



# Resources Online – Spatial Upload Formats

## Eligible Mining Activities

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## Introduction

The Department of Mines, Petroleum and Energy (DMPE) supports the online spatial lodgement of **Eligible Mining Activities (EMA)** through the **Resources Online (RO)** system. This system allows proponents to draw or upload spatial data for proposed activities, creating a more efficient and user-friendly application experience.

To ensure your data is correctly processed, spatial files must follow a specific structure. This document outlines the requirements for uploading spatial data, including supported formats, accepted coordinate systems, and the required table structure for each activity type.

## Supported File Formats

The following spatial data formats are accepted:

- **Shapefile - ESRI ArcGIS** (excluding Z and/or M type shapefiles)
- **TAB File - MapInfo**

## Required File Components

Each format must include the following files as a minimum:

| Format    | Required Components                                                                                                                                                                                                                                             |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Shapefile | <ul style="list-style-type: none"> <li>• <b>.dbf</b> (attribute data)</li> <li>• <b>.prj</b> (coordinate system and projection)</li> <li>• <b>.shp</b> (feature geometry)</li> </ul>                                                                            |
| TAB File  | <ul style="list-style-type: none"> <li>• <b>.DAT</b> (attribute data)</li> <li>• <b>.ID</b> (links graphic data to database information)</li> <li>• <b>.MAP</b> (graphic and geographic information)</li> <li>• <b>.TAB</b> (link to all data files)</li> </ul> |

## Supported Coordinate Systems

Spatial data must use one of the following coordinate systems:

- **GDA94** (Geocentric Datum of Australia 1994)
- **GDA2020** (Geocentric Datum of Australia 2020)
- **GDA94 MGA Zones 47–52** (UTM Map Grid of Australia)
- **GDA2020 MGA Zones 47–52** (UTM Map Grid of Australia)

Uploaded data must clearly define its coordinate system. Files with unsupported or undefined coordinate systems will not be accepted and must be reprojected into one of the supported formats listed above.

## Supported Activity Types

The following activity types can be uploaded using the spatial upload tool:

- Drilling (Point, Line, Polygon)
- Costean
- Excavation
- Test Pits
- Tracks

Each activity type must be uploaded with a spatial file that includes the required table structure and attribute data.

## Data Validation and Requirements

Spatial files must include all required fields and follow the table structure outlined for each activity type. The RO system will validate uploaded data and return errors if the required format, types, or field values are not met.

Activities are also restricted to smaller than 2 hectares this applies to the following activities attribute table values:

1. Drilling Lines ( $\text{TRACK\_L} \times \text{TRACK\_W} \leq 20,000\text{m}^2$ )
2. Drilling Areas ( $\text{TRACK\_L} \times \text{TRACK\_W} \leq 20,000\text{m}^2$ )
3. Test Pits ( $(\text{WIDTH} \times \text{LENGTH}) + (\text{TRACK\_L} \times \text{TRACK\_W}) \leq 20,000\text{m}^2$ )
4. Excavations size of polygon geometry  $\leq 20,000\text{m}^2$  and  $\leq 1,000$  tonnes

## Table Structures

The following tables define the required structure for each activity type. Each field must match the specified format, type, and—where applicable—allowed values. The **Field Requirements** column indicates whether a field is mandatory, optional, or conditionally required based on other values. It also provides special instructions such as expected input formats, coded values, and value constraints. Fields marked as **"Conditional"** must be completed **only when certain conditions are met (e.g. based on the value of another field)**.

Please review the **Field Requirements** column carefully to ensure your data is complete and valid, and that your spatial files fully comply with the table structures provided. Submissions that do not meet these requirements may be rejected by the system.

# Drilling

## Drill Point

|                   |                                   |
|-------------------|-----------------------------------|
| EMA Activity Type | Drilling                          |
| Shapefile         | Point                             |
| Description       | A single drill hole point and pad |

## Table Structure

| Field Name | Alias               | ESRI Shapefile |        | MapInfo TAB File |        | Values/<br>Range                                                                                                                | Field<br>Requirements                                                                                        |
|------------|---------------------|----------------|--------|------------------|--------|---------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
|            |                     | Field Type     | Length | Field Type       | Length |                                                                                                                                 |                                                                                                              |
| NAME       | Name                | Text           | 50     | Character        | 50     | —                                                                                                                               | Optional                                                                                                     |
| TARGET     | Exploration Target  | Text           | 20     | Character        | 20     | Mineral<br>Water                                                                                                                | Mandatory                                                                                                    |
| DRILL_TYPE | Drill Type          | Text           | 50     | Character        | 50     | Auger<br>Air Core<br>Diamond<br>Core<br>Other<br>Reverse<br>Circulation<br>Rotary Air<br>Blast Rotary<br>Mud<br>Sonic<br>Vacuum | Mandatory                                                                                                    |
| DT_OTHER   | Drill Type<br>Other | Text           | 50     | Character        | 50     | —                                                                                                                               | Conditional —<br>only if<br>DRILL_TYPE =<br>Other<br><br>Enter non-<br>standard drilling<br>type description |
| DEPTH      | Max Depth<br>(m)    | Double         | N/A    | Decimal          | N/A    | 0.01 to 9999                                                                                                                    | Mandatory<br><br>Min. value<br>0.01m<br><br>Max. value<br>9999m                                              |
|            |                     |                |        |                  |        |                                                                                                                                 |                                                                                                              |

