



# 2011 AND 2012 ANNUAL REPORT OF THE MINING ACT RECLAMATION PROGRAM TO THE NEW MEXICO MINING COMMISSION



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Mining Act Reclamation Program  
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## **Cover Photo Information**

The cover photo was taken at the ASARCO Deming Mill site located in Luna County. The photograph depicts the reclaimed tailing impoundment and application of straw mulch to the site to promote revegetation and reduce erosion. The impoundment is now in post-reclamation monitoring status which will last a minimum of 12 years and include: erosion and stability monitoring and revegetation monitoring.

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## 1. Executive Summary

This annual report summarizes activities regulated by, and related to, the Mining Act Reclamation Program (“MARPP”) of the New Mexico Mining and Minerals Division (“MMD”). Part 13 of the New Mexico Mining Act Rules (the “Rules”) requires an annual report be provided to the New Mexico Mining Commission. The annual report is to contain a general description of mining operations, reclamation practices, proposed rule changes and production figures for the state.

This report identifies activities related to the permitting and regulation of mines and mineral exploration under the Mining Act for the two-year time frame of 2011 and 2012. This report is set up a little differently from past years’ reports. As a means of providing current, up-to-date information to the Mining Commission, in this report we provide production and reclamation statistics for both the 2011 and 2012 calendar years. In past reports this information was included for just one year. This information is provided to us in annual reports, submitted by our mine operators, in the spring of each calendar year. The information provided covers the previous calendar year. The next annual report, 2013, we will go back to reporting information for one year.

This report also provides tables identifying all mining and exploration operations that have obtained a permit, or submitted a permit application, under MARPP since its inception in 1994.

This report includes:

- Production figures for New Mexico mines active during the 2011 and 2012 calendar years;
- A description of reclamation activities and practices related to specific mines in the State of New Mexico;
- A description and summary of exploration and mine permitting activities for the 2011 and 2012 calendar years;
- Summary of reclaimed and disturbed acreage for 2011 and 2012;
- An explanation of a change to the sunset date within the Rules;
- Summary of financial assurance amounts and instruments for each approved mine site.

## 2. General Description of Mining Operations

### *Permit Types*

Mining operations in New Mexico are designed by the following terminology:

- Minimal Impact Mining Operations are small extractive operations that are less than 10 acres in size and can be designated as either existing or new operations. Existing operations are those that operated between January 1, 1970, and June 18, 1993, while new operations are those permitted after 1993.
- Regular Mining Operations are larger mining operations of unlimited acreage, and can be designated as either existing or new operations. Existing regular mining operations are those that operated between January 1, 1970, and June 18, 1993, while new operations are those permitted after 1993.
- Minimal Impact Exploration Operations are those that create less than 5 acres of surface disturbance and meet the definition of “minimal impact mining operations” as defined by the Rules. These are typically small extractive operations that involve the sampling of ore bodies prior to full-scale mine development.
- Regular Exploration Operations are those that exceed five acres of surface disturbance or do not meet the definition of “minimal impact mining operations” as defined by the Rules.
- General Permit Operations cannot excavate materials greater than 200 cubic yards per year, or disturb greater than two acres of surface at any one time. The General Permit category is typically used by hobby and recreational miners.

The Minimal Impact Exploration and General Permit categories make up the largest number of permitted operations. Table 1 shows the various types of mining and exploration operations, by category, that have received approved permits since the start of MARP in 1994.

**Table 1. Mining Operations Approved from 1994 to 2012**

| <b>Type of Operation</b>                 | <b>Description</b>                 | <b>Number of Operations</b> |
|--|------------------------------------|-----------------------------|
| Regular Existing Mining                  | >10 acres of disturbance           | 31                          |
| Regular New Mining                       | >10 acres of disturbance           | 0                           |
| Minimal Impact Existing Mining           | <10 acres of disturbance           | 24                          |
| Minimal Impact New Mining                | <10 acres of disturbance           | 30                          |
| Regular Exploration                      | >5 acres of disturbance            | 6                           |
| Minimal Impact Exploration               | <5 acres of disturbance            | 151                         |
| General (Recreational)                   | <200 cubic yards/yr of disturbance | 259                         |
| <b>Total Mining Operations Permitted</b> |                                    | <b>501</b>                  |

*Permit Modifications and Revisions*

MARP typically receives and processes a large number of permit modifications and revisions, which can be just as time-consuming in processing and approving as new permit applications. Modifications and revisions involved updating reclamation acreage, permit transfers, name changes and financial assurance instruments and amounts. The Tyrone Mine and the Chino Mine are both in the process of updating their closeout plans. These updates are major revisions to the mine permits involving updating financial assurance, changes to the reclamation plans, and extended negotiations with the operator, other agencies, and the public. Chevron Mining Inc.'s Questa Mine revision has also involved MARP over the last several years. Because of the need to coordinate state reclamation plans at the mine with the federal U.S. Environmental Protection Agency's ("EPA") prescription for remediation under the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA") process, MMD has delayed the operator's requirement to submit a new updated closeout plan for the complete mining and milling facility until after a Consent Decree has been satisfactorily negotiated to implement remediation requirements under the December 2010 Record of Decision ("ROD").

Table 2 identifies specific types of permit applications, including modifications and revisions, approved by MMD during 2011 and 2012. The number of minimal impact exploration permits received and approved decreased; however, the number of permit revisions and modifications approved increased.

**Table 2. Approved Permit Applications – 2011 and 2012**

| Type of Operation          | Description                         | Number of Approved Operations |      |
|----------------------------|-------------------------------------|-------------------------------|------|
|                            |                                     | 2011                          | 2012 |
| Regular New Mining         | > 10 acres of disturbance           | 0                             | 0    |
| Minimal Impact New Mining  | < 10 acres of disturbance           | 3                             | 2    |
| Regular Exploration        | > 5 acres of disturbance            | 2                             | 1    |
| Minimal Impact Exploration | < 5 acres of disturbance            | 14                            | 8    |
| General Permits            | < 200 cubic yards/yr of disturbance | 23                            | 36   |
| Revisions                  | Revision to an Existing Permit      | 1                             | 3    |
| Modifications              | Modification to an Existing Permit  | 4                             | 18   |

*Exploration Projects and General Permits*

The number of exploration applications MARP received decreased from 2011 to 2012; however, the number of general permits increased during this time period. A total of eight exploration permits were approved in 2012, as shown in Table 3 below. Exploration for copper, gold, and silver constituted the majority of exploration activities in New Mexico with several projects also exploring for molybdenum and rare earths.

**Table 3: Approved Exploration Permits – 2012**

| Permit Number | Permit Name                      | Permit Operator                   | Commodity                        |
|---------------|----------------------------------|-----------------------------------|----------------------------------|
| GR041EM       | Oak Grove Exploration            | Entrée Gold, Inc.                 | Copper                           |
| GR063EM       | Saddleback Project               | Silver Standards Resource, Inc.   | Gold, Silver                     |
| HI013ER       | Lordsburg Exploration Project II | Entrée Gold, Inc.                 | Copper, Gold                     |
| GR043EM       | Lone Hills Exploration           | AVEN Associates, LLC              | Copper, Molybdenum               |
| GR062EM       | SP Exploration Project           | Southern Silver Exploration, Ltd. | Copper, Gold, Molybdenum, Silver |
| LI030EM       | KD Placer Claims                 | Advanced Geologic, Inc.           | Gold, Silver                     |
| LI013EM       | M&E Exploration Project          | Red Basin, LLC                    | Rare Earths                      |
| LI014EM       | Vista Project                    | Red Basin, LLC                    | Rare Earths                      |



## *Approved Minimal Impact Mining Projects in 2012*

Two new minimal impact mines were approved in 2012:

- Section 2 Mine

The Section 2 Mine is a minimal impact humate extraction operation located in McKinley County. The permittee is Mineris Vitae, LLC. The mine is located on surface and mineral rights managed by the New Mexico State Land Office (“SLO”).

- Iron Duke Mine

The Iron Duke Mine is a minimal impact iron extraction operation by Gulf Coast Mining Group, LLC in Otero County. The mine is located on patented mining claims although access is partially provided through land managed by the Bureau of Land Management (“BLM”).

