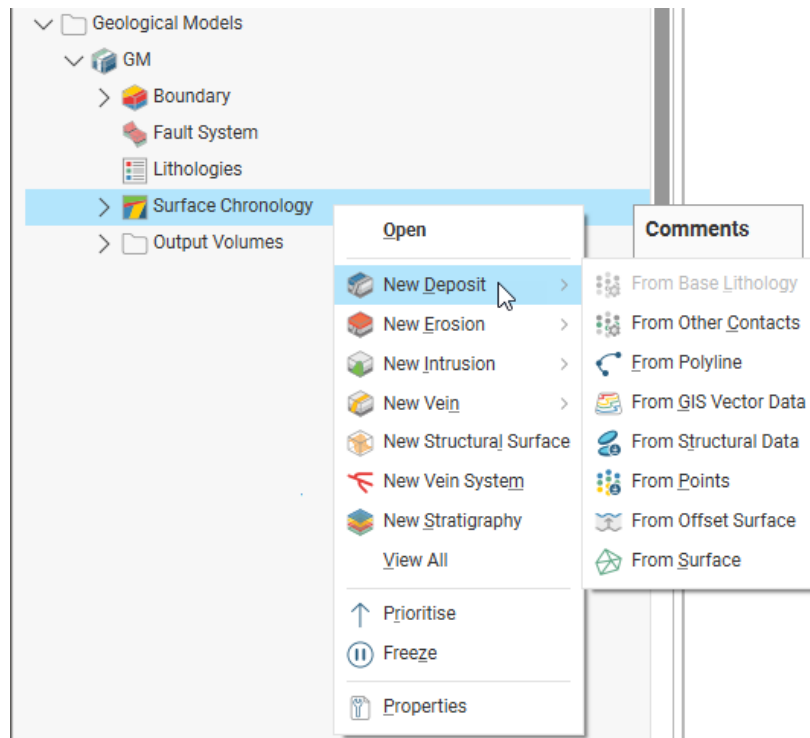# Leapfrog Geothermal Surface Types
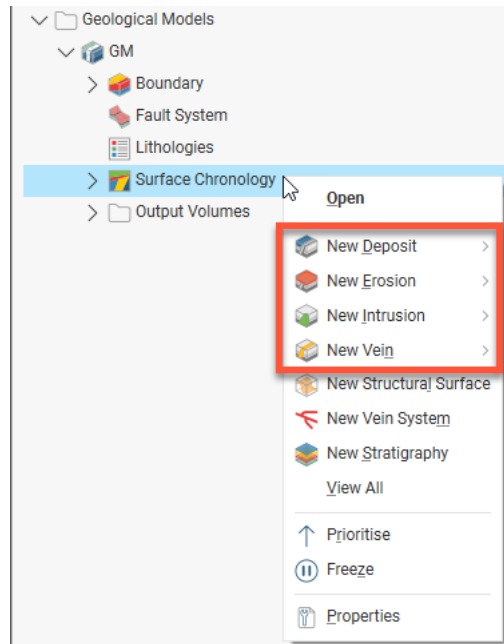
For Leapfrog Geothermal Version 2021.1

Core Contact Surface Types

- Deposit and Erosion Surfaces
- Intrusion Surfaces
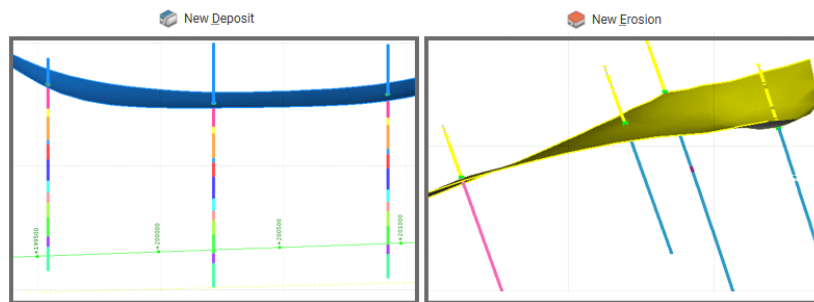- Vein Surfaces

