APPENDIX 4A

IRA WORKSHEETS

V4. 10.19.11 rwelsh

WORKSHEET 1 – Wilderness Qualities or Attributes
Evaluating the Effects of Project Activities on Wilderness Attributes

Date:	March 24, 2014
Roadless Area:	Meade Peak

Description of Project Activity or Impact to Roadless Area:
(Note – describe the activity that is affecting the roadless area, i.e. miles of road construction, timber acres harvested, acres treated by fire, etc…)
Under the Proposed Action and all Action Alternatives, Lease IDI-01441 would be expanded within the MPRA and the South Overburden Disposal Area (ODA) and stormwater control features would result in a total of 19.4 acres within the MPRA, all within Lease IDI-01441. All disturbances within the MPRA would occur within the General Forest, Rangeland and Grassland theme. The Project disturbances within the MPRA would generally be reclaimed and revegetated, immediately following the completion of the operations phase of the Project, with the exception of 0.91-acre of the stormwater features that would be maintained for many years to ensure their purpose and functionality.

Effect to Wilderness Quality or Attributes			
Wilderness Quality or Attribute (Note: delete attribute descriptions after data is entered to save space if desired.)	**Is there an effect? Yes or No**	**Which direction is the effect? Improving, Stable or Degrading?**	**Describe the actual effect.** Use descriptive terms that discuss the effect, not the activity. May use GIS layers (ROS, SMS, Roads, etc…) to quantify effects.
Untrammeled This quality monitors modern human activities that directly control or manipulate the components or processes of ecological systems inside wilderness. In summary, *wilderness is essentially unhindered and free from modern human control or manipulation.* A measure of the actions taken to hinder, manipulate, or control the long-term natural ecological processes of the area. Address this attribute by describing the management actions included in ct your project activities that would alter the natural processes in the area.	Yes	Operations Phase – Degrading Reclamation - Stable	The function of ecological systems within the MPRA has been impacted by the following physical or human-caused impacts that have occurred in the recent past or are occurring: approved and unimproved roads, timber harvest activities, mining activities, grazing, and recreation. The Project would result in approximately 19.4 acres of new disturbance within the MPRA for expansion of the South ODA. Land clearing associated with this disturbance would increase the potential for erosion and potentially impact terrestrial wildlife through direct mortality (small, less-mobile species) or injury (during construction), habitat modification, fragmentation, and loss. Wildlife tends to avoid areas with noise and human presence if possible. As a result, the areas of affected wildlife habitat may be larger than the area directly occupied by the Project. This disturbance is less than 0.01 percent of the MPRA, and the majority of disturbances would be reclaimed immediately after completion of the operations phase of the Project. The Project includes EPMs and BMPs designed to reduce the impact to wildlife, particularly sensitive species. As a result, the Project is not expected to substantially reduce the amount of wildlife habitat available or fragment habitat to a degree sufficient to reduce wildlife populations or alter other ecological functions in the MPRA.

Effect to Wilderness Quality or Attributes			
Natural This quality monitors both intended and unintended effects of modern people on ecological systems inside wilderness since the time the area was designated. In summary, *wilderness ecological systems are substantially free from the effects of modern civilization.* A measure of past and proposed activities on the natural conditions of the area. It describes the extent to which human influences alter natural processes and conditions away from what one would otherwise expect. This is a measure of the degree of environmental modification that will occur because of your project. Address this attribute by describing the extent of modification that will occur in the wilderness area Consider existing scenic integrity and ROS layers.	Yes	Operations Phase – Degrading Reclamation - Stable	The MPRA has been impacted by the construction of roads, timber harvests, mining activities, grazing, and recreation. These activities have altered or reduced the function of ecological systems within the MPRA. Disturbance from these activities is also visible to the casual observer in the form of roads and road cuts, areas of reduced timber cover, cattle presence, and the presence of recreation users and recreational vehicles. However, some of these disturbances (particularly roads, mining activities, and areas of timber harvest) are in various stages of reclamation and some of these areas are beginning to return to a more natural state. The Project would involve disturbance and habitat loss. During operations phase of the Project and reclamation, new disturbance would also be visible to the casual observer in the form of the South ODA consisting of large quantities of mined materials. During and immediately following completion of the operations phase of the Project, these disturbances would by highly visible and would contrast with the surrounding landscape. Disturbed areas would have a reduced appearance of naturalness relative to areas within the MPRA that have not been disturbed or that have been reclaimed. Once reclamation is complete, the disturbed areas would have an appearance similar to other areas within the MPRA that have been reclaimed; however, even reclaimed areas would be noticeably modified from the surrounding landscape as the South ODA cannot be exactly recontoured to match natural topography. Although the Project would degrade the natural condition of 19.4 acres in the short term; in the long term the condition of the disturbed lands would exhibit a degree of naturalness similar to other reclaimed areas of the MPRA.
Undeveloped This quality monitors the presence of structures, construction, habitations, and other evidence of modern human presence or occupation. In summary, w*ilderness is essentially without permanent improvements or modern human occupation.* A measure of the present day physical indicators such as the presence and development level of trails, campsites, structures and facilities as well as the use of motorized equipment, mechanical transport, landing of aircraft, etc. used for administrative purposes. It is an indicator of what the visitor will experience in a setting that is removed from the sights and sounds of civilization and mechanization located inside the wilderness. Address this attribute by describing the extent of modification (i.e. structures required, motorized equipment use, etc.) that will occur during the projects duration or resulting after the project is finished. Consider using ROS maps layers.	Yes	Operations Phase – Degrading Reclamation – Stable	During the operations phase and reclamation of the Project, people, vehicles, equipment, and associated noise and dust would be evident in the disturbance area associated with the Project. Disturbances associated with the expanded South ODA would be reclaimed and revegetated, and upon reclamation, devoid of evidence of human presence or occupation. Reclaimed areas would be noticeably modified from the surrounding landscape as the ODA cannot be recontoured exactly to match natural topography. These disturbed areas would be located within the Partial Retention VQO. Stormwater features and reclaimed areas may be identifiable as man-made rather than natural occurrences, and may be a noticeable contrast from the undeveloped appearances of the surroundings.

Effect to Wilderness Quality or Attributes				
Outstanding opportunities for solitude or a primitive and unconfined type of recreation This quality monitors conditions that affect the opportunity for people to experience solitude or primitive, unconfined recreation in a wilderness setting, rather than monitoring visitor experiences *per se*. In summary, *wilderness provides outstanding opportunities for people to experience solitude or primitive and unconfined recreation, including the values of inspiration and physical and mental challenge*	**Solitude -** Described as opportunities to experience solitude, or the isolation from the sights and sounds of management activities inside wilderness, the presence of others. Solitude is measured by considering the presence of screening, distance from impacts to the rest of the area, mitigation measures such as the timing of disturbances. Address solitude by discussing how the project activities affect the ability of a visitor to escape project impacts on solitude within the area. Consider linking to ROS mapping for size and remoteness criteria for Primitive and SPMN.	Yes	Operations – Degrading Reclamation – Stable	The noise and human activity associated with the operations phase and reclamation of the Project would impact the sense of solitude of the immediate area; that effect would dissipate with distance, but the effects may be noticeable from several miles away. Activities may be noticeable in other portions of the MPRA through distant noises, lights, glow, or dust columns in areas where the Project is not directly visible. The immediate Project Area is managed as RM; therefore expectations of solitude are reduced. Upon completion of reclamation, the area would generally return to previous conditions, with the exception of the stormwater features.
	Opportunities for Primitive Recreation -A measure of the experiences available without the developments and to feel a part of nature, with a high degree of challenge and reliance on outdoor skills rather than facilities. Address this attribute by describing how the project activities might affect, the number and type of opportunities available, the challenge of the opportunities, and the addition or absence of facilities.	Yes	Stable	The 19.4 acres of proposed disturbance, situated immediately adjacent to previously approved mining, would not be available for primitive recreation during the operations phase of the Project. Terrain within the MPRA is very typical of the other mountain ranges in southeast Idaho; however, due to the presence of existing roads, timber harvest remains, and other developments, it does not provide much opportunity for primitive recreation. As a result, the disturbance of an additional 19.4 acres would minimally affect this quality. Upon completion of reclamation of the Project Area there would not be remaining facilities that would degrade the opportunity for primitive recreation. However, topographic changes may make the area more or less challenging to access or traverse.
Special Features (Ecological, Geologic, Scientific, Educational, Scenic or Historical Values) An attribute that recognizes that wilderness may contain other values of ecological, geologic, scientific, educational, scenic or historical or cultural significance. Unique fish and wildlife species, unique plants or plant communities, potential or existing research natural areas, outstanding landscape features, and significant cultural resource sites should all be considered as types of values that might exist. Identify any of these values that exist within the project area. Address this attribute by describing the effect proposed activities would have on these values.		No	N/A	The portion of the Project Area within the MPRA does not contain special features that would be impacted by the Project.

Effect to Wilderness Quality or Attributes			
Manageability (as Wilderness) A measure of the ability to manage an area to meet the size criteria (5,000 + acres), the resulting configuration of the potential wilderness, and the interaction of the other elements above. Changes in the shape of the Inventoried Roadless Area may have significant consequences to its wilderness potential. Consider also boundary management impacts such as changing wilderness boundaries to different terrain features or for how access would be provided if project activities cause adjustments in the Inventoried Roadless Area. Address this attribute by discussing how the proposed activities may affect the boundary location, the size, the shape, and the access to the area. Consider ROS mapping.	No	NA	The proposed disturbance associated with the South ODA would occur in two separate but adjacent areas along or just inside the MPRA boundary. These would nearly bisect one small area from the main body of the MPRA, the size of which would not meet the size criteria (5,000 acres or more). However, this area would be contained within the Panel G mine disturbance approved by the 2008 RODs. The Project would not reduce access to the MPRA. Consequently, there would be no impacts to manageability.

Summary	Will the proposed project affect the areas suitability for wilderness designation?	No	Yes	If Yes, Explain how the project would affect wilderness suitability
			X	The portions of the MPRA that would be disturbed by this Project may not be suitable for future wilderness designation due to the noticeably modified nature of the areas after reclamation.

