# NEVADA ABANDONED MINE LANDS PHYSICAL HAZARD REPORT 2024



Commission on Mineral Resources - Nevada Division of Minerals



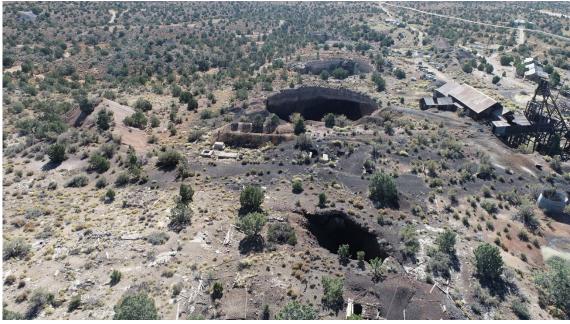
#### State of Nevada

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Robert Felder (Exploration and Development)
Randy Griffin, (Small-Scale Mining and Prospecting)
Stephanie Hallinan (Large-Scale Mining)
Arthur Henderson (Oil and Gas)
Mary Korpi (General Public)

#### **Division of Minerals Staff**

Rob Ghiglieri, Administrator
Garrett Wake, Deputy Administrator
Dustin Holcomb, Fluid Minerals Program Manager
Sean Derby, Chief, Abandoned Mine Lands Program
Keith Hayes, Project Manager
Peter Engh, Field Specialist
Rick Kauffman, Field Specialist
Carol Shelton, Field Specialist
Crystal Cruson, Program Officer II
Rebecca Tims, Administrative Assistant IV
Lucia Patterson, GIS Analyst III
Deborah Selig, Administrative Assistant IV



Picture 1 - Black Prince Mine in Caselston, NV.

Written By: Sean Derby

Cover Photo: Moonrise over Broken Hill's hard closure project in Mineral County, NV,

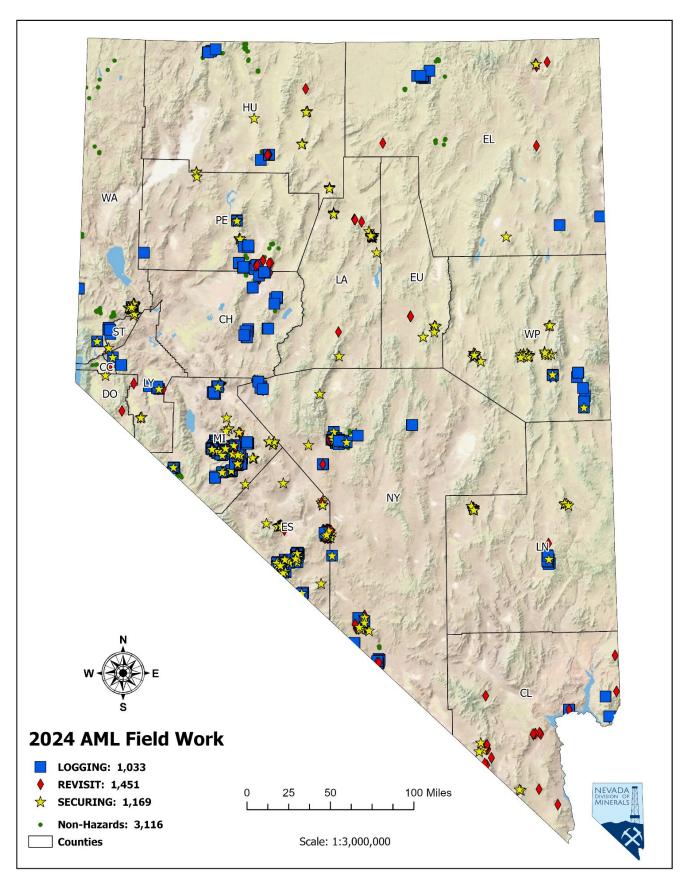
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#### TABLE OF CONTENTS

| 1. Executive Summary                                 | 5  |
|--|----|
| 2. The Commission on Mineral Resources               | 6  |
| 3. Background  | 6  |
| 4. Abandoned Mine Incidents in 2024                  | 8  |
| 5. Inventory, Securings, and Permanant Closures      | 8  |
| 6. Intern Program                                    | 10 |
| 7. Public Awareness                                  | 10 |
| 8. Performance Indicators                            | 10 |
| 9. Geologic, Cultural, and Wildlife Survey Contracts | 11 |
| 10. Summary  | 11 |
| 11. Acknowledgements                                 | 12 |
| 12. Appendix A                                       | 13 |
| 13. Appendix B                                       | 15 |
| 14. Appendix C                                       | 19 |
| 15. Appendix D                                       | 20 |



Map 1 - Hazards logged, secured, and revisited in the 2024 calendar year.

#### 1. Executive Summary

The State of Nevada's Abandoned Mine Lands (AML) program, operated by the Nevada Division of Minerals (the Division), celebrated its 38th year in 2024. Key details and milestones include:

- No reported abandoned mine incidents in 2024.
- Over 161,000 historic mining-related features were cataloged since the AML program's inception in 1987.
- 26,030 total hazards discovered and ranked since the program began, with 21,314 hazards currently recorded as secured.
- 1,033 new hazards were discovered, and 1,169 hazards were secured.
- 1,451 known hazards were revisited to confirm securing status and evaluated to make necessary repairs.
- Completed ten hard closure projects in Clark, Humboldt, Mineral, Lander, Lincoln, Lyon, Nye, Washoe, and White Pine Counties including 183 sites.
- Received \$732,239 in funding for inventory and securing efforts by partner organizations.
- Collaborated with the Bureau of Land Management, Nevada Department of Wildlife, Nevada State Parks, Nevada State Historic Preservation Office, Nevada Department of Transportation, the National Park Service, and the US Forest Service to secure abandoned mine land hazards throughout the state.

