In the United States Court of Federal Claims

No. 11-884 Filed: October 7, 2014

************ The California Desert Conservation * Act, 43 U.S.C. § 1781; * The California Desert Protection Act, 16 U.S.C. § 1410aaa-7j; The Common Varieties Act, REOFORCE, Inc., Theodore SIMONSON, and * 30 U.S.C. § 611; Ronald STEHN, The Federal Land Management and Policy Act of 1976, 43 Plaintiffs, U.S.C. § 1701 et seq.; The Mining Law of 1872, V. 30 U.S.C. §§ 22-54; Takings Clause of the Fifth THE UNITED STATES, Amendment to the United States Constitution, U.S. Const. amend. V, Defendant. cl. 4; Unpatented mining claims; 28 U.S.C. § 2501 (statute of limitations); RCFC 12(h)(3) (lack of subject matter jurisdiction).

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MEMORANDUM OPINION AND FINAL ORDER

BRADEN, Judge.

On August 7, 1995, the United States Department of Interior's Bureau of Land Management ("BLM" or the "Government") entered into a Memorandum of Understanding ("MOU") concerning the potential transfer of certain federal land to the State of California ("California" or the "State"). In this case, it is alleged that the BLM effected a taking of Plaintiffs' unpatented mining claims on this land from the date the MOU issued until May 12, 2008, when the validity of Plaintiffs' property rights on three of these claims was recognized.

To facilitate a review of this Memorandum Opinion and Order, the court has provided the following outline:

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I. THE RELEVANT FEDERAL STATUTES AND REGULATIONS GOVERNING UNPATENTED MINING CLAIMS.

A. The 1872 General Mining Law.

In 1872, Congress enacted 30 U.S.C. §§ 22–54 ("the General Mining Law") that provides:

[A]ll valuable mineral deposits in lands belonging to the United States, both surveyed and unsurveyed, shall be free and open to exploration and purchase, and the lands in which they are found to occupation and purchase, by citizens of the United States . . . under regulations prescribed by law[.]

30 U.S.C. § 22.

The General Mining Law "made public lands available to people for the purpose of mining valuable mineral deposits," with the aim of "reward[ing] and encourag[ing] the discovery of minerals that are valuable in an economic sense." *United States v. Coleman*, 390 U.S. 599, 602 (1968); *see also Cal. Coastal Comm'n v. Granite Rock Co.*, 480 U.S. 572, 595 (1987) (Powell, J., concurring in part and dissenting in part) ("In general, [the General Mining Law of 1872] opens the public lands to exploration. If one discovers valuable mineral deposits, the statute grants him the right to extract and sell the minerals without paying a royalty to the United States, as well as the right—subject to certain statutory requirements—to obtain fee title to the land.").

To secure rights under the General Mining Law, a claimant first must "locate" a valid mining claim on federal lands, physically mark the boundaries of the claim, post a discovery monument and notice, and satisfy other applicable statutory and regulatory requirements. See 30 U.S.C. § 28 (enumerating the requirements for "location" of a mining claim, including distinctly marking the boundaries of the claim and maintaining adequate records concerning the date of location and boundaries of the claims); see also United States v. Locke, 471 U.S. 84, 86 (1985) ("Discovery' of a mineral deposit, followed by the minimal procedures required to formally

'locate' the deposit, gives an individual the right of exclusive possession of the land for mining purposes[.]"). But the location of a mining claim is only the first step in the process, because "a mining claimant acquires no vested rights by location of a mining claim. Even though a claim may be perfected in all other respects, *unless and until a claimant is able to show that the claim is supported by a discovery of a valuable locatable mineral within the boundaries of the claim*, no rights are acquired." *United States v. Rocky Conner*, 139 IBLA 361, 365 (1997) (emphasis added).

For mining claims² located on areas designated as "Limited Use" or "Class L" lands, the BLM requires an operator to submit and obtain approval of a plan of operations "before beginning operations greater than casual use." 43 C.F.R. § 3809.11(a). This requirement has been in place since 1980, when the BLM promulgated surface management regulations for mining operations, to prevent "unnecessary or undue degradation of federal lands which may result from operations authorized by the mining laws." NOTICE OF FINAL RULEMAKING, 45 FED. REG. 78,902, 78,909 (Nov. 26, 1980); *see also id.* at 78,911 (promulgating 43 C.F.R. § 3809) ("An approved plan of operations is required prior to commencing . . . [a]ny operation, except casual use, in . . . [the] California Desert Conservation Area"); 43 C.F.R. § 3809.1-4 (1983) ("An approved plan of operations is required prior to commencing . . . [a]ny operation, except casual use, in . . . [1]ands in the California Desert Conservation Area designated as 'controlled' or 'limited' use areas[.]"); 43 C.F.R. § 3809.1-4 (1994) (same); 43 C.F.R. § 3809.11(c) (same); 43 C.F.R. § 3809.11(c)(1) (2014) (same).

The BLM requires that a plan of operations must include: operator information; a description of the mining operations to be undertaken; maps; water management plans; and other information "sufficient for BLM to determine that the plan of operations prevents unnecessary or undue degradation." 43 C.F.R. § 3809.401. Once a plan of operations is approved, an operator is entitled to begin mining, consistent with the plan and applicable statutory and regulatory requirements. See 43 C.F.R. § 3809.412 ("You must not begin operations until BLM approves your plan of operations[.]"); see also 43 C.F.R. § 3809.415(a) (obligating a mining claimant to comply with "the terms and conditions of your notice or approved plan of operations and other Federal and State laws related to environmental protection and protection of cultural resources"); 43 C.F.R. § 3809.3 (requiring a mining claimant to follow state laws or regulations for operations on public lands, unless they conflict with the BLM's regulations). When a mining

The mining claims at issue in this case are located within the California Desert Conservation Area, established by Congress in 1976, pursuant to Section 601 of the Federal Land Management and Policy Act. *See* 43 U.S.C. § 1781 (establishing the California Desert Conservation Area "to provide for the immediate and future protection and administration of [those] lands . . . within the framework of a program of multiple use and sustained yield, and the maintenance of environmental quality"). The claims are located on lands designated as "Limited Use" or "Class L" lands. JSF ¶ 5 ("The El Paso placer claims and Big Jim Lode claim were and are located within the Conservation Area on land that the [BLM] has designated as 'Limited Use' or 'Class L' lands.").

³ "Casual use," is defined as "activities ordinarily resulting in no or negligible disturbance of public lands or resources." 43 C.F.R. § 3809.5.

operator decides to make changes to the "operations described in [the] approved plan of operations," the operator is requires to submit, and have approved, a modified plan of operations. See 43 C.F.R. § 3809.431; see also id. § 432(a) (explaining that the "BLM will review and approve a modification of your plan of operations in the same manner as it reviewed and approved your initial plan [of operations]").

As a matter of law, the "location" of a mining claim and an approved plan of operations do not convey a compensable property interest to extract and sell minerals. *See Skaw v. United States*, 13 Cl. Ct. 7, 28 (1987), *aff'd*, 847 F.2d 842 (Fed. Cir. 1988) ("Until the discovery of a *valuable mineral deposit*, the locator has only a gratuity from the United States.") (emphasis added); *see also id.* ("A valuable mineral deposit is an occurrence of mineralization of such quantity and quality as to warrant a person of ordinary prudence in the expenditure of time and money in the development of a mine and the extraction of the mineral."); *Payne v. United States*, 31 Fed. Cl. 709, 711 (1994) ("[A] finding that the unpatented claim is valid against the United States . . . can only be made if there has been a discovery of [a] mineral within the limits of the claim.").

A "discovery" sufficient to vest a claimant with a compensable property right requires that the claimant physically must locate a mineral deposit that is "of such a character that 'a person of ordinary prudence would be justified in the further expenditure of his labor and means, with a reasonable prospect of success, in developing a valuable mine." *Best v. Humboldt Placer Min. Co.*, 371 U.S. 334, 335–36 (1963) (holding that unpatented mining claims are "valid against the United States if there has been a discovery of mineral within the limits of the claim") (quoting *Castle v. Womble*, 19 Pub. Lands Dec. 455, 457 (1894)). A mining claimant also must establish that "the mineral can be 'extracted, removed, and marketed at a profit." *Coleman v. United States*, 390 U.S. 599, 600 (1968).

To determine if a discovery has been made, the BLM conducts a validity examination, also referred to as a valid existing rights ("VER") determination. See Freeman v. United States, 83 Fed. Cl. 530, 533 (2008) (recognizing that the BLM has primary jurisdiction to determine the validity of mining claims, and that "a validity determination of the mining claims is necessary to establish a compensable property interest"); see also Vane Minerals (US), LLC v. United States, 116 Fed. Cl. 48, 57 (2014) ("The BLM and Forest Service must conduct a valid existing rights determination to ascertain whether a claimant has made a discovery of a valuable mineral deposit[.]"); Ware v. United States, 57 Fed. Cl. 782, 786 (2003) ("The determination of validity has been placed by Congress in the hands of the Department of the Interior."); Pavne, 31 Fed. Cl. at 712 (staying a case to allow the BLM to undertake "a validity determination" of unpatented mining claims, because that "determination has to be made before plaintiffs could recover"). If the BLM determines that a claimant has not discovered a valuable mineral deposit, it will initiate contest proceedings before an administrative law judge at the Department of the Interior. See 43 C.F.R. § 4.451-1 (allowing the Government to "initiate contests for any cause affecting the legality of validity of any . . . mining claim"); see also Cook v. United States, 85 Fed. Cl. 820, 824 (2009) (explaining that the BLM has authority to "file an administrative contest proceeding if the [G]overnment finds that the mining claim does not in fact contain a discovery of a valuable mineral deposit"). And, a mining claimant has the right to appeal an administrative law judge's adverse decision to the Interior Board of Land Appeals ("IBLA") and then to appeal to a United States District Court, pursuant to the Administrative Procedure Act, 5 U.S.C. § 551.

Aulston v. United States, 823 F.2d 510, 513 (Fed. Cir. 1987) ("Although judicial review of the IBLA determination is not precluded, Congress has vested review in the district courts, not in the [United States Court of Federal Claims]"). Indeed, where the BLM has "decided that the United States (not the claimants) own the disputed [mining claims], the [United States] Court of [Federal] Claims [can]not review or overturn that administrative determination, even though that court indisputably ha[s] jurisdiction over 'taking' claims." *Id.* at 514.

Provided that a claimant makes a discovery and complies with applicable regulations, the owner of unpatented mining claims has the right to extract minerals from the ground, but the Government maintains fee simple in the land. *See Best*, 371 U.S. at 335–36 (describing unpatented mining claims as "a possessory interest in land that is 'mineral in character'"); *see also Kunkes v. United States*, 78 F.3d 1549, 1554 (Fed. Cir. 1996) (explaining that, with an unpatented mining claim, "[t]itle to the land remains with the United States, and the unpatented mining claim holder has the right to use the Government's fee simple estate for mining purposes").

It is established that unpatented mining claims are property within the protection of the Fifth Amendment's prohibition against uncompensated takings. See Kunkes, 78 F.3d at 1551. But, the Government "maintains broad powers over the terms and conditions upon which the public lands can be used, leased, and acquired," and it retains significant regulatory authority over unpatented mining claims. See Locke, 471 U.S. at 104. For example, a claimant may only use the land encompassing an unpatented mining claim in ways that are "reasonably incident to mining," be required to pay annual maintenance fees, or forfeit the claims for failure to meet other certain statutory and regulatory requirements. See Michael v. United States, 549 Fed. App'x 960, 961 (Fed. Cir. 2013) (enumerating limitations on the scope of an unpatented mining claimant's property right); see also Kunkes, 78 F.3d at 1551.

In sum, as a matter of law, Congress authorized the Government, "after proper notice and upon adequate hearing, to determine whether the claim is valid and, if not to declare it null and void." *Cameron v. United States*, 252 U.S. 450, 460 (1920).

B. The 1955 Common Varieties Act.

In 1955, Congress enacted the Common Varieties Act, 30 U.S.C. § 611, that withdrew certain "common varieties" of minerals, such as sand, gravel, pumice, and pumicite, from the General Mining Law. See 30 U.S.C. § 611 ("No deposit of common varieties of sand, stone, gravel, pumice, pumicite, or cinders and no deposit of petrified wood shall be deemed a valuable mineral deposit within the meaning of the mining laws of the United States so as to give effective validity to any mining claim hereafter located under such mining laws[.]"). Mineral deposits that "ha[ve] some property giving it distinct and special value," however, are excluded from the Common Varieties Act, and are subject to private ownership, i.e., they are "locatable," under the General Mining Law. Id. These types of mineral deposits are referred to as "uncommon variety minerals." Copar Pumice Co. v. United States, 112 Fed. Cl. 515, 521 (2013).

To ascertain whether a deposit constitutes an uncommon variety, the BLM prepares a "mineral examination report," 43 C.F.R. § 3809.100(a), known as a "common variety

determination[.]" *See Cook*, 85 Fed. Cl. at 824 (construing Section 3809.100 as requiring a "common variety determination"). A mineral examination report may confirm a mineral's status as an "uncommon variety." *Id.* at 824.

C. The California Surface Mining And Reclamation Act of 1975.

In 1995, California's Surface Mining and Reclamation Act of 1975 ("SMARA") was enacted that requires a mine operator must have an approved plan in place before it may reclaim lands surrounding a mine after operations cease, by "ripping all compacted aboveground surface disturbance, followed by the recontouring, stabilization, and approximation of the soil surface against the long-term effects of erosion." Cal. Pub. Res. Code § 2710; DX-131; *see also Nelson v. Cnty. of Kern*, 190 Cal. App. 4th 252, 259 n.3 (2010) ("SMARA requires reclamation plans for surface mining operations in California after 1975 . . . and provides that 'no person shall conduct surface mining operations unless a permit is obtained from, a reclamation plan has been submitted to and approved by, and financial assurances for reclamation have been approved by, the lead agency for the operation pursuant to this article." (quoting Cal. Pub. Res. Code. § 2770)). A bond and reclamation plan is required only for aboveground mines, but if an underground mine has more than one-acre of total surface area disturbance, SMARA does apply. DX-131.

D. The 1976 Federal Land Policy And Management Act.

In 1976, Congress enacted the Federal Land Policy and Management Act ("FLPMA") to administer public lands more efficiently and comprehensively by balancing environmental, economic, and federalism concerns. *See* 43 U.S.C. § 1701(a)(1)–(13) (enumerating the polices of FLPMA). Pursuant to Section 204, the Secretary of the Interior (the "Secretary") is authorized to withdraw certain public lands from location and entry from the General Mining Law. *See* 43 U.S.C. § 1714(a) ("[T]he Secretary is authorized to make . . . withdrawals[,] but only in accordance with the provisions and limitations of this section."); *see also id.* § 1702(j) (providing that "withdrawal' means withholding an area of Federal land from settlement, sale, location, or entry, under some or all of the general land laws"). The Secretary also has authority to "segregate[]" lands from the operation of the public lands laws of the United States for a limited period of time, by publishing notice of the segregation in the Federal Register. *See* 43 U.S.C. § 1714(b)(1).

