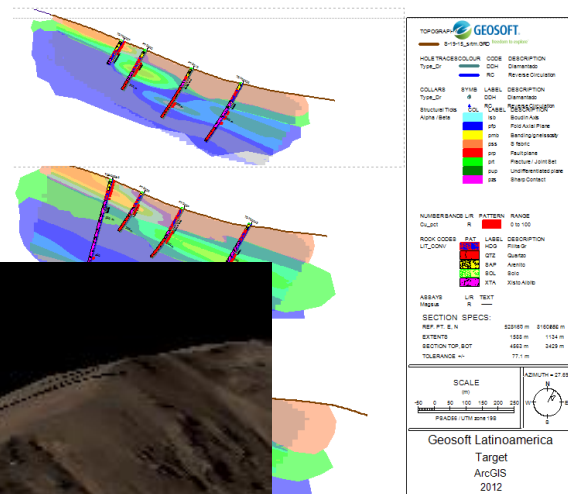
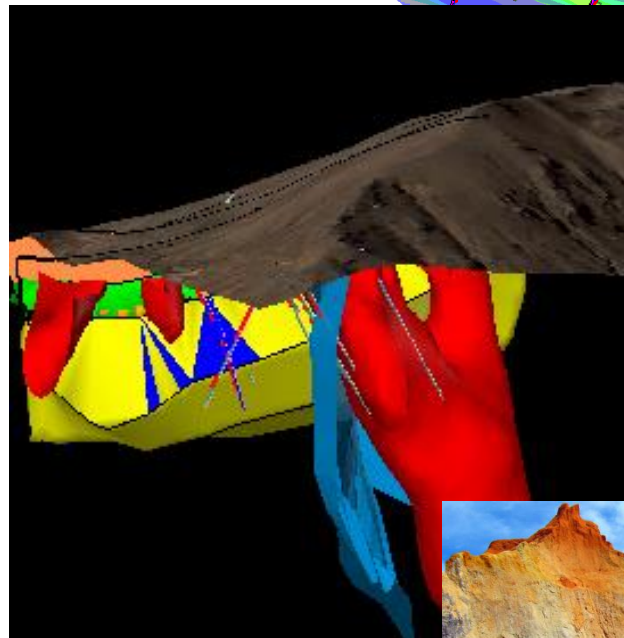




Modelamiento 3D



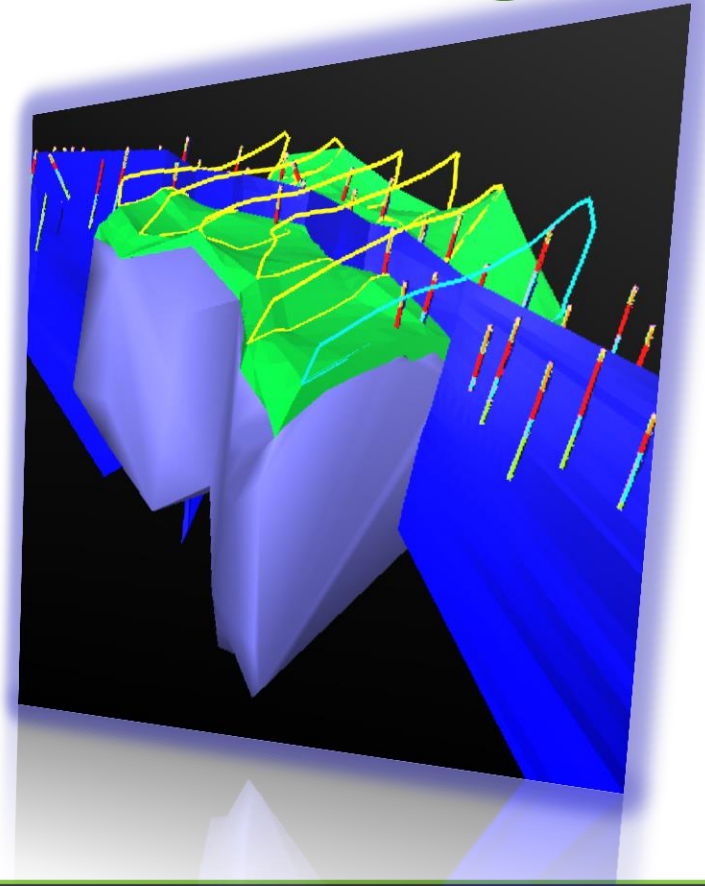
Fernanda Almeida – Ejecutiva de Cuentas
Janaína Gattermann Pereira – Geóloga
José Luis Ando – Geólogo



Agenda



- **Presentación de Geosoft**
- **Productos Geosoft**
- **Principios de Modelamiento**
- **Pasos para modelamiento de Leyes**
- **Pasos para modelamiento Geológico**
- **Usos y matemática de los modelos**
- **Preguntas**



