

# Reforming the 1872 Mining Law

*A Taxpayer Perspective*



**Taxpayers for Common Sense**  
**August 2008**

## **Introduction**

In 1872 Congress passed the law that governs hardrock mining on public lands. The intent of the legislation was to promote the government's goal of westward expansion while assisting settlers in their struggle to open up the nation's wild frontier. But 136 years later, times have changed in the United States and so too has the mining industry. Long gone are the days of the pickaxe and mule, today replaced by large-scale, heavily mechanized and chemically intensive mining operations.

The weaknesses in the General Mining Law of 1872 have for too long allowed public lands and valuable public assets to be exploited for private profit at the expense of taxpayers. The 136 year old law allows for the giveaway of public lands; the extraction of tens of billions of dollars worth of valuable minerals without taxpayer compensation; and the creation of taxpayer liability, by allowing the abandonment of contaminated mine lands.

Through an examination of Security and Exchange Commission (SEC) records and other company financial records, this report documents that multi-national mining conglomerates earned record profits and received billions of dollars in special tax breaks, while paying nothing to taxpayers for the minerals they have mined on public lands.

Under the archaic mining law, public lands are sold for no more than \$5 an acre--considerably below today's market value. The law allows a claimant to "patent" or purchase a mining claim for either \$2.50 or \$5.00 per acre. Staking a claim on federal land simply requires an annual maintenance fee of \$125 per acre plus an additional \$30 location fee and \$15 new mining claim service fee for first timers.

Mining companies have been able to gain ownership of land valued at tens of millions of dollars for as little as thousands or even hundreds of dollars. Furthermore, the land can be developed for purposes other than mining, including commercial enterprises, such as condominiums, ski resorts and casinos. In Crested Butte, Colorado the federal government sold 155 acres to the Phelps Dodge mining company for approximately \$875. This is in an area where land prices range as high as \$1 million per acre.<sup>1</sup> Even more disturbing is that this land, now owned by U.S. Energy Corp. contains molybdenum deposits worth more than \$9 billion.<sup>2</sup> Because the land is fully patented, taxpayers won't receive a penny's worth of compensation from the rich mineral deposit that used to belong to the public.

In some cases, it appears that mining patents have been little more than a ruse for developers to get their hands on valuable federal property before flipping it for more lucrative uses. In 1983, the Forest Service sold 160 acres near the Keystone, Colorado ski resort for \$400. Six years later, the land sold for \$1 million.<sup>3</sup> While Congress has passed an annual moratorium on the patent system since 1994, a permanent solution is needed.

Most countries, states, private owners and tribal governments charge companies a royalty to compensate for the mineral rights that have been given away to private interests. A royalty is the fee paid to the owner of a resource by a private company for the privilege to extract and profit from that resource. A royalty is simply a cost of doing business, and companies can deduct the cost of a royalty from income before taxes are applied. The oil, gas and coal industries pay more

than a 12 percent royalty when extracting resources from public lands. These industries as well as the hardrock mining companies may pay even more when mining on private, state or tribal lands. Yet to date, more than \$300 billion worth of gold, uranium, silver, copper and other valuable minerals have been extracted from public lands by mining interests, with zero dollars paid in royalties.

The 1872 mining law also has left taxpayers with a massive and growing liability for the clean up of toxic waste and water contamination left behind by abandoned mines. After all the minerals have been removed, mining operations cease and move their jobs out of town to another mining operation, but leave communities with a mess and taxpayers holding the bag to pay for clean up. A 2004 report by the U.S. Environmental Protection Agency (EPA) Inspector General indicated that the Superfund National Priority List contained 63 hardrock mining sites and another nearly 100 sites could be added in the future. The price tag for cleaning up these sites was estimated to be \$7 - \$24 billion, with more than half of that amount likely to be stuck on taxpayers.<sup>4</sup> Another 2004 report from the joint EPA/Department of Energy (DOE) Mine Waste Technology Program puts total remediation costs at between \$32 and \$72 billion.<sup>5</sup>

## Mining Industry Profits

On top of the free land and its preferential treatment among extractive industries, hardrock mining companies have experienced enormous profits in recent years. Stockholders and CEOs of these companies have benefitted mightily from record gold, molybdenum, and copper prices. Speculation about increased nuclear power production has spiked the futures markets for uranium as well. And according to public records, most land with operating mines in the U.S. has already become the permanent private property of international mining conglomerates through the claim and patent process.