A withdrawal prohibits establishment of new mining claims on public lands but does not extinguish claims of the discovery of a valuable mineral deposit that was made prior to the date of withdrawal. *See Skaw*, 13 Cl. Ct. at 28 ("When land is closed to location under the mining laws subsequent to the location of a mining claim, the validity of the claim cannot be recognized unless the claim was supported by a valid discovery at the time of the withdrawal."); *see also Cameron*, 252 U.S. at 456 (holding that a mining claim is valid if "there is an adequate mineral discovery within the limits of the claim" that "preceded the creation of [the] reserve [that withdrew the lands]").

E. The 1976 California Desert Protection Act and the 1994 California Desert Protection Act.

In 1976, Congress also enacted the California Desert Conservation Protection Act. *See* 43 U.S.C. § 1781(d) (directing the Secretary to "prepare and implement a comprehensive, long-range plan for the management, use, development, and protection of the public lands within the California Desert Conservation Area"). On October 31, 1994, the California Desert Protection Act ("CDPA") was enacted that directed the Secretary to transfer certain lands within the California Desert Protection Area to the State for inclusion in Red Rock Canyon State Park. *See* 16 U.S.C. § 410aaa-71.

II. THE RELEVANT FACTS.⁵

A. Activities Regarding Plaintiffs' Unpatented Mining Claims From The Early July 1995.

In the early 1980's, Theodore Simonson ("Mr. Simonson") began to explore pumicite deposits in California and hired Dr. Charles Chesterman to assist in that effort. PX-1. In November 1983, Mr. Simonson and his then-wife located twenty-one, forty-acre placer mining claims in Kern County, California, under the General Mining Law. JSF \P 1. In November 1983, four mill site claims also were located in Kern County, California. JSF \P 3. These claims were named as "El Paso 1" through "El Paso 21." JSF \P 1. Thereafter, Mr. Simonson drilled an exploratory hole on the El Paso 6 claim to determine the thickness of the "Reoforce pumicite"

⁵ The relevant facts discussed herein were derived from: a September 16–23, 2013 trial ("TR 1–1360"), where the court heard testimony and admitted: Joint Exhibits ("JX-3–81"); Plaintiffs' trial exhibits ("PX-1–445"); and the Government's trial exhibits ("DX-2–246"). In addition, the parties submitted a Joint Stipulation of Facts ("JSF 1–26").

⁷ Pumicite is a naturally occurring amorphous (without crystal form) silica that is white to faint gray with "less than one percent iron, and [] composed mostly of micron sized glassy grains of rhyolitic composition with some smectite and traces of calcite, quartz, feldspar, and cristobolite." PX-42. Plaintiffs refer to the pumicite in this case by the name "Rheoforce" or "Rheolite" at different points in time. PX-3 (1987 Reoforce Business Plan) (describing "Rheoforce [as] the product, the concept and the company"); 9/16/13 TR 47 (Simonson). Herein, the court will refer to this mineral as "Reoforce pumicite."

⁸ A lode claim is "[a] classic vein, ledge, or other rock in place between definite walls. A lode claim is located by metes and bounds." BLM, *Mining Claims and Mill Sites*, http://www.blm.gov/ca/st/en/info/iac/faqmc.html (last visited September 16, 2014); *see also* 43 C.F.R. § 3832.21(a). Placer mining claims include "[a]ll deposits, other than lodes." BLM, *Mining Claims and Mill Sites*, http://www.blm.gov/ca/st/en/info/iac/faqmc.html (last visited September 16, 2014); *see also* 43 C.F.R. § 3832.21(b).

⁹ "A mill site is a location of nonmineral land not contiguous to a vein or lode that you can use for activities reasonably incident to mineral development on, or production from, the unpatented or patented lode or placer claim with which it is associated." 43 C.F.R. § 3832.31.

deposit. 9/23/13 TR 1287 (Simonson). That effort confirmed the presence of a pumicite deposit that was 14 feet thick in some locations, extending to 28 feet thick in others. *Id.* This was the only drilling that Mr. Simonson conducted prior to the BLM entering into the MOU in August 1995. 9/17/13 TR 492–93 (Simonson).¹¹

In January 1984 and March 1985, two other placer claims were located and named as "El Paso 22" and "El Paso 23." JSF ¶ 1. Around this time, however, Mr. Simonson also learned that certain fillers and extenders, such as crystalline silica, were carcinogenic. 9/16/13 TR 60 (Simonson); PX-96 (describing natural silica as "contain[ing] high levels of crystalline quartz and crystabolite[,] which are potential carcinogens"). Consequently, Mr. Simonson had testing performed on "Reoforce pumicite" to determine if it contained any quartz, rendering it potentially carcinogenic. 9/16/13 TR 61 (Simonson). In a January 30, 1984 letter from John A. Klasic, Chair of the Earth Sciences Department at California State Polytechnic University at Pomona to Steve Ryland, a geologist who Mr. Simonson hired to assist with the development of the mining claims, Professor Klasic explained that he "doubt[ed] if there is quartz in the [pumicite] sample." PX-6. But Professor Klasic also cautioned that, while the "analysis was easy . . . , the interpretation is pure speculation." PX-6.

In 1984, Mr. Simonson also contacted Steven Driscoll, a Professor of Plastics Engineering at the University of Lowell in Massachusetts and asked him to analyze "Reoforce pumicite" to ascertain its potential use by the plastics industry. 9/16/13 TR 45–47 (Simonson). In May 1984, Professor Driscoll prepared and presented a report at the Society of Plastic Engineers Annual Technical Conference that analyzed the benefits of using "Reoforce pumicite" as a mineral filler. The Report concluded that "Reoforce pumicite" "offers some very attractive advantages," including: (1) use as a filler in polypropylene, as it led to comparable tensile properties and flexural strength, improved flexural modulus, and improved hardness/scratch resistance and "improved handling and processability;" and (2) use as a filler in ABS, where it led to improved tensile strength, tensile modulus, flexural strength, flexural modulus, impact strength, and improved hardness/scratch resistance and improved handling and processability. PX-7.

In September 1985, Mr. Simonson obtained, via quitclaim deed, a twenty-acre unpatented mining lode claim, identified and named the "Big Jim Lode claim," that overlapped portions of an existing claim named El Paso 6 and El Paso 22. JSF \P 4.

In January 1987, DL Laboratories compared the reflectance and opacity of various samples, including a sample comprising 100% Ti02 with one comprising a 40% (Ti02)/60% (a "Reoforce pumicite") mixture. PX-16. The results demonstrated that, as the percentage of

¹¹ This was contrary to other testimony. 9/11/13 Springer Direct Testimony, Dkt. No. 78-1, at 6 ("It is my understanding that only three holes had been drilled on the Reoforce claims before August 1995 and that, at most, two of those holes intercepted any pumicite.").

¹⁴ According to Professor Driscoll, "fillers" are classified as "extenders, functional, or reinforcements depending upon the degree of cost reduction and enhancement of functional properties in the polymeric material system." PX-7.

"Reoforce pumicite" increased, reflectance decreased significantly, but opacity was largely unchanged. PX-16. Another test was designed to "evaluate two natural glass fillers, [the "Reoforce pumicite" in two different sizes and Gold Bond R,] for potential use in typical interior flat latex wall paints," as an extender. PX-16. That test concluded that the 30 Micron size "Reoforce pumicite" functionally was equivalent, *i.e.*, neither inferior nor superior, to Gold Bond R, when used in polyvinyl or ethylene vinyl acetate latex flat paints. PX-16.

On February 9, 1987, Mr. Simonson submitted a Plan Of Operations ("POO") 17 to the BLM to mine approximately 100,000 tons per year from El Paso and Big Jim Lode claims. JSF ¶ 7.

On March 1, 1987, Steve Ryland, Mr. Simonson's geological consultant, provided BLM with an addendum to the POO. PX-42. On March 3, 1987, Rheoforce filed an Application for an Environmental Assessment, pursuant to the National Environmental Policy Act of 1969 ("NEPA"), 42 U.S.C. § 4321, requiring federal agencies to provide environmental reports and analysis requirements when undertaking "major Federal actions significantly affecting the quality of the human environment." 42 U.S.C. § 4332(C); PX-21 (March 3, 1987 Environmental Assessment). In March 1987, DL Laboratories also completed testing on "Reoforce pumicite," to "evaluate [the] natural glass fillers submitted by [Reoforce] as partial replacements for titanium dioxide in an Interior Latex Flat Paint." PX-19. Those results determined that "Reoforce pumicite" could serve as a replacement for Titanium Oxide ("Ti02") in certain paint formulations. PX-19 ("Based upon the results of this limited study, it appears that both the 16 and 30 micron glass fillers evaluated have potential as replacements for titanium dioxide in paint formulations."). In April 1987, DL Laboratories conducted additional testing, indicating that "Reoforce pumicite" could be used as a filler in paint and replace between 5–10% Ti02, without decreasing opacity. PX-42. As a result, Mr. Simonson scheduled mining operations to commence in May 1987 that were expected to yield an annual production of 100,000 tons by 1989. JX-06.

On May 20, 1987, the BLM issued an Environmental Assessment concluding that Reoforce's proposed mine development would not "result in a significant adverse impact to the environment, and therefore . . . that an Environmental Impact Statement [was not] . . . required under [NEPA.]" PX-21.

On May 28, 1987, the BLM, however, conditionally approved Reoforce's POO and addendum, subject to twenty stipulations, including that the "material, pumicite, approved for extraction under this [POO] is suspected by [the BLM] as not being subject to location under the General Mining Laws" but that a determination of that question would be made at an unspecified time. PX-22. Mr. Simonson specifically was advised that, although "[y]our [POO] . . . has been approved," Stipulation 1 states that, at some later time, the BLM will determine "whether the mining and removal of [pumicite] is permitted under the authority of the General Mining Law[.]"

¹⁷ The BLM requires claimants to submit a POO "before beginning operations greater than casual use." 43 C.F.R. § 3809.11(a). The BLM may revoke an approved POO, if an operator violates provisions in the POO. Generally, the BLM will not approve a POO until a mineral examination is conducted to determine whether a mining claim is valid.

PX-22. In addition, the BLM advised that if pumicite is not locatable under the General Mining Law, but was mined under an approved POO, Mr. Simonson would be required to pay a per-ton royalty rate to the BLM based on prevailing market conditions. PX-24 (explaining that, regardless of the outcome of the uncommon/common variety determination, Mr. Simonson "will in no way [be] preclude[d] or prevent[ed]" from mining his claims). Mr. Simonson decided it would be prudent not to begin mining until the BLM completed its common/uncommon variety determination. 9/16/13 TR 105–06 (Simonson).

On June 26, 1987, the BLM conducted a field examination of the Reoforce mining claims to ascertain whether the pumicite was a common variety and not "locatable." PX-42. But, on July 2, 1987, the BLM sent a letter to Mr. Simonson to clarify "some confusion, misconception, and anxiety," arising from Stipulation 1 in the May 28, 1987 approval and advise that, "[t]o put it simply, your mining plan of operation has been approved[.]" PX-24. But, the July 2, 1987 letter also stated that the BLM would, at some time in the future, "make a common/uncommon variety determination." PX-24. ¹⁹

On September 4, 1987, Mr. Simonson received preliminary test results from Dr. Steven Blazey of A. Schulman Inc. ("Schulman"), an international supplier of high-performance plastic compounds and resins. Dr. Blazey indicated that "Reoforce pumicite" was a "high quality specialty silicate which imparts very good antiblock properties²⁰ to high quality polyolefin films," and asked whether "Reoforce pumicite" was approved by the United States Food and Drug Administration ("FDA") for consumer use. DX-74.

Unfortunately, this puts the operator in a predicament since the feasibility of his operation rests [on] being able to access this material under some form of appropriation. In addition, the operator is claiming that the use and qualities of the pumicite warrants an "uncommon variety" determination. . . . If the operator proceeds under his plan, he risks a possible adverse determination and possible trespass action.

PX-28. Accordingly, the District Manager recommended that a BLM mineralogist be assigned to "expedite a determination of the common variety of the subject pumicite." PX-28.

¹⁹ An undated memorandum from BLM's California Desert District Manager to the BLM's California State Director that appears to be of contemporaneous origin, explained that this situation placed Mr. Simonson in precarious position:

²⁰ Antiblocking agents, also known as antiblock, are additives commonly used in plastic films and are designed to "create[] space between 2 plastic layers (surface roughness), preventing so-called blocking." A. Schulman Europe, *Additive Antiblock*, http://www.aschulman.com/Europe/Masterbatch/CategoryPlusFunctionality/84096/3/Additive-Antiblock.aspx (last visited Sept. 30, 2014); *see also* PX-111 (August 1994 paper written by Dr. Steven Blazey and Dr. Valerie A. Hill, describing antiblock as "inorganic mineral or organic particles (of certain particle size) which are compatible with [low-density polyethylene] and are added into films to roughen the surface and permit air to enter to allow easy separation of the film layers.").

In October 1987, Mr. Simonson also decided to develop an underground pumicite mine on the twenty-three placer mining claims previously located (El Paso 1 through El Paso 23) and started the Rheoforce Filler Company, subsequently incorporated as the Rheoforce Corporation. JSF ¶ 2. At this time, "Mr. Simonson was the company's sole officer and shareholder." *Id.* In October 1987, Mr. Simonson also hired Abel Banhov as a consultant to complete a Business Plan for Reoforce focused on generating investor interest to obtain "financing of \$4,000,000 to bring [Reoforce] to commercial reality." PX-3. The Business Plan outlined strategic steps that Reoforce needed to take to compete in select markets and synthesized testing results obtained to date, including information pumicite deposits on the twenty-three unpatented placer mining claims. PX-3. The Business Plan also included information and analysis suggesting that "Reoforce pumicite" could be used as a substitute for 5% to 10% of the Ti02, that was used, at the time, as a "hiding pigment [to increase opacity] . . . in paint, ink, rubber, paper and plastics." PX-3.

Sometime in 1987, Mr. Simonson also began discussing the potential sale of Reoforce to Placer Dome US, a large commercial mining company. 9/16/13 TR 161–63 (Simonson). At that time, Placer Dome US allegedly offered Mr. Simonson \$100,000 to purchase the Reoforce deposit that Mr. Simonson refused. 9/16/13 TR 163 (Simonson).

In February 1988, DL Laboratories also performed other tests to evaluate "Reoforce pumicite" as a replacement for calcined clay in ceiling paint and concluded:

- 1. Based upon the results of this study, [Reoforce] 16 Micron Glass Filler is essentially equivalent in performance to Huber 70C to the extent tested.
- 2. [Reoforce] 16 Micron Glass Filler exhibits slightly higher opacity and rewetted opacity.

PX-26.

In March or April 1988, Mr. Simonson and Carl Engelhardt, a retained consultant, formulated four different paints using "Reoforce pumicite" in the 16 micron size, to reduce the use of Ti02. DX-94; PX-32. In an April 13, 1988 letter to Imperial Chemical Industries P.L.C., Mr. Engelhardt estimated that using "Reoforce pumicite" could save between 10 and 17 pounds of Ti02/100 gallons. PX-29. But, he clarified that, to obtain the maximum Ti02 savings using "Reoforce pumicite," it was necessary to add the pumicite "in the letdown [phase] at slow speed for 5 minutes[.]" PX-29.

