

Editor's note: appeal filed Civ. No. 00-291-S-BLW (D. Idaho); Affirmed as to claims 3 & 4, set aside as to claims 1 and 2 and remanded for a rehearing (Aug. 9, 2002).

UNITED STATES  
v.  
AMERICAN INDEPENDENCE MINES AND MINERALS

IBLA 89-259

Decided February 10, 1992

Cross-appeals from a decision of Administrative Law Judge Ramon M. Child declaring lode mining claims invalid and dismissing a Government contest of other claims. I-23789.

Affirmed in part, reversed in part, and remanded in part.

1. Contests and Protests: Government Contests--Mining Claims: Determination of Validity

Because exposure of a vein or lode carrying mineral values is a necessary precondition to the validity of a lode claim, a claim where no mineral values were exposed was properly found to be invalid.

2. Estoppel--Mining Claims: Contests

An agency is bound to adhere to criteria previously published by the agency to control future conduct. Where it is alleged that there has been a breach of this duty to be consistent in dealings with affected persons, there must be shown to be previously published criteria or pattern of conduct from which there has been a deviation. Where there is no such showing, there is no foundation for a finding of estoppel on this ground.

3. Estoppel--Mining Claims: Contests

The allegation that a mining claimant refrained from opening a collapsed portal on a lode claim in reliance on a conversation with a Forest Service employee was insufficient to establish grounds for estoppel of the Government to contest the validity of the claim where the portal was found.

4. Contests and Protests: Government Contests--Mining Claims: Contests--Mining Claims: Determination of Validity--Mining Claims: Discovery: Marketability--Mining Claims: Marketability

Without calculations estimating tonnage of ore on a mining claim there was nothing to demonstrate that the claim might be part of a projected low-grade mining operation, and it was therefore null and void.

5. Contests and Protests: Government Contests--Mining Claims: Contests--Mining Claims: Determination of Validity--Mining Claims: Discovery: Marketability--Mining Claims: Marketability

Proof that claims were potentially profitable as part of a low-grade mining operation established the existence of a discovery thereon.

6. Contests and Protests: Government Contests--Mining Claims: Contests--Mining Claims: Determination of Validity--Mining Claims: Discovery: Marketability--Mining Claims: Marketability

Where the low value of silver at hearing indicated that a claim could not be operated at a profit, but there was evidence that at the time the claim was included in a wilderness area 4 years previously a prevailing higher value would have allowed a profitable operation, the issue of the profitability of the claim is properly remanded for consideration of historic silver values as they might affect the question of discovery.

APPEARANCES: David R. Lombardi, Esq., Boise, Idaho, for contestees; Erol R. Benson, Esq., Office of General Counsel, U.S. Department of Agriculture, Ogden, Utah, for contestant.

OPINION BY ADMINISTRATIVE JUDGE ARNESS

Cross-appeals have been filed by American Independence Mines and Minerals (American Independence) and by the United States Forest Service (Forest Service) from a decision of Administrative Law Judge Ramon M. Child. American Independence is a joint venture composed of Walker Mining Company, Jack Walker, president, and Ivy Minerals, Inc., Conway G. Ivy, president (Tr. 785). The Forest Service contends that all eight lode claims contested, Golden Hand 1 through 8, are invalid for want of a discovery; American Independence contends, to the contrary, that there has been a discovery on Golden Hand claims 1, 2, 3, 4, and 8. The decision dated January 19, 1989, dismissed a Government contest of Golden Hand claims 2, 3, 4, and 8 and declared invalid Golden Hand claims 1, 5, 6, and 7. No issue is raised by American Independence concerning the validity of claims

5, 6, and 7. As a result, our review is confined to the issue of the validity of claims 1, 2, 3, 4, and 8.

Golden Hand claims 1 through 8 are found in the Frank Church-River of No Return Wilderness Area and the Payette National Forest in secs. 23 and 26, T. 22 N., R. 9 E., Boise Meridian, Idaho. Effective January 1, 1984, minerals in this wilderness area were withdrawn from all forms of appropriation under the mining laws, subject to valid rights then existing. 16 U.S.C. § 1133(d)(3) (1988). Golden Hand claims 1 through 5 were located in September 1979 and claims 6 through 8 in September 1983. Locators of Golden Hand claims 1 through 5 are James E. Collord and American Independence. Collord apparently conveyed his interest in these claims to American Independence in 1983. The locator of claims 6 through 8 is American Independence (by Jack Walker). Walker, American Independence, and Collard are named as contestees in the contest complaint.