## *Pending Regular Mine Applications*

Four new conventional mines are under development in New Mexico, a summary of which is provided in Table 4:

**Table 4: Pending Regular Mine Applications – 2011 and 2012**

| <b>Project Name</b> | <b>Operator</b>               | <b>Surface Ownership</b> | <b>Commodity</b> | <b>Proposed Permit Area (acres)</b> |
|---------------------|-------------------------------|--------------------------|------------------|-------------------------------------|
| Copper Flat Mine    | New Mexico Copper Corporation | BLM and Private Owners   | Copper           | 2,190                               |
| La Jara Mesa Mine   | Laramide Resources            | USFS                     | Uranium          | 22                                  |
| Roca Honda Mine     | Roca Honda Resources          | USFS and SLO             | Uranium          | 183                                 |
| Cebolleta Mine      | Neutron Energy                | Private Land Grant       | Uranium          | 4,475                               |

- Roca Honda Mine

The proposed Roca Honda Mine by Roca Honda Resources is located in McKinley County on Cibola National Forest and state trust lands. Roca Honda Resources has submitted both the Sampling and Analysis Plan and the Permit Application Package to MMD. The Roca Honda Mine application indicates that the mine site and surface facilities will comprise approximately 183 acres of surface disturbance within a proposed 1,920 acre permit area. Roca Honda Resources also submitted a Mining Plan of Operations to the U.S. Forest Service (“USFS”) which is being handled

through the National Environmental Policy Act (“NEPA”) Environmental Impact Statement (“EIS”) process.

- La Jara Mesa Mine

The proposed La Jara Mesa Mine by Laramide Resources, Inc. is located in Cibola County on Cibola National Forest land on the edge of the Mt. Taylor Traditional Cultural Property. Laramide Resources has submitted a permit application to the USFS for the proposed mine which will be handled through the EIS process. Laramide Resources also initiated the permitting process with MMD by submitting a Sampling and Analysis Plan. The La Jara Mesa Mine application indicates about 16 acres of surface disturbance within the proposed 77 acre permit area. The Permit Application Package is anticipated to be submitted to MARP after the completion of the EIS process and after the ROD has been issued by the USFS.

- Copper Flat Mine

New Mexico Copper Corporation submitted a Sampling and Analysis Plan in 2010 for the Copper Flat Mine, a proposed new regular copper mine in Sierra County, and conducted baseline data collection and analysis during 2011. The Permit Application Package was submitted in July 2012. The operator has already submitted a Plan of Operation to the BLM. MMD and BLM are working together to address the federal NEPA and state Environmental Evaluation (“EE”) processes.

- Cebolleta Mine

Neutron Energy submitted a Sampling and Analysis Plan in March 2012 for the Cebolleta Mine, a proposed new uranium mine in Cibola County. The proposed mine is located entirely on private land, most of which is owned by the Cebolleta Land Grant. The proposed mine permit boundary is approximately 4,475 acres, though the amount of disturbance is anticipated to be less.

### 3. General Description of Reclamation Practices

#### *2011 Excellence in Reclamation Award Winner: Velarde Mill*

The Velarde Mill was a mica mill that received ore from the U.S. Hill Mine in Rio Arriba County, New Mexico. The mill utilized several large tailing ponds and is located in an area of mixed commercial, industrial and residential properties. Reclamation performed at the site was awarded the 2011 Excellence in Reclamation Award for successful achievement of a stable, positive-draining landform and establishment of a vegetative cover at a technically challenging site.



*Application of cover soil over the tailings impoundment*



*Tailings dam out slope after regrading and covering*



*Mulch applied to the reclamation*



*Vegetative cover establishment*

Other 2011 Excellence in Reclamation Award winners include the Harding Pegmatite Mine for safeguarding of the historic and nationally recognized site.

*2012 Excellence in Reclamation Award Winner: Tyrone Mine*

The Tyrone Mine, located in Grant County, is a large open-pit copper mine and mill. Tyrone Mine reclamation is the largest-scale hard rock reclamation in New Mexico with approximately 4,400 acres of completed reclamation. Reclamation at the No. 2 tailing impoundment, Red Rock Diversion, and No. 1 stockpile were recognized for Excellence in Reclamation in 2012.



*No. 2 tailing impoundment reclamation*



*No. 1 stockpile reclamation*

Other 2012 Excellence in Reclamation Award winners include the Swastika Mine safeguarding and Dutchman Canyon reclamation project and the York Canyon Complex reclamation project.

*Completed Reclamation*

Four mines have received a complete release for reclamation or for achieving the post-mine land use under the New Mexico Mining Act:

- Boston Hill Mine, in Grant County (2002)

- Mesa Verde Resources Mill, in Sandoval County (2005)
- CR Minerals Mill, in Santa Fe County (2008)
- Velarde Mill, in Rio Arriba County (2012)

*Revegetation Test Plots and Geomorphic Reclamation Practices*

MARP encourages innovative and experimental reclamation, particularly at sites where steep slopes and/or acid-producing materials present reclamation challenges. Four large operations permitted under MARP are evaluating vegetation test plots constructed over the last several years including: seeding rates, fertilizer rates, soil amendments, and infiltration rates using various soil covers and cover depths. Initial results of the test plot studies at the Tyrone and Chino mines suggest that use of the Gila Conglomerate as a growth medium is suitable for reclamation. Other trends continue to develop which will assist in decision making in the future. Chevron Mining Inc.’s Questa Mine, Freeport-McMoRan’s Tyrone and Chino mines, and GCC Rio Grande’s Tijeras Mine all have ongoing test plot programs.

MARP also encourages geomorphic reclamation approaches at hard rock mines. Geomorphic reclamation involves the use of reconstruction techniques, particularly on out-slopes which mimic natural drainage patterns to create a more stable and natural looking post-mine topography. Utilizing this new approach, the coal mines in New Mexico have enjoyed significant successes in erosion reduction, maintenance cost reductions, and greater vegetation success. Hard rock mine operators are beginning to learn how this technique might improve their reclamation strategies. The Tyrone, Tijeras and Questa mines are all exploring ways to incorporate geomorphic design into their reclamation plans.

*Total Disturbance and Reclamation*

Total disturbance and reclamation across the state is reported by the mine operators. Overall disturbed and reclaimed acreage under permit with MARP for the calendar years 2011 and 2012 is summarized in Table 5.

**Table 5: Summary of Disturbed and Reclaimed Acres – 2011 and 2012**

| <b>Calendar Year</b> | <b>Disturbed Acres To Date</b> | <b>Reclaimed Acres To Date</b> |
|----------------------|--------------------------------|--------------------------------|
| 2011                 | 25,532.1                       | 5,904.2                        |
| 2012                 | 25,923.6                       | 5,963.0                        |

Appendix A contains summary tables of operator reports on disturbed and reclaimed acres from years 2011 and 2012.

#### 4. Financial Assurance Update

Appendix B summarizes the types and amounts of financial assurance provided to the State of New Mexico by mining operators who have obtained approved permits and closeout plans. The forms of financial assurance include surety bonds, cash deposits, letters of credit, collateral (real estate), and third-party guarantees.

A summary of the amounts of financial assurance held by MMD for the calendar years 2011 and 2012 is in Table 6 below. Appendix B lists financial assurance amounts for individual permits.

**Table 6: Summary of Financial Assurance Held by MMD – 2011 and 2012**

| <b>Calendar Year</b> | <b>Financial Assurance Amount Held By MMD</b> |
|----------------------|---|
| 2011                 | \$572,280,477.55                              |
| 2012                 | \$684,343,033.15                              |

The amount of financial assurance increased in 2012 by approximately \$112 million primarily due to the addition of approximately \$109 million in financial assurance for the Questa Mine and Mill (permit number TA001RE).

## **5. Amendments to the New Mexico Mining Act Rules**

Petition number 11-01 was submitted by MARP staff to the New Mexico Mining Commission (“NMCC”) for consideration. Petition 11-01 proposed to extend the “sunset date” to collect annual fees from March 31, 2012, to a new date of December 31, 2013. The NMCC convened on November 1, 2011, to determine whether to set a date to meet on Petition 11-01. Following unanimous approval, a hearing on Petition 11-01 was scheduled by the NMCC for January 12, 2012. At that meeting, the NMCC unanimously approved Petition 11-01, the final order for which was signed on January 19, 2013. No other rule changes were proposed in 2011 or 2012.

