

EXPLORATION LICENSE: DRILLING PROGRAM APPENDIX

If an exploration drilling program is proposed, the applicant must provide a spreadsheet detailing the GPS coordinates in Decimal Degrees of all Drill Pad(s) and Drill Hole location(s). Coordinates must include five digits to the right of the decimal point. Depths of all Drill Holes must be included.

NOTE: All Drill Holes must be plugged in accordance with the provisions of the Administrative Rules of Montana (ARM) 17.24.106, detailed below.

17.24.106 EXPLORATION DRILL HOLE PLUGGING

- (1) Except as provided in (3) of this rule, all exploration drill holes must be plugged at the surface five to ten feet with cement.
- (2) Except as provided in (3) of this rule, exploration drill holes must be plugged with bentonite or a similar compound from the bottom of the hole to within five to ten feet of the surface, and with cement from the top of the bentonite to the surface if one or more of the following conditions apply:
 - (a) two aquifers are intercepted;
 - (b) one aquifer is intercepted and an existing or potential beneficial use (domestic, agricultural or fish/wildlife water supply) exists;
 - (c) one or more artesian aquifers are intercepted causing either surface flow or significant water rise in the hole; or
 - (d) the potential exists for downward water loss from an aquifer (cascade effect) as determined by the department.
- (3) Exceptions to (1) and (2) of this rule may be granted by the department if:
 - (a) shallow placer holes are drilled using a churn or percussion drill or similar equipment in alluvium in which the holes will be obliterated as the drill stem is withdrawn, leaving no evidence of the hole;
 - (b) the drill hole contained no water, is not geologically likely to contain water or the hole is to be destroyed during mining or mining related disturbances;
 - (c) the drill hole is developed into a water well, monitoring well, or piezometer with the written agreement of the land owner and to the specifications of the appropriate state agency; or
 - (d) other site-specific hydrogeological and topographic situations necessitate exceptions.
- (4) All drill holes must be plugged prior to removing the drill rig from a hole unless removing the drill rig is necessary to the hole plugging operation or unless otherwise approved by the department.
- (5) If the flow of an artesian drill hole is not completely stopped, after exhaustion of all methods, the operator must:
 - (a) obtain a discharge permit from the Department of Environmental Quality; or
 - (b) develop a water well in compliance with the requirements of other applicable local, state and federal statutes, including water rights. In addition, the land owner must concur, the amount and use of flow must be compatible with the approved postmining land use, and the water quality must meet standards set under the Title 75, chapter 5, MCA.
- (6) In areas and geological formations of known artesian well potential, bonding for drill sites must be adequate to ensure artesian hole plugging.