| Field Name | Alias                    | ESRI Shapefile |        | MapInfo TAB File |        | Values/<br>Range | Field<br>Requirements                                                   |
|------------|--------------------------|----------------|--------|------------------|--------|------------------|-------------------------------------------------------------------------|
|            |                          | Field Type     | Length | Field Type       | Length |                  |                                                                         |
| PAD_COUNT  | Pad                      | Long Integer   | N/A    | Integer          | N/A    | 0<br>1           | Not Mandatory<br>Default value 0<br>0=No<br>1=Yes                       |
| PAD_L      | Pad Length<br>(m)        | Double         | N/A    | Decimal          | N/A    | 0 to 99          | Mandatory<br>Min. value 0m<br>Max. value 99m<br>If no pads, enter<br>0m |
| PAD_W      | Pad Width<br>(m)         | Double         | N/A    | Decimal          | N/A    | 0 to 99          | Mandatory<br>Min. value 0m<br>Max. value 99m<br>If no pads, enter<br>0m |
| INFILL     | Infill<br>Resource       | Long Integer   | N/A    | Integer          | N/A    | 0<br>1           | Not Mandatory<br>Default value 0<br>0=No<br>1=Yes                       |
| GW         | Encounter<br>Groundwater | Long Integer   | N/A    | Integer          | N/A    | 0<br>1           | Not Mandatory<br>Default value 0<br>0=No<br>1=Yes                       |
| SUMP       | Sump                     | Long Integer   | N/A    | Integer          | N/A    | 0<br>1           | Not Mandatory<br>Default value 0<br>0=No<br>1=Yes                       |
| SUMP_L     | Sump<br>Length (m)       | Double         | N/A    | Decimal          | N/A    | 0 to 99          | Conditional —<br>only if SUMP =<br>1<br>Min. value 0m<br>Max. value 99m |
| SUMP_W     | Sump Width<br>(m)        | Double         | N/A    | Decimal          | N/A    | 0 to 99          | Conditional —<br>only if SUMP =<br>1<br>Min. value 0m<br>Max. value 99m |
| SUMP_D     | Sump Depth<br>(m)        | Double         | N/A    | Decimal          | N/A    | 0 to 99          | Conditional —<br>only if SUMP =<br>1<br>Min. value 0m                   |

| Field Name | Alias                      | ESRI Shapefile |        | MapInfo TAB File |        | Values/<br>Range | Field Requirements                                                                |
|------------|----------------------------|----------------|--------|------------------|--------|------------------|-----------------------------------------------------------------------------------|
|            |                            | Field Type     | Length | Field Type       | Length |                  |                                                                                   |
|            |                            |                |        |                  |        |                  | Max. value 99m                                                                    |
| SUMP_INPAD | Sump Within Pad            | Long Integer   | N/A    | Integer          | N/A    | 0<br>1           | Conditional —<br>only if SUMP = 1<br>0=No<br>1=Yes                                |
| CUT_FILL   | Cut and Fill               | Long Integer   | N/A    | Integer          | N/A    | 0<br>1           | Not Mandatory<br>Default value 0<br>0=No<br>1=Yes                                 |
| CF_SLOPE   | Cut and Fill Slope Degrees | Double         | N/A    | Decimal          | N/A    | 0 to 89          | Conditional —<br>only if<br>CUT_FILL = 1<br>Min. value 0 deg<br>Max. value 89 deg |
| CF_BD      | Cut and Fill Bulk Density  | Double         | N/A    | Decimal          | N/A    | 0.01 to 9        | Conditional —<br>only if<br>CUT_FILL = 1<br>Min. value 0.01<br>Max. value 9       |
| BUFFER_M   | Buffer (m)                 | Long Integer   | N/A    | Integer          | N/A    | 1-999            | Optional —<br>defaults to 20m<br>Min. value 1m<br>Max.999                         |
| USER_TON   | User Tonnes                | Double         | N/A    | Decimal          | N/A    | 0 to 99999       | Optional<br>Min. value 0t<br>Max. value 99,999t                                   |
| USER_TON_R | User Tonnes Reason         | Text           | 100    | Character        | 100    | —                | Conditional —<br>only if<br>USER_TON<br>field present and<br>> 0                  |
|            |                            |                |        |                  |        |                  |                                                                                   |