## 6. Mineral Production Statistics for New Mexico in 2011 and 2012

### *Production Statistics for 2011*

More than \$2.2 billion worth of minerals was extracted from New Mexico mines in 2011, a 24 percent increase from 2010 levels (Table 7 and Figure 1). This is the second highest minerals production value reported for New Mexico, behind 2008's total of \$2.36 billion. While coal production was flat and potash production was actually down in 2011, commodity price increases of 20 to 30 percent improved production values considerably. This, in conjunction with copper production and value up 25 percent and 45 percent, respectively, accounts for the lion's share of the increase.

New Mexico remains a leading United States mineral producer with 2011 rankings of first in potash, perlite and zeolite; third in copper (up from fourth in 2010); and thirteenth in coal, as reported by the U.S. Geological Survey ("USGS") and the U.S. Energy Information Administration. The principal minerals, in descending order of 2011 production value, were coal, potash, and copper. According to USGS, for 2011, New Mexico ranked sixteenth when ranking states by the production value of non-energy minerals, producing 1.75 percent of the total U.S. production value of non-energy minerals (up from twentieth and 1.6 percent in 2010, respectively).

Coal claimed the top spots for production value and payroll in 2011; also, the coal industry generated the greatest revenue for the state (Table 7 and Figure 1). Total 2011 revenues (state and federal) generated by mineral production in New Mexico declined just four percent from 2010 levels to \$52.4 million. State revenues include state trust land mineral lease royalties, rentals and bonuses and associated taxes; whereas federal revenue includes a 50 percent state share of federal royalties. In any production year, these revenues only accrue if the lessee is actually mining and producing commodities on federal or state land.

Total mining sector employment increased from 2010 to 2011 as did payroll amounts. The total number of direct and contract employees in the mining industry in 2011 was 6,661, an almost 18 percent increase from 2010; direct employment increased over 14 percent to 5,422 employees; contract employment increased more than 35 percent to 1,239 workers. Reclamation employment declined 38 percent to 386 workers (Figure 2). Industry payroll exceeded \$313 million (excluding benefits), an increase of nearly 16 percent from 2010 (Figure 2). Copper was the largest employer in New Mexico's mining industry, followed by coal and potash.

Registered active mining operations in New Mexico in 2011 numbered 246: four coal mines; eight potash operations (includes mines, refineries and compaction plants); 11 metal mine, mill and SX/EW operations (includes copper, molybdenum, gold, and silver); 21 industrial mineral mines; 15 industrial mineral mills; and 187 stone and aggregate operations.



## *Production Statistics for 2012*

Operators reported more than \$2.8 billion worth of minerals extracted from New Mexico mines in 2012, a 27 percent increase from 2011's total (Table 8 and Figure 3). This is the highest minerals production value reported for New Mexico, exceeding the previous high, 2008's total of \$2.36 billion, by nearly 19 percent. While coal production was flat, reported potash production nearly doubled in 2012 offsetting the lower price per pound, and copper production and value were up 56 percent and 41 percent, respectively. These factors, in conjunction with other considerably increased commodity production, accounts for the majority of the increase.

New Mexico remains a leading United States mineral producer with 2012 rankings of first in potash, perlite and zeolite; third in copper, as reported by the U.S. Geological Survey (USGS); and thirteenth in coal (in 2011 – 2012 information not yet available), as reported by the U.S. Energy Information Administration. The principal minerals, in descending order of 2012 production value, were potash, copper and coal. According to USGS, for 2012, New Mexico ranked fourteenth when ranking states by the production value of non-energy minerals, producing 1.95 percent of the total U.S. production value of non-energy minerals (up from sixteenth and 1.75 percent in 2011, respectively).

Potash claimed the top spot for production value, and coal had the largest payroll and generated the greatest revenue for the state in 2012 (Table 8 and Figure 3). Total 2012 revenues (state and federal) generated by mineral production in New Mexico increased 19 percent from 2011 levels to \$62.4 million. State revenues include state trust land mineral lease royalties, rentals and bonuses and associated taxes; whereas federal revenue includes a 50 percent state share of federal royalties. In any production year, these revenues only accrue if the lessee is actually mining and producing commodities on federal or state land.

Total mining sector employment increased from 2011 to 2012 as did payroll amounts. The total number of direct and contract employees in the mining industry in 2012 was 6,856, a three percent increase from 2011: direct employment increased four percent to 5,654 employees; contract employment decreased slightly (three percent) to 1,202 workers; reclamation employment increased significantly (nearly 70 percent) to 655 workers (Figure 2). Industry payroll reached an all-time high of \$372 million (excluding benefits), an increase of nearly 19 percent from 2011 and more than 10 percent higher than the previously highest total in 2008 (Figure 2). When one includes reclamation employment, coal was the largest employer in New Mexico's mining industry, followed by copper and potash.

Registered active mining operations in New Mexico in 2012 numbered 237: four coal mines; eight potash operations (includes mines, refineries and compaction plants); 11 metal mine, mill and SX/EW operations (includes copper, molybdenum, gold, and silver); 15 industrial mineral mines; 10 industrial mineral mills; and 189 stone and aggregate operations.

**Table 7: Mineral Production Value, Rank, Employment, Payroll and Revenue – 2011**

| Mineral                          | Production <sup>1</sup> | Production Rank <sup>2</sup> | Production Value \$    | Employment <sup>3</sup> | Reclamation Employment | Payroll \$ <sup>4</sup> | Revenue Generated \$ <sup>5</sup> |                     |
|----------------------------------|-------------------------|------------------------------|------------------------|-------------------------|------------------------|-------------------------|-----------------------------------|---------------------|
|                                  |                         |                              |                        |                         |                        |                         | State                             | Federal             |
| Coal                             | 21,916,599              | 13                           | \$ 797,007,997         | 1,604                   | 101                    | \$ 95,945,409           | \$ 25,555,399                     | \$ 3,850,306        |
| Copper                           | 145,094,072             | 3                            | \$ 581,101,762         | 1,754                   | 120                    | \$ 78,015,148           | \$ 4,606,351                      | \$ -                |
| Gold                             | 6,815                   | -                            | \$ 10,682,651          | 73                      | 2                      | \$ 2,186,857            | \$ 89,878                         | \$ -                |
| Industrial Minerals <sup>6</sup> | 1,472,746               | -                            | \$ 107,097,166         | 462                     | 16                     | \$ 16,562,338           | \$ 848,383                        | \$ 112,838          |
| Aggregates <sup>7</sup>          | 9,813,528               | -                            | \$ 68,432,817          | 956                     | 95                     | \$ 14,041,061           | \$ 1,890,674                      | \$ -                |
| Other Metals                     | 40,046                  | -                            | \$ 947,100             | 17                      | 2                      | \$ 903,048              | \$ -                              | \$ -                |
| Molybdenum                       | 386,439                 | -                            | \$ 6,115,669           | 245                     | 3                      | \$ 12,258,000           | \$ -                              | \$ -                |
| Potash <sup>8</sup>              | 781,282                 | 1                            | \$ 636,047,697         | 1,521                   | 30                     | \$ 92,290,141           | \$ 5,944,656                      | \$ 9,394,316        |
| Silver <sup>9</sup>              | 206,728                 | -                            | \$ 7,274,091           | -                       | -                      | \$ -                    | \$ 57,812                         | \$ -                |
| Uranium <sup>10</sup>            | -                       | -                            | \$ -                   | 29                      | 17                     | \$ 1,566,888            | \$ 61,832                         | \$ -                |
| <b>TOTAL</b>                     |                         |                              | <b>\$2,214,706,950</b> | <b>6,661</b>            | <b>386</b>             | <b>\$ 313,768,890</b>   | <b>\$ 39,054,985</b>              | <b>\$13,357,460</b> |

Source: Mining and Minerals Division, unless otherwise noted.

<sup>1</sup> Production is in short tons for coal, industrial minerals, aggregates, other metals and potash; copper and molybdenum in pounds; gold and silver in troy ounces

<sup>2</sup> Production rank is based on 2011 production value in relation to other U.S. states. Molybdenum ranking unavailable.

Sources: *Metals, potash, industrial minerals and aggregates: Mineral Resources Program, United States Geological Survey (minerals.er.usgs.gov)*

*Coal: Energy Information Administration, United States Department of Energy (www.eia.doe.gov)*

<sup>3</sup> Employment category includes direct and contract employees.