The industry was also doing very well before these record prices, considering these statistics from 2006<sup>6</sup>:

- net profits increased by 64 percent since 2005, 1,423 percent higher than the 2002 level;
- return on equity reached 33 percent, up from 26 percent in 2005; and,
- net cash inflow from operating activities was \$76.7 billion, an increase of 40 percent compared to 2005.

A handful of mining conglomerates produce nearly all of the hardrock minerals in the U.S. In 2007, United Kingdom-based Rio Tinto alone recorded \$7.7 billion in profits.<sup>7</sup> And Freeport-McMoRan had worldwide profits of \$6.6 billion in 2007, with profits from their U.S. mines totaling more than \$1.7 billion.<sup>8</sup>

A gross income royalty<sup>9</sup> of 8 percent would be affordable for these companies. Current legislation proposes a royalty of just 4 percent on existing operations, and 8 percent for new mines. The Congressional Budget Office (CBO) has estimated this royalty would generate annual revenue of approximately \$40 million. Because no new mines would come into operation over the time period of the CBO estimate, only the 4 percent royalty on existing mines would generate revenue over the first 10 years under the legislation.

Table 1: 2007 Revenues for Selected Mining Companies, U.S. operations only (thousands)

	Rio Tinto	Newmont	Barrick N.A. Gold	Kinross	Freeport McMoRan	Total
<b>Gross Sales/Revenues</b>	\$3,877,000	\$2,652,000*	\$1,882,000	\$438,200	\$8,641,000	<b>\$17,490,200</b>

Source: 2007 financial statements

\*For Newmont, gross gold sales were calculated by adding the company's reported net gold sales amount to its "costs applicable to sales" for gold.

To calculate a royalty cost for one mine, it is necessary to know detailed information regarding transportation costs and the limited refining/smelting costs that a company may deduct from gross sales before calculating a royalty. This data is generally not available to the public. Additional reporting transparency requirements would allow for an accurate estimate.

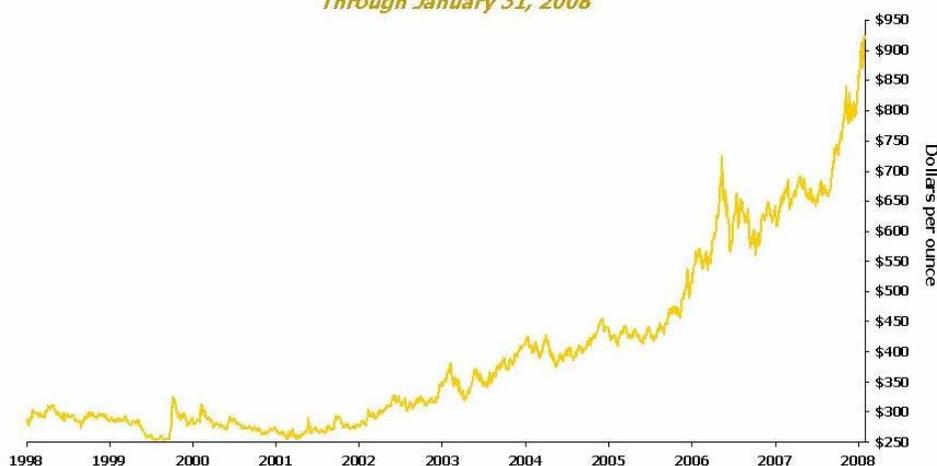
### Gold Glitters Brightly at \$1,000 per Ounce

Gold mining in particular has been extremely lucrative. Gold prices have skyrocketed recently, crossing the \$1,000 per ounce line earlier this year. The price has hovered around \$900 per ounce throughout the year.

*We had a very strong year. Total production for the year increased by 8 percent and, combined with robust gold prices, annual revenue increased by 21 percent to a record \$1.1 billion.*

--Kinross CEO Tye Burt, 2007 Annual Report

### London Gold Prices Through January 31, 2008



Source: Freeport-McMoRan Copper & Gold Inc. annual 10-K filed with Securities and Exchange Commission.

Because of the history of giving away public lands largely for free, hardrock mining companies hold the rights to land containing millions of ounces of gold that once was owned by all U.S. citizens. The CBO estimates that approximately \$1 billion in hardrock minerals is extracted

from public lands annually, but billions worth of additional minerals are extracted from land that at one time was owned by the public, and which now belongs to private interests. Thus, most of the billions of dollars worth of minerals yet to be mined will never be touched by a royalty.

