



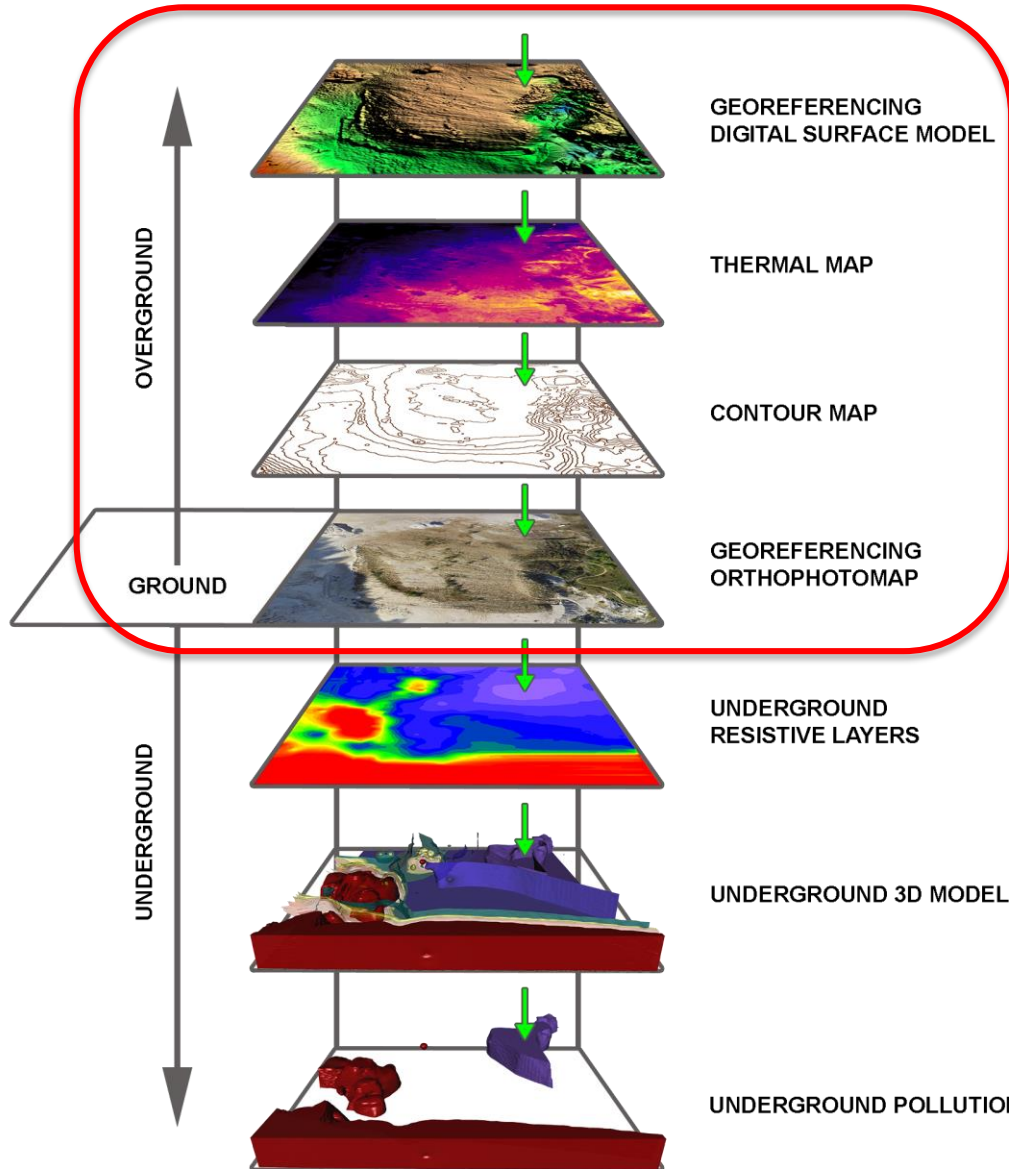
TMG Dronity





Inspection of dumps and landfills - environmental threats

Above and below dump
surface



The resolution up to 1 cm/px



Detail of dump after zooming in.



Localization of mound and pits on the surface of the dump



Calculation of volume and area of mounds on the dump surface.

Marking mounds	Volume (m ³)	Area (m ²)
násyp 01	19289,91	9462,77
násyp 02	4919,0	2808,79
násyp 03	884,6	717,58
násyp 04	2548,47	1339,77
násyp 05	367,48	279,52
násyp 06	607,87	478,09
násyp 07	276,08	348,48
násyp 08	269,50	557,84
násyp 09	8926,48	3681,33
násyp 10	5225,16	4747,54
násyp 11	506,18	468,70
spolu	43820,73	24890,41

The total volume of mound on the surface of the dump is **43 820 m³**.