<sup>4</sup> Payroll is for direct employees and does not include contract employees. Payroll does not include benefits.

<sup>5</sup> State revenue includes state trust land mineral lease royalties, rentals and bonuses; and severance, resource excise and conservation tax revenues.

Federal revenue includes 50% state share of federal royalties.

Sources: *State data: New Mexico Taxation and Revenue Department (www.state.nm.us/tax), New Mexico State Land Office (www.nmstatelands.org)*

*Federal data: Bureau of Ocean Energy Management, Regulation and Enforcement (www.boemre.gov)*

<sup>6</sup> Category includes brick clay, calcite, dimension stone, gypsum, humate, perlite, Portland cement, pumice, salt, silica, and zeolite.

<sup>7</sup> Category includes base course, caliche, clay and shale, crushed rock, flagstone, fill dirt, gravel, limestone, red dog, rip-rap, sand, scoria and topsoil.

<sup>8</sup> Potash production is K<sub>2</sub>O mill production.

<sup>9</sup> Employment and payroll for silver included in copper and gold.

<sup>10</sup> Employment/payroll numbers are for licensing/permitting at proposed uranium mines, and reclamation activities/maintenance at closed mines and mills.

**Table 8: Mineral Production Value, Rank, Employment, Payroll and Revenue – 2012**

| Mineral                          | Production <sup>1</sup> | Production Rank <sup>2</sup> | Production Value \$    | Employment <sup>3</sup> | Reclamation Employment | Payroll \$ <sup>4</sup> | Revenue Generated \$ <sup>5</sup> |                     |
|----------------------------------|-------------------------|------------------------------|------------------------|-------------------------|------------------------|-------------------------|-----------------------------------|---------------------|
|                                  |                         |                              |                        |                         |                        |                         | State                             | Federal             |
| Coal                             | 22,919,717              | 13*                          | \$ 797,394,984         | 1,770                   | 377                    | \$ 121,925,446          | \$ 24,924,777                     | \$ 6,181,597        |
| Copper                           | 226,646,592             | 3                            | \$ 819,214,107         | 1,841                   | 84                     | \$ 100,240,382          | \$ 6,338,256                      | \$ -                |
| Gold                             | 9,758                   | -                            | \$ 16,034,878          | 64                      | -                      | \$ 3,301,917            | \$ 170,538                        | \$ -                |
| Industrial Minerals <sup>6</sup> | 1,491,760               | -                            | \$ 108,975,769         | 470                     | 21                     | \$ 16,660,487           | \$ 911,955                        | \$ 130,578          |
| Aggregates <sup>7</sup>          | 8,543,379               | -                            | \$ 76,945,909          | 913                     | 102                    | \$ 14,552,762           | \$ 6,380,696                      | \$ -                |
| Other Metals                     | 117,199                 | -                            | \$ 1,569,648           | 19                      | 20                     | \$ 1,229,746            | \$ -                              | \$ -                |
| Molybdenum                       | 1,726,484               | -                            | \$ 21,687,231          | 282                     | -                      | \$ 14,952,000           | \$ -                              | \$ -                |
| Potash <sup>8</sup>              | 1,548,047               | 1                            | \$ 953,477,008         | 1,473                   | 30                     | \$ 98,182,919           | \$ 4,443,294                      | \$ 12,868,197       |
| Silver <sup>9</sup>              | 203,221                 | -                            | \$ 6,334,625           | -                       | -                      | \$ -                    | \$ 93,779                         | \$ -                |
| Uranium <sup>10</sup>            | -                       | -                            | \$ -                   | 24                      | 21                     | \$ 1,189,898            | \$ -                              | \$ -                |
| <b>TOTAL</b>                     |                         |                              | <b>\$2,801,634,159</b> | <b>6,856</b>            | <b>655</b>             | <b>\$ 372,235,557</b>   | <b>\$ 43,263,295</b>              | <b>\$19,180,372</b> |

Source: Mining and Minerals Division, unless otherwise noted.

<sup>1</sup> Production is in short tons for coal, industrial minerals, aggregates, other metals and potash; copper and molybdenum in pounds; gold and silver in troy ounces

<sup>2</sup> Production rank is based on 2012 production value in relation to other U.S. states. Molybdenum ranking unavailable.

Sources: *Metals, potash, industrial minerals and aggregates: Mineral Resources Program, United States Geological Survey (minerals.er.usgs.gov)*

*Coal: Energy Information Administration, United States Department of Energy (www.eia.doe.gov)*

<sup>3</sup> Employment category includes direct and contract employees.

<sup>4</sup> Payroll is for direct employees and does not include contract employees. Payroll does not include benefits.

<sup>5</sup> State revenue includes state trust land mineral lease royalties, rentals and bonuses; and severance, resource excise and conservation tax revenues.

Federal revenue includes 50% state share of federal royalties.

Sources: *State data: New Mexico Taxation and Revenue Department (www.state.nm.us/tax), New Mexico State Land Office (www.nmstatelands.org)*

*Federal data: Office of Natural Resources Revenue (www.onnr.gov)*

<sup>6</sup> Category includes brick clay, calcite, dimension stone, gypsum, humate, perlite, Portland cement, pumice, salt, silica, and zeolite.

<sup>7</sup> Category includes base course, caliche, clay and shale, crushed rock, flagstone, fill dirt, gravel, limestone, red dog, rip-rap, sand, scoria and topsoil.

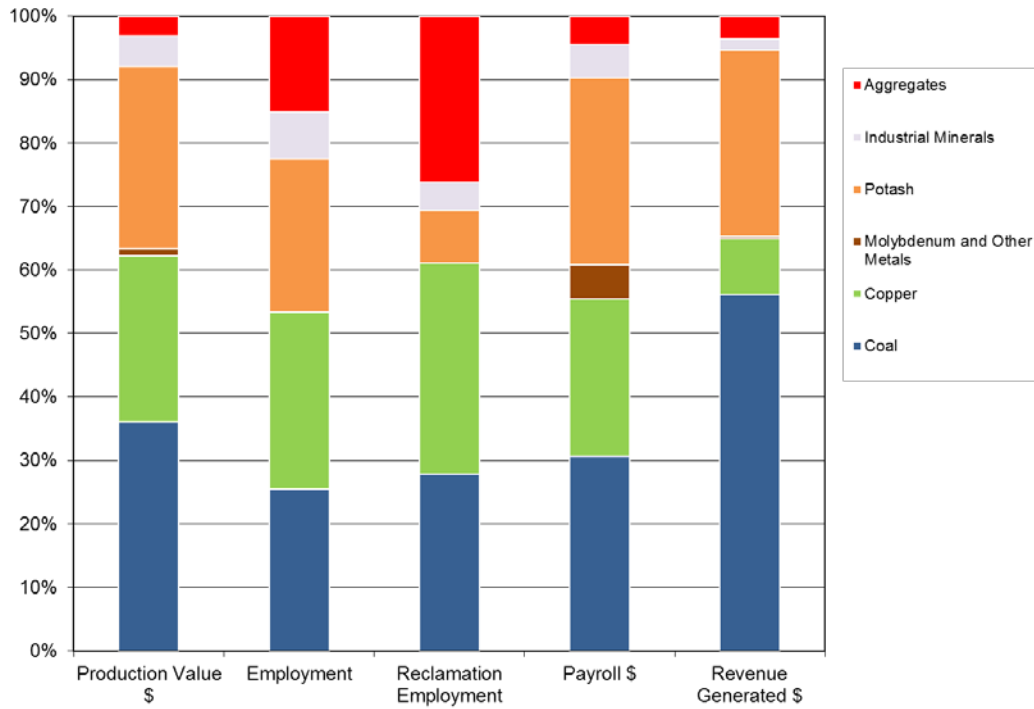
<sup>8</sup> Potash production is K<sub>2</sub>O mill production.

<sup>9</sup> Employment and payroll for silver included in copper and gold.