Table 2: U.S. Gold Extracted and Reserves Owned – selected companies

Company	2007 Gold Extracted (ounces)	Proven and Probable Reserves (ounces)
Rio Tinto	681,000	Not provided*
Kinross	641,430	6,288,000
Newmont Mining Corp.	2,342,000	29,370,000
Barrick	674,000	46,748,000

Source: 2007 annual report or 10-K filed with Securities and Exchange Commission

\* Most of Rio Tinto's gold is a by-product of their copper and silver operations.

## Special Tax Treatment for Mining Industry

In addition to the record profits, mining companies also receive special treatment under U.S. tax laws. Like other businesses, hardrock mining companies are allowed a variety of income tax deductions for various business costs. But mining companies also layer on additional special tax breaks or tax preferences that add up to billions of dollars in taxpayer giveaways annually.

### Tax Preferences

Three tax breaks in particular provide sizeable benefits to the extractive mining industries: the percentage depletion allowance; the ability to expense rather than capitalize certain exploration and development (E&D) costs; and the ability to deduct the costs of mine closure and reclamation.<sup>10</sup>

- *Depletion allowance:* Mining companies and other extractive industries are allowed to deduct a percentage of their revenues from gross income.<sup>11</sup> For hardrock mining, this deduction typically exceeds the capital cost of extraction. Most countries have rejected the depletion allowance subsidy.<sup>12</sup> The deduction ranges from 5 percent for things like gravel and sand, to 15 percent for minerals such as gold, silver or copper, to as high as 22 percent for uranium.<sup>13</sup>
- *Expensing:* In most cases businesses capitalize their business costs, meaning they spread the costs over a number of years. Mining firms can instead expense certain E&D costs immediately, allowing for enormous write-offs in certain years.
- *Closure and Reclamation:* Mining companies may deduct these costs before actual closure of the mine, a practice which is contrary to general tax rules.<sup>14</sup> In many cases mines close or are abandoned with insufficient resources for closure and reclamation costs, meaning the mining company potentially gets a deduction for a cost never incurred once they declare bankruptcy.

According to company records, three of the five companies highlighted in Table 1 had cumulative tax deductions for depreciation, depletion, amortization, and exploration of more than \$1 billion combined in 2007. Barrick Gold does not report its expenses in enough detail to calculate just the company's U.S. deductible costs.

### **Preferences Lower Effective Tax Rate (ETR)**

*Companies based in the US have lower ETRs than those in other territories which is due partly to the benefit of depletion allowances available in the US. In 2006, three quarters of the US companies benefitted from this favorable driver, the average impact was to reduce the ETR by 8.4%.<sup>15</sup>*

Special tax treatments, along with the other preferences available in general to all businesses, allow mining companies to substantially reduce their tax burden. Companies are also allowed to deduct any royalties they do pay before calculating taxable income. All of this substantially increases the profitability of hardrock mining companies. According to the PriceWaterhouseCoopers (PWC) annual report on mining, the industry enjoyed an average effective tax rate in 2006 of 28 percent,<sup>16</sup> while the standard corporate rate is 35 percent. At a time of record profits, tax incentives to encourage mining exploration and extraction are simply a taxpayer giveaway.

### **Establishing a Fair Royalty**

A royalty is the fee paid to the owner of a resource for the privilege to extract that resource. In the case of hardrock minerals taken from public land, the resource owner is the federal government, and ultimately, all U.S. citizens. The oil, gas and coal industries already pay more than a 12 percent royalty on what they extract, and they and the hardrock mining companies may pay even more when mining on private, state or tribal lands. But hardrock mining companies return nothing to taxpayers for the resources they extract from public lands. And hundreds of thousands of acres formerly public lands have already reverted to private ownership.

Mining companies and some lawmakers claim that a royalty would cause companies to reduce their U.S. operations, and that in some cases mining companies would be forced out of business. Headlines about rocketing gold prices and glowing reviews predicting continued prosperity from industry and stock market analysts indicate that a modest, tax-deductible royalty could easily be absorbed by these successful companies.

There are a variety of types of royalties, with some being easier to administer than others. In general those described here are the most widely applied in the U.S.<sup>17</sup>

#### *Gross Income Royalty<sup>18</sup>*

Gross income is one of the simplest ways to calculate a royalty that ensures a fair return to the taxpayer, as it is already reported by companies and used for calculating the depletion allowance. It is what the majority of states and other countries use to determine their royalty payments. This royalty is sometimes also referred to as a Net Smelter Return (NSR) royalty. According to Mineral Business Appraisal, net smelter "royalty payments are also fairly simple to calculate and

administer in that only the selling price and quantity of mineral product produced or sold are required for their determination.” In addition, “this type of royalty will usually have the highest market value of all the royalty types.” Simple, predictable, and valuable – that is the way to calculate royalties in the best interest of the taxpayer.

