Decision Memo
Henry Clay Exploration Project

USDA Forest Service
Mountain Home Ranger District
Boise National Forest
Boise, Idaho

October 2017
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DEcision

It is my decision to approve a Plan of Operations to dig four trench excavations with a backhoe or bobcat and drill up to 11 core holes to determine if enough gold exists to further develop the project. The Henry Clay Exploration Project is a locatable minerals project located on the Mountain Home Ranger District with gold as the primary target. All required agreements and permits will be obtained by the project Proponent (Nathan Cook) prior to project implementation.

Access to the project area for vehicles and equipment will be from Featherville, Idaho via National Forest System (NFS) roads 156, 104, and 104H for roughly 9 miles (Figure 1). No road construction or improvement to NFS roads is necessary. Cross-country travel is required to access three of four trench sites and two drill sites. Total cross country travel is less than 0.1 mile. No road construction is required to access these sites; the ground surface was previously disturbed and is covered with sparse vegetation on flat ridge-top topography.

The Proponent will dig four trench excavations using a small excavator two-feet wide (width of excavator bucket), up to 25-feet long and 2- to 6-feet deep (Figure 2). Bulk material samples will be gathered during excavation from each trench (up to 100 pounds of material per trench), then trenches will be immediately backfilled with the excavated material. One to two trenches will be excavated, sampled, and reclaimed in one day. Bulk samples will be removed from Forest Service lands for analysis via truck to a lab or to the Proponent’s residence.

In addition, the Proponent will drill up to 11 core holes (1 13/16-inch diameter) to a maximum of 400 feet below ground surface (Figure 2). Each drill pad will be approximately 25 feet by 25 feet. Drilling will require either 1) a drilling-mud sump on each site, approximately 4-feet long by 4-feet wide and up to 4-feet deep, or 2) self-contained sump such as a 100-gallon watering trough or equivalent. The Proponent will design and implement the exploration drilling operations in compliance with the Rules of the Department of Environmental Quality, Idaho Administrative Procedures Act (IDAPA) 58.01.02 “Water Quality Standards”, IDAPA 20.03.02 “Exploration, Surface Mining, Closure of Cyanidation Facilities” and IDAPA 58.01.11 “Ground Water Quality Rule”.

Core holes will be abandoned and plugged by placing backfill material at the bottom of the drill hole through the drill rods immediately upon reaching desired depth in accordance with requirements at IDAPA 20.03.02. Estimated time to complete (drill, sample, and abandon) one 400-foot deep core hole is five to seven days. No holes will be left open; all drill holes will be abandoned in accordance with IDAPA 20.03.02 prior to moving the drilling equipment to the next location.

Water necessary for exploration drilling operations will be brought from off site, from private wells as necessary. Process water will be contained in drill sumps to minimize erosion, sedimentation, or other potential concerns.

The Proponent will camp on-site in a 22-foot, self-contained trailer with up to three people during operations.

Ground disturbing operations, including reclamation activities, will be completed within a one-year period. Up to three people will be on-site seven days a week for the duration of operations. The proposed project is less than one acre and the reclamation requirements under IDAPA 20.03.03.060.07 will not apply. Implementation for the majority of the operation is anticipated for 2018.

Appendix A of this decision outlines the design features that will be implemented to minimize effects to resources.

PROJECT AREA

The proposed project is located approximately 9 miles from Featherville, Idaho, in Elmore County (Figure 1). The legal description is Township 4 North, Range 10 East, Section 17, Boise Meridian. This
project is located in Management Area 2, Rattlesnake Creek/Feather River, as defined by the Boise National Forest Land and Resource Management Plan\(^1\).

**PURPOSE AND NEED FOR THE PROPOSED ACTION**

The purpose of this analysis is to approve a Plan of Operations to explore for locatable minerals, as required by Forest Service mining regulations published in the Code of Federal Regulations (CFR) (36 CFR 228A). This action is needed because the Forest Service is required to conduct the appropriate level of environmental analysis to approve the operator’s Plan of Operations (36 CFR 228.4(f)).

The Forest Service must process proposed mining operations when they are submitted in accordance with regulations (36 CFR 228.4). This analysis serves to document how the Forest Service will protect surface resources in accordance with Forest Service minerals regulations (36 CFR 228.8) and all other applicable laws and regulations when the Responsible Official approves the Plan of Operations (36 CFR 228.5) as amended by the project design features.

**REASONS FOR CATEGORICALLY EXCLUDING THIS ACTION**

The Chief of the Forest Service has identified specific actions that may be categorically excluded from documentation in an environmental impact statement (EIS) or environmental assessment (EA) if there are no extraordinary circumstances. According to 36 CFR 220.6(e)(8), “Short-term (one year or less) mineral, energy, or geophysical investigations and their incidental support activities that may require cross-county travel by vehicles and equipment, construction of less than one mile of low standard road, or use and minor repair of existing roads.” My decision is consistent with this description. Therefore, I have determined that this project falls within Category 8.

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Figure 1 – Henry Clay Project Vicinity Map
Figure 2 – Henry Clay Project Location Map
Figure 3 – Henry Clay Project Access Map
Extraordinary Circumstances: 36 CFR 220.6(b)(2) discloses that the mere presence of a resource condition does not preclude use of a categorical exclusion. It is (1) the existence of a cause-effect relationship between a proposed action and the potential effect on these resource conditions and (2) if such a relationship exists, the degree of the potential effect of a proposed action on these resource conditions that determines whether extraordinary circumstances exist. Those resource conditions that should be considered in determining whether extraordinary circumstances related to the proposed action warrant further analysis and documentation in an EIS or EA are discussed in 36 CFR 220.6(b)(1). A summary of the effects of my decision on these resource conditions is provided below, with detailed information contained in the project record. Based upon these findings, and public involvement efforts discussed below, I have determined that no extraordinary circumstances are associated with my decision.