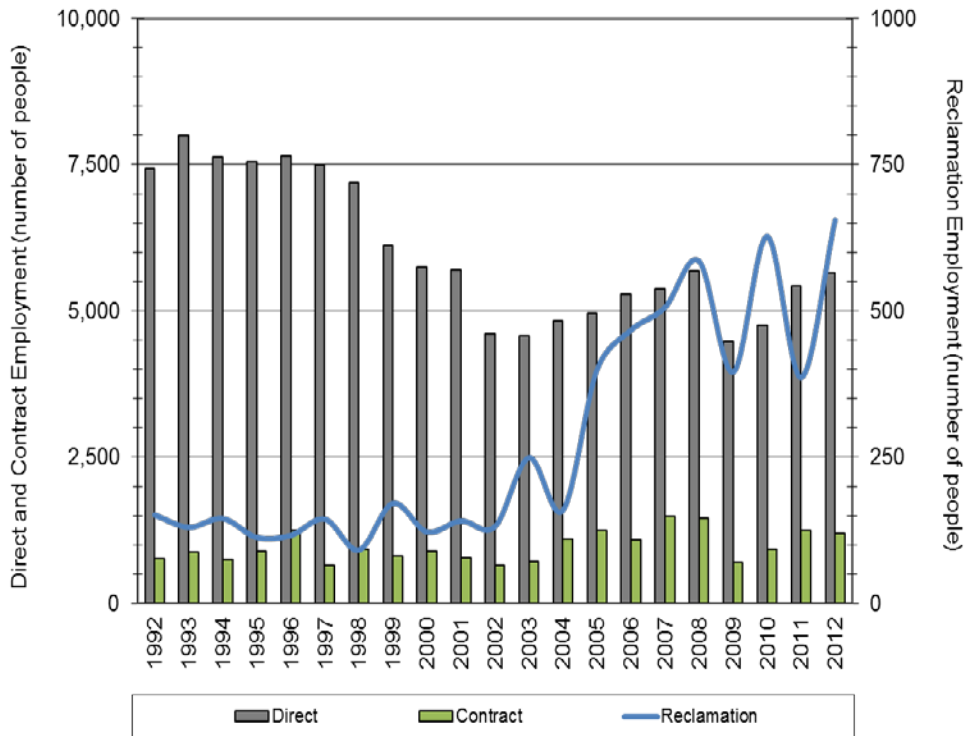
<sup>10</sup> Employment/payroll numbers are for licensing/permitting at proposed uranium mines, and reclamation activities/maintenance at closed mines and mills.

\* 2011 ranking, 2012 not yet available from the U.S. Energy Information Administration

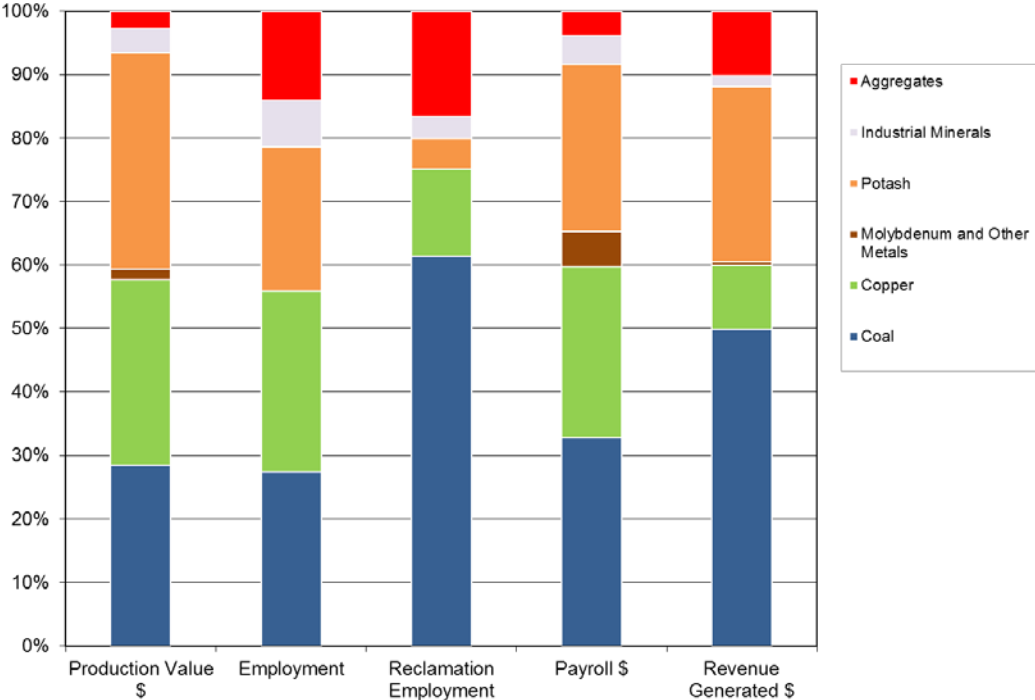
**Figure 1. Percentage of Production Value, Employment, Payroll and Revenue by Commodity - 2011**



**Figure 2. New Mexico Mineral Industry Employment from 1990-2012**



**Figure 3. Percentage of Production Value, Employment, Payroll and Revenue by Commodity – 2012**



Appendix A:  
Summary of Operator Reports  
for  
Disturbed and Reclaimed Acreage  
2011 and 2012

**Table A-1. Number of Acres Disturbed and Reclaimed as of December 2011**

| <b>Permit Number</b> | <b>Permit Name</b>                      | <b>Disturbed Acres To Date</b> | <b>Reclaimed Acres to Date</b> |
|----------------------|---|--------------------------------|--------------------------------|
| BE001RE              | Tijeras Mine and Mill                   | 583.3                          | 103.5                          |
| CA002MN              | Deadwood / Last Chance Mine             | 1                              | 0                              |
| CA003ME              | Hiawatha And Little Jim Mine            | 2                              | 0                              |
| CA005RE              | Challenge Mine and Mill                 | 0                              | 0                              |
| CA010MN              | Apache Camp No. 1 Mine                  | 0                              | 0                              |
| CI002RE              | Mt. Taylor Mine                         | 147.7                          | 0                              |
| CI003MN              | ANP No. 2 Mine                          | 2                              | 0                              |
| CI004MN              | Haskani Mine                            | 13.3                           | 0.5                            |
| CI005RE              | Tinaja Pit Mine                         | 40                             | 0                              |
| CI006MN              | Ray Claims No. 4 and No. 6 Mine         | 0.2                            | 0.5                            |
| CI007RE              | JJ No. 1 Mine                           | 0                              | 20                             |
| DA001MN              | Shamrock Leach Site                     | 2                              | 2                              |
| DA003MN              | Alley Gypsum Mine                       | 1.2                            | 1.5                            |
| GR001RE              | Pinos Altos Mine                        | 9                              | 9                              |
| GR002RE              | Continental Mine and Mill               | 928                            | 19                             |
| GR006RE              | Chino Limestone Mine                    | 55                             | 55                             |
| GR007RE              | Little Rock Mine                        | 191                            | 32                             |
| GR008RE              | Jersey Lily, Snowflake and Virtue Mines | 0                              | 22                             |
| GR009RE              | Chino Mine and Mill                     | 10415.7                        | 0                              |
| GR010RE              | Tyrone Mine and Mill                    | 8473.1                         | 4611                           |
| GR011ME              | Summit Mine                             | 2                              | 0                              |
| GR012MN              | KB Mine                                 | 41                             | 42                             |
| GR016ME              | Malone Mine                             | 0                              | 0                              |
| GR018ME              | Banks Mine (Lost New Summit No. 1 Mine) | 0                              | 0                              |
| GR019ME              | Boston Hill Mine                        | 0                              | 0                              |
| GR020RE              | Georgetown Mine                         | 0                              | 0.8                            |
| GR024MN              | Toro Mine                               | 0                              | 0                              |
| GR025ME              | Mathis Limestone Quarry Mine            | 0                              | 0                              |
| GR028RE              | Center Mine                             | 0                              | 0                              |
| GR029ME              | Mount Royal Mine and Mill               | 1                              | 0                              |
| GR030ME              | Chemical Lime Mine & Mill               | 0                              | 4.4                            |