| Field Name | Alias    | ESRI Shapefile |        | MapInfo TAB File |        | Values/<br>Range | Field<br>Requirements                                                                          |
|------------|----------|----------------|--------|------------------|--------|------------------|------------------------------------------------------------------------------------------------|
|            |          | Field Type     | Length | Field Type       | Length |                  |                                                                                                |
| TENEMENT_I | Tenement | Text           | 20     | Character        | 20     | —                | Optional<br>Enter in<br>formatted<br>tenement id<br>(e.g. E 45/6038)<br>Live tenements<br>only |

## Drill Line

|                   |                                            |
|-------------------|--------------------------------------------|
| EMA Activity Type | Drilling                                   |
| Shapefile         | Line                                       |
| Description       | One or more drill holes along a drill line |

## Table Structure

| Field Name | Alias                 | ESRI Shapefile  |        | MapInfo TAB File |        | Values/<br>Range                                                                                                                   | Field<br>Requirements                                                                                        |
|------------|-----------------------|-----------------|--------|------------------|--------|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
|            |                       | Field Type      | Length | Field Type       | Length |                                                                                                                                    |                                                                                                              |
| NAME       | Name                  | Text            | 50     | Character        | 50     | —                                                                                                                                  | Optional                                                                                                     |
| TARGET     | Exploration<br>Target | Text            | 20     | Character        | 20     | Mineral<br>Water                                                                                                                   | Mandatory                                                                                                    |
| DRILL_TYPE | Drill Type            | Text            | 20     | Character        | 50     | Auger<br>Air Core<br>Diamond<br>Core<br>Other<br>Reverse<br>Circulation<br>Rotary Air<br>Blast<br>Rotary<br>Mud<br>Sonic<br>Vacuum | Mandatory                                                                                                    |
| DT_OTHER   | Drill Type<br>Other   | Text            | 50     | Character        | 50     | —                                                                                                                                  | Conditional —<br>only if<br>DRILL_TYPE =<br>Other<br><br>Enter non-<br>standard drilling<br>type description |
| HOLE_COUNT | Hole Count            | Long<br>Integer | N/A    | Integer          | N/A    | 1 to 99999                                                                                                                         | Mandatory<br>Min. value 1<br>Max. value<br>99,999                                                            |
|            |                       |                 |        |                  |        |                                                                                                                                    |                                                                                                              |

| Field Name | Alias                 | ESRI Shapefile |        | MapInfo TAB File |        | Values/<br>Range | Field<br>Requirements                                                |
|------------|-----------------------|----------------|--------|------------------|--------|------------------|----------------------------------------------------------------------|
|            |                       | Field Type     | Length | Field Type       | Length |                  |                                                                      |
| DEPTH      | Max Depth (m)         | Double         | N/A    | Decimal          | N/A    | 0.01 to 9999     | Mandatory<br>Min. value 0.01m<br>Max. value 9,999m                   |
| TRACK_L    | Track Length (m)      | Double         | N/A    | Decimal          | N/A    | 0 to 999999      | Optional<br>Max. value 999,999m                                      |
| TRACK_W    | Track Width (m)       | Double         | N/A    | Decimal          | N/A    | 0 to 99          | Conditional — only if TRACK_L > 0<br>Max. value 99m                  |
| PAD_COUNT  | Pad Count             | Long Integer   | N/A    | Integer          | N/A    | 0 to 9999        | Mandatory<br>Min. value 0m<br>If no pads, enter 0m                   |
| PAD_L      | Pad Length (m)        | Double         | N/A    | Decimal          | N/A    | 0 to 99          | Mandatory<br>Min. value 0m<br>Max. value 99m<br>If no pads, enter 0m |
| PAD_W      | Pad Width (m)         | Double         | N/A    | Decimal          | N/A    | 0 to 99          | Mandatory<br>Min. value 0m<br>Max. value 99m<br>If no pads, enter 0m |
| INFILL     | Infill Resource       | Long Integer   | N/A    | Integer          | N/A    | 0<br>1           | Not Mandatory<br>Default value 0<br>0=No<br>1=Yes                    |
| MIN_SPAC   | Hole Min Spacing (m)  | Double         | N/A    | Decimal          | N/A    | 1 to 9999        | Mandatory<br>Min. value 1m<br>Max. value 9,999m                      |
| GW         | Encounter Groundwater | Long Integer   | N/A    | Integer          | N/A    | 0<br>1           | Not Mandatory<br>Default value 0<br>0=No<br>1=Yes                    |

