UNITED STATES
v.
EMERY CROWLEY AND ROSE ETTA JONES ANSOTEGUI

IBLA 89-401 Decided December 10, 1992

Appeal from a decision of Administrative Law Judge Ramon M. Child declaring lode mining claims null and void for lack of discovery of a valuable mineral deposit. OR MC 47117, et al.

Affirmed.

1. Mining Claims: Contests--Mining Claims: Determination of Validity--Mining Claims: Discovery: Generally--Mining Claims: Discovery: Marketability--Mining Claims: Marketability--Mining Claims: Withdrawn Land

An Administrative Law Judge properly declared lode mining claims null and void where the claimants failed to overcome a Government prima facie case that the claims were not supported by discovery of a valuable deposit of gold and silver when they failed to demonstrate that gold and silver were disclosed either on the surface or in old underground workings in such quality and quantity that they could be extracted, removed and marketed at a profit. The claimants were properly prevented from drilling or reopening a tunnel where the land was withdrawn from mineral entry and there was no evidence that the proposed work was intended to confirm a preexisting discovery.

APPEARANCES: Steven D. Goss, Esq., Oregon City, Oregon, for appellants; Arno Reifenberg, Esq., Office of General Counsel, U.S. Department of Agriculture, Portland, Oregon, for the Bureau of Land Management.

OPINION BY ADMINISTRATIVE JUDGE ARNESS

Emery Crowley and Rose Etta Jones Ansotegui have appealed from a decision of Administrative Law Judge Ramon M. Child, dated March 24, 1989, declaring lode mining claims null and void for lack of discovery of a valuable mineral deposit. At issue are the Pioneer Quartz Lode, Pioneer Quartz Lode Nos. 1 and 2, Pioneer Nos. 3 through 6, Silver Hill Quartz, Silver Hill Nos. 1 through 4, and Toots lode mining claims, OR MC 47117 through OR MC 47123, OR MC 47484, and OR MC 70748 through OR MC 70752.

The mining claims were located for gold and silver by Crowley and Ansotegui in October and November 1981 and November 1983 in secs. 6 and 7, T. 10 S., R. 35 E., Willamette Meridian, Grant County, Oregon, on the eastern slope of the Blue Mountains in the Umatilla National Forest. Effective June 26, 1984, the land was designated part of the North Fork John Day Wilderness Area. 98 Stat. 272, 274 (1984). That designation withdrew the land from appropriation under the general mining laws, subject to valid existing rights. 16 U.S.C. § 1133(d)(3) (1988).

On June 11, 1987, the Bureau of Land Management (BLM) filed a contest complaint (amended Apr. 26, 1988) on behalf of the Forest Service, U.S. Department of Agriculture, charging that "[m]inerals have not been found within the limits of the [subject mining] claims in sufficient quantities and/or qualities to constitute a valid discovery [of a valuable mineral deposit] at present, or as of June 26, 1984." Crowley and Ansotegui answered the complaint and, after a procedural delay, a hearing was held before Judge Child on November 15, 1988, in Ontario, Oregon. On March 24, 1989, Judge Child found that the claimants had failed to overcome, by a preponderance of the evidence, the Government's prima facie case that the claims were not supported by discovery of a valuable mineral deposit, and he declared the claims null and void. Crowley and Ansotegui appealed.

The Pioneer Quartz Lode, Silver Hill Quartz, and Silver Hill No. 1 contain the remnants of the "BiMetallic Mine," an underground mining operation opened in the early 1900's by sinking two primary tunnels or adits (Tr. 49; Report of Mineral Examination, dated Jan. 21, 1986, at 3; Exh. C-19 at 1). Both tunnels are on the flank of a ridge. These operations resulted in over 2,152 feet of crosscut tunnel and 410 feet of drift tunnel (Exhs. C-20 at 3, C-21 and C-22 at 6). The mine went through several owners and was eventually abandoned. The tunnels caved in. They were rehabilitated in the late 1960's and early 1970's and ore was produced. Soon thereafter, operations again ceased. The tunnels again caved in near their entrances.