|         |                                    |       |      |
|---------|------------------------------------|-------|------|
| GR036MN | Grooms Placer Mine                 | 0     | 0    |
| GR056MN | McCauley Perlite Mine              | 0     | 0    |
| GR058MN | Billali Mine                       | 0     | 0    |
| HI001RE | Lordsburg Mine and Mill            | 15    | 5    |
| HI002RE | Brockman Mine                      | 40    | 40   |
| HI004MN | KM Mine                            | 9     | 8    |
| HI008ME | Volcano Mine                       | 8     | 0    |
| LI001ME | Warner Gulch Placer Mine           | 2     | 2    |
| LI002ME | Smokey Mine                        | 0     | 0    |
| LI005ME | Capitan Iron Mine                  | 12    | 0    |
| LU001RE | Deming Jigging Mill                | 16    | 16   |
| LU008RE | Cyprus Deming Tailings Impoundment | 20    | 23.9 |
| LU009RE | Asarco Deming Mill                 | 56.5  | 44   |
| LU011MN | Herb Bailey No. 1 Mine             | 0     | 0    |
| LU012MN | Herb Bailey No. 2 Mine             | 0     | 0    |
| MK002RE | Section 35 Mine                    | 40    | 30   |
| MK003ME | Star Lake Mine - Menefee           | 4     | 2    |
| MK004RE | Northeast Church Rock Mine         | 0     | 17   |
| MK005RE | Section 27 Mine                    | 17    | 15   |
| MK006RE | St. Anthony Mine                   | 435   | 0    |
| MK007ME | Star Lake Mine - Mesa Verde        | 45.1  | 39.3 |
| MK008ME | Pueblo Alto Mine                   | 24    | 30.5 |
| MK009RE | Old Stope Leach Mine               | 81    | 78   |
| MK010MN | U-Mate Mine                        | 1     | 0    |
| MK011MN | Morningstar Mine                   | 14    | 19   |
| MK012MN | Jaramillo Humate Mine              | 0     | 0    |
| MK026MN | Black Spring Mine                  | 1.5   | 0    |
| OT001RN | Wind Mountain Quarry Mine          | 0     | 0    |
| OT002MN | B.O.W. Mine                        | 0.6   | 0    |
| OT005MN | Orogrande Placer Gold Mine         | 1.8   | 0    |
| RA001ME | Northstar Mine                     | 1.3   | 0    |
| RA003ME | Cullum Claims Mine                 | 60    | 0    |
| RA004RE | Rocky Mountain Mine                | 175.4 | 17   |
| RA005RE | Velarde Mill                       | 28    | 27.4 |
| RA006ME | General Pumice Mine                | 17    | 15   |



|                              |                               |                 |                |
|------------------------------|-------------------------------|-----------------|----------------|
| SA001RE                      | El Cajete Mine                | 68              | 39.5           |
| SA002RE                      | Clod Buster Mine and Mill     | 0               | 0              |
| SA004MN                      | Copar South Pit Mine          | 9               | 18.5           |
| SA005ME                      | Menefee Mill                  | 9.7             | 0              |
| SA006MN                      | Copper City Mine              | 1               | 0              |
| SA009MN                      | Eagle Mesa Mine               | 8.1             | 5.5            |
| SA010ME                      | Mesa Verde Resources Mill     | 0               | 0              |
| SA011MN                      | San Luis Mine                 | 15              | 10             |
| SA012MN                      | Horizon-Ag Products Cuba Mill | 0               | 0              |
| SA015MN                      | H2 Screen Facility            | 3.5             | 0              |
| SF001ME                      | San Pedro Mine and Mill       | 12              | 12             |
| SF002RE                      | Cunningham Hill Mine          | 307             | 289            |
| SF003ME                      | Silver Silica Mine            | 4               | 0.5            |
| SF006ME                      | CR Minerals Mill              | 8               | 8              |
| SI001ME                      | St. Cloud U.S. Treasury Mine  | 10              | 3              |
| SI005MN                      | Burbank Canyon Mine           | 0               | 0              |
| SI006RE                      | Zeolite Mine and Mill         | 51              | 24.5           |
| SI007ME                      | Midnight Mine                 | 4               | 0              |
| SI020MN                      | Coyote Cliff No. 1 Mine       | 0.6             | 0              |
| SI021MN                      | Coyote Cliff No. 2 Mine       | 0.8             | 0              |
| SJ001MN                      | Morningstar Plant             | 7.7             | 0              |
| SJ002MN                      | Chaco Limestone Quarry        | 0               | 1.5            |
| SO001RE                      | Socorro Mine and Mill         | 160             | 43.4           |
| SO002MN                      | Sais Quarry Mine              | 3.7             | 0              |
| SO005MN                      | San Lorenzo Claim Mine        | 0               | 0              |
| TA001RE                      | Questa Mine and Mill          | 2300            | 21             |
| TA002RE                      | El Grande Mine and Mill       | 170             | 14             |
| TA003RE                      | U. S. Hill Mine               | 60              | 61.5           |
| TA005RE                      | No Agua Mine and Mill         | 276             | 0              |
| VA001ME                      | Lucero Quarry Mine            | 9.3             | 0              |
| <b>TOTAL ACREAGE (2011):</b> |                               | <b>25,532.1</b> | <b>5,904.2</b> |

**Table A-2. Number of Acres Disturbed and Reclaimed as of December 2012**

| <b>Permit Number</b> | <b>Permit Name</b>                      | <b>Disturbed Acres To Date</b> | <b>Reclaimed Acres to Date</b> |
|----------------------|---|--------------------------------|--------------------------------|
| BE001RE              | Tijeras Mine and Mill                   | 587                            | 103.5                          |
| CA002MN              | Deadwood / Last Chance Mine             | 1                              | 0                              |
| CA003ME              | Hiawatha And Little Jim Mine            | 2                              | 0                              |
| CA005RE              | Challenge Mine and Mill                 | 0                              | 0                              |
| CA010MN              | Apache Camp No. 1 Mine                  | 0                              | 0                              |
| CI002RE              | Mt. Taylor Mine                         | 147.7                          | 0                              |
| CI003MN              | ANP No. 2 Mine                          | 2                              | 0                              |
| CI004MN              | Haskani Mine                            | 13.3                           | 0.5                            |
| CI005RE              | Tinaja Pit Mine                         | 40                             | 0                              |
| CI006MN              | Ray Claims No. 4 and No. 6 Mine         | 0.2                            | 0.5                            |
| CI007RE              | JJ No. 1 Mine                           | 0                              | 20                             |
| DA001MN              | Shamrock Leach Site                     | 2                              | 2                              |
| DA003MN              | Alley Gypsum Mine                       | 1.2                            | 1.5                            |
| GR001RE              | Pinos Altos Mine                        | 9                              | 9                              |
| GR002RE              | Continental Mine and Mill               | 928                            | 19                             |
| GR006RE              | Chino Limestone Mine                    | 55                             | 55                             |
| GR007RE              | Little Rock Mine                        | 191                            | 32                             |
| GR008RE              | Jersey Lily, Snowflake and Virtue Mines | 0                              | 22                             |
| GR009RE              | Chino Mine and Mill                     | 10,725.7                       | 0                              |
| GR010RE              | Tyrone Mine and Mill                    | 8,512.1                        | 4,611                          |
| GR011ME              | Summit Mine                             | 2                              | 0                              |
| GR012MN              | KB Mine                                 | 41                             | 42                             |
| GR016ME              | Malone Mine                             | 0                              | 0                              |
| GR018ME              | Banks Mine (Lost New Summit No. 1 Mine) | 0                              | 0                              |
| GR019ME              | Boston Hill Mine                        | 0                              | 0                              |
| GR020RE              | Georgetown Mine                         | 0                              | 0.8                            |
| GR024MN              | Toro Mine                               | 0                              | 0                              |
| GR025ME              | Mathis Limestone Quarry Mine            | 0                              | 0                              |
| GR028RE              | Center Mine                             | 0                              | 0                              |
| GR029ME              | Mount Royal Mine and Mill               | 1                              | 0                              |
| GR030ME              | Chemical Lime Mine & Mill               | 0                              | 4.4                            |

