**MULTIPLE ACCOUNTS ANALYSIS LEDGER FOR THE ZORTMAN MINE SITE RECLAMATION.**

| ACCOUNTS | SUB ACCOUNTS (issues) | INDICATORS | MEASURES | HIGH VALUE INDICATORS | ALTERNATIVE Z1 (Final EIS ALT.3, ROD) | ALTERNATIVE Z2 (Optimize Water Treatment within Bond) | ALTERNATIVE Z3 (Optimize Source Control within Bond) | ALTERNATIVE Z4 (Additional Pit Backfilling) | ALTERANTIVE Z5 (Total Backfill to Pre-Mine Topography) | ALTERNATIVE Z6 (Optimize Source Control and Aesthetics) |
|---|---|---|---|---|---|---|---|---|---|---|
| TECHNICAL | 79/81, 83, 84, 89 LEACH PAD | | | | | | | | | |
| | Dikes | Stability/Erodability/Maintainability | value (good-poor) | * | intermediate | intermediate | intermediate | intermediate | intermediate | intermediate |
| | Heaps | Stability/Erodability/Maintainability | value (good-poor) | | somewhat good | somewhat good | somewhat good | somewhat good | somewhat good | somewhat good |
| | Liners | Durability/Maintainability | value (good-poor) | | intermediate | intermediate | intermediate | intermediate | intermediate | intermediate |
| | 82 LEACH PAD | | | | | | | | | |
| | Heap, Dike & Liner | Stability/Erodability/Maintainability | value (good-poor) | | good | good | good | good | good | good |
| | 85/86 LEACH PAD | | | | | | | | | |
| | Dike | Stability/Erodability/Maintainability | value (good-poor) | | somewhat good | somewhat poor | somewhat good | somewhat good | good | somewhat good |
| | Heap | Stability/Erodability/Maintainability | value (good-poor) | | intermediate | intermediate | intermediate | somewhat good | good | somewhat good |
| | Liner | Durability/Maintainability | value (good-poor) | | intermediate | intermediate | intermediate | intermediate | good | intermediate |
| | WASTE ROCK DUMPS (Alder Gulch) | Stability/Erodability/Maintainability | value (good-poor) | | somewhat good | somewhat poor | somewhat poor | somewhat good | somewhat good | intermediate |
| | WASTE ROCK DUMPS (OK) | Stability/Erodability/Maintainability | value (good-poor) | | good | intermediate | intermediate | somewhat good | somewhat good | somewhat good |
| | WASTE ROCK DUMPS (South Ruby) | Stability/Erodability/Maintainability | value (good-poor) | | good | good | good | good | good | good |
| | OPEN PITS (N. Alabama) | Stability | value (good-poor) | | intermediate | intermediate | intermediate | good | good | somewhat good |
| | OPEN PITS (S. Alabama) | Stability | value (good-poor) | | somewhat good | somewhat good | somewhat good | good | good | somewhat good |
| | OPEN PITS (OK/Ruby & Mint Pits) | Stability | value (good-poor) | | intermediate | intermediate | intermediate | intermediate | good | intermediate |
| | OPEN PITS (Ross Pit) | Stability | value (good-poor) | | intermediate | intermediate | intermediate | good | good | somewhat good |
| | UNDERGROUND WORKINGS | Stability | value (good-poor) | | somewhat good | somewhat good | somewhat good | somewhat good | somewhat good | somewhat good |
| | TAILINGS (in Ruby Gulch) | Erodability | value (low-high) | | low | high | high | low | low | intermediate |
| | STORM WATER CONTROL (ditches) | Maintenance Requirements | value (low-high) | * | somewhat low | somewhat low | somewhat low | somewhat low | somewhat low | somewhat low |
| | COLLECTION & SEEPAGE CAPTURE/PUMPBACK SYSTEMS | Operating Requirements | value (low-high) | | somewhat high | intermediate | high | somewhat low | somewhat low | high |
| | WTP/LAD TREATMENT & RELEASE | Operating Requirements | value (low-high) | * | somewhat low | intermediate | intermediate | somewhat low | somewhat low | intermediate |
| | ALTERNATIVE TECHNOLOGIES | Potential Application | value (difficult-easy) | | intermediate | intermediate | intermediate | intermediate | intermediate | intermediate |
| | RECLAMATION COVERS | Long-term Durability | value (good-poor) | | somewhat poor | somewhat good | somewhat good | somewhat poor | somewhat good | intermediate |