In June or July 1988, Mr. Simonson had preliminary discussions with Engelhard Corporation about a partnership with "respect to future commercial development of [Reoforce] as a company, and ["Reoforce pumicite"] as a product line." PX-30. Thereafter, John Thies, a Fidelity Management employee with responsibility for overseeing investments in the plastics field and an "adviser" to Mr. Simonson, explained to Engelhard Corporation that any partnership with Reoforce must have two non-negotiable requirements: (1) Mr. Simonson and Mr. Thies had to maintain majority ownership of Reoforce and "control of the reserves through early commercial development;" and (2) Mr. Simonson and Mr. Thies required project financing. PX-30; 9/16/13 TR 118–21 (Simonson); PX-31 (July 14, 1998 letter from Mr. Simonson to

Engelhard Corporation). Engelhard Corporation responded that successful development of Reoforce would take several years of testing, analysis, and market development, and that Mr. Simonson would need to "cede control of all aspects of the project at the outset." PX-30. Mr. Simonson decided not to pursue a partnership with Engelhard Corporation. 9/16/13 TR 122 (Simonson). In an unaddressed August 1, 1988 marketing letter, Mr. Engelhardt explained that "testing has shown that ["Reoforce pumicite"] will produce equal or better paint quality and depending upon the [pigment volume concentrate ("PVC")] an 8 to 20% of additional savings of Titanium Dioxide with lower raw material costs." PX-32. Thereafter, Mr. Engelhardt promoted "Reoforce pumicite" as an extender and partial replacement for Ti02 to various paint companies. PX-29; PX-32; PX42; DX-94 (all letters from Engelhardt describing positive attributes of "Reoforce pumicite").

During the summer of 1988, Mr. Simonson also sent a batch of "Reoforce pumicite" to Suntec Paint Inc. ("Suntec"), a paint company that had been searching "for an extender which would provide [them] with further savings of Ti02 without affecting the physical properties of [their] latex flat [paint] formulations." PX-34. In August 1988, Suntec tested "Reoforce pumicite" to make a "one hundred (100) gallon plant batch of [the] popular P.V.A. Latex Flat White Base [paint] at 65 PVC." PX-34. Typically, the formula for this paint contained 125 pounds of Ti02 and 50 pounds of Silica. PX-34. In this batch, however, Suntec used 110 pounds of Ti02 and 50 pounds of "Reoforce pumicite," in place of the silica, and concluded that the batch made with "Reoforce pumicite" was equal in performance to the standard formula and produced "a savings of 15 lbs. of Ti02 and a savings of 5 cents per gallon (with Rheolite 16M at .25/lb.)." PX-34. Subsequently, Suntec inquired when "Reoforce pumicite" in the 16 Micron size would be available to commercial paint manufacturers. PX-34.

On September 23, 1988, Mr. Engelhardt wrote a letter to the Engelhard Corporation estimating that using "Reoforce pumicite" in paint formulations could save a paint company approximately 5 to 40 cents per gallon, assuming that the price of "Reoforce pumicite" was 25 cents per pound and TiO2 was 99 cents per pound. PX-42.

In December 1988, Dr. Blazey of Schulman advised Mr. Simonson that "Reoforce pumicite" perhaps could be used as an "antiblock in polyolefin film packaging," and requested to be apprised of the continued development and production capabilities of Reoforce. DX-69.

In a January 10, 1989 letter, Suntec Paint explained that it was willing to purchase "Reoforce pumicite" (16 Micron size) at \$400 per ton (20 cents per pound), because it could save seven cents per gallon if "Reoforce pumicite" could be purchased at that price. PX-37. But, Suntec subsequently withdrew its interest in Reoforce. DX-189.

On February 24, 1989, PRA Laboratories performed tests that showed "Reoforce pumicite" could save 15% of Ti02 per gallon of flax white latex base paint. PX-38; PX-39.

By April 1989, Mr. Simonson located and claimed title to 23 additional unpatented placer mining claims (known as the El Paso placer claims) and one unpatented lode mining claim (known as the Big Jim Lode claim). PX-42.

On May 10, 1989, Lindsay Finishes Inc. advised Mr. Simonson that "Reoforce pumicite" could save paint manufacturers approximately 28 to 30 cents per pound by using less Ti02. PX-41

On May 20, 1989, based on a geological field examination, BLM finalized a Mineral Report about "Reoforce pumicite" deposits on the El Paso and Big Jim Lode claims ("1989 Mineral Report"). PX-42. The 1989 Mineral Report stated that "Reoforce pumicite" was "an uncommon variety and that its proposed use, and all of the potential uses, except soil conditions . . . clearly fall within a category of uncommon uses," and a locatable mineral under the General Mining Law. PX-42. It also determined that "Reoforce pumicite" could be used as a pigment-extender for latex flat paints, potentially serving as a partial replacement for TiO2. PX-42 (reporting that this pumicite "will replace Ti02 for about 5 to 10% by weight and 35 to 40% by volume, maintain a low luster (sheen) in contrast to Si02, enhance scrubbability, reduce weight, maintain opacity and whiteness, and cost less than Ti02"); PX-42 (listing the unique properties of "Reoforce pumicite," as "light weight, small grain size, low luster, opacity, durability, scrub resistance, whiteness, and so forth," and that it also could be used as an abrasive additive). But the 1989 Mineral Report did not conclude that Mr. Simonson made a discovery of a valuable mineral deposit under the General Mining Law and was not a validity determination.²¹ PX-42:012 ("The purpose of this study and report is to document the particulars of the common variety aspects of pumicite for use in latex flat paints. This is a common variety determination report and *not a mining claim validity report*."²² (emphasis added)); JSF $\P 9.^{23}$

On October 20, 1989, Mr. Simonson wrote to the FDA to ascertain whether "Reoforce pumicite" could be used as a filler and antiblocking agent for certain kinds of polyolefin films used for packaging food. On March 12 and April 25, 1990, that inquiry was supplemented. PX-49; 9/16/13 TR 109, 148 (Simonson).

On October 24, 1989, BLM's Area Manager of the Ridgecrest Office advised Mr. Simonson of the 1989 Mineral Report and approved Reoforce's 1987 POO that would expire in five years, *i.e.*, by October 24, 1994. PX-42.

²¹ The General Mining Law "authorizes American citizens to 'locate' valid mining claims after 'discovery' of valuable mineral deposits and compliance with applicable legal requirements." *Vane Minerals (US), LLC v. United States*, 116 Fed. Cl. 48, 55 (2014) (citing *Chrisman v. Miller*, 197 U.S. 313, 322–23 (1905)).

One of the ways that the BLM determines whether a mining claimant has made a discovery of a valuable mineral deposit is through a "valid existing rights determination." *Vane Minerals*, 116 Fed. Cl. at 57. Such a determination also is referred to as a "validity examination" or "a mining claim validity report." PX-42.

²³ On July 6, 1989, the 1989 Mineral Report was "reviewed and acknowledged" by the BLM's Associate District Manager, California Desert District, and was considered finalized. PX-42.

On February 20, 1990, English China Clay, Inc. ("English Clay") also tested "Reoforce pumicite" and concluded that:

The ["Reoforce pumicite"] gives a slight dirty and yellow cask to the paint. Because of this, the amount of ["Reoforce pumicite"] that can be used to replace the Ti02 has to be limited to \sim 10% or lower.

DX-94.

Around this time, the Technical Service Manager for English Clay also wrote several letters or communicated with Mr. Simonson and Placer Dome U.S., that it also was analyzing the characteristics of "Reoforce pumicite" to determine the potential value of a business relationship with Reoforce. DX-94.

On August 16, 1990, the FDA advised Mr. Simonson that "Reoforce pumicite" was "relatively inert," so that it was not necessary for him to submit additional information or file a "food additive petition." PX-49.

On May 30, 1991, Sovereign Gold Ltd. ("SG"), an Australian mining company proposed a joint venture with Mr. Simonson to develop "Reoforce pumicite," but stated that a successful commercial mining operation "requires much effort to carry from inception to the commercial stage." PX-55. Specifically, SG proposed to: (1) develop "a comprehensive business plan for the project" that included technical and business details, mining and processing plans, marketing plans, and a five year capital and operating budget that would be used to "develop financing for the project;" (2) allow Mr. Simonson to be "principally involved" in the marketing efforts, but SG would be responsible for "developing mine and construction plans, executing those plans," and managing the project prior to its commercial stage; and (3) manage the entire "precommercial" phase of the project through a management committee, but allow Reoforce "complete input," if SG's decision would be "final and binding on both parties in the event of dispute." PX-55. In exchange, Mr. Simonson needed to grant SG a two-year option on 50% interest of the project. PX-55. Mr. Simonson rejected that proposal. See 9/16/13 TR 154 (Simonson).

In June 1991, Edward F. McCarthy, a well-known executive in the industrial minerals business, completed a report analyzing potential markets for products utilizing "Reoforce pumicite" ("the McCarthy Report"). PX-56. The McCarthy Report concluded that: (1) milled "Reoforce pumicite" had the potential to capture approximately 55,000 tons per year

²⁵ It is unclear whether Mr. Simonson commissioned the McCarthy Report or whether it was a project conducted for Cyprus Minerals. *Compare* 9/18/13 TR 849 (Davis) ("Q. "And it's your assumption that [the McCarthy Report] was an independent report, correct? A. [Mr. McCarthy] told me it was an independent report."), *with* 9/16/13 TR 156–58 (Simonson) (explaining that he paid Mr. McCarthy \$2,000 to obtain "his honest opinion about the [pumicite] and what he felt he would do as a marketing person").

²⁶ In this context, "milled" means products "finer than 50 mesh and does not include construction aggregates, brick clays or glass sands." PX-56.

"at an average realization ex mill of close to \$200 per ton;" (2) major market opportunities for "Reoforce pumicite" were in coatings, but "Reoforce pumicite" could compete successfully in niche markets in plastics, rubber, and friction materials; and (3) based on the foregoing, Reoforce could generate an estimated annual revenue of \$10.9 million dollars. PX-56. But, the McCarthy Report cautioned that these conclusions would require that Reoforce engage in a "significant sales effort," undertake "significant technical and developmental support," and sell competitively priced products, assuming no significant changes in the regulatory atmosphere vis-à-vis crystalline silica and Volatile Organic Carbon. PX-56.

On July 8, 1991, English Clay observed that "Reoforce pumicite" would "primarily compete with crystalline silicas, feldspar, and (possibly) barytes as an extender for paint and other coatings. While [Reoforce pumicite's] brightness is not extraordinary in its natural form, it is quite acceptable for use in primers and intermediate coats." PX-436. In addition, English Clay observed that" Reoforce pumicite" potentially could compete with other types of fillers and extenders, such as talcs, wallastonites, nepheline syenite, and diatomaceous earth. PX-436. But, it also warned that the "carcinogenicity of crystalline silica has not become a major issue in the mineral filler/extender market place" and, although "Reoforce pumicite's" amorphous structure was a "major selling point" in the past, "[t]oday, it is relatively unimportant." PX-436.

On October 9, 1991, Norwegian Talc sent a letter to Mr. Simonson stating that "[a]ll parties agree in principle that your amorphous silica is unique in its properties and geological composition, and represent[s] a unique opportunity in the ever-increasing need to replace crystalline silica in a variety of end applications[.]" PX-67. But, the letter cautioned that the potential applications of "Reoforce pumicite" "need to be studied in more detail in order to quantify the amounts of material that can be sold in the next 5–10 years." PX-67. Further, this letter outlined several "steps to introduce and commercialize" "Reoforce pumicite," including custom grinding of the material in 6, 15, 45, and 60 plus micron sizes for uses as an antiblock, a filler in paints and plastics, and as a "purging compound." PX-67. And, the letter further explained that Norwegian Talc's interest in "Reoforce pumicite" was conditioned on several assumptions and revisions to Mr. Simonson's business plan. PX-67 (explaining that Norwegian Talc's interest was "under the assumption that [Mr. Simonson had] adequate resources, that you have met all legal requirements, that you comply with all prevailing laws and regulations, and that the material meets all relevant safety standards[.]"); *id.* ("In our view, the investment figures you presented in your business plan . . . should be critically reviewed and updated."). ²⁷

On October 20, 1991, the Technical Service Manager for English Clay sent another letter to Placer Dome U.S. describing the "Reoforce pumicite" deposit as "unique," with market potential, because it had a very low level of crystalline silica and "will have an application in the paint and plastics markets. . . . , probably be useful in caulks and sealants. . . . , [and] possibly be usable in inks, textiles, [and] fiberglass reinforced polyester (FRP) applications." PX-68. But, "Reoforce pumicite" "would compete on a segmental basis with products that [Placer Dome was] currently involved in selling/developing." PX-68.

²⁷ Sometime in 1991, Placer Dome resurrected its interest in exploring a joint venture with Reoforce. PX-66 (describing interest by Placer Dome in jointly developing Reoforce mining claims with Norwegian Talc Minerals).

On November 12, 1991, Placer Dome forwarded to Mr. Simonson "an analysis of two different ways in which [Reoforce] can be established from marketing, production and technical viewpoints." PX-70. First, Reoforce should focus its initial marketing endeavors on opportunities in the commercial coatings market, as the development work necessary to succeed in that market is "relatively straight forward; the required testing equipment is relatively inexpensive; and sales aids can be easily prepared for this market." PX-70. Second, a partnership was proposed with Reoforce. PX-70 (explaining that working with Reoforce on a "partnering basis . . . would be a good example of an approach that could be taken once specifications were established for a product that could be produced consistently").

On December 5, 1991, Mr. Simonson submitted an amendment to the approved May 20, 1987 POO to increase tonnage to 200,000 tons per year. JX-22.

On January 10, 1992, Placer Dome proposed a detailed arrangement to jointly "go forward with development of the [Reoforce] property as soon as possible" as it "holds the best chance for resolving land title issues" relating to the Reoforce mining claims. PX-76. The proposal explained that, "from [Placer Dome's] viewpoint, numerous uncertainties surround the project, not least of which is the apparent serious inadequacy of [Reoforce's] title to the claims . . . [which] is a serious obstacle to making a substantial investment with confidence." It also provided that Placer Dome would "stake string lode PX-76 (emphasis added). claims . . . along the outcrop of the pumicite bed in order to secure extralateral rights," have 20 acre placer claims staked over Mr. Simonson's existing 40 acre claims to "negate any possible future challenge" to Reoforce claims, and, when "the title issues are resolved, [all] claims will be assignable to [Placer Dome], or to Simonson if [Placer Dome] later withdraws." PX-76. Placer Dome also indicated that it might, at some unidentified time, initiate a quiet title action to Reoforce mining claims but require that Mr. Simonson indemnify Placer Dome for any "possible adverse outcome" from that action. PX-76. In addition, if Placer Dome was "satisfied with [Mr. Simonson's] title to the property," then it would have the option to explore and develop the property in return for an 80% equity interest in the property. PX-76. After Placer Dome obtained title to the Reoforce mining claims, it agreed to "retain [Mr.] Simonson's services as consultant and contractor for the marketing and sale of [the] product" for a period of three years at an annual rate of \$100,000, with the option to renew for additional years. PX-76. And, on commencement of commercial production, Placer Dome agreed to:

[m]ake a one-time payment to [Mr.] Simonson of \$100,000 for every 10,000 short tons of annual production (based upon the annual production as recommended in [a] feasibility study) capped at a sum of \$500,000. In the event of an increase in annual production beyond the initial production for which [Mr.] Simonson received payment under this provision, [Mr.] Simonson shall receive an additional one time payment of \$100,000 for every incremental 10,000 annual tons of production, still subject to the same total cap of \$500,000.