Specific Function Surfaces

- Structural Surfaces
- Offset Surfaces
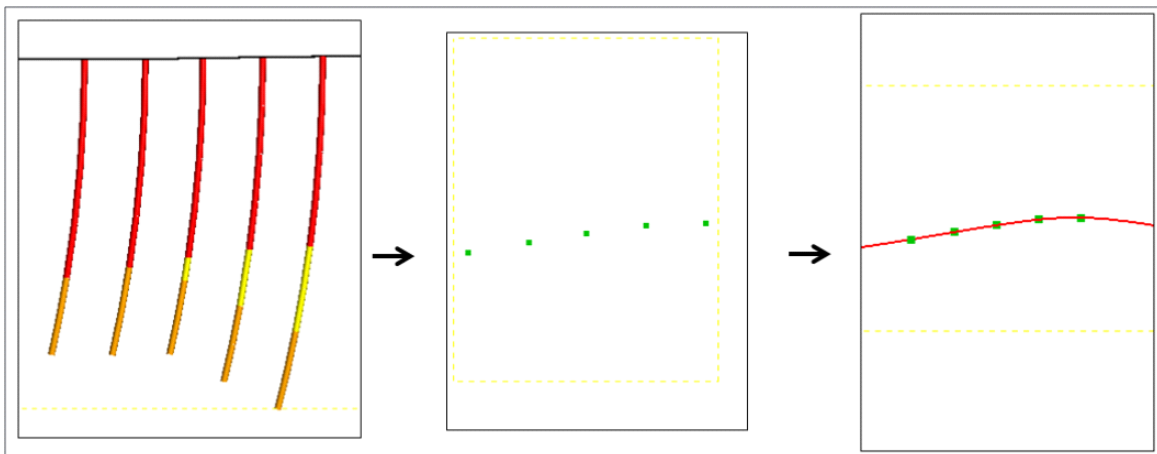- Vein System Surfaces
- Stratigraphic Sequences

