MINE PLAN

PLAN OF OPERATION FOR BLM AND RECLAMATION PERMIT APPLICATION FOR A MINING OPERATION FOR THE NDEP

The Information Listed on This Form Combines the Requirements of the BLM for a Plan of Operation and the NDEP for Filing an Application for a Reclamation Permit for Mining:

1.	Applicant Information:				
	A.	Claim Name(s)			
		Claim Type (Lode, Millsite,etc)			
		Claim Owner(s)			
		Claim Owner's Address			
		Project Name			
		BLM Serial Number(s)			
		Location of Claim(s)(Township, Range, Section)			
	В.	Individual Completing Application:			
		Full Name			
		Title			
		Date			
	C.	Business Address of Individual Completing Application:			
		Business Name			
		Street Address			
		P.O. Box Number			
		City			
		State			
		ZIP Code			
	Country, if Not United States of America				
	D.	Telephone Number of Individual Completing Application:			
		Area Code Number			
	E.	Corporation Information, if Applicable:			
		Corporation Name			
		Corporate Officer's Information:			

President Information:
Full Name
Street Address
P.O. Box
City
State
ZIP Code
Country, if Not U.S.A
Telephone Number:
Area Code Number
Treasurer Information:
Full Name
Street Address
P.O. Box
City
State
ZIP Code
Country, if Not U.S.A
Telephone Number:
Area Code Number
Secretary Information:
Full Name
Street Address
P.O. Box
City
State
ZIP Code
Country, if Not U.S.A
Telephone Number:
Area Code Number
Nevada Registered Resident Agent Information:
Full Name
Street Address
P.O. Box
City
State
State
State ZIP Code
ZIP Code Telephone Number:

Name of Partnership	
Type of Partnership:	
Limited:	
General Partnership	
Principal Partner Information:	
Full Name	
Street Address	
P.O. Box	
City	
State	
ZIP Code	
Telephone Number:	
Area Code Number	
Registered Resident Agent Informat Full Name Street Address	
P.O. Box_	
City	
State	
ZIP Code	
Telephone Number:	
•	
	formation:
Authorized Field Representative Inf	
-	
-	
Full NameStreet Address	
Full NameStreet Address	
Full NameStreet AddressP.O. Box	
Full NameStreet AddressP.O. BoxState	
Full NameStreet AddressP.O. BoxState	

Note: A Signed Authorization Must be Attached which Gives the Field Representative Authority to Act on Behalf of the Operator.

2. Operating Plan:

F.

- A. Provide a Topographic Map(s) depicting;
 - a. Boundaries of the Area of Operation;
 - b. Surface Ownership Within the Area of Operation;
 - aa. Private;
 - bb. BLM;
 - cc. USFS;
 - dd. State;

- c. Description of Areas to be Disturbed Showing Location and Layout of the Area of Operation. Include Names and Locations of any Streams, Creeks, and Springs. Describe and Explain on the Map the Type of Operation, Method or Techniques you Propose (Example: Drilling, Open Pit Mining, Dredging, Milling, Include Locations, Capacity, Size and Amounts). Show on the Map and Describe the Size and Kind of all Surface Disturbances, such as Trenches, Pits, settling Ponds, Stream Channel and Runoff Diversions, Waste Dumps, Drill Pads, Tailings Impoundments, Leach Pads, Buildings and Facilities.
- d. Areas Disturbed by Previous Operator and Inactive. Provide a map showing the Claim or Project Boundaries and All Access Needs, on and off the Claim or Project. Specify what Existing Roads will be Used, Where Maintenance or Reconstruction is Proposed and where any new Construction is Necessary. For new Construction, Include Construction Specifications such as Widths, Grades, and Lengths. Show Location and Size of Culverts. Describe Maintenance Plans. Describe the Type and Size of Vehicles and Equipment that will be Traveling the Access Routes.
- e. Areas Disturbed by Current Operator Prior to January 1, 1981 and Inactive;
- f. Areas Disturbed by Current Operator Prior to January 1, 1981 and Still Active;
- g. Disturbed by Current Operator After January 1, 1981, But Prior to October 1, 1990 and Inactive;
- h. Disturbed by Current Operator After January 1, 1981, But Prior to October 1, 1990 and Active;
- i. Areas Which Are Active on or After October 1, 1990;
- j. Location of Access Roads Existing Prior to January 1, 1981;
- k. Location of Any Surface Water Bodies Within One-half Mile Down Gradient of the Disturbance;
- B. Provide an Estimate of the Acreage of the Proposed Disturbance(s);
 Public Land;
 Private and/or State Land