Geosoft y exploradores de la Tierra

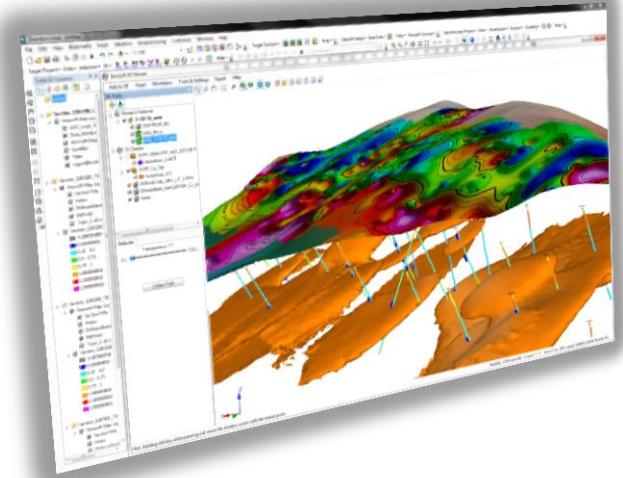
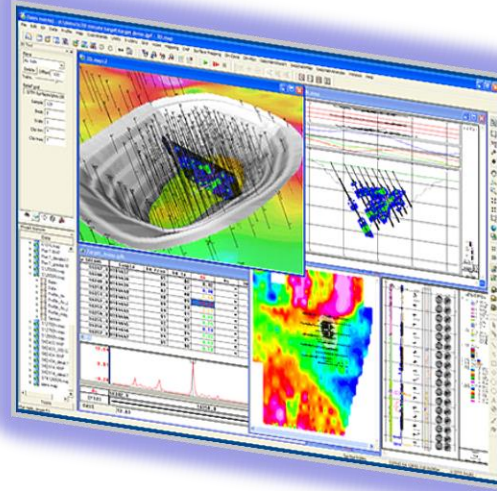
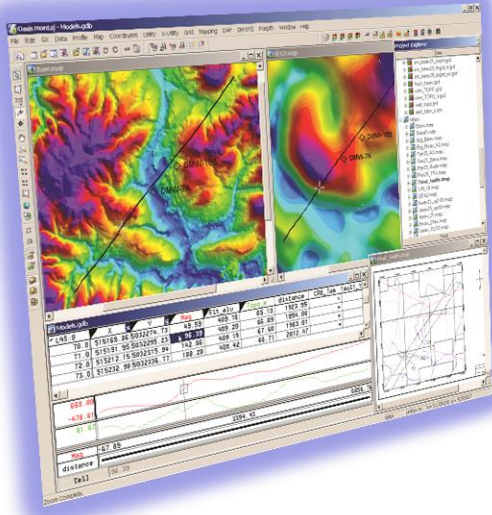


Informaciones generales – Empresa y oficinas



- Software y soluciones para Exploración Global
- Servimos a más de 5.000 clientes
- 40% de nuestros recursos profesionales pertenecen a las áreas de la geociencias
- Soporte, entrenamiento y otros servicios en Portugués, Inglés y Español.

freedom to explore™



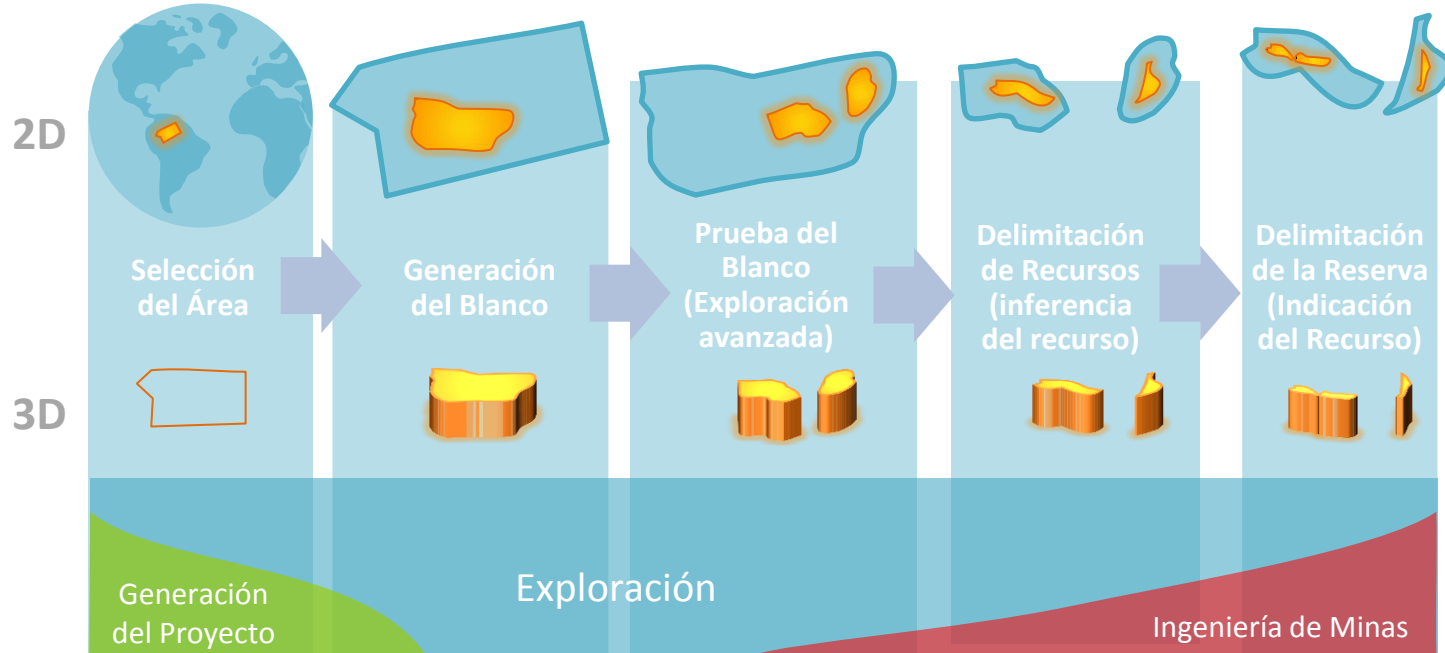
 **GEO SOFT**
Oasis montaj

Mas Extensiones de Geofisica

 **GEO SOFT**
Target

 **GEO SOFT**
Target for ArcGIS

Flujo de la Exploración Mineral



El proceso de exploración empieza con una gran área y con cada paso nosotros añadimos nueva información, que ayuda a reducir el área blanco a una ubicación más y más pequeña.