WORKSHEET 2 – Roadless Area Characteristics
Evaluating the Effects of Project Activities on Roadless Area Characteristics

Date:	March 24, 2014
Roadless Area:	Meade Peak

Description of Project Activity or Impact to Roadless Area:
(Note – describe the activity that is affecting the roadless area, i.e. miles of road construction, timber acres harvested, acres treated by fire, etc…)
Under the Proposed Action and all Action Alternatives, Lease IDI-01441 would be expanded within the MPRA and the South Overburden Disposal Area (ODA) and stormwater control features would result in a total of 19.4 acres within the MPRA, all within Lease IDI-01441. All disturbances within the MPRA would occur within the General Forest, Rangeland and Grassland theme. Project disturbances within the MPRA would generally be reclaimed and revegetated, immediately following the operations phase of the Project, with the exception of 0.91-acre of the stormwater features that would be maintained for many years to ensure their purpose and functionality.

Effect to Roadless Characteristics			
Roadless Characteristics	**Is there an effect? Yes or No**	**Which direction is the effect? Improving, Stable or Degrading?**	**Describe the actual effect.** Use descriptive terms that discuss the effect, not the activity. Explain if the proposal would Alter or Modify the landscape.
Soil, water and Air resources Identify any unique or critical watershed resources. Describe how the project will affect these key resources areas and the habitats that depend on them.	Yes	**Soil and Air** Operations Phase – Degrading Reclamation – Stable **Water** – Stable to Improving	**Soils**: Approximately 19.4 acres, or less than 0.01 percent of the soils within the MPRA, would be impacted by the Project; therefore no changes to the overall rating of the soils within the MPRA are anticipated. Impacts to soils in the overall Project Area are discussed in Section 4.5 of the EIS. **Air**: Air emissions resulting from the Project would consist of emissions from mobile sources and the disturbance of soil. All Project vehicles would have legally mandated on-board emission controls. Therefore, impacts to air quality during the operations phase of the Project would be site-specific and minor; and negligible locally and in the region, and would not be expected to change the overall air quality within the MPRA. **Water**: Because the disturbance within the IRA would be only 19.4 acres, impacts to water resources of the IRA would be negligible, resulting from altered infiltration and runoff.

Effect to Roadless Characteristics			
Sources of public drinking water Identify any public drinking water systems or sources within the project area or that would be affected by the project. Describe how the project would affect water quality and quantity of the public drinking water source.	No	N/A	There are no official Sources of Public Drinking Water within the Project Area, but potential impacts to surface water and groundwater within the Project Area and areas extending outside the Project Area have been thoroughly described in **Section 4.4**. The potential impacts from the portion of the Project within the MPRA would be negligible.
Diversity of plant and animal communities Discuss the diversity of plant and animal communities. Identify any unique plant and animal communities within the area. Describe effects to the diversity of plant and animal communities.	Yes	Stable	Approximately 19.4 acres of vegetation (less than 0.01 percent of the MPRA), including trees, shrubs, and ground cover habitats, would be removed. The ODA expansion area should be successfully reclaimed and revegetated. Approximately 0.91-acre of stormwater control features would not be revegetated, and would remain after reclamation. The short-term loss of 19.4 acres of vegetation is not expected to impact the diversity of plant communities within the MPRA. The removal of vegetation would impact terrestrial wildlife through direct mortality or injury (during construction), habitat modification, fragmentation, and loss. In addition, wildlife tends to avoid areas with noise and human presence if possible. As a result, the areas of affected wildlife habitat may be larger than the area directly occupied by the Project. However, given the availability of similar habitat in adjacent areas and EPMs and BMPs designed to lessen impacts to wildlife, the Project is not expected to impact the diversity of animal communities in the MPRA.
Habitat for TES and species dependent on large undisturbed areas of land Identify any TES or sensitive species within the Roadless area. Describe how the project would affect the habitats or populations and whether this effect is significant across the normal range and distribution of these habitats and populations.	Yes	Stable	Preliminary determinations for threatened, endangered, proposed, candidate, or sensitive species and specific impacts to other wildlife species include the following: • The Project May Affect, but is Not Likely to Adversely Affect Canada lynx. Impacts to transient lynx would be site-specific, short-term, and minor. • If the species is listed, the Project May Affect, but is Not Likely to Adversely Affect greater sage-grouse as a Candidate species. • The Project would Not Likely Jeopardize the Continued Existence of North American wolverines. • The Project would have No Impact on spotted bat, Townsend's big-eared bat, peregrine falcon, or boreal toad. • Impacts to bald eagles would be site-specific, short-term, and negligible. • Indirect impacts to boreal owls would be site-specific, long-term, and negligible to minor. • Impacts to Columbian sharp-tailed grouse would be site-specific, short- to long-term, and negligible to minor.

Effect to Roadless Characteristics			
Habitat for TES and species dependent on large undisturbed areas of land (continued)	Yes	Stable	• Impacts to flammulated owls would be site-specific, long-term, and negligible to minor. • Impacts to great gray owls and northern three-toed woodpeckers would be site-specific, short- to long-term, and negligible to minor. • Impacts to northern goshawks are expected to be site-specific, long-term, and minor to moderate. • Impacts to gray wolves would be site-specific, short-term, and negligible to minor.
Primitive and semi-primitive classes of recreation Describe current recreation opportunities within the Roadless area. Identify the effects of your project of the area and these activities. Describe the effect in terms of availability for similar experiences in surrounding areas or within the region of use. Consider link to ROS mapping.	Yes	Stable	There are no developed recreation amenities, such as campgrounds or guard stations within the Project Area. The dominant type of dispersed recreation in the vicinity of the Smoky Canyon Mine is big game hunting for elk, moose, and deer. Other dispersed recreation activities occurring in the area include snowmobiling, cross-country skiing, horseback riding, upland bird hunting, camping, picnicking, driving for pleasure/sight-seeing, and off-road vehicle use. The ODA expansion would eliminate approximately 19.4 acres designated ROS class RM from the recreation land base for the life of the Project; however, the disturbance areas would be within existing mining leases and contiguous with previously approved mining activities. The disturbed acreage would mostly be reclaimed and returned to the recreation land base at the end of the Project.
Reference landscapes for research study or interpretation Describe the landscape that is present. Describe any unique reference landscapes that exist within the Roadless area. Describe how the project activities might affect the reference landscape values of the Roadless area. Consider how the landscapes within the Inventoried Roadless area fits within the broader landscape and if the project creates any overall change. Consider landscape character descriptions in SMS.	No	Stable	The Project would not result in any impacts to the aquatic areas within any reference landscapes that could occur within the MPRA. Impacts within the Deer Creek watershed from roads, timber harvest, grazing, and mining activities authorized by the 2008 RODs have likely already eliminated the use of the Deer Creek watershed as a unique aquatic reference site.
Landscape character and integrity Describe the current scenic quality and character of the area. Describe project effects to the scenic integrity of the area and changes to the character of the area. Consider existing scenic integrity.	Yes	Stable	The proposed Project components would be within an area designated Partial Retention VQO, with low scenic integrity due to other approved mining activities. The visibility of the Project, and its impact on visual resources would depend on the proximity of the observer to the Project. The portion of the Project within the MPRA would not be visible from analyzed KOPs; however, it would be visible from points on foot in closer proximity to the Project. When visible, the Project would be viewed in the context of other surrounding mining activities and disturbance as viewed from any vantage point. In general, the Project components would blend with the surrounding activity and disturbance, and may not be distinguishable as an addition to the approved mining disturbance.

Effect to Roadless Characteristics			
Traditional cultural properties and sacred sites Identify generically any significant cultural resources within the Roadless area and describe the effect of the project on these resources. Typically mitigation will be designed to prevent significant effects to these resources.	No	N/A	No Traditional Cultural Properties have been nominated or designated in the Project Area.
Other locally unique characteristics Identify any locally unique characteristics and describe how the project would affect these values.	N/A	N/A	

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WORKSHEET 1 – Wilderness Qualities or Attributes
Evaluating the Effects of Project Activities on Wilderness Attributes

Date:	March 21, 2014
Roadless Area:	Sage Creek

Description of Project Activity or Impact to Roadless Area:
(Note – describe the activity that is affecting the roadless area, i.e. miles of road construction, timber acres harvested, acres treated by fire, etc…)
PROPOSED ACTION: Under the Proposed Action, Lease IDI-01441 would be expanded within the SCRA; the Panel F ore conveyor system would result in 1.3 acres of new disturbance within the SCRA; and the East Overburden Disposal Area (ODA) and stormwater control features would result in a total of 75.2 acres of new Project-related disturbance within the SCRA - 52.4 acres within the lease modification area and 22.7 acres within the existing leases. All disturbances within the SCRA would occur within the General Forest, Rangeland and Grassland theme. The Project disturbances within the SCRA would generally be reclaimed and revegetated, immediately following the cessation of mining, with the exception of approximately 4 acres of the stormwater features that would be maintained for many years to ensure their purpose and functionality. Under the Proposed Action, a geo-synthetic clay laminate liner (GCLL) would cover approximately 320 acres of new and previously approved disturbed areas containing seleniferous overburden within the mined out pit and the East ODA within the SCRA. The area covered by the GCLL would be reclaimed and revegetated with shallow rooted species such as grasses and forbs, but would never be allowed to reforest to ensure the integrity of the liner.

Effect to Wilderness Quality or Attributes			
Wilderness Quality or Attribute (Note: delete attribute descriptions after data is entered to save space if desired.)	**Is there an effect? Yes or No**	**Which direction is the effect? Improving, Stable or Degrading?**	**Describe the actual effect.** Use descriptive terms that discuss the effect, not the activity. May use GIS layers (ROS, SMS, Roads, etc…) to quantify effects.
Untrammeled This quality monitors modern human activities that directly control or manipulate the components or processes of ecological systems inside wilderness. In summary, *wilderness is essentially unhindered and free from modern human control or manipulation.* A measure of the actions taken to hinder, manipulate, or control the long-term natural ecological processes of the area. Address this attribute by describing the management actions included in ct your project activities that would alter the natural processes in the area.	Yes	Operations Phase – Degrading Reclamation - Stable	The function of ecological systems within the SCRA has been impacted by the following physical or human-caused impacts that have occurred in the recent past or are occurring: approved and unimproved roads, timber harvest activities, mining activities, grazing, and recreation. The Project would result in approximately 75 acres of new disturbance within the SCRA for the Panel F ore conveyor system, expansion of the East ODA, and associated stormwater control features. Land clearing associated with this disturbance would increase the potential for erosion and potentially impact terrestrial wildlife through direct mortality (small, less-mobile species) or injury (during construction), habitat modification, fragmentation, and loss. Wildlife tends to avoid areas with noise and human presence if possible. As a result, the areas of affected wildlife habitat may be larger than the area directly occupied by Project activities.

