

LEAPFROG GEOTHERMAL



leapfrog®

FAST, DYNAMIC GEOLOGICAL MODELLING

# SURFACE TYPES

Leapfrog Geothermal 3.7

# LEAPFROG GEOTHERMAL 3.7 SURFACES

## CORE CONTACT SURFACE TYPES

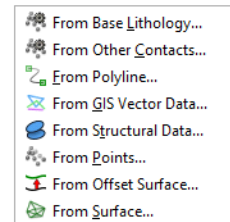
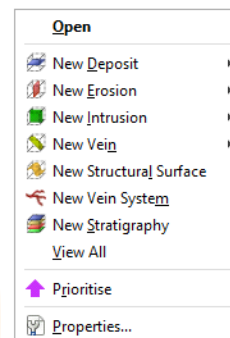
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Deposit

Erosion

Intrusion

Vein



## SPECIFIC FUNCTION SURFACES

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Structural

Offset

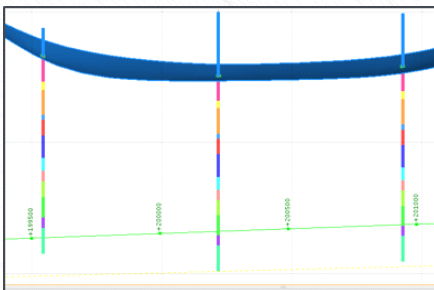