PX-76. In addition, Placer Dome agreed that Mr. Simonson would retain a 20% working interest in the property, if he provided Placer Dome with a right of first refusal and agreed to sell his interest. PX-76. Mr. Simonson declined that offer. 9/16/13 TR 164 (Simonson). Thereafter, the President of Placer Dome contacted Mr. Simonson to express an interest in coming to San

Francisco, California to discuss Placer Dome's continuing interest in Reoforce. 9/16/13 TR 165 (Simonson). Mr. Simonson refused. 9/16/13 TR 165 (Simonson).

On February 19, 1992, the BLM informed Mr. Simonson that a New Environmental Assessment was required "because of the proposed increase in the scale of operation[.]" PX-78.

Around March 1992, General Electric Silicones ("GE Silicones") inquired whether it could perform a plant evaluation of "Reoforce pumicite" and requested a minimum of 500 pounds (maximum of 750 pounds) to "verify the physical property profile, including shelf life and application testing" of the pumicite. DX-61. GE Silicones indicated that if this testing were successful, it may require "around 10,000lbs of ["Reoforce pumicite"] per week, rising to 20,000 lbs. per week within 1 year." DX-61. This interest was based on the carcinogenic nature of crystalline silicas. DX-61 ("Based on the . . . known health problems with crystalline silicas, [General Electric Silicones is] interested in evaluating these volcanic glasses."). In response, Mr. Simonson extracted approximately 750 pounds of "Reoforce pumicite" from the portal area using a compressor as a jackhammer. 9/16/13 TR 88 (Simonson) ("So we went out physically, and we bagged [the pumicite] up again . . . [and] I supplied 750 pounds of a precise material[.]"). After testing how "Reoforce pumicite" could repel the absorption of water, GE Silicones subsequently created a finished silicone spray, using pumicite in lieu of Min-U-Sil, a fine ground silica product used by GE Silicones. 9/16/13 TR 91 (Simonson); see also US Silica, Fine Ground Silica, http://www.ussilica.com/products/fine-ground-silica (last visited Sept. 29, 2014) (describing the benefits of silica). But, GE Silicones never executed any purchase orders from Mr. Simonson. 9/17/13 TR 513–14 (Simonson).

On May 8, 1992, the BLM informed Mr. Simonson that, based on the level of disturbance associated with the Reoforce mines, a SMARA Reclamation Plan and bond were required. JX-21. The BLM also explained that, because of an "access road . . . recently constructed on the Big Jim Lode Claim," Reoforce was not in compliance with Stipulations 3 and 7 of the 1987 POO, but did not issue a Notice of Non-Compliance. JX-21.

On May 18, 1992, the BLM issued a supplemental Environmental Assessment of Reoforce's 1991 proposed modification to the 1987 POO. PX-85. BLM explained that the proposed modification would increase the authorized production tonnage to 200,000 tons, resulting in an increase in the number of truck trips from 16 to 32. PX-85. Nevertheless, the BLM determined that the "direct and indirect of the proposed action are not significantly different than those identified in the [Environmental Assessment]." PX-85. Therefore, the BLM concluded that Reoforce's amended POO would have no significant adverse impact on the environment, so that no Environmental Impact Statement was required under the NEPA. PX-85.

On May 21, 1992, the BLM approved the BLM's supplemental environmental assessment, and informed Mr. Simonson that he was required to abide by the May 28, 1987 POO and five new stipulations to minimize impact on the desert tortoise. JX-22. Several of these stipulations, however, required "approval from BLM before any enlargement of the portal area, road construction, or underground mining may begin." JX-22.

On August 6, 1992, the Kern County Planning and Development Services Department informed Mr. Simonson that the Reoforce mining claims "would not come under the

requirements of [SMARA] as [they] did not disturb more than an acre of surface area." JX-23. Kern County advised, however, that if the project expanded in scope, a reclamation plan would be necessary. JX-23.

On November 18, 1992, Dr. Blazey of Schulman wrote Mr. Simonson a letter to express preliminary interest in using "Reoforce pumicite" as an antiblocking agent based on "some preliminary investigation," because the small micron size of "Reoforce pumicite"

works very well as an antiblock in oriented propylene films. These[] results are promising in lieu of the current use of synthetic silica which is priced at between \$1.60 and \$2.00 per pound. The market for synthetic silica in oriented propylene films is several million pounds per year. Although ["Reoforce pumicite"] may not completely overtake this market, the use of this material offers a definite cost/performance advantage over current synthetic silica.

PX-96.

Mr. Blazey also indicated that "Reoforce pumicite" had potential in other applications in paints and plastics. PX-96. Although natural silica was the "industry standard," in Dr. Blazey's opinion, the non-carcinogenic characteristics of "Reoforce pumicite" placed it in an advantageous market position. PX-96 (explaining that "Reoforce pumicite" showed "some initial promise" as an antiblocking agent, because "natural silica . . . contains high levels of crystalline quartz and crystabolite which are potential carcinogens").

On January 8, 1993, the BLM inspected the Reoforce mining claims to determine whether the mine portal area and adjacent roads negatively impacted the desert tortoise. DX-17.

On February 1, 1993, the BLM informed Mr. Simonson that he needed to submit "information required by Stipulations No. 5 and 8 of [Reoforce's May 28, 1987] approved plan [of operations] to [the BLM] as a proposed mine plan modification." DX-17. Specifically, Stipulation 5 required that Reoforce submit detailed engineering plans "prior to enlargement of the portal area and road construction" and Stipulation 8 required that Reoforce's POO was subject to approval of a "comprehensive road maintenance program," if and when Reoforce began commercially to mine its claims. PX-22.

In March and April 1993, approximately six years after the BLM approved Reoforce's POO on May 28, 1987, Mr. Simonson cleared the "portal area" or "staging area" on the south-easterly end of the El Paso 6 claim (later relocated as El Paso 6A), portions of the Big Jim Lode claim, and the El Paso 22 placer claim (later relocated as El Paso 22A). JSF \P 11. This work included blasting and grading. JSF \P 11.

In May 1993, a Mining Engineer and Professor at the Colorado School of Mines, completed an Underground Pumicite Mine Conceptual Design Report, commissioned by Mr. Simonson (the "1993 Colorado Mining Report"). PX-103. Based on the 1993 Colorado Mining Report, Mr. Simonson decided to mine the Reoforce claims, using a "room and pillar" method²⁹

²⁹ Room and pillar mining is a system where material is extracted across a horizontal plane, creating an array of horizontal rooms and pillars. "Pillars" of untouched mined material

that previously was used on the Cudahy or the Old Dutch Cleanser Mine. 9/16/13 TR 147–48 (Simonson). The 1993 Colorado Mining Report explained that this method was "designed to produce a high purity, uncontaminated, product by mechanically mining excavations entirely within the pumicite." PX-103. Mr. Simonson decided instead to use a large-scale cleaner to "vacuum the material out so it would never be exposed to quartz crystalline. It would go directly into the vacuum cleaner and then drop down into a 70-ton hopper[,]" several thousand feet from the mine. 9/16/13 TR 197, 348–49 (Simonson).

On July 18, 1994, Dr. Blazey sent Mr. Simonson a fax to follow-up on the progress of the mining and grinding of "Reoforce pumicite." PX-109. Therein, Dr. Blazey stated that although a competitor of Schulman, Techmer PM, expressed an interest in "Reoforce pumicite," Dr. Blazev "want[ed] A. Schulman to be the first to advertise and get this material on the market for sale." PX-109; see also 9/19/13 TR 1072 (Blazey).

On August 4, 1994, Mr. Simonson renamed Rheoforce Corporation as Reoforce, Inc. under the laws of the State of Delaware. JSF ¶ 15. Later that month, Kern County informed Mr. Simonson that, should the Reoforce mines disturb in excess of one-acre, a reclamation plan was required under SMARA. JX-28. Mr. Simonson did not submit a reclamation plan. 9/16/13 TR 189 (Simonson).

Between August 10 and 11, 1994, Dr. Blazey, in collaboration with Dr. Valerie Hill of Schulman, presented a paper to the Clemson University Technical Conference ("the 1994 Paper") on the potential for replacing crystalline silica in polyethylene films. PX-111. This paper analyzed the performance characteristics of different antiblocking substances, including an unnamed "natural silica (volcanic glass)." It concluded that an unidentified "natural silica (volcanic glass)" exhibited equal antiblocking performance to the industry standard crystalline silica and was not hazardous. PX-111.³¹

On August 31, 1994, however, Mr. Simonson failed to pay the BLM statutorily-mandated maintenance fees for the El Paso placer claims, Big Jim Lode claim, and mill site claims, so that the BLM declared these claims were forfeited by operation of law. JSF ¶ 12.

On September 26, 1994, Mr. Simonson and Ronald Stehn re-identified and relocated twenty-three placer mining claims that they named "El Paso 1A" through "El Paso 23A." JSF ¶ 13. Each "A" claim corresponded with the original El Paso mining claims that Mr. Simonson

are left in place to support the roof of mine, while the "rooms" are extracted before the pillars are partially extracted. See Kentucky Geological Survey, Methods of Mining, http://www.uky.edu /KGS/coal/coal mining.htm (last visited Sept. 29, 2014).

³¹ At trial, Dr. Blazey could not recall whether the "natural silica," referenced in the 1994

Paper was "Reoforce pumicite." 9/19/13 TR 1074. Dr. Blazey admitted, however, that the 1994 Paper was prepared at the time that Schulman was testing "Reoforce pumicite." 9/19/13 TR

1074 (Blazey).

located between 1983 and 1985. JSF \P 13. These claims occupied "the identical location as the lapsed claims, consisting of approximately 920 acres." PX-439. 34

On January 25, 1995, Schulman sent Mr. Simonson a purchase order for 5,000 pounds of "Reoforce pumicite," size R-100, at a price of \$330/ton. PX-116. On March 17, 1995, Schulman sent another purchase order for 5,000 pounds of "Reoforce pumicite" size R-106, at a price of \$475/metric ton. PX-121. These purchase orders were issued to perform batch testing and generate sample formulations of plastic compounds using "Reoforce pumicite" to send to A. Schulman's customers. 9/19/13 TR 1063–64 (Blazey). In the Spring of 1995, Reoforce mined approximately 200 tons of the pumicite, in part to fulfill orders from Schulman. 9/17/13 TR 426 (Simonson). At trial, however, neither Mr. Simonson nor Dr. Blazey could remember if Schulman ever conducted testing on "Reoforce pumicite." 9/17/13 TR 433 (Simonson).

Sometime in early 1995, Mr. Simonson decided that "Reoforce pumicite" would have to be ground to particular micron sizes for different potential applications. 9/16/13 TR 228 (Simonson). To accomplish this objective, Mr. Simonson purchased ball mill, refurbished the engines, cleaned out the lines and processing area, and purchased ceramic balls to crush material into a uniform size. 35 9/16/13 TR 212–15 (Simonson). Mr. Simonson also arranged to transport "Reoforce pumicite" to the ball mill in Victorville, California. 9/16/13 TR 217 (Simonson). Thereafter, Mr. Simonson entered into a contractual arrangement with ProTech Minerals,

On May 18, 1995, the BLM proposed to withdraw lands designated by Section 701 of the California Desert Protection Act ("Withdrawal Area") from settlement, sale, location, or entry under the existing land and mineral laws. *See* Proposed Withdrawal; California, 60 FED. REG. 26736 (May 18, 1995) ("Proposed Withdrawal"). The purpose of the Proposed Withdrawal was to protect values of the designated area until they could be conveyed to California. *Id.* Accordingly, the Proposed Withdrawal "segregated" lands within the area of the Proposed Withdrawal, *i.e.*, "close[d] the lands for up to two years from all the public land and mineral laws except conveyances under [Section] 701 of the California Desert Protection Act of 1994 (108 Stat. 4471)." *Id.*. But, the BLM again emphasized, "[e]xisting rights are *not affected* by this withdrawal." 60 FED. REG. at 26736.

³³ Although those claims had different numbering than predecessor claims, the BLM treated the May 28, 1987 POO as "fully applicable" to the "El Paso A" claims. PX-439 ("The parties agree that the previously approved [POO] are fully applicable to the [new El Paso "A"] claims[.]").

 $^{^{34}}$ In November 1994, the BLM prepared to transfer title of certain designated lands to the State, but the State declined to accept title of any pre-existing mining claims. JSF ¶ 17; see also 62 FED. REG. at 26324-01 (withdrawing lands on which the Reoforce mining claims are located "[s]ubject to valid existing rights"). The BLM canceled existing patents on the land, and issued a new patent to the State in November 1996, but it omitted all lands encumbered by unpatented mining claims. JSF ¶ 17.

³⁵ A ball mill is a device where material is loaded into a large drum that rotates, moving ceramic balls to crush the material into a fine powder.

whereby he agreed to pay a fixed fee per-ton of pumicite that was processed or milled at the plant. 9/16/13 TR 213–14 (Simonson).

In the spring of 1995, Mr. Simonson mined approximately 200 tons of pumicite from the Reoforce claims in order to fulfill the January and March 1995 Schulman purchase orders. 9/16/13 TR 212, 218; 9/17/13 TR 425–26 (Simonson).

In June 1995, Mr. Simonson requested that Micromeritics Instrument Corporation conduct an analysis of two different sizes of the milled "Reoforce pumicite," one known as R-106 and the other as R-100, to determine whether these samples were uniformly sized and suitable for Schulman orders. PX-128; 9/16/13 TR 228 (Simonson). The test was positive. 9/16/13 TR 229–30 (Simonson). Thereafter, Mr. Simonson milled 100 tons of the mined pumicite over a two day period at the Victorville mill into uniform sizes. 9/16/13 TR 218, 228 (Simonson); 9/17/13 TR 426–27 (Simonson). Mr. Simonson then sold five tons of the processed and milled pumicite to Schulman to fill the January and March of 1995 orders, and put the remaining 195 tons in a warehouse. 9/17/13 TR 427 (Simonson).

B. On August 7, 1995, The Bureau Of Land Management Entered Into A Memorandum Of Understanding With The State Of California.

On August 7, 1995, the BLM State Office Director and the Director of the California Department of Parks and Recreation signed a Memorandum of Understanding ("MOU") to provide for the management and administration of public lands within Red Rock Canyon State Park that were designated under Section 701 of the California Desert Protection Act other than unpatented mining claims. JX-034 ("The purpose of this MOU is to provide for the management and administration of public lands within the Red Rock Canyon State Park that are not conveyed to the State [of California] pursuant to Section 701 of the California Desert Protection Act . . . due to being encumbered by unpatented mining claims."). The August 7, 1995 MOU explained that the BLM would conduct validity examinations of the mining claims located in the proposed Withdrawal Area "prior to review and approval of any [plan of operations]," in accordance with the following procedures:

Group one - Claims and Sites with no POOs.