1. My decision has been evaluated to determine the effects on Endangered Species Act (ESA) threatened, endangered, proposed, and candidate species and their habitats. Evaluations concerning Region 4 (R4) Sensitive species are also summarized below.

The ESA (16 USC 35 §§1531 et seq. 1988) provides for the protection and conservation of threatened and endangered plants and animal species. The proposed action was assessed in biological assessments (BAs)/biological evaluations (BEs) to determine the effects on threatened, endangered, proposed, and candidate plant and animal species. A project specific ESA list was generated from the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Conservation (IPaC) web site (http://ecos.fws.gov/ipac) (March 2016) and is available in the project record. An updated project specific ESA list was generated on September 21, 2016, February 7, 2017, and September 28, 2017 (project record).

Two listed threatened species, one proposed, and one candidate species have been identified for the project area. Table 1 summarizes the determinations for Canada lynx, wolverine, bull trout, and whitebark pine.

Table 1—Summary of Determinations for Threatened, Endangered, Proposed, and Candidate (TEPC) species for the Henry Clay Exploration Project

<table>
<thead>
<tr>
<th>Species Common Name</th>
<th>Scientific Name</th>
<th>Statusa</th>
<th>Determination b Proposed Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada lynx</td>
<td>Lynx Canadensis</td>
<td>T</td>
<td>NE</td>
</tr>
<tr>
<td>Wolverine</td>
<td>Gulo gulo</td>
<td>P</td>
<td>NE</td>
</tr>
<tr>
<td>Bull Trout</td>
<td>Salvelinus confluentus</td>
<td>T</td>
<td>NE</td>
</tr>
<tr>
<td>Whitebark pine</td>
<td>Pinus albicaulis</td>
<td>C</td>
<td>NI</td>
</tr>
</tbody>
</table>

aStatus: E = endangered; T = threatened; P = proposed; C = candidate species
bDetermination language: NE = “no effect”; NLAA = “not likely to adversely affect”; NI = “no impact to any populations, species or habitat”; NLTJ = “not likely to jeopardize proposed species or modify proposed critical habitat”; NI = “no impact to any populations, species or habitat.”

Fish and Wildlife R4 Sensitive Species

Sensitive fish and terrestrial wildlife species are designated by the Regional Forester based on a concern for population viability as evidenced by significant current or predicted downward trend in population numbers or density, or significant current or predicted downward trend in habitat capability that would reduce a species’ existing distribution (FSM 2670.5).

Nineteen terrestrial wildlife species are currently designated as R4 Sensitive species on the Forest (project record). No impacts to R4 Sensitive wildlife were determined for project activities since there is no habitat for these species and/or no populations are present in the analysis area except for White-headed woodpecker, Flammulated Owl, Northern Goshawk, Gray Wolf, Townsend’s Big-eared Bat, and the Columbia spotted frog. Project activities “may impact individuals but are not likely to cause a trend to federal listing or loss of viability” for these species. No R4 Sensitive
fish species were determined to be located within the project area. Detailed analyses are provided in the fisheries and wildlife technical reports and BAs/BEs in the project record.

Botanical R4 Sensitive Species

Sensitive botanical species are designated by the Regional Forester based on a concern for population viability as evidenced by significant current or predicted downward trend in population numbers or density, or significant current or predicted downward trend in habitat capability that would reduce a species’ existing distribution (FSM 2670.5).

There is no known occupied habitat for R4 Sensitive plant species, but suitable habitat exists Sacajawea’s bitterroot and Small phacelia. Project activities “may impact individuals but are not likely to cause a trend to federal listing or loss of viability” for these species. However, none of these plants have been identified in the project area and the area to be disturbed is small (less than one acre). Detailed analyses are provided in the botany technical report and BAs/BEs in the project record.

2. Municipal watersheds, wetlands, and floodplains: The project will not affect floodplains, wetlands, municipal watersheds, or water quality because negative effects are not expected with incorporation of Best Management Practices to control erosion and sedimentation, limited vegetation removal, and design features/mitigation for avoidance of hazardous materials and protection of water resources in Appendix A. Detailed analyses are provided in the groundwater technical report in the project record. The proposed project area is near the top of flat ridges. The project is not located in a municipal watershed, or a source-water area,

3. Proposed activities will not occur within or immediately adjacent to any congressionally designated areas, such as wilderness, wilderness study areas, or national recreation areas, therefore this project will not affect these areas. Refer to Congressionally Designated, Wilderness, and Wild and Scenic Rivers maps in the project record.

4. Proposed activities do not occur within or adjacent to an Inventoried Roadless Area (IRA) therefore this project will not affect IRAs. Refer to IRA map and IRA worksheets in the project record.

5. Research Natural Areas (RNAs) are not located in or adjacent to the project area and therefore this project will not affect RNAs. Refer to RNA maps in the project record.

6. My decision has been evaluated to determine the effects on American Indian and Alaska Native religious or cultural sites. The project was presented to the Shoshone-Paiute Tribes at the agreed upon consultation Wings and Roots process in April 2015. The Shoshone-Bannock Tribe was notified of the action following the Agency’s Memorandum of Understanding procedures in May 2016. The Shoshone-Bannock Tribes submitted a scoping comment letter for the project. The Forest met with the Shoshone-Bannock Tribes in March 2017 and responded in writing to their scoping comments in August 2017. Refer to the project record for additional information.