Vein System

Stratigraphy

## CORE CONTACT SURFACE TYPES

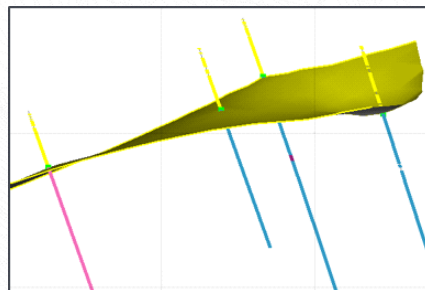
Deposit

Shale - Gravel Contacts



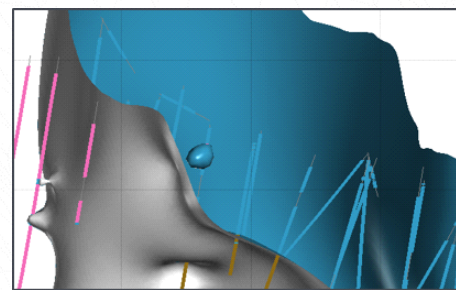
Erosion

Recent contacts



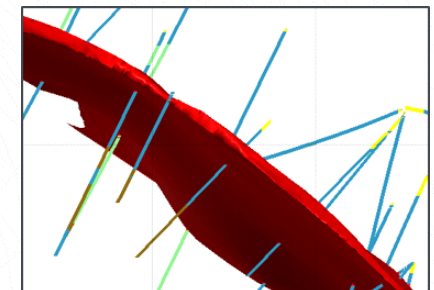
Intrusion

Early Diorite



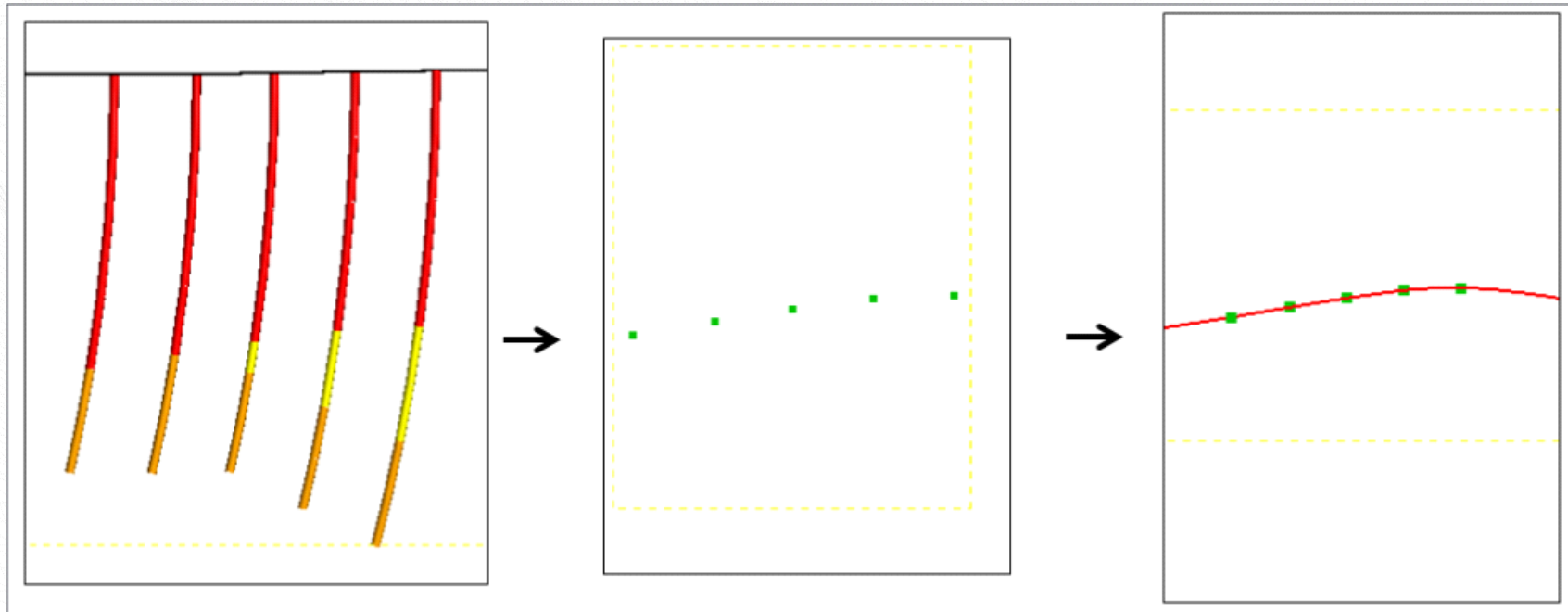
Vein

Dyke 1



# DEPOSIT AND EROSION SURFACE

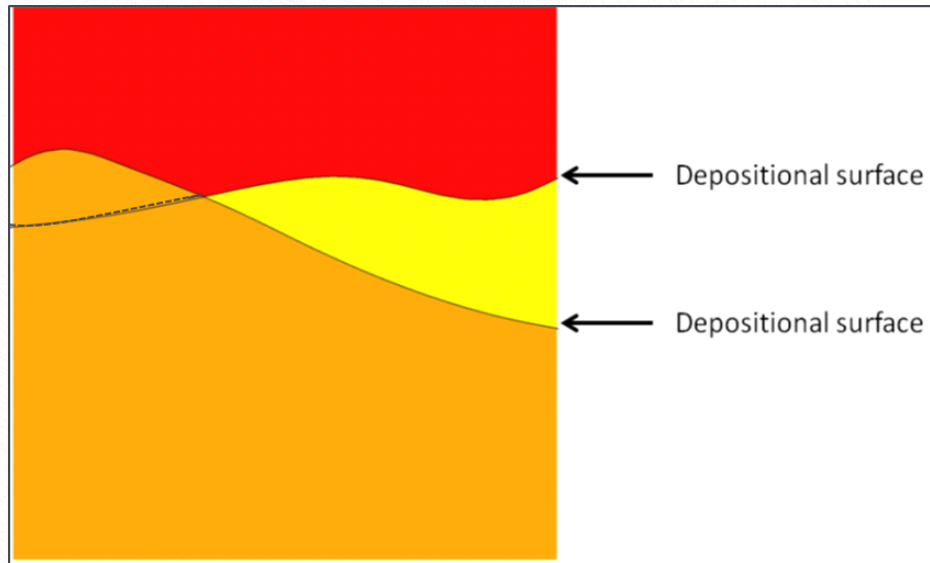
One set of contact points – above OR below the unit of interest



