

## ***Mines Act Permit***

### **Annual Reclamation Report Format Requirements Addendum**

### **Shapefile Submission Data Standards**

The Ministry of Energy, Mines and Petroleum Resources (EMPR) has established an initiative to develop spatial data capabilities for permitting and tracking of mine activities. As part of this initiative, EMPR is requesting that digital spatial files be submitted with all Annual Reclamation Reports. As this has been a requirement since 2015, EMPR expects that the spatial data submitted as part of prior year's reporting will be updated to reflect any new disturbance and/or reclamation in the current reporting year. EMPR would like to receive a collective spatial data for the following:

- disturbance areas; and,
- revegetated areas and areas where reclamation activities are ongoing.
- Please note that starting with the 2020 Annual Reclamation Report submission, EMPR now only requires the submission of ONE shapefile which depicts both the above mine disturbance and reclamation information

The shapefile should be submitted with the Annual Reclamation Report for each mine, which is due by March 31, following the reporting year. The information below provides guidance on how to construct the shapefile with the attributes that EMPR requires.

**Disturbance and Reclamation shapefile** should correspond to areas reported in tables and maps provided in the Annual Reclamation Report. To simplify reporting, EMPR asks that you indicate the status of reclamation activities by using "none", "ongoing" "re-vegetated" or "exempt". In order for an area to be recorded as "re-vegetated", it must have supported vegetation that will lead to the designated land use objective for at least one year. Note that the "re-vegetated" classification does not mean that EMPR has accepted or signed off on the reclamation.

The reclaimed areas should correspond to the total reported in Table 1 of the Annual Reclamation Report (Summary of Areas Disturbed and Reclaimed to December 31, of the reporting year). The "exempt" status should be used to identify areas exempt from reclamation. If you enter "ongoing", please include the date that reclamation activities began in the "Reclamation Date" field. If you enter "re-vegetated", please include the date that reclamation activities were last completed in the "Reclamation Date" field. The date field may be a null value for polygons with the "exempt" or "none" status. If you wish to include additional details, please do so in the comments field.

Disturbances to be included are described as areas of disturbance in the past or present due to any mining activities covered by the *Mines Act* permit. This includes areas cleared of vegetation and any roads that are currently active or have not yet been deactivated and reclaimed. For this exercise, EMPR requests that the secondary classifier is classified by "Disturbance Type", where the type should match the categories tabulated in Table 1 of the Annual Reclamation Report (Summary of Areas Disturbed and Reclaimed to December 31 of the reporting year). Please DO NOT include reclamation or disturbance information that is not associated with your Mines Act Permit.

Overlapping polygons must be avoided. This means that every area on the mine site is represented by only one disturbance type and one reclamation status (see coding below)

#### **What is a Shapefile?**

A shapefile is a simple format for storing the location and attribute information of geographic features. A shapefile can only store one type of geographic feature (e.g., points, lines, polygons), but a single shapefile can hold multiple shapes, with a corresponding record to contain the attributes for each shape.

#### **A complete shapefile consists of the following:**

##### **Mandatory Files**

- .shp – shape format; the feature geometry itself

- .shx – shape index format; a positional index of the feature geometry to allow seeking forwards and backwards quickly
- .dbf – attribute format; columnar attributes for each shape, in dBASE IV format

#### **Other Files**

- .prj – projection format; the coordinate system and projection information, a plain text file describing the projection using well-known text format

Shapefiles submitted with the Annual Reclamation Reports must follow the data standards below.

#### **Geometry**

The shapefile must be a **POLYGON** feature type.

#### **Coordinate System Required**

The shapefile must be in BC Albers.

#### **Naming Convention**

Mine Permit (with understores to replace '-'), underscore, Year, 'ARR', underscore, Mine Name, underscore

e.g., M\_300\_2016ARR\_GoldMine

#### **Attribute Table Data Standards**

Each shapefile's attribute table must conform to the standards below.

**Disturbance and Reclamation Fields and Descriptions:**

| Shapefile Field Description:          | Shapefile Field Name: | Data Type:        | Example:  | Example Description:                      |
|---------------------------------------|-----------------------|-------------------|---|---|
| <b>Mine Number</b>                    | MINE_NO               | Text – 10         | 000001  |   |
| <b>Mine Permit</b>                    | PERMIT_NO             | Text – 10         | M - 999   |   |
| <b>Mine Name</b>                      | MINE_NM               | Text – 50         | Gold Creek  |   |
| <b>Mine Type</b>                      | MINE_TYP              | Text – 6          | M   | Mineral                                   |
| <b>Annual Reclamation Report Year</b> | YEAR_                 | Short Integer – 4 | 2018  |   |
| <b>Disturbance Identifier</b>         | DSTB_ID               | Text – 6          | 1   |   |
| <b>Reclamation Area Identifier</b>    | RECL_ID               | Text – 6          | 1   |   |
| <b>Disturbance Type</b>               | DSTB_TYPE             | Text – 6          | RD  | Road                                      |
| <b>Disturbance Year</b>               | DSTB_YEAR             | Short Integer - 4 | 2014  | 2014                                      |
| <b>Reclamation Activity Status</b>    | RECL_ACT              | Text - 6          | O   | Reclamation activities are ongoing.       |
| <b>Reclamation Year</b>               | RECL_YEAR             | Short Integer – 4 | 2014  | Most recent activities conducted in 2014. |
| <b>Comments</b>                       | COMMENTS              | Text – 255        | Using same camp area in 2018, no need to reclaim this year. |   |

**Attribute Table Fields Data Standards:**

The shapefile attribute table for the mining annual summary activities must use these codes:

|                  |                       |  |
|------------------|-----------------------|--|
| <b>MINE_TYPE</b> | Mine Type             | <i>Codes for Mine Type:</i><br><b>C:</b> Coal; <b>M:</b> Mineral; <b>P:</b> Placer; <b>Q:</b> Quarry; <b>SG:</b> Sand and Gravel   |
| <b>RECL_ACT</b>  | Status of Reclamation | <b>N:</b> None; <b>E:</b> Exempt; <b>O:</b> Ongoing; <b>C:</b> Re-vegetated  |
| <b>DSTB_TYPE</b> | Disturbance Type      | <i>Codes for Disturbance Type:</i><br><b>ADMIN:</b> Administrative area/building<br><b>CCR:</b> Coarse Coal Rejects<br><b>LI:</b> Linear<br><b>O:</b> Other (enter comments)<br><b>PIT:</b> Pit<br><b>POND:</b> Seepage/Sediment Pond<br><b>PS:</b> Plant Site<br><b>RD:</b> Road<br><b>SP:</b> Stockpile<br><b>TSF:</b> Tailings Storage Facility General Footprint<br><b>WD:</b> Waste Dump<br><b>WTP:</b> Water Treatment Plant and/or Pond |

**PLEASE NOTE: If you have modified the Table 1 Disturbance Type categories, you will need to include a description of the codes used if they differ from those provided above.**