### *Value-based Royalty*<sup>19</sup>

Similar to the gross income royalty is the value-based royalty. Policy makers pick a particular point in the mining process at which to apply the royalty, and use the mineral value at that point in production for calculating a royalty. Often the idea is to value the mineral at the “mouth of the mine,” allowing for some small amount of extraction costs to be excluded from the mineral value before assessing the royalty. Variations allow for additional smelting and processing costs to be deducted before royalty assessment.

### *Net-Profits Royalty*<sup>20</sup>

Unlike a gross income royalty, a net-profits royalty allows all deductions to be taken before calculation of the royalty. In some instances calculating royalties in this manner led to an effective .1 percent royalty being collected on the value of minerals extracted from the state – hardly a fair return. This system is also difficult to track and complicated to administer. Most countries and states do not use this royalty system.

The states of Alaska and Nevada provide glaring examples of how big a loss a net-proceeds royalty would be for U.S. taxpayers. Alaska imposes a 3 percent net-proceeds royalty on mining operations on state lands. Yet according to figures provided by the Alaska Department of Natural Resources, the effective impact of this type of royalty is less than one-tenth of one percent on the value of mining operations. Over the last ten years, Alaska has collected only \$1.2 million in royalties despite the extraction of more than \$1.2 billion worth of gold from state lands.



Nevada imposes a sliding scale net proceeds tax, with a maximum rate of 5 percent, which is applied to minerals that are sold or removed from the state. The tax is applied to 100 percent of the value of the net proceeds of a mine,<sup>21</sup> meaning it is applied after numerous operating and other costs are deducted for the gross mineral value. From 1995 to 2006, mines owed the state over \$330 million in net proceeds taxes on almost \$40 billion of gross proceeds. A simple gross proceeds tax of 5 percent would have generated \$1.7 billion in compensation to Nevada taxpayers.

In general a royalty should meet two basic tests, does it return a fair amount of compensation to taxpayers, and is it easily applicable with the greatest amount of transparency possible. The gross income royalty meets these tests. And according to a Congressional Research Service (CRS) report, “imposing an 8 percent royalty will not radically affect mining economics in the United States.”<sup>22</sup>

It is clear that hard rock mining companies operating in the U.S. can sustain a royalty rate of 8 percent without sacrificing much of their bottom line. Preferably, a royalty in line with the other extractive industries, one around 12 percent, would go much further towards bringing the hardrock mining industry up to date and in line with similar industries.

## Proposals for Reform

Members of Congress in both the House of Representatives and the Senate have expressed a desire to update the 1872 law. Late last fall, the House passed H.R. 2262, The Hardrock Mining and Reclamation Act of 2007. H.R. 2262 would implement a two-tiered royalty system, make permanent the annually imposed moratorium on patenting, and establish an abandoned mine clean-up fund. It also offers environmental protections that will help avoid future taxpayer liabilities.

### *Institute a Fair Royalty*

The House passed two-tiered royalty system would require a 4 percent gross income royalty from mines currently in operation, and an 8 percent gross income royalty on all new mines. The Congressional Budget Office (CBO) estimates that this would bring in about \$40 million annually. This relatively small amount of revenue is because royalty proceeds from new mines, which would be subject to the higher royalty, would not show up for approximately 10 years, which is outside of the period for which CBO makes its projections.<sup>23</sup> And with the tax deductions available to mining companies, including the royalty, the burden to companies is minimal.

### *End Patenting*

Since 1994, Congress has passed a moratorium on the patenting of public lands under the 1872 Mining Law. The recently passed House bill includes a provision to permanently end the claim-patent system. It is imperative the moratorium be made permanent because the threat of a resurgence of land giveaways is very real. In fact, over the years legislation and amendments have been offered to reinstate the practice. To avoid this taxpayer liability the claim-patent system should be stopped permanently.

### *Increase Mining Fees*

In addition to the royalty, mining fees should be raised to reflect today's market and the true administrative costs of processing and maintaining claims. Congress should support proposals to raise the transaction fee for a claim to \$100 from its current rate of \$10. The claim maintenance fee should also be increased to \$250-300 from its current rate of \$130, similar to the House passed reform bill and Senate proposals.