[1] At issue is whether appellants have discovered a valuable mineral deposit on any or all of the subject claims, as required by 30 U.S.C. § 22 (1988). A discovery of a valuable mineral deposit exists if circumstances are shown that justify a person of ordinary prudence to expend his labor and means with a reasonable prospect of success in developing a valuable mine. Chrisman v. Miller, 197 U.S. 313, 322 (1905); Castle v. Womble, 19 L.D. 455, 457 (1894). This standard has been supplemented by the "marketability test" requiring a showing that the mineral deposit can be extracted, removed, and marketed at a profit. United States v. Coleman, 390 U.S. 599, 600, 602 (1968). Such marketability must be shown as a present fact. In re Pacific Coast Molybdenum Co., 75 IBLA 16, 29, 90 I.D. 352, 360 (1983). Where land has been withdrawn from mineral entry, discovery must be shown as of the time of withdrawal and the date of the hearing. United States v. Beckley, 66 IBLA 357, 361 (1982).

Appellants contend that the Government failed to establish a prima facie case that the subject mining claims are not supported

by the discovery of a valuable mineral deposit. They argue that a prima facie case was not made out because Government mineral sampling disclosed the presence of minerals of sufficient value to constitute a discovery (Statement of Reasons (SOR) for Appeal at 7). They point to two samples, BMC-1 and BMC-85I, taken during August 29, 1984, and August 9, 1985, mineral examinations, showing .004 oz./ton of gold and 3.16 oz./ton of silver (sample BMC-1) and .022 oz./ton of gold and 25.9 oz./ton of silver (sample BMC-85I) (Exhs. G-3 and G-9). Using a 5-year (1979-83) average price for gold ($435.92/oz.) and silver ($12.33/oz.) preceding the 1984 withdrawal of the land from mineral entry, these samples reflected mineral values of $1.74/ton (gold) and $38.96/ton (silver) or a combined value of $40.70/ton for sample BMC-1, and $9.59/ton (gold) and $319.35/ton (silver) or a combined value of $328.94/ton for sample BMC-85I (Tr. 25).

The value of samples BMC-1 and BMC-85I would be less if we were to use prices prevailing for gold and silver at the time of the 1984 withdrawal, which were $369.50/oz. for gold and $8.38/oz. for silver (Tr. 24). We have held that minerals should be valued for validity determination purposes according to their historic prices to allow for market fluctuation. In re Pacific Coast Molybdenum Co., 75 IBLA at 28-29, 90 I.D. at 359-60. The profitability of mining the claims at the time of the hearing is also a relevant consideration. At that time, gold was valued at about $400.00/oz. and silver at about $6.40/oz (Tr. 25). Throughout this opinion, we will use the 5-year average prices for convenience. Our conclusion is that appellants have not demonstrated a discovery even using those higher prices as our standard of reference.

We find that the Government's prima facie case was not undermined by high mineral values in samples BMC-1 and BMC-85I when the significance of those values is properly discounted. The samples were taken by Daniel G. Avery, the Government mineral examiner, from two "dumps" of the prior mine at the upper and lower tunnels. Each dump is a pile of ore and other material taken from underground workings underlying the Pioneer Quartz Lode, Silver Hill Quartz, and Silver Hill No. 1 claims, handsorted to remove any obvious valuable minerals and then dumped at the outlets of those workings. Sample BMC-1 was taken by digging a trench in material mined in the upper tunnel and placed in the lower tunnel dump (Tr. 20-21, Exh. C-18 at 6), while sample BMC-85I was a grab sample of material mined in the upper tunnel and placed in the upper tunnel dump (Tr. 36; Report of Mineral Examination, dated Jan. 21, 1986, at 5).

Avery opined that the material from the dumps was not representative of ore to be found at depth and that, in any case, evidence regarding the quantity of such ore was lacking. With respect to sample BMC-1, he testified that he explained to Crowley that it "would not be a basis for determining validity" (Tr. 20). He found that the sample "does not confirm the presence of a minable ore body of that quality" (Exh. C-18 at 7). He concluded that the sample could demonstrate "what might be underground" (Tr. 20). Avery also explained that sample BMC-85I was not representative of minerals to be found in the vein. Id. at 63, 241-43. He testified that there was no indication that the sample demonstrated that valuable minerals would be found there in sufficient quantity to constitute a discovery. Id.

at 48, 241. Likewise, Judge Child discounted the significance of sample BMC-85I since the source of the sample and the quantity of the ore in the ground was "unknown" (Decision at 7). The same might have been said of sample BMC-1.