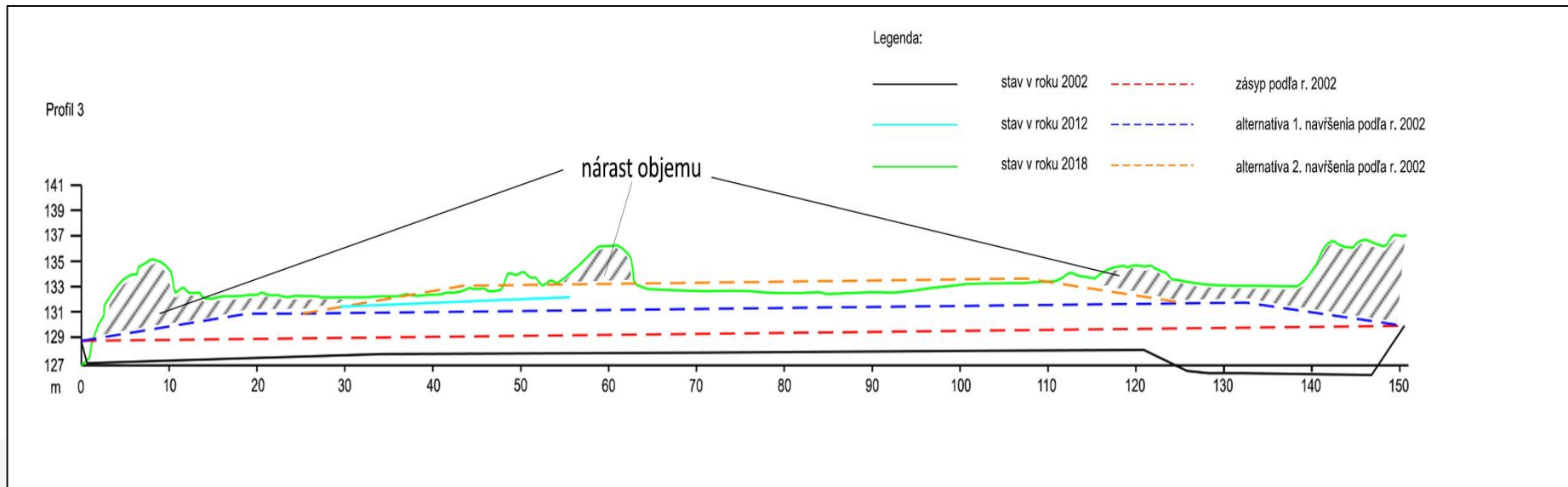
The total area of mound on the dump surface is **24 890 m²**.

Type of mound material:

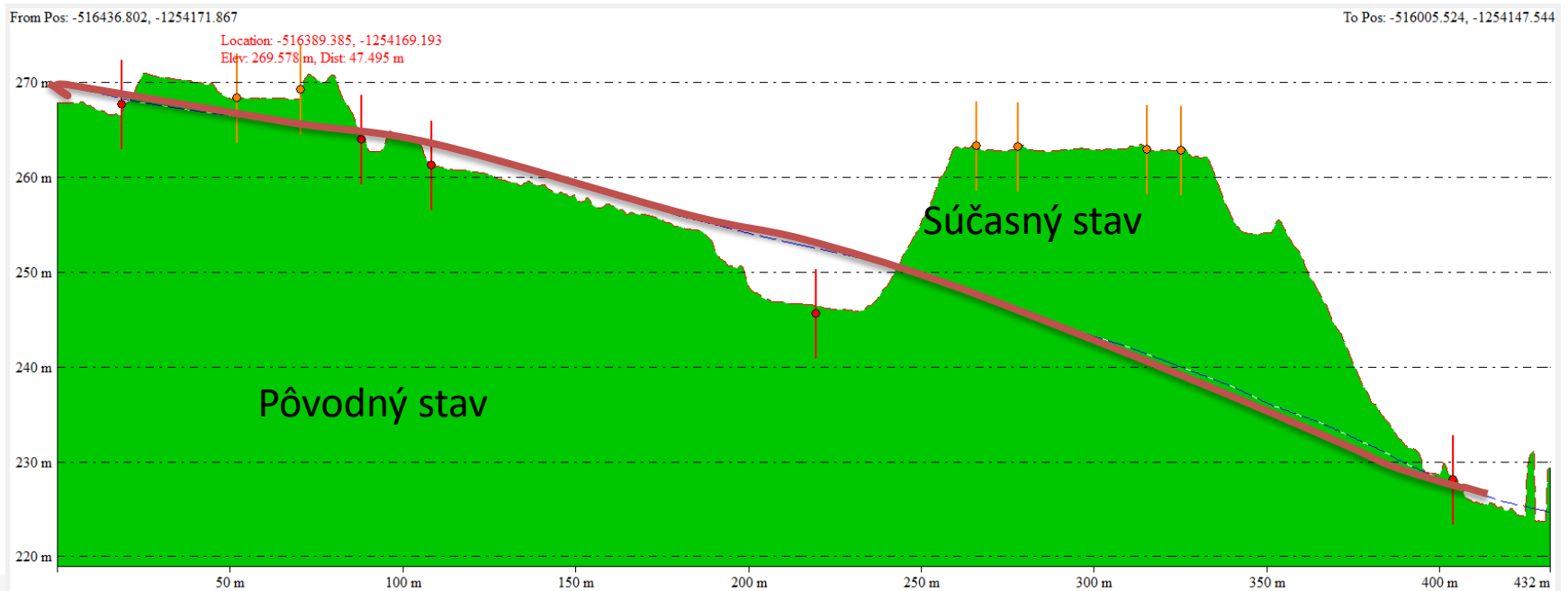
- Wood waste
- Crushed concrete recycplate
- Municipal waste
- Recycled soil
- Construction waste