### *Establish Abandoned Mine Clean-up Fund*

To address the unfunded liabilities associated with abandoned mine clean-up, Congress should require financial assurance and operation plans, and restrict mining in areas where the risk of an expensive clean-up is too great. Congress should also establish an Abandoned Mine Clean-up Fund to address the \$50 billion backlog of abandoned mines. Royalties collected should be directed towards the fund and a reclamation fee on all hard rock mining operations should be instituted to generate additional revenue for mine clean-up. Furthermore, funds should be used for the highest priority clean-up sites-ones with the greatest liability, rather than simply directed to states where the royalty was generated.

Moreover, legislative reforms that would enable a portion of the revenue generated by mining fees and royalties to be deposited in the General Treasury, once cleanup liabilities at the time of enactment have been discharged should be considered.

#### *Increase Transparency and Accountability*

Information necessary to estimate the amount of mineral resources extracted from public lands and the value a royalty would generate is difficult to compile. The information necessary to estimate the revenue generated by a gross income royalty is not publicly available from mining companies. This information is generally only available to the public in an aggregated form. It is also difficult to determine the value of minerals extracted from land previously owned by the public. For example, just four companies extracted \$14.8 billion worth of minerals in 2007 alone, according to the report (Table 1). But from publicly available records it is not possible to know the value of the resources extracted just from public lands.

For example, the U.S. Geological Survey estimates that in 2006, \$4.9 million in gold was produced in the U.S. But to estimate the value of a gross income royalty for that production, mine specific data on extraction, transportation, and initial refining costs is necessary. Further, most of this production likely occurs on land no longer owned by the public, minimizing the impact to mining companies of a royalty.

To illustrate the profits made at public expense, mining companies should, on a mine by mine basis, provide data to the public on the “mouth of the mine” value of minerals extracted. They should also be compelled to provide details on which mining operations are operating on public land, and which are operating on private lands that used to be public lands. All taxpayers deserve to know the details of the profitable resources that have been given away to private interests. If mining companies argue they cannot bear the cost of a royalty, they must be required to prove this claim under public scrutiny.

## **Conclusion**

Unfortunately for taxpayers, inaction on this outdated law has led to billions of dollars worth of land and mineral giveaways. Imposing a fair gross income royalty, ending the land patenting system, and establishing and generating revenue for an abandoned mine clean-up fund are three of the steps Congress must take to fix this law the correct way. The time has come to remedy this archaic and unprecedented taxpayer giveaway and begin to treat hardrock mining like other extractive industries operating on public lands.

Industry claims that a gross income royalty would cause them to severely curtail their U.S. operations are specious given the record profits and preferential tax treatment they have been realizing, and the forecasts for ever-increasing demand for hardrock minerals and the commensurate increase in mineral value. A net profits royalty, such as that utilized in Alaska and Nevada, has been proven to be nearly meaningless as a way to compensate for the profits garnered in those states. At the very minimum a four percent gross income royalty, as proposed in the House legislation, should be imposed immediately. A more reasonable rate level would be one in line with other extractive industries – an 8 or 12 percent gross income royalty.

Private land owners would never set a price on their land and leave it unchanged for 136 years. Nor would a private land owner simply give away valuable minerals from their land and ask for nothing in return or allow companies to pollute their land and leave without paying for clean up. Neither should taxpayers. The time to reform this archaic law is now.

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<sup>1</sup> Steve Lipsher, "Sale of mining patents roils Crested Butte residents," Denver Post, April 6, 2004.

<sup>2</sup> See the company website at <http://www.usnrg.com/index.php?id=28>. Last accessed 5/8/08. The mine is now known as the Lucky Strike mine, the U.S. Department of the Interior estimates there is 267 million pounds of recoverable molybdenum on the site. Multiplying by the current spot price for molybdenum of around \$34 per pound gives a value of \$9,078,000,000.

<sup>3</sup> United States Government Accountability Office (GAO), Federal Land Management, "The Mining Law of 1872 Needs Revision," GAO/RCED-89-72, March 1989.

<sup>4</sup> U.S. Environmental Protection Agency, Office of the Inspector General, "Annual Superfund Report to Congress for Fiscal 2004", EPA-350-R-05-001 August 2005.

<sup>5</sup> EPA/DOE Mine Waste Technology Program, 2004 Annual Report. Available at <http://www.epa.gov/ORD/NRMRL/std/mtb/mwt/annual/annual2004/annual2004.htm>. Last accessed 5/6/08.