7. Archeological sites, historic properties, or areas: The Idaho State Historic Preservation Office (SHPO) has reviewed the U.S. Forest Service Determination of Significance and Effect report and concurred on May 1, 2017, with the No Adverse Effect determination with protective stipulations (project record). Please refer to the cultural resources design features in Appendix A of this document.

Public Involvement: On May 6, 2016, a scoping package was sent to interested stakeholders, including individuals, conservation organizations, industry representatives, and other federal, State, and local government officials. Invitations for public comment were sent to 317 email addresses through GovDelivery and 27 hardcopies were mailed. The project webpage provided access to the proposed action report and maps. Four comment letters were received from Idaho Department of Environmental Quality,
Shoshone-Bannock Tribes, Idaho Department of Lands, and the Idaho Conservation League. See the project record for the responses to these comments.

**FINDINGS REQUIRED BY OTHER LAWS AND REGULATIONS**

**National Historic Preservation Act (NHPA)**—This decision complies with the NHPA. Refer to discussions under extraordinary circumstances #7, above, for supporting information concerning this determination.

**American Indian Religious Freedom Act, Native American Graves Protection and Repatriation Act, and Executive Order 1300**—The United States Government has a unique relationship with federally recognized American Indian tribes. Decisions concerning management of lands administered by the federal government can affect tribal community well-being. As federal agencies undertake activities that may affect tribes’ rights, property interests, or trust resources, care must be taken to implement agency policies, programs, and projects in a knowledgeable and sensitive manner respectful of tribes’ sovereignty and needs. The intergovernmental consultation process serves as the primary means for federal agencies to carry out their tribal trust obligations. This decision complies with these Acts and Executive Order. Refer to discussions under resource condition #6 above, for supporting information concerning this determination.

**Endangered Species Act (ESA)**—This decision complies with the ESA. Refer to discussions under resource condition #1 above, for supporting information concerning this determination.

**National Forest Management Act**—This decision is consistent with standards and guidelines associated with the Boise National Forest Land and Resource Management Plan2 (Forest Plan), as amended in 2010; refer to Forest Plan Consistency Checklist table in the project record. This decision does not include any commercial timber harvest activities and will comply with the applicable requirements found at 36 CFR 219.27(b).

**Idaho Roadless Rule**—The project area is not located within an Idaho Roadless Area. Therefore, this project is consistent with the Idaho Roadless Rule (36 CFR 294 Subpart C 294.24(b)((1)(v); 73 FR 61463 [October 16, 2008]). Refer to discussions under resource condition #4 above, for supporting information concerning this determination.

**Clean Water Act and State Water Quality Standards**—This decision complies with appropriate State water quality standards and the Clean Water Act. Refer to discussions under resource condition #2 above and the Forest Plan Consistency Checklist table in the project record. A Clean Water Act checklist was completed for this project and is available in the project record. No permits are required.

**Executive Order 13112 – Invasive Species**—Through mitigations measures outlined in Appendix A. Noxious Weeds, the proposed action complies with Executive Order 13112 directing Federal Agencies, whose actions may affect the status if invasive species, to develop mitigation and apply those mitigations to activities that may result in the introduction and spread of invasive species. Such mitigations have been developed for this project and are included in Appendix A. These mitigations were designed to prevent the introduction and/or spread of invasive species; and to detect and respond rapidly to, and control populations of such species found within the project area in a cost-effective and environmentally sound manner, as appropriations and/or requirements under the POO allow.

**Executive Orders 11990 and 11988**—Wetland and floodplain communities support a unique variety of vegetation that provide food and cover for many mammals, birds, and amphibians, and have an important influence on aquatic habitat conditions. Protection of these areas is required by direction in the Forest Plan, as well as Executive Orders 11990 and 11988. This decision complies with these orders. Refer to

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discussions under “Extraordinary Circumstances” above and the Forest Plan Consistency Checklist table in the project record.

**Migratory Bird Treaty Act/Executive Order 13186**—Some resident and neotropical migratory birds may be temporarily displaced due to disturbance activities associated with project implementation. Specific project mitigations have been included to mitigate impacts to any active raptor site identified during operations (see Appendix A). In addition, any potential displacement of bird species that may occur would be temporary and not substantial because suitable and abundant habitat is available adjacent to the project area for migratory birds to disperse into. Because large scale changes in habitat will not occur, the status of bird species and the habitats that support them will not be substantially influenced by the implementation of this project. Suitable and abundant habitat is available within the immediate vicinity of the project which will be consistent with the conservation intent of the Migratory Bird Treaty Act (project record Wildlife BE). Therefore, I have determined that this action will be consistent with this act and Executive Order

**Clean Air Act and National Ambient Air Quality Standards**—This decision does not include any burning activities and will meet the National Ambient Air Quality Standards and comply with the Clean Air Act.

**Environmental Justice**—In accordance with Executive Order 12898, implementation of this action will not disproportionately impact minority or low income populations.

**General Mining Act, Multiple Use Mining Act, and Forest Service Mining Policy**—The General Mining Law of 1872 (17 Stat. 91; 30 U.S.C. § 21 et seq.) grants a statutory right to enter upon public lands to prospect, explore, develop, mine, or process mineral resources, unless the lands in question are withdrawn from entry. While the General Mining Law has been amended or supplemented by the Multiple Use Mining Act of 1955 (69 Stat. 368; 30 U.S.C. § 612), the Mining and Minerals Policy Act of 1970 (84 Stat. 1876; 30 U.S.C. § 21a), and other statutes, much of the Nation’s public lands remain “free and open” to United States citizens for mineral exploration (30 U.S.C. § 22).