Mining occurred in the area of the claims during 1932-41 (Geological Survey Bulletin 1304 at 230; Contestees' Exh. C-6). The advent of World War II brought an end to mining, however, and the claims at issue have not been mined since (Tr. 57). A portal on one of the claims, known as the "Ella," collapsed sometime in the 1920's or 1930's and has not since been reopened.

Because of lands at issue were withdrawn from all forms of appropriation under the mining laws effective January 1, 1984, the Government contest focused on December 31, 1983, as the critical date by which the claimant had to achieve discovery of a valuable mineral deposit. In addition, discovery was also to be proven to exist at the time of the 1988 hearing. The contest complaint charged that minerals had not been found within the limits of Golden Hand claims 1 through 8 in sufficient quantity to constitute a discovery within the meaning of the mining law as of December 31, 1983, and as of the date of the complaint.

This complaint, dated February 25, 1987, issued approximately 3 years after Jack Walker, president of Walker Mining Company, gave notice of his 1984 plan of operations for the Golden Hand claims. Walker's plan was essentially the same as it had been since 1981, and provided for the use of motor vehicles and motorized equipment on the claims. By letter dated March 8, 1984, the Payette National Forest Supervisor informed Walker that valid mining claims could be developed in the wilderness area, but that before approving mineral development activities the Forest Service was required to conduct an examination of the claims to substantiate their validity. A subsequent letter from the Forest Service to Walker, dated June 20, 1984, referred to information provided by Walker regarding mineral values in the Golden Hand claims and informed Walker that field examination of the claims would be necessary (Exh. C-16 at 1). This field inspection was required to be completed before any operating plan could be acted upon, the Forest Service letter stated.

On July 10, 1984, a field examination of Golden Hand claims 4, 5, 6, and 8 was made by Forest Service mining geologist Patrick Curtis, who concluded that valid existing rights had been established on the four claims

prior to December 31, 1983. Curtis described Golden Hand claims 1-3 and 7 as "associated claims," but he made no findings as to these claims. He apparently believed that the collapsed Ella portal was on claim 6, whereas it appears from the record to be on claim 1.

Approval of Walker's operating plan was not, however, forthcoming, and in July 1985 Forest Service employees revisited the Golden Hand claims, taking approximately 400 pounds of ore as samples. Curtis had previously taken only two samples, each from the "Glory Hole" area on claim 4 (Tr. 16). One sample taken by Curtis showed 0.13 ounces of gold per ton of ore (OPT) and 0.1 OPT silver; the other showed 0.09 OPT gold and no silver (Government Exhibit G-2 at 3). Appendix A of the Forest Service mineral report, Exhibit G-36, suggests that one sample came from claim 3 and the other from claim 4. The "Glory Hole" is common to claims 3 and 4 (Tr. 152). In July 1985, the Forest Service took 20 large samples from the claims (Exh. G-36, App. A). In February 1986, Walker again submitted a plan of operations for the Golden Hand claims, and again the Forest Service responded that any action on the plan must await a validity report on the claims.

On February 19, 1987, BLM approved a mineral report of Golden Hand claims 1 through 8 prepared by Forest Service geologist Carol J. Thurmond (Exh. G-36). Thurmond had examined the claims on July 9-11, 1985, in the company of Walker and his consultant, Morris Hubbard, and sampled the claims as directed by Walker. No sampling of the adit at the collapsed Ella portal on claim 1 was possible. Thurmond's report traced the Golden Hand claims to claims first located in 1889 by J. M. Hand.

Thurmond found that "[m]ineralized zones at the Golden Hand consist primarily of discontinuous stringers" (Report at 14). She also found that tonnage estimates of ore quantity could not be made because of the discontinuous nature of the stringers, lenses, and shoots of the mineralized zones and lack of information of the extent of veins. *Id.* at 19. No veins or any mineralized material were found by her on claims 1 and 2. *Id.* at 20.

