



UNITED STATES v. ALLA LU RANNELLS

175 IBLA 363

Decided August 25, 2008



United States Department of the Interior
Office of Hearings and Appeals
Interior Board of Land Appeals
801 N. Quincy St., Suite 300
Arlington, VA 22203

UNITED STATES
v.
ALLA LU RANNELLS

IBLA 2005-219

Decided August 25, 2008

Appeal from a decision by Administrative Law Judge William E. Hammett, dismissing a Government contest and finding four lode mining claims valid and suitable for patent. ORMC 49212 A.

Affirmed.

1. Mining Claims: Determinations of Validity--Mining Claims: Marketability

The prudent person test is an objective test that inquires into what a prudent man would have done in the claimant's position. Thus, a marketability determination is not limited by the markets that the claimant pursued, but instead includes the markets that a hypothetical prudent person would have identified and pursued.

2. Mining Claims: Determinations of Validity--Mining Claims: Marketability--Mining Claims: Contests

The marketability determination is made at the point during a mining contest when BLM has all of the information necessary to verify discovery. That date will necessarily vary from case to case and thus must be determined on a case-by-case basis.

3. Evidence: Burden of Proof--Mining Claims: Contests--Mining Claims: Determination of Validity--Mining Claims: Discovery: Generally

When the Government contests a mining claim based on a charge of lack of discovery of a valuable mineral deposit, it bears the initial burden of going forward to establish a prima facie case in support of that charge, whereupon the claimant has the ultimate burden of persuasion to overcome that case by a preponderance of the evidence. The burden is different for the contestee when a contest is filed as the result of a patent application. In that situation, the Government must make a prima facie case in support of its charges and that, upon such a showing, the claimant must establish that the claim is valid, even apart from the issues raised in the Government's prima facie case.

4. Mining Claims: Determination of Validity--Mining Claims: Marketability--Mining Claims: Contests

When BLM's argument for the invalidity of a mining claim is based on the assertion that the contestees have understated the costs of production in their mining plan, a prima facie case is not established where BLM's expert witnesses cannot explain, verify, or provide the foundations of the transportation cost and fees for the calculations which would render the contestees' proposed operation unprofitable.

5. Evidence: Generally--Evidence: Sufficiency--Evidence: Weight--Rules of Practice: Evidence

Although this Board has *de novo* review authority, we ordinarily will not disturb an administrative law judge's findings of fact based on credibility determinations where they are supported by substantial evidence. The basis for this deference is the fact that the judge who presides over a hearing has the opportunity to observe the demeanor of the witnesses and is in the best position to judge the weight to be given to conflicting testimony.

6. Mining Claims: Contests--Mining Claims: Patent

Where the Government fails to present a prima facie case at a mining contest arising from a patent application, the administrative law judge properly considers the Contestees' evidence to determine whether they are entitled to patent.

APPEARANCES: Mariel J. Combs, Esq. Office of the Regional Solicitor, U.S. Department of the Interior, Portland, Oregon, for the Bureau of Land Management; James R. Doyle, Esq., Grants Pass, Oregon, for Contestees.

OPINION BY ADMINISTRATIVE JUDGE ROBERTS

The Bureau of Land Management (BLM) has appealed from a March 14, 2005, decision of Administrative Law Judge (ALJ) William E. Hammett, dismissing the mining contest brought by the Government against four lode mining claims (Big Quartz Nos. 2, 3, 9, and 10), and finding those claims valid and suitable for patent. BLM argues that Judge Hammett's ruling is based upon a "misunderstanding of the applicable law and an erroneous application of the facts" because it addresses and finds the claims valid based on marketability in the fiber cement siding market, a market not raised in the patent application or at the time of the mineral examination. Statement of Reasons (SOR) at 1, quoting *United States v. Willsie*, 152 IBLA 241, 264 (2000). BLM requests that Judge Hammett's decision be reversed for that reason. Because our review of the record and the governing law leads us to conclude that Judge Hammett properly considered the fiber cement siding market, we affirm his decision.

I. FACTUAL AND LEGAL BACKGROUND

A. *The Big Quartz Mining Claims*

At issue in this case are four lode claims located in Douglas County, Oregon, situated in the Umpqua National Forest¹ in sec. 34 of T. 27 S., R. 1 E., Willamette Meridian, Oregon.² The claims are adjacent to one another in a block. Government

¹ BLM brought the contest on behalf of the U.S. Department of Agriculture, Forest Service, because BLM administers mining claims located on Forest Service land.

² The patent application included six millsite claims as well, but the Contestees voluntarily relinquished those claims during the contest. Tr. at 289-90.

Exhibit (Gov. Ex.) 22³ (map). Big Quartz Nos. 2 and 3 were located on August 13, 1957, and Big Quartz Nos. 9 and 10 were located on August 19, 1957. Decision at 3-4. Together, the four claims comprise approximately 82 acres. All were located by Gerald Rannells, who quitclaimed his interest in the claims to Alla Lu Rannells on December 3, 1992. *Id.* Alla Lu Rannells immediately filed a patent application for the claims on December 23, 1992, and received a First Half Final Certificate (FHFC) on December 1, 1994.

On April 22, 2002, Alla Lu Rannells quitclaimed an undivided 49% interest in the claims to Bruce and Lorri Crawford.⁴ *Id.* The Crawfords had been helping Alla Lu Rannells manage the mining claims through their mining and road-building company, the Valentine Mining Company, since her husband passed away, approximately 10 years before the contest hearing. Tr. at 349, 352. While this case was under consideration, the Board received notice that Alla Lu Rannells had passed away, leaving her entire estate, including her 51% interest in the claims at issue, to her daughter Cherie Anna Rannells, who succeeds her in these proceedings. *See* BLM Supplements to the Record received July 26, 2007, and August 16, 2007 (correspondence relating to the disposition of Alla Lu Rannells' estate).

The claims are located atop Quartz Mountain, which is “made up of a tough and massive grayish white cryptocrystalline silica rock.” Decision at 5, *quoting* Patent Application, Gov. Ex. 106, at 5-6. Testimony at the mining contest hearing established that this is a “replacement” deposit in which the silica, possibly from a nearby hot springs, migrated into and replaced a pre-existing volcanic tuff. Tr. at 102. The result is a massive quartz formation that forms a cap on top of Quartz Mountain. Mineral Patent Examination Report (Mineral Report), Gov. Ex. 119, at 9. Experts for each side agreed that the silica is approximately 98% pure, making it theoretically suitable for industrial use and therefore not a common variety mineral and eligible for location under the Mining Law of 1872, 30 U.S.C. §§ 21-47 (2000).

³ As noted by Judge Hammett, the parties' exhibits are contained, for the most part, in two three-ring binders, one for each party's exhibits. The exhibits contained in BLM's binder are tabulated beginning with number 101 but, for purposes of the record, Judge Hammett numbered them 1 through 36 (Tab 101 = Ex. 1; Tab 102 = Ex. 2). He numbered the Contestees' exhibit numbers as 101 through 130. For purposes of clarity in this opinion, when referencing a Government exhibit, we will refer to “Gov. Ex.,” and to Contestees' exhibits as “Cont. Ex.”