There was no evidence regarding the nature of the deposit from which the ore in the two high mineral value samples was taken so that it might be possible to determine the quantity of ore of similar quality at depth. Nor can we say that ore of similar quality is still to be found at depth since the dumps only represent ore which has already been mined. See United States v. Nicholson, 31 IBLA 224, 232-33 (1977). We do not know how ore was placed on the dumps. Any sample taken from the dumps at best represents a random accumulation of ore not indicative of mineral values to be found at depth. Therefore, we cannot say that the two samples establish the existence of a valuable mineral deposit on the Pioneer Quartz Lode, Silver Hill Quartz, and Silver Hill No. 1 claims or any of the other claims. United States v. Lauch, 24 IBLA 354, 358 (1976).

Appellants argue that the Government failed to establish a prima facie case because "random sampling" of the claims was "not sufficient to make a valid determination of the mineral value on this property" (SOR at 8). They assert that to be consistent with mining industry standards the Government should have engaged in "bulk sampling" in order to properly judge the economic viability of mining the land. While the phrase "bulk sampling" is nowhere defined in the record, appellants rely on the testimony of Wayne Eades, general manager of a mining and milling contractor, to explain what they mean. He was critical of the Government's mineral examination and testified that more and larger samples should have been taken and then crushed, sorted, and assayed. See Tr. 162-65, 167, 179.

This argument indicates a fundamental misconception regarding the nature of the burden that rests on the Government in conducting a mineral examination. A Government mineral examiner is not required to sample all areas of a mining claim in order to determine the full extent of mineralization so that it might be decided whether mining operations would actually be profitable. Nor is the Government responsible for generating the same level of information that would be required by a mining company when deciding whether to go ahead with mining. The duty of a Government mineral examiner is to sample existing exposures of mineralization disclosed on a claim in order to determine whether mining operations are likely to be profitable. See, e.g., United States v. Opperman, 111 IBLA 152, 157 (1989).

The record establishes that the Government mineral examiner fulfilled his responsibilities in the instant case (Tr. 20, 28, 36-37). Through his testimony, the Government raised a prima facie case that none of the claims is supported by the discovery of a valuable mineral deposit. The burden then passed to appellants to demonstrate by a preponderance of the evidence, whether by selective and more extensive sampling or other means, that the claims, together or alone, contain a valuable mineral deposit. See United States v. Springer, 491 F.2d 239, 242 (9th Cir.), cert. denied, 419 U.S.

834 (1974); United States v. Whittaker, 95 IBLA 271, 281 (1987), aff'd, Whittaker v. United States, No. CV-87-140-GF (D. Mont. Feb. 8, 1989).

Appellants contend that they have been prevented from obtaining and presenting proof that they had discovered a valuable mineral deposit on the subject claims. They claim that they were denied permission to engage in core drilling on the claims, and that the Forest Service "should have allowed them to core drill the vein in the [upper] tunnel" (SOR at 9).

The record indicates that Avery concluded after his August 1984 mineral examination that appellants should be allowed additional time to confirm the existence of a valuable mineral deposit (Tr. 26; Exh. C-18 at 7; Report of Mineral Examination, dated Jan. 21, 1986, at 4). Crowley then discussed with Avery what efforts might be taken to demonstrate the existence of a valuable mineral deposit. At a May 29, 1985, meeting, Crowley ruled out reopening the upper tunnel because he then thought that it was "impractical and financially prohibitive" (Report of Mineral Examination, dated Jan. 21, 1986, at 4). He also stated that it was pointless to reopen the lower tunnel since it had never reached the vein. Avery stated that:

> We then explained the difficulty of using core drilling to demonstrate an existing discovery. Even with very accurate maps of the underground workings (which are not available), it would be uncertain as to whether a vein intercept in the immediate vicinity of the old workings would be viewed as a "new" discovery, or confirmation of an old discovery made prior to withdrawal.