|         |                                    |      |      |
|---------|------------------------------------|------|------|
| GR036MN | Grooms Placer Mine                 | 0    | 0    |
| GR056MN | McCauley Perlite Mine              | 0    | 0    |
| GR058MN | Billali Mine                       | 0    | 0    |
| HI001RE | Lordsburg Mine and Mill            | 15   | 5    |
| HI002RE | Brockman Mine                      | 40   | 40   |
| HI004MN | KM Mine                            | 9    | 8    |
| HI008ME | Volcano Mine                       | 8    | 0    |
| LI001ME | Warner Gulch Placer Mine           | 2    | 2    |
| LI002ME | Smokey Mine                        | 0    | 0    |
| LI005ME | Capitan Iron Mine                  | 12   | 0    |
| LU001RE | Deming Jigging Mill                | 16   | 16   |
| LU008RE | Cyprus Deming Tailings Impoundment | 20   | 23.9 |
| LU009RE | Asarco Deming Mill                 | 56.5 | 44   |
| LU011MN | Herb Bailey No. 1 Mine             | 0    | 0    |
| LU012MN | Herb Bailey No. 2 Mine             | 0    | 0    |
| MK002RE | Section 35 Mine                    | 40   | 30   |
| MK003ME | Star Lake Mine - Menefee           | 4    | 2    |
| MK004RE | Northeast Church Rock Mine         | 0    | 17   |
| MK005RE | Section 27 Mine                    | 17   | 15   |
| MK006RE | St. Anthony Mine                   | 435  | 0    |
| MK007ME | Star Lake Mine - Mesa Verde        | 52.8 | 48   |
| MK008ME | Pueblo Alto Mine                   | 32   | 38.1 |
| MK009RE | Old Stope Leach Mine               | 81   | 78   |
| MK010MN | U-Mate Mine                        | 1    | 0    |
| MK011MN | Morningstar Mine                   | 14   | 19   |
| MK012MN | Jaramillo Humate Mine              | 0    | 0    |
| MK026MN | Black Spring Mine                  | 5.5  | 2    |
| MK037MN | Section 2 Mine                     | 14.5 | 11.5 |
| OT001RN | Wind Mountain Quarry Mine          | 0    | 0    |
| OT002MN | B.O.W. Mine                        | 0.6  | 0    |
| OT005MN | Orogrande Placer Gold Mine         | 1.8  | 0    |
| RA001ME | Northstar Mine                     | 1.3  | 0    |
| RA003ME | Cullum Claims Mine                 | 60   | 0    |
| RA004RE | Rocky Mountain Mine                | 178  | 36   |
| RA005RE | Velarde Mill                       | 28   | 27.4 |

|                              |                               |                 |                |
|------------------------------|-------------------------------|-----------------|----------------|
| RA006ME                      | General Pumice Mine           | 17              | 15             |
| SA001RE                      | El Cajete Mine                | 68              | 39.5           |
| SA002RE                      | Clod Buster Mine and Mill     | 0               | 0              |
| SA004MN                      | Copar South Pit Mine          | 9               | 18.5           |
| SA005ME                      | Menefee Mill                  | 9.7             | 0              |
| SA006MN                      | Copper City Mine              | 1               | 0              |
| SA009MN                      | Eagle Mesa Mine               | 8.1             | 13.5           |
| SA010ME                      | Mesa Verde Resources Mill     | 0               | 0              |
| SA011MN                      | San Luis Mine                 | 15              | 10             |
| SA012MN                      | Horizon-Ag Products Cuba Mill | 0               | 0              |
| SA015MN                      | H2 Screen Facility            | 3.5             | 0              |
| SF001ME                      | San Pedro Mine and Mill       | 12              | 12             |
| SF002RE                      | Cunningham Hill Mine          | 307             | 289            |
| SF003ME                      | Silver Silica Mine            | 4               | 0.5            |
| SF006ME                      | CR Minerals Mill              | 8               | 8              |
| SI001ME                      | St. Cloud U.S. Treasury Mine  | 10              | 3              |
| SI005MN                      | Burbank Canyon Mine           | 0               | 0              |
| SI006RE                      | Zeolite Mine and Mill         | 51              | 24.5           |
| SI007ME                      | Midnight Mine                 | 4               | 0              |
| SI020MN                      | Coyote Cliff No. 1 Mine       | 0.6             | 0              |
| SI021MN                      | Coyote Cliff No. 2 Mine       | 0.8             | 0              |
| SI025MN                      | Harding Mine                  | 0               | 0              |
| SJ001MN                      | Morningstar Plant             | 7.7             | 0              |
| SJ002MN                      | Chaco Limestone Quarry        | 2               | 3.5            |
| SO001RE                      | Socorro Mine and Mill         | 160             | 43.4           |
| SO002MN                      | Sais Quarry Mine              | 3.7             | 0              |
| SO005MN                      | San Lorenzo Claim Mine        | 0               | 0              |
| TA001RE                      | Questa Mine and Mill          | 2,300           | 21             |
| TA002RE                      | El Grande Mine and Mill       | 170             | 14             |
| TA003RE                      | U. S. Hill Mine               | 60              | 61.5           |
| TA005RE                      | No Agua Mine and Mill         | 276             | 0              |
| VA001ME                      | Lucero Quarry Mine            | 9.3             | 0              |
| <b>TOTAL ACREAGE (2012):</b> |                               | <b>25,923.6</b> | <b>5,963.0</b> |

Appendix B:  
Table of Financial Assurance Amounts

**Table B-1. Financial Assurance as of December 2012**

| Permit Number | Permit Name                             | Type                   | Financial Assurance Amount |
|---------------|---|------------------------|----------------------------|
| BE001RE       | Tijeras Mine and Mill                   | Trust                  | \$ 867,500.00              |
|               |   | Third Party Guarantee  | \$ 2,812,500.00            |
|               |   | Surety Bond            | \$ 70,000.00               |
| CA003ME       | Hiawatha And Little Jim Mine            | Certificate of Deposit | \$ 736.00                  |
| CI002RE       | Mt. Taylor Mine                         | Surety Bond            | \$ 725,056.00              |
| CI004MN       | Haskani Mine                            | Certificate of Deposit | \$ 32,743.00               |
| CI005RE       | Tinaja Pit Mine                         | Letter of Credit       | \$ 161,514.00              |
| CI006MN       | Ray Claims No. 4 and No. 6 Mine         | Certificate of Deposit | \$ 20,405.00               |
| CI007RE       | JJ No. 1 Mine                           | Surety Bond            | \$ 642,298.90              |
| CI014ER       | Cebolleta Exploration Project           | Letter of Credit       | \$ 41,625.00               |
|               |   | Letter of Credit       | \$ 46,980.00               |
| GR001RE       | Pinos Altos Mine                        | Letter of Credit       | \$ 343,600.00              |
| GR002RE       | Continental Mine and Mill               | Trust                  | \$ 3,000,000.00            |
|               |   | Third Party Guarantee  | \$ 18,181,672.00           |
|               |   | Collateral Bond        | \$ 6,173,600.00            |
| GR007RE       | Little Rock Mine                        | Surety Bond            | \$ 1,520,113.00            |
|               |   | Surety Bond            | \$ 1,424,470.00            |
| GR008RE       | Jersey Lily, Snowflake and Virtue Mines | Letter of Credit       | \$ 46,600.00               |
| GR009RE       | Chino Mine and Mill                     | Trust                  | \$ 64,042,304.00           |
|               |   | Third Party Guarantee  | \$ 121,136,201.00          |
| GR010RE       | Tyrone Mine and Mill                    | Surety Bond            | \$ 6,780,518.00            |
|               |   | Collateral Bond        | \$ 27,951,986.00           |
|               |   | Surety Bond            | \$ 25,000,000.00           |
|               |   | Letter of Credit       | \$ 170,874.00              |
|               |   | Third Party Guarantee  | \$ 98,827,127.00           |
|               |   | Trust                  | \$ 27,000,000.00           |
| GR012MN       | KB Mine                                 | Certificate of Deposit | \$ 24,182.00               |
| GR020RE       | Georgetown Mine                         | Certificate of Deposit | \$ 5,200.00                |
| GR022MN       | Farmers Backbreaker Mine                | Certificate of Deposit | \$ 15,000.00               |
| GR025ME       | Mathis Limestone Quarry Mine            | Certificate of Deposit | \$ 3,000.00                |