⁴ The contest complaint correctly named only Alla Lu Rannells, who was the sole owner of the claim when the complaint was filed. Bruce and Lorri Crawford participated in the mining contest as Intervenors on the basis of their undivided 49% interest in the claims. We accord the Crawfords the same status in these proceedings.

Tr. at 125 (Testimony of Andrew Regis, Government witness); Tr. at 222 (Testimony of Charles Smith, Contestees' witness).

B. *The Requirements for Discovery*

The Mining Law of 1872, as amended, permits location of lode claims along veins or lodes of “rock in place bearing gold, silver, . . . or other valuable deposits.” 30 U.S.C. § 23 (2000). The validity of a lode mining claim depends on the discovery of an exposure of a valuable mineral deposit in place within the boundaries of the claim. *Best v. Humboldt Placer Mining Co.*, 371 U.S. 334, 335 (1963); *Cameron v. United States*, 252 U.S. 450, 459 (1920); *see also* 30 U.S.C. § 29 (2000) (patenting process for valid mining claims); *United States v. Martinek*, 166 IBLA 347, 351-52 (2005); *United States v. Clouser*, 144 IBLA 110, 113 (1998); *United States v. Williamson*, 45 IBLA 264, 277-78, 87 I.D. 34, 41-42 (1980).

In *United States v. Martinek*, the Board set forth the legal standards that apply in determining whether a lode mining claim is supported by a discovery, as follows:

The test of whether a mining claim is supported by a discovery is objective and is framed in terms of what a “prudent person” would do knowing all the facts. A discovery has been made when “minerals have been found and the evidence 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 paying mine.” *Castle v. Womble*, 19 L.D. 455, 457 (1894). This test was approved by the Supreme Court in *Chrisman v. Miller*, 197 U.S. 313, 322 (1905). The Board has noted that “the best evidence of what a prudent man would do in the same or very nearly the same circumstances is what miners have or have not done over a period of years.” *United States v. Martinez*, 49 IBLA 360, 371, 87 I.D. 386, 392 (1980), *citing* *United States v. Wichner*, 35 IBLA 240 (1978); *see also* *United States v. Willsie*, 152 IBLA 241, 264 (2000).

The Supreme Court adopted a refinement of the test of discovery to include a “marketability” rule in *United States v. Coleman*, 390 U.S. 599, 600, 602-03 (1968). The “prudent-man test and the marketability test are not distinct standards, but are complementary in that the latter is a refinement of the former.” *Id.* at 603. The Board has reconciled the notion of profitability articulated in *Coleman* with the lesser standard of a “reasonable prospect of success” adopted by the Supreme Court in *Chrisman v. Miller*, 197 U.S. at 322. Discovery requires a showing of a reasonable prospect that the deposit can be mined,

removed, and marketed at a profit. *United States v. New York Mines, Inc.*, 105 IBLA 171, 182, 95 I.D. 223, 229-30 (1989). “[A] mineral deposit will be considered valuable where there is a reasonable likelihood that the value of the deposit exceeds the costs of extracting, transporting, processing, and marketing it.” *United States v. Clouser*, 144 IBLA at 113 (citations omitted); see *United States v. Winkley*, 160 IBLA 126, 142 (2003). A claimant must show, as an objective matter and “as a present fact, considering historic price and cost factors and assuming that they will continue, there is a reasonable likelihood of success that a paying mine can be developed.” *American Colloid Co.*, 162 IBLA 158, 171 (2004), quoting *In re Pacific Coast Molybdenum*, 75 IBLA 16, 29, 90 I.D. 352, 360 (1983).

166 IBLA at 351-52; see also *United States v. Miller*, 165 IBLA 342, 354-56 (2005).

C. *The Possible Markets*

In the course of this mining contest, three possible markets were identified to establish the marketability of the silica produced from the Big Quartz lode claims and prove a discovery: nickel-alloy, glass, and fiber cement siding.⁵ The facts proffered to support the claim of marketability as to each market are summarized below.

1. *Nickel Alloy*

Although they vary in their characterization of the degree of activity, the parties agree that quartz from Quartz Mountain was used for a period of time in a nearby nickel smelter to make nickel alloys. Silica is a reagent used in the production of ferronickel alloys. The silica is combined with iron to create ferrosilicon, which is then combined with nickel to create a ferronickel alloy from which the “quartz slag” is poured off. Mineral Report at 10.

In the patent application, Rannells described the economic relationship with the nickel smelter as follows: “400,000 tons of ore with a value of \$12,000,000 has been extracted between 1972 and 1992 with most going to Glenbrook Nickel . . . in Riddle, Oregon. Glenbrook Nickel uses Quartz Mountain silica for the production of ferrosilicon and nickel metal.” Patent Application at 10-11.

⁵ Contestees also raised the silica flour market, but, apparently for strategic reasons, decided not to present evidence relating to that market at the contest hearing. Tr. at 289.

BLM's Mineral Report provides a more detailed account of the relationship with Glenbrook Nickel. Because the Contestees were required to obtain Forest Service approval to haul any mined material over the Forest Service roads to and from the mining claims, BLM based its analysis of sales activity on Forest Service hauling records. Mineral Report at 10. Those records indicate that the claims supplied quartz to the nickel smelter, then owned by Hanna Nickel, from 1970 through 1980. *Id.* Hanna Nickel sold the smelter to Glenbrook Nickel in 1989. The Mineral Report is ambiguously phrased, but it appears that Glenbrook subsequently purchased 20,000 tons of quartz from Quartz Mountain in a one-time transaction. *Id.* The date of that transaction is hard to determine with certainty, but appears to have taken place between 1989 and 1992. *Id.* At a maximum, the Mineral Report could be read to indicate that two 20,000-ton purchases were delivered to Glenbrook Nickel in that time period.

Although Glenbrook Nickel was apparently continuously operational during the 1990s, the Mineral Report indicates that for much of that time Glenbrook Nickel imported ferrosilicon from Asia rather than producing it locally by using silica from Quartz Mountain. *Id.* The Mineral Report asserts that only when the cost of importing ferrosilicon rose above the price of local manufacture did Glenbrook Nickel begin using silica from Quartz Mountain. *Id.*

The nickel market sank at the end of the 1990s. *Id.* at 7. When BLM's Mineral Examiners began their work in 1998,⁶ they contacted Glenbrook Nickel and were told that the smelter was closed, and that Glenbrook Nickel had been unable to find a buyer for the smelter and was planning to dismantle it and reclaim the land. *Id.* The parties agree that there is now no local nickel market for silica from Quartz Mountain.⁷

2. Glass

After the nickel market collapsed, the Contestees sought an alternative use for the silica on the claims. During 1998-1999, they coordinated with Charles Smith, a geologist consulting on behalf of Cardinal FG, a glass manufacturing company, to test the silica at Quartz Mountain for potential use in glass-making. Tr. at 200-04. The company was considering building a plant near Quartz Mountain if the supply of

⁶ In the fall of 1998 BLM first contacted the Contestees to arrange a site visit. The visit was postponed until the following summer because the site was already snowed in when BLM contacted the Contestees in the fall. Mineral Report at 6.