| Field Name | Alias                      | ESRI Shapefile |        | MapInfo TAB File |        | Values/<br>Range | Field<br>Requirements                                                             |
|------------|----------------------------|----------------|--------|------------------|--------|------------------|-----------------------------------------------------------------------------------|
|            |                            | Field Type     | Length | Field Type       | Length |                  |                                                                                   |
| SUMP       | Sump                       | Long Integer   | N/A    | Integer          | N/A    | 0<br>1           | Not Mandatory<br>Default value 0<br>0=No<br>1=Yes                                 |
| SUMP_L     | Sump Length (m)            | Double         | N/A    | Decimal          | N/A    | 0 to 99          | Conditional —<br>only if SUMP = 1<br>Min. value 0m<br>Max. value 99m              |
| SUMP_W     | Sump Width (m)             | Double         | N/A    | Decimal          | N/A    | 0 to 99          | Conditional —<br>only if SUMP = 1<br>Min. value 0m<br>Max. value 99m              |
| SUMP_D     | Sump Depth (m)             | Double         | N/A    | Decimal          | N/A    | 0 to 99          | Conditional —<br>only if SUMP = 1<br>Min. value 0m<br>Max. value 99m              |
| SUMP_INPAD | Sump Within Pad            | Long Integer   | N/A    | Integer          | N/A    | 0<br>1           | Conditional —<br>only if SUMP = 1<br>0=No<br>1=Yes                                |
| SUMP_COUNT | Sump Count                 | Long Integer   | N/A    | Integer          | N/A    | 0 to 99          | Conditional —<br>only if SUMP = 1                                                 |
| CUT_FILL   | Cut and Fill               | Long Integer   | N/A    | Integer          | N/A    | 0<br>1           | Not Mandatory<br>Default value 0<br>0=No<br>1=Yes                                 |
| CF_SLOPE   | Cut and Fill Slope Degrees | Double         | N/A    | Decimal          | N/A    | 0 to 89          | Conditional —<br>only if<br>CUT_FILL = 1<br>Min. value 0 deg<br>Max. value 89 deg |
|            |                            |                |        |                  |        |                  |                                                                                   |

| Field Name | Alias                           | ESRI Shapefile  |        | MapInfo TAB File |        | Values/<br>Range | Field<br>Requirements                                                                               |
|------------|---------------------------------|-----------------|--------|------------------|--------|------------------|-----------------------------------------------------------------------------------------------------|
|            |                                 | Field Type      | Length | Field Type       | Length |                  |                                                                                                     |
| CF_COUNT   | Cut and Fill<br>Pad Count       | Long<br>Integer | N/A    | Integer          | N/A    | 0 to 99          | Only if CUT_<br>FILL = 1                                                                            |
| CF_BD      | Cut and Fill<br>Bulk<br>Density | Double          | N/A    | Decimal          | N/A    | 0.01 to 9        | Conditional —<br>only if<br>CUT_FILL = 1<br>Default value<br>1.5<br>Min. value 0.01<br>Max. value 9 |
| BUFFER_M   | Buffer (m)                      | Long<br>Integer | N/A    | Integer          | N/A    | 1-999            | Optional —<br>defaults to 20m<br>Min. value 1m<br>Max. 999                                          |
| USER_TON   | User Tonnes                     | Double          | N/A    | Decimal          | N/A    | 0 to 99999       | Optional<br>Min. value 0t<br>Max. value<br>99,999t                                                  |
| USER_TON_R | User Tonnes<br>Reason           | Text            | 100    | Character        | 100    | —                | Conditional —<br>only if<br>USER_TON<br>field present and<br>> 0                                    |
| TENEMENT_I | Tenement                        | Text            | 20     | Character        | 20     | —                | Optional<br>Enter in<br>formatted<br>tenement id<br>(e.g. E 45/6038)<br>Live tenements<br>only      |

## Drill Polygon

|                   |                                            |
|-------------------|--------------------------------------------|
| EMA Activity Type | Drilling                                   |
| Shapefile         | Polygon                                    |
| Description       | One or more drill holes in a drilling area |