Effect to Wilderness Quality or Attributes			
Untrammeled (continued)	Yes	Operations Phase – Degrading Reclamation - Stable	This disturbance is only approximately 0.06-percent of the SCRA and the majority of the disturbances would be reclaimed immediately after conclusion of the operations phase of the Project, with the exception of the stormwater features. However, the GCLL would never be allowed to become reforested. While the area covered by the GCLL would be reclaimed and revegetated, the ecological community of the 320-acre area of the SCRA covered by the GCLL may be permanently altered. The Project includes EPMs and BMPs designed to reduce the impact to wildlife, particularly sensitive species. As a result, the Project is not expected to substantially reduce the amount of wildlife habitat available or fragment habitat to a degree sufficient to reduce wildlife populations or alter other ecological functions in the SCRA.
Natural This quality monitors both intended and unintended effects of modern people on ecological systems inside wilderness since the time the area was designated. In summary, *wilderness ecological systems are substantially free from the effects of modern civilization.* A measure of past and proposed activities on the natural conditions of the area. It describes the extent to which human influences alter natural processes and conditions away from what one would otherwise expect. This is a measure of the degree of environmental modification that will occur because of your project. Address this attribute by describing the extent of modification that will occur in the wilderness area Consider existing scenic integrity and ROS layers.	Yes	Operations Phase – Degrading Reclamation - Stable	The SCRA has been impacted by the construction of roads, timber harvests, mining activities, grazing, and recreation. These activities have altered or reduced the function of ecological systems within the SCRA. Disturbance from these activities is also visible to the casual observer in the form of roads and road cuts, areas of reduced timber cover, cattle presence, and the presence of recreation users and recreational vehicles. However, some of these disturbances (particularly roads, mining activities, and areas of timber harvest) are in various stages of reclamation and some of these areas are beginning to return to a more natural state. The Project would involve disturbance and habitat loss. During the construction, operations, and reclamation phases of the Project new disturbance would also be visible to the casual observer in the form of the East ODA consisting of large quantities of mined materials; stormwater drainages, and ponds. During and immediately following completion of the operations phase of the Project, these disturbances would by highly visible and would contrast with the surrounding landscape. Disturbed areas would have a reduced appearance of naturalness relative to areas within the SCRA that have not been disturbed or that have been reclaimed. Once reclamation is complete, the disturbed areas would have an appearance similar to other areas within the SCRA that have been reclaimed; however, even reclaimed areas would be noticeably modified from the surrounding landscape as the East ODA cannot be recontoured exactly to match natural topography. Although the Project would degrade the natural condition of approximately 75 acres in the short term; in the long term the condition of the disturbed lands would exhibit a degree of naturalness similar to other reclaimed areas of the SCRA. The approximately 320 acres of the SCRA that would be covered by the GCLL would never be allowed to become reforested. Active management of the vegetation of this area to prevent reforestation may result in a somewhat unnatural appearance if surrounded by forested areas.

Effect to Wilderness Quality or Attributes				
Undeveloped This quality monitors the presence of structures, construction, habitations, and other evidence of modern human presence or occupation. In summary, w*ilderness is essentially without permanent improvements or modern human occupation.* A measure of the present day physical indicators such as the presence and development level of trails, campsites, structures and facilities as well as the use of motorized equipment, mechanical transport, landing of aircraft, etc. used for administrative purposes. It is an indicator of what the visitor will experience in a setting that is removed from the sights and sounds of civilization and mechanization located inside the wilderness. Address this attribute by describing the extent of modification (i.e. structures required, motorized equipment use, etc.) that will occur during the projects duration or resulting after the project is finished. Consider using ROS maps layers.		Yes	Operations Phase – Degrading Reclamation – Stable	During the construction, operations, and reclamation phases of the Project, people, vehicles, equipment, and associated noise and dust would be evident in the disturbance area associated with the Project. Disturbances associated with both the Panel F ore conveyor system and the expanded East ODA would be reclaimed and revegetated, and upon reclamation, devoid of evidence of human presence or occupation. However, stormwater control features including drainages and ponds would remain on the Panel G portion of the Project for the life of the GCLL, and periodic maintenance would be required to maintain the GCLL free of trees. In addition, reclaimed areas would be noticeably modified from the surrounding landscape as the ODA cannot be recontoured exactly to match natural topography. Portions of these disturbed areas would be located within the Partial Retention VQO. Stormwater features and reclaimed areas may be identifiable as man-made rather than natural occurrences, and may be a noticeable contrast from the undeveloped appearances of the surroundings.
Outstanding opportunities for solitude or a primitive and unconfined type of recreation This quality monitors conditions that affect the opportunity for people to experience solitude or primitive, unconfined recreation in a wilderness setting, rather than monitoring visitor experiences *per se*. In summary, *wilderness provides outstanding opportunities for people to experience solitude or primitive and unconfined recreation, including the values of inspiration and physical and mental challenge*	**Solitude -** Described as opportunities to experience solitude, or the isolation from the sights and sounds of management activities inside wilderness, the presence of others. Solitude is measured by considering the presence of screening, distance from impacts to the rest of the area, mitigation measures such as the timing of disturbances. Address solitude by discussing how the project activities affect the ability of a visitor to escape project impacts on solitude within the area. Consider linking to ROS mapping for size and remoteness criteria for Primitive and SPMN.	Yes	Operations Phase – Degrading Reclamation – Stable	The noise and human activity associated with the construction, operations, and reclamation phases of the Project would impact the sense of solitude of the immediate area; that effect would dissipate with distance, but the effects may be noticeable from several miles away. Activities may be noticeable in other portions of the SCRA through distant noises, lights, glow, or dust columns in areas where the Project is not directly visible. The immediate Project Area is managed as RM or SPM; therefore expectations of solitude are reduced. Upon completion of reclamation, the area would generally return to previous conditions, with the exception of the stormwater features.
	Opportunities for Primitive Recreation -A measure of the experiences available without the developments and to feel a part of nature, with a high degree of challenge and reliance on outdoor skills rather than facilities.	Yes	Stable	The 75 acres of proposed disturbance, situated immediately adjacent to previously approved mining, would not be available for primitive recreation during the operations phase of the Project. Terrain within the SCRA is very typical of the other mountain ranges in southeast Idaho; however, due to the presence of existing roads, timber harvest remains, and other developments, it does not provide much opportunity for primitive recreation. As a result, the disturbance of an additional 75 acres would minimally affect this quality.

Effect to Wilderness Quality or Attributes				
Outstanding opportunities for solitude or a primitive and unconfined type of recreation (continued)	Address this attribute by describing how the project activities might affect, the number and type of opportunities available, the challenge of the opportunities, and the addition or absence of facilities.	Yes	Stable	Upon completion of reclamation of the Project Area there would not be remaining facilities that would degrade the opportunity for primitive recreation. However, topographic changes may make the area more or less challenging to access or traverse.
Special Features (Ecological, Geologic, Scientific, Educational, Scenic or Historical Values) An attribute that recognizes that wilderness may contain other values of ecological, geologic, scientific, educational, scenic or historical or cultural significance. Unique fish and wildlife species, unique plants or plant communities, potential or existing research natural areas, outstanding landscape features, and significant cultural resource sites should all be considered as types of values that might exist. Identify any of these values that exist within the project area. Address this attribute by describing the effect proposed activities would have on these values.		No	N/A	The portion of the Project Area within the SCRA does not contain special features that would be impacted by the Project.
Manageability (as Wilderness) A measure of the ability to manage an area to meet the size criteria (5,000 + acres), the resulting configuration of the potential wilderness, and the interaction of the other elements above. Changes in the shape of the Inventoried Roadless Area may have significant consequences to its wilderness potential. Consider also boundary management impacts such as changing wilderness boundaries to different terrain features or for how access would be provided if project activities cause adjustments in the Inventoried Roadless Area. Address this attribute by discussing how the proposed activities may affect the boundary location, the size, the shape, and the access to the area. Consider ROS mapping.		No	NA	The proposed disturbance associated with the Panel F ore conveyor system, East ODA, and stormwater features would occur in five separate areas along, near, or just inside the SCRA boundary. The GCLL would cover a larger area in the same vicinity as the Panel G stormwater features, along or near the SCRA boundary. These areas do not bisect the SCRA or otherwise fragment the SCRA into smaller pieces that would not meet the size criteria (5,000 acres or more), nor would they reduce access to the SCRA. Consequently, there would be no impacts to manageability.

Summary	Will the proposed project affect the areas suitability for wilderness designation?	No	Yes	If Yes, Explain how the project would affect wilderness suitability
			X	The portions of the SCRA that would be disturbed by this Project may not be suitable for future wilderness designation due to the noticeably modified nature of the areas after reclamation, and the requirement to maintain the area covered by the GCLL free of trees.

WORKSHEET 2 – Roadless Area Characteristics
Evaluating the Effects of Project Activities on Roadless Area Characteristics

Date:	March 21, 2014
Roadless Area:	Sage Creek

Description of Project Activity or Impact to Roadless Area:
(Note – describe the activity that is affecting the roadless area, i.e. miles of road construction, timber acres harvested, acres treated by fire, etc…)
PROPOSED ACTION: Under the Proposed Action, Lease IDI-01441 would be expanded within the SCRA; the Panel F ore conveyor system would result in 1.3 acres of new disturbance within the SCRA; and the East Overburden Disposal Area (ODA) and stormwater control features would result in a total of 75.2 acres of new Project-related disturbance within the SCRA - 52.4 acres within the lease modification area and 22.7 acres within the existing leases. All disturbances within the SCRA would occur within the General Forest, Rangeland and Grassland theme. The Project disturbances within the SCRA would generally be reclaimed and revegetated, immediately following the cessation of mining, with the exception of approximately 4 acres of the stormwater features that would be maintained for many years to ensure their purpose and functionality. Under the Proposed Action, a geo-synthetic clay laminate liner (GCLL) would cover approximately 320 acres of new and previously approved disturbed areas containing seleniferous overburden within the mined out pit and the East ODA within the SCRA. The area covered by the GCLL would be reclaimed and revegetated with shallow rooted species such as grasses and forbs, but would never be allowed to reforest to ensure the integrity of the liner.