⁷ BLM asserts this in the Mineral Report at 16; Contestees' counsel stated his intention not to introduce any evidence relating to the nickel smelter at the beginning of the hearing. Tr. at 25.

suitable silica was large enough. Although BLM's expert testified that its testing indicated that the silica was not suitable for glass-making, *id.* at 126, Smith testified that his more extensive testing using reverse-circulation drilling on 11 different holes covering over 3,000 square feet⁸ on the claims, on behalf of Cardinal FG, indicated otherwise. *Id.* at 202, 227-28. Nevertheless, Cardinal FG ultimately decided not to build the plant. Smith testified that this was due to the haul rate the Forest Service planned to charge on the roads, not because of the quality of the silica. *Id.* at 228.

3. *Fiber Cement Siding*

In a report prepared as a part of the mineral examination by Regis, BLM's contractor, entitled "Technical and Marketability Report on the Quartz Mountain Deposit" (Regis Marketability Report), the fiber cement siding market is identified as a possible market for silica in the Pacific Northwest. *See* Mineral Report, Attachment 2 at 6. Fiber cement siding consists of "40% silica mixed with cement and wood fiber." *Id.* CertainTeed, Inc. (CertainTeed), constructed a fiber cement siding plant in White City, Oregon, in the late 1990s that Regis estimated would require up to 200,000 tons of silica per year. Nevertheless, Regis concluded that "[a]t the present time there are no identifiable markets for the quartz on Quartz Mountain." *Id.* at 9. He clarified that the "Certain Teed Plant at Medford, Oregon, [⁹] is a potential market, but not for the Quartz Mountain deposit." *Id.* at 10. Regis justified his opinion that Quartz Mountain silica would not be marketable at the CertainTeed plant as follows:

To begin with there is no plant [at Quartz Mountain] to produce the fine sized silica Certain Teed requires. The location of the Quartz Mountain deposit puts it at an extreme disadvantage in regards to transportation costs to Medford, Oregon. The best deposit for Certain Teed would be Bristol Silica, which is only 12 miles from Medford, has softer quartz and a plant. Quartz Mountain is about 73 miles to Medford which would increase the transportation costs by 4 to 5 times more than Bristol Silica.

⁸ Samples from the reverse-circulation drilling were provided to BLM at BLM's request around the time of the drilling. Tr. at 209.

⁹ Regis erroneously identified the plant location as Medford, as, subsequently, did Contestees' expert witness Jay Gatten. *See* Tr. at 422. Regis later testified that the plant is located in White City, Oregon, which is closer to Quartz Mountain than Medford. Tr. at 344.

. . . This, coupled with the initial investment of building a crushing facility and the high costs of screening the product to the required sizes, all would make Quartz Mountain non-competitive.

Id.

At the hearing, the Contestees' counsel asserted that the primary market to which the Contestees intend to target their silica is the fiber cement siding market provided by the CertainTeed plant in White City, Oregon. Tr. at 289. Regis testified that he did not believe that the silica at Quartz Mountain would meet the specifications of CertainTeed. *Id.* at 325. However, CertainTeed's representative testified at the hearing that the material would be acceptable and that CertainTeed would be willing to purchase 50,000 tons per year at a price of \$36 per ton. *Id.* at 400-01. To provide material to CertainTeed, Contestees would have to construct a crushing plant that would process the raw mined material into CertainTeed's specifications. That plant has not yet been built, but Contestees have land available which they would lease to construct the plant. *Id.* at 356-58.

D. The Mining Contest

In the patent application Alla Lu Rannells filed on December 23, 1992, she claimed that Quartz Mountain silica was used in nickel manufacture by Glenbrook Nickel and that she was currently negotiating additional markets. Patent Application at 11. An onsite mineral examination was not conducted until July 21, 1999, by Gerald Capps, a BLM Mineral Examiner, and Regis, a private contractor with experience in mineral materials sales.¹⁰ During the examination, Regis took "grab samples" from nine sites on the claims. Mineral Report at 11-12; Tr. at 46. BLM Mineral Examiner Storo completed the Mineral Report on March 29, 2001, although he did not personally visit the site until October 2002. Tr. at 35. The Mineral Report focuses exclusively on the nickel and glass markets,¹¹ concluding that those markets were not sufficient, as of 2001, to establish marketability. Mineral Report at 13-14, 18. In the Mineral Report, Storo recommended that the Department initiate a contest against the claims because of the lack of a valuable discovery, the lack of a

¹⁰ Because BLM Examiner Capps retired before he finished the Mineral Report, BLM Examiner Steven Storo completed it. Mineral Report at 2. Such a replacement is acceptable where no issue arises relating to the work of the replaced examiner. *United States v. Willsie*, 152 IBLA at 256.

¹¹ BLM focused only on these markets because nickel production was identified as the primary market in the patent application and the Contestees identified glass manufacturing as a replacement market around the time of the Mineral Examination. Tr. at 5.

prospective market, and the lack of marketability at both the time the FHFC was issued and at the time of the mineral examination. *Id.* at 5. The contest complaint (Gov. Ex. 124) was filed on August 3, 2001, on the grounds recommended by Storo.

Judge Hammett held a hearing on June 16, 2003. During that hearing, BLM objected strongly to Contestees' introduction of the fiber cement siding and silica flour markets as alternative markets supporting marketability. Tr. at 5-23. Judge Hammett decided to include all markets in the contest, but provided a supplemental hearing on February 23, 2004, to allow BLM to prepare and properly question witnesses regarding the two new markets. *Id.* at 24-25, 289.

O. Jay Gatten, an expert in economic geology, prepared a study entitled "Economic Analysis and Mine Plan: Quartz Mountain Silica Quarry" (Gatten Mine Plan), dated July 23, 2003. Looseleaf addition in Cont. Ex. Binder. The Gatten Mine Plan sets forth a detailed mining plan for the quarry and an economic analysis of the expected costs and revenues for the operation. The Mine Plan envisions producing 50,000 to 100,000 tons of silica sand per year.¹² The silica rock would be drilled and blasted, then pushed immediately north of the mined area using heavy equipment. There a portable jaw crusher would crush the silica to sizes of 4-1/2 inches or less. The crushed silica would then be hauled to a plant near Tiller, Oregon, where it would be processed to meet CertainTeed's specifications. The plant is not yet built, but Contestees have land available to lease for the plant, and Gatten's plan included the capital costs that would be incurred in its construction.

Gatten's plan entailed using two sizes of mesh screens. The first would be used to achieve silica of less than 1/2 inch, using a closed loop with an additional crusher to recrusher any oversize pieces to ensure that all silica processed at the plant would be less than 1/2 inch and would pass through the first screen. After the material was dried it would pass through a second, 150 mesh screen that would separate the silica into two bins: those greater than a 150 mesh screen and those smaller than a 150 mesh screen. Silica pieces small enough to pass through a 200 mesh screen are known as "fines," and CertainTeed requires that fines make up not more than 5% of the total bulk.

Gatten provided a summary of the figures in Table 2. He indicated that the Contestees could expect a total annual revenue of \$1,800,000. Less total production costs and taxes, Gatten estimated a net profit of \$222,000 and an annual rate of return of 17.9%. Gatten Mine Plan, Table 2.