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

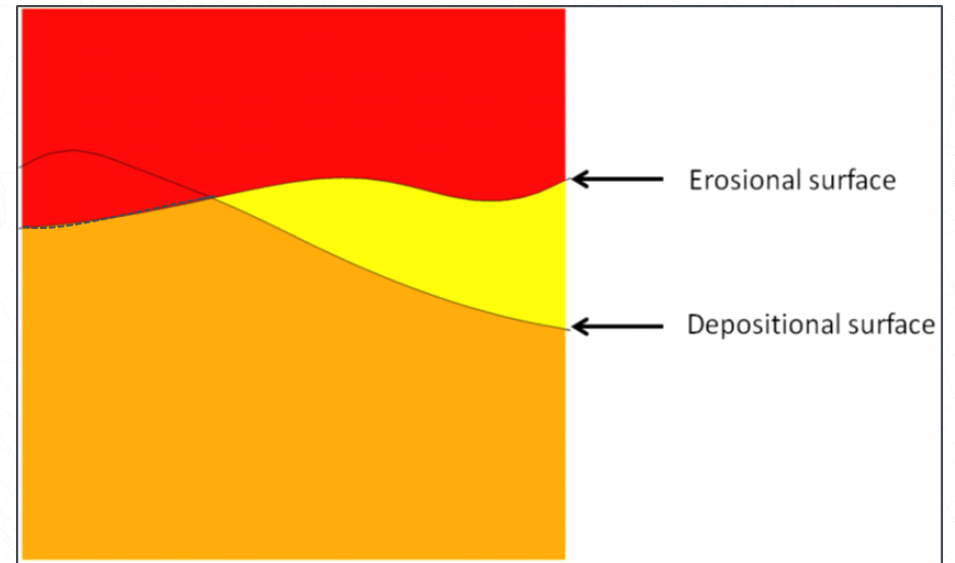
# DEPOSIT AND EROSION VOLUMES

## Deposit Surface



Cannot cut into an underlying older unit

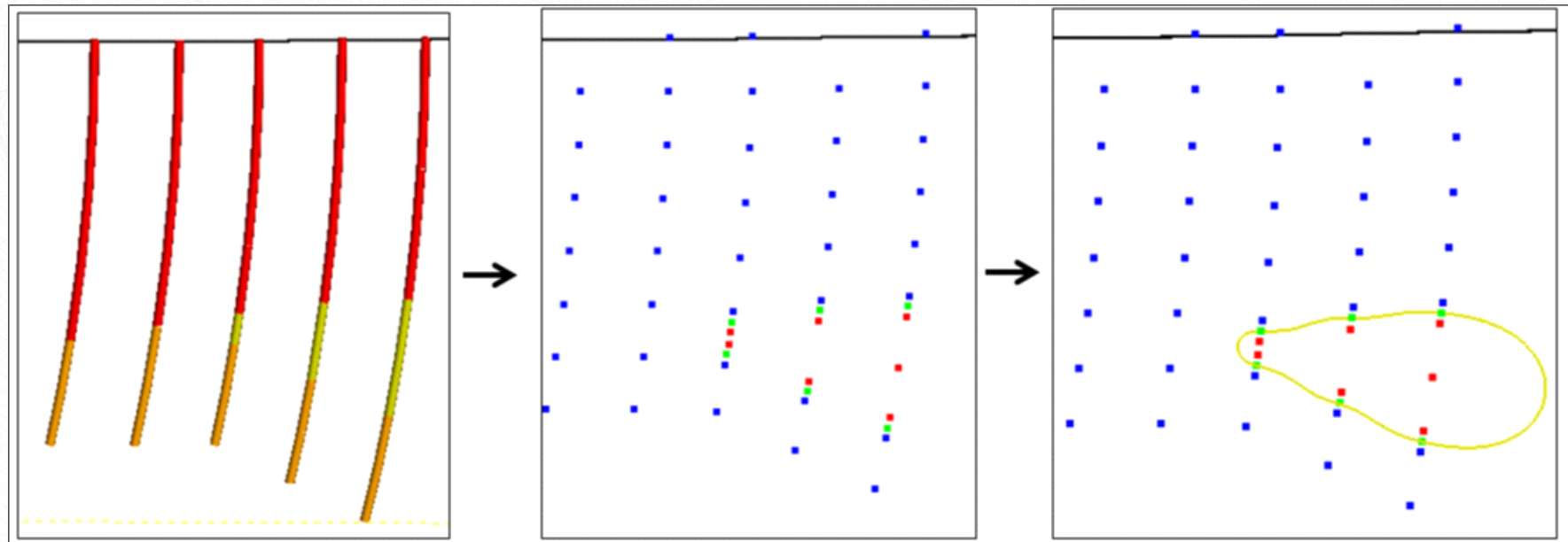
## Erosion Surface



Can cut into an underlying older unit