## 2. The Commission on Mineral Resources

The Nevada Division of Minerals, operating under the Commission on Mineral Resources (the Commission), is mandated by statute to promote and support the responsible exploration and development of the State's economically beneficial mineral, oil, gas, and geothermal resources. The Division also protects public safety by identifying, prioritizing, and mitigating hazardous conditions at inactive or abandoned mine sites. Additionally, it serves as a key source of data on exploration, production, and related resource topics.

The Commission is composed of seven members appointed by the Governor. This public body is responsible for adopting regulations, shaping administrative policies for the Division, and providing policy guidance to both the Governor and the Legislature on matters concerning mineral resources. The Division's work is centered around four core responsibilities: public education and outreach; inventorying and remediating abandoned mine hazards; regulating oil, gas, geothermal, and dissolved mineral resource exploration and drilling; and managing the Reclamation Performance Bond Pool program.

#### 3. Background

Nevada's distinctive geology and dynamic tectonic setting have given rise to a wide range of mineral resources, drawing miners and prospectors to the region for more than 150 years. Many of these early mining activities left behind open shafts, adits, and abandoned mill sites—hazardous remnants of a historic legacy. It is estimated that there are approximately 300,000 such features statewide. Of these, the Division estimates 35,000 features as presenting significant public safety risks that may require mitigation.

The Nevada Legislature established the Division's Abandoned Mine Lands (AML) program in 1987 due to incidents at

| Year | Assistance<br>Agreements |     | Mining<br>Claim Fees |    | Disturbance<br>Fees |    | Total     |  |
|------|--------------------------|-----|----------------------|----|---------------------|----|-----------|--|
| 2024 | \$<br>732,239            | \$  | 954,784              | \$ | 66,520              | \$ | 1,753,543 |  |
| 2023 | \$<br>63,668             | \$1 | ,095,918             | \$ | 3,420               | \$ | 1,163,005 |  |
| 2022 | \$<br>424,549            | \$1 | ,096,128             | \$ | 97,080              | \$ | 1,617,757 |  |
| 2021 | \$<br>222,157            | \$1 | ,105,252             | \$ | 102,460             | \$ | 1,429,869 |  |
| 2020 | \$<br>19,127             | \$  | 779,292              | \$ | 86,860              | \$ | 885,239   |  |
| 2020 | \$<br>258,087            | \$  | 792,940              | \$ | 29,026              | \$ | 1,080,053 |  |
| 2018 | \$<br>359,910            | \$  | 837,688              | \$ | 36,630              | \$ | 1,234,228 |  |
| 2017 | \$<br>137,198            | \$  | 802,372              | \$ | 84,640              | \$ | 1,024,210 |  |
| 2016 | \$<br>110,448            | \$  | 725,257              | \$ | 5,280               | \$ | 840,985   |  |
| 2015 | \$<br>60,000             | \$  | 432,242              | \$ | 64,300              | \$ | 556,542   |  |
| 2014 | \$<br>84,008             | \$  | 466,835              | \$ | 164,740             | \$ | 715,583   |  |
| 2013 | \$<br>69,031             | \$  | 494,967              | \$ | 228,220             | \$ | 792,218   |  |
| 2012 | \$<br>31,670             | \$  | 561,930              | \$ | 9,800               | \$ | 603,400   |  |
| 2011 | \$<br>-                  | \$  | 481,584              | \$ | 139,360             | \$ | 620,944   |  |
| 2010 | \$<br>75,000             | \$  | 463,236              | \$ | 41,008              | \$ | 579,224   |  |

Table 1 – Dedicated revenue to the AML program, since 2014



Picture 2 - PUF and backfill permanent closure of two hazards at the Olinghouse Hard Closure Project in Washoe County, NV

abandoned mines. Nevada Revised Statute (NRS) chapter 513, found in Appendix A, outlines the three main functions of the program.

- 1) Inventory and rank dangerous conditions that result from mining practices that took place at a mine that is no longer operating; and identify and notify the owner or other person responsible for the condition, if feasible.
- 2) Secure hazardous conditions on open public lands where no claimant or property owner could be identified.
- 3) Develop a public awareness campaign to educate the public about dangerous conditions that exist as a result of historic mining activities.

In 1989, the Legislature also provided an opportunity for companies, individuals, and civic groups to voluntarily assist the program in the construction of a fence or other safeguard around dangerous conditions at an abandoned mine opening under a designated Good Samaritan law. (NRS 41.0331, Appendix A).

The AML program is administered under Nevada Administrative Code (NAC) Chapter 513, found in Appendix B. On an annual basis the Division notifies each board of county commissioners of the hazardous conditions discovered within their respective county. The appropriate county is also notified if a claimant fails to confirm the completion of securing to the Division or fails to make clear their intention to secure hazards within the timeframe specified by NAC 513.380. Under NRS 455, the county is authorized to take appropriate

enforcement action, which may include warnings issued by the county sheriff, securing work performed under direction of the county at the owner's expense, and possible fines of up to \$250 per violation. No state general funds are used to operate this AML program. It is funded from the following three sources:

- 1) A \$4 fee collected by county recorders and remitted to the Division for each unpatented mining claim filing, (NAC 513.315).
- 2) A one-time fee of \$20 per acre for every acre of permitted disturbance associated with new or amended mining or exploration plans of operation on public lands (NRS 519A.250).
- 3) Assistance agreements with partnering organizations including the Bureau of Land Management (BLM), the United States Forest Service (USFS), and the National Park Service (NPS), which provide financial and planning assistance to enhance and accelerate both field investigation activities and work performed by staff, contractors, and volunteers to secure hazards.