This group is defined as claims and sites with no current activity, and no existing plan. BLM action on these claims and sites will commence when the operator or claimant comes forward with a POO under 43 CFR 3809. At that time, a validity examination will be performed by a certified mineral examiner, to determine if [validity] exists. If it does, the State of California will be notified of the results of the examination, and BLM will proceed to review the POO. If no [validity] exists, the plan shall be denied and a mineral contest issued against the claims [will be initiated], through the BLM State Office.

Group Two – Claims and Sites with Existing POOs for Exploration Activities.

Existing POOs issued pursuant to 43 CFR 3809 for exploration activities (not for producing mines) are to be suspended until a [validity] determination can be completed by a certified mineral examiner. This suspension is necessary as rights against the United States cannot accrue on or after the date of the CDPA, October 31, 1994.

Group Three – Claims and Sites with Existing POOs for Producing Mines

This group is restricted to operating mines under existing POOs, those diligently and continuously extracting and marketing ores and related commodities from their mining claims and sites. In these circumstances, [the validity determination] will be preliminarily presumed on an interim basis, by evidence of continuous extraction and marketing of the mineral commodity. These producing mines will be allowed to continue operating, pending final determination of [validity].

JX-34 (MOU) (emphasis added).

The MOU also outlined the responsibilities of BLM and California for the lands within the proposed Withdrawal Area. JX-34.

In a July 12, 1995 letter, the BLM's Acting Director of the Ridgecrest Office informed Mr. Simonson that a formal MOU with the State was forthcoming and "for every existing operation and every proposed operation to occur on unpatented federal mining claims within the [Red Rock State] Park, BLM must complete a validity exam of the claims(s) prior to approval of the mining [POO]." DX-19. But the letter stated that "[f]or operations such as yours, *you will be allowed to continue in accordance with your approved mining* [POO] while the validity exam process is completed for your claims." DX-19 (emphasis added).

On August 10, 1995, a form letter was sent to all mining claimants with unpatented mining claims within the Withdrawal Area, wherein the BLM California State Director advised claimants "how BLM and the State are working cooperatively to meet the intent and spirit of Congress to convey [lands covered by the CDPA] to the State, and to detail how lands covered with unpatented mining claims will be managed." JX-34; 9/16/13 TR 230 (Simonson). The letter emphasized that mining claims located in the Withdrawal Area prior to October 31, 1994 "may have valid existing rights (VER) . . . predicated on the discovery by that date of a valuable mineral deposit[.]" JX-34. But, to have valid existing rights, "a miner must at least demonstrate that he or she is mining or could have been mining for a profit before . . . October 31, 1994. . . . [so that the] mere location of a mining claim, and filing of annual assessment work or fees is not sufficient to demonstrate that a discovery mining has been made." JX-34 (emphasis

⁴⁰ According to Mr. Simonson, he did not receive a copy of that letter until approximately ten years later through discovery in this case. 9/17/13 TR 355 (Simonson).

added). The BLM also enclosed a copy of the MOU to explain how "valid existing rights will be evaluated." JX-34; 9/16/13 TR 230 (Simonson).

At trial, Mr. Simonson testified that, when the August 7, 1995 MOU issued, he believed that the Reoforce mining claims fell into Group 2.

MR. SIMONSON: In my reading, I was in group two [of the MOU], with my

plan of operation [being previously approved] and [the

Reoforce mines] not in full production.

Q. So, why did you think you were in group two?

MR. SIMONSON: I wasn't in full production.

9/16/13 TR 231; PX-34 (describing requirements for Group 2).

* * *

Q. Mr. Simonson, did you continue mining after August 10th,

199[5]?

MR. SIMONSON No. . . .

THE COURT: You didn't take samples out or anything else after that?

MR. SIMONSON: No.

THE COURT: Okay. Why?

MR. SIMONSON: Well, I had plenty [of samples] And also, I felt

strongly that I could not mine.

THE COURT: Because?

MR. SIMONSON: A validity exam had to be done.

9/16/13 TR 232–33; JX-34 (explaining, in Group Two, existing plans of operations "issued[,] pursuant to 43 C.F.R 3809 for exploration activities (not for producing mines) are to be suspended until a [validity] determination can be completed by a certified mineral examiner").

At trial, Mr. Simonson acknowledged that he received a copy of the August 7, 1995 MOU, but stated that the BLM never advised him that he could not continue to mine under the existing POO. 9/17/13 TR 439–42 (Simonson).⁴¹

⁴¹ An August 1995 internal memorandum from the California BLM State Director reflects that: "Verbal direction from California Minerals Deputy State Director to reprioritize the Simonson case to a delayed status." PX-334.

C. Activities Regarding Plaintiffs' Unpatented Mining Clams After The August 7, 1995 Memorandum Of Understanding Was Operational.

On October 18, 1995, Reoforce received a permit to use underground diesel engines from the California Division of Occupational Safety Office ("Cal OSHA"). PX-142. On October 19, 1995, Cal OSHA issued a report classifying the Reoforce mine as "Nongassy with Special Conditions," *i.e.*, requiring Reoforce to develop testing of the underground environment at the start of each working shift "to detect for adequate oxygen and toxic and explosive gases or vapors before anyone enters said environment;" and to ventilate the mines to meet "respirable dust requirements." PX-144. On October 19, 1995, Reoforce became subject to other oversight and additional requirements imposed by the Cal OSHA. PX-144 (Cal OSHA Underground Classification Report).

On October 21, 1995, Cal OSHA conducted an inspection at the Reoforce site, and issued a Notice of No Violation, because Reoforce "filled out and . . . implemented" the required Injury and Illness Prevention Program model plan. PX-145.

On November 13, 1995, the BLM informed Reoforce that, because it exceeded the one-acre disturbance threshold under SMARA, a reclamation plan and reclamation bond were required, but failed to notify Mr. Simonson that the prior May 28, 1987 POO was suspended. DX-131; DX-21. 42 Mr. Simonson thought the BLM required a reclamation plan, but he was unable to finalize a completed plan at that time or in 1996. 9/17/13 TR 482–83 (Simonson) (describing multiple but failed attempts to submit a SMARA reclamation plan).

Between January 17 and January 20, 1996, Hackworth Drilling Company, Mr. Simonson, and Peter Milne drilled two exploratory holes on El Paso 7 (now 7A) at the Reoforce mining claims. DX-156; 9/17/13 TR 491–92 (Simonson). On January 20, 1996, Reoforce also convened a first annual shareholders meeting where a Board of Directors (the "Reoforce Board") and corporate officers were elected, and financial planning, organization, and future business was discussed, including "pending orders, pending legal actions, [and] expected expenditures." DX-177. The meeting notes showed cash on hand was \$14,000. DX-177. There is no mention that Reoforce's May 28, 1987 POO had been suspended. DX-177. Mr. Simonson was forced to step down as the President of Reoforce Inc., and another shareholder, John Foggan, assumed that position. DX-148; DX-177; 9/16/13 TR 253–55 (Simonson). Thereafter Reoforce began to use the name "the Foggan Group." 9/17/13 TR 414 (Simonson).

In 1997, the company entered into a joint venture with IMV-Nevada, Bill Wahl, the owner and President of the Lime Mountain Company, and a geologist, David Klise, of LOK Environmental, Inc. JX-40 (proposed joint venture agreement); DX-150 (describing the

⁴² Mr. Simonson estimated that between 1984 and 1995, he spent around \$500,000 to \$550,000 to develop the mining claims for the commercial production of pumicite as a filler and extender in paints and plastics. 9/17/13 TR 405–06 (Simonson). Some of that money was raised by Reoforce investors and the rest was Mr. Simonson's personal money. 9/17/13 TR 496 (Simonson). But by August 1995, "most of that money had been spent" and no new investors were on the horizon. *Id*.

"contractual arrangement"). The objective of the joint venture was to obtain permits for, and begin to develop, Reoforce mining claims to facilitate "commercial production of ["Reoforce pumicite"]." On January 12, 1997, Mr. Simonson and Mr. Stehn transferred their interests in El Paso 1A through El Paso 23A placer claims, via a quitclaim deed, to Reoforce, Inc. JSF ¶ 21.

On February 4, 1996, the Reoforce Board discussed a plan "to extract approximately 200 more tons of product sometime in late March or April." DX-187. Again, there was no mention that Reoforce's POO was suspended at that or any other Board meeting. DX-188 (March 2, 1996, minutes); DX-189 (April 2, 1996 minutes); DX-190 (Jan. 4, 1997 minutes); DX-191 (Jan. 29, 1998 minutes); DX-176 (Sept. 16, 2002 minutes). Instead, the notes reflect a company in decline and diminishing business prospects. DX-188 (listing the cash on hand, as of March 2, 1996, as \$8,500); DX-189 (listing the cash on hand, as of April 2, 1996, as \$7,500, and the "sale of some assets [was required] to maintain corporation while awaiting sale of product" was required); DX-191 ("No other leads at this time.").

D. On May 13, 1997, The Bureau of Land Management Withdrew Certain Public Lands, "Subject To Valid Existing Rights" And Subsequent Activities Regarding Plaintiffs' Unpatented Mining Claims Until March 2006.

As anticipated by the August 7, 1995 MOU, on May 13, 1997, BLM finally withdrew the lands designated by Section 701 of the CPDA from settlement, sale, location, or entry under the United States land and mineral laws. *See* Public Land Order No. 7620; Withdrawal of Public Lands for Red Rock Canyon State Park; CA, 62 Fed. Reg. 26324 (May 13, 1997) ("This order withdraws 8,896 acres of public lands from all public land and mineral laws[,] except conveyances under Section 701 of the [CDPA] of 1994, for a period of 20 years to protect the park resources of the lands until they can be conveyed to the State of California as mandated by Congress."). The withdrawal, however, was "subject to [any] valid existing [mineral] rights." *Id.* Although the August 7, 1995 MOOU anticipated conducting a validity determination on all mining claims located in the Withdrawal Area, Plaintiffs' mining claims were never noticed for a validity hearing. Likewise, the August 7, 1995 MOU anticipated that the validity determinations would be conducted before the BLM would approve of any POO, but Plaintiffs' May 28, 1987 approved POO was never rescinded and did not undergo any additional review of Plaintiffs' claims.

On October 9, 1997, Bill Swanson submitted a Mining Operation Annual Report to the California Department of Conservation that listed the status of the Reoforce mines as "Active." DX-195.

In late 1997, Kern County informed Reoforce that the total acreage of surface disturbance affected by the Reoforce mines was 1.25 acres. DX-195. Thereafter, Reoforce "submitted the first of what would become several reclamation plan applications to Kern County for review." DX-131.

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⁴³ A March 22, 1996 letter from the BLM to Kern County "regarding Mr. Simonson's operations in Red Rock State Park" also made no mention that the Reoforce POO was suspended. DX-151.

The January 29, 1998 notes of the Reoforce Board reflect that "Bill Wahl . . . told [Mr.] Foggan that the BLM is satisfied with the mining plan and has allowed mining to begin at any time." DX-191. In April 1998, Mr. Wahl submitted a SMARA application to Kern County on behalf of "the Foggan Group." DX-143 (SMARA application); DX-145 (letter transmitting SMARA application on April 29, 1998). The Foggan Group submitted a SMARA application stating the proposed starting date of mining operations as late 1999. DX-144. Mr. Klise and Mr. Wahl also submitted a new POO to BLM's Ridgecrest Field Office on behalf of the Foggan Group. JX-041. The proposed plan anticipated underground bulk sampling and testing of "Reoforce pumicite." JX-041.

On April 15, 1998, Riverfront Corporation ("Riverfront") sent a letter to John Foggan explaining that it was "very interested in the possibility of purchasing your company's pumicite claims, [and] would like an opportunity to review" information pertaining to the status and development of the mining claims. PX-161. Mr. Simonson was bcc'd on the letter. PX-161; 9/16/13 TR 260 (Simonson). Riverfront, however, never made a formal offer to purchase Reoforce's mining claims. 9/16/13 TR 260 (Simonson).

On July 2, 1998, Kern County informed the Foggan Group that its POO was not adequate, because certain "items were either not included or not sufficiently addressed." DX-142. Thereafter, neither the Foggan Group nor Mr. Wahl took any action to cure these deficiencies. JX-043.

In August 1998, J.M. Huber Corporation expressed preliminary interest in Reoforce pumicite, indicating that it "could conceivably fill a profitable niche in Huber's family of functional fillers and extenders." PX-33. After conducting testing and analysis on December 8, 1988, J.M. Huber informed Mr. Simonson that "Reoforce pumicite" was not "functionally competitive with the control material [they] studied in [a] series of tests, . . . showed no advantage in hiding power (opacity) or scrub resistance over [other] natural ground silica," and created a "noticeably darker paint." DX 207. J.M. Huber advised, however, that further development of "Reoforce pumicite" would make sense, if it could be priced competitively, *i.e.*, in the range of 5–10 cents per pound. DX-207.

There is no evidence in the record of any activity on the Reoforce mining claims from 1999 through 2000.

On January 8, 2001, Mr. Simonson wrote a letter to the BLM requesting an extension of Reoforce's POO. JX-46. Therein, Mr. Simonson stated that he intended "to begin mining and to bring ["Reoforce pumicite"] . . . to the long waited markets" and thanked the BLM for its patience regarding the Reoforce mining claims. JX-46 (emphasis added).

⁴⁴ Mr. Simonson testified several years later that J.M. Huber displayed a renewed interest in purchasing Reoforce. 9/16/13 TR 277–79 (Simonson). But, according to Mr. Simonson, because J.M. Huber wanted to purchase "Reoforce pumicite" to keep it off the market to prevent it from competing with the precipitated silica they currently sold, he refused the offer. 9/16/13 TR 280 (Simonson).

On January 17, 2001, the BLM determined, based on a recent inspection of the Reoforce mining claims, "there has been no changes and no work performed [t]here for greater than two years." DX-27. Therefore, the BLM found that the Reoforce mine site was in "non-operation," but not in compliance with 43 C.F.R. § 3715.3-1(b), and instructed Mr. Simonson to remove "all property and reclaim" the Reoforce site within ninety days. DX-27. The BLM also informed Mr. Simonson that, if he disagreed, he could respond in writing within 30 days to Kern County demonstrating that he was in compliance with all state-level environmental and reclamation requirements. DX-27.

On February 22, 2001, the BLM's Ridgecrest Field Office followed up with Mr. Simonson, explaining that the Reoforce claims were in non-operation, "simply because [the BLM] could see no observable development on the claim[s] since approximately 1995." DX-30. The BLM also asked Mr. Simonson to verify whether that observation was correct, and if not, to describe the mining operations conducted since 1995, as the agency "had no wish to shut down a productive mining operation," but "if [Mr. Simonson's] equipment is not actually being used, then there is no reason to keep it on public lands." DX-30.