Forest Service authority in mining operations is based on its legal mandate to protect surface resources. To protect surface resources, the Forest Service applies the regulations found at 36 CFR 228.4(a) which provide the requirements for authorizing mining operations, conducting environmental analyses to assess the impacts of the operation, applying terms and conditions to minimize impacts to surface resources, and requiring bonding where appropriate for restoration of affected lands. Presuming other applicable state and federal laws are met, mining is authorized under 36 CFR 228.4(a) once the Forest Service completes its analysis, applies its terms and conditions, and collects necessary bonding.

The Forest Service is neither advocating nor proposing the miners’ Plan of Operations. The miners initiated this mining proposal and have a possessory right to conduct mineral exploration operations on lands open to mineral entry. However, the regulations at 36 CFR 228 create a dual need for Forest Service action:

- First, it is legally required to respond to the mining proponent’s request to authorize mining based on the proposed Plan of Operations (36 CFR 228.4).
- Second, the Forest is required to ensure that “operations are conducted so as, where feasible, to minimize adverse environmental impacts on National Forest surface resources” (36 CFR 228.8).

Accordingly, the Forest Service conducted an environmental review in response to the proposed Plan of Operations submitted by the miners and in fulfillment of specific requirements set forth in subpart A of the Forest Service’s Minerals regulation (36 CFR 228). Moreover, this action is linked with the agency’s ongoing stewardship responsibility for National Forest System lands. This Decision Memo is limited to actions over which the Forest Service has discretion. That action is not whether to mine, since the law already authorizes that and the agency’s role is ministerial (see above). The only discretionary action of
the Forest Service here concerns the identification of terms and conditions that the miners need to incorporate into their Plan of Operations to minimize surface disturbance.

Thus, I have determined that the inclusion of the mitigations measures into the Plan of Operations identified in Appendix A meets the Forest Service’s responsibility under 36 CFR 228A “to minimize adverse environmental impacts on National Forest surface resources” without endangering the proposed mining operations.

**Other Disclosures and Policies**

**Consultation with Other Federal, State Agencies and/or Local Government** – Contact, review, and involvement with the other Federal, State agencies and/or local Government (i.e. Boise County) did not indicate any conflicts between the activities to be implemented under this decision and the goals and objectives of other federal, state or local government entities. Appendix A design features include requirements for the proponent to obtain permits that may be required by these other entities, as they identified in their responses to project scoping. The project record includes the documents summarizing the involvement with these other governmental entities.

**Best Available Science** - The conclusions summarized in this document are based on a review of the project's record that reflects consideration of relevant scientific information and responsible opposing views where raised by internal or external sources, and the acknowledgement of incomplete or unavailable information, scientific uncertainty, and/or risk where pertinent. Further, the analysis reflects management direction, findings, and conclusions in the Final Environmental Impact Statement supporting revision of the Forest Plan in 2003 (USDA 2003), as well as the subsequent Final Environmental Impact Statement Supporting Forest Plan Amendments to Integrate the Boise National Forest Wildlife Conservation Strategy, Phase 1: Forested Biological Community (USDA 2010) and its associated Record of Decision. These Final EISs and supporting project records represent a thorough review and consideration of the best available science applicable to the Forest, including those related to activities to be authorized under this decision.

**Other Information Considered in Determination of Extraordinary Circumstances**: In addition to the above, I have considered other elements of the analysis in my determination that there are no extraordinary circumstances as defined by the National Environmental Policy Act (NEPA), or other adverse effects associated with this project that will necessitate documentation in an EIS or EA. I have also considered the potential for cumulative effects and arrived at the conclusion that without notable direct or indirect effects, there will be no cumulative effects. My conclusion is based on (1) comments received during public involvement efforts and (2) the minimal environmental effects expected as a result of my decision.

**ADMINISTRATIVE REVIEW AND APPEAL OPPORTUNITIES**

On January 17, 2014, the President signed into law the Consolidated Appropriations Act of 2014 (Pub. L. No. 113-76). Section 431 of that Act directs that the 1992 and 2012 legislation establishing the 36 CFR 215 (post-decisional appeals) and 36 CFR 218 (pre-decisional objections) processes “shall not apply to any project or activity implementing a land and resource management plan…that is categorically excluded…under the National Environmental Policy Act [NEPA].” On February 7, 2014, the President signed into law the Agricultural Act of 2014 (Farm Bill) (Pub. L. No. 113-79). Section 8006 of the 2014 Farm Bill repealed the Appeals Reform Act (ARA) (Pub. L. No. 102-381). The ARA’s implementing regulation was 36 CFR 215. The 2014 Farm Bill also directs that the pre-decisional objection process established in the Consolidated Appropriation Act of 2012 shall not be applicable to categorically excluded projects or activities. As a result of these two statutes, the Forest Service no longer offers notice, comment and appeal opportunities pursuant to 36 CFR 215 for categorically excluded projects.
CONCLUSION AND PROJECT IMPLEMENTATION

My decision has been reviewed in accordance with Agency guidelines pertaining to use of categorical exclusions at 36 CFR 220.6. As identified above, I have determined that this action falls with CE category 8 [36 CFR 220.6 (e)(8)] and, following review of the resource conditions identified at 36 CFR 220.6(b), I have determined that no extraordinary circumstances exist that would require preparation of an EA or EIS. In addition, the Interdisciplinary Team’s analysis did not identify any other unusual circumstances or measurable adverse environmental direct, indirect or cumulative effects associated with the action that would warrant further consideration under an EA or EIS.