(Report of Mineral Examination, dated Jan. 21, 1986, at 4). Avery concluded that "the only way to verify an existing discovery would be through either the surface or underground exposures that were made prior to the time of withdrawal" (Tr. 27). Given the difficulty in reaching the underground exposures, he stated that "it was decided to conduct a reexamination based on surface exposures of the vein structures. Permission was granted for the claimant to use powered equipment to freshen the numerous existing cuts on the claims" (Report of Mineral Examination, dated Jan. 21, 1986, at 4). There is therefore evidence that appellants informally requested permission to engage in core drilling and that permission was denied by the Forest Service. See Tr. 240.

We find no fault with the refusal to permit core drilling. Once land has been withdrawn from mineral entry, drilling may only be permitted where it constitutes an effort to confirm the pre-existing discovery of a valuable mineral deposit. See United States v. Mavros, 122 IBLA 297, 310-11 (1992). At the very least, there must be a showing that there has been an exposure of valuable minerals before permission may be granted to determine the extent thereof. Id. at 313. There is no evidence that the core drilling proposed by appellants would have been anything more than an effort to uncover a valuable mineral deposit. Appellants point to no particular sites where they desired to drill, nor have they presented any evidence to support the belief that valuable minerals would be encountered at selected drilling sites. At best, they assert that a vein that at one time produced gold and silver was exposed in the upper tunnel and that this fact is sufficient to

justify permission to drill along the vein (SOR at 9). That stated conclusion does not amount to a showing that valuable minerals are presently exposed so that permission to engage in core drilling is warranted. Judge Child correctly concluded therefore that "fail[ure] to demonstrate an exposure of ore in place in the upper tunnel * * * left core drilling if pursued mere prospecting or exploration which was forbidden after withdrawal" (Decision at 8).

Appellants argue that Judge Child improperly denied them an opportunity to reopen the upper tunnel to obtain proof of the existence of a valuable mineral deposit at depth by denying their request for a second postponement of the hearing, which they sought in order to obtain time for that work. The instant case was originally set for hearing on August 16, 1988. On July 26, 1988, appellants requested a postponement until after October 1, 1988, in order to permit them, as agreed, to reopen the tunnel and conduct tests on the claims, pursuant to an approved plan of operations. No objection was raised by the Forest Service and the request was granted on August 5, 1988.

On September 12, 1988, the hearing was rescheduled for November 15, 1988. On November 9, 1988, appellants again requested a postponement until after December 15, 1988, in order to permit them to test the claims. They stated that they had been delayed in gaining access to the claims by the Forest Service and by blockage of the road with boulders by unknown persons, and also by the hospitalization of Crowley. The Forest Service did not oppose the motion for postponement. Indeed, there was no time to do so. Judge Child denied the motion without explanation by order dated November 10, 1988. Appellants took no interlocutory appeal to the Board from that order and the case proceeded.

Normally, a request for the postponement of a hearing will not be allowed "except upon a showing of good cause and proper diligence." 43 CFR 4.452-3(a). This standard is heightened in the case of a request made less than 10 days prior to the date of the hearing, as was the situation here. In that instance, the party must demonstrate that an "extreme emergency occurred which could not have been anticipated and which justifies beyond question the granting of a postponement." Id. While Judge Child's November 1988 order did not address whether the request for postponement made by appellants met the standard set by 43 CFR 4.452-3(a), we are not persuaded that it did. Aside from any delays which may have preceded the original approval of appellants' plan of operations, they had more than 6 months from May 1988 until the November 1988 hearing to reopen the tunnel and sample the workings. They were unable to do so and attribute this failure to various delays. Overriding these considerations, however, is the fact that their request to reopen the upper tunnel suffers from the same defect as their request to engage in core drilling. They could not reopen the tunnel after the 1984 withdrawal except to confirm a prior discovery. Since that was not shown to be the case, delay of the hearing was properly denied.

Appellants also contend that Judge Child improperly relied on their failure to reopen the tunnel prior to hearing to support a finding they had failed to establish discovery of a valuable mineral deposit (SOR at 11).

