “unavoidable.” Mr. Ollila testified that, in fact, there were instances in which BLM had determined and confirmed in writing that natural gas had been unavoidably lost. Tr. 191:22–192:6 (Ollila). For this reason as well, Plaintiffs’ assertion—that Mr. Ollila testified that “there was no instance in which gas was vented or flared on the Reservation, where one of the four exceptions to royalty obligations stated on Page 1 of NTL-4A”—is baseless.

There is similarly no merit to Plaintiffs’ contention that the government violated its fiduciary obligations when it allegedly “disregarded concerns” by Indian lessors regarding the loss of revenue and environmental consequences of flaring and venting. Pls.’ Br. at 11–12; see also 3d. Am. Compl. ¶ 119 (alleging that “excessive venting and flaring of natural gas is a significant problem on trust land,” which has adverse environmental impacts and deprives states, tribes, and federal taxpayers of potential royalty revenue for the flared gas).

While Mr. Hunt’s testimony shows that BLM was made aware of concerns about the amount of flaring that was occurring, Plaintiffs presented no evidence to show that these concerns were “disregarded.” To the contrary, Mr. Hunt’s study shows that around 2014, following a marked increase in the amount of flaring on the Reservation during the Bakken boom, oil companies began to capture a greater share of the gas they were producing. Pls.’ Ex. 152. By 2016, they were capturing more than 80 percent of the gas produced on allottees’ leases. Id. Likewise, Mr. Bagley testified that oil companies now capture “much of the gas” that they produce on and around the Fort Berthold Indian Reservation. Tr. 1505:3–5 (Bagley).

Finally, the Court notes that even if Plaintiffs had proven a violation of a fiduciary obligation to ensure that they received royalties for gas that was avoidably lost, they have failed to supply evidence sufficient to establish the damages they are due. Plaintiffs' expert, Ms. Kidd, used NDIC data to determine the volume of gas that oil companies vented and flared from Plaintiffs' tracts. See Tr. 1366:10–19, 1394:13–22 (Kidd). She also testified that Plaintiffs' counsel instructed her to exclude from her damages calculations those volumes of flared gas subject to NTL-4A's allowance for initial production testing. Tr. 1430:18–1431:9 (Kidd).

But Ms. Kidd's calculations do not account for the possibility that BLM might determine, or has determined, that some of the gas that oil companies vented and flared from Plaintiffs' tracts was unavoidably lost or otherwise justified under other provisions of NTL-4A. See Tr. 1396:4–9, 1432:8–1433:1 (Kidd). Nor did she factor in whether Plaintiffs have already been paid royalties for the volumes of gas that were vented and flared.

In short, Plaintiffs have failed to supply preponderant evidence to show that the government violated any fiduciary obligation to them regarding the venting and flaring of gas. They have also failed to provide the Court with a reliable basis for calculating damages, even assuming such a violation had been proven. The Court will therefore enter judgment for the government as to Count 12.

### **CONCLUSION**

Based on the foregoing, the government's Motion to Exclude Certain Expert Opinion Testimony of John Akinboyewa, ECF No. 334, is **GRANTED**

Further, for the reasons set forth above, the Court finds Plaintiffs' have failed to establish the United States breached its fiduciary obligations as alleged in Counts 3, 8, or 12 of their Third Amended Complaint, ECF No. 147. As these were the only remaining claims in this case, the Clerk is directed to enter judgment for the government.

**IT IS SO ORDERED.**

s/ Elaine D. Kaplan  
ELAINE D. KAPLAN  
Judge