Thus, this decision may be implemented five business days from the date of my signature approving this decision, after finalization of a signed Plan of Operations, and the posting of a bond by the operator(s), whichever is the latest date of these three actions.

This project is anticipated to begin exploration activities during the 2018 season which typically runs from May through October depending on weather conditions. This authorization will be valid for one year from the date which the reclamation bond is posted and/or exploration activities are initiated, whichever date is latest in the process will start the one-year time frame.

For more information about this project, contact Stephaney Kerley, Mountain Home District Ranger, by phone at (208) 587-7961 or by email at skerley@fs.fed.us.

Stephaney Kerley
Mountain Home District Ranger
Boise National Forest

Date
October 11, 2017
Appendix A—Design and Mitigation Features

The following design features/mitigation measures shall be incorporated into the Plan of Operations for the mining exploration activity described above and shall be adhered to by the proponent(s).

A. APPROVALS AND ACCESS

1. The Proponent (Nathan Cook) shall notify the Forest Service Minerals Administrator a minimum of 3 days prior to commencing initial activities.

2. Operations, including test excavations and access, shall be restricted to the dry season (May 1 to October 31) to ensure no sediment is delivered to streams from project activities.

B. LOCATION AND FACILITIES

1. Equipment and facilities will be located outside of riparian, wetland, and floodplain areas to the maximum extent practicable (MEP).3

2. Facilities shall be limited to those outlined in the Plan of Operations.

3. Safety signs shall be utilized to ensure public safety. The Forest Service Minerals Administrator will assist with identifying the type and location of necessary signs.

4. Refuse shall be disposed of by hauling all materials to approved sites off of the Boise National Forest (Forest).

5. Human waste shall be disposed of in a self-contained unit that shall be emptied at an approved site off of the Forest or by following approved disposal methods established by the Forest.

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3 Use of Maximum Extent Practicable (MEP) or “Practicable” and Requirements under 36 CFR 228

The term “maximum extent practicable,” or MEP, is embodied as the basic performance standard in numerous State and federal regulations, including the Endangered Species Act and Section 404 of the Clean Water Act. The MEP standard does not necessarily involve the same criteria in each application; it is intended to address projects or actions on an individual basis, considering each of their specific circumstances and purpose.

Under the Environmental Protection Agency guidelines, practicable is defined as, "available and capable of being done after taking into consideration cost, existing technology and logistics in light of overall project purposes" (40 CFR 230.10(a)(2)).

Thus, when a mitigation states that an activity will be “avoided” or “minimized” to the MEP, it will be interpreted within the framework of determinations as to whether the avoidance or minimization mitigation can be applied in a manner that will not “endanger or materially interfere with prospecting, mining or processing operations or uses reasonably incident thereto” (FSH 2809.15; 36 CFR 228.8; 30 U.S.C. § 601, et seq.) as documented in a Surface Use Evaluation and Determination (FSH 2809.15 (13)), or equivalent report.

All activities proposed within a resource area of concern will be reviewed by a Forest Service minerals specialist and applicable Forest Service specialist who will make recommendations to the Responsible Official as to whether proposed activities can be implemented without triggering extraordinary circumstances. If the Responsible Official determines that impacts to the resource of concern may trigger extraordinary circumstances, the Forest Service and mining proponent will meet to develop an alternate plan that would avoid the degree of impacts to the resource of concern. If a resolution cannot be met, a Certified Minerals Examiner (CME) will prepare a formal Surface Use Determination (SUD) to determine if mitigation to resources of concern needed to prevent triggering extraordinary circumstances would “endanger or materially interfere with prospecting, mining or processing operations or uses reasonably incident thereto” (FSH 2809.15; 36 CFR 228.8; 30 U.S.C. § 601, et seq.). If it is determined that the mitigation needed to prevent triggering extraordinary circumstances would “endanger or materially interfere with prospecting, mining or processing operations or uses reasonably incident thereto”, the Responsible Official must determine if proceeding with such activities causing this effect require preparation of the environmental assessment or environmental impact statement.
6. The area of operations shall be maintained to present a clean, neat, and orderly appearance. For example, trash, debris, unusable machinery, and improvements shall be disposed of off of the Forest.

C. CLEARING AND EXCAVATION

The operating season for earthwork of any kind will normally be that period after spring runoff (May) and before significant winter snow accumulations (November). Exceptions to this rule will be made on a case-by-case basis where it can be shown that resource damage will not occur because snow is incorporated into earthwork, the ground is frozen because of extremely cold temperatures, poor ground conditions are not present, and/or surface or sub-surface runoff is not occurring.

1. Vegetative Clearing and Disposal

   Timber, as designated by the Forest Service, will be cut only to the extent necessary to safely access the operation. The following guidelines apply to timber removal:

   a) All trees shall remain on-site and be used for final reclamation. Cut trees should remain in the location they were felled. If trees must be moved for access or safety, the Proponent shall consult with the District Minerals Administrator to determine a suitable location.

   b) Removal of timber with a diameter at breast height greater than 15 inches should be avoided to the MEP. If the proponent requests approval to remove 15-inch or greater timber, the District Minerals Administrator shall evaluate site conditions (is removal necessary) and the District Wildlife Biologist shall be consulted prior to approval.

   c) Brush and woody debris that is cleared should be stockpiled and scattered back over disturbed areas following heavy equipment operations. Burning of slash material is not authorized.