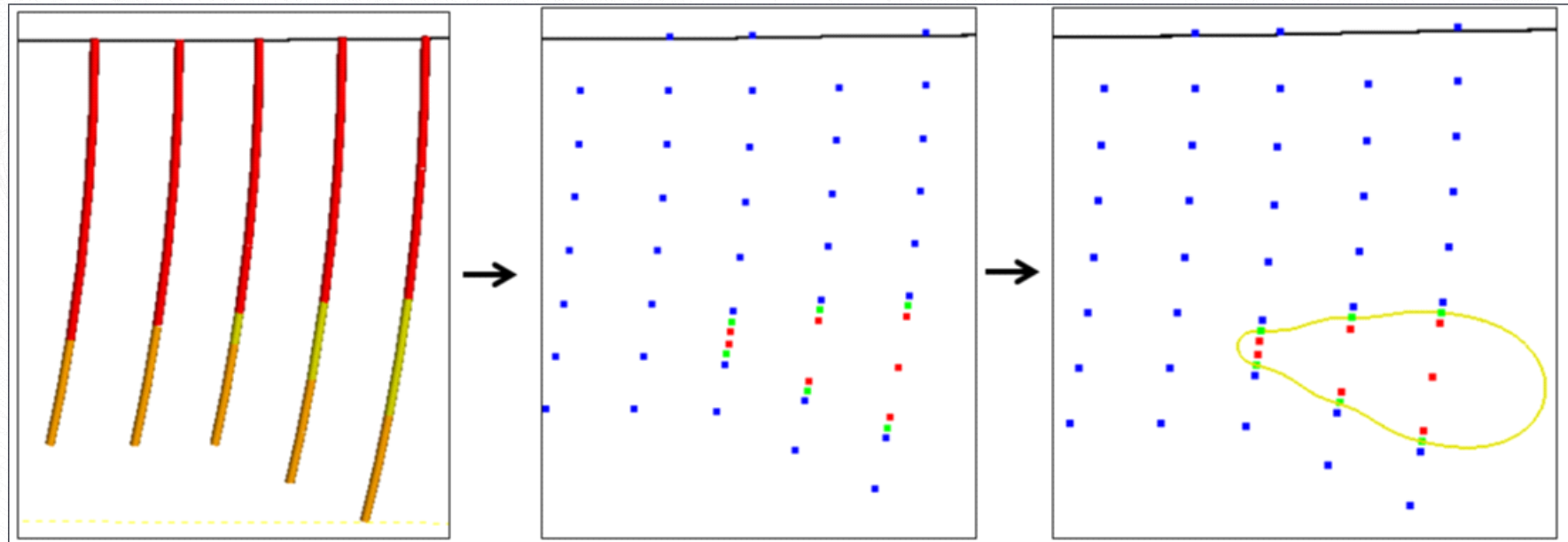
# INTRUSION SURFACE

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



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

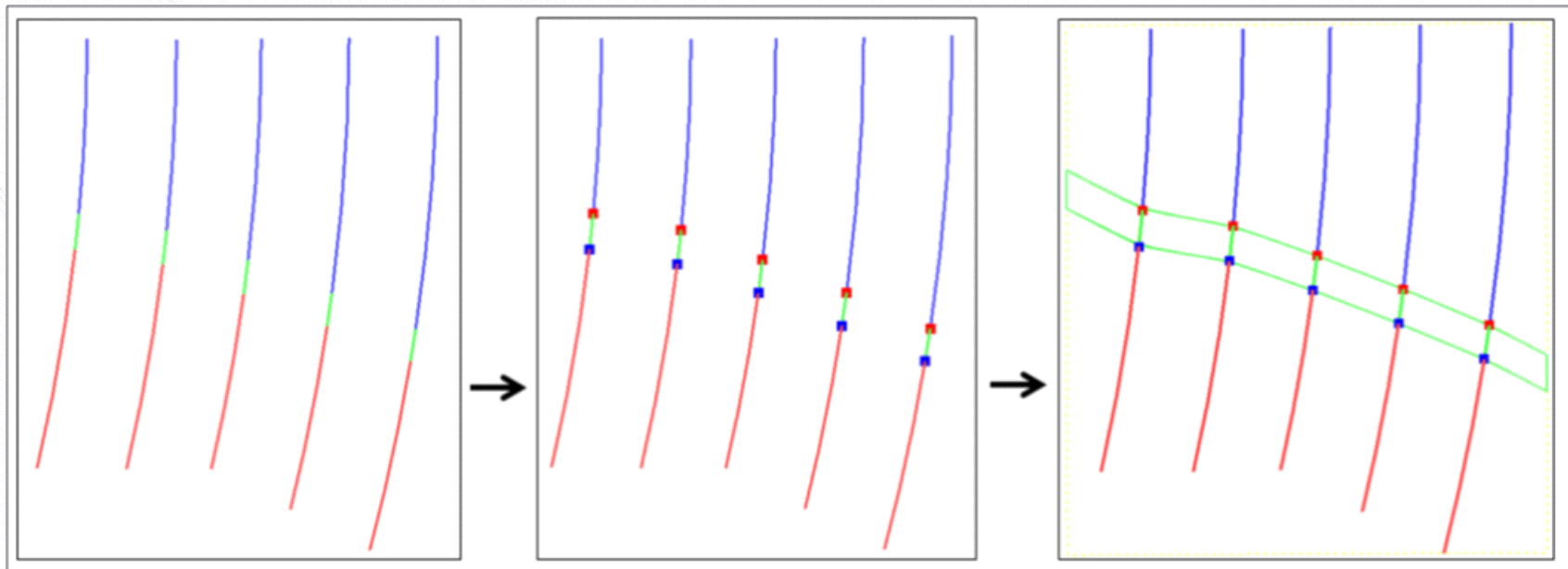
# INTRUSION VOLUMES



Encloses the unit of interest

# VEIN SURFACE

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