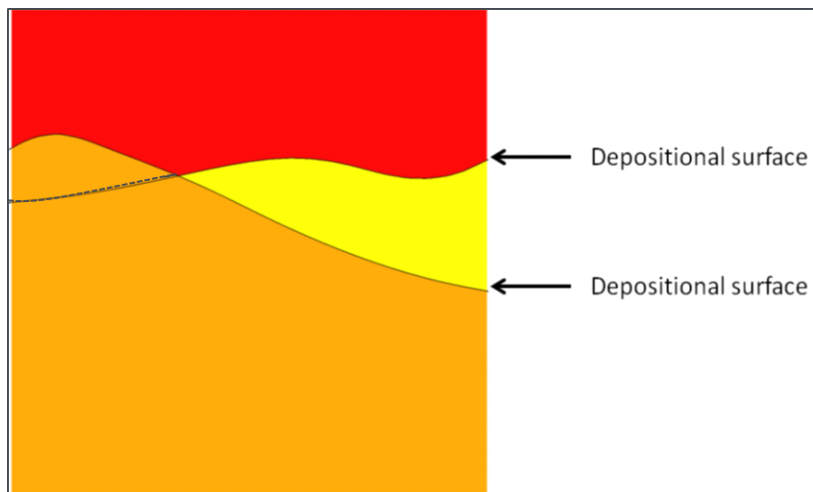# Core Contact Surface Types

Deposit and Erosion Surfaces

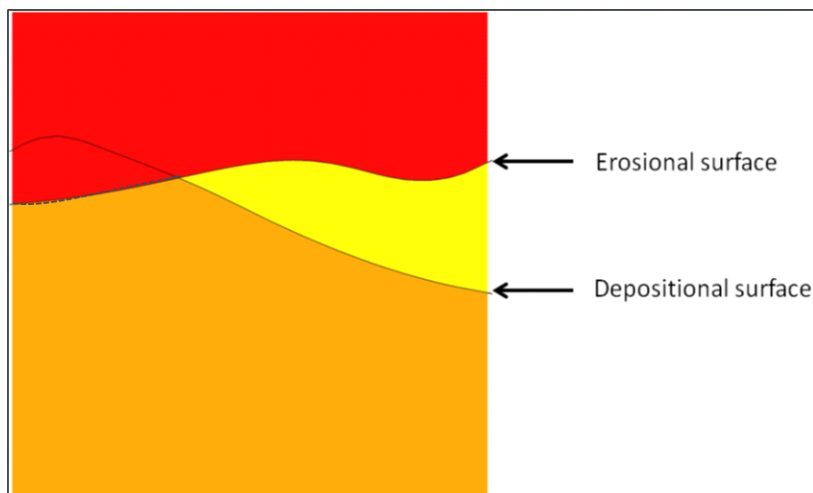One set of contact points – above **OR** below the unit of interest

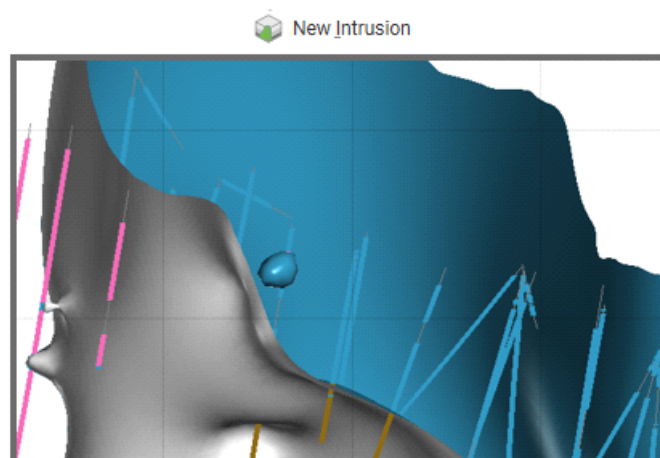Only **ONE** contact point per unit per well

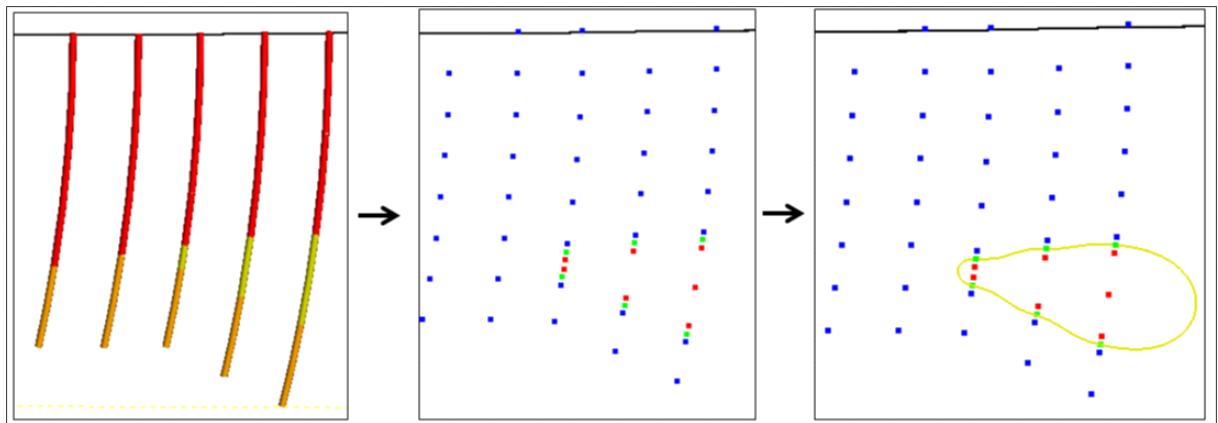Deposit surface volumes **cannot** cut into an underlying older unit

