

No. 16-35506

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**IN THE UNITED STATES COURT OF APPEALS  
FOR THE NINTH CIRCUIT**

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MARY ANN MURRAY AND LIGE M. MURRAY,  
*Plaintiffs-Counter-Defendants-Appellees,*

v.

BEJ MINERALS, LLC AND RTWF, LLC,  
*Defendants-Counter-Plaintiffs-Appellants.*

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On Appeal from the United States District Court,  
District of Montana, Billings Division  
Case No. CV-14-00106

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**BRIEF OF AMICI CURIE PALEONTOLOGICAL SOCIETIES AND  
SCIENTIFIC INSTITUTIONS IN SUPPORT OF PLAINTIFFS-COUNTER-  
DEFENDANTS-APPELLEES' PETITION FOR REHEARING AND  
REHEARING EN BANC**

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## CORPORATE DISCLOSURE STATEMENT

Amici curiae make the following disclosures pursuant to Federal Rule of Appellate Procedure 26.1(a):

- **The Society of Vertebrate Paleontology** discloses that it is a California nonprofit corporation, has no parent corporation, and does not issue shares of stock.
- **The Museum of the Rockies** discloses that is an academic department of Montana State University, a Montana governmental entity and institution of higher education.
- **The Carter County Geological Society (“CCGS”)** discloses that it is a Montana nonprofit corporation, has no parent corporation, and does not issue shares of stock. CCGS owns the collections of and does business as **the Carter County Museum** and will be referred to as such throughout the remainder of this brief.
- **The Paleontological Society** discloses that it is a District of Columbia nonprofit corporation, has no parent corporation, and does not issue shares of stock.
- **The Field Museum of Natural History** discloses that it is an Illinois nonprofit corporation, has no parent corporation, and does not issue shares of stock.

- **The Los Angeles County Museum of Natural History Foundation** discloses that it is a California nonprofit that operates Los Angeles County Museum of Natural History for the County of Los Angeles. The Foundation has no parent corporation, and does not issue shares of stock.

Date: December 29, 2018

s/ Gary S. Guzy  
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## STATEMENTS OF IDENTITY AND INTEREST OF AMICI CURIAE<sup>1</sup>

Amici curiae are leading nonprofit scientific organizations committed to supporting the study and conservation of fossil evidence to enhance human understanding of the history of life on earth. As non-commercial professional scientific societies, museums, and research institutions, all amici share a fundamental interest in ensuring that Montana's scientifically critical fossil record remains available for study. Specifically:

- **The Society of Vertebrate Paleontology** is the largest professional paleontological organization in the world. Its 2,200 members work to advance the science of vertebrate paleontology and support the discovery, conservation, and protection of vertebrate fossils and fossil sites. An estimated 50% of its members have conducted research in Montana or on Montana fossils.
- **The Paleontological Society** is an international organization devoted to the advancement of the science of paleontology. Its members represent over 40 countries and include professional paleontologists, academicians, museum specialists, scholars, and avocational paleontologists.

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<sup>1</sup> Amici affirm that all parties consent to the filing of this brief. *See* Fed. R. App. P. 29(a)(2). Amici affirm that no counsel for a party authored this brief in whole or in part and that no person other than amici or their counsel made any monetary contributions intended to fund the preparation or submission of this brief. *See* Fed. R. App. P. 29(a)(4)(E).



- **The Field Museum of Natural History**, located in Chicago, Illinois, is one of the largest natural history museums in the world. Approximately 1.6 million visitors come to see its collection of nearly 40 million specimens and artifacts each year, including its extensive collection of dinosaur fossils from Montana and elsewhere. It houses more than 150 scientific researchers.
- **The Los Angeles County Museum of Natural History Foundation** protects over 35 million specimens, some dating back 4.5 billion years. Its collection includes numerous fossils from Montana. The Foundation also operates the Dinosaur Institute, which houses fossils of dinosaurs and other four-limbed vertebrates spanning the Mesozoic era.
- **The Museum of the Rockies** at Montana State University in Bozeman, Montana, houses one of the most scientifically significant collections of dinosaur fossils in the country. Approximately 200,000 people per year visit the Museum and its collection of 400,000 dinosaur fossils, including 10,870 vertebrate fossils collected from sites in Montana.
- **The Carter County Museum**, Montana's first museum to display fossils, was founded by amateur paleontologists in Ekalaka. Its paleontological collection houses over 6,000 items, largely collected from private land in Montana.