| Permit Number | Permit Name                       | Type                   | Financial Assurance Amount |
|---------------|-----------------------------------|------------------------|----------------------------|
| GR028RE       | Center Mine                       | Surety Bond            | \$ 88,563.00               |
|               |                                   | Certificate of Deposit | \$ 12,000.00               |
| GR030ME       | Chemical Lime Mine & Mill         | Surety Bond            | \$ 62,287.00               |
| GR038EM       | LT Ranch                          | Certificate of Deposit | \$ 66,367.50               |
| GR039ER       | Lone Mountain Project             | Certificate of Deposit | \$ 44,480.00               |
|               |                                   | Certificate of Deposit | \$ 76,440.00               |
|               |                                   | Certificate of Deposit | \$ 57,210.00               |
|               |                                   | Certificate of Deposit | \$ 68,250.00               |
| GR040EM       | ORO II                            | Letter of Credit       | \$ 39,181.00               |
| GR041EM       | Oak Grove Exploration Project     | Certificate of Deposit | \$ 83,138.00               |
| GR043EM       | Lone Hills Exploration Project    | Certificate of Deposit | \$ 61,410.00               |
| GR062EM       | SP Exploration Project            | Letter of Credit       | \$ 27,036.60               |
| GR063EM       | Saddleback Project                | Letter of Credit       | \$ 78,962.00               |
| HI001RE       | Lordsburg Mine and Mill           | Certificate of Deposit | \$ 206,471.00              |
|               |                                   | Certificate of Deposit | \$ 20,355.00               |
|               |                                   | Certificate of Deposit | \$ 3,879.00                |
| HI002RE       | Brockman Mine                     | Letter of Credit       | \$ 276,900.00              |
| HI004MN       | KM Mine                           | Certificate of Deposit | \$ 8,124.00                |
| HI008ME       | Volcano Mine                      | Collateral Bond        | \$ 28,652.00               |
| HI013ER       | Lordsburg Exploration Project II  | Certificate of Deposit | \$ 126,100.00              |
| HI015EM       | McGhee Peak Exploration Project   | Certificate of Deposit | \$ 65,860.00               |
| HI016EM       | Railroad Well Exploration Project | Certificate of Deposit | \$ 68,604.00               |
| LI001ME       | Warner Gulch Placer Mine          | Letter of Credit       | \$ 10,000.00               |
| LI003ER       | Bonito Gold & Silver Project      | Cash                   | \$ 200.00                  |
| LI005ME       | Capitan Iron Mine                 | Certificate of Deposit | \$ 15,000.00               |
| LI010EM       | Outlaw Exploration Project        | Certificate of Deposit | \$ 33,525.00               |
| LI011EM       | Outlaw # 2                        | Certificate of Deposit | \$ 25,200.00               |
| LI012EM       | Outlaw #3                         | Letter of Credit       | \$ 32,600.00               |
| LI013EM       | M&E Exploration Project           | Certificate of Deposit | \$ 20,000.00               |
| LI014EM       | Vista Project                     | Certificate of Deposit | \$ 15,650.00               |
| LI030EM       | KD Placer Claims                  | Certificate of Deposit | \$ 9,690.00                |
| LU001RE       | Deming Jigging Mill               | Surety Bond            | \$ 100,000.00              |

| Permit Number | Permit Name                                  | Type                   | Financial Assurance Amount |
|---------------|--|------------------------|----------------------------|
| LU008RE       | Cyprus Deming Tailings Impoundment           | Letter of Credit       | \$ 132,588.00              |
| LU017EM       | Victorio Project                             | Certificate of Deposit | \$ 80,299.00               |
| MK003ME       | Star Lake Mine - Menefee                     | Surety Bond            | \$ 13,000.00               |
| MK005RE       | Section 27 Mine                              | Surety Bond            | \$ 377,000.00              |
| MK007ME       | Star Lake Mine - Mesa Verde                  | Certificate of Deposit | \$ 4,408.00                |
|               |  | Certificate of Deposit | \$ 24,794.00               |
|               |  | Certificate of Deposit | \$ 21,193.00               |
|               |  | Certificate of Deposit | \$ 1,577.00                |
| MK008ME       | Pueblo Alto Mine                             | Certificate of Deposit | \$ 2,677.00                |
|               |  | Certificate of Deposit | \$ 22,000.00               |
|               |  | Certificate of Deposit | \$ 21,051.00               |
|               |  | Certificate of Deposit | \$ 2,500.00                |
| MK009RE       | Old Stope Leach Mine                         | Letter of Credit       | \$ 578,000.00              |
| MK010MN       | U-Mate Mine                                  | Certificate of Deposit | \$ 8,844.00                |
| MK011MN       | Morningstar Mine                             | Certificate of Deposit | \$ 2,880.00                |
| MK023ER       | Marquez Canyon Confirmation Drilling Program | Letter of Credit       | \$ 115,030.00              |
| MK026MN       | Black Spring Mine                            | Certificate of Deposit | \$ 11,000.00               |
|               |  | Certificate of Deposit | \$ 25,000.00               |
| MK028EM       | Elizabeth Claims                             | Letter of Credit       | \$ 70,270.00               |
| MK037MN       | Section 2 Mine                               | Certificate of Deposit | \$ 21,980.00               |
|               |  | Certificate of Deposit | \$ 25,000.00               |
| OT002MN       | B.O.W. Mine                                  | Letter of Credit       | \$ 15,932.00               |
| OT006EM       | Cornudas Project                             | Certificate of Deposit | \$ 22,600.00               |
| OT006MN       | Iron Duke Mine                               | Certificate of Deposit | \$ 15,597.00               |
| RA001ME       | Northstar Mine                               | Certificate of Deposit | \$ 10,000.00               |
| RA003ME       | Cullum Claims Mine                           | Letter of Credit       | \$ 161,500.00              |
| RA004RE       | Rocky Mountain Mine                          | Letter of Credit       | \$ 409,886.00              |
| RA005RE       | Velarde Mill                                 | Surety Bond            | \$ 287,821.00              |
| RA006ME       | General Pumice Mine                          | Required               | \$ 15,000.00               |
| SA001RE       | El Cajete Mine                               | Letter of Credit       | \$ 78,747.00               |
|               |  | Letter of Credit       | \$ 12,103.00               |
| SA004MN       | Copar South Pit Mine                         | Letter of Credit       | \$ 33,516.00               |



| Permit Number | Permit Name                               | Type                   | Financial Assurance Amount |
|---------------|---|------------------------|----------------------------|
| SA005EM       | Rio Puerco Exploration Project            | Certificate of Deposit | \$ 45,000.00               |
| SA005ME       | Menefee Mill                              | Certificate of Deposit | \$ 16,000.00               |
| SA006MN       | Copper City Mine                          | Cash                   | \$ 800.00                  |
| SA009MN       | Eagle Mesa Mine                           | Letter of Credit       | \$ 7,270.00                |
| SA011MN       | San Luis Mine                             | Letter of Credit       | \$ 35,100.00               |
| SA015MN       | H2 Screen Facility                        | Letter of Credit       | \$ 28,170.00               |
| SF001ME       | San Pedro Mine and Mill                   | Certificate of Deposit | \$ 8,288.00                |
| SF002RE       | Cunningham Hill Mine                      | Trust                  | \$ 378,766.00              |
| SI001ME       | St. Cloud U.S. Treasury Mine              | Certificate of Deposit | \$ 1,857.00                |
| SI005MN       | Burbank Canyon Mine                       | Certificate of Deposit | \$ 30,000.00               |
| SI006RE       | Zeolite Mine and Mill                     | Collateral Bond        | \$ 157,719.00              |
| SI022EM       | Copper Flat Exploration                   | Certificate of Deposit | \$ 39,540.00               |
| SI025EM       | Copper Flat Exploration 2 Project         | Certificate of Deposit | \$ 241,710.00              |
| SO001RE       | Socorro Mine and Mill                     | Letter of Credit       | \$ 106,237.00              |
|               |   | Letter of Credit       | \$ 688,166.00              |
| SO002MN       | Sais Quarry Mine                          | Certificate of Deposit | \$ 2,661.89                |
| SO014ER       | Sullivan Ranch Exploration Part 4 Project | Certificate of Deposit | \$ 36,724.26               |
| TA001RE       | Questa Mine and Mill                      | Letter of Credit       | \$ 1,355,634.00            |
|               |   | Letter of Credit       | \$ 66,918,125.00           |
|               |   | Third Party Guarantee  | \$ 200,754,376.00          |
| TA002RE       | El Grande Mine and Mill                   | Letter of Credit       | \$ 711,497.00              |
| TA003RE       | U. S. Hill Mine                           | Letter of Credit       | \$ 201,354.00              |
| TA005RE       | No Agua Mine and Mill                     | Surety Bond            | \$ 1,029,790.00            |
| VA001ME       | Lucero Quarry Mine                        | Certificate of Deposit | \$ 24,515.00               |

**TOTAL (2012)**

**\$ 684,343,033.15**