Collected revenues are used for contracted closures, fencing, and inventory

|                    |            |         | 1       |  |
|--------------------|------------|---------|---------|--|
| 00111171           | SITES      | SITES   | PERCENT |  |
| COUNTY             | DISCOVERED | SECURED | SECURED |  |
|                    | 85         | 82      | 96.5%   |  |
| Carson             | 85         | 82      | 96.5%   |  |
| Churchill          | 967        | 822     | 85.0%   |  |
| Clark              | 2,446      | 1,991   | 81.4%   |  |
| Douglas            | 241        | 224     | 92.9%   |  |
| Elko               | 1,073      | 850     | 79.2%   |  |
| Esmeralda          | 3,864      | 3,341   | 86.5%   |  |
| Eureka             | 1,230      | 1,008   | 82.0%   |  |
| Humboldt           | 1,116      | 911     | 81.6%   |  |
| Lander             | 778        | 687     | 88.3%   |  |
| Lincoln            | 1,096      | 972     | 88.7%   |  |
| Lyon               | 1,265      | 1,152   | 91.1%   |  |
| Mineral            | 3,157      | 2,260   | 71.6%   |  |
| Nye                | 3,571      | 2,882   | 80.7%   |  |
| Pershing           | 2,083      | 1,802   | 86.5%   |  |
| Storey             | 233        | 212     | 91.0%   |  |
| Washoe             | 483        | 461     | 95.4%   |  |
| White Pine         | 2,342      | 1,725   | 73.7%   |  |
| TOTAL (Since 1987) | 26,030     | 21,314  | 81.9%   |  |

Table 2 - Statewide hazards logged v. securing by county.

work; field supplies such as fence posts, signs and barbed wire, travel and vehicle expenses; required office supplies, hardware and software. The revenue is also used to support the AML public awareness program through school presentations, videos, handouts, classroom exercises, and other means of outreach.

## 4. Abandoned Mine Incidents in 2024

This year marks the twelfth consecutive year without a reported fatality related to abandoned mines in Nevada.

Such incidents trace back to the early

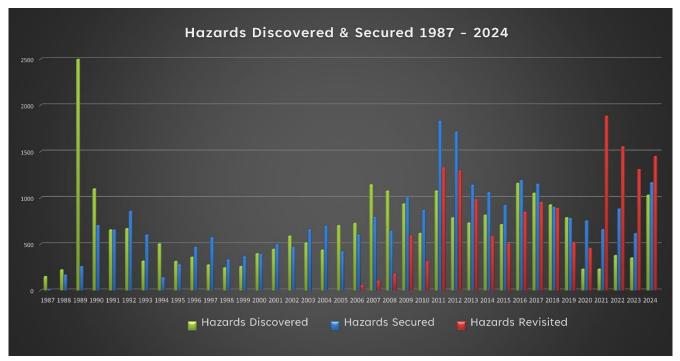


Figure 1 - Progression of hazards logged, secured, and revisited over the past 39 years.

1860's, during the Bonanza era of the Comstock Lode, with the first recorded death occurring in 1861. A summary of modern-era incident reports is provided in Appendix C.

## 5. Inventory, Securings, and The Permanent Closures

As of 2024, the Division's AML program inventoried just over 160,000 historic mining-related features. By year's end, 26,030 hazards were discovered and ranked, with 21,314 secured (See Map 1 & Table 1). To effectively prioritize field operations. the Division utilizes its (AML) Abandoned Mine Lands SOL database in conjunction with spatial data from the U.S. Geological Survey (USGS) on historical mining features. Prioritization of topographic map areas is determined through a weighted ranking system that incorporates multiple variables, including the presence of suspected hazards, the age and condition of existing securings, known unsecured features, proximity to populated or high-use public lands, and other risk-related criteria. Ranking in 2024 weighed suspected hazard location much more heavily than previous years. The Division also utilize digital data collection, cloud-based geospatial apps, Google Earth, LiDAR imagery, and UAS (drones) to improve efficiency and accuracy.

Interagency coordination remains a critical component of hazard identification and closure planning, ensuring that

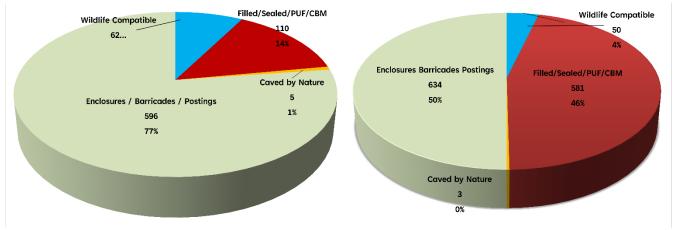


Figure 2 - Comparison of Securing Types used in 2024 (right) to previous 5-year average (left).

resources are allocated effectively and that safety goals are met across jurisdictions.

Division staff In 2024, and contractors conducted field assessments at 2,602 previously and newly documented hazardous sites. These efforts were aimed at identifying additional nearby features, verifying the status and integrity of prior securings, and implementing new or followup closure activities as necessary. Among these visits, 1,169 hazards were secured to enhance public safety. Securings were completed through various methods. including fencing, barricades, and posting warning signs. Vasta

Permanently secured hazards on public lands are based on risk assessments, which may include incidents, hazard rank, and proximity to public areas. Closure methods, determined by biological and cultural surveys, include backfills, batcompatible closures (BCC), and polyurethane expansive foam (PUF or foam

plugged), and plugs. The 184 permanent closures completed in 2024 were constructed by agency contractors Environmental Protection Services and Mountain States Restoration.

The Division and its contractors accounted for 95% of all hazards inventoried and 71% of all securings in Nevada during 2024. Immediate securing of moderate or high hazards, regardless of ownership, is prioritized to ensure public safety.

#### 6. Intern Program

The Division employs undergraduate students from geoscience programs to assist with AML work both in the summer and their winter break. The program, starting in 2000, now involves up to 8 summer and 6 winter interns. Students develop relevant field skills for land management and geoscience career paths and increase the agencies field labor capacity. In 2024, interns performed 33

securings, 714 loggings, and revisited 181 AML hazards. The interns also inventoried 2,360 minging related features that were determined to be non-hazardous.

#### 7. AML Public Awareness

The Division continued digital marketing / social media outreach, inperson presentations, and billboard campaigns. The Divisions principal PSA messaging is the Stay Out Stay Alive theme (SOSA) is focused on raising awareness about the dangers of abandoned mines. SOSA digital media marketing efforts reached 3.2 million viewers by the end of May 2024. The Division invested resources to develop the Jimmy King SOSA digital marketing campaign and successfully demonstrated how public agencies can reach new audiences with PSA messages through digital strategies. The Division has approved 1 additional season digital marketing campaigns for 2025. Another observable success of the campaign was that the Jimmy King content reached the attention of a television production team at the Smithsonian channel. Producers from the show "How Did They Fix That" collaborated with the Divisions AML team develop an episode centered on abandoned mine reclamation in Nevada.