Assays of 22 samples are set forth in her report. Of the 22 samples, only 3 samples, from claims 3, 4, and 8, showed gold present in quantities above 0.1 OPT (Exh. G-36, App. A). The presence of silver on claim 8 boosted the tonnage value of three samples there to amounts ranging from \$105 to \$187, based on the price of an ounce of gold (\$381.50) and silver (\$8.95) on December 31, 1983 (Exh. G-36 at 20). These three samples were the best that Thurmond reported; apart from them, only one sample showed a combined gold and silver value for a ton of ore to be worth more than \$50. Having calculated the value per ton of each of the 22 samples, she reduced these values by 25 percent to account for a 75-percent recovery expected from milling (*see* Tr. 213-14).

Costs of \$103.13 per ton were estimated by Thurmond to cover American Independence's expenses for capital, development (drifting and raising), production (mining, stoping, crushing, and milling), and transportation (Tr. 210-12). Additional costs were anticipated by Thurmond for road

construction, maintenance, and reclamation, but no figures were given in her report.

Comparing sample values and costs, Thurmond found that American Independence's costs would exceed its sample values per ton in all but two instances (Tr. 217). These two samples were taken from the Penn-Ida adit on claim 8 for which no tonnage could be verified. Based on her sampling and assay results, geological and mineralogical examination, ore estimated reserves, costs, and returns, Thurmond concluded that minerals had not been found within the limits of the Golden Hand claims 1 through 8 in sufficient quantity to constitute a discovery within the meaning of the mining laws as of December 31, 1983 (Tr. 220-22). Thurmond also concluded that no discovery had been found as of the day of her report, November 20, 1986. She recommended that a Government contest be initiated.

At the contest hearing held from August 29 through September 1, 1988, Thurmond testified that she consulted a number of texts on the history of the claims and personally visited the claims on three occasions. She found an exposure of minerals on Golden Hand claims 2, 3, 4, and 8, but concluded that no exposure of a deposit was found on these claims or any of the others (Tr. 270-72). After Thurmond's mineral report was admitted into evidence, Raymond R. Wallace, her supervisor had a mining engineer employed by the Forest Service, testified that the claims were "in the nature of a mining prospect" and did not constitute a discovery (Tr. 318; see Exh. G-36 at 24). Thurmond later explained that the mineralization shown by the samples taken at the claims established the existence of "possible ore," the lowest category in an ore classification standard recognized by BLM that ranks ore bodies as "proven ore, probable ore and possible ore" (Tr. 899, 900).

Wallace testified that he reviewed and approved Thurmond's report. According to Wallace, the conclusions reached by Thurmond were correct, given the available sample data concerning the Golden Hand claims, because there were no "definable dimensions of any ore body whereby we could reliably define a mining method" (Tr. 313). Wallace testified that all data available at the time of hearing failed to establish the existence of a minable deposit of valuable mineral on any of the claims (Tr. 317). In his opinion, while the claims represented a good prospect, there had been no discovery of a valuable deposit at either the time of withdrawal in 1983 or the hearing in 1988 on any of them (Tr. 318).

The Judge found that the Forest Service had made a prima facie case that no discovery existed on claims 1, 2, 3, 4, 5, and 8 as of December 31, 1983. No mention was made of claims 6 and 7 because American Independence acknowledged prior to decision that these claims lacked a discovery (Tr. 797-98; Memorandum in Support of Contestee's Proposed Findings of Fact and Conclusions of Law, Nov. 4, 1988, at 1). A prima facie case having been found, the burden shifted to American Independence to overcome the case so presented by a preponderance of the evidence offered at hearing. See Cactus Mines Limited, 79 IBLA 20, 24 (1984); United States v. Hooker, 48 IBLA 22 (1980); United States v. Taylor, 19 IBLA 9, 82 I.D. 68 (1975).

American Independence produced four expert witnesses who testified concerning their sampling, testing, and exploration of the claims. They concluded, for reasons later described herein, that there was a discovery on two groups of the Golden Hand claims.