Effect to Roadless Characteristics			
Roadless Characteristics	**Is there an effect? Yes or No**	**Which direction is the effect? Improving, Stable or Degrading?**	**Describe the actual effect.** Use descriptive terms that discuss the effect, not the activity. Explain if the proposal would Alter or Modify the landscape.
Soil, water and Air resources Identify any unique or critical watershed resources. Describe how the project will affect these key resources areas and the habitats that depend on them.	Yes	**Soil and Air** Operations Phase – Degrading Reclamation – Stable	**Soils**: Approximately 75 acres, or 0.06-percent of the soils within the SCRA, would be impacted by the Project; therefore no changes to the overall rating of the soils within the SCRA are anticipated. Impacts to soils in the overall Project Area are discussed in Section 4.5 of the EIS. **Air**: Air emissions resulting from the Project would consist of emissions from mobile sources and the disturbance of soil. All Project vehicles would have legally mandated on-board emission controls. Therefore, impacts to air quality during the operations phase of the Project would be site-specific and minor; and negligible locally and in the region, and would not be expected to change the overall air quality within the SCRA.

Effect to Roadless Characteristics			
Soil, water and Air resources (continued)	Yes	**Water** Stable to Improving	**Water**: The Project would: • Have a net negligible effect on groundwater storage and subsequent discharge in the long term; • Have a negligible effect to the relevant HUC watersheds; • Result in a minor to moderate change in stormwater runoff flows in the Deer Creek stream channel; • Have a negligible proportional net change to base flows of Deer Creek; • Have a measurable (improved) effect on selenium concentrations in Deer Creek, Books Spring, and Crow Creek near Deer Creek over the store and release cover analyzed in the 2007 FEIS.
Sources of public drinking water Identify any public drinking water systems or sources within the project area or that would be affected by the project. Describe how the project would affect water quality and quantity of the public drinking water source.	No	N/A	There are no official Sources of Public Drinking Water within the Project Area, but potential impacts to surface water and groundwater within the Project Area and areas extending outside the Project Area have been thoroughly described in **Section 4.4**. The potential impacts could be long-term and range from negligible to moderate depending upon the surface water and/or groundwater source being evaluated.
Diversity of plant and animal communities Discuss the diversity of plant and animal communities. Identify any unique plant and animal communities within the area. Describe effects to the diversity of plant and animal communities.	Yes	Stable	Approximately 75 acres of vegetation (approximately 0.06-percent of the SCRA), including trees, shrubs, and ground cover habitats, would be removed. The ODA expansion areas would be successfully reclaimed and revegetated. Approximately 4 acres of stormwater control features would not be revegetated, and would remain after reclamation. The 320 acres covered by the GCLL within the SCRA would be reclaimed and revegetated; however, the area would never be allowed to become reforested. The loss of 75 acres of vegetation is not expected to impact the diversity of plant communities within the SCRA. The removal of vegetation would impact terrestrial wildlife through direct mortality or injury (during construction), habitat modification, fragmentation, and loss. Portions of the Project Area that were previously forested and would be covered by the GCLL would have permanent habitat modifications. In addition, wildlife tends to avoid areas with noise and human presence, if possible. As a result, the areas of affected wildlife habitat may be larger than the area directly occupied by the Project. However, given the availability of similar habitat in adjacent areas, and EPMs and BMPs designed to lessen impacts to wildlife, the Project is not expected to impact the diversity of animal communities in the SCRA.
Habitat for TES and species dependent on large undisturbed areas of land Identify any TES or sensitive species within the Roadless area. Describe how the project would affect the habitats or populations and whether this effect is significant across the normal range and distribution of these habitats and populations.	Yes	Stable	Preliminary determinations for threatened, endangered, proposed, candidate, or sensitive species and specific impacts to other wildlife species include the following: • The Project May Affect, but is Not Likely to Adversely Affect Canada lynx. Impacts to transient lynx would be site-specific, short-term, and minor.

Effect to Roadless Characteristics			
Habitat for TES and species dependent on large undisturbed areas of land (continued)	Yes	Stable	• If the species is listed, the Project May Affect, but is Not Likely to Adversely Affect greater sage-grouse as a Candidate species. • The Project would Not Likely Jeopardize the Continued Existence of North American wolverines. • The Project would have No Impact on spotted bat, Townsend's big-eared bat, peregrine falcon, or boreal toad. • Impacts to bald eagles would be site-specific, short-term, and negligible. • Indirect impacts to boreal owls would be site-specific, long-term, and negligible to minor. • Impacts to Columbian sharp-tailed grouse would be site-specific, short- to long-term, and negligible to minor. • Impacts to flammulated owls would be site-specific, long-term, and negligible to minor. • Impacts to great gray owls and northern three-toed woodpeckers would be site-specific, short- to long-term, and negligible to minor. • Impacts to northern goshawks are expected to be site-specific, long-term, and minor to moderate. • Impacts to gray wolves would be site-specific, short-term, and negligible to minor.
Primitive and semi-primitive classes of recreation Describe current recreation opportunities within the Roadless area. Identify the effects of your project of the area and these activities. Describe the effect in terms of availability for similar experiences in surrounding areas or within the region of use. Consider link to ROS mapping.	Yes	Stable	There are no developed recreation amenities, such as campgrounds or guard stations within the Project Area. The dominant type of dispersed recreation in the vicinity of the Smoky Canyon Mine is big game hunting for elk, moose, and deer. Other dispersed recreation activities occurring in the area include snowmobiling, cross-country skiing, horseback riding, upland bird hunting, camping, picnicking, driving for pleasure/sight-seeing, and off-road vehicle use. The Panel F ore conveyor system portion of the Project would eliminate approximately 1 acre of designated ROS class SPM from the recreation land base within the SCRA for the life of the Project. The new disturbance associated with the ODA expansion and stormwater control features would eliminate approximately 75 acres from the recreation land base within the SCRA for the life of the Project. Most of the area that would be newly disturbed in the SCRA is designated ROS class SPM; a small portion in the southern part of Panel G is designated RM. This area would be contiguous with previously approved mining activities. With exception of the stormwater control features, the disturbed acreage would be reclaimed and returned to the recreation land base at the end of the Project.

Effect to Roadless Characteristics			
Reference landscapes for research study or interpretation Describe the landscape that is present. Describe any unique reference landscapes that exist within the Roadless area. Describe how the project activities might affect the reference landscape values of the Roadless area. Consider how the landscapes within the Inventoried Roadless area fits within the broader landscape and if the project creates any overall change. Consider landscape character descriptions in SMS.	No	Stable	The Proposed Action would not result in any impacts to the aquatic areas within any reference landscapes that could occur within the SCRA. Impacts within the Deer Creek watershed from roads, timber harvest, grazing, and mining activities authorized by the 2008 RODs have likely already eliminated the use of the Deer Creek watershed as a unique aquatic reference site.
Landscape character and integrity Describe the current scenic quality and character of the area. Describe project effects to the scenic integrity of the area and changes to the character of the area. Consider existing scenic integrity.	Yes	Stable	The proposed Project components would be within areas designated Partial Retention VQO and Modification VQO, with low scenic integrity due to other approved mining activities. The visibility of the Project, and its impact on visual resources would depend on the proximity of the observer to the Project. The Project would be visible from points along the existing Wells Canyon Road (FR 146) at the east mouth of South Fork Deer Creek Canyon and from points on foot in higher elevation areas to the west. The Project would be viewed in the context of other surrounding mining activities and disturbance as viewed from any vantage point. In general, the Project components would blend with the surrounding activity and disturbance, and may not be distinguishable as an addition to the approved mining disturbance.
Traditional cultural properties and sacred sites Identify generically any significant cultural resources within the Roadless area and describe the effect of the project on these resources. Typically mitigation will be designed to prevent significant effects to these resources.	No	N/A	No Traditional Cultural Properties have been nominated or designated in the Project Area.
Other locally unique characteristics Identify any locally unique characteristics and describe how the project would affect these values.	N/A	N/A	

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WORKSHEET 1 – Wilderness Qualities or Attributes
Evaluating the Effects of Project Activities on Wilderness Attributes

Date:	March 21, 2014
Roadless Area:	Sage Creek

Description of Project Activity or Impact to Roadless Area:
(Note – describe the activity that is affecting the roadless area, i.e. miles of road construction, timber acres harvested, acres treated by fire, etc…)
ALTERNATIVE 1: Under the Alternative 1, Lease IDI-01441 would be expanded within the SCRA; the Panel F ore conveyor system would result in 1.3 acres of new disturbance within the SCRA; and the East Overburden Disposal Area (ODA) and stormwater control features would result in a total of 75.2 acres of new Project-related disturbance within the SCRA - 52.4 acres within the lease modification area and 22.7 acres within the existing lease. All disturbances within the SCRA would occur within the General Forest, Rangeland and Grassland theme. The Project disturbances within the SCRA would generally be reclaimed and revegetated, immediately following the cessation of mining, with the exception of approximately 4 acres of the stormwater features that would be maintained for many years to ensure their purpose and functionality. Under Alternative 1, the proposed geo-synthetic clay laminate liner (GCLL) would cover approximately 70 acres of seleniferous overburden within the East ODA within the SCRA. The GCLL would be reclaimed and revegetated with shallow rooted species such as grasses and forbs, but would never be allowed to reforest to ensure the integrity of the liner. In addition, approximately 250 acres within The SCRA would receive a geologic store and release cover, which would be revegetated with grasses and forbs, along with "islands of diversity" of deeper rooted species.

Effect to Wilderness Quality or Attributes			
Wilderness Quality or Attribute (Note: delete attribute descriptions after data is entered to save space if desired.)	**Is there an effect? Yes or No**	**Which direction is the effect? Improving, Stable or Degrading?**	**Describe the actual effect.** Use descriptive terms that discuss the effect, not the activity. May use GIS layers (ROS, SMS, Roads, etc…) to quantify effects.
Untrammeled This quality monitors modern human activities that directly control or manipulate the components or processes of ecological systems inside wilderness. In summary, *wilderness is essentially unhindered and free from modern human control or manipulation.* A measure of the actions taken to hinder, manipulate, or control the long-term natural ecological processes of the area. Address this attribute by describing the management actions included in ct your project activities that would alter the natural processes in the area.	Yes	Operations Phase – Degrading Reclamation - Stable	The function of ecological systems within the SCRA has been impacted by the following physical or human-caused impacts that have occurred in the recent past or are occurring: approved and unimproved roads, timber harvest activities, mining activities, grazing, and recreation. The Project would result in approximately 75 acres of new disturbance within the SCRA for the Panel F ore conveyor system, expansion of the East ODA, and associated stormwater control features. Land clearing associated with this disturbance would increase the potential for erosion and potentially impact terrestrial wildlife through direct mortality (small, less-mobile species) or injury (during construction), habitat modification, fragmentation, and loss. Wildlife tends to avoid areas with noise and human presence if possible.