## Table Structure

| Field Name | Alias                 | ESRI Shapefile  |        | MapInfo TAB File |        | Values/<br>Range                                                                                                                   | Field<br>Requirements                                                                                    |
|------------|-----------------------|-----------------|--------|------------------|--------|------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
|            |                       | Field Type      | Length | Field Type       | Length |                                                                                                                                    |                                                                                                          |
| NAME       | Name                  | Text            | 50     | Character        | 50     | —                                                                                                                                  | Optional                                                                                                 |
| TARGET     | Exploration<br>Target | Text            | 20     | Character        | 20     | Mineral<br>Water                                                                                                                   | Mandatory                                                                                                |
| DRILL_TYPE | Drill Type            | Text            | 20     | Character        | 50     | Auger<br>Air Core<br>Diamond<br>Core<br>Other<br>Reverse<br>Circulation<br>Rotary Air<br>Blast<br>Rotary<br>Mud<br>Sonic<br>Vacuum | Mandatory                                                                                                |
| DT_OTHER   | Drill Type<br>Other   | Text            | 50     | Character        | 50     | —                                                                                                                                  | Conditional —<br>only if<br>DRILL_TYPE =<br>Other<br>Enter non-<br>standard drilling<br>type description |
| HOLE_COUNT | Hole Count            | Long<br>Integer | N/A    | Integer          | N/A    | 1 to 99999                                                                                                                         | Mandatory<br>Min. value 1<br>Max. value<br>99,999                                                        |
| DEPTH      | Max Depth (m)         | Double          | N/A    | Decimal          | N/A    | 0.01 to<br>9999                                                                                                                    | Mandatory<br>Min. value<br>0.01m<br>Max. value<br>9,999m                                                 |

| Field Name | Alias                 | ESRI Shapefile |        | MapInfo TAB File |        | Values/<br>Range | Field Requirements                                                   |
|------------|-----------------------|----------------|--------|------------------|--------|------------------|----------------------------------------------------------------------|
|            |                       | Field Type     | Length | Field Type       | Length |                  |                                                                      |
| TRACK_L    | Track Length (m)      | Double         | N/A    | Decimal          | N/A    | 0 to 999999      | Optional<br>Max. value 999,999m                                      |
| TRACK_W    | Track Width           | Double         | N/A    | Decimal          | N/A    | 0 to 99          | Conditional — only if TRACK_L > 0<br>Max. value 99m                  |
| PAD_COUNT  | Pad Count             | Long Integer   | N/A    | Integer          | N/A    | 0 to 9999        | Mandatory<br>Min. value 0<br>Max. value 9999<br>If no pads, enter 0  |
| PAD_L      | Pad Length (m)        | Double         | N/A    | Decimal          | N/A    | 0 to 99          | Mandatory<br>Min. value 0m<br>Max. value 99m<br>If no pads, enter 0m |
| PAD_W      | Pad Width (m)         | Double         | N/A    | Decimal          | N/A    | 0 to 99          | Mandatory<br>Min. value 0m<br>Max. value 99m<br>If no pads, enter 0m |
| INFILL     | Infill Resource       | Long Integer   | N/A    | Integer          | N/A    | 0<br>1           | Not Mandatory<br>Default value 0<br>0=No<br>1=Yes                    |
| MIN_SPAC   | Hole Min Spacing (m)  | Double         | N/A    | Decimal          | N/A    | 1 to 9999        | Mandatory<br>Min. value 1m<br>Max. value 9,999m                      |
| GW         | Encounter Groundwater | Long Integer   | N/A    | Integer          | N/A    | 0<br>1           | Not Mandatory<br>Default value 0<br>0=No<br>1=Yes                    |
| SUMP       | Sump                  | Long Integer   | N/A    | Integer          | N/A    | 0<br>1           | Not Mandatory<br>Default value 0<br>0=No<br>1=Yes                    |

| Field Name | Alias                         | ESRI Shapefile  |        | MapInfo TAB File |        | Values/<br>Range | Field<br>Requirements                                                                |
|------------|-------------------------------|-----------------|--------|------------------|--------|------------------|--------------------------------------------------------------------------------------|
|            |                               | Field Type      | Length | Field Type       | Length |                  |                                                                                      |
| SUMP_L     | Sump Length<br>(m)            | Double          | N/A    | Decimal          | N/A    | 0 to 99          | Conditional —<br>only if SUMP =<br>1<br>Min. value 0m<br>Max. value 99m              |
| SUMP_W     | Sump Width<br>(m)             | Double          | N/A    | Decimal          | N/A    | 0 to 99          | Conditional —<br>only if SUMP =<br>1<br>Min. value 0m<br>Max. value 99m              |
| SUMP_D     | Sump Depth<br>(m)             | Double          | N/A    | Decimal          | N/A    | 0 to 99          | Conditional —<br>only if SUMP =<br>1<br>Min. value 0m<br>Max. value 99m              |
| SUMP_INPAD | Sump Within<br>Pad            | Long<br>Integer | N/A    | Integer          | N/A    | 0<br>1           | Conditional —<br>only if SUMP =<br>1<br>0=No<br>1=Yes                                |
| SUMP_COUNT | Sump Count                    | Long<br>Integer | N/A    | Integer          | N/A    | 1 to 99          | Conditional —<br>only if SUMP =<br>1                                                 |
| CUT_FILL   | Cut and Fill                  | Long<br>Integer | N/A    | Integer          | N/A    | 01               | Not Mandatory<br>Default value 0<br>0=No<br>1=Yes                                    |
| CF_SLOPE   | Cut and Fill<br>Slope Degrees | Double          | N/A    | Decimal          | N/A    | 0 to 89          | Conditional —<br>only if<br>CUT_FILL = 1<br>Min. value 0 deg<br>Max. value 89<br>deg |
| CF_COUNT   | Cut and Fill<br>Count         | Long<br>Integer | N/A    | Integer          | N/A    |                  | Only if CUT_<br>FILL = 1                                                             |
|            |                               |                 |        |                  |        |                  |                                                                                      |