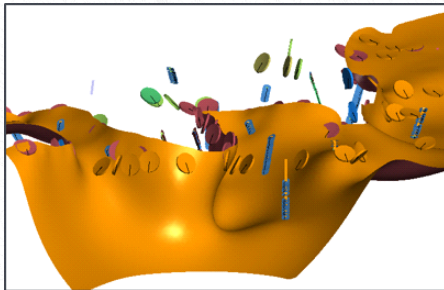


# SPECIFIC FUNCTION SURFACES

## SPECIFIC FUNCTION SURFACES

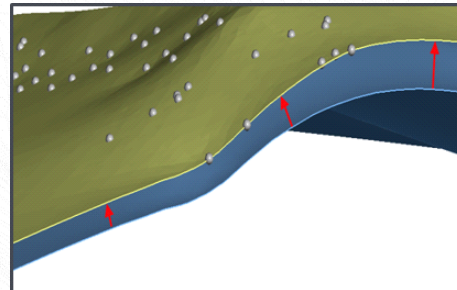
### Structural

Amuri - Enys Contacts



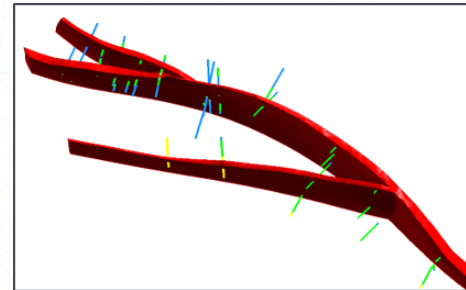
### Offset

From Offset Surface...