<sup>6</sup> PricewaterhouseCoopers, "Mine—Riding the Wave," 2007. Available at <http://www.pwc.com/extweb/pwcpublishations.nsf/docid/ad4defb47a20ed0a852572f9007200c7>. Last accessed 4/25/08. Over 80 percent of the worldwide mining industry is covered, according to the report.

<sup>7</sup> Rio Tinto, Full Financial Statements, 2007. Available at [http://www.riotinto.com/documents/ReportsPublications/2007\\_Full\\_financial\\_statements.pdf](http://www.riotinto.com/documents/ReportsPublications/2007_Full_financial_statements.pdf). Last accessed 3/19/08.

<sup>8</sup> Financial data available from Securities and Exchange Commission 10-k available here <http://www.fcx.com/news/2008/FCXpercent202007percent2010K.pdf>. Last accessed 4/04/08.

<sup>9</sup> A gross income royalty is similar to what is also known as a Net Smelter Return (NSR) royalty. The value is determined "at the mouth of the mine." A mining company is allowed to deduct certain specific costs associated with transportation and minor smelting or processing before assessing the royalty. The Congressional Budget Office also refers to this type of royalty as a net proceeds royalty.

<sup>10</sup> *Congressional Research Service*, Salvatore Lazzari, "The Economics of Royalties in the case of Hard Rock Minerals on Public Domain Lands," testimony before the Subcommittee on Energy and Mineral Resources, House Committee on Natural Resources, U.S. House of Representatives. October 2, 2007.

<sup>11</sup> The depletion allowance is similar to the depreciation deduction. It allows mining companies to essentially write-off an arbitrary percentage of the value of the extracted mineral as a deduction against income. The justification is that minerals are a finite resource, and a mine's value declines as minerals are extracted. For more information, see paragraphs 6 and 7 of the Environmental Protection Agency's description of percentage depletion at this site: <http://yosemite.epa.gov/ee/epalib/incen2.nsf/821321c2b2c0d5bd8525677500697227/950fc1c1421943df85256ab200704237!OpenDocument>. Last accessed 3/11/08.

<sup>12</sup> James M. Otto, Independent Consultant on Mining Law, Policy and Economics, answers to questions from the Subcommittee on Energy and Mineral Resources, House Committee on Natural Resources, October 2007.

<sup>13</sup> Internal Revenue Code §613, available at [http://www.law.cornell.edu/uscode/html/uscode26/usc\\_sec\\_26\\_00000613----000-.html](http://www.law.cornell.edu/uscode/html/uscode26/usc_sec_26_00000613----000-.html).

<sup>14</sup> *Op. Cit.* CRS, and Internal Revenue Code §468, available at <http://www.fourmilab.ch/ustax/www/sections.html>.

<sup>15</sup> Janet Kerr, “Effective Rate Comparison of the Global Mining Industry 2006,” PricewaterhouseCoopers, London, May 2007. Available at [http://www.pwc.com/extweb/pwcpublishations.nsf/docid/47C9CD5983A0B3C08525737600764DF2/\\$File/20070618115213\\_001.pdf](http://www.pwc.com/extweb/pwcpublishations.nsf/docid/47C9CD5983A0B3C08525737600764DF2/$File/20070618115213_001.pdf). Last accessed 5/8/08.

<sup>16</sup> Op. cit., PricewaterhouseCoopers.

<sup>17</sup> For a lengthier discussion on royalty types and their complexity, see “Mining Royalties A Global Study of Their Impact on Investors, Government, and Civil Society,” by James Otto, Craig Andrews, Michael Doggett, Pietro Guj, Frank Stermole .

<sup>18</sup> Michael Cartwright, “Mineral Production Royalties,” available at [http://www.minval.com/royalty\\_mineral.html](http://www.minval.com/royalty_mineral.html). Last accessed 5/6/08.

<sup>19</sup> Op cit., Otto.

<sup>20</sup> Op cit., Cartwright.

<sup>21</sup> Nevada Taxpayers Association, “Understanding Nevada’s Net Proceeds of Minerals Tax,” 2007-2008 edition. Available at [www.nevadataxpayers.org](http://www.nevadataxpayers.org). Last accessed 5/8/08.

<sup>22</sup> *Congressional Research Service*, Marc Humphries “Mining Law Reform: The Impact of a Royalty,” May 12, 1994.

<sup>23</sup> *Congressional Budget Office* cost estimate, H.R. 2262 Hardrock Mining and Reclamation Act of 2007, October 29, 2007. Available at <http://www.cbo.gov/ftpdocs/87xx/doc8772/hr2262.pdf>. Last accessed 4/22/08.