| Field Name | Alias                        | ESRI Shapefile  |        | MapInfo TAB File |        | Values/<br>Range | Field<br>Requirements                                                                               |
|------------|------------------------------|-----------------|--------|------------------|--------|------------------|-----------------------------------------------------------------------------------------------------|
|            |                              | Field Type      | Length | Field Type       | Length |                  |                                                                                                     |
| CF_BD      | Cut and Fill<br>Bulk Density | Double          | N/A    | Decimal          | N/A    | 0.01 to 9        | Conditional —<br>only if<br>CUT_FILL = 1<br>Default value<br>1.5<br>Min. value 0.01<br>Max. value 9 |
| BUFFER_M   | Buffer (m)                   | Long<br>Integer | N/A    | Integer          | N/A    | 0-999            | Optional —<br>defaults to 0m<br>Min. value 0m<br>Max. 999                                           |
| USER_TON   | User Tonnes                  | Double          | N/A    | Decimal          | N/A    | 0 to 99999       | Optional<br>Min. value 0t<br>Max. value<br>99,999t                                                  |
| USER_TON_R | User Tonnes<br>Reason        | Text            | 100    | Character        | 100    | —                | Conditional —<br>only if<br>USER_TON<br>field present<br>and > 0                                    |
| TENEMENT_I | Tenement                     | Text            | 20     | Character        | 20     | —                | Optional<br>Enter in<br>formatted<br>tenement id<br>(e.g. E 45/6038)<br>Live tenements<br>only      |

## Costean

|                   |                                           |
|-------------------|-------------------------------------------|
| EMA Activity Type | COSTEAN                                   |
| Shapefile         | Line                                      |
| Description       | A line representing an excavation costean |

### Table Structure

| Field Name | Alias              | ESRI Shapefile |        | MapInfo TAB File |        | Values/<br>Range | Field Requirements                                                                 |
|------------|--------------------|----------------|--------|------------------|--------|------------------|------------------------------------------------------------------------------------|
|            |                    | Field Type     | Length | Field Type       | Length |                  |                                                                                    |
| NAME       | Name               | Text           | 50     | Character        | 50     | —                | Optional                                                                           |
| WIDTH      | Average Width (m)  | Double         | N/A    | Decimal          | N/A    | 0.01 to 99       | Mandatory<br>Min. value 0.01m<br>Max. value 99m                                    |
| DEPTH      | Depth (m)          | Double         | N/A    | Decimal          | N/A    | 0.01 to 4        | Mandatory<br>Min. value 0.01m<br>Max. value 4m                                     |
| BD         | Bulk Density       | Double         | N/A    | Decimal          | N/A    | 0.01 to 9        | Mandatory Default value 1.5<br>Min. value 0.01<br>Max. value 9                     |
| BUFFER_M   | Buffer (m)         | Long Integer   | N/A    | Integer          | N/A    | 1-999            | Optional — defaults to 20m<br>Min. value 1m<br>Max. 999                            |
| USER_TON   | User Tonnes        | Double         | N/A    | Decimal          | N/A    | 0 to 99999       | Optional<br>Min. value 0t<br>Max. value 99,999t                                    |
| USER_TON_R | User Tonnes Reason | Text           | 100    | Character        | 100    | —                | Conditional — only if USER_TON field present and > 0                               |
| TENEMENT_I | Tenement           | Text           | 20     | Character        | 20     | —                | Optional<br>Enter in formatted tenement id (e.g. E 45/6038)<br>Live tenements only |

## Excavation

|                   |                                           |
|-------------------|-------------------------------------------|
| EMA Activity Type | EXCAVATION                                |
| Shapefile         | Polygon                                   |
| Description       | A polygon area representing an excavation |