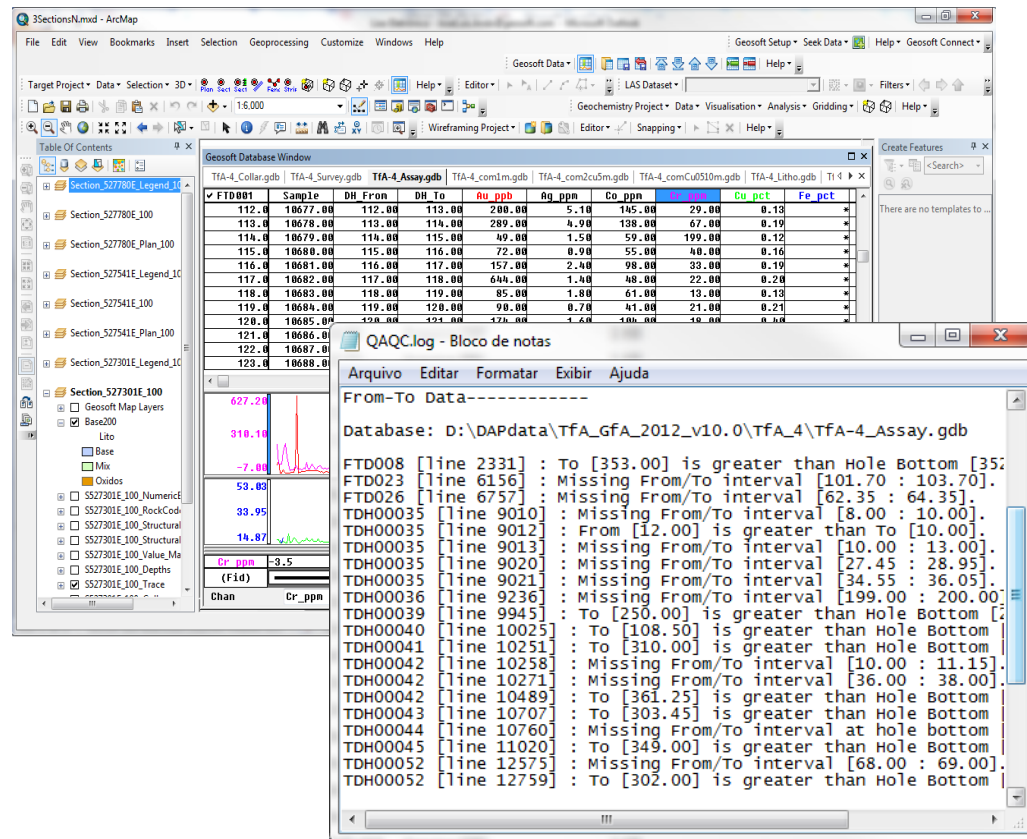
Primera Encuesta



Preparar datos

Proyecto y banco de datos

- Importadores
 - Excel, Access, Ascii
 - ODBC
 - AcQuire
- Control de Calidad QA/QC



The screenshot displays the ArcMap interface with a Geosoft Database Window open. The database window shows a table with columns: FTD001, Sample, DH, Fron, DH To, Au ppb, Ag ppb, Co ppb, Ni ppb, Cu ppt, and Fe ppt. The data rows contain numerical values for each column. Below the table, there is a graph showing a trace of data with peaks at 627.24, 310.10, 53.03, and 38.95. The graph is labeled 'Cr ppm' and '(Fid)'. A QA/QC log window is also open, displaying a list of errors and warnings, such as 'Missing From/To interval' and 'To [353.00] is greater than Hole Bottom'.

FTD001	Sample	DH	Fron	DH To	Au ppb	Ag ppb	Co ppb	Ni ppb	Cu ppt	Fe ppt
112.0	10677.00	112.00	113.00	200.00	5.10	145.00	29.00	0.13	*	*
113.0	10678.00	113.00	114.00	289.00	4.90	138.00	67.00	0.19	*	*
114.0	10679.00	114.00	115.00	49.00	1.50	59.00	199.00	0.12	*	*
115.0	10680.00	115.00	116.00	72.00	0.90	55.00	40.00	0.16	*	*
116.0	10681.00	116.00	117.00	157.00	2.40	98.00	33.00	0.19	*	*
117.0	10682.00	117.00	118.00	604.00	1.40	49.00	22.00	0.20	*	*
118.0	10683.00	118.00	119.00	85.00	1.80	61.00	13.00	0.13	*	*
119.0	10684.00	119.00	120.00	90.00	0.70	41.00	21.00	0.21	*	*
120.0	10685.00	120.00	121.00	126.00	1.60	100.00	10.00	0.00	*	*
121.0	10686.00									
122.0	10687.00									
123.0	10688.00									

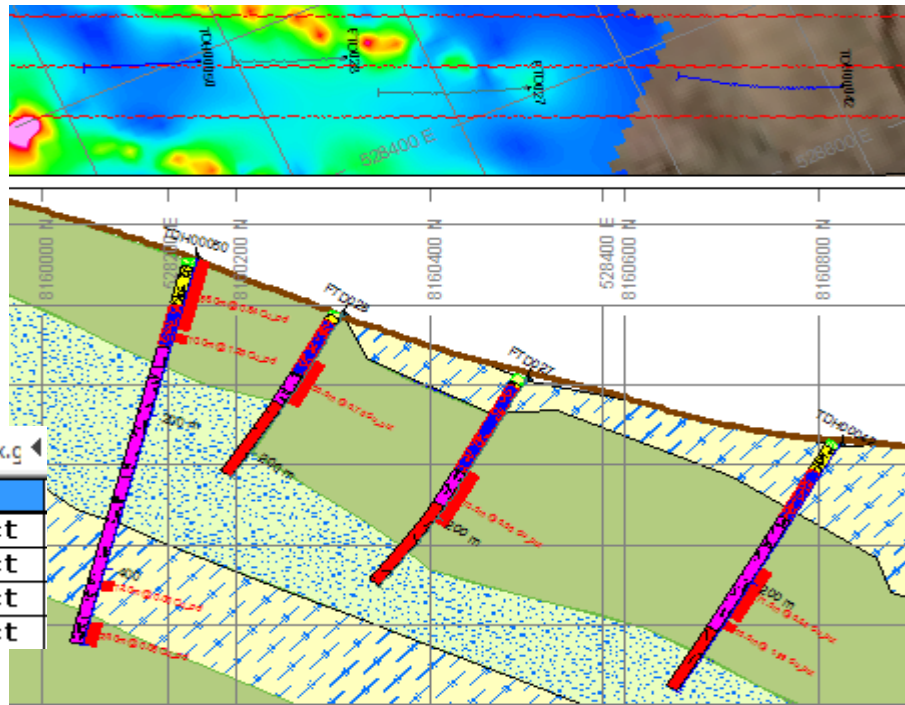
```
Arquivo  Editar  Formatar  Exibir  Ajuda
From-To Data-----
Database: D:\DAPdata\TfA_gfA_2012_v10.0\TfA_4\TfA-4_Assay.gdb
FTD008 [line 2331] : To [353.00] is greater than Hole Bottom [35
FTD023 [line 6156] : Missing From/To interval [101.70 : 103.70].
FTD026 [line 6757] : Missing From/To interval [62.35 : 64.35].
TDH00035 [line 9010] : Missing From/To interval [8.00 : 10.00].
TDH00035 [line 9012] : From [12.00] is greater than To [10.00].
TDH00035 [line 9013] : Missing From/To interval [10.00 : 13.00].
TDH00035 [line 9020] : Missing From/To interval [27.45 : 28.95].
TDH00035 [line 9021] : Missing From/To interval [34.55 : 36.05].
TDH00036 [line 9236] : Missing From/To interval [199.00 : 200.00].
TDH00039 [line 9945] : To [250.00] is greater than Hole Bottom [
TDH00040 [line 10025] : To [108.50] is greater than Hole Bottom
TDH00041 [line 10251] : To [310.00] is greater than Hole Bottom
TDH00042 [line 10258] : Missing From/To interval [10.00 : 11.15].
TDH00042 [line 10271] : Missing From/To interval [36.00 : 38.00].
TDH00042 [line 10489] : To [361.25] is greater than Hole Bottom
TDH00043 [line 10707] : To [303.45] is greater than Hole Bottom
TDH00044 [line 10760] : Missing From/To interval at Hole Bottom
TDH00045 [line 11020] : To [349.00] is greater than Hole Bottom
TDH00052 [line 12575] : Missing From/To interval [68.00 : 69.00].
TDH00052 [line 12759] : To [302.00] is greater than Hole Bottom
```