On September 6, 2002, Mr. Simonson again became President of Reoforce, Inc. after other stockholders withdrew their investments and began marketing Reoforce pumicite. 9/16/13 TR 258 (Simonson); DX-176 (Sept. 8, 2002 Agreement between Reoforce and Mr. Simonson). On November 3, 2002, Mr. Simonson wrote a letter to the California Department of Parks and Recreation stating that he obtained an approved POO and that the BLM's 1989 uncommon/common variety determination had "given [him] the right to mine" the Reoforce claims. DX-137. After filing several incomplete or deficient applications for approval of a reclamation plan that Kern County rejected, Reoforce successfully completed an application in "late 2002." DX-131.

On December 16, 2002, BLM's Ridgecrest Field Office forwarded the Kern County Planning Department comments about Reoforce's reclamation plan, explaining that the BLM's 1989 approval was contingent on Reoforce complying with Stipulations 5, 9, and 10 in the 1989 approval. JX-51. In addition, when Reoforce amended its plan,

[f]ederal regulations will require BLM's approval of these amendments per 43 CFR 3809. A corollary to that approval is BLM's obligation to perform a validity examination of the mining claim per 43 CFR 3809.100.

JX-51.

On February 20, 2003, Mr. Simonson asked the FDA whether "Reoforce pumicite" could be "use[d] as an anticaking agent in food salts." PX-216. On March 24, 2003, the FDA responded that it did not have any "toxicological concerns" regarding the level of potassium oxide in "Reoforce pumicite," if it was used an anticaking agent at a "use level of 1.7%." PX-

⁴⁵ On January 10, 2001, Mr. Wahl also informed the BLM that he was no longer interested in the joint venture, because Mr. Simonson "seems to be acting on his own, outside the interests of Foggan's Group. . . . [and because Mr. Simonson] wants to build a multi-million dollar mill and start mining with little thought for product research and market analysis." JX-47.

216. But, the FDA advised that because of atypically high levels of lead and arsenic in "Reoforce pumicite," the FDA did "not consider your material to be food grade" for use as an anticaking agent. PX-216.

On April 21, 2003 Reoforce filed a SMARA application that proposed to commence mining, as soon as Kern County approved Reoforce's reclamation plan. DX-132.⁴⁶

In May 2003, Reoforce's 1987 reclamation plan was revised to reflect comments received from Kern County, the BLM, and the California Department of Parks and Recreation. DX-131. For example, the California Department of Parks and Recreation stated that, based on the information Reoforce provided, it was "somewhat difficult to envision that an annual production level of 50,000, let alone 250,000 tons . . . could be feasibly mined per annum by six employees, hauling through a single specified portal against gravity," and further stated that it was "difficult to comprehend" this level of commercial mining taking place on the existing mining platform Reoforce excavated. DX-131. Therefore, Kern County required Reoforce to post a \$7,432.07 bond to reclaim the 1.85 acres of disturbed by the Reoforce claims. DX-131.

On July 24, 2003, the Kern County Planning Commission approved a conditional use permit of Reoforce's "reclamation plan for aboveground surface disturbance." DX-131.

On July 26, 2003, Mr. Simonson wrote to the BLM's Ridgecrest Field Office and requested a validity exam of Reoforce's mining claims. DX-37 ("If your office is going to initiate a determination on my valid existing rights, it would be imperative that you start your examination as soon as possible, for I am ready to commence my approved mining operation"). Mr. Simonson explained that the delay in receiving approval from Kern County "hindered the mining of this pumicite." DX-37.

On August 12, 2003, the BLM's Ridgecrest Field Office sent a letter to Mr. Simonson's counsel stating:

The Foggan Group Organization once desired to move a large bulk sample of pumicite from the El Paso Mining Claims, presumably to evaluate its marketability. They submitted a *separate and independent proposal for this*. The BLM treated this proposal in accordance with the [MOU] signed in 1995 (enclosed). That is, that no disturbance can be approved until the validity of these claims is determined.

PX-232 (emphasis added); DX-108 (same); DX-49 (same); DX-54 (describing the Foggan Group's separate proposal for bulk sampling as being "placed in suspense until completion of a

⁴⁶ Although the Reoforce mining claims are located on BLM-managed federal lands, California also retains some regulatory control over those lands. For example, the Kern County Planning Department and Kern County Planning Commission had authority to ensure compliance with SMARA. DX-131 ("Approval of a reclamation plan and its content as identified by SMARA and the State Mining and Geology Board guidelines are the extent of Kern County's responsibilities[.]").

validity examination for the affected mining claims"); DX-78 (1998 statement by BLM that "mining cannot begin [until a] validity exam [was] done"). 47

On September 29, 2003, Mr. Simonson sent a letter to the Secretary of Interior, complaining that Reoforce had been "hindered over the years by the Ridgecrest BLM office[.]" PX-430.

On October 14, 2003, the BLM requested preliminary information from Mr. Simonson as to Reoforce's corporate status in order to begin the validity examination process. DX-40 ("Your desire to press forward with a validity exam is suitable and appropriate. The BLM concurs that an examination of the validity of these claims is necessary. Documenting Reoforce's corporate status is a necessary step in that process.").

On November 2003, Kern County approved Reoforce's SMARA reclamation bond. DX-

On November 18, 2003, Mr. Simonson submitted a Reoforce 2002 Mining Operation Annual Report to the BLM stating that the status of the Reoforce mines was "Active" and that the total disturbed acreage of the mines was 1.85 acres. DX-166.

On February 17, 2004, the Supervisory Geologist at the BLM's Ridgecrest Field Office sent an email to another BLM official, James Hamilton, to explain the agency's "procedural policy" as to prioritization of validity exams for mining claims located in the Withdrawal Area:

The BLM determined that if a site was active; *i.e.*, on-going mining and milling were taking place on the date the CDPA was passed, we would allow them to continue operating in the same manner until we completed a validity exam of the operation at some future date. Any non-active operation, such as Mr. Simonson's, would require completing a validity exam before operations were allowed to proceed.

PX-438.

In a March 9, 2004 letter to the BLM, Mr. Simonson requested an explanation as to when the validity determination would be made and complained that "[a]s of October 3, 2003, there has been no communication from you regarding the validity exam that you are in charge of for my Reoforce Inc. Mining Claims." PX-244. On May 26, 2004, Mr. Simonson wrote a follow-up to the BLM, because he received no response to his March 9, 2004 letter. PX-247.

⁴⁷ PX-253 (describing a "letter dated August 12, 2003 [reflecting Mr. Simonson's view] that my approved mining plan by the BLM is presently not valid until the validity exam is completed"); PX-291 (referencing the August 12, 2003 letter and stating that there "could be no development [at the Reoforce claims] since 1995[,] because I was told in writing I could not disturb any of the property[,] until the validity exam was completed"); DX-108 (referencing the August 12, 2003 letter and expressing confusion about recent BLM statements that "almost impl[y] I could have continued to mine on my own plan of operation").

In a June 7, 2004 letter to the BLM Ridgecrest Office, Mr. Simonson again complained that "[d]ue to the establishing of the Red Rock Canyon Park, my mining claims were put in jeopardy until a validity examination could be done" and stated that Reoforce was unable to fulfill the 1995 purchase orders from A. Schulman because of the August 1995 MOU. PX-248.

On September 14, 2004, the BLM State Director advised Mr. Simonson that there was no "[POO] for the mining claims owned by Reoforce, Inc.," because Mr. Simonson allowed the original El Paso mining claims to lapse by failing to pay the requisite statutory fee. PX-334. Therefore, Reoforce's POO "expired by its own terms in 2002." PX-334.

On February 22, 2005, Mr. Simonson sent National Gypsum Company a sample of "Reoforce pumicite" and a "sedigraph readout for mineral distribution." PX-264. On May 10, 2005, Cargill Salt ("Cargill") sent Mr. Simonson a letter regarding the potential use of "Reoforce pumicite" as an anticaking or flow agent for salt. PX-271. At that time, Cargill was purchasing precipitated silica from JM Huber to act as a flow agent for salt. 9/16/13 TR 368–69 (Simonson). The May 10, 2005 letter indicated that Cargill's preliminary tests showed that "Reoforce pumicite" "prevent[ed] caking and enhance[d] flow," so that the company was "prepared to enter the next phase of testing to ensure that ['Reoforce pumicite'] functions," and this would entail "analytical testing, additional stability testing, and inspection of [the Reoforce] production facility." PX-271. But, Cargill cautioned that FDA approval likely would be required, since the pumicite would come into contact with food. PX-271.

On March 1, 2006, Mr. Simonson sent a letter to the BLM asking when the agency would complete a validity exam of the Reoforce mining claims. PX-291. The letter explained there was no activity on the Reoforce mining claims in or around August 1995, because Mr. Simonson "was told in writing [by the BLM that he] could not disturb any of the property until the validity exam was completed." PX-291.

On March 2, 2006, a BLM geologist in the California Desert District Office sent an email to the official in charge of the California division of the BLM in Sacramento to explain that

[the BLM geologist] would question any lack of activity on the [Reoforce] mining claim[s being] used as a basis for closing [the Reoforce] case, especially since a latch exists because BLM did not allow the operator to occupy the property until a [validity examination] was complete.

PX-334.⁵⁴

⁵⁴ An undated memorandum that appears to have been written in 2006, from the BLM California State Director to the Assistant Director, Minerals, Realty and Resource Protection explained that the BLM "determined that Mr. Simonson's situation best fit Group Two [of the MOU]," as there was "no on-going or continuous mining activities and no producing mine" on Reoforce's claims. PX-353. It also reported that "BLM informed Mr. Simonson that before mining could commence we would first have to determine if he had established any valid existing rights, and the way to do that would be by completing a validity examination of his mining claims." PX-353.

E. On March 15, 2006, The Bureau of Land Management Instituted A Contest Proceeding To Determine The Validity Of Plaintiffs' Unpatented Mining Claims.

On March 15, 2006, a Supervisory Geologist at BLM's Ridgecrest Field Office sent an email to other BLM employees, explaining that "BLM never rescinded Mr. Simonson's 1987 plan of operation" and clarified that, in July of 1995, the BLM "identif[ied to Mr. Simonson] the need to conduct a validity exam of his unpatented mining claims *before* he could initiate operations." PX-334 (emphasis added).

On May 2, 2006, the California Department of Parks and Recreation requested the BLM's advice after "receiv[ing] a letter from Mr. Simonson . . . of his on-going Validity Exam and his dilemma to show physical discovery of material." PX-334. On May 3, 2006, the Supervisory Geologist at BLM's Ridgecrest Field Office replied that, because the BLM's validity exam of Reoforce's claims was ongoing, Mr. Simonson's request to conduct exploratory drilling appeared to be an "attempt to accomplish discovery after the fact," since the purpose of the validity exam was to determine whether Reoforce made a discovery of a valuable mineral prior to the date the lands within the Withdrawal Area were segregated. PX-334.

Mr. Simonson is well aware that we cannot and will not permit him to conduct any further work at these claims until the Validity Exam is completed. The result of the Validity Exam will either be an approval for him to go to work, or a Contest action declaring the claims not valid. That decision is totally dependent upon the data gathered during the [2004] field examination of his unpatented mining claims and what exposure of minerals had been made by the date of the field examination.

PX-334 (emphasis added).

On September 7, 2006, the BLM issued another Mineral Report ("2006 Mineral Report") recommending that contest proceedings at the Department of the Interior be initiated, because "[n]o discovery of a valuable mineral had been made within the limits of [Mr. Simonson's unpatented mining claims]." JX-69. The 2006 Mineral Report also concluded that pumicite was exposed on only two of Plaintiffs' 23 mining claims, there was no open exposure was present on the other 21 claims, and no market for the exposed "Reoforce pumicite." JX-69. In short, Mr. Simonson did not make a discovery of a valuable mineral deposit recognized by the General Mining Law. JX-69. Consequently, "Reoforce's activity falls within Group Two [of the August 1995 MOU]." JX-69.

F. The Contest Proceeding And May 12, 2008 Settlement Agreement.

On February 8, 2007, the BLM initiated a contest proceeding at the Department of Interior alleging that Mr. Simonson's unpatented mining claims were invalid, because: (1) "[n]o discovery of a valuable mineral has been made within the limits of [El Paso 1A through El Paso 23A] . . . the pumicite [located therein] was not actually or prospectively marketable from May 18, 1995, the date of initial segregation through present;" (2) minerals had not been "found or exposed" within the limits of twenty-one of Plaintiffs' unpatented mining claims in "sufficient quantities and/or qualities to constitute a valid discovery of a valuable mineral deposit from May

18, 1995;" and (3) the pumicite located within the limits of El Paso 6A and El Paso 22A was "a common variety mineral, and not a valuable mineral deposit." JSF ¶ 24.

On October 22–26, 2007, November 26–30, 2007, and March 3–5, 2008, the BLM conducted hearings to determine the validity of the Reoforce claims. PX-444.

On May 12, 2008, the BLM and Reoforce entered into a settlement agreement that resolved the contest proceeding, required Reoforce to relinquish all rights, title, and interest in twenty (El Paso claims 1A-5A, 8A-21A, and 23A) of the twenty-three challenged unpatented mining claims, but allowed Reoforce to proceed under the 1987 plan of operations to mine on El Paso 6A, 7A, and 22A, subject to four stipulations (the "Settlement Agreement"). PX-439. Two of those stipulations provided that Reoforce would relinquish all rights, title, and interest in the remaining three El Paso mining claims, if Reoforce: (1) failed to begin mining within 24 months of execution of the 2008 Settlement Agreement; or (2) ceased mining operations for a continuous period of twelve months. PX-439. A third stipulation provided that Reoforce had the right to mine the El Paso claims for an initial term of 20 years from the date of execution of the 2008 Settlement Agreement, with an option to renew for an additional 20-year period, provided there was "substantial and continuous mining operations during the first 20 years of operation." PX-439. The fourth stipulation provided that the three mining claims were to be treated as a single unit for purposes of the third stipulation, so that mining on any individual claim was sufficient to satisfy the "substantial and continuous mining" requirement of the third stipulation. PX-439. On May 19, 2008, the Department of Interior's Office of Hearings and Appeals dismissed the contest proceedings. JSF ¶ 25.

G. Activities Regarding Plaintiffs' Mining Claims After The May 12, 2008 Settlement Agreement.

On July 10, 2008, Reoforce requested that the BLM approve a Road Use POO for a road adjacent to the mining claims to haul pumicite at a rate of 50,000 tons per-year (approximately 200 tons per-day). PX-327. The Road Use Plan was required to comply with the 1987 Reoforce plan of operations. JX-7 (May 28, 1987 letter approving Reoforce's POO, subject to submitting a comprehensive road plan).

On October 28, 2008, the BLM approved the Road Use POO, explaining that "Reoforce is free to move forward with [mining operations]," provided it complied with pertinent statutory and regulatory requirements, as well as other stipulations previously-imposed by the BLM. PX-330.

III. PROCEDURAL HISTORY.

On December 19, 2011, Plaintiffs filed a Complaint in the United States Court of Federal Claims alleging that the BLM effected a temporary regulatory taking of the three unpatented placer mining claims recognized as valid property rights in the May 12, 2008 Settlement Agreement ("Compl.").