¹² The Mine Plan also addresses plans to produce silica flour and decorative stone. However, because Contestees chose not to present evidence regarding those markets, Judge Hammett appropriately did not consider them. See Decision at 24 n.18.

On January 9, 2004, Regis completed a supplement to BLM's Mineral Report, entitled "The Bureau of Land Management's Market and Economic Analyses of the Supply of Silica from the Quartz Mountain Deposit to the Silica Flour Markets on the West Coast of the United States and to Certain Teed, a Fiber Cement Wallboard Manufacturer in White City, Oregon" (Supplemental Mineral Report), addressing the fiber cement siding market and responding to the Gatten Mine Plan. Looseleaf addition to Gov. Ex. Binder.

E. Judge Hammett's Decision

After both hearings and post-hearing briefing, discussed in detail *infra*, Judge Hammett issued his Decision, concluding that BLM had made a prima facie case that the Quartz Mountain silica was not marketable on the nickel and glass markets because it had established that those markets were not present at the time of the hearing. Decision at 21-23. He further concluded that Contestees had not presented evidence sufficient to overcome BLM's prima facie case and to demonstrate that the claims were valid with respect to these markets. However, Judge Hammett held that BLM had *not* made a prima facie case with regard to the fiber cement siding market and that the evidence demonstrated that Quartz Mountain silica can be sold at a profit with an acceptable rate of return. Decision at 24. Because the contest arose from a patent application, Judge Hammett took the additional steps of determining whether the record as a whole supported a conclusion that the mining claims contain a valuable mineral deposit and whether all the requisites of the law had been met for issuance of a patent. Decision at 22, 25. He concluded that the claims could be profitably mined with an expected return of 9.7% per year over 10 years and that the claims were therefore "suitable for patent." Decision at 32.

II. ARGUMENTS ON APPEAL

On appeal, BLM alleges three major errors in Judge Hammett's Decision. BLM's primary argument is that Judge Hammett's order directing BLM to consider the fiber cement siding market constitutes reversible error. SOR at 7-9. BLM strongly objects to the inclusion in the contest of any markets not identified in the patent application or at the time of the mineral examination.

BLM's second argument derives from the first. Judge Hammett separated his analysis of the burden of proof in the contest by market, *i.e.*, separately analyzing the Government's prima facie case for each market and then, where the Government had established a prima facie case, determining whether the Contestees had shown, by a preponderance of the evidence, that Quartz Mountain silica could be introduced into that market with a reasonable likelihood of success. BLM argues that Judge Hammett incorrectly concluded that the Government had failed to present a prima facie case as

to the fiber cement siding market. It further argues that the Contestees failed to carry their burden of proof after a prima facie case was established. SOR at 4-7. Because Judge Hammett agreed with BLM that it had established a prima facie case for the nickel and glass markets, and that the Contestees did not carry their burden as to those markets, BLM's arguments on this issue exclusively pertain to Judge Hammett's conclusion that BLM did not make a prima facie case with regard to the fiber cement siding market.

Finally, BLM argues that even if Judge Hammett correctly concluded that the Government had not made a prima facie case with respect to the fiber cement siding market, his weighing of the evidence incorrectly led him to conclude that the Contestees preponderated on the issue of whether the claims were eligible for patent. SOR at 9. BLM cites numerous alleged flaws in Judge Hammett's analysis of the evidence in support of its argument that the Contestees did not preponderate on the question of whether the claims constituted a valid discovery based on the fiber cement siding market and were therefore not eligible for patent. SOR at 9-27.

The Contestees respond that Judge Hammett properly included the fiber cement siding market in the contest and properly found that the Government failed to make a prima facie case as to that market (Contestees' Response to SOR (Response) at 3-8), particularly with regard to the economic analysis of the mining plan and the determination of Forest Service road use fees, as discussed *infra*. *Id.* at 8-21. The Contestees further argue that Judge Hammett properly weighed the evidence to find the Contestees are entitled to receive patent.

III. ANALYSIS

This appeal, therefore, presents two major issues. The first is whether Judge Hammett appropriately considered a market for the mineral in a mining contest that was not raised in the patent application or during the mineral examination. The second, more procedural, question is whether Judge Hammett appropriately weighed the evidence presented under the applicable burdens of proof. We will address the issues in that order.

A. Scope: New Markets

BLM renews on appeal its objections to Judge Hammett's decision to consider the fiber cement siding market. The crux of BLM's argument is that the Contestees identified the fiber cement siding market too late in the contest process to rely upon that market to establish discovery. To address this argument we will first review two governing principles of mining law.

[1] First, to establish discovery, a mineral must be *marketable* at a profit, but not necessarily *marketed*. The prudent person test requires us to look at “what a prudent miner would do to obtain a maximum return and then judge whether [it] is sufficient to satisfy the prudent man standard, including the marketability standard.” *United States v. Willsie*, 152 IBLA at 271.

In *United States v. Willsie*, the claimant of a gypsum mine had submitted a patent application with a limited marketing plan that included only markets for bulk agricultural grade gypsum, bagged specification agricultural grade gypsum, and bagged food grade gypsum. *United States v. Willsie*, 152 IBLA at 245. BLM’s mineral examination looked at only the markets identified in the patent application, omitting analysis of “81% of the market for gypsum.” *Id.* at 248. The Mineral Report concluded that only a small part of the gypsum on the claim could be extracted, removed, and marketed at a profit because the limited markets identified in the mineral examination could not absorb greater amounts of gypsum. *Id.* at 247. BLM therefore recommended patent on a small portion of the claim and commenced contest proceedings against the remaining portion of the claim. Upon receiving the Mineral Report, the claimant provided an expert report to BLM which explained that the claimant now believed that other markets for gypsum, including the rapidly expanding fiber wallboard market in the southwest, could absorb much more gypsum, making a greater portion of the claim marketable. *Id.* at 247-48. BLM did not challenge the introduction of evidence of these additional markets, even though the claimant did not identify them until after the contest was initiated. BLM supplemented its Mineral Report to include the fiber wallboard, plaster, and Arizona agricultural markets, but ultimately found that the new markets would not be able to absorb gypsum from the contested claims. *Id.* at 249. After a contest hearing, the ALJ ruled that the government had not established a prima facie case, in relevant part because the Government witnesses had not convincingly testified regarding the allegedly limited marketability of the claimant’s gypsum.

On appeal, this Board held that the Government had established a prima facie case, but determined, exercising its *de novo* review authority, that the Contestees had preponderated on the issue of marketability. The Board stated that because the prudent person standard is objective, “it does not depend on what the Contestees actually planned to do.” *Id.* at 271. Because BLM had constructed its prima facie case on the theory that the limited markets identified by the Contestees “represented the actions of a prudent man,” BLM’s case was “vulnerable to evidence that a prudent man would not so limit his operation.” *Id.* The Board held that the claimant had, in fact, established that a prudent man would have identified the fiber wallboard market for the gypsum on the claim and would not have confined himself to the claimant’s original, limited, marketing plan. Because the Contestees had established that a

prudent miner would have identified the significantly larger market, the Board held that the gypsum claims were marketable. *Id.* at 271-72.