2. Topsoil Salvage

   a) Topsoil or suitable growing medium shall be removed from disturbed areas, where the slope is less than 45%, in quantities sufficient to allow a minimum of 12 inches of topsoil or combination of topsoil and subsoil to be re-spread over all disturbed areas. This requirement does not include areas disturbed by low-impact roads or other activities that do not involve earthen excavation or fill operations.

   b) Topsoil shall be stockpiled in an area sheltered from wind and water erosion, unnecessary compaction and contaminants. It will be stabilized as necessary with temporary vegetative cover. The Proponent shall ensure that sufficient clearing is used to prevent the incorporation of slash or other material into the topsoil, and to ensure that the topsoil can be re-spread onto the disturbed area.

3. Erosion and Sediment Control

   The Proponent shall ensure that erosion and sedimentation of surface water is minimized through the use of the following measures:

   a) Minimizing erosion by slowing or interrupting overland flow

   b) Diverting clean water around areas of disturbance

   c) Containing water within disturbed sites
d) Passing sediment-laden water through sediment control devices before leaving the site. These sediment control devices will be placed as close to the source as practical to contain sediment and keep it onsite (Best Management Practices for Mining in Idaho\textsuperscript{4}). Sediment control devices used to meet this standard include straw dikes, riprap, check dams, mulches, vegetative filter strips, dugout ponds, cross ditches, and other measures described in the Best Management Practices for Mining in Idaho\textsuperscript{3}.

The following erosion and sediment control measures are planned for the operation. Other measures may be required by the Forest Service to meet the stated erosion and sediment control standards.

a) Only one test trench should be disturbed at any one time during the operation. Each test trench should be reclaimed through backfilling and vegetation prior to opening the next one. If more than one trench must be disturbed at any one time, the Proponent will notify the Mineral Administrator prior to taking such action to assess whether such action is needed to meet the exploration objective.

b) Erosion and sediment control facilities shall be inspected concurrently with operations and cleaned to maintain at least 60\% of their volume capacity in sediment and after major precipitation events. Sediment devices for surface drainage shall be maintained until disturbed areas have been restored and revegetated.

D. HAZARDOUS MATERIALS

Hazardous materials are toxic, ignitable, corrosive, reactive, or capable of causing damage to plant or animal life. Hazardous materials include fuels and lubricants as well as other chemical compounds. The objective of the following requirements is to ensure such materials are properly transported and stored to prevent contact with the environment and that measures are in place to contain and dispose of such material in case of an accidental spill.

1. Equipment fluids shall be entirely contained to avoid contamination of surface, near surface, and groundwater resources.

a) Proponents shall be responsible for containing all petroleum products associated with vehicles and heavy equipment and ensuring their disposal or recycling at approved sites.

b) All fuel shall be adequately sealed in leak-proof containers and secured in pickup beds by ratchet straps or other secure devices.

c) All fuel and lubricants shall be stored in an appropriately sized secondary containment system.

d) No more than 20 gallons of fuel should be stored onsite at any time. If more than 20 gallons of fuel is need onsite, the Proponent will notify the Forest Service Mineral Administrator prior to taking such action to assess whether such action is needed to meet the exploration objective.

e) No fueling of equipment or fuel storage will take place within a Riparian Conservation Area (RCA). Any and all fueling will take place over absorbent pads.

A Forest Service Minerals Administrator will inspect the site to ensure compliance.

f) Observation of spilled fuel or oil or of an oil-sheen visible on surface water shall require operations to cease until the cause is determined and the source is contained and removed.

g) An appropriately sized fuel spill containment kit shall be stored onsite. Ensure that a spill containment kit, commensurate with the amount of fuel stored, and supplies, such as shovels, absorbent pads, straw bales, and/or booms, are on-site when equipment or service vehicles are within the project area. If a spill should occur, State and Federal regulations regarding spills will be followed (e.g., any spills resulting in a detectable sheen on water shall be reported to the EPA National Response Center (1 800 424-8802) and IDEQ (1-800-632-800), and cleanup will be initiated within 24 hours of the spill).

h) No explosives or hazardous substances used for mineral extraction should be used or stored onsite. If use or storage onsite is desired, the Proponent will notify the Forest Service Mineral Administrator prior to taking such action to assess whether such action is needed to meet the exploration objective.

i) The Forest Service Minerals Administrator will visually inspect the excavations and materials excavated for the presence of mercury or other hazardous material from historic mining operations prior to materials being washed. If free mercury is observed during the excavation, the excavation shall be suspended until the situation can be assessed and appropriate response can be taken to stabilize and/or dispose of the mercury.

E. NOXIOUS WEEDS

1. Machinery, vehicles, tools, and all other equipment are required to be free of any soil, plants seeds, and plant materials. Machinery, vehicles, tools, and all other equipment shall be pressure washed and cleaned each time before entering National Forest System (NFS) lands and the proposed project area. Equipment includes any non-motorized and motorized equipment or vehicles, such as picks, hammers, mining tools, shovels, dozers, excavators, trucks, cars, or off-highway vehicles.

2. All seed sources, mulches, or other materials shall be certified weed-free.

3. The proposed project area should be periodically monitored by a Forest Service Botanist for invasive plants.

4. Vegetation shall be reestablished on disturbed bare ground to minimize weed establishment and infestation.

5. Seed mix for revegetation and restoration shall be determined by a Forest Service Botanist.
F. RESOURCE PROTECTION

1. Cultural Resources
   a) The Forest Archeologist will monitor this project during and after the project implementation to ensure that site protection stipulations are/were met and prepare a report documenting the results for SHPO review and comment.
   b) If any cultural materials are encountered during the course of the project, all ground-disturbing activities in the immediate vicinity of the discovery shall cease until a Forest Service Archaeologist is consulted.