Visualization of the increase / decrease in the volume of dump material compared to the previous period



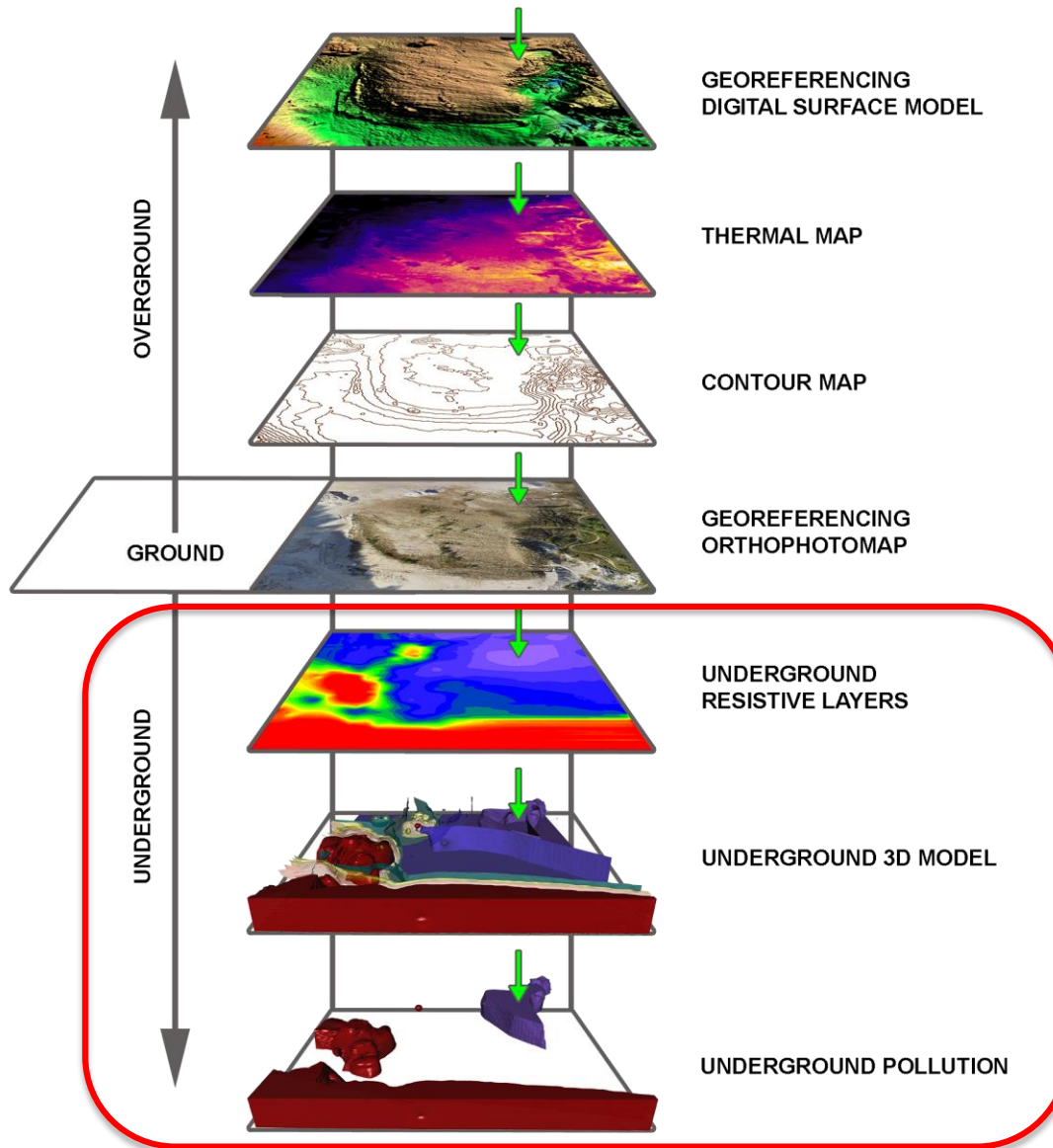
Analysis of illegal shipments of hazardous waste





Underground measurements

What is underground?