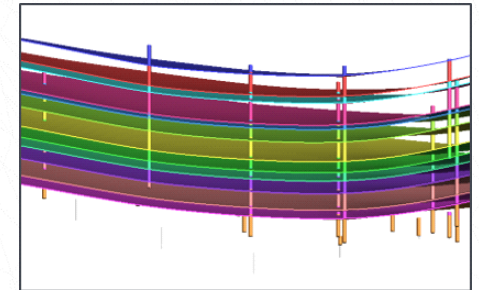
### Vein System

Quartz Vein System



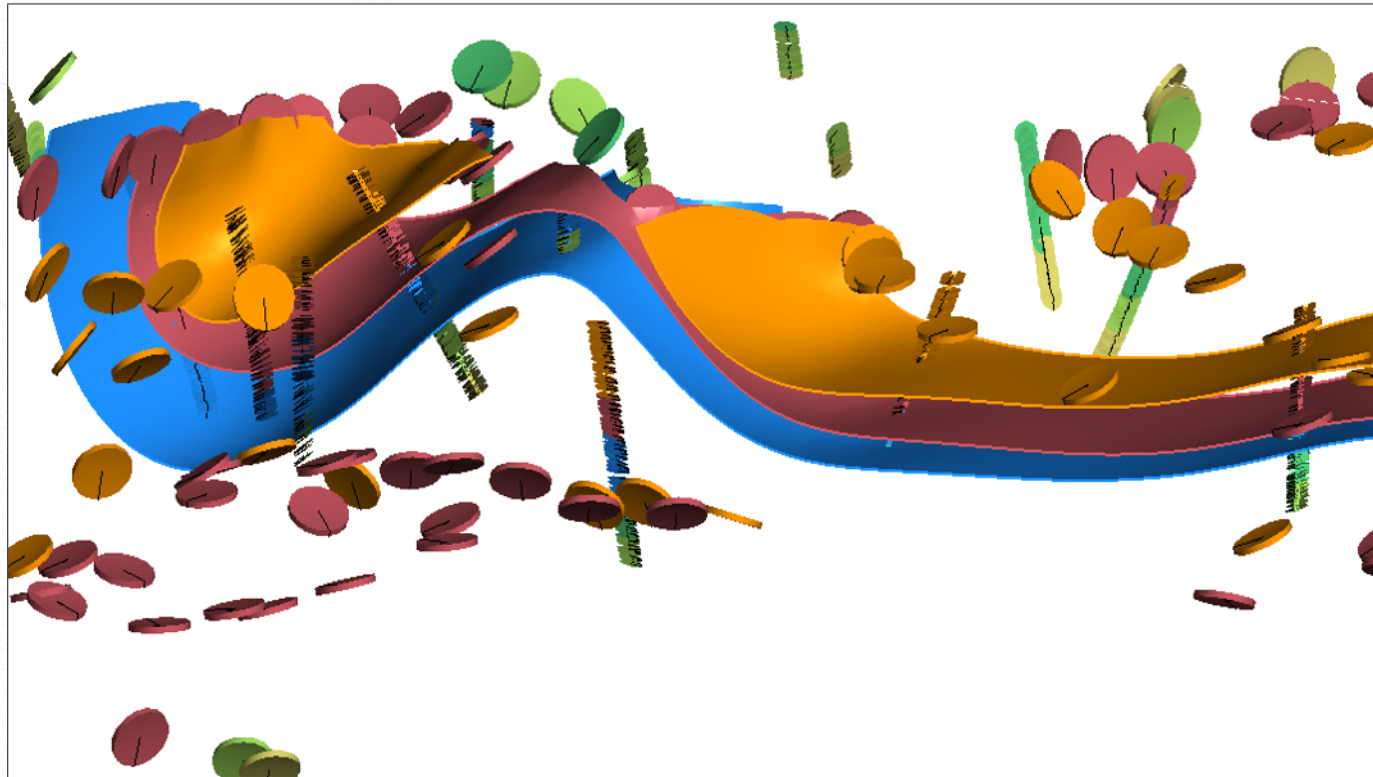
### Stratigraphy

Stratigraphic Sequence



# STRUCTURAL SURFACE

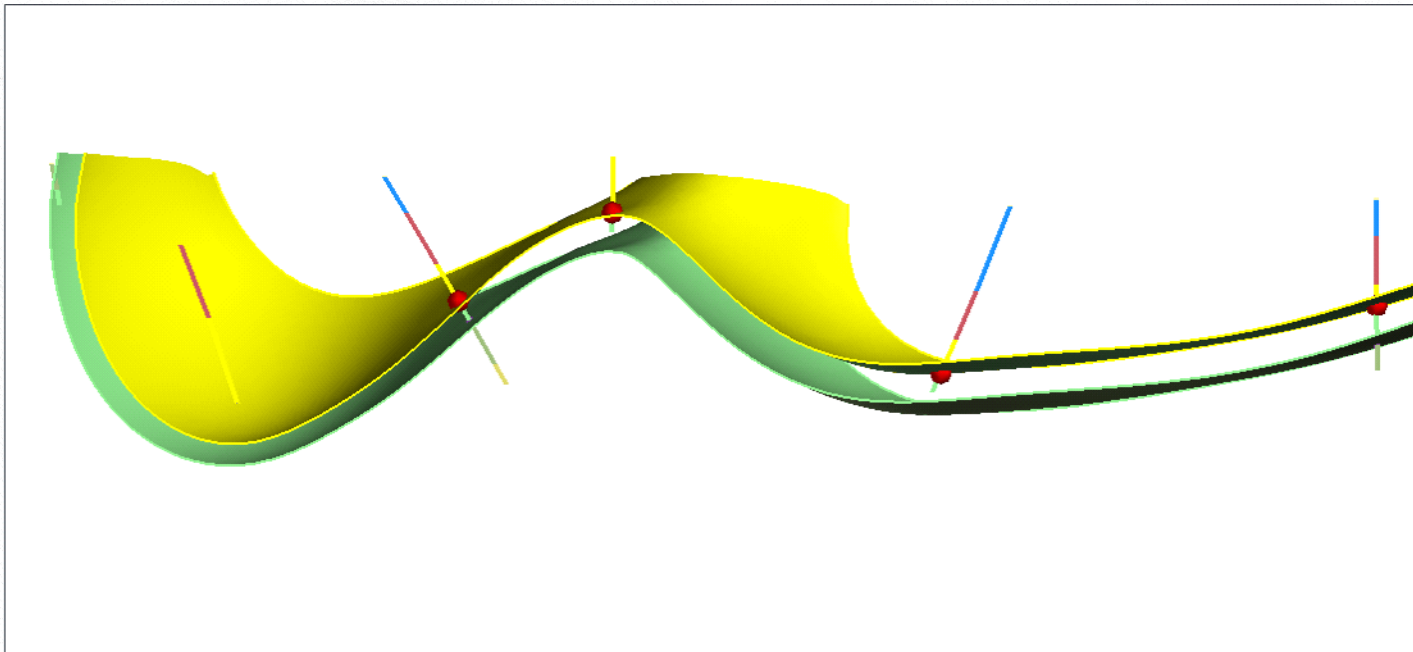
Incorporates **non-contact** structural data with on-contact data  