Picture 3 – Summer interns securing a deep mine shaft in Washoe County, NV,

Season 6 Episode 3 entitled "Sealing Nevada's Abandoned Mines aired on July 27, 2024, and is viewable on Paramount +. The episode highlighted the SOSA to an international audience and has generated a great deal of interest the Divisions mission.

#### 8. Performance Indicators

The AML public safety program has two performance indicators: maintain a 70% securing rate and conduct 24 public awareness presentations per staff member annually. In 2024, the Division met both performance indicators and maintained a securing rate of 81% for all known hazards and averaged 24.5 presentations per staff member.

#### 9. Cultural and Wildlife Surveys

Permanent closures on public land or closures using federal funding require the NEPA process. To assist our federal partners in the NEPA reporting process, the Division has partnered with state and federal agencies who are managing increased recreational activity and experiencing staffing shortfalls. Cultural and biological surveys have been delegated to contractors with direct oversight from the Division and reporting directly to the federal agency. Broadbent and Associates of Reno were tasked with cultural surveys, while NDOW and West Consultants Inc. managed biological and wildlife surveys.

#### 10. 2024 Summary

Annual field work for 2024 concentrated on physical safety mitigation showed an abrupt increase in both hazards secured and hazards inventoried, reversing a notable downtrend observed over the previous five Total hazards years. inventoried increased by 190% from the previous year and exceeded the Division's historical annual average by 53%. Similarly, the number of hazards secured rose by 89% from the previous year and was 65% above the historical average. The total number of hazards secured in 2024 represents the

highest annual figure since 2016. Site revisit surveys increased by 10% from the previous year and were 55% above the historical average. This overall surge in field activity can be attributed to a combination of increased AML funding from partner agencies, the Division's expanded technical capacity to identify undocumented districts, and a strategic shift in field operations, re-tasking interns to focus on locating and documenting new sites, while contractors were assigned to secure recently discovered hazards.

#### 11. Acknowledgements

We would like to extend our appreciation and recognition to the following individuals and teams for their commitment and invaluable assistance to the State's AML program: Alex Jensen and Alicia Jensen, Kurt Miers, Nate Pepe, and Sam Gomberg from the BLM whose dedication and support have significantly contributed to the success of our program. Sarah Martinez, Conni DeMasi, David Risley, Susan Elliot, and Doug Powell from the Humboldt-Toiyabe National Forest, for their support with USFS-managed land and playing a vital role in our securing efforts. The AML crew of the Bureau of Reclamation. whose diligence and

dedication in closure work will have longlasting public safety impacts. Joey Danielson and Jenni Jeffers, along with the entire NDOW **AML** team, for their remarkable statewide biological survey efforts, greatly enhancing our program's environmental benefits. Our valued partners at NDEP, whose contributions to AML documentation have been instrumental in our collaborative progress. The BLM archaeological team from Medford, OR whose thoroughness in documenting, maintaining, and preserving our precious

cultural resources has been invaluable. Lastly, we extend our gratitude and thanks to the numerous claimants and landowners who actively cooperate with the Division, playing an essential role in securing AML sites throughout the state. Their partnership is vital to the success of our mission, and we deeply appreciate their support.



Picture 4 - Clifford Mine Hard Closure Project Area. Scheduled for closure in 2025.

#### 12. Appendix A

#### Nevada Revised Statutes (NRS) pertinent to the AML Program

NRS 455.010 Erection of fence or other safeguard around excavation, hole or shaft required. Any person or persons, company or corporation, who shall dig, sink or excavate, or cause the same to be done, or being the owner or owners, or in the possession under any lease or contract, of any shaft, excavation or hole, whether used for mining or otherwise, or whether dug, sunk or excavated for the purpose of mining, to obtain water, or for any other purpose, within this State, shall, during the time they may be employed in digging, sinking or excavating, or after they may have ceased work upon or abandoned the same, erect, or cause to be erected, good and substantial fences or other safeguards, and keep the same in good repair, around such works or shafts, sufficient to guard securely against danger to persons and animals from falling into such shafts or excavations.

NRS 41.510 Limitation of liability; exceptions for malicious acts if consideration is given or other duty exists.

- 1. Except as otherwise provided in subsection 3, an owner of any estate or interest in any premises, or a lessee or an occupant of any premises, owes no duty to keep the premises safe for entry or use by others for participating in any recreational activity, or to give warning of any hazardous condition, activity or use of any structure on the premises to persons entering for those purposes.
- 2. Except as otherwise provided in subsection 3, if an owner, lessee or occupant of premises gives permission to another person to participate in recreational activities upon those premises:
- (a) The owner, lessee or occupant does not thereby extend any assurance that the premises are safe for that purpose or assume responsibility for or incur liability for any injury to person or property caused by any act of persons to whom the permission is granted.
- b) That person does not thereby acquire any property rights in or rights of easement to the premises.
- 3. This section does not:
  - (a) Limit the liability which would otherwise exist for:
- (1) Willful or malicious failure to guard, or to warn against, a dangerous condition, use, structure or activity.
- (2) Injury suffered in any case where permission to participate in recreational activities was granted for a consideration other than the consideration, if any, paid to the landowner by the State or any subdivision thereof. For the purposes of this subparagraph, the price paid for a game tag sold pursuant to NRS 502.145 by an owner, lessee or manager of the premises shall not be deemed consideration given for permission to hunt on the premises.
- (3) Injury caused by acts of persons to whom permission to participate in recreational activities was granted, to other persons as to whom the person granting permission, or the owner, lessee or occupant of the premises, owed a duty to keep the premises safe or to warn of danger.
  - (b) Create a duty of care or ground of liability for injury to person or property.
- 4. As used in this section, "recreational activity" includes, but is not limited to:
  - (a) Hunting, fishing or trapping;
  - (b) Camping, hiking or picnicking;
  - (c) Sightseeing or viewing or enjoying archaeological, scenic, natural or scientific sites;
  - (d) Hang gliding or paragliding;
  - (e) Spelunking;
  - (f) Collecting rocks;
  - (g) Participation in winter sports, including cross-country skiing, snowshoeing or riding a snowmobile, or water sports;
  - (h) Riding animals, riding in vehicles or riding a road or mountain bicycle;
  - (i) Studying nature;
  - (j) Gleaning;
  - (k) Recreational gardening; and

(I) Crossing over to public land or land dedicated for public use.