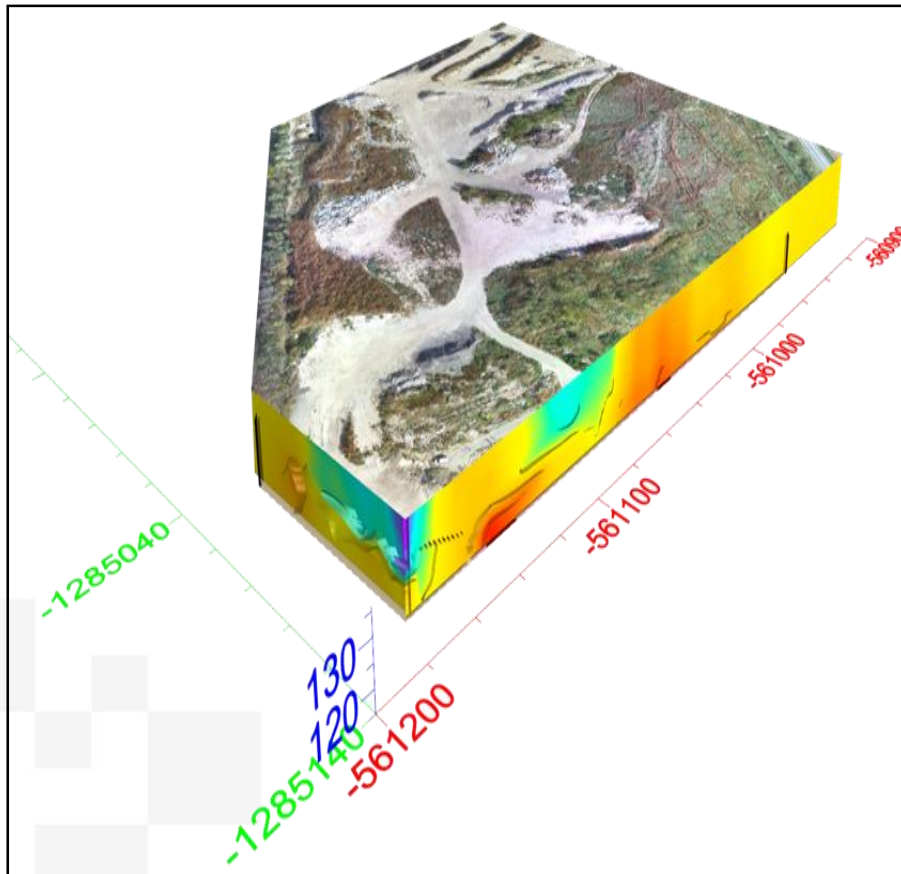


Find out what is underground using drones in dangerous areas:

- Dumps
- Unstable ground
- Thin ice
- Mine field



3D visualization of dump under the surface according to material type.