As in *Willsie*, we therefore must look to what a prudent miner would have done to obtain a maximum return for the silica from the Big Quartz claims at the point when the marketability determination was made, *i.e.*, as of the time of the hearing. If a prudent miner would have identified a market, then that market is appropriately considered in the contest, regardless of whether the claimant had previously identified or proposed it.

This brings us to the second principle, that the marketability determination is appropriately made at the point when BLM has sufficient information to make a determination regarding validity.¹³ The Department's analysis for identifying the appropriate time to determine discovery has evolved and changed over the years. The Supreme Court, in 1963, held that the time to test for discovery is "the time of the application for patent." *Best v. Humboldt Placer Mining Co.*, 371 U.S. 334, 336 (1963), *citing United States v. Logomarcini*, 60 L.D. 371, 373 (1949). The Department has since refined that ruling. In 1969, the Department held that discovery should be measured when the applicant has completed all of the requirements for a patent application, which can often post-date the filing of a patent application. *United States v. Denison*, 76 I.D. 233, 254 (1969). That conclusion was reached in *United States v. Whittaker (On Reconsideration)*, 102 IBLA 162, 166 (1988), upon which BLM relies to support its claim that marketability should be determined no later than the time of the mineral examination.

BLM acknowledges that "[m]arketability is not arbitrarily measured at a specific point in time, but is applied in a more flexible manner to account for short-term market fluctuation," but cites *Whittaker* for the proposition that "the question of present marketability must be determined by reference to that date on which the claimant fulfilled all of the prerequisites to the making of an entry, *i.e.*, no later than the date of the issuance of the final certificate." SOR at 8, *quoting Whittaker*, 102 IBLA at 166. Thus, it is BLM's contention that the only eligible market to

¹³ In this case, the land underlying the mining claims has not been withdrawn and the mineral located is not a common variety. Thus, the cases in which we have articulated specialized discovery standards for those situations do not apply. *See, e.g., United States v. Parker*, 82 IBLA 344, 348 (1984), *citing Cameron v. United States*, 252 U.S. 450 (1920) (when a mining claim is located on land subsequently withdrawn from mineral entry, discovery must be shown as of the time of withdrawal and at the time of the hearing); *United States v. Fisher*, 115 IBLA 277, 280 (1990) (discovery must be established for claims located for common varieties as of July 23, 1955, and "reasonably continuously thereafter").

examine is the nickel market, which was the one that had been identified when Alla Lu Rannells received the FHFC. SOR at 9. If any other market were to be used, BLM believes it could be only the glass market, which was the market being investigated by the Contestees to replace the nickel market at the time of the mineral examination. *Id.* As Contestees point out, however, not only has BLM misconstrued our holding in *Whittaker*, that holding has been further clarified by subsequent law.

Whittaker was clarified by Solicitor's Opinion M-36994, *Patenting of Mining Claims and Mill Sites in Wilderness Areas* (May 22, 1998), wherein the FHFC was characterized as an "internal administrative recordation of an applicant's compliance with the initial paperwork requirements of the Mining Law" only, with no relevance to the patent requirements. See M-36990, *Entitlement to a Mineral Patent Under the Mining Law of 1872* (Nov. 12, 1997) at 3.¹⁴ The M-Opinion focuses primarily on treatment of mining claims on land that has been withdrawn subsequent to location, but also reiterates the broad principle stated in a previous Solicitor's Opinion that a patent application is considered "complete" for purposes of establishing entitlement to patent only when the patent applicant has complied with all of the terms and conditions entitling it to a patent under the Mining Law, as determined by the Secretary, including verifying a discovery of a valuable mineral deposit. M-36994 at 15-16, 19 n.22, citing M-36990, *Entitlement to a Mineral Patent Under the Mining Law of 1872* (Nov. 12, 1997). The M-Opinion goes on to address perceived errors in *Whittaker*:

The IBLA has addressed the issue of when a patent application has complied with the applicable requirements, for the purpose of fixing the time for determining whether a discovery exists. Specifically, IBLA has said that "present marketability" of a claim for purposes of deciding whether a discovery exists should be determined "by reference to the date on which the claimant fulfilled all of the prerequisites to the making of the entry, *i.e.*, no later than the date of the issuance of the [first half] final certificate." *United States v. Norman A. Whittaker (On Recon.)*, 102 IBLA 162, 166 (1988).

For both legal and practical reasons, the IBLA's rigid cut off date (the FHFC) for determining whether a claimant has complied with all the requirements for obtaining a patent is not an appropriate standard. While the Mining Law specifically requires patent applicants to show such compliance in the patent application, 30 U.S.C. § 29, it has long

¹⁴ Solicitor's Opinion M-37008, *Binding Nature of Solicitor's Opinions on the Office of Hearings and Appeals* (Jan. 18, 2001) (Secretary Babbitt concurring), establishes that Solicitor's Opinions are binding on the Office of Hearings and Appeals.

been the Department's experience that many patent applicants do not, in their initial patent applications, furnish enough information to enable the Department to verify whether the applicant discovered a valuable mineral deposit (or is properly using and occupying mill sites). Full compliance is not achieved until the applicant has submitted sufficient information to allow the Department to verify a discovery, usually some time after a FHFC has been signed.

Where the applicant has obtained a FHFC, but has not submitted enough information to allow the Department to verify a discovery, the Department's mineral examiner requests additional information from the applicant. In this common situation, the Department should not follow the *Whittaker* rule and measure "present marketability" as of the date the FHFC is issued. Rather, *present marketability should be determined as of the date the applicant submitted adequate information to allow the Department to verify the discovery*. Where the applicant has submitted sufficient information at the time the FHFC is issued, however, the *Whittaker* standard may still be followed.

Id. at 15-16 (emphasis added, footnote omitted).

[2] The emphasized language sets out the rule we must apply here: the most important factor to consider in deciding when to make a marketability determination is the point when the applicant has submitted adequate information to allow the Department to verify discovery. *See Moon Mining Co. v. Hecla Mining Co.*, 161 IBLA 334, 350 n.14 (2004) (following this interpretation of Solicitor's Opinion M-36994). Such information must include facts regarding exposure and marketability of a valuable mineral; consequently, the point at which this information is provided in full will necessarily vary from situation to situation. Therefore, the date at which marketability is determined must be decided on a case-by-case basis.

Although the fiber cement siding market was not specifically identified in the patent application, that application did state that

[s]ilica has a number of different industrial uses including glass and ceramic manufact[u]ring, construction aggregates, foundry sands for metal casting, air-abrasive sands, hydraulic fracturing sands for oil and gas production, production of silica metal and compounds, base metal smelting, and functional fillers in numerous products such as rubber, plastic, and paints.

Patent Application at 11. Rannells also stated that she was “currently negotiating additional markets.” *Id.*

BLM’s Mineral Report reasonably focused on those markets identified by the Contestees at the time BLM undertook its mineral examination, the nickel market and the glass market. However, it also identified and briefly analyzed the fiber cement siding market, and specifically the CertainTeed factory. Regis, the contractor who prepared the marketability report for BLM, rejected the market as a possibility for Quartz Mountain silica based on information regarding its specifications that he conceded was “hearsay.” Tr. at 145. Regis admitted that he never spoke with CertainTeed directly about their specifications, nor did he contact the Contestees for that information. We believe that a prudent miner would have concluded that CertainTeed was a possible market.