NRS 455.030 Board of county commissioners to transmit information concerning dangerous condition at mine no longer operating to sheriff or constable; service of notice upon owner or responsible person.

- 1. If a board of county commissioners receives information from the division of minerals of the commission on mineral resources that there is in the county a dangerous condition that results from mining practices which took place at a mine that is no longer operating, if the information identifies a person responsible for the condition, the board shall transmit this information to the sheriff or the constable of the township where the condition exists.
- 2. Upon receipt of information pursuant to subsection 1 or upon the filing of the notice, as provided for in NRS 455.020, the sheriff or constable shall serve a notice, in the same manner and form as a summons, upon each person identified as owner or otherwise responsible.

[3:16:1866; B §§ 111; BH §§ 292; C §§ 273; RL §§ 3235; NCL §§ 5632]——(NRS A 1983, 905; 1987, 1869; 1993, 1625; 1999, 3624)

NRS 455.040 Contents of notice; judgment; criminal penalty.

- 1. The notice served pursuant to subsection 2 of NRS 455.030 must require the person or persons to appear before the justice of the peace of the township where the hole, excavation, shaft or other condition exists, or any municipal judge who may be acting in his place, at a time to be stated therein, not less than 3 days nor more than 10 days from the service of the notice, and show, to the satisfaction of the court, that the provisions of NRS 455.010 to 455.180, inclusive, or the standards established by the commission on mineral resources for the abatement of dangerous conditions have been complied with, or if he or they fail to appear, judgment will be entered against him or them for double the amount required to abate the condition.
- 2. All proceedings had therein must be as prescribed by law in civil cases.
- 3. Such persons, in addition to any judgment that may be rendered against them, are liable and subject to a fine not exceeding the sum of \$250 for each violation of the provisions of NRS 455.010 to 455.180, inclusive, which judgments and fines must be adjudged and collected as provided for by law.

[4:16:1866; B § 112; BH § 293; C § 274; RL § 3236; NCL § 5633]—(NRS A 1979, 1476; 1987, 1869; 1993, 881)

NRS 513.094 Additional fee; administrator to establish program to discover dangerous conditions of nonoperating mines; employment of qualified assistant; regulations.

- 1. An additional fee, in an amount established pursuant to subsection 4, is imposed upon all filings to which NRS 517.185 applies. Each county recorder shall collect and pay over the additional fee, and the additional fee must be deposited in the same manner as provided in that section.
- 2. The administrator shall, within the limits of the money provided by this fee, establish a program to discover dangerous conditions that result from mining practices which took place at a mine that is no longer operating, identify if feasible the owner or other person responsible for the condition, and rank the conditions found in descending order of danger. The administrator shall annually during the month of January, or more often if the danger discovered warrants, inform each board of county commissioners concerning the dangerous conditions found in the respective counties, including their degree of danger relative to one another and to those conditions found in the state as a whole. In addition, the administrator shall work to educate the public to recognize and avoid those hazards resulting from mining practices which took place at a mine that is no longer operating.
- 3. To carry out this program and these duties, the administrator shall employ a qualified assistant, who must be in the unclassified service of the state and whose position is in addition to the unclassified positions otherwise authorized in the division by statute.
- 4. The commission shall establish by regulation:
- (a) The fee required pursuant to subsection 1, in an amount not to exceed \$4 per claim.
- (b) Standards for determining the conditions created by the abandonment of a former mine or its associated works that constitute a danger to persons or animals and for determining the relative degree of danger. A condition whose existence violates a federal or state statute or regulation intended to protect public health or safety is a danger because of that violation.

(c) Standards for abating the kinds of dangers usually found, including, but not limited to, standards for excluding persons and animals from dangerous open excavations.

(Added to NRS by 1987, 1867; A 1993, 298, 1683; 1995, 579; 1999, 890, 3627; 2001, 66)

NRS 513.103 Account for the Division of Minerals: Creation; sources, lapse and use of money in Account.

- 1. The Account for the Division of Minerals is hereby created in the State General Fund.
- 2. The following special fees and money must be deposited in the Account:
- (a) All fees collected pursuant to NRS 513.094, 517.185 and chapter 522 of NRS.
- (b) All money collected pursuant to NRS 235.016.
- (c) Any money received by the Division from a county pursuant to NRS 513.108.
- (d) All fees collected pursuant to NRS 534A.080.
- (e) Any money appropriated to the Division from the State General Fund.
- 3. No money except that appropriated from the State General Fund lapses to the State General Fund.
- 4. The money in the Account is appropriated to the Division. The money deposited in the Account pursuant to paragraph (a) of subsection 2, and the interest earned thereon, must be expended for the purposes of administering chapter 522 of NRS and the provisions of this chapter, except for NRS 513.108. The money deposited pursuant to paragraphs (b) and (c) of subsection 2, and the interest earned thereon, must be distributed to the counties pursuant to NRS 513.108, except that portion required to pay the cost of administering the provisions of that section. All interest earned on the Account must remain in the Account.

(Added to NRS by 1983, 2070; A 1985, 303; 1987, 1868; 1989, 141; 1991, 1779; 1993, 111, 1684; 1995, 509)

NRS 513.108 Abatement of dangerous condition of non-operating mines; reimbursement of Division.