Effect to Wilderness Quality or Attributes			
Untrammeled (continued)	Yes	Operations Phase – Degrading Reclamation - Stable	As a result, the areas of affected wildlife habitat may be larger than the area directly occupied by Project activities. This disturbance is only approximately 0.06-percent of the SCRA and the majority of the disturbances would be reclaimed immediately after conclusion of the operations phase of the Project, with the exception of the stormwater features. However, the GCLL would never be allowed to become reforested. While the area covered by the GCLL would be reclaimed and revegetated, the ecological community of the 70-acre area of the SCRA covered by the GCLL would be permanently altered. The approximately 250 acres that would receive the geologic store and release cover would be revegetated with grasses and forbs along with islands of diversity of deeper rooted species; as a result, this area may eventually naturalize to resemble the surrounding landscape. The Project includes EPMs and BMPs designed to reduce the impact to wildlife, particularly sensitive species. As a result, the Project is not expected to substantially reduce the amount of wildlife habitat available or fragment habitat to a degree sufficient to reduce wildlife populations or alter other ecological functions in the SCRA.
Natural This quality monitors both intended and unintended effects of modern people on ecological systems inside wilderness since the time the area was designated. In summary, *wilderness ecological systems are substantially free from the effects of modern civilization.* A measure of past and proposed activities on the natural conditions of the area. It describes the extent to which human influences alter natural processes and conditions away from what one would otherwise expect. This is a measure of the degree of environmental modification that will occur because of your project. Address this attribute by describing the extent of modification that will occur in the wilderness area Consider existing scenic integrity and ROS layers.	Yes	Operations Phase – Degrading Reclamation - Stable	The SCRA has been impacted by the construction of roads, timber harvests, mining activities, grazing, and recreation. These activities have altered or reduced the function of ecological systems within the SCRA. Disturbance from these activities is also visible to the casual observer in the form of roads and road cuts, areas of reduced timber cover, cattle presence, and the presence of recreation users and recreational vehicles. However, some of these disturbances (particularly roads, mining activities, and areas of timber harvest) are in various stages of reclamation and some of these areas are beginning to return to a more natural state. The Project would involve disturbance and habitat loss. During the construction, operations, and reclamation phases of the Project new disturbance would also be visible to the casual observer in the form of the East ODA consisting of large quantities of mined materials; stormwater drainages, and ponds. During and immediately following completion of the operations phase of the Project, these disturbances would by highly visible and would contrast with the surrounding landscape. Disturbed areas would have a reduced appearance of naturalness relative to areas within the SCRA that have not been disturbed or that have been reclaimed. Once reclamation is complete, the disturbed areas would have an appearance similar to other areas within the SCRA that have been reclaimed; however, even reclaimed areas would be noticeably modified from the surrounding landscape as the East ODA cannot be recontoured exactly to match natural topography. Although the Project would degrade the natural condition of approximately 75 acres in the short term; in the long term the condition of the disturbed lands would exhibit a degree of naturalness similar to other reclaimed areas of the SCRA.

Effect to Wilderness Quality or Attributes				
Natural (continued)		Yes	Operations Phase – Degrading Reclamation - Stable	The approximately 70 acres of the SCRA that would be covered by the GCLL would never be allowed to become reforested. Active management of the vegetation of this area to prevent reforestation may result in a somewhat unnatural appearance if surrounded by forested areas. The approximately 250 acres that would receive the geologic store and release cover would be revegetated with grasses and forbs along with islands of diversity of deeper rooted species; as a result, this area may eventually naturalize to resemble the surrounding landscape.
Undeveloped This quality monitors the presence of structures, construction, habitations, and other evidence of modern human presence or occupation. In summary, w*ilderness is essentially without permanent improvements or modern human occupation.* A measure of the present day physical indicators such as the presence and development level of trails, campsites, structures and facilities as well as the use of motorized equipment, mechanical transport, landing of aircraft, etc. used for administrative purposes. It is an indicator of what the visitor will experience in a setting that is removed from the sights and sounds of civilization and mechanization located inside the wilderness. Address this attribute by describing the extent of modification (i.e. structures required, motorized equipment use, etc.) that will occur during the projects duration or resulting after the project is finished. Consider using ROS maps layers.		Yes	Operations Phase – Degrading Reclamation – Stable	During the construction, operations, and reclamation phases of the Project, people, vehicles, equipment, and associated noise and dust would be evident in the disturbance area associated with the Project. Disturbances associated with both the Panel F ore conveyor system and the expanded East ODA would be reclaimed and revegetated, and upon reclamation, devoid of evidence of human presence or occupation. However, stormwater control features including drainages and ponds would remain on the Panel G portion of the Project for the life of the GCLL, and periodic maintenance would be required to maintain the GCLL free of trees. In addition, reclaimed areas would be noticeably modified from the surrounding landscape as the ODA cannot be recontoured exactly to match natural topography. Portions of these disturbed areas would be located within the Partial Retention VQO. Stormwater features and reclaimed areas may be identifiable as man-made rather than natural occurrences, and may be a noticeable contrast from the undeveloped appearances of the surroundings.
Outstanding opportunities for solitude or a primitive and unconfined type of recreation This quality monitors conditions that affect the opportunity for people to experience solitude or primitive, unconfined recreation in a wilderness setting, rather than monitoring visitor experiences *per se*.	**Solitude -** Described as opportunities to experience solitude, or the isolation from the sights and sounds of management activities inside wilderness, the presence of others. Solitude is measured by considering the presence of screening, distance from impacts to the rest of the area, mitigation measures such as the timing of disturbances. Address solitude by discussing how the project activities affect the ability of a visitor to escape project impacts on solitude within the area. Consider linking to ROS mapping for size and remoteness criteria for Primitive and SPMN.	Yes	Operations Phase – Degrading Reclamation – Stable	The noise and human activity associated with the construction, operations, and reclamation phases of the Project would impact the sense of solitude of the immediate area; that effect would dissipate with distance, but the effects may be noticeable from several miles away. Activities may be noticeable in other portions of the SCRA through distant noises, lights, glow, or dust columns in areas where the Project is not directly visible. The immediate Project Area is managed as RM or SPM; therefore expectations of solitude are reduced. Upon completion of reclamation, the area would generally return to previous conditions, with the exception of the stormwater features.

Effect to Wilderness Quality or Attributes				
Outstanding opportunities for solitude or a primitive and unconfined type of recreation (continued) In summary, *wilderness provides outstanding opportunities for people to experience solitude or primitive and unconfined recreation, including the values of inspiration and physical and mental challenge*	**Opportunities for Primitive Recreation -** A measure of the experiences available without the developments and to feel a part of nature, with a high degree of challenge and reliance on outdoor skills rather than facilities. Address this attribute by describing how the project activities might affect, the number and type of opportunities available, the challenge of the opportunities, and the addition or absence of facilities.	Yes	Stable	The approximately 75 acres of proposed disturbance, situated immediately adjacent to previously approved mining, would not be available for primitive recreation during the operations phase of the Project. Terrain within the SCRA is very typical of the other mountain ranges in southeast Idaho; however, due to the presence of existing roads, timber harvest remains, and other developments, it does not provide much opportunity for primitive recreation. As a result, the disturbance of an additional 75 acres would minimally affect this quality. Upon completion of reclamation of the Project Area there would not be remaining facilities that would degrade the opportunity for primitive recreation. However, topographic changes may make the area more or less challenging to access or traverse.
Special Features (Ecological, Geologic, Scientific, Educational, Scenic or Historical Values) An attribute that recognizes that wilderness may contain other values of ecological, geologic, scientific, educational, scenic or historical or cultural significance. Unique fish and wildlife species, unique plants or plant communities, potential or existing research natural areas, outstanding landscape features, and significant cultural resource sites should all be considered as types of values that might exist. Identify any of these values that exist within the project area. Address this attribute by describing the effect proposed activities would have on these values.		No	N/A	The portion of the Project Area within the SCRA does not contain special features that would be impacted by the Project.
Manageability (as Wilderness) A measure of the ability to manage an area to meet the size criteria (5,000 + acres), the resulting configuration of the potential wilderness, and the interaction of the other elements above. Changes in the shape of the Inventoried Roadless Area may have significant consequences to its wilderness potential. Consider also boundary management impacts such as changing wilderness boundaries to different terrain features or for how access would be provided if project activities cause adjustments in the Inventoried Roadless Area. Address this attribute by discussing how the proposed activities may affect the boundary location, the size, the shape, and the access to the area. Consider ROS mapping.		No	NA	The proposed disturbance associated with the Panel F ore conveyor system, East ODA, and stormwater features would occur in five separate areas along, near, or just inside the SCRA boundary. The GCLL would cover a larger area in the same vicinity as the Panel G stormwater features, along or near the SCRA boundary. These areas do not bisect the SCRA or otherwise fragment the SCRA into smaller pieces that would not meet the size criteria (5,000 acres or more), nor would they reduce access to the SCRA. Consequently, there would be no impacts to manageability.

Summary	Will the proposed project affect the areas suitability for wilderness designation?	No	Yes	If Yes, Explain how the project would affect wilderness suitability
			X	The portions of the SCRA that would be disturbed by this Project may not be suitable for future wilderness designation due to the noticeably modified nature of the areas after reclamation, and the requirement to maintain the area covered by the GCLL free of trees.

WORKSHEET 2 – Roadless Area Characteristics
Evaluating the Effects of Project Activities on Roadless Area Characteristics

Date:	March 21, 2014
Roadless Area:	Sage Creek

Description of Project Activity or Impact to Roadless Area:
(Note – describe the activity that is affecting the roadless area, i.e. miles of road construction, timber acres harvested, acres treated by fire, etc…)
ALTERNATIVE 1: Under the Alternative 1, Lease IDI-01441 would be expanded within the SCRA; the Panel F ore conveyor system would result in 1.3 acres of new disturbance within the SCRA; and the East Overburden Disposal Area (ODA) and stormwater control features would result in a total of 75.2 acres of new Project-related disturbance within the SCRA - 52.4 acres within the lease modification area and 22.7 acres within the existing lease. All disturbances within the SCRA would occur within the General Forest, Rangeland and Grassland theme. The Project disturbances within the SCRA would generally be reclaimed and revegetated, immediately following the cessation of mining, with the exception of approximately 4 acres of the stormwater features that would be maintained for many years to ensure their purpose and functionality. Under Alternative 1, the proposed geo-synthetic clay laminate liner (GCLL) would cover approximately 70 acres of seleniferous overburden within the East ODA within the SCRA. The GCLL would be reclaimed and revegetated with shallow rooted species such as grasses and forbs, but would never be allowed to reforest to ensure the integrity of the liner. In addition, approximately 250 acres within The SCRA would receive a geologic store and release cover, which would be revegetated with grasses and forbs, along with "islands of diversity" of deeper rooted species.