There is nothing in Judge Child's March 1989 decision to support this con- clusion. Rather, Judge Child stated that by failing to reopen the tunnel appellants assumed the risk that the Government mineral examiner could not verify the existence of a discovery in the tunnel. See Decision at 8. That was a correct statement of the law. See United States v. Opperman, supra at 157. While the failure to reopen the tunnel contributed to the inability of appellants to establish a discovery, it did not itself prove the lack of a discovery and Judge Child did not so find.

Appellants also argue that Judge Child erred when he failed to conclude that evidence submitted by them was sufficient to establish that there was a reasonable prospect that the claims could be profitably mined and that they had discovered a valuable mineral deposit on the claims. Appellants point to assay results of 33 samples taken by Crowley or others from the claims during the period from August 1967 through October 1987. See SOR at 12; Exh. C-10. With the exception of results from samples assayed by the Double J Lab, these results are summarized in Exh. C-11. Twenty-seven of the samples reveal gold values ranging from a trace to .71 oz./ton and silver values from a trace to 227.39 oz./ton. Using the 5-year average price for gold and silver, the high values translate into $309.50/ton for gold and $2,803.72/ton for silver. Six samples assayed by J & G Mining revealed combined values for gold and silver ranging from 108.43 oz./ton to 1,013.90 oz./ton. See Tr. 219; Exh. C-10 at 15. Leaving aside those samples, the average value of the 27 samples for gold was .17 oz./ton (or $74.11/ton) and for silver was 46.12 oz./ton (or $568.66/ton).

Judge Child discounted the significance of the Crowley samples because there was little evidence regarding the source of the samples or the nature of the deposit from which the samples were taken. See Decision at 5, 8. Appellants dispute this finding. They argue that Crowley was "specific" regarding the sources of the samples, testifying that most came "from the floor of the [upper] tunnel" (SOR at 12).

The record indicates that most of the Crowley samples came from either the upper or lower tunnels, which Crowley placed as running across the Silver Hill No. 1 and Pioneer Quartz Lode claims, while the remainder came from surface cuts. See Tr. 141-45, 148-52; Exh. C-13. Beyond this, Crowley did not testify regarding the nature of the deposit from which any of the samples were taken. With the exception of the samples from three of the surface exposures (located on the Pioneer Quartz Lode No. 2, Pioneer No. 5, and Toots claims), he did not testify as to whether any of the samples came from the same vein. There is no evidence of the manner in which the samples were taken. It was therefore impossible to judge the quantity of ore of like quality that was present in the tunnel or in the surface exposures at the time of sampling. See United States v. Gillette, 104 IBLA 269, 275 (1988); United States v. Nicholson, supra at 233. Further, the tunnel samples were taken during mining operations. It is consequently impossible to tell whether any material of like quality remains. See United States v. Nicholson, supra at 233. Moreover, since the mining law requires that a valuable mineral deposit be presently exposed on a claim, the assay results from these earlier samples are not probative of the existence of such a deposit at

the time of withdrawal and thereafter, since the tunnel was caved in at those times. United States v. American Independence Mines & Minerals,
122 IBLA 177, 182 (1992).

Surface exposures on the Pioneer Quartz Lode No. 2, Pioneer No. 5,
and Toots claims each provided a single sample (Tr. 151; Exh. C-13). The gold values range from .583 oz./ton to .67 oz./ton and silver values from .097 oz./ton to .194 oz./ton (Exh. C-10 at 14). Using the 5-year average price, this translates to high values of $292.07/ton for gold and $2.39/ton for silver. Crowley testified that these samples were taken from the same vein, which was 25 to 30 feet wide and ran across the three claims. See Tr. 150-51. The fact that the same vein crossed the claims is not confirmed in the record. Indeed, the fact that Crowley did not point out these surface exposures as indicative of a discovery belies this conclusion.