### Table Structure

| Field Name | Alias              | ESRI Shapefile |        | MapInfo TAB File |        | Values/<br>Range  | Field Requirements                                             |
|------------|--------------------|----------------|--------|------------------|--------|-------------------|----------------------------------------------------------------|
|            |                    | Field Type     | Length | Field Type       | Length |                   |                                                                |
| NAME       | Name               | Text           | 50     | Character        | 50     | —                 | Optional                                                       |
| DIST_TYPE  | Disturbance Type   | Text           | 50     | Character        | 50     | Scrape and Detect | Mandatory                                                      |
| DEPTH      | Depth (m)          | Double         | N/A    | Decimal          | N/A    | 0.01 to 4         | Mandatory<br>Min. value 0.01m<br>Max. value 4m                 |
| PRO_TYPE   | Processing Type    | Text           | 20     | Character        | 20     | None              | Mandatory                                                      |
| REMOVED_TO | Removed Tonnes     | Double         | N/A    | Decimal          | N/A    | 0 to 99999        | Optional<br>Max. value 99,999m                                 |
| BD         | Bulk Density       | Double         | N/A    | Decimal          | N/A    | 0.01 to 9         | Mandatory Default value 1.5<br>Min. value 0.01<br>Max. value 9 |
| BUFFER_M   | Buffer (m)         | Long Integer   | N/A    | Integer          | N/A    | 0-999             | Optional — defaults to 50m<br>Min. value 0m<br>Max. 999        |
| USER_TON   | User Tonnes        | Double         | N/A    | Decimal          | N/A    | 0 to 99999        | Optional<br>Min. value 0t<br>Max. value 99,999t                |
| USER_TON_R | User Tonnes Reason | Text           | 100    | Character        | 100    | —                 | Conditional — only if USER_TON field present and > 0           |
|            |                    |                |        |                  |        |                   |                                                                |

| Field Name | Alias    | ESRI Shapefile |        | MapInfo TAB File |        | Values/<br>Range | Field Requirements                                                                       |
|------------|----------|----------------|--------|------------------|--------|------------------|------------------------------------------------------------------------------------------|
|            |          | Field Type     | Length | Field Type       | Length |                  |                                                                                          |
| TENEMENT_I | Tenement | Text           | 20     | Character        | 20     | —                | Optional<br>Enter in formatted<br>tenement id<br>(e.g. E 45/6038)<br>Live tenements only |

## Test Pit

|                   |                                  |
|-------------------|----------------------------------|
| EMA Activity Type | TEST_PIT                         |
| Shapefile         | Polygon                          |
| Description       | One or more test pits in an area |

### Table Structure

| Field Name | Alias              | ESRI Shapefile |        | MapInfo TAB File |        | Values/Range | Field Requirements                                                |
|------------|--------------------|----------------|--------|------------------|--------|--------------|-------------------------------------------------------------------|
|            |                    | Field Type     | Length | Field Type       | Length |              |                                                                   |
| NAME       | Name               | Text           | 50     | Character        | 50     | —            | Optional                                                          |
| COUNT      | Test Pit Count     | Long Integer   | N/A    | Integer          | N/A    | 1 to 9999    | Mandatory<br>Min. value 1<br>Max. value 9999                      |
| WIDTH      | Average Width (m)  | Double         | N/A    | Decimal          | N/A    | 0.01 to 99   | Mandatory<br>Min. value 0.01m<br>Max. value 99m                   |
| LENGTH     | Average Length (m) | Double         | N/A    | Decimal          | N/A    | 0.01 to 99   | Mandatory<br>Min. value 0.01m<br>Max. value 99m                   |
| DEPTH      | Average Depth (m)  | Double         | N/A    | Decimal          | N/A    | 0.01 to 4    | Mandatory<br>Min. value 0.01m<br>Max. value 4m                    |
| BD         | Bulk Density       | Double         | N/A    | Decimal          | N/A    | 0.01 to 9    | Mandatory<br>Default value 1.5<br>Min. value 0.01<br>Max. value 9 |
| MIN_SPAC   | Min Spacing (m)    | Double         | N/A    | Decimal          | N/A    | 1 to 9999    | Mandatory<br>Min. value 1m<br>Max. value 9,999m                   |
| TRACK_L    | Track Length (m)   | Double         | N/A    | Decimal          | N/A    | 0 to 999999  | Optional<br>Max. value 999,999m                                   |
| TRACK_W    | Track Width (m)    | Double         | N/A    | Decimal          | N/A    | 0 to 99      | Conditional — only if TRACK_L                                     |