## INTRODUCTION AND SUMMARY OF ARGUMENT

Mary Ann and Lige Murray (“Appellees”) first filed this action in Montana state court, seeking a declaratory judgment about the scope of their property rights under Montana law. *Murray v. BEJ Minerals, LLC*, 908 F.3d 437, 441 (9th Cir. 2018). In November of 2018, a panel of this Court attempted to resolve that dispute, holding that certain dinosaur fossils (the “Montana Fossils”) constitute minerals under a deed reserving mineral rights, and therefore “belong to the owners of the mineral estate.” *Id.* at 447. While this may appear at first blush to be a limited private commercial contractual dispute, the panel’s decision has fundamental and extraordinary impacts upon the conduct of science concerning the history of life on earth. These concerns compel a more careful look at the issues presented by this case.

Amici are leading scientific organizations and institutions in the field of paleontology. They bring an unparalleled understanding of both the science behind this dispute and the profound implications of the panel’s ruling. As amici are uniquely positioned to explain, the panel’s decision imposes extraordinary uncertainty upon scientists and the public. By effectively re-classifying valuable Montana fossils as “minerals,” the panel’s decision may destabilize title to countless important fossils in academic, museum, and private collections around the world—

including at museums run by amici—potentially subjecting those fossils to ownership challenges by holders of Montana mineral deeds. The decision also impedes future research, forcing paleontologists and other collectors to negotiate not only with Montana surface estate owners, but now the owners of mineral estates as well. Finally, it generates confusion about the scope of the federal government’s obligation to manage Montana fossils, given the significant federal mineral rights in Montana.

These potentially devastating effects stem from the panel’s seeming misapprehension of core scientific principles, resulting in their wrongly construing Montana law. The panel’s error began with its determination that fossils qualify as “minerals” in the scientific sense. Because fossils were initially formed through biological rather than geological processes, established scientific understanding holds that dinosaur fossils are not minerals. The panel also haphazardly applied a legal test designed to identify the subset of all minerals that a mineral deed would reserve. It focused only on whether these fossils are “rare and exceptional” and possess “special value,” concluding that the Montana Fossils are minerals because they meet these criteria. In fact, the mineral content of fossils has little value because it is common; the fossils’ value derives from the biological information they convey about ancient life. Thus, if the mineral rather than the biological value of the fossils had been considered, the Montana Fossils would fail this test.

For these reasons, the panel has erred in a case of exceptional importance, and amici respectfully urge the court to grant Appellee’s Petition for Rehearing or Rehearing En Banc (the “Petition”).

Alternatively, should this Court decline to correct the panel decision directly, amici urge the Court to avoid speculating about this highly uncertain area of Montana law, and instead certify the question presented in this case—which is unresolved, determinative of this litigation, and uniquely significant in Montana—to the Montana Supreme Court.

## ARGUMENT

### **I. The Panel Decision Presents a Question of Exceptional Importance By Imposing Extraordinary Uncertainty On The Scientific Community and the Public.**

#### **A. By Reversing A Widely Accepted Understanding of Land Rights, the Panel Decision Subjects Scientifically Important Fossil Collections to Damaging Ownership Disputes and Impedes Future Efforts of the Paleontological Community to Discover, Collect, And Study Fossils.**

Paleontologists and museums throughout the United States have staked discoveries and built renowned collections of Montana fossils based on agreements with surface estate owners, relying on a longstanding consensus that fossils are not “minerals” under land deeds and basic scientific principles. This century-old consensus derives from a seminal 1915 Federal decision by the Department of the Interior establishing that “fossil remains of dinosaurs and other prehistoric animals are not mineral[s].” *Earl Douglass*, 44 Pub. Lands Dec. 325, 1915 WL 1202

(D.O.I. 1915).<sup>2</sup> The panel’s decision upsets a century of reliance on this venerable approach, potentially imperiling title to scientifically priceless fossil collections and erecting barriers to future paleontological research. This error should be corrected en banc.