Effect to Roadless Characteristics			
Roadless Characteristics	**Is there an effect? Yes or No**	**Which direction is the effect? Improving, Stable or Degrading?**	**Describe the actual effect.** Use descriptive terms that discuss the effect, not the activity. Explain if the proposal would Alter or Modify the landscape.
Soil, water and Air resources Identify any unique or critical watershed resources. Describe how the project will affect these key resources areas and the habitats that depend on them.	Yes	**Soil and Air** Operations Phase – Degrading Reclamation – Stable	**Soils**: Approximately 75 acres, or 0.06-percent of the soils within the SCRA, would be impacted by the Project; therefore no changes to the overall rating of the soils within the SCRA are anticipated. Impacts to soils in the overall Project Area are discussed in Section 4.5 of the EIS. **Air**: Air emissions resulting from the Project would consist of emissions from mobile sources and the disturbance of soil. All Project vehicles would have legally mandated on-board emission controls. Therefore, impacts to air quality during the operations phase of the Project would be site-specific and minor; and negligible locally and in the region, and would not be expected to change the overall air quality within the SCRA.

Effect to Roadless Characteristics			
Soil, water and Air resources (continued)	Yes	**Water** Stable to Improving	**Water**: Under Alternative 1, the Project would: • Result in almost double the recharge through the cover, compared to the Proposed Action condition, which would result in more groundwater flow to lower Deer Creek, compared to the Proposed Action; • Result in a long-term, moderate decrease in groundwater quality, compared to the Proposed Action, beneath and down gradient of Panel G, including Deer Creek; • Result in essentially the same impacts to surface water quantity under this alternative as they would be under the Proposed Action; Result in slightly greater selenium concentrations than they would be under the Proposed Action; however, the selenium criterion would continue to be met in Deer Creek under this alternative.
Sources of public drinking water Identify any public drinking water systems or sources within the project area or that would be affected by the project. Describe how the project would affect water quality and quantity of the public drinking water source.	No	N/A	There are no official Sources of Public Drinking Water within the Project Area, but potential impacts to surface water and groundwater within the Project Area and areas extending outside the Project Area have been thoroughly described in **Section 4.4**. The potential impacts could be long-term and range from negligible to moderate depending upon the surface water and/or groundwater source being evaluated.
Diversity of plant and animal communities Discuss the diversity of plant and animal communities. Identify any unique plant and animal communities within the area. Describe effects to the diversity of plant and animal communities.	Yes	Stable	Approximately 75 acres of vegetation (approximately 0.06- percent of the SCRA), including trees, shrubs, and ground cover habitats, would be removed. The ODA expansion areas should be successfully reclaimed and revegetated. Approximately 4 acres of stormwater control features would not be revegetated, and would remain after reclamation. The approximately 70 acres covered by the GCLL within the SCRA would be reclaimed and revegetated; however, the area would never be allowed to become reforested. Portions of the Project Area that were previously forested and would be covered by the GCLL would have permanent habitat modifications. The approximately 250 acres that would receive the geologic store and release cover would be revegetated with grasses and forbs along with islands of diversity of deeper rooted species; as a result, this area may eventually naturalize to provide wildlife habitat similar to the surrounding areas. The short-term loss of approximately 75 acres of vegetation is not expected to impact the diversity of plant communities within the SCRA. The removal of vegetation would impact terrestrial wildlife through direct mortality or injury (during construction), habitat modification, fragmentation, and loss. In addition, wildlife tends to avoid areas with noise and human presence, if possible. As a result, the areas of affected wildlife habitat may be larger than the area directly occupied by the Project. However, given the availability of similar habitat in adjacent areas, and EPMs and BMPs designed to lessen impacts to wildlife, the Project is not expected to impact the diversity of animal communities in the SCRA.

Effect to Roadless Characteristics			
Habitat for TES and species dependent on large undisturbed areas of land Identify any TES or sensitive species within the Roadless area. Describe how the project would affect the habitats or populations and whether this effect is significant across the normal range and distribution of these habitats and populations.	Yes	Stable	Under Alternative 1, impacts to habitat for TES and species dependent on large undisturbed areas of land would be the same as described for the Proposed Action. • The Project May Affect, but is Not Likely to Adversely Affect Canada lynx. Impacts to transient lynx would be site-specific, short-term, and minor. • If the species is listed, the Project May Affect, but is Not Likely to Adversely Affect greater sage-grouse as a Candidate species. • The Project would Not Likely Jeopardize the Continued Existence of North American wolverines. • The Project would have No Impact on spotted bat, Townsend's big-eared bat, peregrine falcon, or boreal toad. • Impacts to bald eagles would be site-specific, short-term, and negligible. • Indirect impacts to boreal owls would be site-specific, long-term, and negligible to minor. • Impacts to Columbian sharp-tailed grouse would be site-specific, short- to long-term, and negligible to minor. • Impacts to flammulated owls would be site-specific, long-term, and negligible to minor. • Impacts to great gray owls and northern three-toed woodpeckers would be site-specific, short- to long-term, and negligible to minor. • Impacts to northern goshawks are expected to be site-specific, long-term, and minor to moderate. • Impacts to gray wolves would be site-specific, short-term, and negligible to minor.
Primitive and semi-primitive classes of recreation Describe current recreation opportunities within the Roadless area. Identify the effects of your project of the area and these activities. Describe the effect in terms of availability for similar experiences in surrounding areas or within the region of use. Consider link to ROS mapping.	Yes	Stable	There are no developed recreation amenities, such as campgrounds or guard stations within the Project Area. The dominant type of dispersed recreation in the vicinity of the Smoky Canyon Mine is big game hunting for elk, moose, and deer. Other dispersed recreation activities occurring in the area include snowmobiling, cross-country skiing, horseback riding, upland bird hunting, camping, picnicking, driving for pleasure/sight-seeing, and off-road vehicle use. The Panel F ore conveyor system portion of the Project would eliminate approximately 1 acre of designated ROS class SPM from the recreation land base within the SCRA for the life of the Project.

Effect to Roadless Characteristics			
Primitive and semi-primitive classes of recreation (continued)	Yes	Stable	The new disturbance associated with the ODA expansions and stormwater control features would eliminate approximately 75 acres from the recreation land base within the SCRA for the life of the Project. Most of the area that would be newly disturbed in the SCRA is designated ROS class SPM; a small portion in the southern part of Panel G is designated RM. This area would be contiguous with previously approved mining activities. With exception of the stormwater control features, the disturbed acreage would be reclaimed and returned to the recreation land base at the end of the Project.
Reference landscapes for research study or interpretation Describe the landscape that is present. Describe any unique reference landscapes that exist within the Roadless area. Describe how the project activities might affect the reference landscape values of the Roadless area. Consider how the landscapes within the Inventoried Roadless area fits within the broader landscape and if the project creates any overall change. Consider landscape character descriptions in SMS.	No	Stable	Alternative 1 would not result in any impacts to the aquatic areas within any reference landscapes that could occur within the SCRA. Impacts within the Deer Creek watershed from roads, timber harvest, grazing, and mining activities authorized by the 2008 RODs have likely already eliminated the use of the Deer Creek watershed as a unique aquatic reference site.
Landscape character and integrity Describe the current scenic quality and character of the area. Describe project effects to the scenic integrity of the area and changes to the character of the area. Consider existing scenic integrity.	Yes	Stable	Under Alternative 1, impacts to landscape character and integrity would be similar to those described for the Proposed Action. The proposed Project components would be within an area designated Partial Retention VQO and Modification VQO, with low scenic integrity due to other approved mining activities. The visibility of the Project, and its impact on visual resources would depend on the proximity of the observer to the Project. The Project would be visible from points along the existing Wells Canyon Road (FR 146) at the east mouth of South Fork Deer Creek Canyon and from points on foot in higher elevation areas to the west. The Project would be viewed in the context of other surrounding mining activities and disturbance as viewed from any vantage point. In general, the Project components would blend with the surrounding activity and disturbance, and may not be distinguishable as an addition to the approved mining disturbance. The approximately 250 acres that would receive the geologic store and release cover would be revegetated with grasses and forbs along with islands of diversity of deeper rooted species; as a result, this area may eventually naturalize to appear similar to the surrounding areas, whereas areas receiving a GCLL would not.
Traditional cultural properties and sacred sites Identify generically any significant cultural resources within the Roadless area and describe the effect of the project on these resources. Typically mitigation will be designed to prevent significant effects to these resources.	No	N/A	No Traditional Cultural Properties have been nominated or designated in the Project Area.
Other locally unique characteristics Identify any locally unique characteristics and describe how the project would affect these values.	N/A	N/A	

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WORKSHEET 1 – Wilderness Qualities or Attributes
Evaluating the Effects of Project Activities on Wilderness Attributes

Date:	March 21, 2014
Roadless Area:	Sage Creek

Description of Project Activity or Impact to Roadless Area:
(Note – describe the activity that is affecting the roadless area, i.e. miles of road construction, timber acres harvested, acres treated by fire, etc…)
ALTERNATIVE 2: Under Alternative 2, Lease IDI-01441 would be expanded within the SCRA; however the expansion disturbance area would be approximately 46 fewer acres than the Proposed Action. The Panel F conveyor system would result in 1.3 acres of new disturbance in the SCRA; and the East Overburden Disposal Area (ODA) and stormwater control features would result in a total of 27.9 acres of new Project-related disturbance within the SCRA - approximately 5.3 acres within the lease modification area and 22.5 acres within the existing lease. All disturbances within the SCRA would occur within the General Forest, Rangeland and Grassland theme. The Project disturbances within the SCRA would generally be reclaimed and revegetated, immediately following the cessation of mining, with the exception of approximately 1.6 acres of the stormwater features that would be maintained for many years to ensure their purpose and functionality. Under Alternative 2, the proposed geo-synthetic clay laminate liner (GCLL) would cover approximately 26.3 acres of seleniferous overburden within the East ODA within the SCRA. The GCLL would be reclaimed and revegetated with shallow rooted species such as grasses and forbs, but would never be allowed to reforest. In addition, approximately 257 acres within The SCRA would receive a geologic store and release cover, which would be revegetated with grasses and forbs, along with "islands of diversity" of deeper rooted species.