Erosion surface volumes **can** cut into an underlying older unit
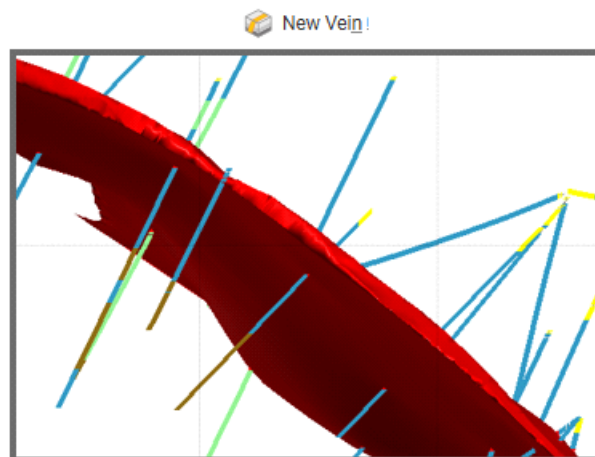

Intrusion Surfaces

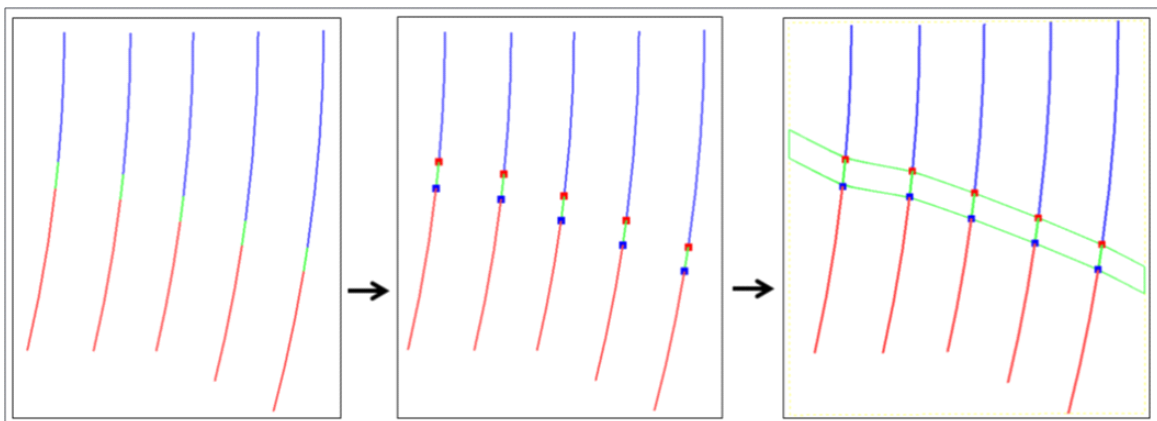One set of contact points – above **AND** below the unit of interest

Can have **MULTIPLE** contact points per unit per well

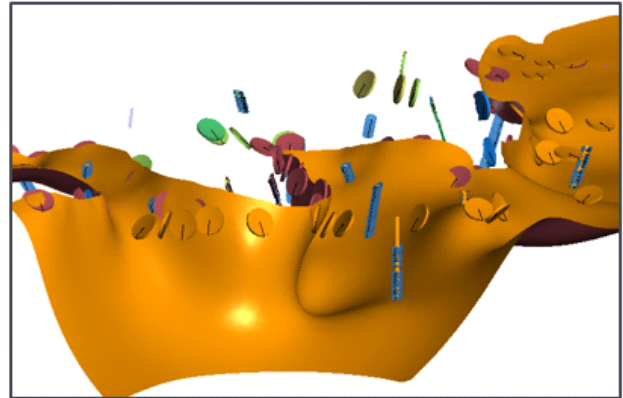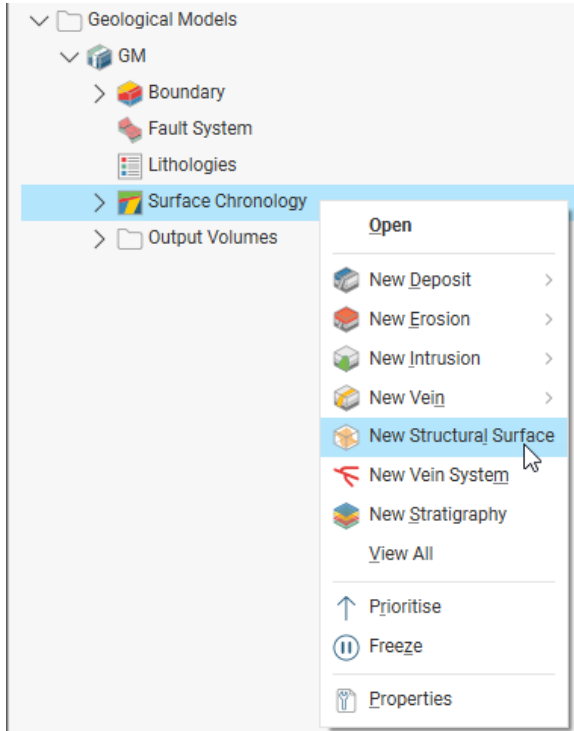Intrusion volumes **enclose** the unit of interest