The panel minimizes such concerns as “hypothetical and unlikely to arise often.” *Murray*, 908 F.3d at 447. However, the actual consequences could be extensive. Vertebrate fossils are rare and scientifically important. Fossils represent the only direct evidence of past life on Earth. Moreover, the information conveyed by fossils has played a critical role in confirming major scientific theories, such as natural selection and continental drift, and the insights such information offers may be crucial in responding to current issues such as mass extinction and global climate change. See Dorna Sakurai, *Animal, Mineral or Cultural Antiquity?: the Management and Protection of Paleontological Resources*, 17 *Loy. L.A. Int’l & Comp. L. Rev.* 197, 204–05 (1994).

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<sup>2</sup> The former General Land Office was responsible for certain adjudications involving federally owned public lands. See *United States v. Schurz*, 102 U.S. 378, 395–96 (1880). *Earl Douglass* is well-known in the scientific community because of its seminal role in the development of Dinosaur National Monument. See, e.g., Kenneth Carpenter, *Rocky Start of Dinosaur National Monument (USA), the World’s First Dinosaur Geoconservation Site*, 1 *Geoconservation Research* 1, 8–9 (2018). Consequently, museums and scientists have long relied on its clear statement that fossils are not minerals.

Fossils that enter the scientific record are collected in museums, universities, and other research institutions to be available for research. Many agreements authorizing fossil collection or donation have been reached exclusively with surface estate owners, owing to the common understanding that fossils are not part of a mineral estate. For example, amici Museum of the Rockies and the Carter County Museum commonly dealt only with such surface owners. This threat is particularly acute in Montana, a vital study ground for fossils; the Museum of the Rockies alone houses 10,870 vertebrate fossil specimens from Montana, of which 1,815 were collected from private land, including the largest *Tyrannosaurus rex* skull in the world and the holotype reference specimens of 14 species.<sup>3</sup>

The panel's erroneous definition of "mineral" endows mineral estate holders in Montana with new arguments for seeking potentially valuable property from museums. In so doing, it threatens to destabilize title to some of the nation's most important fossil collections. It subjects educational and research institutions to the threat of costly litigation, or to the possibility that they may need to surrender parts of their collections to avoid such costs—thereby undermining both preservation and scientific and public access.

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<sup>3</sup> No concrete data is available on how many such fossils were collected from split estates; until the panel decision, it was not relevant.

The impacts of the panel’s error are not limited to fossils already collected. By establishing a new legal approach under which fossils are “minerals” if they contain mineral elements and are “rare and exceptional,” the panel’s decision imposes profound practical obstacles to future paleontological research. Scientists and other collectors will now need to secure permission from both mineral rights owners *and* surface estate owners to search for fossils on private lands, in case fossils they discover turn out to be “rare and exceptional.” The paleontological community already faces difficulty identifying surface estate owners, and that difficulty will increase dramatically when it comes to identifying mineral estate owners.<sup>4</sup> The two-fold (or more) authorization now required will likely impede the efforts of paleontologists to conduct future research. Moreover, the decision significantly enhances the risk that important fossil resources will be lost to commercial extractive industries who own mineral rights.

Montana lands play a central role in paleontological research, and the panel’s decision therefore imposes additional, unnecessary barriers to this area of

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<sup>4</sup> “Upon severance of the surface and mineral estates, the ownership of the mineral estate often becomes fractionalized with the passage of time. The commercial nature of these interests makes it likely that they may be owned by a number of people who are not familiar with the property, the owner of the surface estate or even each other.” *Van Slooten v. Larsen*, 299 N.W.2d 704, 711 (Mich. 1980). Indeed, such fractionalized ownership arose in this case.

study. These harsh results of the panel’s decision are avoidable, and should be corrected en banc.