- **Matemática de banco de datos**

- Relaciones Au/Cu
- Compositos
- Cut-off
- Ley equivalente

TfA-4_comCu0510m.gdb | TfA-4_Litho.gdb | TfA-4_MinZoneOx.g

To	Length	Cu_pct	Cu_pct_Labels
88.00	88.0	0.84	88.0m @ 0.84 Cu_pct
05.00	10.0	1.29	10.0m @ 1.29 Cu_pct
26.00	12.0	0.50	12.0m @ 0.50 Cu_pct
97.55	29.6	0.68	29.6m @ 0.68 Cu_pct



SECCIONES

Perfiles (mag / Gq)

Mapa de superficie.

Secciones con datos:

- Interpretaciones
- Modelo de Leyes
- Geofísica (magsus)
- Litologías
- Escaneado

Leyendas

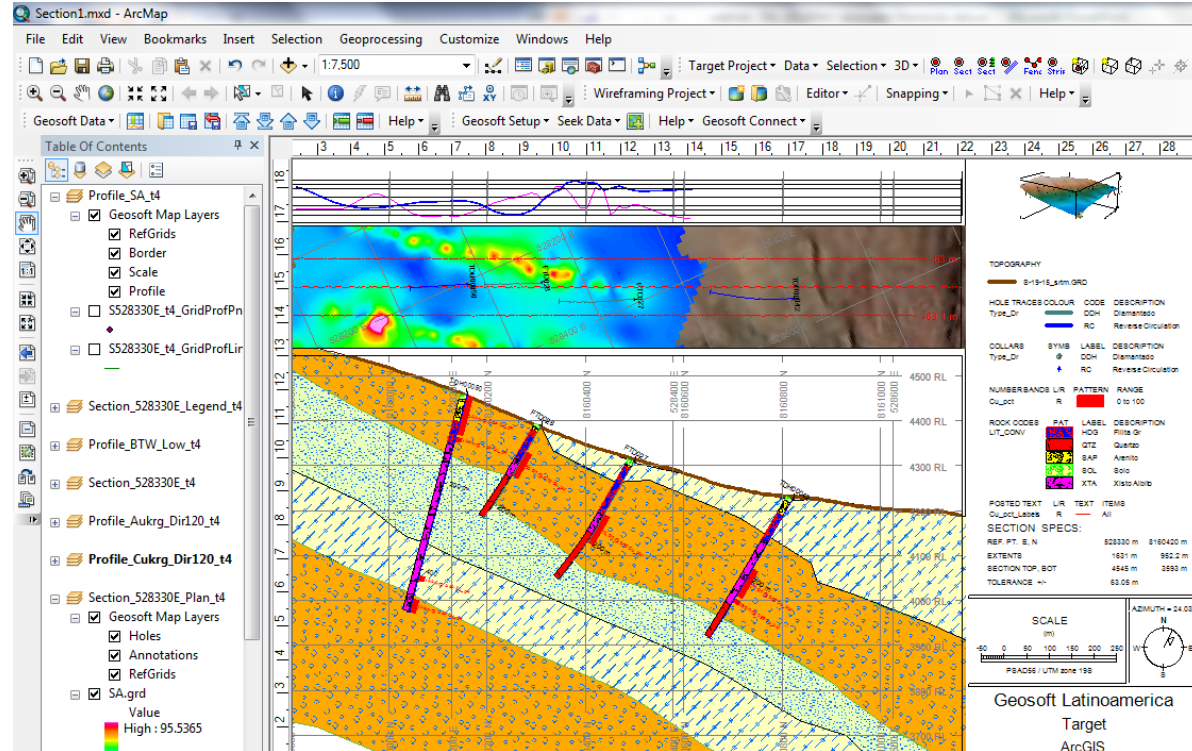
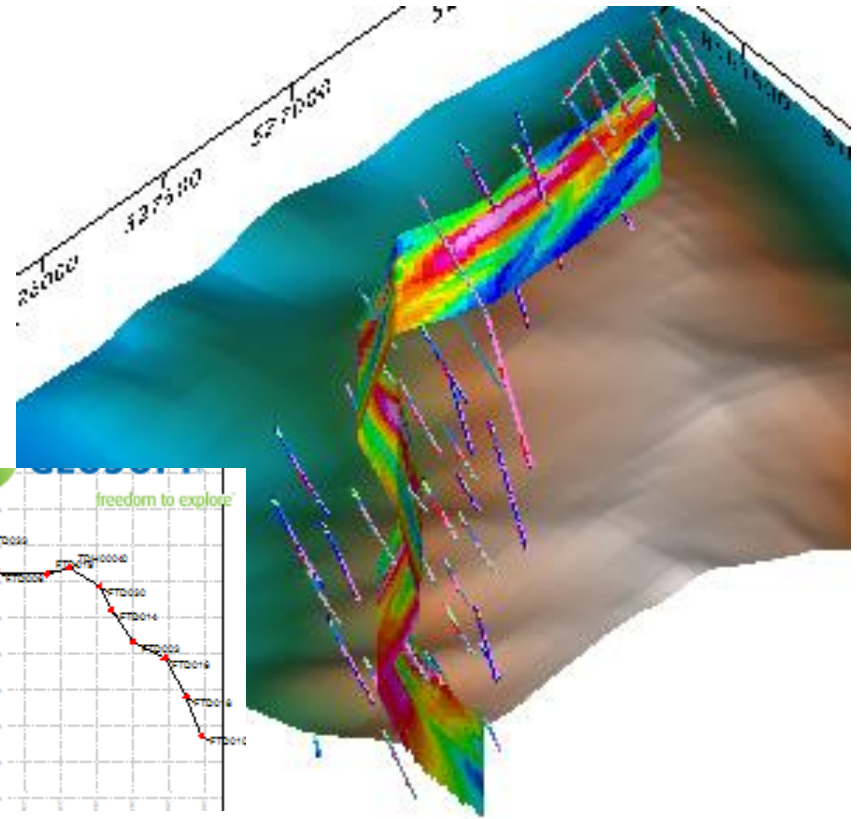
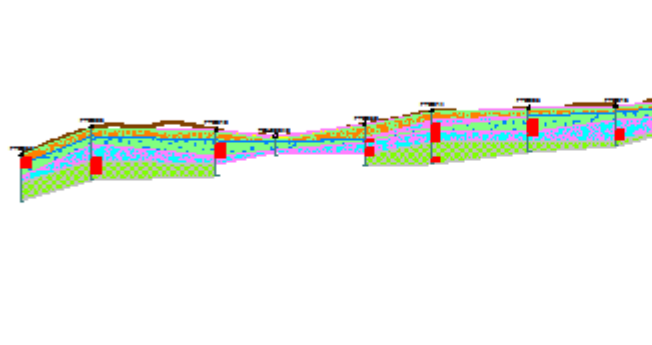