Appellants point to historic evidence concerning the BiMetallic mine in support of their contention that the subject claims contain a valuable mineral deposit, including an unattributed report apparently prepared in 1969 (Exh. C-22 at 4-6). That report contains no information about the degree and extent of mineralization encountered by the upper tunnel. Also offered is a 1908 assay report concerning gold and silver values found in the upper tunnel. These values range from a trace to 3.92 oz./ton for gold and from 3.64 oz./ton to 1,578.57 oz./ton for silver. Id. at 8. Using the 5-year average price, the high values are $1,708.81/ton for gold and $19,463.77/ton for silver. The average values are .71 oz./ton ($309.50/ton) for gold and 148.74 oz./ton ($1,833.96/ton) for silver. There is nothing in the record concerning the nature of the deposits from which the 1908 samples were taken. Accordingly, we cannot begin to judge the extent of mineralization that these samples are intended to represent.

Appellants object to Judge Child's decision to give little probative value to the results of assaying that portion (or "split") of the samples taken by Avery at the August 1985 mineral examination, kept by Eades, and independently assayed on behalf of appellants, because of the time that elapsed from the taking of the samples to the assay (SOR at 14). Judge Child stated that the delay from August 1985 until April 1986 together with the lack of assurances of custodial security "weaken[ed] the credibility of the eventual report[] on assay" (Decision at 5). He thereby raised the specter that the samples kept by Eades had been tampered with.

It is important that the "custodial security" of samples taken from mining claims be maintained and, in the absence of assurances thereof in the record, the reliability of assay results is weakened. Having said
that, there is no evidence to indicate that appellants' samples were tampered with. Further, appellants explain that their samples were held until after appellants received the January 1986 Government mineral report since they had reasonably believed that the August 1985 examination would confirm a discovery (SOR at 14). Thus, it would have been improper to attribute
too much importance to the delay in assaying the samples. We do not believe that Judge Child did so. Rather he concluded, as we do, that while appellants' split samples exhibited significant silver values, there was no evidence that ore containing such values exists on the Silver Hill Quartz and

Silver Nos. 2 and 4 claims in sufficient quantity to constitute a discovery. In the absence of evidence regarding the extent of the deposit from which the samples were taken (see Tr. 30-34; Report of Mineral Examination, dated Jan. 21, 1986, at 4-5), it is impossible to ascertain the quantity of ore of like quality in the ground.

Appellants dispute the Government estimate of costs that would be incurred in mining and milling ore extracted from the claims. They assert that they have offered better evidence of those costs. Avery testified that a "very rough" estimate of the costs of mining and milling is $100/ton (Tr. 46). He opined that costs would vary "largely" depending on milling costs, specifically the costs that might be charged by a private company or incurred in building and running a milling facility on the claims, but that, in any case, the mining costs "would be high." Id. In this context, he concluded that mining and milling costs "could be much higher * * * [or] considerably lower." Id.

Appellants contend that Avery "arbitrarily" selected the $100/ton cost figure, as evidenced by the fact that he had no demonstrated experience in "cost analysis" and in no way justified the estimate (SOR at 16). The record indicates that Avery is an experienced geologist, who has worked for both the Government and private mining concerns (Tr. 8-9). His $100/ton cost estimate was based on "an underground vein-type mine in [this particular] location" (Exh. C-18 at 7). He indicated specific circumstances that could account for differences in estimated mining and milling costs, but concluded that the overall costs would be high because mining costs would not fluctuate.

Eades testified on behalf of appellants that his company charges between $40 and $60/ton for mining and milling (Tr. 175). It was clear that these quoted costs were what his company would charge generally, rather than what would be charged to mine and mill ore from the subject claims. Moreover, it is apparent that the quoted costs were for open pit mining. Eades reported that his company was running an open pit mining and milling operation for silver in northern Washington, which had total mining and milling costs of $46.80/ton. See id. at 172-73. The breakdown in these costs was: $8.00/ton (mining), $12.00/ton (hauling 100 miles), $22.00/ton (milling), and $4.80/ton (chemical extraction of concentrates). When pressed further, Eades testified that, given the fact that the subject mine would likely involve "shrinkage stoping," the actual costs of mining would be $40/ton initially (during development) and then $30/ton (during mining). Id. at 204. Eades testified that open pit mining of a portion of the claims was technically feasible (Tr. 200). Avery agreed. Id. at 230. Both were referring to a level area on the Silver Hill Quartz claim where samples BMC-85E1 and BMC-85E2 were taken. Id. at 200, 230; Exh. G-4. Eades, however, had not been in the underground workings of the mine and, like Avery, could offer no more than an estimate of mining costs. See Tr. 200-01, 212. Adding in the costs of hauling, milling, and chemical extraction ($38.80/ton) raises the total costs for mining and milling in the case of the subject mine to $78.80/ton initially and then $68.80/ton. Moreover, appellants state on appeal that milling costs in the area of the claims are more on the order of $50/ton (see SOR at 23), in which case the