3. Reclamation Plan:

A. Provide a Written Description of the Measures to be Taken to Prevent Unnecessary or Undue Degradation and the Proposed Activities for Reclamation to be Undertaken During and After Completion of the Mining Operation. The Items in the Attached Mine Plan of Operations - Reclamation Bond Checklist must be completed, as Applicable.

- B. Provide a Description of Other Reclamation Activities to be performed, such as Reclamation of Historic Disturbances (Not part of Cost Estimate Calculation) if Applicable; Public Land;
 - Private and/or State Land;
- C. Provide a Proposed Schedule of the Time for Initiation and Completion of Activities for Reclamation and Initiation of Surface Disturbance Activities;
- D. Provide a Description of the Proposed Productive Post-mining Land Use;
- E. Provide a Contour map of the Post-mining Topography (at a scale which provides sufficient detail);
- F. Provide the Technical Criteria Used to Determine the Final Gradient and Stability of Slopes Created or Affected by the Mining Operation;
- G. Provide the Proposed Methods to be Used in Reclaiming Any Impoundments Used During the Operation;
 - a. Regrading to Promote Runoff and Reduce Infiltration;
 - b. Covering with Waste Rock, Topsoil or Growth Medium;
 - c. Revegetation;
 - d. Diverting Run-on;
- H. Provide the Proposed Methods to be Used in Reclaiming Any Waste and Development Rock Piles;
 - a. Regrading to Round Off Sharp Edges, Enhance the Stability, Reduce Susceptibility to Erosion and Facilitate Efforts for Revegetation;
 - b. Revegetation;
 - c. Diverting Run-on;
- I. Provide the Proposed Methods to be Used in Reclaiming any Dams for Tailings Ponds by;
 - a. Covering with Waste Rock, Topsoil or Growth Medium;
 - b. Revegetation;
 - c. Rendering the Dam Incapable of Storing any Mobile Fluid in a Quantity Which Could Pose a Threat to the Stability of the Dam or to Public Safety;
 - d. If Applicable, Water Treatment Plants and Overflow Basins (Applicable Water Quality Permit May be Referenced);
- J. Provide the Proposed Methods to be Used in Reclaiming any Heaps From Leaching by;
 - a. Regrading to Enhance Structural Stability, Promote Run-off, Reduce Infiltration and Control Erosion;
 - b. Covering with Waste Rock, Topsoil, or Growth Medium;
 - c. Revegetation;
 - d. Soil Stabilization;

- e. Diverting Run-on;
- f. Cyanide Stabilization/Neutralization (Applicable Water Quality Permit May be Referenced);
- g. Treatments of Outflows, Residual Chemicals or Fluids in the Heaps (Applicable Water Quality Permit May be Referenced);
- K. Provide the Proposed Methods to Be Used in Reclaiming any Solution Ponds, Settling Ponds and Other Non-tailing impoundments by;
 - a. Backfilling and Regrading in Accordance with the Designated Post-Mining Land Use;
 - b. Restoring the Pre-disturbance Surface Water in Accordance with the Designated Post-Mining Land Use;
 - c. Cyanide Stabilization/Neutralization;
- L. Provide a Written Statement of any Constraints on the Estimated Time to Complete Reclamation Caused by the Residual Moisture Content or Physical or Chemical Qualities of Impoundments;
- M. Provide a Written Description of the Proposed Reclamation Techniques and Locations of the Following Road Features, if Applicable;
 - a. Recontouring or Regrading to Round Off, Cut and Fill Slopes to the Original Contour or to Approximate the Form of the Land before Disturbance;
 - b. Removing Culverts;
 - c. Ripping/Scarifying;
 - d. Waterbars;
 - e. Revegetation;
 - f. Restoring or Stabilizing Drainage Areas or Streambeds;
 - g. Other Road Reclamation Activities.
- N. Provide a Description of the Measures Used to Minimize Loading of Sediment to Surface Waters During Operation and, During and After Reclamation, if Applicable;
- O. Provide a Description of the Proposed Disposition of Buildings, Equipment, Piping, Scrap, Reagents, Equipment, and Other Hazardous or Toxic Materials, if Applicable;
 - a. Demolishing to the Level of the Foundation and Burying the Demolished Items on the Site in Conformance with Applicable Solid Waste Disposal Requirements;
 - b. Salvaging and Sale;
 - c. Disposal Off of the Site in Conformance with Applicable Solid Waste Disposal Requirements;
 - d. Continuing Use in a Manner Consistent With the Post-mining Use of the Land;
- P. Provide a Description of Any Surface Facilities Such as Buildings or Roads Which will Not Be Subject to Reclamation to Achieve the Proposed Post-mining Use, if Applicable;
- Q. Provide a Description of the Methods to be Used in Reclaiming Any Open Pit Mines, if Appropriate, by;
 - a. Performing Activities that Will Provide for Public Safety;
 - b. Stabilizing Pit Walls or Rock Faces Where Required for Public Safety;
 - c. Constructing and Maintaining Berms, Fences or Other Means of Restricting Access;