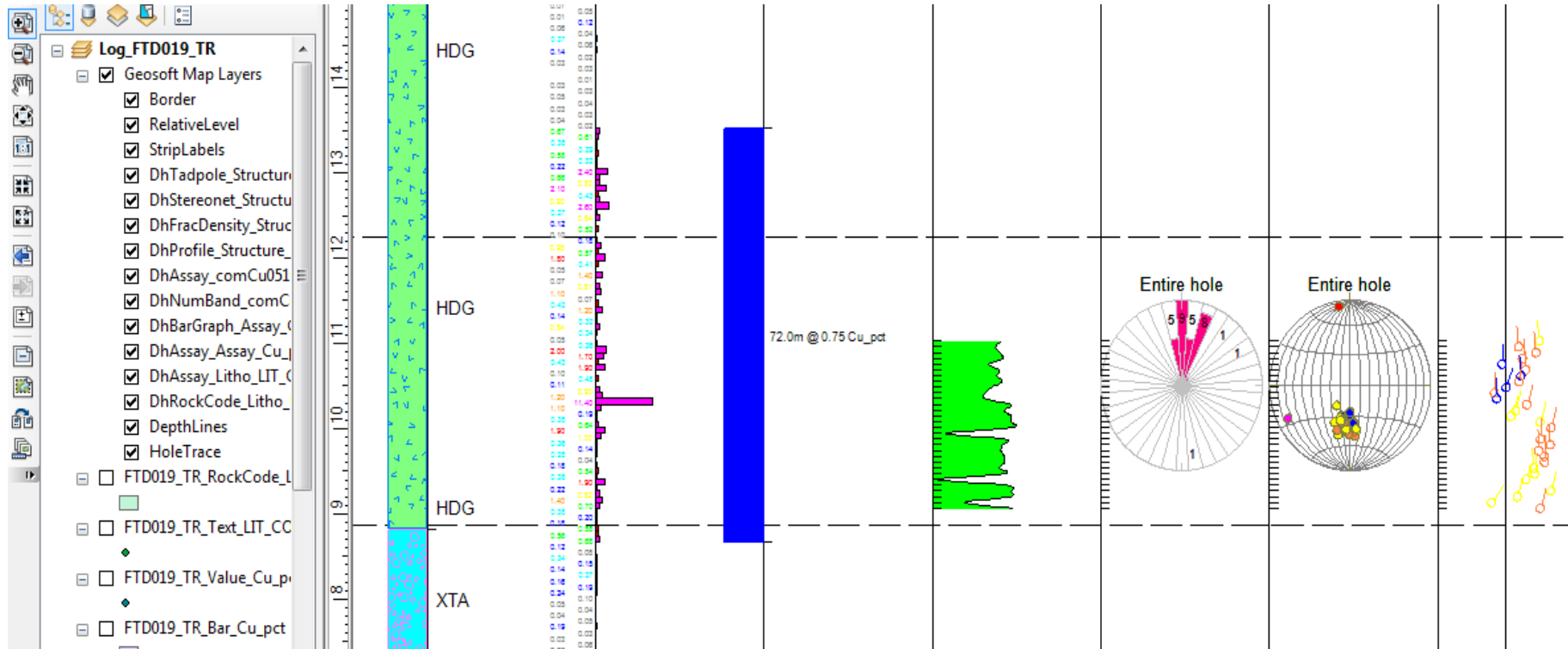
Diagrama de Cercas

Polígonos Litológicos
Secciones transversales



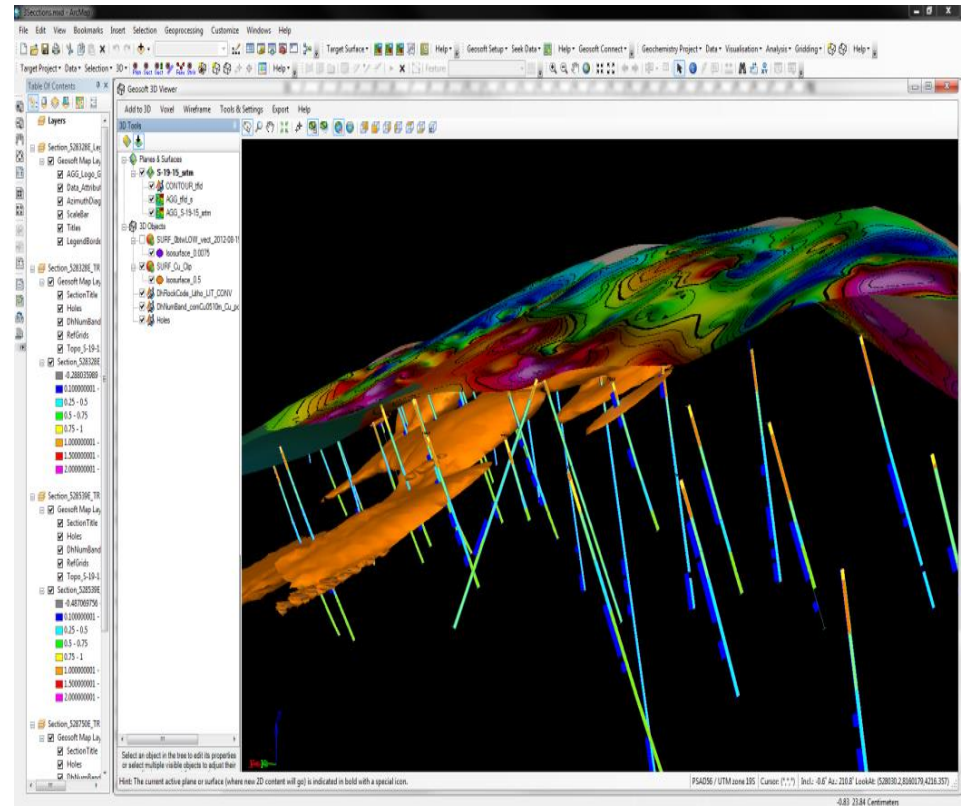
LOG reporte de sondaje

Datos, compósitos, Perfiles, Estructuras