total mining and milling costs would be $106.80/ton initially and then $96.80/ton. This is not far from the total mining and milling costs of $100/ton estimated by Avery.

Given appellants' costs, the break-even value (or "cut-off grade") for ore taken underground from the subject claims is initially 6.39 oz./ton (during development) and then 5.58 oz./ton (during mining) for silver using the 5-year average price. None of the silver values reflected in the Government's samples (with the exception of BMC-1 and BMC-85I) approach the break-even value. See Exh. G-9. Even adding in the value of the ore for gold would not cause the total value of the ore to approach the costs of mining and milling. By contrast, it is clear that most of the values reported by appellants exceed the break-even value. The question is therefore whether ore of that quality is found in sufficient quantity to constitute a valuable mineral deposit.

Judge Child concluded that there was not ore of sufficient quality in sufficient quantity to constitute a valuable mineral deposit. He concluded that appellants' evidence was not sufficient to support a finding of fact regarding the quantity of valuable ore. See Decision at 8. Appellants contend that they have in fact established the quantity of valuable ore to be found on the subject claims. Appellants refer to testimony by Crowley that, while he worked in the BiMetallic mine during the 1960's and 1970's, he observed a vein in the upper tunnel containing valuable ore in sufficient quantity (Tr. 16, 124).

There is, however, no evidence that this vein contained and still contains ore of sufficient quality in sufficient quantity to constitute a valuable mineral deposit. No estimate of tonnage was given by Crowley. Eades testified that Crowley reported to him the length, width, and depth of the vein and that, based on this information, he calculated that the vein contains 28,000 tons of "high grade material" (Tr. 175). There is, of course, no testimony by Eades that the vein contains such material since he never observed, let alone sampled, the vein. Nor is there any testimony by Crowley that that was the case. This may have been because Crowley was never able to reach the vein to extract a sample (Tr. 16, 27, 247). This also undermines the reliability of Crowley's report regarding the length, width, and depth of the vein.

Moreover, there is no evidence that, even assuming there is a vein of ore of sufficient quality, there is any continuity to those values along the vein so that the entire ore body is of such quality. It is apparent that appellants are attempting to show the persistence of a high level of mineralization beyond the exposure of the vein and throughout the asserted ore body. However, as we said in United States v. Feezor, 74 IBLA 56, 80-81, 90 I.D. 262, 276 (1983), vacated in part on other grounds and remanded, 81 IBLA 94 (1984), that may only be done "to the extent [the] exposure[] * * * show[s] high values of relative consistency." That was not shown to be the case here. Moreover, this evidence is not probative of the existence of a valuable mineral deposit since the ore body was not exposed at the time of withdrawal or the date of the hearing. See United States v. American Independence Mines & Minerals, supra.

Appellants also point to a report by the Department of Geology and Mineral Industries for the State of Oregon in November 1938 that the underground workings exhibited "lenses of good ore" (Exh. C-20 at 2). Even assuming these lenses have not been mined out, this report alone is not indicative of the quantity of valuable ore present. There is nothing to suggest the width or depth of the "lenses." The report explains that "[w]hether these lenses * * * have much vertical or horizontal extent was not ascertained" (Exh. C-20 at 2). There is no evidence of the quality of ore in the lenses.