Effect to Wilderness Quality or Attributes			
Wilderness Quality or Attribute (Note: delete attribute descriptions after data is entered to save space if desired.)	**Is there an effect? Yes or No**	**Which direction is the effect? Improving, Stable or Degrading?**	**Describe the actual effect.** Use descriptive terms that discuss the effect, not the activity. May use GIS layers (ROS, SMS, Roads, etc…) to quantify effects.
Untrammeled This quality monitors modern human activities that directly control or manipulate the components or processes of ecological systems inside wilderness. In summary, *wilderness is essentially unhindered and free from modern human control or manipulation.* A measure of the actions taken to hinder, manipulate, or control the long-term natural ecological processes of the area. Address this attribute by describing the management actions included in ct your project activities that would alter the natural processes in the area.	Yes	Operations Phase – Degrading Reclamation - Stable	The function of ecological systems within the SCRA has been impacted by the following physical or human-caused impacts that have occurred in the recent past or are occurring: approved and unimproved roads, timber harvest activities, mining activities, grazing, and recreation. The Project would result in approximately 28 acres of new disturbance within the SCRA for the Panel F conveyor system, expansion of the East ODA, and associated stormwater control features. Land clearing associated with this disturbance would increase the potential for erosion and potentially impact terrestrial wildlife through direct mortality (small, less-mobile species) or injury (during construction), habitat modification, fragmentation, and loss. Wildlife tends to avoid areas with noise and human presence if possible.

Effect to Wilderness Quality or Attributes			
Untrammeled (continued)			As a result, the areas of affected wildlife habitat may be larger than the area directly occupied by Project activities. This disturbance is less than 0.1-percent of the SCRA and the majority of the disturbances would be reclaimed immediately after conclusion of the operations phase of the Project, with the exception of the stormwater features. However, the GCLL would never be allowed to become reforested. While the area covered by the GCLL would be reclaimed and revegetated, the ecological community of the approximately 26-acre area of the SCRA covered by the GCLL would be permanently altered. The approximately 257 acres that would receive the geologic store and release cover would be revegetated with grasses and forbs along with islands of diversity of deeper rooted species; as a result, this area may eventually naturalize to resemble the surrounding landscape. The Project includes environmental protection measures and best management practices designed to reduce the impact to wildlife, particularly sensitive species. As a result, the Project is not expected to substantially reduce the amount of wildlife habitat available or fragment habitat to a degree sufficient to reduce wildlife populations or alter other ecological functions in the SCRA.
Natural This quality monitors both intended and unintended effects of modern people on ecological systems inside wilderness since the time the area was designated. In summary, *wilderness ecological systems are substantially free from the effects of modern civilization.* A measure of past and proposed activities on the natural conditions of the area. It describes the extent to which human influences alter natural processes and conditions away from what one would otherwise expect. This is a measure of the degree of environmental modification that will occur because of your project. Address this attribute by describing the extent of modification that will occur in the wilderness area Consider existing scenic integrity and ROS layers.	Yes	Operations Phase – Degrading Reclamation - Stable	The SCRA has been impacted by the construction of roads, timber harvests, mining activities, grazing, and recreation. These activities have altered or reduced the function of ecological systems within the SCRA. Disturbance from these activities is also visible to the casual observer in the form of roads and road cuts, areas of reduced timber cover, cattle presence, and the presence of recreation users and recreational vehicles. However, some of these disturbances (particularly roads, mining activities, and areas of timber harvest) are in various stages of reclamation and some of these areas are beginning to return to a more natural state. The Project would involve disturbance and habitat loss. During the construction, operations, and reclamation phases of the Project new disturbance would also be visible to the casual observer in the form of the East ODA consisting of large quantities of mined materials; stormwater drainages, and ponds. During and immediately following completion of the operations phase of the Project, these disturbances would by highly visible and would contrast with the surrounding landscape. Disturbed areas would have a reduced appearance of naturalness relative to areas within the SCRA that have not been disturbed or that have been reclaimed. Once reclamation is complete, the disturbed areas would have an appearance similar to other areas within the SCRA that have been reclaimed; however, even reclaimed areas would be noticeably modified from the surrounding landscape as the East ODA cannot be recontoured exactly to match natural topography. Although the Project would degrade the natural condition of approximately 28 acres in the short term; in the long term the condition of the disturbed lands would exhibit a degree of naturalness similar to other reclaimed areas of the SCRA.

Effect to Wilderness Quality or Attributes				
Natural (continued)		Yes	Operations Phase – Degrading Reclamation - Stable	The approximately 26 acres of the SCRA that would be covered by the GCLL would never be allowed to become reforested. Active management of the vegetation of this area to prevent reforestation may result in a somewhat unnatural appearance if surrounded by forested areas. The approximately 257 acres that would receive the geologic store and release cover would be revegetated with grasses and forbs along with islands of diversity of deeper rooted species; as a result, this area may eventually naturalize to resemble the surrounding landscape.
Undeveloped This quality monitors the presence of structures, construction, habitations, and other evidence of modern human presence or occupation. In summary, w*ilderness is essentially without permanent improvements or modern human occupation.* A measure of the present day physical indicators such as the presence and development level of trails, campsites, structures and facilities as well as the use of motorized equipment, mechanical transport, landing of aircraft, etc. used for administrative purposes. It is an indicator of what the visitor will experience in a setting that is removed from the sights and sounds of civilization and mechanization located inside the wilderness. Address this attribute by describing the extent of modification (i.e. structures required, motorized equipment use, etc.) that will occur during the projects duration or resulting after the project is finished. Consider using ROS maps layers.		Yes	Operations Phase – Degrading Reclamation – Stable	During the construction, operations, and reclamation phases of the Project, people, vehicles, equipment, and associated noise and dust would be evident in the disturbance area associated with the Project. Disturbances associated with both the Panel F ore conveyor system and the expanded East ODA would be reclaimed and revegetated, and upon reclamation, devoid of evidence of human presence or occupation. However, stormwater control features including drainages and ponds would remain on the Panel G portion of the Project for the life of the GCLL, and periodic maintenance would be required to maintain the GCLL free of trees. In addition, reclaimed areas would be noticeably modified from the surrounding landscape as the ODA cannot be recontoured exactly to match natural topography. Portions of these disturbed areas would be located within the Partial Retention VQO. Stormwater features and reclaimed areas may be identifiable as man-made rather than natural occurrences, and may be a noticeable contrast from the undeveloped appearances of the surroundings.
Outstanding opportunities for solitude or a primitive and unconfined type of recreation This quality monitors conditions that affect the opportunity for people to experience solitude or primitive, unconfined recreation in a wilderness setting, rather than monitoring visitor experiences *per se*.	**Solitude -** Described as opportunities to experience solitude, or the isolation from the sights and sounds of management activities inside wilderness, the presence of others. Solitude is measured by considering the presence of screening, distance from impacts to the rest of the area, mitigation measures such as the timing of disturbances. Address solitude by discussing how the project activities affect the ability of a visitor to escape project impacts on solitude within the area. Consider linking to ROS mapping for size and remoteness criteria for Primitive and SPMN.	Yes	Operations Phase – Degrading Reclamation – Stable	The noise and human activity associated with the construction, operations, and reclamation phases of the Project would impact the sense of solitude of the immediate area; that effect would dissipate with distance, but the effects may be noticeable from several miles away. Activities may be noticeable in other portions of the SCRA through distant noises, lights, glow, or dust columns in areas where the Project is not directly visible. The immediate Project Area is managed as RM or SPM; therefore expectations of solitude are reduced. Upon completion of reclamation, the area would generally return to previous conditions, with the exception of the stormwater features.

Effect to Wilderness Quality or Attributes				
Outstanding opportunities for solitude or a primitive and unconfined type of recreation (continued) In summary, *wilderness provides outstanding opportunities for people to experience solitude or primitive and unconfined recreation, including the values of inspiration and physical and mental challenge*	**Opportunities for Primitive Recreation -** A measure of the experiences available without the developments and to feel a part of nature, with a high degree of challenge and reliance on outdoor skills rather than facilities. Address this attribute by describing how the project activities might affect, the number and type of opportunities available, the challenge of the opportunities, and the addition or absence of facilities.	Yes	Stable	The approximately 28 acres of proposed disturbance, situated immediately adjacent to previously approved mining, would not be available for primitive recreation during the operations phase of the Project. Terrain within the SCRA is very typical of the other mountain ranges in southeast Idaho; however, due to the presence of existing roads, timber harvest remains, and other developments, it does not provide much opportunity for primitive recreation. As a result, the disturbance of an additional 28 acres would minimally affect this quality. Upon completion of reclamation of the Project Area there would not be remaining facilities that would degrade the opportunity for primitive recreation. However, topographic changes may make the area more or less challenging to access or traverse.
Special Features (Ecological, Geologic, Scientific, Educational, Scenic or Historical Values) An attribute that recognizes that wilderness may contain other values of ecological, geologic, scientific, educational, scenic or historical or cultural significance. Unique fish and wildlife species, unique plants or plant communities, potential or existing research natural areas, outstanding landscape features, and significant cultural resource sites should all be considered as types of values that might exist. Identify any of these values that exist within the project area. Address this attribute by describing the effect proposed activities would have on these values.		No	N/A	The portion of the Project Area within the SCRA does not contain special features that would be impacted by the Project.
Manageability (as Wilderness) A measure of the ability to manage an area to meet the size criteria (5,000 + acres), the resulting configuration of the potential wilderness, and the interaction of the other elements above. Changes in the shape of the Inventoried Roadless Area may have significant consequences to its wilderness potential. Consider also boundary management impacts such as changing wilderness boundaries to different terrain features or for how access would be provided if project activities cause adjustments in the Inventoried Roadless Area. Address this attribute by discussing how the proposed activities may affect the boundary location, the size, the shape, and the access to the area. Consider ROS mapping.		No	NA	The proposed disturbance associated with the Panel F ore conveyor system, East ODA, and stormwater features would occur in five separate areas along, near, or just inside the SCRA boundary. The GCLL would cover a larger area in the same vicinity as the Panel G stormwater features, along or near the SCRA boundary. These areas do not bisect the SCRA or otherwise fragment the SCRA into smaller pieces that would not meet the size criteria (5,000 acres or more), nor would they reduce access to the SCRA. Consequently, there would be no impacts to manageability.