When the Contestees identified the market to BLM in a letter dated January 8, 2002, and stated their intentions to market to CertainTeed, BLM refused to reconsider its Mineral Report ¹⁵ in light of the new information on the grounds that the mining contest had already begun. Tr. at 56. Before the contest hearing began, Contestees proposed delaying the contest to allow them to present information to BLM regarding the fiber cement siding market. *Id.* at 14-15, 20. Contestees believed that if BLM had access to that information, it would find that the claims were valid and would drop the contest. *Id.* Again, BLM refused to consider the new information and repeatedly objected to the introduction of any reference to the fiber cement siding market into the contest. *Id.* BLM concedes that it received accurate CertainTeed specifications only after the original hearing when Contestees’ counsel provided the specifications in a letter. *Id.* at 325. It was only at that point that BLM possessed reliable information necessary to determine whether the claims were supported by a valid discovery. Thus, in accordance with M-36994, it is as of the time of the hearing that we will assess marketability, as Judge Hammett did.

B. Burden of Proof

[3] BLM challenges Judge Hammett’s determination that the Government failed to present a prima case facie regarding the fiber cement siding market and that the Contestees established their entitlement to patent. In *United States v. Miller*, 165 IBLA at 356, the Board set forth the following rules governing the burdens of

¹⁵ We note that Contestees allege, and BLM does not dispute, that although the Mineral Report was completed in 2001, the Contestees did not receive a copy until they submitted a Freedom of Information Act (FOIA) request, which was answered in January 2003, just 6 months before the contest hearing, further and unnecessarily limiting the Contestees’ ability to provide the new market information to BLM. Tr. at 12, 16.

proof in a contest filed by the Government as the result of a patent application, as in the instant case:

When the Government contests a mining claim based on a charge of lack of discovery of a valuable mineral deposit, it bears the initial burden of going forward to establish a prima facie case in support of that charge, whereupon the claimant has the ultimate burden of persuasion to overcome that case by a preponderance of the evidence. See *Hallenbeck v. Kleppe*, 590 F.2d 852, 856 (10th Cir. 1979); *United States v. Winkley*, 160 IBLA at 142-43; *United States v. Bechthold*, 25 IBLA [77,] 82 [(1977)]. The burden is different, however, for the contestee when a contest is filed as the result of a patent application. In such a situation, it is well settled that the Government must make a prima facie case in support of its charges and that, upon such a showing, the claimant must establish that the claim is valid, even apart from the issues raised in the prima facie case. *United States v. Mannix*, 50 IBLA 110, 112 (1980). . . .

As Judge Hammett noted: “If, however, the contest involves a patent application, as it does in this case, the Department of the Interior must still determine whether ‘all the requisites of the law have been met before patent may issue.’” Decision at 22, quoting *United States v. Taylor*, 19 IBLA 9, 26 (1975).

1. *Prima Facie Case*

The “Government establishes a prima facie case when a mineral examiner testifies that he has examined a claim and found the mineral values insufficient to support a finding of discovery.” *United States v. E.K. Lehmann & Associates*, 161 IBLA 40, 44 (2004), citing *United States v. Dresselhaus*, 81 IBLA 252, 257 (1984); *Hallenbeck v. Kleppe*, 590 F.2d at 859. “A finding that the Government has presented a prima facie case merely means that the evidence provided by the Government in its case-in-chief ‘is completely adequate to support the Government’s contest of the claim and no further proof is needed to nullify the claim.’” *United States v. Knoblock*, 131 IBLA 48, 81-82, 101 I.D. 123, 141 (1994), quoting *United States v. Bunkowski*, 5 IBLA 102, 119, 79 I.D. 43, 51 (1972). Whether the Government has presented a prima facie case is determined solely on the evidence adduced during the government’s case-in-chief. *United States v. Miller*, 138 IBLA 246, 269 (1997); *United States v. Knoblock*, 131 IBLA at 81-82, 101 I.D. at 141. But we have held that the Government’s case-in-chief, for purposes of evaluating the prima facie case, includes the testimony elicited in cross-examination. *United States v. Miller*, 165 IBLA at 349; *United States v. Miller*, 138 IBLA at 269-70.

The Government presented two witnesses, BLM Mineral Examiner Storo and contractor Regis. In the first hearing, Storo's testimony relating to the fiber cement siding market was limited to asserting that Quartz Mountain silica had not been used in that market and repeating that the Contestees had not identified that market to BLM in the patent application or during the mineral examination. Tr. at 40, 46, and 48. He stated that the Contestees had informed him via letter on January 8, 2002, that they had sent a 160-ton sample to CertainTeed and expected to sign a contract shortly, but he testified that his supervisor, John Kavel, decided against reopening the Mineral Report to address the fiber cement siding market because it was not identified until 6 months after the contest had been initiated. *Id.* at 56.

Regis' testimony at the first hearing was more extensive. He stated that he attempted to identify every possible market. Tr. at 95-96. He noted that he had identified CertainTeed as a possible market, but had not been able to verify prices and specifications with CertainTeed directly, and while he had an "idea" of CertainTeed's specifications, his information was derived from personal contacts and was "just hearsay." *Id.* at 95-96, 146-47.

At the second hearing, the same two witnesses testified, after they had had the opportunity to review the Gatten Mine Plan and conduct new testing with the benefit of accurate CertainTeed specifications provided by Contestees, this time using reverse-circulation drilling samples¹⁶ rather than grab samples. Storo testified that he reviewed Regis' analysis of these new pieces of information. Tr. at 298. Storo's sole analytical contribution related to the fees the Forest Service would charge for hauling material from Quartz Mountain over Forest Service roads to the CertainTeed plant. He stated that the Contestees' Mining Plan did not account for all Forest Service hauling fees in its estimate. Tr. at 302-05. The Contestees' mining plan estimated \$2.94 per ton, but Storo testified that according to Forest Service handbooks and manuals, the fee would actually be \$9.17 per ton. *Id.* at 304-05.

On cross-examination, Storo admitted that he did not calculate the \$9.17 figure personally, but was instead relying on a conversation with Forest Service transportation planner Rick Nelson. *Id.* at 310-11. He thus was unable to explain the disparity between the \$9.17 per ton fee he testified to at the hearing and a draft Forest Service fee statement provided by Contestees, Cont. Ex. 123, indicating that the fee would be much lower, \$2.94 per ton. *Id.* at 315-16. Nor was he able to

¹⁶ At the first hearing, Charles Smith, a geologist who investigated Quartz Mountain on behalf of Cardinal Glass, testified that he took 11 reverse-circulation drilling samples on the claims and that he provided those samples to BLM. Tr. at 209. Storo admitted that the original testing done for the Mineral Report used grab samples, a sampling method he acknowledged to be less accurate than reverse-circulation drilling samples. *Id.* at 62-66.

explain the basis for the disparity between \$9.17 and the \$4.94 per ton figure used in the Supplemental Mineral Report. *Id.* at 312-13. He could not explain how the Forest Service hauling fees in the Supplemental Mineral Report had been calculated, although he admitted that he was “responsible for the information which is put into this proceeding to establish that the claims are not entitled to patent.” *Id.* at 313. He further admitted that he had no knowledge relating to the Forest Service’s historical hauling fees in the area. *Id.*