[1] The Judge found that no exposure of mineral in place was present on Golden Hand claim 1. This finding was clearly correct because the presumed situs of mineralization, the Ella portal, had been caved in for years. Exposure of a vein or lode carrying mineral values in place is a necessary precondition to the validity of a lode claim. United States v. Feezor, 74 IBLA 56, 74, 90 I.D. 262, 272 (1983), citing United States v. Henault Mining Co., 73 I.D. 184 (1966), aff'd, 419 F.2d 766 (9th Cir. 1969). Nonetheless, American Independence challenges this conclusion with the argument that the Government was estopped to make such a finding because it embodied an inconsistent application of policy to this case.

[2] The chief argument made by American Independence on appeal is that the United States "should be estopped to require the exposure of mineral on the [Golden Hand 1] claim because of its change of policy which occurred after the Golden Hand claims and their surrounding area had been withdrawn from exploration" (Statement of Reasons (SOR), Mar. 27, 1989, at 4). American Independence explains that this argument does not arise from negligent or bad-faith representation by the Government, but instead from the principle that an "agency may not apply a new rule, or a new interpretation of an administrative regulation retroactively where to do so would unduly intrude upon reasonable reliance interests" (SOR at 5). This policy change, American Independence contends, is embodied in Forest Service Manual Interim Directive (ID) No. 14 (Apr. 4, 1984), which focuses on mining claims in designated wilderness areas. This directive states that the Forest Service shall require an "on-the-ground validity investigation by a qualified Forest Service mineral examiner" prior to agency approval of a plan of operations in order to insure that a mining claimant does, in fact, possess valid existing rights in the claims.

To support the contention that ID No. 14 changed existing policy, American Independence points to the testimony of Forest Service geologist Curtis. Curtis had examined four of the Golden Hand claims on July 10, 1984, and concluded in a report dated August 23, 1984, that valid existing rights were present on those four. At the 1988 hearing, Curtis testified:

[A]t the time that this report was written, we had administrative direction in the form of an interim directive from the Department of Agriculture explaining that past published information and any information that a claimant had that could contribute to them establishing a valid existing right could be used to make that determination.

That directive was in effect for a year before it was overturned  
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(Tr. 21-22).

An agency is, of course, bound to adhere to criteria previously published by the agency to control future conduct. Squaw Transit Co. v. United States, 574 F.2d 492 (10th Cir. 1978). But in this case it is clear that Curtis erred when he testified that ID No. 14 was not in effect at the time of his 1984 examination and report. This directive is dated April 4, 1984, and states that its "duration" is 1 year from date of issuance. Moreover, the testimony given by Curtis is contradicted by the ID itself, and no prior directive has been offered by American Independence to support the contention that a field examination of the claims represented a change in Forest Service policy. The fact that Curtis himself made such an examination further belies his testimony. On the record before us, we find there was not inconsistent application of agency policy concerning field examination of unpatented mining claims in the case of the Golden Hand claims.

[3] American Independence also argues that Jack Walker's testimony establishes a foundation for a finding of estoppel to deny the validity of claim 1. Walker stated that, because of a statement made by Forest Service employee Robert Bryan, Walker refrained from ordering his crew to open up the Ella portal (Tr. 793). He explained that he had focused his mining effort first on other claims in the Big Creek area, and had decided, out of necessity, to develop the Golden Hand claims after working on several other claims, provided that the Golden Hand claims could be retained without further development before they were included in a wilderness area about to be created (Tr. 788, 791). He was aware, in 1983, that the Golden Hand claims were about to be included in the wilderness area, and because "time was running out" he asked Bryan whether discovery on the Golden Hand claims was subject to a field examination or whether documentary proof of validity would suffice (Tr. 792). Walker recalled that Bryan replied "we won't have to have an on-the-ground validity examination at the Golden Hand" (Tr. 793).

Responding to this testimony, Bryan recalled that there had been a conversation at his office with Walker. He denied, however, that he told Walker that a field examination of the claims was not needed (Tr. 856). Bryan stated that he did not recall using the specific words reported by Walker and doubted he had said them "since it would have been very presumptuous for me as a forester to evaluate reports that I had not read" (Tr. 856). The reports Bryan refers to include historical assay reports made prior to the collapse of the Ella portal, principally old letters and reports authored by Robert Bell in 1934 and 1935.