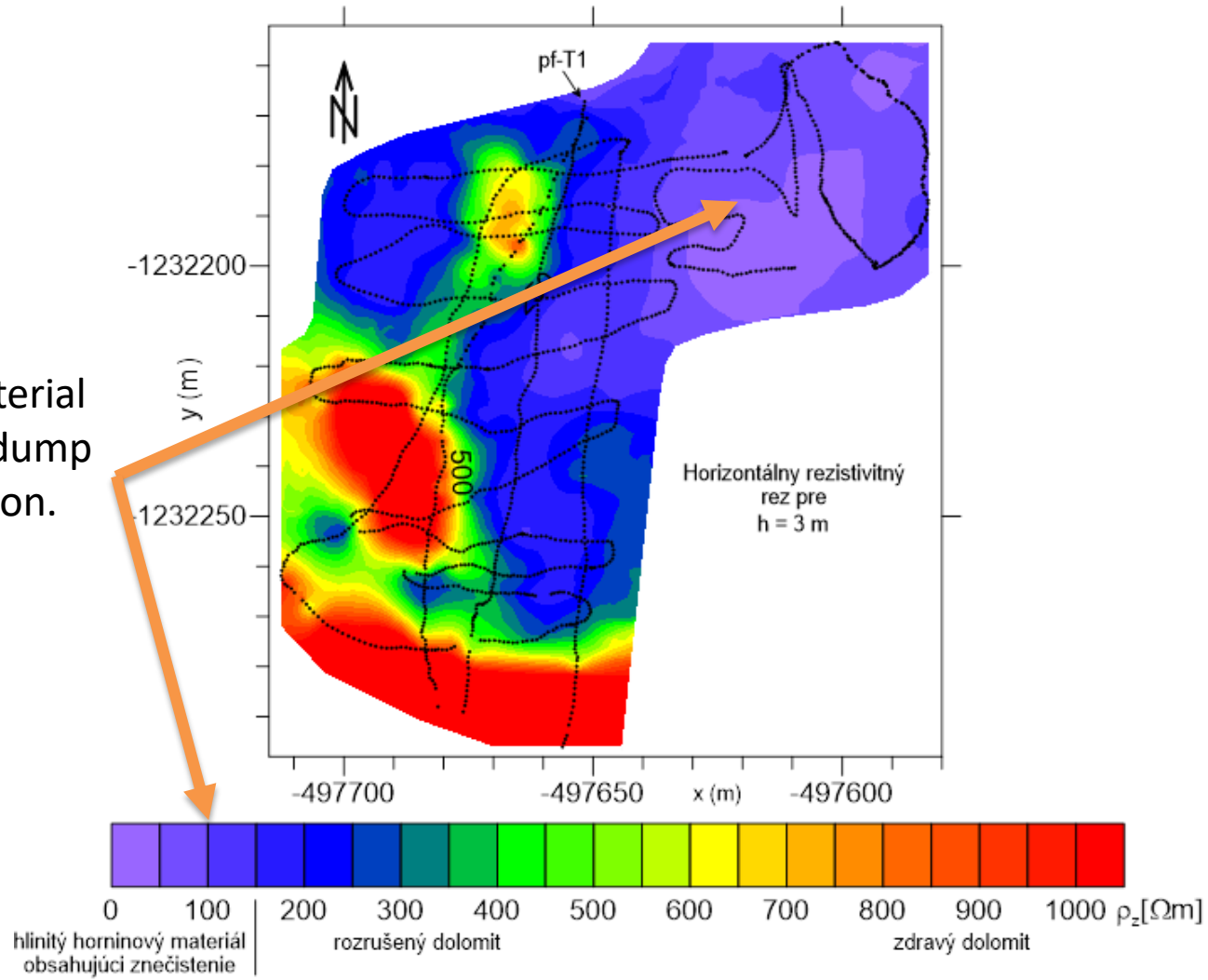


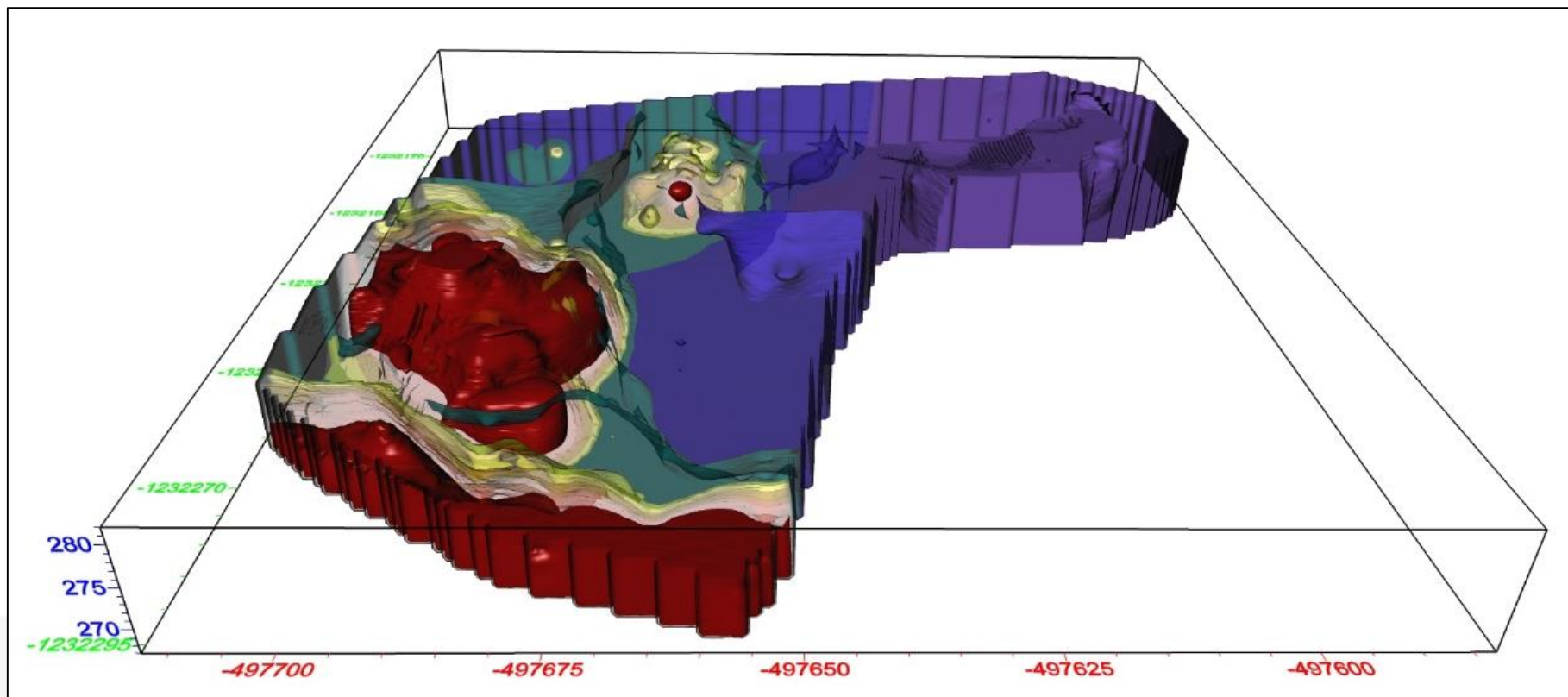
Calculation of the volume of material below the dump surface by type of material.