2. Fire Management
   a) No burning of refuse or waste is permitted onsite. Approved mufflers and/or spark arrestors are required on all internal combustion engines. The Proponent must maintain a cache of fire-ready tools, such as a Pulaski, at the site(s) at all times.
   b) The Proponent must comply with applicable federal and State fire laws and regulations. The Proponent shall take all reasonable efforts to prevent fires and be liable for all fire suppression efforts if a fire is started as a result of any aspect of the proposed project.

3. Water Quality
   a) Violation of State of Idaho Water Quality Standards and the Clean Water Act as a result of any activity or facility covered by this Plan of Operations shall be cause for immediate cessation of operations until successful corrective action has been taken.
   b) Core drilling systems will operate on a “closed system” concept. (Under a “closed system,” fluids used for sample collection (drilling) are contained at the drill pad and recirculated.)
   c) Upon completion, all holes will be filled with a bentonite-cement mixture designed to effectively seal and stabilize down-hole conditions. Each hole will be topped with a cement plug or similar device. Drill hole abandonment must be completed prior to opening a new hole.
   d) All drill fluid additives pumped into the hole are regulated and will meet all state and federal safety and environmental standards. Water used in the drilling fluids will be drawn from sources that meet state water quality standards (IDAPA 58.01.02). Potential surface water runoff will be visually monitored to evaluate potential erosion and the presences of sediment.
   e) Should artesian pressures be encountered that result in flows from the drill hole, the Proponent will increase the drill fluid viscosity to control the pressures. Should the increased viscosity not be effective at controlling the pressures, then the drill hole will be abandoned and plugged with neat cement.
   f) Surface seals on drill holes that will be completed on drill pads, which do not require regrading, will be completed below the grade of the drill pad and covered with growth media.
g) The Proponent will have a knowledgeable person, i.e., an experienced or licensed driller, record drilling conditions encountered during drilling operations. A qualified company representative (geologist or geological technician) will conduct regular checks of each active drill site to assure documentation of drilling conditions is being completed in a timely and accurate manner and standard drilling procedures are being followed to address changes in drill bore conditions as drilling proceeds.

h) During construction of the settling ponds and exploration activities, silt fences, straw wattles, and other sediment/erosion control Best Management Practices\(^5\) must be utilized.

i) Any debris (e.g., rocks, topsoil, overburden) removed during this process should be placed in a suitable location and later used for reclamation. If placement of this material is not practicable in such a suitable location, the Proponent will notify the Forest Service Mineral Administrator to approve the location selected prior to the debris being removed.

j) Project activities shall be conducted when site conditions are conducive to minimizing impacts on soil and water resources. Activities should not be allowed when the project site is wet and soil erosion/compaction will occur. If the Proponent desires to operate with the site is wet, the Proponent will notify the Forest Service Mineral Administrator prior to taking such action to determine if actions to be taken can be done in a manner that meets the resource objective to minimize impacts to soil and water resources.

4. Water Quality Monitoring

a) The Proponent will monitor the amount of water used in each drill hole during the drilling operation to demonstrate a “closed loop” system.

b) Drilling mud and hole plug products will conform to National Sanitary Foundation (NSF) guidelines for ensuring groundwater integrity. Safety and Data Sheets (SDS) for all products should be available on site.

c) A knowledgeable person, i.e., an experienced or licensed driller, will monitor and record the following during drilling operations: drill fluid loss/gain by drill interval; quantity and use of loss circulation materials; and drill mud pump pressures to identify when actions are needed to maintain a “closed loop” drilling fluid system.

5. Wildlife

a) No timber removal shall be allowed within riparian areas and any timber removal must be approved with the District Forester prior to removal. Removal of timber with a diameter at breast height greater than 15 inches should be avoided to the MEP. If the proponent requests approval to remove 15-inch or greater timber, the Forest Service Minerals Administrator must evaluate site conditions (is removal necessary) and the District Wildlife Biologist will be consulted prior to approval.

b) Should an active raptor nest be found within or adjacent to the project area,

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operations shall cease and the Forest Service Minerals Administrator shall be contacted. Nests within 100 feet of sample site will be considered adjacent to the project and raptor nest protections shall be implemented. The District Wildlife Biologist must evaluate and determine if additional protection measures are required prior to commencing activities.

c) All water storage structures (i.e. troughs, barrels, etc.) used for this project must provide access and escape from the water for all types of wildlife. Wildlife access/escape ramps must be attached to the side of the structure in a manner that allows safe entry and exit from the water for wildlife species. The escape ramp should be attached to the storage structure on all sides, making it easier for trapped wildlife to find the escape ladder and extend to the bottom of the tank, providing escape to wildlife during varying water levels. Please refer to Wyoming BioTechnical Bulletin #41 to see design of wildlife escape ramp in the Project Record.

6. Plants

a) Overburden, topsoil, or excavated material must be stored in locations approved by the Forest Service Mineral Administrator and must not be in locations that could impact riparian vegetation and/or water quality of adjacent streams.

b) Should any unusual or unrecognized plant species be found in or adjacent to the activity area by the Proponent or Forest Service personnel, the Forest Service Minerals Administrator and/or District Forest Service Botanist shall be notified to determine if they are a threatened, endangered, proposed, candidate, or sensitive species and, if so, appropriate mitigations measures shall be implemented to avoid impacts to the MEP, or if avoidance is to practicable, to minimize impacts to the plant.