- d. Creating a Lake for Recreational, Wildlife or Other Use;
- e. Revegetation;
- R. Provide a Description of the Methods to be Used in Reclaiming Underground Mines, if Appropriate by;
 - a. Sealing Shafts, Adits, Portals and Tunnels to Prevent Access;
 - b. Constructing and Maintaining Berms, Fences or Other Means of Restricting Access;
- S. Provide a Description of Any Necessary Monitoring and Maintenance of Fences, Signs, and Other Structures to be Performed by the Operator on the Reclaimed Land, if Applicable;
- T. Provide a Description of any Reclamation which is Necessary Because Instream Mining;
- U. Provide a Written Statement of the Effect that the Proposed Reclamation May Have on Future Mining in the Area;
- V. Provide a Description of Drill Hole Plugging Procedures in accordance with NRS 534.425 through 534.428, if Applicable;
- W. Provide a Description of Concurrent Reclamation, if Applicable;
- X. Provide a Description of Measures to be Taken During Extended Periods of Non-operation to Maintain the Area in a Safe and Clean Manner and to Reclaim the Land to Avoid Erosion and Other Adverse Impacts. If not Filed at the Time of Plan Submittal, this Information Shall be Filled whenever the Operator Anticipates a Period of Non-operation, if Applicable;
- 4. Provide a Statement That the Applicant Agrees to Assume Responsibility for the Reclamation of any Surface Area Affected by the Mining Operation:
- 5. Provide an Estimate of the Reclamation Cost, based on:
 - A. The Cost of Equipment Rental, Operation and Labor Appropriate for the Geographic Area, or:
 - B. The Estimate of Cost from an Outside Contractor, or:
 - C. Any Other Method which is Acceptable to the Administrator, the Bureau of Land Management, the United States Forest Service or Another Federal Land Management Agency, if Appropriate;
 - D. Provide a Narrative Description of the Following Proposed Reclamation Activities, if Applicable;
 - a. Earthwork:
 - b. Revegetation;
 - c. Removal/Disposal/Salvage of Structures and Equipment;
 - d. Post Reclamation Maintenance;

- e. Equipment Mobilization/Demobilization;
- f. Cyanide Stabilization/Neutralization Measures, or Provide Reference to the Permit Issued Pursuant to NAC 445.242 through 445.24388;
- g. Agency Administrative/Management Costs;
- E. Provide a Reclamation Cost Estimate Submitted on NDEP Form or Equal:
- 6. Provide an Attached Permit Application Fee;

Provide the Following Application Fee Cathe Plan for Reclamation.	alculation for Affected a	nd Unreclaimed Land included in
Acres of Public Land X S Acres of State and/or Pri		=

Note: A check or money order representing the total amount of this calculated fee must be enclosed with the Permit Application which is submitted to NDEP. Make the Check or Money Order Payable to the State of Nevada, Division of Environmental Protection.