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|---|---|---|---|---|---|---|---|---|---|---|
| | | Maintenance Requirements | value (low-high) | | intermediate | somewhat low | intermediate | somewhat low | somewhat low | intermediate |
| | | Sludge Disposal | value (difficult-easy) | | somewhat easy | somewhat difficult | somewhat easy | somewhat difficult | somewhat difficult | somewhat easy |
| PROJECT ECONOMICS | RECLAMATION COST | | | | | | | | | |
| | Short Term Reclamation & LAD | Cost | $ (million) | * | 25.1 | 9.8 | 9.8 | 38.2 | 46.4 | 14.2 |
| | Long Term Monitoring/Maintenance | NPV of Annual Costs | NPV $ (million) | | 0.52 | 0.23 | 0.23 | 0.77 | 0.77 | 0.77 |
| | % Attainable | % Attainable Within Bond | % | * | 39% | 100% | 100% | 26% | 21% | 67% |
| | LONG TERM WATER COLLECTION/TREATMENT COST | NPV of Total Costs | NPV $ (million) | * | 11.8 | 10.8 | 12.3 | 10.6 | 10.6 | 11.8 |
| ENVIRONMENT | SURFACE WATER QUALITY PROTECTION VALUE | Alder Spur | value (high-low) | | somewhat high | somewhat high | somewhat high | somewhat high | somewhat high | somewhat high |
| | | Carter Spur | value (high-low) | | high | somewhat high | intermediate | high | high | somewhat high |
| | | Ruby Gulch | value (high-low) | | somewhat high | intermediate | somewhat low | somewhat high | somewhat high | intermediate |
| | | Lodgepole Creek | value (high-low) | * | somewhat high | somewhat high | somewhat high | intermediate | intermediate | high |
| | SURFACE WATER QUANTITY PROTECTION VALUE | Alder Spur | value (high-low) | | low | low | low | low | low | low |
| | | Carter Spur | value (high-low) | | high | somewhat high | somewhat high | high | high | somewhat high |
| | | Ruby Gulch | value (high-low) | | somewhat high | somewhat low | somewhat high | intermediate | intermediate | somewhat high |
| | | Lodgepole Creek | value (high-low) | * | somewhat high | somewhat high | somewhat high | high | high | somewhat high |
| | GROUNDWATER PROTECTION VALUE | Alder Spur | value (high-low) | | intermediate | intermediate | intermediate | intermediate | intermediate | intermediate |
| | | Carter Spur | value (high-low) | | high | intermediate | intermediate | high | high | somewhat high |
| | | Ruby Gulch | value (high-low) | | somewhat high | intermediate | intermediate | somewhat high | somewhat high | somewhat high |
| | | Lodgepole Creek | value (high-low) | * | somewhat high | somewhat high | somewhat high | intermediate | intermediate | high |
| | WTP WATER QUANTITY & QUALITY (INFLOW) | Acidity Load | value (high-low) | | somewhat low | somewhat high | somewhat high | intermediate | intermediate | intermediate |
| | LAD WATER QUALITY | NO3/NO2 Load | value (high-low) | | high | high | high | high | high | high |
| | LAD WATER QUANTITY | Volume | value (high-low) | | somewhat low | somewhat high | intermediate | somewhat low | somewhat low | intermediate |
| | RE-ESTABLISHMENT OF BIOLOGICAL/VEGETATIVE POTENTIAL | Density of Revegetated Areas | value (poor-good) | | somewhat good | intermediate | somewhat good | good | good | good |
| | | Ecosystem Diversity/Sustainability | value (poor-good) | * | somewhat good | intermediate | somewhat good | good | good | good |
| | | % of Area Revegetated | % | | 84.3 | 78.7 | 79 | 85 | 88.2 | 79.3 |
| | | Compatability for Wildlife Habitat | value (low-high) | | intermediate | intermediate | intermediate | high | high | somewhat high |

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|---|---|---|---|---|---|---|---|---|---|---|
| SOCIO-ECONOMICS | AESTHETICS | Appearance (Pleasing) | value (low-high) | * | intermediate | somewhat low | intermediate | somewhat high | high | somewhat high |
| | HUNTING & RECREATION | Suitability | value (low-high) | | intermediate | intermediate | intermediate | somewhat high | somewhat high | somewhat high |
| | TOURISM | Suitability | value (low-high) | | intermediate | somewhat high | intermediate | somewhat high | somewhat high | intermediate |
| | HEALTH AND SAFETY | Protection During Reclamation (Workers) | value (low-high) | * | somewhat low | somewhat high | somewhat high | somewhat low | somewhat low | intermediate |
| | | Protection Post Reclamation (Public) | value (low-high) | * | intermediate | intermediate | intermediate | somewhat high | high | somewhat high |
| | TRADITIONAL/CULTURAL | Usability | value (high-low) | * | somewhat low | somewhat low | somewhat low | intermediate | somewhat high | intermediate |
| | COMMUNITY INFRASTRUCTURE | Condition of Utilities (Water System) | value (low-high) | | intermediate | low | low | intermediate | intermediate | somewhat low |
| | COMPLETION PERIOD | Time | years | | 4 | 2 | 2 | 5 | 7 | 3 |
| | MINERAL DEVELOPMENT POTENTIAL | Mineral Development Potential | value (low-high) | | somewhat low | intermediate | intermediate | low | low | somewhat low |
| | FUTURE EFFORT BURDEN ON SOCIETY | Long Term Management Requirements | value (high-low) | * | somewhat high | intermediate | somewhat high | intermediate | intermediate | somewhat high |
| | EMPLOYMENT OPPORTUNITIES (Reclamation & WTP) | Short Term Local Employment Value | value (low-high) | | somewhat high | intermediate | intermediate | high | high | somewhat high |
| | | Long Term Local Employment Value | value (low-high) | | intermediate | somewhat low | intermediate | somewhat low | somewhat low | intermediate |