| Field Name | Alias                            | ESRI Shapefile |        | MapInfo TAB File |        | Values/Range | Field Requirements                                                                                    |
|------------|----------------------------------|----------------|--------|------------------|--------|--------------|-------------------------------------------------------------------------------------------------------|
|            |                                  | Field Type     | Length | Field Type       | Length |              |                                                                                                       |
|            |                                  |                |        |                  |        |              | > 0<br>Max. value 99m                                                                                 |
| CUT_FILL_T | Cut and Fill Tracks              | Long Integer   | N/A    | Small Integer    | N/A    | 0<br>1       | Not Mandatory<br>Default value 0<br>0=No<br>1=Yes                                                     |
| CFT_SLOPE  | Cut and Fill Track Slope Degrees | Double         | N/A    | Decimal          | N/A    | 0 to 89      | Conditional —<br>only if<br>CUT_FILL_T =<br>1<br>Min. value 0 deg<br>Max. value 89 deg                |
| CFT_BD     | Cut and Fill Tracks Bulk Density | Double         | N/A    | Decimal          | N/A    | 0.01 to 9    | Conditional —<br>only if<br>CUT_FILL_T =<br>1 Default value<br>1.5<br>Min. value 0.01<br>Max. value 9 |
| REMOVED_TO | Removed Tonnes                   | Double         | N/A    | Decimal          | N/A    | 0 to 99999   | Optional<br>Max. value<br>99,999m                                                                     |
| BUFFER_M   | Buffer (m)                       | Long Integer   | N/A    | Integer          | N/A    | 0-999        | Optional —<br>defaults to 0m<br>Min. value 0m<br>Max. 999                                             |
| USER_TON   | User Tonnes                      | Double         | N/A    | Decimal          | N/A    | 0 to 99999   | Optional<br>Min. value 0t<br>Max. value<br>99,999t                                                    |
| USER_TON_R | User Tonnes Reason               | Text           | 100    | Character        | 100    | —            | Conditional —<br>only if<br>USER_TON<br>field present and<br>> 0                                      |
|            |                                  |                |        |                  |        |              |                                                                                                       |

| Field Name | Alias    | ESRI Shapefile |        | MapInfo TAB File |        | Values/Range | Field Requirements                                                                 |
|------------|----------|----------------|--------|------------------|--------|--------------|------------------------------------------------------------------------------------|
|            |          | Field Type     | Length | Field Type       | Length |              |                                                                                    |
| TENEMENT_I | Tenement | Text           | 20     | Character        | 20     | —            | Optional<br>Enter in formatted tenement id (e.g. E 45/6038)<br>Live tenements only |

## Track

|                   |                                    |
|-------------------|------------------------------------|
| EMA Activity Type | TRACK                              |
| Shapefile         | Line                               |
| Description       | A line representing a single track |

### Table Structure

| Field Name | Alias                      | ESRI Shapefile |        | MapInfo TAB File |        | Values/Range | Field Requirements                                                          |
|------------|----------------------------|----------------|--------|------------------|--------|--------------|-----------------------------------------------------------------------------|
|            |                            | Field Type     | Length | Field Type       | Length |              |                                                                             |
| NAME       | Name                       | Text           | 50     | Character        | 50     | —            | Optional                                                                    |
| TRACK_TYPE | Track Type                 | Text           | 50     | Character        | 50     | New          | Mandatory                                                                   |
| WIDTH      | Average Width (m)          | Double         | N/A    | Decimal          | N/A    | 1 to 99      | Conditional — only if TRACK_TYPE = 'New'<br>Min. value 1m<br>Max. value 99m |
| CUT_FILL   | Cut and Fill               | Long Integer   | N/A    | Small Integer    | N/A    | 0<br>1       | Not Mandatory<br>Default value 0<br>0=No<br>1=Yes                           |
| CF_SLOPE   | Cut and Fill Slope Degrees | Double         | N/A    | Decimal          | N/A    | 0 to 89      | Conditional — only if CUT_FILL = 1<br>Min. value 0 deg<br>Max. value 89 deg |
| CF_BD      | Cut and Fill Bulk Density  | Double         | N/A    | Decimal          | N/A    | 0.01 to 9    | Conditional — only if CUT_FILL = 1<br>Min. value 0.01<br>Max. value 9       |
| BUFFER_M   | Buffer (m)                 | Long Integer   | N/A    | Integer          | N/A    | 0-999        | Optional — defaults to 20m<br>Min. value 0m<br>Max. 999                     |

| Field Name | Alias    | ESRI Shapefile |        | MapInfo TAB File |        | Values/Range | Field Requirements                                                                 |
|------------|----------|----------------|--------|------------------|--------|--------------|------------------------------------------------------------------------------------|
|            |          | Field Type     | Length | Field Type       | Length |              |                                                                                    |
| TENEMENT_I | Tenement | Text           | 20     | Character        | 20     | —            | Optional<br>Enter in formatted tenement id (e.g. E 45/6038)<br>Live tenements only |