- 1. The board of county commissioners in each county may apply to the Division for money to abate a dangerous condition resulting from mining practices which took place at a mine that is no longer operating.
- 2. The Division shall, within the limits of the money available pursuant to paragraphs (b) and (c) of subsection 2 of NRS 513.103, provide counties with money to abate such dangerous conditions based on the relative degree of danger of those conditions.
- 3. If a county which receives money from the Division subsequently receives monetary compensation from the mine owner or other person responsible for the existence of the dangerous condition, it shall reimburse the Division to the extent of the compensation received. Any money received by the Division pursuant to this subsection must be deposited in the Account for the Division of Minerals created pursuant to NRS 513.103. (Added to NRS by 1989, 141; A 1991, 1780; 1993, 1684)

#### FEE FOR FILING PLAN OF OPERATION

NAC 519A.634 Amount of fee. (NRS 519A.250) The amount of the fee that an operator must pay pursuant to subsection 1 of NRS 519A.250 is \$20 per acre or part of an acre.

(Added to NAC by Commission on Mineral Resources by R069 -99, eff. 8-19-99)

#### 13. Appendix B

#### Nevada Administrative Code (NAC) pertinent to the AML Program

DANGEROUS CONDITIONS CREATED BY ABANDONMENT OF MINES

NAC 513.200 Definitions. (NRS 513.094) As used in NAC 513.200 to 513.390, inclusive, unless the context otherwise requires, the words and terms defined in NAC 513.205 to 513.290, inclusive, have the meanings ascribed to them in those sections. (Added to NAC by Commission on Mineral Resources, eff. 12-21-88; A by R069 -99, 8-19-99)

NAC 513.205 "Administrator" defined. "Administrator" means the administrator of the division. (Added to NAC by Commission on Mineral Resources, eff. 12-21-88) (Substituted in revision for NAC 513.250)

NAC 513.210 "Animal" defined. "Animal" means any member of the bovine, equine, porcine or caprine species as well as dogs, cats or other animals under the restraint or control of a person.

(Added to NAC by Commission on Mineral Resources, eff. 12-21-88)

NAC 513.220 "Commission" defined. "Commission" means the commission on mineral resources.

(Added to NAC by Commission on Mineral Resources, eff. 12-21-88)

NAC 513.230 "Dangerous condition" defined. "Dangerous condition" means a condition resulting from mining practices which took place at a mine that is no longer operating or its associated works that could reasonably be expected to cause substantial physical harm to persons or animals.

(Added to NAC by Commission on Mineral Resources, eff. 12-21-88)

NAC 513.240 "Division" defined. "Division" means the division of minerals of the commission on mineral resources. (Added to NAC by Commission on Mineral Resources, eff. 12-21-88)

NAC 513.270 "Owner" defined. "Owner" means the owner of real property who is shown to be the owner on records located in the courthouse of the county in which the real property is located.

(Added to NAC by Commission on Mineral Resources, eff. 12-21-88)

NAC 513.280 "Person" defined. "Person" means a natural person.

(Added to NAC by Commission on Mineral Resources, eff. 12-21-88)

NAC 513.290 "Responsible person" defined. "Responsible person" means the owner of a patented claim or the claimant of an unpatented claim.

(Added to NAC by Commission on Mineral Resources, eff. 12-21-88)

NAC 513.300 Scope. The provisions of NAC 513.200 to 513.390, inclusive, apply to all owners or other responsible persons for dangerous conditions on private or public land.

(Added to NAC by Commission on Mineral Resources, eff. 12-21-88)

NAC 513.310 Waiver of provisions. Upon the approval of the administrator, the division may grant a waiver from any provision of NAC 513.200 to 513.390, inclusive, if the waiver does not defeat the purpose of NRS 513.094.

(Added to NAC by Commission on Mineral Resources, eff. 12-21-88)

NAC 513.315 Additional fee. (NRS 513.094) The amount of the additional fee that is imposed on filings pursuant to subsection 1 of NRS 513.094 is \$4 per claim.

(Added to NAC by Commission on Mineral Resources by R069 -99, eff. 8-19-99; A by R199-08, eff. 8-14-2008)

NAC 513.320 Assignment of points to dangerous condition. The administrator or his representative shall assign a dangerous condition one to five points for the location of the condition and an additional one to five points for the degree of danger associated with the condition. The condition must then be ranked according to the total number of points for location and degree of danger. (Added to NAC by Commission on Mineral Resources, eff. 12-21-88)

NAC 513.330 Rating of location. The location of a dangerous condition must be rated in the following manner:

- 1. One point must be assigned to a dangerous condition located at least 5 miles from an occupied structure or a public road maintained by some governmental entity.
- 2. Two points must be assigned to a dangerous condition located between 1 and 5 miles from an occupied structure or a public road maintained by some governmental entity.
- 3. Three points must be assigned to a dangerous condition located ½ to 1 mile, inclusive, from a town.
- 4. Four points must be assigned to a dangerous condition located not more than ½ mile from a town or not more than 1 mile from an occupied structure or a public road maintained by some governmental entity.
- 5. Five points must be assigned to a dangerous condition located within a town or within 100 feet of an occupied structure or a public road maintained by some governmental entity.

The Administrator or his or her representative may assign a different rating to a dangerous condition in a location if other factors affecting accessibility warrant the modification, but the rating for a dangerous condition in a single location may not be scored higher than five points.

(Added to NAC by Commission on Mineral Resources, eff. 12-21-88; A by R127-15, 6-28-2016)

NAC 513.340 Rating of degree of danger. The degree of danger for a dangerous condition must be rated in the following manner:

- 1. One point must be assigned to a dangerous condition consisting of:
- (a) A vertical or near vertical hole 8 to 20 feet, inclusive, in depth and highly visible upon approach;
- (b) An inclined hole less than 50 feet deep from which a person could climb out;
- (c) A horizontal hole with no associated stopes, winzes or raises; or
- (d) A high wall of an open pit.
- 2. Two points must be assigned to a dangerous condition consisting of:
- (a) A vertical or near vertical hole 8 to 20 feet, inclusive, in depth which is not visible upon approach;
- (b) Any vertical or near vertical hole 20 to 50 feet, inclusive, in depth; or
- (c) Any inclined hole greater than 50 feet deep from which a person could climb out with no associated stopes, winzes or raises.
- 3. Three points must be assigned to a dangerous condition consisting of:
- (a) Any vertical or near vertical hole 50 to 100 feet, inclusive, in depth; or
- (b) Any horizontal or inclined hole with associated stopes, winzes or raises with less than a 20 -foot vertical opening.
- 4. Four points must be assigned to a dangerous condition consisting of:
- (a) Any vertical or near vertical hole which is at least 100 feet deep and visible upon approach; or
- (b) Any horizontal or inclined hole with associated stopes, winzes or raises with a vertical opening greater than 20 feet.
- 5. Five points must be assigned to a dangerous condition consisting of any vertical or near vertical hole which is at least 100 feet deep and not visible upon approach.