Vein Surfaces

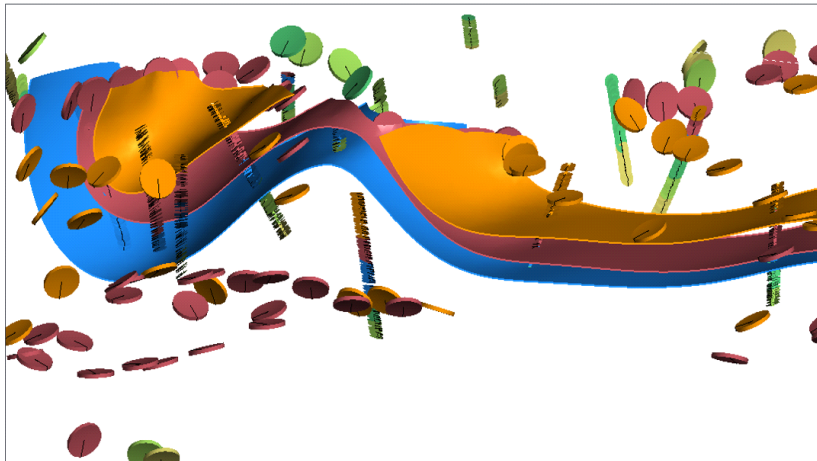**Two** sets of contact points – above **AND** below the unit of interest

Creates a Hanging wall (HW) set **AND** Footwall (FW) set of contact points

Specific Function Surfaces
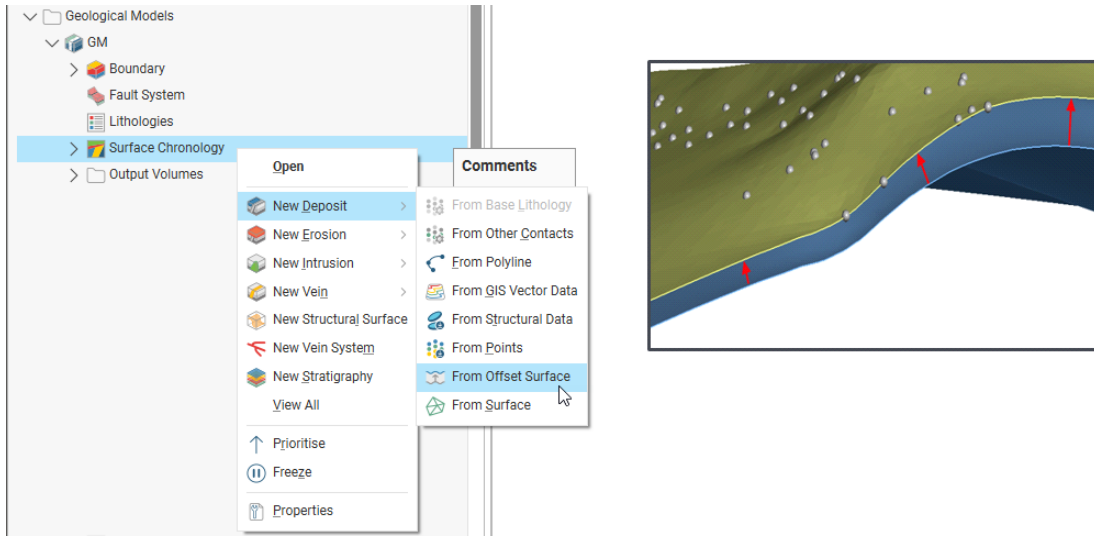
Structural Surfaces