Regis testified that he had performed an analysis of the Gatten Mine Plan using the CertainTeed specifications provided by Contestees after the first hearing. Tr. at 321-27. In his opinion, the Gatten Mine Plan understated the costs of production by failing to account for various costs including additional blasting that would be necessary because of the small stockpiles, the use of multiple screens to achieve the size ratio required by CertainTeed, the cost of leasing land for the processing plant necessary to achieve the CertainTeed specifications, and conducting environmental mitigation. *Id.* at 322-29. He emphasized that, in his view, the Quartz Mountain silica could not meet the CertainTeed specifications with only the two screens provided in the Gatten Mine Plan. *Id.* at 325. He further asserted that hauling costs are not purely a factor of distance, because the costs vary greatly depending on whether a rail option is available or whether transportation must be done by truck. *Id.* at 346. He stated that hauling costs would be high where no rail is available, but would be negligible where the rail terminus is near the mining site. *Id.* Quartz Mountain does not have rail access, but CertainTeed’s current supply from Lane Mountain arrives by rail. *Id.* at 337.

On cross-examination, Regis was unable to provide a basis for his calculation regarding the size of the stockpiles. Tr. at 329-34. He claimed the information was available in his field notes, but a subsequent letter from BLM to Judge Hammett in response to the Judge’s instruction to provide the field notes after the hearing reported that Regis had been unable to locate the necessary information in his field notes. Looseleaf Letter in Gov. Ex. Binder, received Mar. 19, 2004. Regis admitted that he had limited his analysis of Quartz Mountain silica to the “soft zones” without considering how mining of the “hard zones” would impact the Contestees’ mining plan. Tr. at 341. He also admitted that the transportation costs for Quartz Mountain would be less than he had estimated because he had not fully understood the labeling in the Gatten Mine Plan, and therefore added a transportation cost to his analysis on the belief that it was not included in the Gatten Mine Plan, when, in fact, the cost had been included. *Id.* at 344. Finally, Regis admitted that the Lane Mountain quartz, also transported by rail, must travel several hundred miles to CertainTeed’s plant. *Id.* at 337-38.

[4] Judge Hammett concluded that the information described above was insufficient to establish a prima facie case that there was no discovery. “Generally, when a Government mineral examiner, who has had sufficient training and experience to qualify as an expert witness, testifies that he has physically examined the claim and found mineral values insufficient to indicate the discovery of a valuable mineral deposit, the United States has established a prima facie case that the claim is not supported by a discovery.” *United States v. Miller*, 165 IBLA at 369; *United States v. Gillette*, 104 IBLA 269, 274-75 (1988). However, the testimony must be credible. A mineral examiner who testifies on matters beyond his knowledge does not establish a prima facie case. See *Rodgers v. Watt*, 726 F.2d 1376, 1380 (9th Cir. 1984); *Charlestone Stone Products Co. v. Andrus*, 553 F.2d 1209, 1213-14 (9th Cir. 1977), reversed on unrelated grounds by *Andrus v. Charlestone Stone Products Co.*, 436 U.S. 604, 610 (1978); *Verrue v. United States*, 457 F.2d 1202, 1204 (9th Cir. 1972); see also *United States v. Willsie*, 152 IBLA at 255-56.

[5] Although the Board has *de novo* review authority, we have repeatedly expressed reluctance to disturb an administrative law judge’s findings of fact based on credibility determinations where they are supported by substantial evidence. *United States v. Miller*, 165 IBLA at 377; *United States v. Aiken Builders Products*, 149 IBLA 267, 271 (1999); *United States v. Higgins*, 134 IBLA 307, 316 (1996); *United States v. Carlo*, 133 IBLA 206, 211-12 (1995). The basis for this deference is the fact that the Judge who presides over a hearing has the opportunity to observe the demeanor of the witnesses and is in the best position to judge the weight to be given to conflicting testimony. *United States v. Miller*, 165 IBLA at 377; *Yankee Gulch Joint Venture v. BLM*, 113 IBLA 106, 136 (1990); *United States v. Whittaker*, 95 IBLA at 271.

Our review of the record discloses no reason to disturb Judge Hammett’s findings regarding road user fees. BLM’s experts showed repeated inability to provide the foundation for the very calculations that they claimed established the lack of discovery. BLM’s position on transportation costs was never clear. The Government’s estimate of Forest Service hauling fees jumped from \$4.94 per ton to \$9.17 per ton between the completion of the Supplemental Mineral Report and the hearing. BLM Mineral Examiner Storo, who supervised the drafting of the Supplemental Mineral Report and conducted the additional research purportedly supporting the \$9.17 per ton fee, was unable to provide a basis for either cost during cross examination. See Tr. 318. On cross-examination it became clear that the transportation costs used by Regis, the contractor who actually drafted the Supplemental Mineral Report, were based on erroneous assumptions regarding the transportation cost estimates used in the Gatten Mine Plan. See Tr. 310-11, 318. As Judge Hammett observed, BLM did not call any Forest Service employees at the supplemental hearing. Decision at 17.

Where BLM's primary argument attacking the validity of a claim is that the costs are too high for the mineral to be profitably marketed, a BLM determination of invalidity that is based on unsupported cost estimates does not establish a prima facie case. Judge Hammett criticized the evidence presented by BLM's witnesses as lacking in the necessary "specificity." Decision at 23. We agree with Judge Hammett that a charge of lack of discovery that is based on speculative evidence does not establish a prima facie case. See *United States v. Taggart*, 53 IBLA 353, 355-56 (1981). We therefore affirm Judge Hammett's determination that BLM failed to establish a prima facie case as to the fiber cement siding market and that the contest should be dismissed.

2. *Validity to be Proved by Patent Applicant*

[6] Because this contest arose from a patent application, Judge Hammett properly proceeded to determine whether the claims were eligible for patent. See *United States v. Taylor*, 19 IBLA at 24 (1975); see also *United States v. Miller*, 165 IBLA at 349; *United States v. Martinez*, 49 IBLA 360, 376 (1980).

Judge Hammett first concluded, based on testimony from Kevin Christiansen, CertainTeed's authorized representative, that the Quartz Mountain silica would in fact meet the CertainTeed specifications. BLM argues that Christiansen's testimony should be discounted because he is not an authorized purchasing agent. SOR at 23. However, Christiansen stated that he had been authorized by the company to testify that CertainTeed would pay \$36 per ton for silica from the claims in question. Tr. 391, 401. His unchallenged testimony is persuasive.

Judge Hammett then evaluated the points of contention between the parties in the calculations of costs. He first considered three critical assumptions in the Gatten Mine Plan: the percentage of anticipated waste, the road use fees, and the number of tons that would have to be mined to produce 50,000 tons of silica for CertainTeed.

The Contestees asserted that the percentage of mined silica that would become waste, *i.e.*, would become fines exceeding CertainTeed's maximum of 5% of the total volume, would be 13.5%; BLM countered that it would more likely be 34%. Judge Hammett recognized flaws in each side's argument and concluded that neither side had presented a persuasive case for its calculations. Judge Hammett therefore averaged the two numbers to yield an assumption that 24% would be waste, thereby requiring the Contestees to mine 62,000 tons to produce 50,000 finished tons.