The Judge held that to invoke estoppel against the United States, the Government must have engaged in affirmative misconduct. Accepting Walker's account of the Walker-Bryan conversation, he found that American Independence had failed to make such a showing. <sup>1/</sup> The long-standing requirement that there be an exposure of a vein or lode carrying mineral

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<sup>1/</sup> Although he found that there was no showing to support an estoppel of the Government (Decision at 14), the Judge suggested the contrary when he commented on conclusions reached by examiner Curtis in 1984, that conflicted with the later study performed by Thurmond. See decision at page 8, where he comments on "Mr. Curtis's prior favorable findings."

values on each lode claim is, in any case, fatal to the estoppel argument raised by American Independence. There being no exposure on Golden Hand claim 1 of a vein or lode carrying mineral values, this claim was correctly found to be invalid, and therefore the decision appealed from is affirmed as to claim 1. See Utah Power & Light Co. v. United States, 243 U.S. 389, 409 (1916).

[4] The Forest Service has appealed Judge Child's finding that the contest should be dismissed as to claims 2, 3, 4, and 8. Concerning evidence of the existence of mineralization on claim 2, the Forest Service contends the mining claimant's own witnesses established that there was only one sample taken on this claim, and that the sample showed no mineralization.

Patrick O'Hara, a geologist, testified for American Independence about his hypothesis that two distinct mineralized structures were present on the claims. One structure included claims 1, 5, and 8; the second was found on claims 2, 3, and 4 (Tr. 392, 455). Sampling by O'Hara and mathematical analysis assisted him in confirming parts of his hypothesis (Tr. 445, 452). He described his sampling methods (Tr. 398, 399), which used samples taken by him and by Thurmond, James Morgan, and Morris Hubbard (Tr. 414; Exh. 49). The data used by O'Hara, therefore, included the data described by the Forest Service experts, in addition to data gathered by O'Hara and his colleagues.

The testimony of American Independence's other witnesses built on the framework of the analysis made by O'Hara, which grouped claims 1, 5, and 8 together into an underground "high-grade" operation, and included claims 2, 3, and 4 in an area referred to as the "Glory Hole" into a "low-grade" or pit mining operation. These two operations are said by the American Independence experts to be discrete, and a different cost analysis was offered by American Independence in support of each mining scheme described.

Despite the testimony of O'Hara that claims 2, 3, and 4 were within a single mineralized structure, however, William Vanderwall, the engineering expert who made the reserve calculations concerning the proposed operation there, made no reserve calculations for claim 2 (Tr. 539). He explained this omission by citing "insufficient data," because mechanized equipment was not available to him to confirm and corroborate the inferences described by O'Hara (Tr. 539, 540).

There being no reserve calculation available for claim 2, three low-grade mining operations for the Glory Hole operation described by Larry Mashburn, the engineer who presented the mining cost analysis for American Independence, omitted all reference to claim 2 (Tr. 645; Exh. C-74). Mashburn's testimony regarding the prudent man test similarly excluded claim 2. Thus, his opinion that a reasonable person would be justified in the further expenditure of his labor and means with the reasonable expectation of developing a paying mine was limited to claims 3, 4, 1, and 8 (Tr. 645-46). The only sample taken on claim 2 by Thurmond had gold values of 0.01 OPT (Exh. G-34). O'Hara took three samples on claim 2 and reported the best of these at 0.021 OPT gold (Tr. 419; Exh. C-54). Morris Hubbard, a geologist who had sampled the claims for American Independence,

testified that he took no samples on claim 2 and that the area lacked an exposure to justify sampling (Tr. 756). Testifying without his field notes, he later stated that he thought sample 910 (0.042 OPT gold and 0.25 OPT silver) was from claim 2 (Tr. 760). Responding to arguments that there was insufficient data gathered to support estimates of reserves on this claim, American Independence contends it was denied adequate opportunity to sample claim 2.