Modelamientos

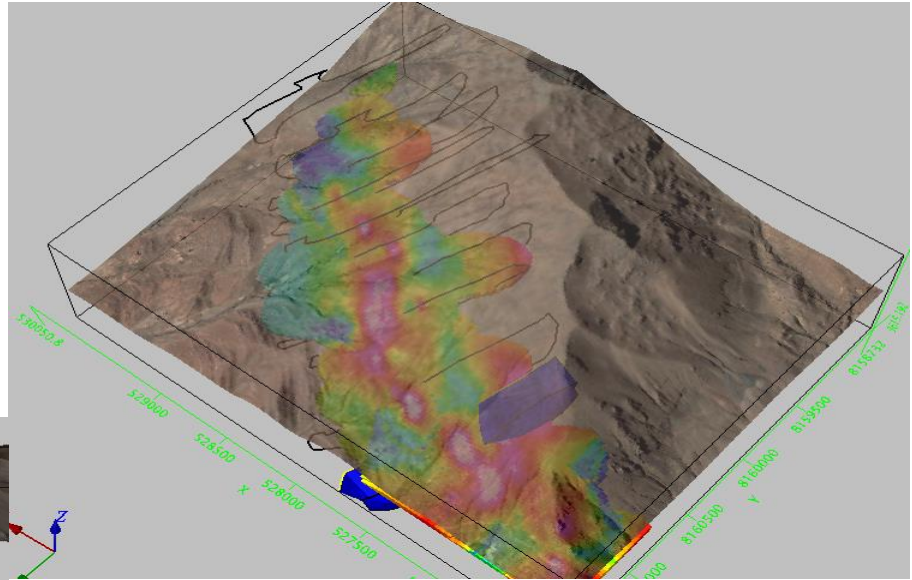
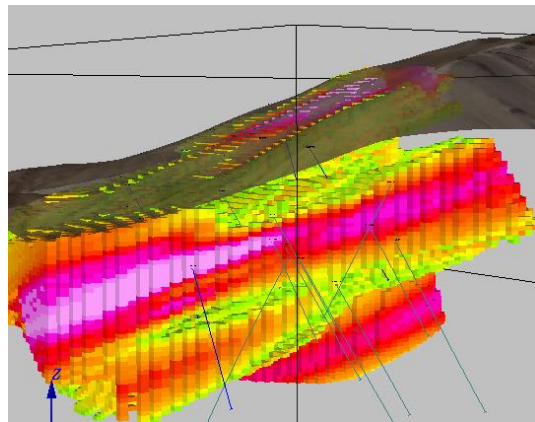
- **Leyes**
- Variografía
- **Geológico**
- Digitalización e integración 3D