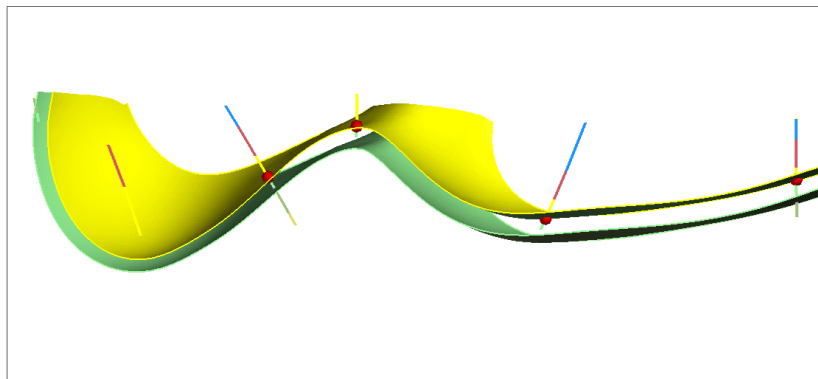Incorporates **non-contact** structural data with on-contact data (drilling data, surface mapping)

Can be used for a **Deposit**, **Erosion** or **Intrusion** contact type
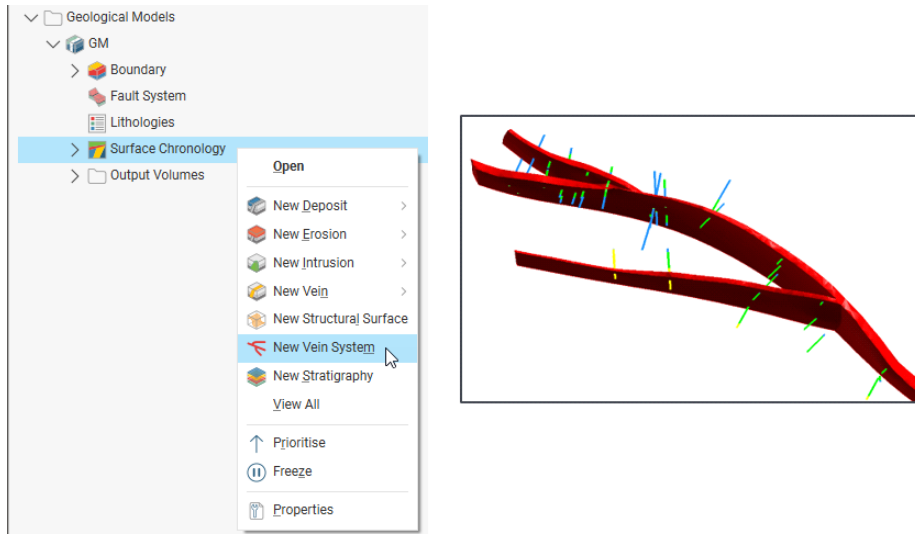
Offset Surfaces