The administrator or his representative may assign a higher degree of danger to a dangerous condition if other factors such as loose ground or the presence of water increase the danger, but the degree of danger for a single dangerous

condition may not be scored higher than five points.

(Added to NAC by Commission on Mineral Resources, eff. 12-21-88)

NAC 513.350 Dangerous condition causing fatality or injury. Any dangerous condition that has been the cause of a documented fatality or injury must be ranked as a high hazard, regardless of its numerical score.

(Added to NAC by Commission on Mineral Resources, eff. 12-21-88)

NAC 513.360 Ranking of dangerous condition. Dangerous conditions must be rated as follows:

- 1. A dangerous condition with a total number of 2 or 3 points is a minimal hazard;
- 2. A dangerous condition with a total number of 4 or 5 points is a low hazard;
- 3. A dangerous condition with a total number of 6 or 7 points is a moderate hazard; and
- 4. A dangerous condition with a total number of at least 8 points is a high hazard.

(Added to NAC by Commission on Mineral Resources, eff. 12-21-88; A by R127-15, 6-28-2016)

NAC 513.380 Period after notification to secure dangerous condition. If notified by the Commission of the existence of a dangerous condition, the owner or responsible person shall:

- 1. Post within 180 days a warning sign in a prominent location near a dangerous condition ranked as a minimal hazard; and
- 2. In the manner prescribed in NAC 513.390:
  - (a) Secure within 180 days a dangerous condition ranked as a low hazard;
  - (b) Secure within 120 days a dangerous condition ranked as a moderate hazard; and
  - (c) Secure within 60 days a dangerous condition ranked as a high hazard .

(Added to NAC by Commission on Mineral Resources, eff. 12-21-88; A by R127-15, 6-28-2016)

NAC 513.390 Methods for securing dangerous condition; approval by Administrator to modification of method.

- 1. Except as otherwise provided in subsection 4, a dangerous condition ranked as a low, moderate or high hazard must be secured by one or more of the following:
- (a) A barricade or other structure, including, without limitation, a structure consisting of metal posts and four strands of barbed wire, or other durable materials, constructed to prevent a person or animal from accidentally exposing himself or herself to the dangerous condition.
- (b) Permanently anchored seals constructed of material not subject to rapid decomposition and, if used to secure a vertical opening, strong enough to support the weight of any person or animal.
  - (c) Backfilling so that no void spaces remain.
- 2. In addition to securing a dangerous condition pursuant to subsection 1, if the dangerous condition ranked as a low, moderate or high hazard is secured only by the method set forth in paragraph (a) of subsection 1, the owner or responsible person must post a warning sign in a prominent location near the dangerous condition. The warning sign must be posted within the period set forth in subsection 2 of NAC 513.380 for securing the dangerous condition.
- 3. Regardless of the method used pursuant to subsection 1 to secure a dangerous condition, the owner or responsible person shall maintain the integrity of that structure.
- 4. The Administrator or his or her representative may approve the modification of a method of securing a dangerous condition to accommodate features or characteristics that are specific to the location of the dangerous condition.

(Added to NAC by Comm'n on Mineral Resources, eff. 12-21-88; A by R127-15; 6-28-2016)