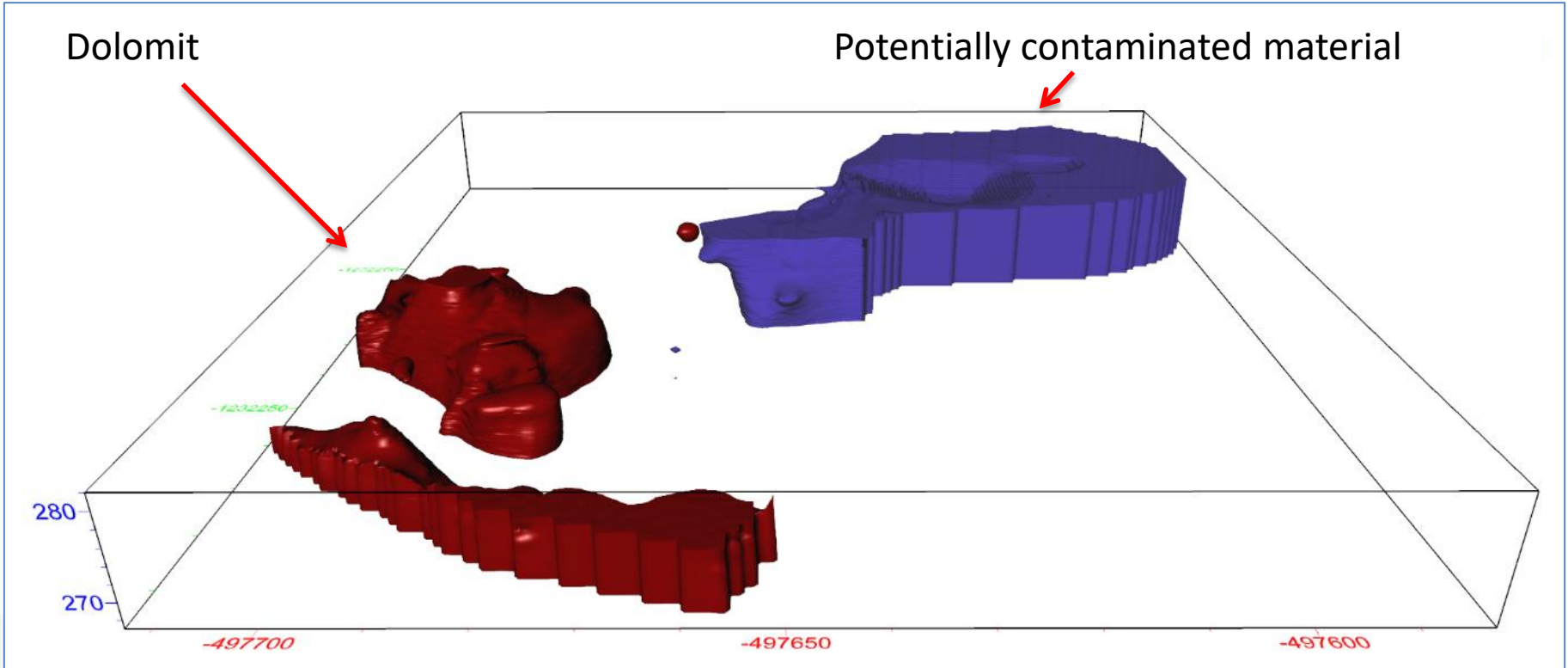
Interval R ($\Omega.m$)	Volume (m^3)	Color	Material
< 35	9584	Blue	Clay and contaminated soil
35 - 50	140612	Purple	Sand clay
50 - 60	137920	Cyan	
60 - 70	44478	Light Green	
70 - 90	38617	Yellow	Clay sand
90 - 130	60487	Orange	
130 - 170	32287	Red-Orange	Sand gravel, gravel
> 170	300485	Red	