**B. The Panel Decision Could Inadvertently Subject a Significant—and Arbitrary—Subset of Montana Fossils to Federal Regulation.**

In addition to affecting existing fossil collections and future efforts to study fossils, the panel’s decision may inadvertently implicate the Federal Government’s obligations under the Paleontological Resources Preservation Act (“PRPA”), 16 U.S.C. §§ 470aaa–470aaa-11 (2012). Under the PRPA, the Federal Government preserves, protects, and manages paleontological resources, including fossils, on “Federal land.” *See id.* § 470aaa-1. “Federal land” is “land controlled or administered by the Secretary of the Interior, except Indian land; or National Forest System land controlled or administered by the Secretary of Agriculture.”<sup>5</sup> *Id.* § 470aaa(2). The PRPA does not seem to account for a distinction between surface rights and mineral rights in its reference to paleontological resources. *See id.* Though designed to protect “paleontological resources,” PRPA’s regulations disclaim the government’s obligation to manage “mineral resources” that “are subject to the existing mining and mineral laws.” 36 C.F.R. § 291.9(d)(1) (2018) (published Forest Service portion of PRPA regulations clarifying that economic minerals are not paleontological resources); *see also id.* § 291.3(a) (regulations do not

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<sup>5</sup> The PRPA is not implicated on private land. *See id.* § 470aaa-10(4).



“impose any additional restrictions . . . on any activities permitted at any time under the general mining laws [or] the mineral or geothermal leasing laws”). The panel did not consider—nor did it seek the government’s input on—whether its holding creates inconsistent definitions of minerals and fossils under Montana and federal law, or the possible effects of such a conflict. These ambiguities further underscore the need for reconsideration by the en banc Court.

Although the PRPA does not distinguish between surface and mineral estates, until now, under *Douglass*, the PRPA was understood to cover the government’s surface estate. Thus, the panel’s opinion may—without any consideration—have expanded the scope of the PRPA to apply to the vast swaths of Montana Federal lands on which the federal government owns mineral (but not surface) rights, inadvertently transferring rich fossil reserves to federal jurisdiction—or, if the federal government lacks or disclaims the power to manage such fossils, a legal no-man’s-land. The consequences could be significant: Montana contains about 12 million acres of “severed” land (nearly 13% of the state) where

the surface rights are privately owned but the mineral estate is reserved by the federal government.<sup>6</sup> Should the panel’s approach influence other states, the nationwide impact could be drastic. *See* Carol Vincent et al., Cong. Research Serv., R42346, *Federal Land Ownership: Overview and Data 1* (2017), <https://fas.org/sgp/crs/misc/R42346.pdf> (finding that BLM manages 248.3 million acres of public land and administers approximately 700 million acres of federal subsurface mineral estate nationwide).

Because the panel’s error threatens to sow chaos in a complex Federal regulatory scheme intended in part to protect fossils, this Court should grant the Petition to properly consider its ramifications.

## **II. The Extraordinary Consequences of the Panel’s Error Result From A Misapplication of Scientific Principles and Montana Law.**

### **A. The Panel’s Definition of “Mineral” Ignores the Overriding Scientific Understanding That Fossils, Unlike Minerals, Are Created Through Biological Processes.**

Faced with a dearth of fossil-related Montana case law, the panel surveyed Montana Supreme Court and other decisions to determine when a substance qualifies as a mineral, holding that Montana likely has adopted an approach first established by Texas courts (the “*Farley/Heinatz*” approach). *Murray*, 908 F.3d at 444–

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<sup>6</sup> *See* Timothy Fitzgerald, *Understanding Mineral Rights 1* (2017), <http://msuextension.org/publications/AgandNaturalResources/MT201207AG.pdf>.