On February 17, 2012, the Government filed a Motion To Dismiss, arguing that the court did not have jurisdiction to adjudicate the claims alleged in the December 9, 2011 Complaint,

because it was filed outside the six-year time period required by 28 U.S.C. § 2501. On March 19, 2012, Plaintiffs filed a Response. On April 5, 2012, the Government filed a Reply.

On April 25, 2012, then-presiding Senior Judge Futey denied the Government's February 17, 2012 Motion To Dismiss. *See Reoforce v. United States*, No. 11-884, 2012 WL 1427387, *3 (Fed. Cl. Apr. 25, 2012) ("*Reoforce I*") (reasoning that, "[i]f [P]laintiffs had filed a claim in 1995, then they would have been required to demonstrate the existence of a compensable property interest, but this existence was not resolved until the validity determination in 2006."). Therefore, Plaintiffs' claims were not ripe in 1995 and likely would have been dismissed. The court also determined that Plaintiffs' claims did not accrue in 1995, "because the [MOU] . . . was not a final governmental determination depriving [Plaintiffs] of a compensable property right." *Id.* at *3 (quoting *Navajo Nation v. United States*, 631 F.3d 1268, 1278 (Fed. Cir. 2011) ("In certain situations, a claim for a temporary regulatory taking does not accrue when a regulation is enacted[,] because the regulation itself is not a final governmental determination depriving a plaintiff of a compensable property right.")). Therefore, the court determined that Plaintiffs' claims in this case accrued on September 7, 2006, when the BLM issued the 2006 Mineral Report, finding that Plaintiffs never made a discovery of a valuable mineral deposit within the six-year statute of limitations. *Id.* at *5.

On May 9, 2012, the Government filed an Answer, asserting six affirmative defenses. 56

On July 23, 2012, Plaintiffs filed a Motion For Partial Summary Judgment arguing that, as a matter of law, the duration of the Government's alleged temporary regulatory taking was from August 7, 1995 to May 12, 2008. On July 30, 2012, the Government also filed a Motion For Partial Summary Judgment, contending that Plaintiffs could pursue a temporary regulatory takings claim only for the period September 7, 2006, *i.e.*, the date that Senior Judge Futey determined that Plaintiffs' claims accrued, to May 12, 2008, *i.e.*, when the Settlement Agreement was entered. On August 31, 2012, both parties filed a Response. On September 21, 2012, both parties filed a Reply.

On December 11, 2012, Senior Judge Futey denied both Partial Motions For Summary Judgment, determining that Plaintiffs were not entitled to judgment as a matter of law, because a plaintiff can only recover damages from the date commencing when the Government's taking begins. *See* Order, *Reoforce v. United States*, ECF No. 11-884, Dkt. 27 at 6–8 (Fed. Cl. Dec. 11, 2012) ("*Reoforce II*"). The Government's Motion For Partial Summary Judgment also was denied, because issues of material fact remained as to "whether plaintiffs can establish a taking by extraordinary delay, and if so, the date such delay became extraordinary, prior to September 7, 2006." *Reoforce II*, at 10. In so ruling, Senior Judge Futey determined that the valid existing rights determination was the functional equivalent of a permitting process. *Id.* at 6–10.

Those affirmative defenses were: (1) the Complaint fails to state a claim upon which relief may be granted; (2) that the court lacked jurisdiction to adjudicate "in whole or in part the subject matter of this action;" (3) the claims alleged are barred by the applicable statute of limitations; (4) the Complaint fails to allege an action undertaken by the Government that was ripe for adjudication; (5) Plaintiffs' lacked standing; and (6) Plaintiffs' lacked a "compensable property interest to pursue this claim." Answer at 5.

On November 14, 2012, Plaintiffs filed a Motion For Partial Summary Judgment On United States' Sixth Affirmative Defense, arguing that the doctrines of equitable estoppel and *res judicata* precluded the Government from arguing that Plaintiffs' lacked a compensable property interest in the three unpatented mining claims. On December 17, 2012, the Government filed a Response. On January 14, 2013, Plaintiffs filed a Reply. On April 4, 2013, Senior Judge Futey granted Plaintiffs' November 14, 2012 Motion For Partial Summary Judgment regarding the Government's sixth affirmative defense. *See Reoforce v. United States*, 2013 WL 1405925 (Apr. 4, 2013) ("*Reoforce III*"). Therein, the court determined that the May 12, 2008 Settlement Agreement was a final judgment on the merits, because the parties fully and fairly litigated whether Plaintiffs had made a discovery of a valuable mineral deposit in the contest proceedings, and Plaintiffs "emerged with rights to mine under a valid settlement agreement, . . . [so that] *res judicata* prevents the Government from asserting [that Plaintiffs lack] a compensable property interest" as to the three unpatented mining claims at issue. *Reoforce III*, 2013 WL 1405925 at *7; *see also id.* at *8 ("Plaintiffs' property interest in the unpatented mining claims has been established as a matter of law.").

On January 8, 2013, Plaintiffs filed a Motion For Reconsideration because of an intervening change in the law occasioned by the United States Supreme Court's decision in Arkansas Game and Fish Commission v. United States, 133 S. Ct. 511 (2012). Plaintiffs contend that Senior Judge Futey erroneously construed the December 19, 2011 Complaint as solely asserting a temporary regulatory taking claim stemming from the BLM's alleged extraordinary delay in the valid existing rights determination process and equating the contest proceedings to a permitting scheme. On January 25, 2013, the Government filed a Response, agreeing with Plaintiffs that the contest proceedings were not analogous to a permitting process, but that the "concessions in [the] Motion [F]or Reconsideration require that [Plaintiffs] claim be dismissed as time barred." Dkt. 35 at 2. On February 7, 2013, Senior Judge Futey granted Plaintiffs' January 8, 2013 Motion For Reconsideration and determined that the Government's alleged taking may have occurred before Plaintiffs' claims accrued, so that compensation should be measured from the time of the Government's initial interference with Plaintiffs' property rights, instead of when the claims accrued. See Order, Reoforce v. United States, No. 11-884, Dkt. 37 at 2 (Fed. Cl. Feb. 7, 2013) ("Reoforce IV") In addition, although Plaintiffs' claims may not have accrued until the contest proceedings were complete, "the interference that effects a taking might begin much earlier, and compensation is measured from that time." Id. (quoting First English Evangelical Lutheran Church of Glendale v. L.A. Cntv., 482 U.S. 304, 321 (1987)). Therefore, Senior Judge Futey determined that Plaintiffs "may use the issuance of the mineral report date [on September 7, 2006] to determine that the procedural time limit [of the statute of limitations] is met, and the date of the MOU's issuance [on August 7, 1995] to evaluate whether a taking occurred." *Id.* at 2–3.

On May 24, 2013, Plaintiffs filed a Motion To Amend Complaint To Add A Plaintiff, Ronald Stehn, that the court granted on June 18, 2013. That same day, Plaintiffs filed an Amended Complaint that is substantively identical to the December 9, 2011 Complaint, other than the addition of a new plaintiff Complaint ("Am. Compl."). *Compare* Compl. ¶ 2, *with* Am. Compl. ¶ 2. On June 26, the Government filed an Answer to the June 18, 2013 Amended Complaint, reasserting the same six affirmative defenses, as were pled on May 9, 2012.

On June 20, 2013, then-Chief Judge Hewitt transferred this case to the undersigned judge, pursuant to RCFC 40.1(c).

On August 14, 2013, the Government filed an Unopposed Motion To Admit Prior Testimony Of Joseph L. Gum, Supervisory Geologist at the BLM Ridgecrest Field Office and Plaintiffs filed an Unopposed Motion To Admit Deposition Testimony From Ronald Stehn. On August 15, 2013, the court granted both motions.

On August 20, 2013, Plaintiffs filed a Motion *In Limine*, requesting that the court rule that certain exhibits were admissible prior to trial. On August 30, 2014, the Government filed a Response. On September 10, 2013, the court denied Plaintiffs' August 20, 2013 Motion without prejudice.

A trial was held in this case from September 16–23, 2013 as to liability and damages ("TR 1–1360").

On October 30, 2013, Plaintiffs filed a Motion To Admit Seven Additional Exhibits. On November 6, 2013, the Government filed a Response. On November 13, 2013, Plaintiffs filed a Reply. On November 14, 2013, the court admitted the documents Plaintiffs requested but deferred ruling on admissibility of the evidence until issuance of the court's Memorandum Opinion and Final Order.

On November 27, 2013, Plaintiffs filed an Opening Post-Trial Brief ("Pl. Br."). On January 22, 2014, the Government filed a Post-Trial Brief ("Gov't Br."). On February 12, 2014, Plaintiffs filed a Post-Trial Reply ("Pl. Reply"). On February 25, 2014, the court issued an Order granting the Government leave to file a Surreply. On March 7, 2014, the Government filed a Surreply ("Gov't Reply").

On June 9, 2014, at the court's request, the parties filed a Joint Exhibit List with an itemization of all exhibits proffered at trial, and reasserting the parties' respective objections to those exhibits.

IV. DISCUSSION.

A. Whether 28 U.S.C. § 2501 Bars Plaintiffs' Takings Claims.

The Government requested that the court reconsider Senior Judge Futey's prior ruling that Plaintiffs' claims accrued on September 7, 2006, when the BLM issued a second Mineral Report, because a claim "first accrues when all the events have occurred that fix the alleged liability of the [G]overnment and entitle the claimant to institute an action." Gov't Br. 40 (quoting *Ingrum v. United States*, 560 F.3d 1311, 1314 (Fed. Cir. 2009)). Plaintiffs respond that "[r]econsideration is not proper if arguments previously made are simply reasserted." Pl. Reply 21 n.13; *see also Fru-Con Constr. Corp. v. United States*, 44 Fed. Cl. 298, 301 (1999) (explaining that reconsideration is warranted where the moving party shows "(1) that an intervening change in the controlling law has occurred; (2) that previously unavailable evidence is now available; or (3) that the motion is necessary to prevent manifest injustice"). Since the Government "does not contend that any of these standards apply and they do not," the court should deny reconsideration of the statute of limitations issue. Pl. Reply 21 n.13.

As a matter of law, the statute of limitations set forth in 28 U.S.C. § 2501 is "jurisdictional," requiring "a court to decide a timeliness question despite a waiver, [and] . . . forbidding a court to consider whether certain equitable considerations warrant extending a limitations period." *John R. Sand & Gravel Co. v. United States*, 552 U.S. 130, 133–34 (2008); *see also Holmes v. United States*, 657 F.3d 1303, 1317 (Fed. Cir. 2011) ("Compliance with the statute of limitations [contained in Section 2501] is a jurisdictional requirement."). Moreover, a federal trial court always has an independent obligation to ascertain subject matter jurisdiction at any point in the proceedings, whether raised by a party or not. *See Kontrick v. Ryan*, 540 U.S. 443, 455 (2004) ("A litigant generally may raise a court's lack of subject-matter jurisdiction at any time in the same civil action[.]"); *see also Folden v. United States*, 379 F.3d 1344, 1354 (Fed. Cir. 2004) ("Subject-matter jurisdiction may be challenged at any time by the parties or by the court *sua sponte*."). Therefore, the court has decided to reconsider whether Section 2501 bars Plaintiffs' regulatory taking claim. *See* RCFC 12(h)(3) ("If the court determines at any time that it lacks subject-matter jurisdiction, the court must dismiss the action.").

As for the merits, determining when a taking accrues requires answering two related questions. First, have all events that fix the alleged liability of the Government occurred? *See Hopland Band of Pomo Indians v. United States*, 855 F.2d 1573, 1577 (Fed. Cir. 1988) (Generally, a takings "claim 'first accrues' when all the events have occurred which fix the alleged liability of the [Government] and entitle the plaintiff to institute an action."). Second, is the claim ripe? *See Williamson Cnty. Reg'l Planning Comm'n v. Hamilton Bank of Jefferson City*, 473 U.S. 172, 191 (1985) (holding that a regulatory taking is ripe when "the administrative agency has arrived at a final, definitive position regarding how it will apply the regulations at issue to the particular land in question"); *see also Bayou Des Familles Dev. Corp. v. United States*, 130 F.3d 1034, 1038 (Fed. Cir. 1997) (same). In this case, the answer to both of these questions is yes.

Typically, accrual and ripeness of an alleged takings claims are analyzed simultaneously. See Navajo Nation v. United States, 631 F.3d 1268, 1278 (Fed. Cir. 2011). In this case, the August 7, 1995 MOU was the first step of an administrative process to transfer federal land to the State. And, the BLM was clear that a validity determination would need to be conducted for all affected property before any transfer. JX-34 (MOU). Therefore, for a compensable property right to accrue on August 7, 1995, the BLM would have needed to commence and complete a validity determination on that date. See Navajo Nation, 631 F.3d at 1278 (recognizing that a takings claim does not accrue unless "the regulation itself is . . . a final governmental determination depriving a plaintiff of a compensable property right); see also Vane Minerals (US), LLC v. United States, 116 Fed. Cl. 48, 63 (2014) ("Plaintiff failed to obtain a [validity] determination and consequently has no property right."). Therefore, Plaintiffs' takings claim did not accrue until the validity determination was made, i.e. on May 12, 2008 when the Settlement Agreement issued and fixed liability. PX-439 ("This Agreement . . . fully resolves Mineral Contest CACA 48717."). Likewise, Plaintiffs' takings claim was not ripe until May 12, 2008, because that was the final date of BLM action. See Palazzolo v. Rhode Island, 533 U.S. 606, 618 (2001) ("[A] takings claim challenging the application of land-use regulations is not ripe unless the government entity charged with implementing the regulations has reached a final determination regarding the application of the regulations to the property at issue.") (citation and internal quotation marks omitted); see also Goodrich v. United States, 434 F.3d 1329, 1334–35

(Fed. Cir. 2006) (explaining that a takings claim was not ripe until the Government issued a final directive restricting a landowner's property rights).

For these reasons, the court has determined that Plaintiffs' takings claim both accrued and became ripe on May 12, 2008. Therefore, 28 U.S.C. § 2501 does not bar the court from adjudicating the takings claim alleged in the December 19, 2011 Complaint.

B. Whether Plaintiffs Have Standing.

Article III standing is also a jurisdictional prerequisite that the court must ascertain, even if not raised by the parties. See Fuji Photo Film Co. v. Int'l Trade Comm'n, 474 F.3d 1281, 1289 (Fed. Cir. 2007) ("Because Article III standing is jurisdictional, this court must consider the issue sua sponte[.]"). The United States Supreme Court has instructed that the plaintiff has the burden to establish three elements before a federal trial court may adjudicate an alleged takings claim. First, "injury in fact," by which we mean an invasion of a legally protected interest that is '(a) concrete and particularized, and (b) actual or imminent, not conjectural or hypothetical[.]" Ne. Fla. Chapter of Associated Gen. Contractors of Am. v. City of Jacksonville, 508 U.S. 656, 663 (1993) (quoting Lujan v. Defenders of Wildlife, 504 U.S. 555, 560 (1992)). Second, "a causal relationship between the injury and the challenged conduct[.]" Id. Third, "a likelihood that the injury will be redressed by a favorable decision, by which we mean that the 'prospect of obtaining relief from the injury as a result of a favorable ruling' is not 'too speculative." Id. (quoting Allen v. Wright, 468 U.S. 737, 752 (1984)). "These elements are the 'irreducible minimum' required by the Constitution." Id. (quoting Valley Forge Christian Coll. v. Americans United for Separation of Church & State, Inc., 454 U.S. 464, 472 (1982)).