### 14. Appendix C

| Table 1: H | istory of Nevada AML Incidents Since 1961  |          |
|------------|--|----------|
| Date       | Incident   | County   |
| May '20    | Dog fell down shaft, rescued two days later  | Pershing |
| Sep. '13   | 17 year old male received minor injuries in fall down 60-foot deep mine shaft (rider on  | Lyon     |
| Nov. '12   | Adult male (33) received moderate injuries after falling 35' down a winze  | Clark    |
| Jul. '11   | Dog fell down shaft, rescued 8 days later  | White    |
| Mar. '11   | Adult male (28) suffered fatal injuries after falling 190 feet down a shaft  | Pershing |
| May. '09   | Dog fell down inclined shaft, rescued 10 days later  | Esmerald |
| Oct. '08   | Adult male (62) suffered fatal injuries after falling 60' down a winze   | Lyon     |
| Sep. '08   | Dog reportedly fell down 100' shaft, not recovered   | Washoe   |
| Aug. '08   | Adult male (58) injured in 50' fall down inclined winze  | Esmerald |
| May. '07   | Adult male (mid-20's) injured in fall down ~200' inclined winze  | Clark    |
| May. '07   | Adult male (63) suffered fatal injuries after rolling his jeep ~450' into the Loring Pit in  | Storey   |
| May. '06   | Dog rescued from 22 foot-deep mine shaft   | Washoe   |
| May. '05   | Woman of unknown age, received cuts and bruises from fall down a 35 ft. winze  | Carson   |
| Apr. '04   | 30 year-old man received moderate injuries from fall down 25 ft. winze near Las Vegas  | Clark    |
| Jan. '03   | Dog fell down shaft  | Humboldt |
| Jan. '03   | 62 year-old man received minor injuries from fall down 25 ft. winze (same as 10/2002)  | Clark    |
| Oct. '02   | 37 year-old CA male received severe injuries from fall down 25 ft. winze   | Clark    |
| Jul. '02   | 41 year-old male drowned swimming in open pit lake   | Storey   |
| Dec. '00   | Dog rescued from fall down 60 ft. winze. Minor injury to hip   | Pershing |
| Nov. '00   | Dog rescued from fall down 40 ft. mine shaft. Moderate injury to hip   | Storey   |
| Oct. '99   | Adult male (62) killed in mine cave-in   | Lyon     |
| Oct. '99   | Female juvenile (11) killed in fall down 130 ft. deep mine shaft near Beatty   | Nye      |
| Jun. '99   | Male juvenile (15) drowned swimming in open pit lake   | Lander   |
| Oct. '98   | Two male adults seriously injured in fall down 50 ft. winze near Las Vegas   | Clark    |
| Sep. '98   | Dog rescued from 20 ft. deep mine shaft  | Douglas  |
| Jul. '98   | Male adult (20's) slightly injured in fall down mine winze in Brougher Divide Mine near  | Esmerald |
| Apr. '97   | Two male adults (50's) injured in fall down hand dug well in town of Luning  | Mineral  |
| Oct. '96   | Male juvenile (16) injured in fall down 19 ft. deep hole in concrete at American Flats   | Storey   |
| Sep. '96   | Two male adults (35) killed in mine adit near Virginia City by suffocation   | Storey   |
| May. '96   | Male adult (44) fatally injured in fall off ATV at American Flats millsite   | Storey   |
| Mar. '96   | Male adult (31) injured in fall down mine winze on west side of Las Vegas  | Clark    |
| Jun. '95   | Male adult (30) killed scuba diving in mine shaft filled with water at the old Crown Copper  | Humboldt |
| Nov. '93   | Dog rescued from 30 ft. deep mine shaft near Iron Mtn. Estates   | Storey   |
| Jan. '93   | Dog rescued from 25 ft. deep shaft   | Humboldt |
| Oct. '92   | Male adult (27) news reporter injured in dynamite blast at Happy Creek in the Jackson  | Humboldt |
| Sep. '92   | Female adult (28) injured (cuts and bruises) in fall down mine shaft Hot Springs Mtn.  | Douglas  |
| Dec. '91   | Male adult (44) killed in fall down a mine winze at an abandoned copper mine in the  | Lyon     |
| May. '91   | Male juvenile (13) injured (minor) in fall down 20 ft. deep mine shaft   | Washoe   |
| Feb. '91   | Male adult (40) killed in fall down mine winze   | Douglas  |
| May. '90   |  | Pershing |
| Mar. '90   | Male juvenile lost for 19 hours in mine shaft at Mizpah mine in Tonopah  | Nye      |
| Sep. '89   | Male adult seriously injured in fall down a mine winze near Henderson  | Clark    |
| Sep. '88   | Body of elderly male found at bottom of mine shaft   | Lyon     |
| May. '87   | Female child (5) injured in fall down 35 ft. deep mine shaft   | Washoe   |
| Feb. '86   | Young adult male (20) killed in fall down a mine winze   | Lyon     |
| Apr. '79   | Two teenagers killed in fall down mine shaft at the Oest Mine  | Lyon     |
| Dec. '78   | Juvenile killed in fall down mine shaft (Ninety-Nine Mine), body never recovered   | Clark    |
| Apr. '75   | Two male juveniles killed when motorcycles fell into mine shaft near Searchlight   | Clark    |
| May. '71   | Male juvenile (15) injured in fall down 200 ft. deep mine shaft on Duck Hill   | Carson   |
| Nov. '70   | Male juvenile (12) injured in fall down 110 ft. deep mine shaft  | Washoe   |
| Jan. '61   | Male juvenile (12) injured in fall down 110 ft. deep mine shaft  Male juvenile (15) injured in 50 ft. fall down mine ventilation shaft |          |
| Juli DI    | Maie Juvenne (15) Injurea III 50 It. Ian down Mine Ventriation Shart   | Storey   |

#### State of Nevada

#### **Abandoned Mine Lands**

#### **Report of Abandoned Mine Land Hazard**

| Person Reporting                          | g the Hazard:     |                 |                  |                       |             |  |
|---|-------------------|-----------------|------------------|-----------------------|-------------|--|
| Name:                                     |                   |                 |                  |                       |             |  |
|   | Please keep my    | name confi      | dential:         |                       |             |  |
| Phone #:                                  |                   |                 |                  |                       |             |  |
| E-mail:                                   |                   |                 |                  |                       |             |  |
| L-IIIaii.                                 |                   |                 |                  |                       |             |  |
| Date Found:                               |                   |                 |                  |                       |             |  |
| County Hazard is                          | Located In:       |                 |                  |                       |             |  |
| Hazard Location                           |                   | UTM             | E/Long           |                       | _UTM N/Lat. |  |
| (Coordinate Type - Select One): UTM NAD27 |                   |                 | AD27             | UTM NAD83 (WGS84)     |             |  |
|   |                   | Longitu         | de/Latitude      | Do Not Know           |             |  |
| Photo or Ima                              | ge of Hazard is E | inclosed/Atta   | ached            |                       |             |  |
| Additional Comm                           | nents or Informa  | ition (if desir | ed):             |                       |             |  |
|   |                   |                 |                  |                       |             |  |
|   |                   |                 |                  |                       |             |  |
|   |                   |                 |                  |                       |             |  |
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|   |                   |                 |                  |                       |             |  |
|   |                   |                 |                  |                       |             |  |
| Please send t                             | this form along v | vith any phot   | tos (If availabl | e) to:                |             |  |
|   | A                 |                 | oandon Mine      |                       |             |  |
| 400.11                                    |                   | Nevada Div      | ision of Mine    |                       |             |  |
|   | 7. King St. #106  |                 |                  | 375 E. Warm Spring Ro | 1. #205     |  |
|   | n City, NV 89703  |                 |                  | Las Vegas, NV 89119   |             |  |
|   | : 775-684-7040    |                 | or               | 702-486-4343          |             |  |
| Fax:                                      | 775-684-7052      |                 | or               | 702-486-4345          | gov.        |  |
| l Email:                                  | ndom@miner        | ais.nv.gov      | or               | ndomlv@minerals.nv.   | gov         |  |