Ajuste de Variografía

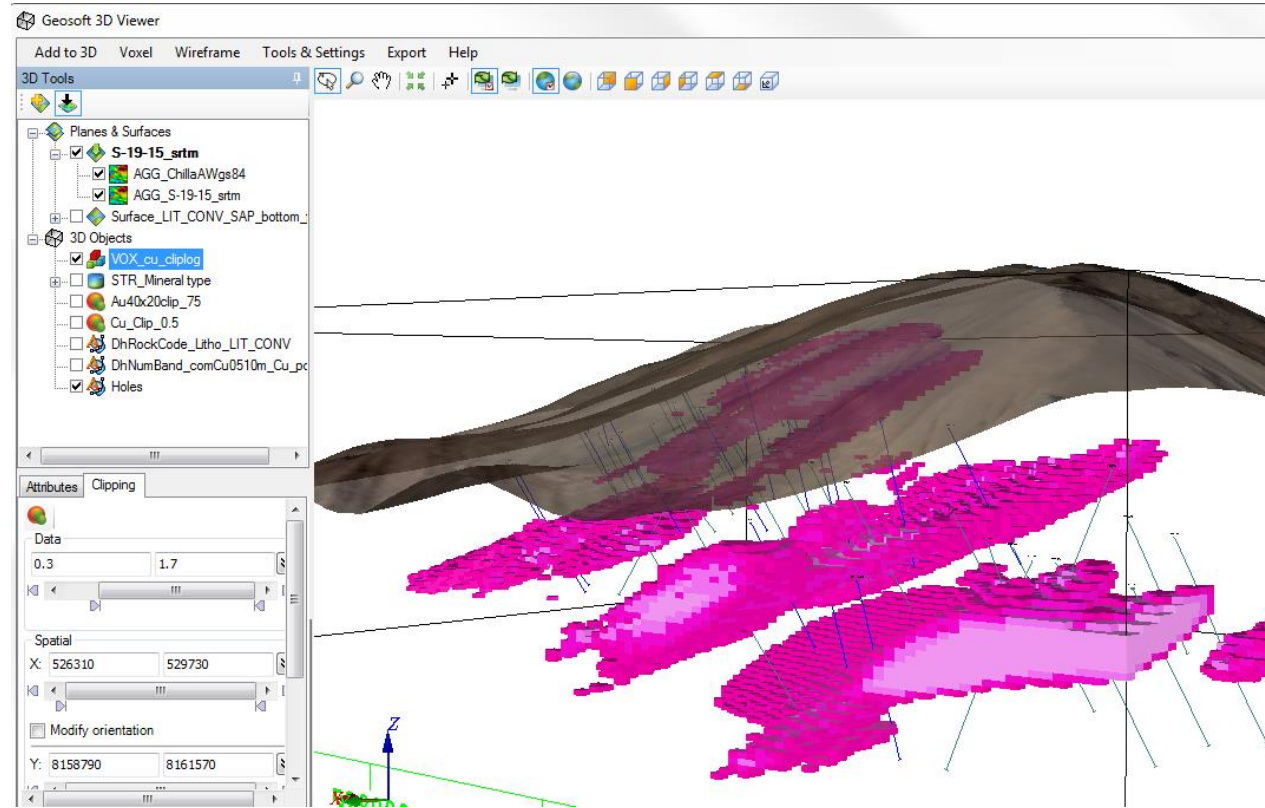
Determinar mejor ajuste

- Dirección (Rumbo)
- Inclinación (Dip)
- Tipo de anisotropía
- Alcance de muestreo



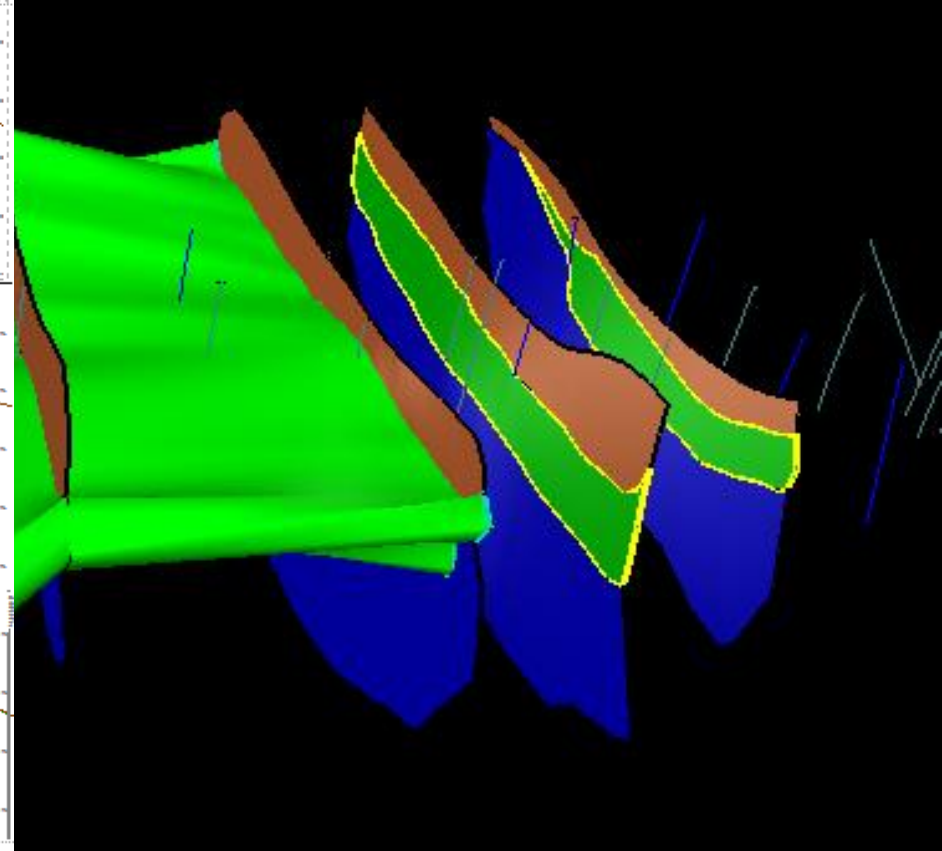
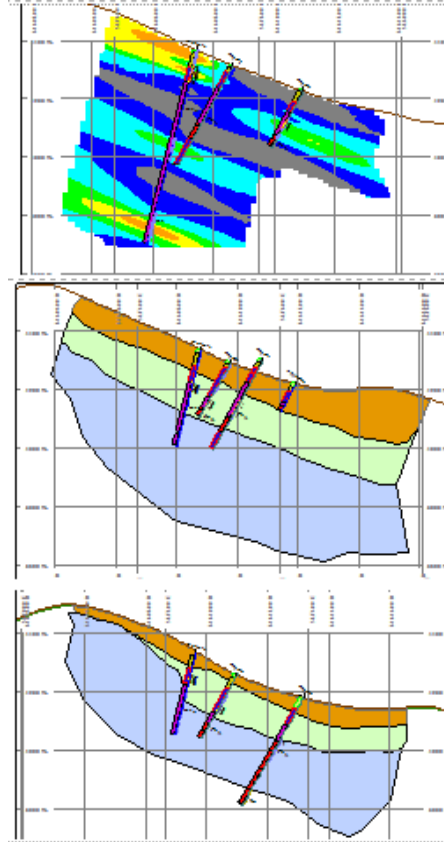
Voxel Leyes de Cobre