G. RECLAMATION AND BONDING

Final reclamation activities and the normal sequence in which they occur are documented in Parts A through G below. Exceptions to this normal sequence will be for those facilities used during the following year. For example, if work begins in late summer, and the Proponent intends to finish work the following spring (still within the 1-year authorization). All areas disturbed by an operation shall, at a minimum, be stabilized with erosion/sediment control measures and vegetated in the fall of the year in which the disturbance occurred. In all cases, an annual reclamation plan update shall be required to describe the reclamation status of the operation, including all disturbances, un-reclaimed areas, seasonal reclamation, or final reclamation. This plan must address all facilities and equipment left on NFS lands. Final reclamation must be completed within 1 year after completion of the project.

If a seasonal layoff (winter conditions) occurs, the site must be left in a condition that provides for public safety and resource protection as identified by the Forest Service Minerals Administrator. Any test pits must be graded to prevent falling hazards to both humans and wildlife. All equipment must be removed from the site and erosion control barriers shall be maintained.

1. Remove or dispose of all equipment and facilities, including toxic or waste materials and draining of ponds. All such work must be accomplished in such a way to ensure long-term stability of the site and to prevent contamination of ground or surface waters.

2. Seedbed Preparation—where compacted layers may inhibit vegetative growth, the top soil should be ripped or harrowed on the contour. Where erosion is expected to be a problem, mulch and/or terracing should be used at the discretion of the Forest Service Minerals
3. Reseeding—a seed mixture designed to promote rapid ground cover and long-term stability shall be formulated based on site-specific conditions as determined by the Forest Service Botanist prior to their use. The Forest Service Botanist should provide seed mix recommendations. As mentioned above, an alternative mix may be developed subject to approval by the Forest Service. **NOTE: SEED AND MULCH MUST BE CERTIFIED WEED FREE.**

4. Seed should be broadcast and, where necessary, covered by raking to ensure optimum germination. Reseeding should normally be in the fall following backfilling, re-contouring, and topsoil placement. Revegetation efforts will be considered successful if at least 70% of the groundcover of the disturbed area or adjacent reference area returns for a period of 1 year; onsite erosion is effectively controlled, and the groundcover is self-regenerating. Stocking for trees and/or shrub species should be evaluated using standard survival surveys as used by the Forest Service.

5. A portion of reclamation bond specific to revegetation shall be retained until the Forest Service determines that the reclaimed sites have met criteria for stability and productivity. A bond shall be required as part of the Plan of Operations. The amount of this bond will be sufficient to allow the Forest Service to reclaim all areas disturbed by the exploration activity if the proponent fails to complete the required reclamation. The bond also addresses the costs of removing facilities, equipment, and materials; restoring disturbed areas; isolating and neutralizing or removing toxic or potentially toxic materials; salvaging and replacing topsoil; and preparing the seedbed preparation and establishing vegetation. The bond will be prepared by a certified Forest Service Minerals Administrator. Information on how the bond was calculated is part of the project file and is available at the Mountain Home Ranger District office located in Mountain Home, Idaho.

H. GENERAL

1. The right of the public to lawfully use the land encompassed by the boundaries of the mining claims shall not be restricted or denied by the Proponent. The right of the public does not include any activity that interferes with the operation of any activity that is mineral related without the consent of the claimant.

2. The Operator, in the exercise of this Plan of Operations, shall require that his employees, sub-lessees, contractors, subcontractors, or renters and their employees comply with all conditions of this Plan of Operations.

3. Authorized activities are limited to what is stated in the Plan of Operations. If the Operator wishes to change activities as outlined in the Plan of Operations, he must submit a supplemental Plan of Operations that may be subject to additional environmental analysis.

4. Operations may be suspended and/or changed if the Forest Service Mineral Administrator determines that they are not compliant with this decision, the approved Plan of Operations, or applicable laws or regulations or that resource conditions have changed. Operations may resume after compliance items have been resolved between the Forest Service, the Operator, and appropriate regulatory agencies.

5. It is the responsibility of the Operator to acquire all other federal, State, and local permits that may be required for this operation. Permits from similar past projects have included temporary water rights permit from the Idaho Department of Water Resources, a Conditional Use Permit from Boise County, and a mining exploration notice from the Idaho Department of Lands.
6. Should the results of the exploration effort be successful the Operator may choose to submit another Plan of Operations for 2017 and/or beyond. If a new Plan of Operations is submitted, a new environmental analysis shall be required.

I. INSPECTIONS

The Forest Service and the Proponent must ensure that the provisions of the Plan of Operations are being followed. The following items will inspected and a schedule will be set to ensure operations are in compliance with the Plan of Operations:

1. Location of proposed construction
2. Clearing, timber, and slash disposal
3. Topsoil and overburden stripping and storage
4. Earthwork and facility construction standards (this inspections is especially important in regard to settling ponds, diversions, dams, hazardous materials or fuel storage)
5. Seasonal shutdown to establish interim reclamation/stabilization requirements as well as any final reclamation work
6. Operating procedures and predicted environmental impacts
7. Removal/disposal of equipment and facilities
8. Backfilling/re-contouring and construction of sediment control
9. Spreading of topsoil
10. Seedbed preparation
11. Revegetation
12. Fertilization
13. Sediment control and reclamation success criteria

The Proponent’s designated field representative must be familiar with all requirements of this Plan of Operations and take proactive steps to ensure compliance, including the development of a checklist for periodic inspections and documentation to the Forest Service representative.