On appeal, BLM argues that Judge Hammett inappropriately averaged the two conflicting waste estimates because "[t]here is no evidence in the record to suggest that Judge Hammett's approach would resolve the issue of excess fines. Rather, the

evidence in the record suggests that CertainTeed would reject the material outright because the crushing process produces excess fines.” SOR at 13. In making this argument, BLM misunderstands Judge Hammett’s purpose in averaging the figures. Judge Hammett correctly understood the Gatten Mine Plan to indicate that not all of the mined and processed material would be sold to CertainTeed. The material would be screened to achieve the correct percentages. The volume of fines exceeding 5% of total volume would be considered waste. By averaging the parties’ two sampling figures, Judge Hammett attempted to determine the most likely percentage of mined material that would become waste. In doing so, Judge Hammett appropriately weighed the conflicting evidence presented by the parties.

The second assumption Judge Hammett addressed was the cost of the road use fees that the Forest Service would charge for transporting the silica to CertainTeed. Again he acknowledged that neither side presented dispositive evidence on this issue, but ultimately found that the Contestees’ evidence—a draft Forest Service Road Use Permit written on or about November 27, 2001, listing road use fees totaling \$2.93, and Lorri Crawford’s testimony regarding road use fees totaling \$2.94 a ton actually charged for the delivery of a bulk sample to Certain Teed in 2001—outweighed BLM’s unsubstantiated testimony that the road use fees would total \$9.17 per ton.

On appeal, BLM argues, relying on selected portions of the Forest Service Manual, Forest Service Handbook, and selected supplements, that the fees would, in fact, be even higher than BLM asserted at the contest. BLM contends that the road use fees include both maintenance-sharing and investment-sharing components, of which only the maintenance-sharing component was discussed during the contest. BLM claims, without providing any additional support, that the fees should be approximately \$14/ton. However, Contestees point out that these fees, and their magnitude, are discretionary and dependent on many factors, including the number of other users of the road, the maintenance work done by the user, the Government’s investment costs, and the current market rate for the replacement value of the road. *See* Forest Service Manual 7731.31, “Methods of Investment Sharing” and 7732.22 “Maintenance by Commercial Users” (Amendment No. 7700-2003-1, Jan. 14, 2003); Forest Service Transportation System Operations Handbook 31.3 (WO Amendment 7709.59-91-1, Mar. 1, 1991); Forest Service Permits for Road Use Handbook, 7709.59 (R-6 Supplement No. 7709.59-98-1, Aug. 20, 1998). The Contestees provided persuasive, although not conclusive, evidence that the actual fee the Forest Service would charge the Contestees for their proposed operations would be \$2.94 per ton. BLM has merely shown that the Forest Service possibly could charge more. This is insufficient to establish error in Judge Hammett’s determination of road hauling costs.

Finally, Judge Hammett noted that the Gatten Mine Plan anticipates that only 50,000 tons of silica would be crushed and sized each year to produce 50,000 tons per year. Judge Hammett rejected this unstated assumption because the arguments relating to the waste production established it would be higher. He assumed, therefore, that 62,000 tons of silica would be crushed and sized each year to produce 50,000 tons. Decision at 29.

Taking into account the adjustments to the Gatten Mine Plan assumptions discussed above, Judge Hammett calculated the direct production costs for the operation as follows:

Direct Production	\$/Ton	\$ Total	Explanation
Drilling/Blasting	1.5	93,000	1.50 x 62,000 = 93,000
Mining and Crushing	2.4	148,800	2.40 x 62,000 = 148,800
Crushing and Sizing	7.24	448,880	7.24 x 62,000 = 448,880
Reclamation	0.1	5,000	0.10 x 50,000 = 5,000
Trucking - Quarry/Plant	7.79	482,980	7.79 x 62,000 = 482,980
Trucking - Plant/White City	6.26	313,000	6.26 x 50,000 = 313,000
TOTAL		1,491,660	

Judge Hammett then considered the indirect costs. The Gatten Mine Plan anticipated \$136,000 in indirect costs, but in his analysis of the claims Judge Hammett added some omitted costs which were provided in testimony or in the plan itself but not included in the final cost analysis. These costs were \$12,000 per year in costs to lease the land for the processing plant, \$47,000 per year in road use fees to haul the waste material back to the mine site for disposal, \$4,000 per year in quality control costs, and \$5,000 per year in amortized costs for additional screens should they prove necessary to achieve the correct ratio of sizes to meet CertainTeed's specifications.¹⁷ Adding all of these costs to the indirect costs calculated by Gatten, \$136,000, and the direct costs, \$1,491,660, Judge Hammett arrived at a final cost per year of \$1,695,660. He noted that the anticipated revenue was \$1,800,000, or

¹⁷ BLM argues that Judge Hammett failed to include the additional screens in his final calculations of the costs. This is not correct. Because the screens would be considered a capital investment, Judge Hammett properly included them as amortized costs.

50,000 tons times \$36.00 per ton. Using these numbers in Gatten's Table 2, which sets out the cashflow of the project, Judge Hammett reached the following result:

Revenue	1,800,000
Total Production Costs	1,695,660
Net Before Taxes	104,340
Depletion Allowance (14% or ½ net)	52,170
Income Tax Base	52,170
Federal and States Taxes (40%)	20,868
Net Profit	83,472
Cash Flow (Net Profit + Amortization)	174,472 (83,472 (net profit) + 86,000 (amort.) + 5,000 (amort.))

Based upon these calculations, Judge Hammett concluded that the mine would have an average rate of return of 9.7% ($174,472/1,800,000$) and an income over the life of the mine of \$1.6 million ($1,000,000$ (tons of reserves)/ $50,000 = 20$ years; $20 \times \$83,472 = \$1,669,440$). Decision at 31-32. Given this information, Judge Hammett concluded that “a person of ordinary prudence, privy to the information set forth in the record . . . would be justified in further expenditure of his or her labor and means with a reasonable product of success in developing a valuable mine.” *Id.* at 32. He therefore found that a discovery of a valuable mineral deposit exists on the four mining claims at issue, and that the claims are suitable for patent. *Id.*

IV. CONCLUSION

Judge Hammett stated that he was “not unmindful of the fact that the Contestant presented BLM with a number of different potential markets over the course of the proceeding, and that BLM’s job in evaluating all of these markets was not an easy one.” Decision at 32. We find no error in his allowing the Contestees to present evidence that the silica could be sold to CertainTeed for use in the

manufacture of fiber cement siding, or in his determination that the Government failed to present a prima facie case as to that market. We conclude that Judge Hammett properly dismissed the Government's contest against the Big Quartz Nos. 2, 3, 9, and 10 lode mining claims, and affirm his ruling that the Contestees demonstrated that the claims are suitable for patent.

To the extent not discussed herein, BLM's other arguments have been considered and rejected.

Therefore, pursuant to the authority delegated to the Board of Land Appeals by the Secretary of the Interior, 43 C.F.R. § 4.1, the decision appealed from is affirmed.

_____/s/_____
James F. Roberts
Administrative Judge

I concur:

_____/s/_____
T. Britt Price
Administrative Judge