(wells, surface mapping)



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

# OFFSET SURFACE

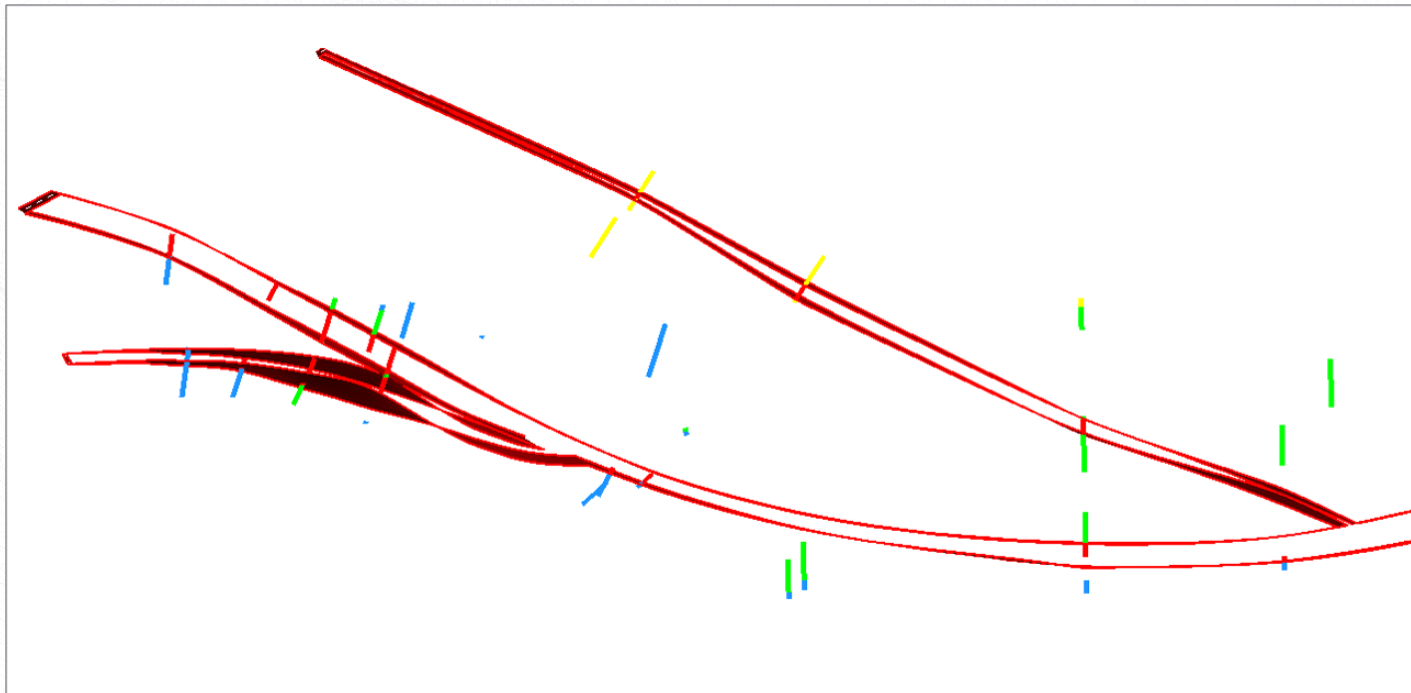
Maintains **consistent offset** while **honouring** contact points – for stratigraphy with common deformation