In the absence of sufficient proof regarding the quality and quantity of valuable ore at depth on the subject claims and given the inaccessibility of the old workings, appellants have attempted to establish that the claims contain a valuable mineral deposit on the surface. They point to the area where the Government took samples BMC-85E1, BMC-85E2, and BMC-85F (SOR at 19). They note that this area was described in November 1938 as having "low values in gold and silver" (Exh. C-20 at 2; SOR at 20). Eades stated that he had calculated that this area contains 32,000 tons of ore based on the length, width, and depth of the "block" of ore (Tr. 169). Eades then stated that Avery had valued the "block" of ore at an average of .007 oz./ton for gold and .42 oz./ton for silver, which were the averages of the values reported by Avery (Tr. 170; Report of Mineral Examination, dated Jan. 21, 1986, at 5). Using the 5-year average price, the ore would be valued at $3.05/ton for gold and $5.18/ton for silver, or a total of $8.23/ton. The dimensions of the "block" described by Eades were derived from the length and width of the trench from which Avery had taken his samples BMC-85E1, BMC-85E2, and BMC-85F. Appellants suggest that this value exceeds the estimated costs of open pit mining and milling the ore.

It was incorrect to assume, as did Eades, that the trench contains average gold and silver values reported for the three samples. See Tr. 169-70, 193-95. Avery did not assume that these samples were representative of the area of the trench. See Tr. 224-25. The samples taken by him were chip samples taken selectively from vein " stringers" (or small veins) contained in the trench over a total distance of 40.5 feet (Tr. 35, 43, 62; Report of Mineral Examination, dated Jan. 21, 1986, at 5). Avery stated that the deposit would have to be valued in terms of the total amount of material that would have to be mined, rather than just the selected vein material present. See Tr. 73, 225. But since no value was determined for the surrounding rock, he stated that he could not determine the overall value of the deposit (Tr. 64). Nevertheless, he stated that the value would be of much lower grade, given the lack of mineral values generally in such rock. Id. at 73, 236. Avery concluded that there was no valuable mineral deposit in that area. Id. at 74; Report of Mineral Examination, dated Jan. 21, 1986, at 5. Appellants have provided no evidence to the contrary.

Finally, appellants contend that the upper tunnel dump itself contains a valuable mineral deposit (SOR at 23). Relying entirely on sample BMC-85I, they calculate that the ore in the dump is valued at $328.92/ton using the 5-year average price and that, given hauling and milling costs of $62/ton, each of the 100 tons on the dump would yield a total net profit of $26,692.

This contention falters on the premise that the dump uniformly contains ore valued at over $300 per ton. There is no proof to this effect. There is no reason to believe that there is a uniform quality to the ore, let alone that it is all valued at $328.92/ton. During the August 1985 mineral examination, Avery took two other samples from the same dump, BMC-85G and BMC-85H, that yielded total values of $6.92/ton and $8.40/ton. Each of these other samples therefore yielded values less than appellants' anticipated hauling and milling costs. Consequently, there is no reason to conclude that the dump itself contains a valuable mineral deposit. See United States v. Mavros, supra at 306.

Although the record indicates that ore of sufficient quality may be present on the Pioneer Quartz Lode, Pioneer Quartz Lode No. 2, Pioneer No. 5, Silver Hill Quartz, Silver Hill Nos. 1, 2, and 4, and Toots claims, it lacks evidence demonstrating that that ore is present in sufficient quantity to justify finding that a prudent person might expend labor and means with a reasonable prospect of success in developing a valuable mine. Proof of quantity is crucial to establish the existence of a valuable mineral deposit. See United States v. White, 118 IBLA 266, 312-13, 98 I.D. 129, 153-54 (1991). We must conclude that appellants have not overcome the Government's prima facie case of lack of a discovery of a valuable mineral deposit on the claims.

We therefore conclude that Judge Child, in his March 1989 decision, properly declared appellants' 13 lode mining claims null and void for lack of a discovery of a valuable mineral deposit. To the extent that any arguments raised by appellants have not been discussed in this opinion, they have nonetheless been considered and rejected.

Accordingly, pursuant to the authority delegated to the Board of Land Appeals by the Secretary of the Interior, 43 CFR 4.1, the decision appealed from is affirmed.

Franklin D. Arness
Administrative Judge

I concur:

Bruce R. Harris
Deputy Chief Administrative Judge