46 (citing *Farley v. Booth Brothers Land & Livestock Co.*, 890 P.2d 377, 379 (Mont. 1995); *Heinatz v. Allen*, 217 S.W.2d 994 (Tex. 1949)). This approach is designed to determine whether a substance that “is a mineral in the scientific sense” is also a mineral in the “ordinary and popular sense” for purposes of interpreting a real property agreement. *Id.* at 442, 445 (quoting *Dollar Plus Stores, Inc. v. R-Montana Assocs., L.P.*, 209 P.3d 216, 219 (Mont. 2009)).

However, in applying this approach to fossilized dinosaur bones, the panel makes a threshold error, finding that “the Montana Fossils *are* minerals in a scientific sense, as they are composed entirely of the minerals hydroxylapatite and/or francolite.” *Id.* at 442. But it is not true that a substance “is a mineral in the scientific sense [because] it is composed of minerals.” *Id.* at 445. Instead, a material is a mineral under common scientific understanding, as explained in greater detail below, because of its geological process of formation. Fossilized bones do not stem from such a process. Only by relying on this scientific error could the panel then proceed to inquire whether the fossils constitute “minerals” under its “ordinary and natural meaning” as established by caselaw, focusing almost entirely on whether

they have special value. *See Heintz*, 217 S.W.2d at 997; *Murray*, 908 F.3d at 447.<sup>7</sup>

Scientific organizations such as amici consider the *Glossary of Geology* an authoritative source of geoscientific definitions.<sup>8</sup> The *Glossary* defines “mineral” as, *inter alia*, “[a]n element or chemical compound that is crystalline and that has formed as a result of geologic processes.” Klaus K. E. Neuendorf et al., *Glossary of Geology* 415 (5th ed. 2005). Mineralogist Ernest Henry Nickel’s article on the definition of a mineral confirms that (1) minerals are formed by geological processes; and (2) substances formed by biological processes are not minerals:

In general terms, a mineral is an element or chemical compound that is normally crystalline and that has been formed as a result of geological processes. . . . Biogenic substances [*i.e.*, substances produced by living organisms] are chemical compounds produced entirely by biological processes without a geological component . . . and are not regarded as minerals. However, if geological processes were involved in the genesis of the compound, then the product can be accepted as a mineral.

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<sup>7</sup> Though perhaps necessary, that inquiry is obviously insufficient. If the parties had found a rare orchid or an ancient wooden boat, these substances would be “rare and exceptional,” but not minerals.

<sup>8</sup> The *Glossary of Geology* is published by the American Geosciences Institute (“AGI”). AGI is a nonprofit federation of 51 geoscientific organizations and professional organizations, including amici Society for Vertebrate Paleontology and the Paleontological Society.

E.H. Nickel, *The Definition of a Mineral*, 33 *The Canadian Mineralogist* 689, 689–90 (1995), [http://rruff.info/doclib/cm/vol33/CM33\\_689.pdf](http://rruff.info/doclib/cm/vol33/CM33_689.pdf).<sup>9</sup>

The panel erred by seemingly misapprehending that, while geological processes may alter the chemical composition of a fossil over time, a fossil’s “genesis” is *biological*. Bones are produced by cells in living animals. These cells exist within a matrix of fibers, onto which they secrete the substances which form hydroxyapatite,<sup>10</sup> the crystalline substance which give bones their hardness and strength. See J. Gordon Betts et al., *Anatomy & Physiology* 224 (2013), <https://openstax.org/details/books/anatomy-and-physiology>. This process shapes the structure of these crystals as they harden in characteristic ways around collagen, blood vessels, and nerves. These patterns usually remain visible even in ancient fossilized bone; see David Varricchio, *Bone Microstructure of the Upper Cretaceous Theropod Dinosaur Troodon Formosus*, 13(1) *Journal of Vertebrate Paleontology* 99, 101 (1993), published by the Society of Vertebrate Paleontology, for illustrations of such patterns in fossils collected in Montana and housed in the