In this case, the "injury in fact" element is particularly problematic. See Ne. Fla. Chapter, 508 U.S. at 663 (holding that injury in fact requires "an invasion of a legally protected interest") (emphasis added); see also Wyatt v. United States, 271 F.3d 1090, 1096 (Fed. Cir. 2001) (holding that the trial court does not have jurisdiction to adjudicate a takings claim unless the plaintiff has a "valid property interest at the time of the taking") (emphasis added). The court is aware that unpatented mining claims are recognized as a protected property interest, but only "if there has been a discovery of mineral within the limits of the claim[.]" Best v. Humboldt Placer Min. Co., 371 U.S. 334, 336 (1963) (emphasis added). The 1989 BLM Mineral Report concluded that the "Reoforce pumicite" was an uncommon variety and locatable mineral under the General Mining Law, but emphasized that this finding was "not a mining claim validity report." PX 42:012; see also Holden v. United States, 38 Fed. Cl. 732, 735 (1997) ("To have a compensable interest in unpatented mining claims sufficient to bring a taking action in [the United States Court of Federal Claims], there must have been a determination as to the *validity* of those mining claims.") (emphasis in original). Only the BLM may determine validity. See Cameron v. United States, 252 U.S. 450, 460 (1920) ("[T]he Secretary of the Interior . . . is charged with seeing that . . . valid claims may be recognized, invalid ones eliminated, and the rights of the public preserved."); see also Best, 371 U.S. at 336 (same). In this case, the BLM did not make a validity determination until the May 12, 2008 Settlement.

For this reason, the court has determined that Plaintiffs did not have standing to seek an adjudication of a takings claim until May 12, 2008. Plaintiffs, however, did not file suit on that date, but waited until December 19, 2011.

The May 12, 2008 Settlement Agreement between Plaintiffs and the BLM, however, specifically provides:

Reoforce can proceed under its approved [POO] to mine the El Paso 6A, El Paso 7A, and El Paso 22A placer mining claims, subject to the following conditions:

- (a) Reoforce shall begin mining within 24 months of execution of this settlement agreement. If mining does not begin within 24 months, this agreement shall terminate and Reoforce shall relinquish all of its rights, title and interest in El Paso 6A, El Paso 7A, and El Paso 22A unpatented mining claims.
- (b) If Reoforce ceases mining operations for any continuous period of 12 months, this agreement shall terminate and Reoforce shall relinquish *all of its rights, title and interest* in El Paso 6A, El Paso 7A, and El Paso 22A unpatented mining claims

PX-439 (emphasis added).

Neither Mr. Simonson's trial testimony (TR 32–541) nor any other evidence establishes that Plaintiffs began mining within 24 months, as required by the May 12, 2008 Settlement Agreement. Indeed, on October 28, 2008, after the BLM approved Reoforce's Road Use POO there were no federal or state regulatory impediments to Plaintiffs engaging in mining activities. PX 330. But, there is no evidence in the record that any "mining" took place on the El Paso 6A, El Paso 7A, or El Paso 22A claims, either after May 12, 2008 Settlement or after BLM's October 28, 2008 approval of Reoforce's Road Use POO.

As a matter of law, a plaintiff initially must plead *some* injury to have standing and the court must accept those allegations as true when making a standing determination. Pennell v. City of San Jose, 485 U.S. 1, 7 (1988) ("[W]hen standing is challenged on the basis of the pleadings, we 'accept as true all material allegations of the complaint, and . . . construe the complaint in favor of the complaining party[.]"") (citation omitted). But, after trial, a plaintiff's obligation to establish standing is subject to a more stringent standard, particularly where the cause of action arises from the United States Constitution. See Lujan, 504 U.S. at 561 (holding that the party invoking federal jurisdiction bears the burden of establishing the requisite elements and that "each element must be supported in the same way as any other matter on which the plaintiff bears the burden of proof, i.e., with the manner and degree of evidence required at the successive stages of the litigation") (emphasis added). To require that a plaintiff have title to property at the time a suit is filed or forgo the ability to obtain an adjudication of a takings claim may be viewed as harsh. But here, where Plaintiffs voluntarily relinquished all property rights, standing has been compromised. PX-439 ("If mining does not begin within 24 months, ... Reoforce shall relinquish all of its rights, title, and interest in El Paso 6A, El Paso 7A, and El Paso 22A unpatented mining claims.").

Therefore, in the court's judgment, this case should be dismissed on standing grounds, albeit not suggested by the Government. In any event, as discussed herein, even assuming, *arguendo*, that Plaintiffs have standing, the record does not establish that the August 7, 1995 MOU effected a taking that warrants compensation.

C. Whether The August 7, 1995 Memorandum Of Understanding Between The Bureau Of Land Management And The State Of California Effected A Taking of Plaintiffs' Unpatented Mining Claims.

A "takings claim calls for a two-step analysis." *Karuk Tribe of Cal. v. Ammon*, 209 F.3d 1366, 1374 (Fed. Cir. 2000). First, the trial court must determine whether the claimant has established a compensable property interest. *See Am. Pelagic Fishing Co. v. United States*, 379 F.3d 1363, 1372 (Fed. Cir. 2004). Second, the trial court must determine whether the character of the governmental action affected the claimant's "bundle of property rights." *Karuk Tribe*, 209 F.3d at 1374; *see also Chancellor Manor v. United States*, 331 F.3d 891, 902 (Fed. Cir. 2003) (discussing whether governmental action "constitutes a compensable taking for a public purpose").

1. Whether Plaintiffs Had A Compensable Property Right On August 7, 1995, When The Department Of The Interior Entered Into The Memorandum Of Understanding With The State Of California.

The United States Court of Appeals for the Federal Circuit has held that a plaintiff also must have a "valid property interest at the time of the taking[.]" *See Am. Pelagic Fishing*, 379 F.3d at 1372 (citation omitted). Plaintiffs' property interest did not vest until the May 12, 2008 Settlement Agreement. Therefore, as a matter of law, Plaintiffs did not have a compensable property interest for purposes of the Fifth Amendment on August 7, 1995, the date the MOU became effective. As such, the court's "task is at an end." *Am. Pelagic Fishing Co.*, 379 F.3d at 1372. Nevertheless, the court will complete the two-part analysis established in *Karuk Tribe*.

2. Assuming, *Arguendo*, That Plaintiffs Had A Compensable Property Right On August 7, 1995, Whether The Character Of The Memorandum Of Understanding Effected A Taking.

Assuming, *arguendo*, that Plaintiffs had compensable property right on August 7, 1995, the MOU had no binding legal effect on that date, because validity determinations remained to be conducted on all unpatented mining claims. JX-34; *see also Goodrich v. United States*, 434 F.3d 1329, 1335 (Fed. Cir. 2006) (explaining that for a taking to occur, the government action must be analogous to "final agency action."). Of course, Plaintiffs assert that "the BLM's actual treatment of the Reoforce claims" evidences that the August 7, 1995 MOU did "alter existing rights or regulations." Pl. Reply 4. But, what Plaintiffs *thought* the legal effect of the August 7, 1995 MOU was, does not establish a legal obligation.

There are several dispositive pieces of evidence substantiating that the August 7, 1995 MOU did not effect or suspend Plaintiff's May 28, 1987 approved POO. First, the BLM specifically informed Mr. Simonson on July 12, 1995 that "[f]or operations such as yours, *you will be allowed to continue in accordance with your approved mining* [POO] while the validity exam process i[s] completed for your claims." DX-19 (emphasis added). Second, after the August 7, 1995 MOU, Plaintiffs entered into a joint venture (JX-40); obtained a diesel permit for operation (PX-144); drilled exploratory holes on the claims (DX-156); continued to market "Reoforce pumicite" (PX-33; PX-161; DX-183); and filed an application to comply with

SMARA (DX-132). As such, the evidence belies Plaintiffs' contention that Reoforce was prohibited from mining by the MOU as of August 7, 1995.

For these reasons, the court has determined that the August 7, 1995 MOU did not effect a taking.

D. Assuming, *Arguendo*, That The August 7, 1995 Memorandum Of Understanding Effected A Taking Of Plaintiffs' Mining Rights, Compensation Is Not Warranted.

Assuming, arguendo, that the August 7, 1995 MOU effected a taking of Plaintiffs' mining claims, it is well established that not every government action that reduces a property's value is a regulatory taking, but some regulations can be so severe that the Fifth Amendment requires payment of compensation. Penn Cent. Transp. Co. v. City of N.Y., 438 U.S. 104, 136 (1978) (holding that courts "must consider whether the interference with [Plaintiffs'] property is of such a magnitude that there must be an exercise of eminent domain and compensation to sustain [it].") (internal quotation marks and citation omitted). "[W]hether a particular restriction will be rendered invalid by the government's failure to pay for any losses proximately caused by it depends largely 'upon the particular circumstances [in that] case." Id. This analysis is ad hoc and fact-specific. The United States Supreme Court has identified three factors that a trial court must consider the: (1) "economic impact of the regulation on the claimant"; (2) "extent to which the regulation has interfered with distinct investment-backed expectations"; and (3) "character of the governmental action." Cienega Gardens v. United States, 331 F.3d 1319, 1337 (Fed. Cir. 2003). The intent of *Penn Central* is "to ensure that not every restraint imposed by government to adjust the competing demands of private owners [will] result in a takings claim." *Id.* at 1340 (quotation marks and citation omitted).

Not surprisingly, the parties have a different perspective of the economic impact of the August 7, 1995 MOU: the Government asserts that the economic impact at best was \$107,000; Plaintiffs insist they suffered \$46.5 million in economic harm. Compare Gov't Br. 62 with PX-443. The record, however, establishes that despite repeated efforts, Plaintiffs failed to achieve market acceptance of "Reoforce pumicite" prior to the issuance of the August 7, 1995 MOU. DX-12; DX-205; DX-180. In fact, after Plaintiffs obtained the May 28, 1987 POO until the August 7, 1995 MOU was enacted, only two sales of "Reoforce pumicite" were made. 9/17/13 TR 429-31 (Simonson). At best, Plaintiffs were several years away from commercial-scale mining on August 7, 1995. 9/19/13 TR 1130 (Springer) (Reoforce had not completed an adequate exploratory drill program in August 1995); 9/19/13 TR 1131 (Springer) (as of August 1995, Reoforce did not have SMARA approval); 9/19/13 TR 1136 (Springer) (as of August 1995, Reoforce did not comply with Federal Mine Safety Health Administration's regulatory requirements); 9/19/13 TR 1139 (Springer) (all of these actions "made it difficult if not impossible for Reoforce to secure the funding or financial partners necessary to develop commercial-scale mining"). Other trial testimony estimated that, on August 7, 1995, Plaintiffs still were at least four to eight years away from commercial viability. 9/20/13 TR 1167 (Springer). As such, Plaintiffs incurred no economic harm caused by the August 7, 1995 MOU or any other BLM action.

As for Plaintiffs' "investment-backed expectations," the barriers to entry into a commodity market were substantial and commercial viability "highly speculative." DX-120, at 13–17 (Dr. Frahme); 9/20/13 TR 1184–1202 (Dr. Frahme). In addition, the record is replete with evidence of Mr. Simonson sending numerous samples of the "Reoforce pumicite" to academic and corporate entities to ascertain whether this mineral had any commercial use or market value. PX-7, PX-16, PX-26, PX-29, PX-31, PX-32, PX-34, PX-37, PX-38, PX-39, PX-41, PX-42; PX-55, PX-56, PX-67, PX-68, PX-70, PX-76, PX-96, PX-103, PX-109, PX-111, PX-128, PX-264, PX-271, PX-436, DX-69, DX-74, DX-94. Although there was some indication of potential commercial use, no one advised Plaintiffs that "Reoforce pumicite" was "of such a character that 'a person of ordinary prudence would be justified in the further expenditure of his labor and means, with a reasonable prospect of success, in developing a valuable mine." Chrisman v. Miller, 197 U.S. 313, 322 (1905); see also Creppel v. United States, 41 F.3d 627, 632 (Fed. Cir. 1994) (holding that the investment-backed expectations element "limits recovery to owners who can demonstrate that they bought their property in reliance of the nonexistence of the challenged regulation"). As such, Plaintiffs failed to establish that the August 7, 1995 MOU interfered with reasonable "investment-based expectations."

Finally, The United States Supreme Court has held that in ascertaining whether compensation is warranted, the courts should determine whether the government action at issue "merely affects property interests through 'some public program adjusting the benefits and burdens of economic life to promote the common good." *Lingle v. Chevron U.S.A. Inc.*, 544 U.S. 528, 539 (2005) (quoting *Penn Central*, 438 U.S. at 124). In analyzing the nature of the government action, the United States Court of Appeals for the Federal Circuit has directed the trial court to focus on both "the purpose of the regulation and its desired effects" and "the relative benefits and burdens associated with the regulatory action." *Bass Enters. Prod. Co. v. United States*, 381 F.3d 1360, 1370 (Fed. Cir. 2004); *see also Rose Acre Farms, Inc. v. United States*, 373 F.3d 1177, 1194 (Fed. Cir. 2004) ("[The issue] is whether there is a *nexus* between the regulation and its underlying public purpose.") (emphasis in original).

Congress authorized the BLM to manage public land. See 43 U.S.C. § 1701. The purpose of the August 7, 1995 MOU was to manage and administer federal land located within the Red Rock Canyon State Park, primarily to insure compliance with federal mining laws and NEPA, which benefits the public at large. JX-43 at IIIA(1). Plaintiffs counter that the August 7, 1995 MOU "was not a nationwide change in mining regulations applicable to everyone. It only applied to those few within the proposed addition to the Red Rock Canyon State Park." Pl. Br. 38. As such, Plaintiffs contend that they bore the full economic impact of this regulatory activity. But, Plaintiffs provide no authority for the proposition that a regulation issued on a lessthan-nationwide basis equates to "targeting." Without evidence that the BLM went out of its way to impose regulations on Plaintiffs alone, without a legitimate reason, the court must assume that the BLM acted in good faith. See Schism v. United States, 316 F.3d 1259, 1302 (Fed. Cir. 2002) ("This presumption of regularity is the supposition that public officers perform their duties correctly, fairly, in good faith, and in accordance with the law and governing regulations, and is valid and binding[.]") (internal quotation marks and citations omitted). And, the purpose statement of the MOU demonstrates there is a "nexus between the regulation and its underlying public purpose." JX-43; Rose Acre Farms, 373 F.3d at 1194.

For these additional reasons, the court has determined assuming, *arguendo*, that the August 7, 1995 MOU effected a taking of Plaintiffs' mining rights, compensation is not warranted.

V. CONCLUSION.

For these reasons, the May 24, 2013 Amended Complaint is dismissed and any unresolved evidentiary rulings are now moot.

IT IS SO ORDERED.

s/ Susan G. Braden
SUSAN G. BRADEN
Judge