We reject the argument of American Independence that it was prevented from acquiring sufficient data on claim 2 to permit Vanderwall to estimate reserves. The record is clear that Vanderwall had the same chance to sample claim 2 as he did other Golden Hand claims. Prior to December 31, 1983, nothing prevented American Independence from exposing sufficient mineralization on claim 2 from which reserve calculations might be made. The record suggests rather that American Independence had found little of interest on this claim to cause it to sample. Indeed, Forest Service witness Thurmond testified that Walker told her during a joint field examination of the claims that he would relinquish claim 2, but later chose to retain this claim "if there were any values here that could test validity" (Tr. 163, 168). Any parallels in this conduct to the obstruction of a claimant by the Forest Service described in United States v. Foresythe, 100 IBLA 185, 193-96 (1987), as contended by American Independence, are tenuous at best.

In the absence of calculations estimating the tonnage and grade of ore on claim 2, we are left to speculate whether the reserves on this claim can support any part of the development or production costs for a low-grade mining operation common to claims 2, 3, and 4. In Schlosser v. Pierce, 92 IBLA 109, 93 I.D. 211 (1986), we recognized that determinations of profitability in cases involving multiple claims could take into consideration the entire proposed operation when determining whether a profitable mine could be operated jointly from claims of varying potential. 92 IBLA at 133, 93 I.D. at 224 (1986). Assuming that mineralization has been shown on claim 2, American Independence has not shown the presence of a valuable mineral deposit. Without such a showing, claim 2 is unsupported by a discovery and is properly invalidated. The holding by the Judge to the contrary is reversed. 2/

[5] Judge Child concluded, concerning claims 3 and 4, that American Independence had shown by a preponderance of evidence at hearing that these claims had a "reasonable prospect of developing a profitable mining

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2/ Although the Judge cited the Schlosser decision, he made no analysis of the feasibility of developing claim 2, contenting himself with observing that there had been some samples taken that indicated the presence of mineral on the claim (Decision at 8). The Schlosser decision, however, makes clear that an economic analysis is required in cases such as this involving multiple claims for low-grade material. Thus, it is not enough to consider, as does the decision under review, whether there is a mineral on a claim: the claim must be shown to be potentially profitable. 92 IBLA at 132, 93 I.D. at 224. Ultimately, the question to be decided concerns value. Id.

operation" (Decision at 8). The Forest Service challenges this finding. On these two claims, comprising the "Glory Hole" or open pit proposal, American Independence proposed three low-grade operations, the first two of which employed contract mining of reserves (Tr. 636, 639). As the Forest Service acknowledges, the results of sampling and testing by both Forest Service and American Independence experts on the Golden Hand claims are consistent (Forest Service SOR at 5). The opinions of the opposing experts diverge only when calculations are made of the costs of the proposed operations and quantity of ore reserves. These two areas of disagreement frame that issue that will decide whether there was a discovery on claims 3 and 4 at the relevant times.

William Vanderwall, the geologist who calculated claim reserves for American Independence on these claims, established three standards for estimating their existence using available data from sampling, testing, and geologic information; Measured reserves, indicated reserves, and inferred reserves (Tr. 524). <sup>3/</sup> No measured reserves were present on any claim. Indicated reserves for claims 3 and 4 were calculated by him using results obtained from test results of 62 samples, which included those taken by the Forest Service employees, from an area 210 feet long, 105 feet wide, and 30 feet thick (Tr. 529, 531-32; Exh. C-65). So computed, 39,690 tons of indicated reserves and 280,770 tons of inferred reserves were calculated for these claims (Tr. 53, 545). Indicated reserves are based partly on measurable dimension, Vanderwall explained, and partly on projections from geology (Tr. 530). Gold values tested from the samples averaging 0.054 OPT were projected for the reserves (Tr. 537).

Mashburn estimated probable profit or loss from mining claims using tonnage figures furnished to him by Vanderwall (Tr. 635, 640). The dated used by him to describe three possible low-grade operations on the claims, though derived from tonnage figures calculated by Vanderwall, were analyzed somewhat differently. Vanderwall calculated indicated reserves totaling 39,690 tons and inferred reserves at 280,770 tons. Mashburn made his economic determinations using demonstrated reserves of 14,400 tons, calculated without use of dimensions projected by Vanderwall when estimating indicated reserves, and inferred reserves of 289,000 tons. <sup>4/</sup> A third operation involving 48,000 tons is described by Mashburn in Exhibit C-74 at page Low Grade B-1.