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<sup>9</sup> This axiomatic distinction is even taught in high schools. See John Benner et al., *High School Earth Science* 80, 413 (2009), [https://upload.wikimedia.org/wikipedia/commons/d/d0/High\\_School\\_Earth\\_Science\\_1-13.pdf](https://upload.wikimedia.org/wikipedia/commons/d/d0/High_School_Earth_Science_1-13.pdf) (explaining that a “mineral is an inorganic substance, which usually means it was not made by living organisms” whereas a “fossil is any remains or trace of an ancient organism”).

<sup>10</sup> “Hydroxyapatite” is another name for what the panel refers to as “hydroxylapatite.”

Museum of the Rockies. In contrast, similar crystals that form through geological processes typically form patterns that reflect the geological environment in which they crystallized. Dinosaur bone consists of substances deposited by *biological* processes in a *biological* matrix. Though the bones may have been subsequently infiltrated by geologically produced minerals, because the structure of fossil bone is biological, the scientific community does not classify it as “mineral.”

Ignoring this fundamental scientific consensus, the panel decision fashioned a definition unfamiliar to the scientific community. As explained above, that error threatens enormous negative, unintended consequences, and should be corrected en banc.

**B. The Panel Decision Incorrectly Reasons That Fossils Possess “Special Value” for Their Mineral Content, When In Fact That Mineral Content Has Only Nominal Value.**

Unfortunately, the panel compounded its scientific error while applying the rest of the *Farley/Heinatz* inquiry. As Judge Murguia pointed out in her dissent, the panel effectively ignores much of the *Heinatz* court’s inquiry, including “the evidence as to the nature of the [substance], its relation to the surface of the land, its use and value, and the method and effect of its removal.” *Murray*, 908 F.3d at 449 (Murguia, J., dissenting) (quoting *Heinatz*, 217 S.W. 2d at 995–96). While one portion of this inquiry is indeed whether a substance is “rare and exceptional,”

*Farley*, 890 P.2d at 380, the panel incorrectly relied almost exclusively on this single factor. In applying this limited approach, the panel failed to recognize that a fossil’s mineral content is far from “rare and exceptional.” Although amici enthusiastically agree that the Montana Fossils themselves are rare and exceptional, their value comes almost entirely from the information they convey about ancient life. Their mineral content has only nominal value.

As large as the Montana Fossils are, they would fetch no more than a few thousand dollars if sold for their mineral content.<sup>11</sup> Unsurprisingly, the Bonhams auction press release announcing the “dueling dinosaurs” did not describe them as valuable mineral deposits; it focused on their ability to “provide groundbreaking insight into life on earth during the Cretaceous period.”<sup>12</sup>

The panel thus compounded its initial scientific misunderstanding by focusing its “ordinary and popular meaning” inquiry on the value of the fossils without regard to the non-mineral source of that value. *Murray*, 908 F.3d at 444, 447. This error, combined with its scientific error in overlooking the biological origin of fos-

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<sup>11</sup> Commercial exploitation of substances such as hydroxyapatite is primarily as phosphate ores used in plant fertilizer or industrial chemicals. See James A. Kent, *Riegel’s Handbook of Industrial Chemistry* 347, 350 (9th ed. 1992).

<sup>12</sup> See *T-Rex and Triceratops Join the Montana Dueling Dinosaurs at Bonhams New York, Bonhams*, [https://www.bonhams.com/press\\_release/14882/](https://www.bonhams.com/press_release/14882/) (last visited Dec. 26, 2018).

silized bones, led to a novel and unsupported outcome defining “fossils” as “minerals” that is at odds with both science and generations of settled expectations. This Court should grant the Petition to correct these errors.

