1. The proposed Irwin/Thomas Mine Permit Area is comprised of 4 distinct mining areas.
2. Areas not disturbed by mining may be disturbed by access roads, material conveying, stockpiles, or other mining-related activities. The remaining area will consist of sediment on adjacent properties and waterways.
3. The deposit will be dry mined using dewatering trenches and pumps.
4. Setbacks from the mine pit top of slope to the proposed permit boundary or man-made structures not owned by the applicant will be 50 feet or greater.
5. Items owned by the applicant or property owner located within the permit area such as unimproved roads, irrigation laterals, fences, water wells, and associated pumps, and other structures may be removed or relocated during mining and reclamation.
6. The future potential mining operations essentially follow the permit boundary to allow for reclamation activities and below the surface of the ground.
7. Mining is expected to encounter groundwater within five feet of the ground surface.
8. During mining adjacent to the St. Vrain Creek riparian area, precautions will be taken to limit discharge of stormwater and sediments on adjacent properties and waterways.
9. A mine office/scale house trailer will be established near site entrances both north of Hwy 119 and south of St. Vrain Creek, mining area 3 is north of St. Vrain Creek separated by Colorado Highway 119, St. Vrain Creek, and the Burlington Northern and Southwestern Railroad.
10. Best management practices will be used to limit discharge of stormwater and sediment on adjacent properties and waterways.
NO TRESPASSING - UNDERutters - SecrCtAry - LAA - C0Nt-101001
NOTE: DRAFT RECLAMATION MAP. FINAL MAP AS APPROVED BY THE DNR TO BE SUBMITTED TO THE CITY OF LONOIS PRIOR TO COMMENCEMENT OF MINING.

POND LINER NOTES:
1. PRIOR TO CONSTRUCTION, OVERBURDEN AND CLAYSTONE MATERIAL TESTING SHALL BE PERFORMED FOR USE IN FINAL DESIGN. THE FOLLOWING MATERIAL SHALL BE PLACED IN MAXIMUM OF 9-INCH LOOSE LIFTS PRIOR TO COMPACTION.
2. EACH LAYER OF FILL SHALL BE SCARIFIED TO ALLOW PROPER BONDING BETWEEN LAYERS.
3. DENSITY AND MOISTURE CONTENT TESTING SHALL BE PERFORMED AT A RATE OF 1 TEST FOR EACH 2,000 YARDS PLACED.
4. ALL CLAY LINER MATERIAL SHALL BE COMPACTED TO A MINIMUM 95% ASTM-D698-78 STANDARD PROCTOR AT +2% OF OPTIMUM MOISTURE CONTENT.
5. NO LINER MATERIAL SHALL BE PLACED IN THE LINER SLOPE WHILE EITHER THE MATERIAL, EMBANKMENT, OR FOUNDATION IS FROZEN.
6. THE LINER MATERIAL AND EMBANKMENT MATERIAL WILL BE USED FOR MAINS, AND WILL BE USED AS ROADS AND WALKWAYS.
7. MINERAL WASTE MATERIAL AND CLAYSTONE MATERIAL MAY BE RIPPED, MOISTURE TREATED, AND ALLOWED TO AIR SLAKE FOR A MINIMUM OF ONE DAY PRIOR TO ITS USE IN FILL.
8. MATERIAL TO SPECIFICATIONS ONCE PLACED IN THE FILL.
9. UPLAND GRASS SEED WILL BE PLANTED WITH A DRILL EQUIPPED WITH DEPTH BANDS AND A SEEDER TO ENSURE THE SEED IS PLACED AT THE APPROPRIATE DEPTH. SEEDING IS NECESSARY ON MOIST SOILS, STEEP SLOPES, OR IN EXCESSIVELY ROCKY CONDITION.
10. DRILL SEEDING IS THE PREFERRED METHOD FOR REVEGETATION. IF BROADCAST, THE APPLICATION RATE WILL BE DOUBLED.
11. PERIODIC INSPECTION FOR NOXIOUS WEEDS, AT LEAST ONCE A YEAR EARLY IN THE SEASON, WILL BE DONE AS PART OF A WEED MANAGEMENT PLAN.

MINING SECTION C (DIAGONAL WATCHES)

SHORELINE RECLAMATION

Upland Grass Seed - Native Open Space Application Rate (lbs/acre):
- Blue Grama 0.75
- Colorado Rush 0.75
- Side-oats Grama 0.75
- Bottlebrush Squirreltail 0.75
- Western Wheatgrass 4
- Intermediate Wheatgrass 3
- Upland Grass Seed - Soil Stabilization Application Rate (lbs/acre):
- Blue Grama 0.25
- Colorado Rush 0.25
- Side-oats Grama 0.25
- Bottlebrush Squirreltail 0.25
- Western Wheatgrass 1.5
- Intermediate Wheatgrass 1
- Wetland Grass Seed Application Rate (lbs/acre):
- Redtop 0.75
- Tall Fescue 0.75
- Big Bluestem 0.75
- Little Bluestem 0.75
- Blue Grama 0.25
- Colorado Rush 0.25
- Side-oats Grama 0.25
- Bottlebrush Squirreltail 0.25
- Western Wheatgrass 4
- Intermediate Wheatgrass 3
- Upland Grass Seed - Soil Stabilization Application Rate (lbs/acre):
- Blue Grama 0.25
- Colorado Rush 0.25
- Side-oats Grama 0.25
- Bottlebrush Squirreltail 0.25
- Western Wheatgrass 1.5
- Intermediate Wheatgrass 1
- Wetland Grass Seed Application Rate (lbs/acre):
- Redtop 0.75
- Tall Fescue 0.75
- Big Bluestem 0.75
- Little Bluestem 0.75
- Blue Grama 0.25
- Colorado Rush 0.25
- Side-oats Grama 0.25
- Bottlebrush Squirreltail 0.25
- Western Wheatgrass 4
- Intermediate Wheatgrass 3

WEATHER PASSING THE US STANDARD 200 SIEVE, AND A PLASTICITY INDEX OF 10% OR GREATER FOR THE PORTION OF MATERIAL FINER THAN THE US STANDARD 40 SIEVE.