TOTAL FEE =

- 7. Provide A Written Statement Setting Forth the Effect that the Proposed Reclamation Will Have on Public Safety. (NAC Chapter 513 may be obtained from Nevada Department of Minerals which provides safety requirements for abandonment of mines):
- 8. Acknowledgements:
 - A. It is Understood that should the Nature of the Operation Change a Modified or Supplemental Plan of Operations and Reclamation may be Required.
 - B. It is Understood that Approval of this Plan of Operation and Reclamation does not Constitute: (1) Certification of Ownership to Any Person Named Herein; and (2) Recognition of the Validity of any Mining Claim Herein.
 - C. It is Understood that a Bond Equivalent to the Actual Cost of Performing the Agreed upon Reclamation Measures will be Required before this Plan can be approved. Bonding and Any Bond Reduction Amounts will be Set on a Site-Specific Basis by the Lead Agency in Coordination with the Cooperating Agencies.
 - D. It is Understood that Approval of this Plan does not Relieve me of my Responsibility to comply with any other Applicable State or Federal Laws, Rules or Regulations.
 - E. It is Understood that any Information Provided with this Plan that is Marked Confidential will be Treated by the Agency in Accordance with that Agency's Laws, Rules and Regulations.

I/We have Reviewed and Agree to Comply with all Conditions in the Plan of Reclamation and Operations, including the Recommended Changes and Reclamation Requirements. I/We Understand that the Bond will

the Reclamation Work.	Officer, the BLM or the S	tate Agency in Charg	ge gives written Approv	val o
Operator (or A	uthorized Official)		Date	

Contractor and Operator Certification of Exploration Reclamation Cost Estimate for Federal Lands

I,	(name, title, and company) o	f	(address)	hereby certify under
penalty o	of 18 USC 1001, that my submitted reclar	mation estim	ate and its hourly ra	ates include FICA, SIIS,
unemplo	yment insurance, liability insurance, bond	premium co	sts (if applicable), a	nd my profit.
Signed:_		, Title	(if any)	_;
Date:				
I,	(name, title and company) or	f	(address)	hereby certify under
	of 18 USC 1001, that I have reviewed	*		
	tion cost estimate for my project and I c	concur with t	the material facts ar	nd statements contained
therein.				
Signed:		Title	(if any)	
Signed			(II ally)	_,
Date:				

NOTE: Title 18 USC § 1001 provides that:

"Whoever, in any matter within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals or covers up any by any trick, scheme, or devise a material fact, or makes any false, fictitious, or fraudulent statements or representations, or makes or uses any false writing or documents knowing the same to contain any false, fictitious or fraudulent statement or entry, shall be fined not more than \$10,000 or imprisoned not more than five years, or both."

Mine Plan of Operations Reclamation Bond Checklist

NOTE: This checklist is provided to assist the operator in calculating the engineering and environmental costs required to properly stabilize, reclaim, and restore the area disturbed by his operations. It is not all inclusive, but is intended to serve as a reminder of things that should be considered.

In all cases, the operator is required to submit a topographic map of appropriate scale with his proposed operations and sites of disturbance clearly depicted upon it. Accompanying this map will be a document containing the actual detailed calculations of the reclamation proposed. Calculations will be indexed to the appropriate portion of the accompanying map, and to the Mining Operations Cost Estimation Summary Sheet.

The operator is advised that failure to adhere to these requirements will cause the lead agency to deem the plan of operations to be incomplete. The plan cannot be processed until the required map, detailed calculations and Summary Sheet are submitted. The lead agency will assist the operator in obtaining a proper reclamation estimate.

1. **Reclamation plan and contract specifications.**

- a. This is the cost of preparing before and after site restoration maps, engineering designs for the restoration of roads, pads, trenches, pits, and removal of structures. This can be avoided by preparing suitable maps and designs as part of the reclamation plan.
- b. Contract preparation is the time spent by a knowledgeable individual in drawing up a reclamation/construction contract from the data in the reclamation plan and from "a" above.
- c. The Federal agencies usually assign this portion of the cost estimate to "Administrative Overhead" to be figured at 10 15% of the contract cost.

2. **Drill hole abandonment**

a. These are the requirements given in NAC 534. The cost of plugging, capping, and segregation of the hole from the ground water system are to be considered. In the case of abandoned holes, the lead agency will figure its costs based upon having to hire a drilling contractor to affect the proper abandonment of the drill holes. Drill holes that will be "mined through" by the proposed operation do not have to be considered for bonding. For bond reduction criteria, see item # 18 below.