Maintains **consistent offset** while **honouring** contact points – for stratigraphy with common deformation
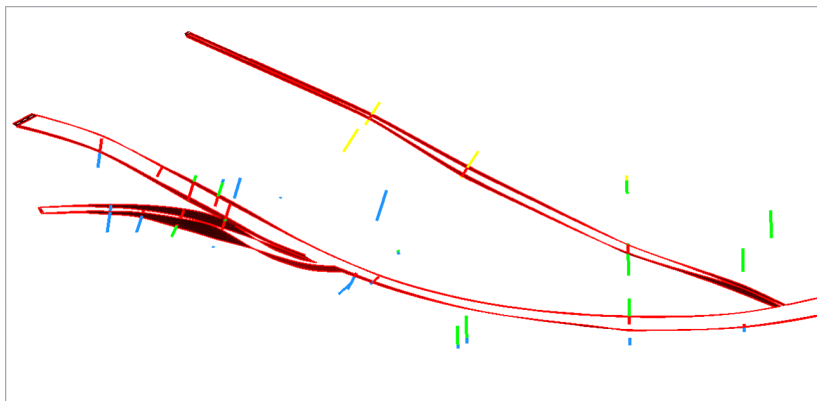

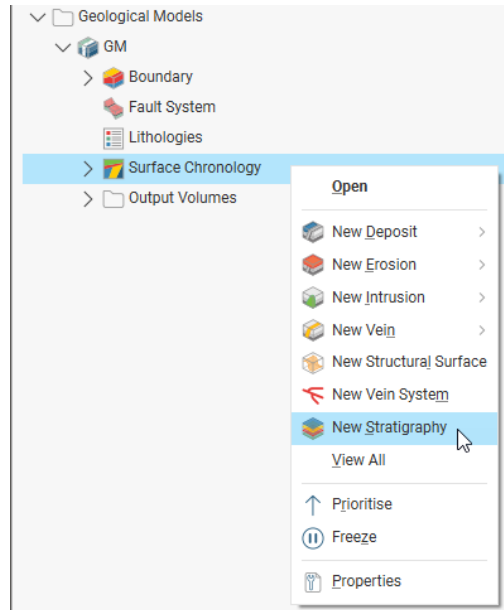Can be used for a **Deposit** or **Erosion** contact type

Vein System Surfaces

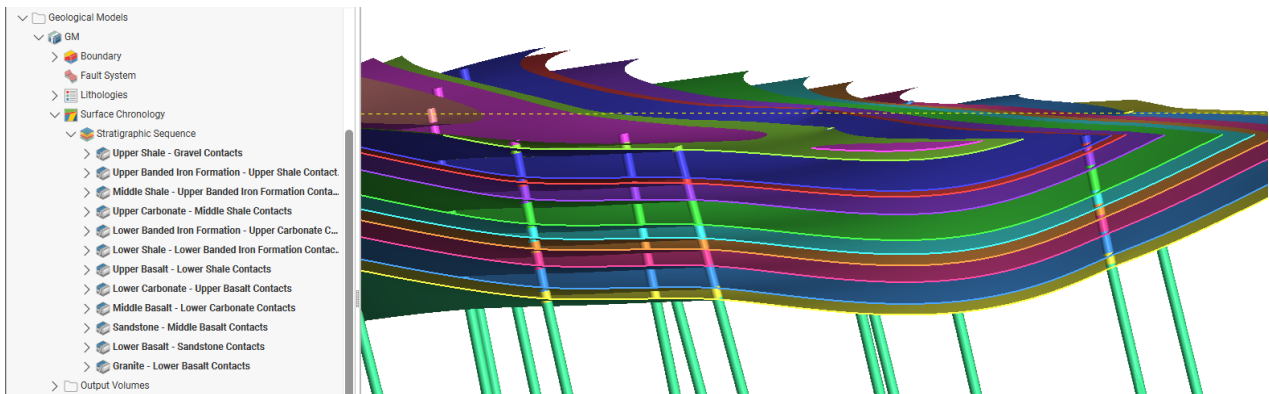Combines individual veins into a **single interconnected system** of veins

Can be used for a **Vein** contact type

Stratigraphic Sequences

Generates **multiple** surfaces in a stratigraphic sequence in a **single pass**

Can be used for a **Deposit** or **Erosion** contact type