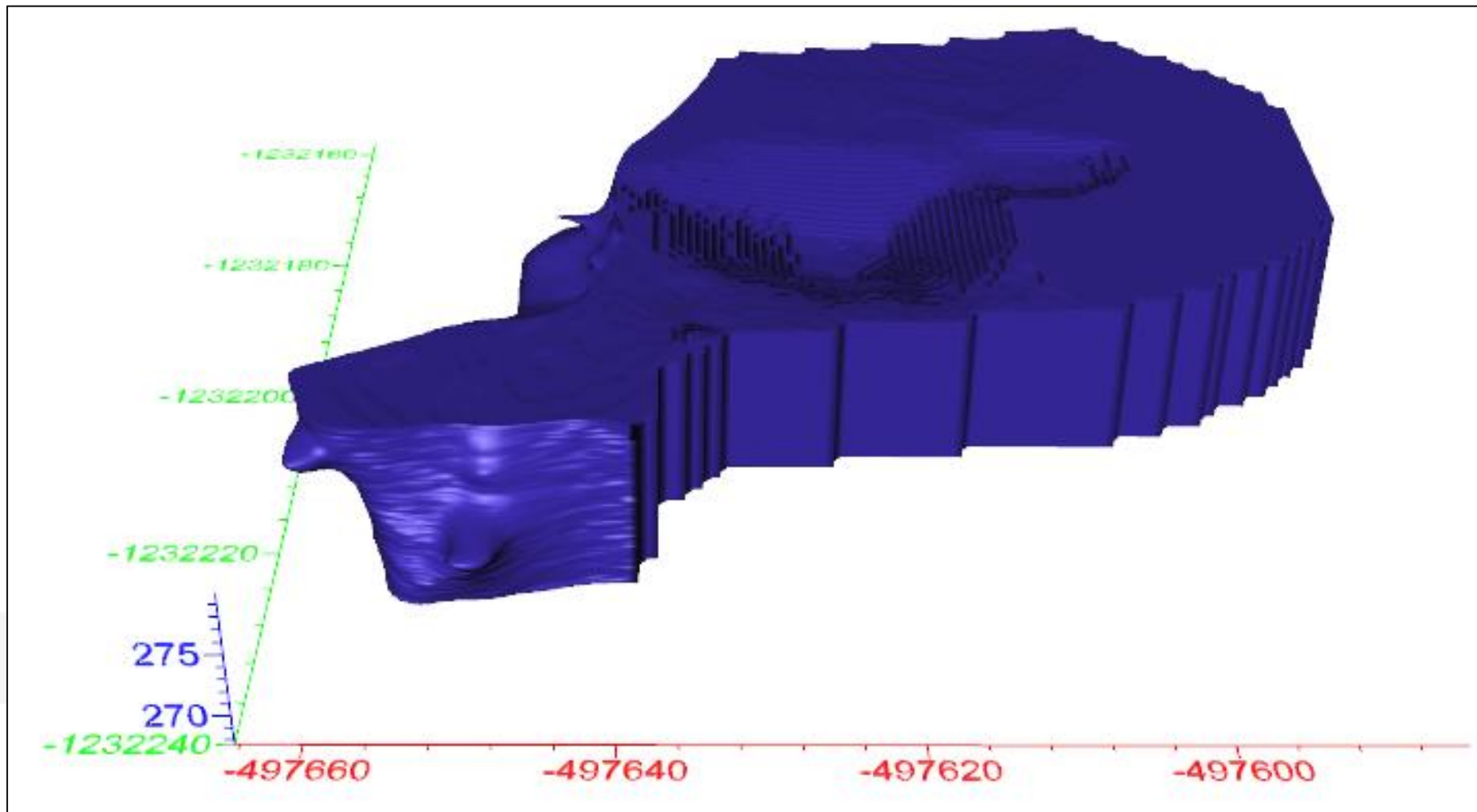
Horizontal cut at a depth of 3 meters below the dump surface

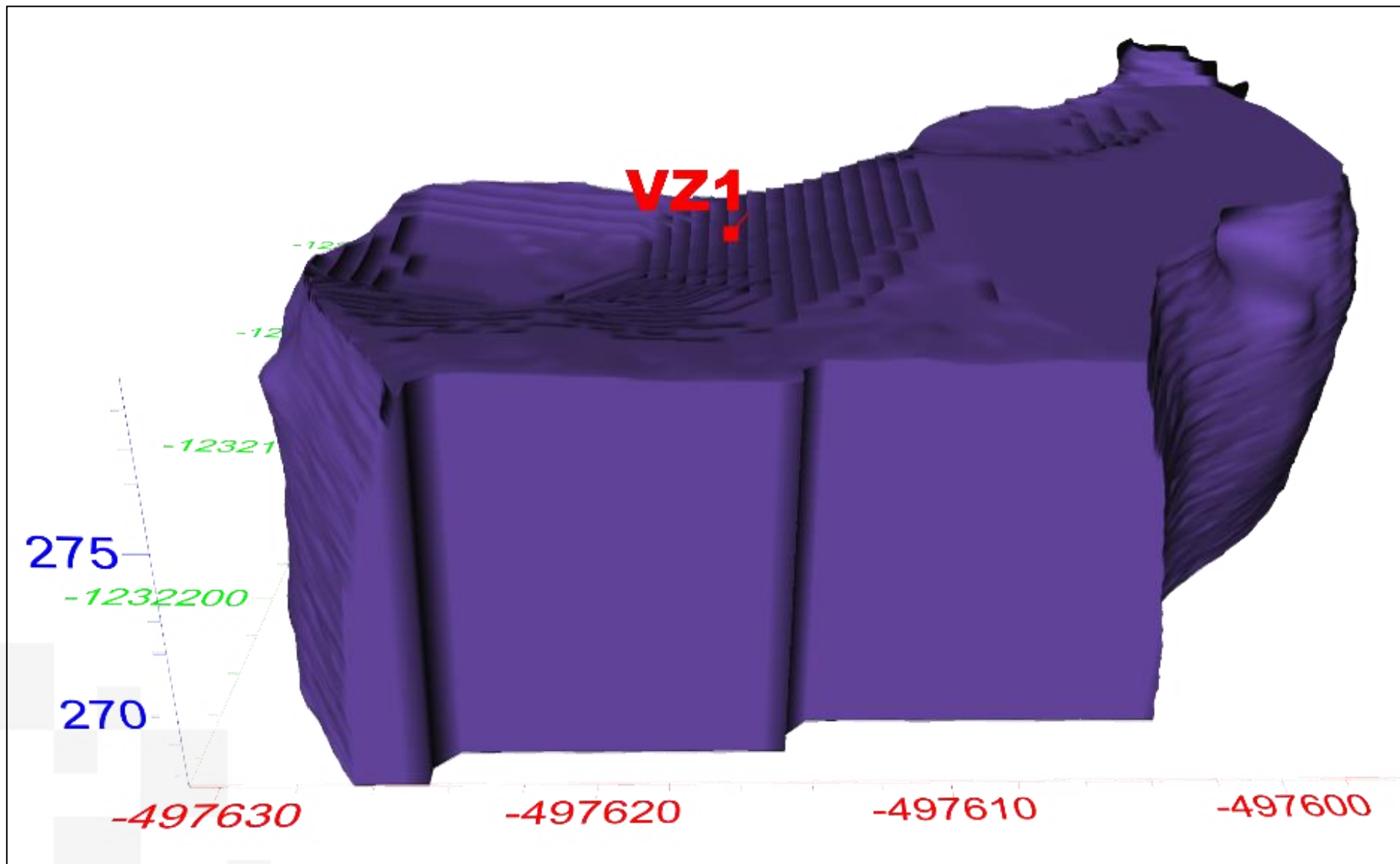
Localization of buried material under the surface of the dump that contains contamination.