**III. Alternatively, Because This Case Presents a Novel State Law Question of Exceptional Importance, This Court Should Grant the Petition and Certify the Question to the Montana Supreme Court.**

As Judge Murguia observed, “[i]n spite of the novel question of law and the potential policy implications of this case, the parties did not request certification of this question to the Montana Supreme Court.” *Murray*, 908 F.3d at 448 n.1 (Murguia, J., dissenting).<sup>13</sup> Amici respectfully suggest that if the en banc Court does not correct the panel decision outright, it should nevertheless grant the Petition and certify the question to the Montana Supreme Court. Consistent with this Court’s practice, the extraordinary implications of the panel’s decision on a matter unique to Montana law favor Montana’s courts deciding the issue in the first instance.

The Montana Supreme Court “may answer a question of law certified to it by a court of the United States” if “[t]he answer may be determinative of an issue in pending litigation in the certifying court,” and “[t]here is no controlling appellate decision, constitutional provision, or statute of [Montana].” Mont. R. App. P.

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<sup>13</sup> “Even though this course of action was not suggested by either party, [this Court] may properly certify a question sua sponte.” *J&J Celcom v. AT&T Wireless Servs., Inc.*, 481 F.3d 1138, 1141 n.2 (9th Cir.), *certified question answered*, 169 P.3d 823 (Wash. 2007).



15(3). This case satisfies Montana’s standard, as well as this Court’s own standard for certifying such questions. Because “there is no controlling precedent of the Montana Supreme Court with regard to the issue of Montana law raised by this case,” *Bassett v. Lamantia*, 858 F.3d 1201, 1204 (9th Cir. 2017), *certified question answered*, 417 P.3d 299 (Mont. 2018), granting the Petition and certifying the question would be a far better outcome than leaving the panel’s existing decision undisturbed.

To date, the Montana Supreme Court has considered whether a particular substance counts as a “mineral” on only two occasions. First, in *Farley*, 890 P.2d 377, the court decided that “scoria,” a substance used in roadway construction, is not one. Acknowledging that this issue “has been the source of considerable confusion in mineral law litigation nationwide,” *id.* at 379, the court pointed to inconsistent definitions among Montana statutes, canvassed other states’ decisions, and ultimately held that “scoria” is not a mineral. Second, in *Hart v. Craig*, 216 P.3d 197 (Mont. 2009), the court applied *Farley* and held that sandstone is not a mineral. As this litigation has amply demonstrated, neither case resolves the instant question, given the distinctiveness of fossil resources. While the panel attempts to predict how those cases may be applied here, ultimately, the Court has ventured into uncharted state-law waters.

Although “mere difficulty in ascertaining local law is no excuse for remitting the parties to a state tribunal for the start of another lawsuit,” certification “in the long run save[s] time, energy, and resources and helps build a cooperative judicial federalism.” *Lehman Bros. v. Schein*, 416 U.S. 386, 390–91 (1974) (citing *Meredith v. Winter Haven*, 320 U.S. 228 (1943)). Absent correction en banc, this case is an ideal candidate for certification. As outlined above, resolution of this Montana law issue will have profound implications for the scientific community not only in Montana, but around the world. It is an issue of “exceptional importance,” Fed. R. App. P. 35(b)(1)(B), whose resolution by the Montana Supreme Court will be “determinative” of this lawsuit, Mont. R. App. P. 15(3), and should be certified.

### CONCLUSION

For the foregoing reasons, as well as the reasons set forth in Plaintiffs-Counter-Defendants-Appellees’ brief, Amici Curiae respectfully request that the Court grant the Petition and reverse the panel’s decision or, alternatively, grant the Petition and certify the question to the Montana Supreme Court.

Respectfully submitted,

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December 29, 2018

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**UNITED STATES COURT OF APPEALS**  
**FOR THE NINTH CIRCUIT**

**Form 8. Certificate of Compliance for Briefs**

**9th Cir. Case Number(s):** No. 16-35506

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**This brief contains** 4,134 **words**, excluding the items exempted by Fed. R. App. P. 32(f). The brief's type size and typeface comply with Fed. R. App. P. 32(a)(5) and (6).

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Respectfully submitted,

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