Summary	Will the proposed project affect the areas suitability for wilderness designation?	No	Yes	If Yes, Explain how the project would affect wilderness suitability
			X	The portions of the SCRA that would be disturbed by this Project may not be suitable for future wilderness designation due to the noticeably modified nature of the areas after reclamation, and the requirement to maintain the area covered by the GCLL free of trees.

WORKSHEET 2 – Roadless Area Characteristics
Evaluating the Effects of Project Activities on Roadless Area Characteristics

Date:	March 21, 2014
Roadless Area:	Sage Creek

Description of Project Activity or Impact to Roadless Area:
(Note – describe the activity that is affecting the roadless area, i.e. miles of road construction, timber acres harvested, acres treated by fire, etc…)
ALTERNATIVE 2: Under Alternative 2, Lease IDI-01441 would be expanded within the SCRA; however the expansion disturbance area would be approximately 46 fewer acres than the Proposed Action. The Panel F conveyor system would result in 1.3 acres of new disturbance in the SCRA; and the East Overburden Disposal Area (ODA) and stormwater control features would result in a total of 27.9 acres of new Project-related disturbance within the SCRA - approximately 5.3 acres within the lease modification area and 22.5 acres within the existing lease. All disturbances within the SCRA would occur within the General Forest, Rangeland and Grassland theme. The Project disturbances within the SCRA would generally be reclaimed and revegetated, immediately following the cessation of mining, with the exception of approximately 1.6 acres of the stormwater features that would be maintained for many years to ensure their purpose and functionality. Under Alternative 2, the proposed geo-synthetic clay laminate liner (GCLL) would cover approximately 26.3 acres of seleniferous overburden within the East ODA within the SCRA. The GCLL would be reclaimed and revegetated with shallow rooted species such as grasses and forbs, but would never be allowed to reforest. In addition, approximately 257 acres within The SCRA would receive a geologic store and release cover, which would be revegetated with grasses and forbs, along with "islands of diversity" of deeper rooted species.

Effect to Roadless Characteristics			
Roadless Characteristics	**Is there an effect? Yes or No**	**Which direction is the effect? Improving, Stable or Degrading?**	**Describe the actual effect.** Use descriptive terms that discuss the effect, not the activity. Explain if the proposal would Alter or Modify the landscape.
Soil, water and Air resources Identify any unique or critical watershed resources. Describe how the project will affect these key resources areas and the habitats that depend on them.	Yes	**Soil and Air** Operations Phase – Degrading Reclamation – Stable	**Soils**: Approximately 28 acres, or less than 0.01-percent of the soils within the SCRA, would be impacted by the Project; therefore no changes to the overall rating of the soils within the SCRA are anticipated. Impacts to soils in the overall Project Area are discussed in Section 4.5 of the EIS. **Air**: Air emissions resulting from the Project would consist of emissions from mobile sources and the disturbance of soil. All Project vehicles would have legally mandated on-board emission controls. Therefore, impacts to air quality during the operations phase of the Project would be site-specific and minor; and negligible locally and in the region, and would not be expected to change the overall air quality within the SCRA.

Effect to Roadless Characteristics			
Soil, water and Air resources (continued)		**Water** Stable to Improving	**Water**: The Project would: • Result in almost double the recharge through the cover, compared to the Proposed Action condition, which would result in more groundwater flow to lower Deer Creek, compared to the Proposed Action; • Result in a long-term, moderate decrease in groundwater quality, compared to the Proposed Action, beneath and down gradient of Panel G, including Deer Creek; • Result in essentially the same impacts to surface water quantity under this alternative as they would be under the Proposed Action; • Result in somewhat greater selenium concentrations than they would be under the Proposed Action; however, the selenium criterion would continue to be met in Deer Creek under this alternative.
Sources of public drinking water Identify any public drinking water systems or sources within the project area or that would be affected by the project. Describe how the project would affect water quality and quantity of the public drinking water source.	No	N/A	There are no official Sources of Public Drinking Water within the Project Area, but potential impacts to surface water and groundwater within the Project Area and areas extending outside the Project Area have been thoroughly described in **Section 4.4**. The potential impacts could be long-term and range from negligible to moderate depending upon the surface water and/or groundwater source being evaluated.
Diversity of plant and animal communities Discuss the diversity of plant and animal communities. Identify any unique plant and animal communities within the area. Describe effects to the diversity of plant and animal communities.	Yes	Stable	Approximately 28 acres of vegetation (less than 0.01-percent of the SCRA), including trees, shrubs, and ground cover habitats, would be removed. The ODA expansion areas should be successfully reclaimed and revegetated. Approximately 1.6 acres of stormwater control features would not be revegetated, and would remain after reclamation. The approximately 26 acres covered by the GCLL within the SCRA would be reclaimed and revegetated; however, the area would never be allowed to become reforested. The approximately 257 acres that would receive the geologic store and release cover would be revegetated with grasses and forbs along with islands of diversity of deeper rooted species; as a result, this area may eventually naturalize to provide wildlife habitat similar to the surrounding areas. The short-term loss of approximately 28 acres of vegetation is not expected to impact the diversity of plant communities within the SCRA. The removal of vegetation would impact terrestrial wildlife through direct mortality or injury (during construction), habitat modification, fragmentation, and loss. Portions of the Project Area that were previously forested and would be covered by the GCLL would have permanent habitat modifications. In addition, wildlife tends to avoid areas with noise and human presence, if possible. As a result, the areas of affected wildlife habitat may be larger than the area directly occupied by the Project. However, given the availability of similar habitat in adjacent areas, and EPMs and BMPs designed to lessen impacts to wildlife, the Project is not expected to impact the diversity of animal communities in the SCRA.

Effect to Roadless Characteristics			
Habitat for TES and species dependent on large undisturbed areas of land Identify any TES or sensitive species within the Roadless area. Describe how the project would affect the habitats or populations and whether this effect is significant across the normal range and distribution of these habitats and populations.	Yes	Stable	Under Alternative 2, impacts to habitat for TES and species dependent on large undisturbed areas of land would be the similar to that described for the Proposed Action; however, there would be approximately 46 fewer acres of disturbance to habitat. Preliminary determinations for threatened, endangered, proposed, candidate, or sensitive species and specific impacts to other wildlife species include the following: • The Project May Affect, but is Not Likely to Adversely Affect Canada lynx. Impacts to transient lynx would be site-specific, short-term, and minor. • If the species is listed, the Project May Affect, but is Not Likely to Adversely Affect greater sage-grouse as a Candidate species. • The Project would Not Likely Jeopardize the Continued Existence of North American wolverines. • The Project would have No Impact on spotted bat, Townsend's big-eared bat, peregrine falcon, or boreal toad. • Impacts to bald eagles would be site-specific, short-term, and negligible. • Indirect impacts to boreal owls would be site-specific, long-term, and negligible to minor. • Impacts to Columbian sharp-tailed grouse would be site-specific, short- to long-term, and negligible to minor. • Impacts to flammulated owls would be site-specific, long-term, and negligible to minor. • Impacts to great gray owls and northern three-toed woodpeckers would be site-specific, short- to long-term, and negligible to minor. • Impacts to northern goshawks are expected to be site-specific, long-term, and minor to moderate. • Impacts to gray wolves would be site-specific, short-term, and negligible to minor.

Effect to Roadless Characteristics			
Primitive and semi-primitive classes of recreation Describe current recreation opportunities within the Roadless area. Identify the effects of your project of the area and these activities. Describe the effect in terms of availability for similar experiences in surrounding areas or within the region of use. Consider link to ROS mapping.	Yes	Stable	There are no developed recreation amenities, such as campgrounds or guard stations within the Project Area. The dominant type of dispersed recreation in the vicinity of the Smoky Canyon Mine is big game hunting for elk, moose, and deer. Other dispersed recreation activities occurring in the area include snowmobiling, cross-country skiing, horseback riding, upland bird hunting, camping, picnicking, driving for pleasure/sight-seeing, and off-road vehicle use. The Panel F ore conveyor system portion of the Project would eliminate approximately 1 acre of designated ROS class SPM from the recreation land base within the SCRA for the life of the Project. The East ODA expansion and stormwater control features would eliminate approximately 28 acres from the recreation land base within the SCRA for the life of the Project, the majority of which is designated ROS class SPM and would be contained within an lease modification area, and contiguous with previously approved mining activities. A small portion in the southern part of Panel G is designated RM. With exception of the stormwater control features, the disturbed acreage would be reclaimed and returned to the recreation land base at the end of the Project.
Reference landscapes for research study or interpretation Describe the landscape that is present. Describe any unique reference landscapes that exist within the Roadless area. Describe how the project activities might affect the reference landscape values of the Roadless area. Consider how the landscapes within the Inventoried Roadless area fits within the broader landscape and if the project creates any overall change. Consider landscape character descriptions in SMS.	No	Stable	Alternative 2 would not result in any impacts to the aquatic areas within any reference landscapes that could occur within the SCRA. Impacts within the Deer Creek watershed from roads, timber harvest, grazing, and mining activities authorized by the 2008 RODs have likely already eliminated the use of the Deer Creek watershed as a unique aquatic reference site.
Landscape character and integrity Describe the current scenic quality and character of the area. Describe project effects to the scenic integrity of the area and changes to the character of the area. Consider existing scenic integrity.	Yes	Stable	The proposed Project components would be within an area designated Partial Retention VQO and Modification VQO, with low scenic integrity due to other approved mining activities. The visibility of the Project, and its impact on visual resources would depend on the proximity of the observer to the Project. The Project would be visible from points along the existing Wells Canyon Road (FR 146) at the east mouth of South Fork Deer Creek Canyon and from points on foot in higher elevation areas to the west. The Project would be viewed in the context of other surrounding mining activities and disturbance as viewed from any vantage point. In general, the Project components would blend with the surrounding activity and disturbance, and may not be distinguishable as an addition to the approved mining disturbance. The approximately 257 acres that would receive the geologic store and release cover would be revegetated with grasses and forbs along with islands of diversity of deeper rooted species; as a result, this area may eventually naturalize to appear similar to the surrounding areas, whereas areas receiving a GCLL would not.

Effect to Roadless Characteristics			
Traditional cultural properties and sacred sites Identify generically any significant cultural resources within the Roadless area and describe the effect of the project on these resources. Typically mitigation will be designed to prevent significant effects to these resources.	No	N/A	No Traditional Cultural Properties have been nominated or designated in the Project Area.
Other locally unique characteristics Identify any locally unique characteristics and describe how the project would affect these values.	N/A	N/A	

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