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

# VEIN SYSTEM SURFACE

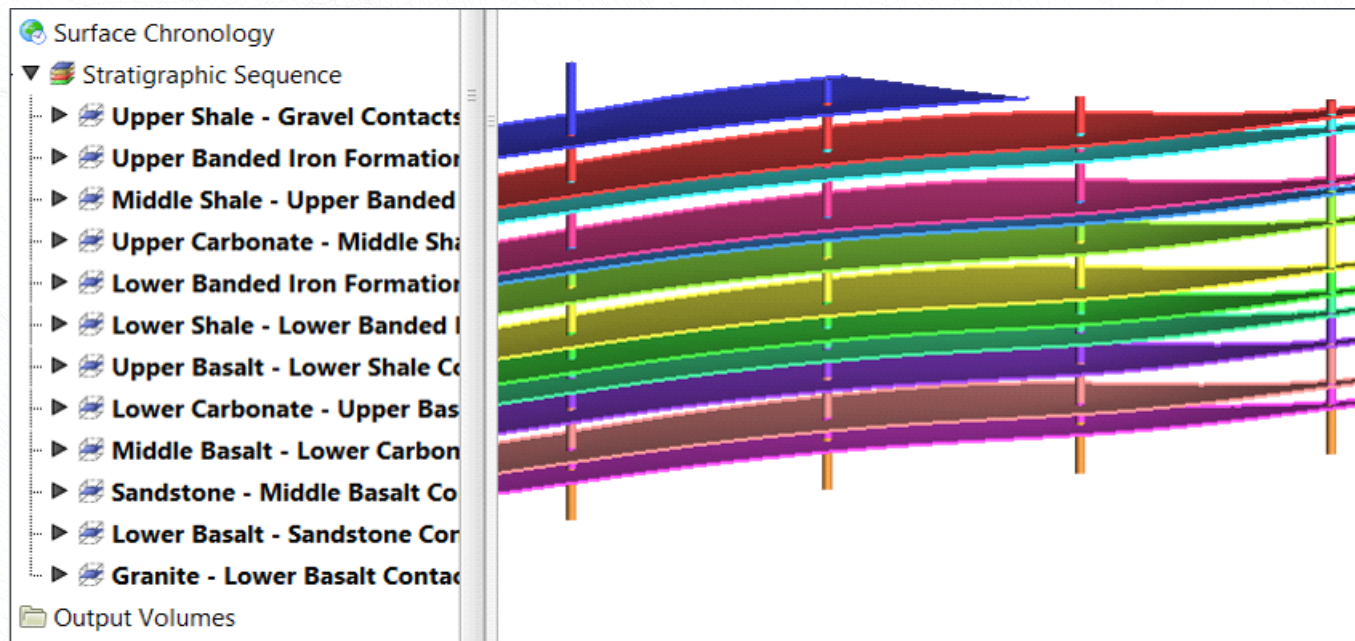
Combines individual veins into a **single interconnected system** of veins



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

# STRATIGRAPHIC SEQUENCE

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



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