3. Access roads and drill pads

- a. Mobilization and demobilization
- b. Recontouring or regrading to round off cut and fill slopes.
- c. Removing culverts.

- d. Ripping or scarifying the surface.
- e. Constructing water bars.
- f. Revegetation.
- g. Restoring or stabilizing drainage areas or stream beds.

4. Waste and development rock piles

- a. Regrading to round off sharp edges, enhance stability, reduce susceptibility to erosion, and facilitate efforts to establish vegetation.
- b. Revegetation.
- c. Diverting run-on.

5. <u>Dams for tailings ponds.</u>

- a. Covering with rock, topsoil, or other growth medium.
- b. Revegetation.
- c. Rendering the dam incapable of storing any mobile fluid in a quantity which could pose a threat to the stability of the dam, or to the public safety.
- d. Containment basins and water treatment facilities for leakage or outflow of effluent.

6. **Impoundment for tailings.**

- a. Regrading to promote run-off and reduce infiltration.
- b. Covering with waste rock, topsoil, or other growth medium.
- c. Revegetation.
- d. Diverting run-off.
- e. Containment basins and water treatment facilities for leakage or outflow or effluent.

7. **Heaps from leaching.**

- a. Regrading to enhance structural stability, promote run-off, reduce infiltration, and control erosion.
- b. Federal agencies will require detoxification and neutralization procedures to be covered by the bond.

- c. Covering with waste rock, topsoil, or other growth medium.
- d. Revegetation.
- e. Stabilization.
- f. Diverting run-off.
- g. Containment and treatment of outflows of residual chemicals or fluids from the heaps.

8. Solution ponds, settling ponds, and other non-tailings impoundments.

- a. Backfilling and grading pursuant to the land use plan for the site area.
- b. Restoring the pre-disturbance surface water regime.

9. **Building foundations, facilities, structures, and other equipment.**

- a. Demolishing to the level of the foundation and bury the demolished items on site in conformance with applicable solid waste disposal requirements.
- b. Salvaging and sale.
- c. Disposal of "a" above off the site, in conformance with applicable solid waste disposal requirements.
- d. Continuing use in a manner consistent with the post mining land use of the land.

10. **Open pit mines.**

- a. Performing activities that will provide for the public safety.
- b. Stabilizing pit walls or rock faces where required for public safety.
- c. Constructing and maintaining berms, fences, or other means of restricting public access.
- d. Creating a lake for recreational, wildlife enhancement, or other beneficial use.
- e. Revegetation.

11. <u>Underground mines.</u>

- a. Seal shafts, adits, portals, and tunnels to prevent access.
- b. Constructing and maintaining berms, fences, or other means of restricting access.

12. **Revegetation**

- a. Application of top soil or other growth medium.
- b. Seed bed preparation.
- c. Selection of appropriate species of seeds or plants (consult lead agency staff specialist).
- d. Soil amendments such as fertilizers, mulches, or other compounds to assist in plant growth.
- e. Planting or seeding (equipment, personnel, cost of seeds/plants).

13. **Supervision**

a. On site supervision of reclamation crews and equipment.

14. <u>Site Maintenance and Site Monitoring</u>

- a. Remedial dirtwork if the first effort doesn't "take" and begins to erode.
- b. Infill reseeding if required by lead agency if first effort doesn't "take".
- c. Any site monitoring as required by the lead agency.
- d. Monitoring wells for heaps and tailings ponds if required by NDEP.

15. <u>Contractor administrative overhead</u>

a. For lead agency this will be the field supervisor who is overseeing the reclamation work.

16. **Contractor profit**

- a. For BLM and U.S. Forest Service this will be figured at 10% of project cost.
- b. Call NDEP for their current percentage rate.

17. <u>Lead agency administrative overhead</u>

- a. For BLM this will be 10% of project costs and includes item #1 above.
- b. For U.S. Forest Service this will be 15% of project costs.
- c. Contract NDEP for rates affecting operations completely upon private lands.