Bloques con Leyes de cobre > 0.25 %

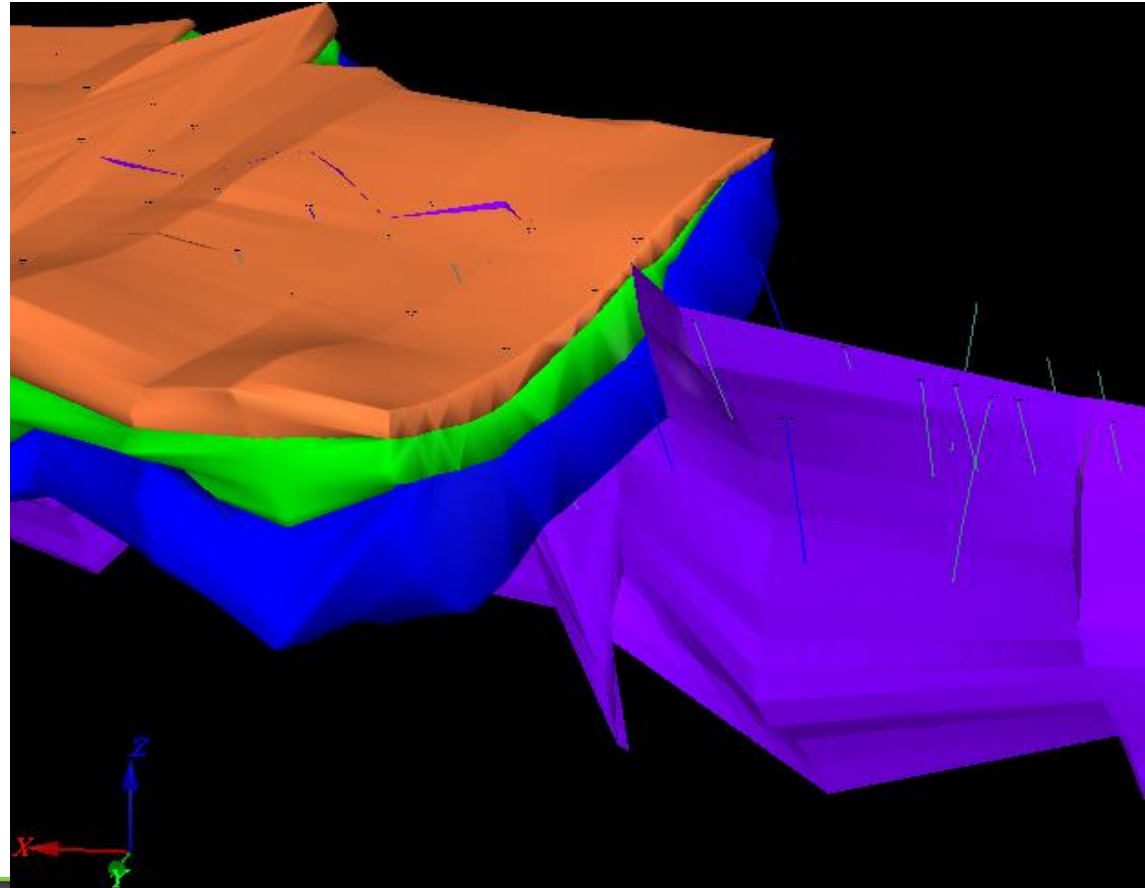


Construcción de Geostrings

- Abrir Geosting
- Construir el modelo con Geostrings
- Crear uno o más sólidos



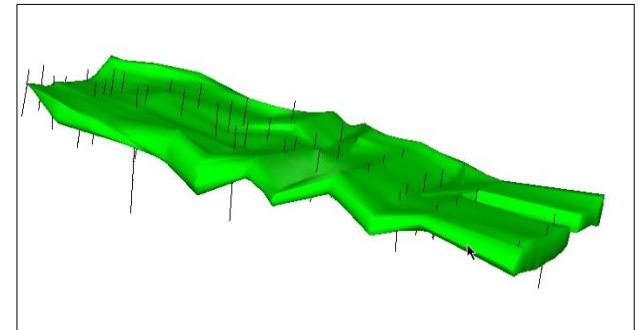
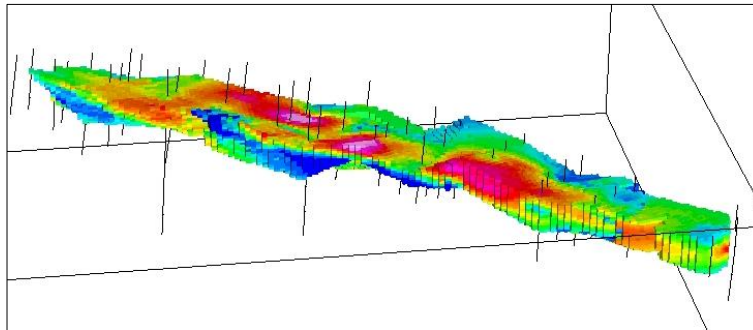
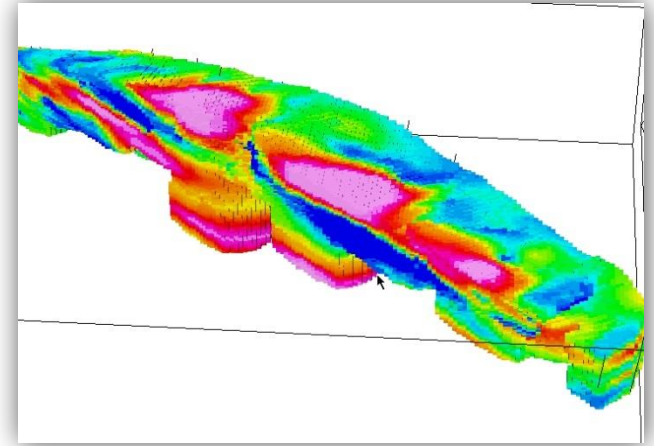
- Unir interpretaciones
- Construir Geosurfaces



Segunda Encuesta



- **Voxel y Superficies de contacto litológico**
- **Corte de Voxels**
 - Con superficies de contacto
 - Con geosurfaces – Voxel Math





Respondiendo sus Preguntas

Gracias por su atención!
Visite www.geosoft.com para mas informaciones.
info.sa@geosoft.com