The operation identified as Low Grade C involved a large open pit which, because of its size (289,200 tons), would justify the purchase of capital items (Tr. 640). As with the other low-grade operations on claims 3 and 4, Mashburn determined that this large open pit operation could be worked at a profit (Tr. 642-43; Exh. C-74 at Low Grade C-2). Using actual

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<sup>3/</sup> See United States v. Feezor, 74 IBLA at 85, 90 I.D. at 278; Geological Survey Bulletin 1450-A (1976) (Exh. C-6).

<sup>4/</sup> The term "reserves" is defined by Geological Survey Bulletin 1450-A to mean: "That portion of the identified resource from which a usable mineral and energy commodity can be economically and legally extracted at the time of determination. The term ore is used for reserves of minerals."

cost items, Mashburn estimated that reserves provided by Vanderwall would support a four-year long open pit operation that would remove 289,200 tons of ore containing 0.054 OPT gold, or 15,616 ounces of gold (Exh. C-74 at Low Grade C-1). Assuming the purchase of itemized used machines and an 85-percent recovery rate for milling the ore, such an operation was projected to produce a profit of \$,415,646 at 1983 gold prices or \$1,595,936 profit for mining and milling each ton of ore under this plan was projected to be \$14.19, and it was projected that the itemized capital costs would be \$1,550,000.

To rebut this evidence, Thummond testified that for a similar operation to that described by Mashburn, it would cost \$22.99 to produce and mill each ton of ore (Tr. 897). She estimated a capital cost of \$2,542,000 for such a mine. Id. These calculations would make the operation unprofitable. The foundation for her estimate was, however, problematic. She had not based her estimate directly on the American Independence mine proposal, but on a "general generic model" of a mine that assumed a larger and deeper pit than that described by American Independence (Tr. 914-16). More damaging to her testimony, she had no knowledge of the actual foundation for the cost-analysis estimate she offered in rebuttal to the Mashburn estimate, and her estimate of capital expenditure was not itemized. Her estimate was, in fact, taken from a model appearing in a mining publication journal that was not clearly comparable to that proposed in the American Journal analysis (Tr. 896, 916).

Wallace also testified in response to the American Independence data that he considered the reserve estimate by the American Independence experts to be uncertain, because it was not based on a "measured basis, as you would normally do when you'd come up with reserve figures" (Tr. 872). Wallace agreed, however, that there was an exposure of minerals on claims 3 and 4 (Tr. 875). He also conceded that the testimony of the American Independence witnesses was based on additional sampling, testing, and field examination than had been available to the Forest Service experts when they made their evaluation of the claims (Tr. 880).

The record before us establishes that the testimony of the American Independence witnesses, relied on by Judge Child in his decision now under review, was founded on a more detailed study and analysis of the Golden Hand claims than was the Forest Service study. Notwithstanding the doubt expressed by the Forest Service experts about the extent of the ore to be found on these two claims, the testimony of O'Hara, Vanderwall, Mashburn, and Hubbard credibly established that there is reason to believe they have identified ore reserves in the quantities and character they estimated to exist on claims 3 and 4.

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fn. 4 (continued)

The bulletin defines "measured, indicated, demonstrated, and inferred" reserves in terms of probability of existence of ore, with "measured" being the most probable of existence and "inferred" being the least likely to be found. See United States v. Feezor, 74 IBLA at 84, 90 I.D. at 278.

Similarly, Thurmond's estimate that a 75-percent mill recovery rate should be used to calculate potential profits from mining and milling ore from claims was derived from technical reference works, rather than actual test results from ore taken from the claims (Tr. 213-17). The higher estimate of up to a 90-percent recovery rate made by American Independence experts was based on actual test of samples taken from the claims (Tr. 709-10). The failure to directly confront and rebut the additional data produced by O'Hara and his associates necessarily limited the value of the expert testimony offered by the Forest Service experts and explains Judge Child's reluctance to accept their ultimate conclusions concerning claims 3 and 4. He therefore properly accepted the more detailed factual analysis presented by American Independence relating to claims 3 and 4.