18. **Reduction in Bonding**

- a. The area of the mine containing the cyanide or other leachate circuit, (solution ponds, tailings ponds, heaps, piping, makeup facilities, but not the stripping facilities), will be bonded for 100% of estimated reclamation costs, including neutralization and detoxification <u>if on BLM lands</u>, without exception.
- b. The Bureau of Land Management, with the exception of "a" above, depending on the history of the operator, the amount of proposed concurrent reclamation, and the sensitivity of the area, will consider a reduction in bond amount to no less than \$2,000 per acre, unless the operator can show that estimated cost of reclamation will be less than \$2,000 per acre. If the estimated cost is less that \$2,000 per acre, the Bureau of Land Management will bond at the estimated cost. The following formula shall be used when the reclamation bond estimate for those operations exceeds \$2,000 per acre: **Estimated cost ([estimated cost \$2,000]** \div **2)** = **bond amount per acre.** The operator must request the reduction in writing at the time of submission of his estimate.
- c. Currently, a mine bond reduction program as described in "b" above is not available on National Forest lands.

19. **Phased or Sequential Bonding**

- a. Reclamation bonds can be accepted for specific phases or sequences of an operation, instead of bonding for all proposed surface disturbances at one time. If an operator wishes to bond for only specific operational phases or certain time frames, he may do so. The bond estimate and amount will then be recalculated at the end of each phase or time period, and adjusted accordingly.
- b. Operators wishing to use the feature must submit their reclamation estimate calculations in a manner that clearly sets out the costs for each specific phase or time frame of operations to be covered by the phased bond amounts. This may require submission of several Summary Sheets with attached phase or time specific calculations, each covering a specific phase or time period.

Cost Estimation Summary Sheet¹ Mining Operations

Earthwork/Recontouring A. Manpower(\$)2 **Equipment(\$)** Materials(\$) 1. Roads 2. Pits/Adits/Trenches 3. Process Ponds Heaps 4. 5. Dumps (waste + landfills) Tailings 6. **Buildings & Equipment** 7. Drainage Control Plan 8. Miscellaneous³ 9. Subtotal B. Revegetation/Stabilization 1. Roads Pits/Adits/Trenches 2. 3. Process Ponds 4. Heaps 5. Dumps (waste + landfills) Tailings 6. **Buildings & Equipment** 7. Drainage Control Plan 8. Miscellaneous³ 9. 10. Monitoring (post reclamation) Subtotal C. Detoxification/Disposal of Wastes⁴ Process Ponds 1. 2. Heaps 3. Dumps (waste + landfills) 4. **Tailings** Drainage Control Plan 5. Miscellaneous³ 6. Monitoring (post reclamation) Subtotal

¹ All reclamation costs are to be calculated as third party contracts (the agency will put the reclamation contract out to bid in case of operator default). If you seek a bond reduction under NAC 519A.360 based upon your own "in house" equipment and personnel, submit a second cost analysis and a written request for the reduction to the lead agency.

² For Federal construction contracts. Davis-Bacon wage rates are required. Your wage rates must also contain FICA, SIIS, and other required coverage and benefits covering your workforce.

³ Miscellaneous items should be itemized on your accompanying worksheets.

⁴ Bonding for detoxification and neutralization of the heaps and tailings is currently only required on BLM administered lands.

D. <u>Structures, Equipment & Facilities Removal</u>				
		\$	\$	\$
E.	Insurance (On site liability) ⁵			
		\$		
F.	Contract Administration ⁶	\$		
G.	Bond (Performance & Payment) ⁷			
		\$		
H.	Profit ⁸	\$		
I.	<u>Total</u>	\$	\$	\$
J.	Grand Total \$			
K.	Remarks ⁹			

⁵ Insurance premium is calculated at 1.5% of the total labor costs. Enter the premium amount only on this line.

⁶ For Federal construction contracts, figure BLM administration at 10% of project costs. For U.S. Forest Service, use 15% of project costs. For private lands only, contract NDEP directly for percentage rate.

⁷ Federal construction contacts over \$25,000 require both a performance and a payment bond (Miller Act, 40 USC 270 et seq.). Each bond premium is figured at 1.5% of total project costs. Enter the sum of both premium costs on this line.

 $^{^{\}rm 8}$ For Federal construction contracts, use 10% of project costs.

⁹ If the contractor's or operator's quoted hourly rates contained FICA, SIIS, Davis-Bacon wage rates, insurance bond premiums, and profit: the contractor and operator may sign a statement under penalty of 18 USC 1001, that the above rates contain these items and that itemization of these costs are therefore not necessary.