From this showing it was reasonable for the Judge to conclude that American Independence had met its burden of overcoming by a preponderance of the evidence the prima facie case that a discovery was not present on Golden Hand claims 3 and 4. See United States v. Cannon, 70 IBLA 328, 329-30 (1983). The decision of the Administrative Law Judge finding the contest against claims 3 and 4 should be dismissed is, accordingly, affirmed. 5/

[6] Finally, for claim 8, Vanderwall calculated indicated reserves of 784 tons and inferred reserves of 3,536 tons (Tr. 556-60). Indicated reserves showed gold values averaging 0.037 OPT and silver averaging 18.21 OPT (Tr. 556; Exh. C-67). These values were based on six samples, some taken by Thurmond and some by Hubbard (Tr. 549). Inferred reserves showed gold values averaging 0.025 OPT and silver values averaging 12.08 OPT. Ten samples, some by Thurmond and some by Hubbard, were used to calculate these averages (Tr. 557; Exh. C-68).

Mashburn used the reserves calculated by Vanderwall to determine whether Golden Hand claim 8 could be profitably mined (Tr. 615). Two plans were outlined by Mashburn, the first of which considered the feasibility of mining of the combined inferred reserves of claims 1 and 8 in a single high-grade operation. Because claim 1 has been found to lack a discovery, this first plan is no longer relevant. Mashburn's second plan (High Grade B) concerned claim 8 exclusively.

Development of this claim was to be by underground mining and would involve mining a small tonnage, thereby increasing mining costs to \$119.60 for each ton of ore (Tr. 633). Relying on the tonnage (784 tons indicated)

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5/ The Judge found that evidence of the existence of a valuable deposit provided by American Independence experts on claims 3 and 4 "was convincing" (Decision at 9). The Forest Service objects, correctly, that there was, however, no supporting analysis of relevant fact to explain why he gave such weight to their testimony. Nonetheless, this deficit is now remedied by the existence of an adequate record that shows the weight of the recorded evidence does support his decision on this question and by this decision that points out what that evidence was. See BLM v. Ericsson, 88 IBLA 248 (1985).

reserves) and grade (0.037 OPT gold and 18.21 OPT silver) calculated by Vanderwall for claim 8, and assuming a recovery of 90 percent which Mashburn testified was realistic in view of their experience with laboratory testing of samples (Tr. 628) (in contrast to the 75-percent recovery factor used by Thurmond, a calculation previously rejected) Mashburn concluded that a profit could have been earned as of December 31, 1983, but not on the hearing date, August 29, 1988 (Tr. 633; Exh. C-74). Despite the present unprofitability of the operation, Mashburn stated that a prudent person would nonetheless be justified in the further expenditure of his labor and means with a reasonable expectation of developing a paying mine here (Tr. 34).

Under such circumstances, historic price and cost factors may be considered relevant in determining the profitability of the mining claim. In Re Pacific Coast Molybdenum Co., 75 IBLA 166, 29, 90 I.D. 352, 360 (1983). The samples from claim 8 indicate that silver, not gold, will decide the marketability of this claim (Exh. G-34). Sampling data on this claim indicate, as Mashburn developed Vanderwall's projection of reserves, that there are 784 tons of ore averaging 0.037 OPT gold and 18.21 OPT silver. Assuming a silver value of \$6.52 for an ounce of silver at the time of hearing, and mining costs of \$119.60 per ton of ore, the claim would not be profitable to mine. Yet the record does not permit us to conclude whether a silver value of \$6.52 per ounce was disproportionately low if considered in proper historic content. This question must therefore be remanded for hearing. If it appears that the 1988 price should not be considered to be realistic, and if a higher value should be shown to more accurately portray the minimal value, the fact finder shall calculate this higher value upon receipt of evidence on the subject. The end result of this inquiry is a redetermination whether claim 8 is supported by a discovery. This redetermination shall be set forth in a decision appealable to the Board.

Therefore, pursuant to the authority delegated to the Board of Land Appeals by the Secretary of the Interior, 43 CFR 4.1, Golden Hands claims 1, 2, 5, 6, and 7 are held to be null and void for want of a discovery; the Government contest of claims 3 and 4 is dismissed; the Government contest of claim 8 is remanded to the Hearings Division to permit review of the historic value of silver in connection with the question whether claim 8 may be considered profitable so as to support a discovery.

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Franklin D. Arness  
Administrative Judge

I concur:

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C. Randall Grant, Jr.  
Administrative Judge