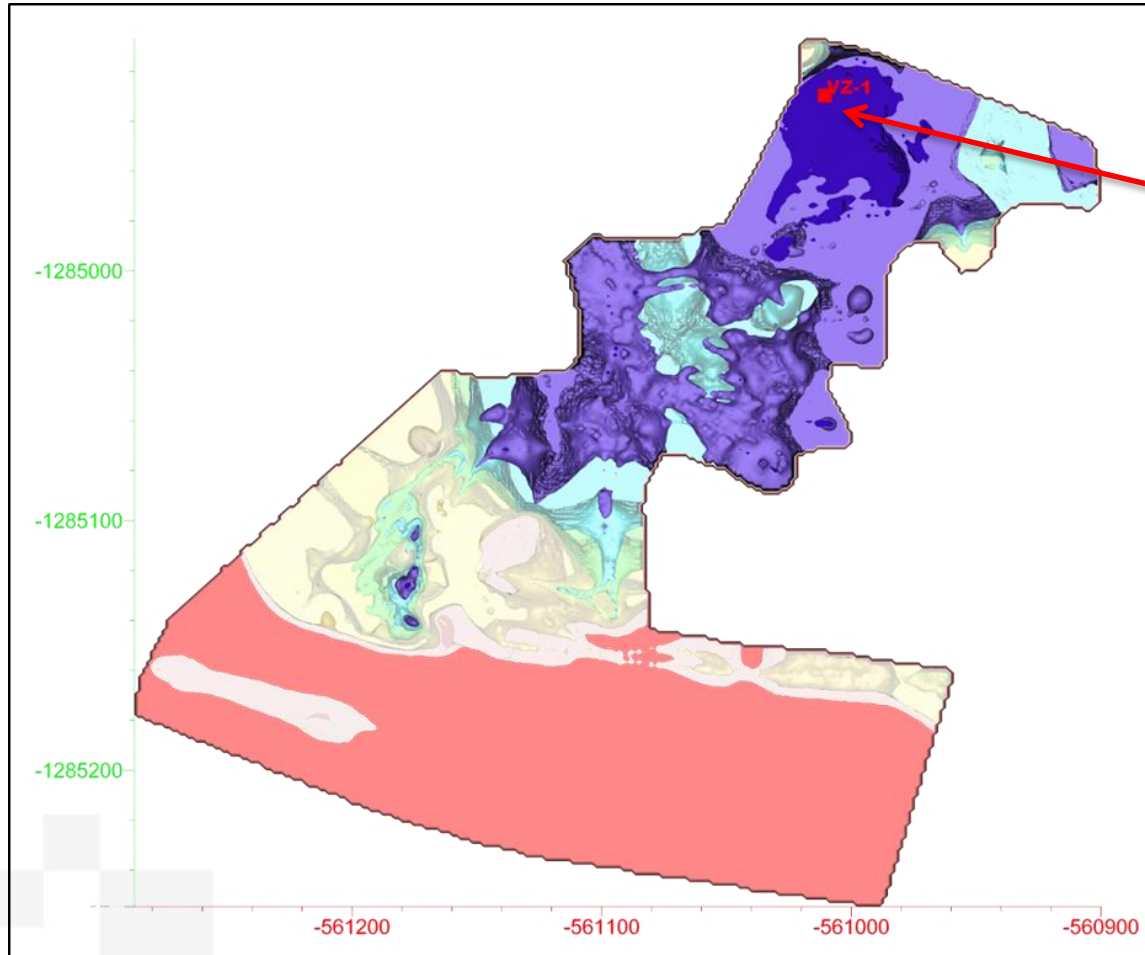












Identification of underground pollution from where it is necessary to take a sample for laboratory analysis.

Coordinates of VZ1 point

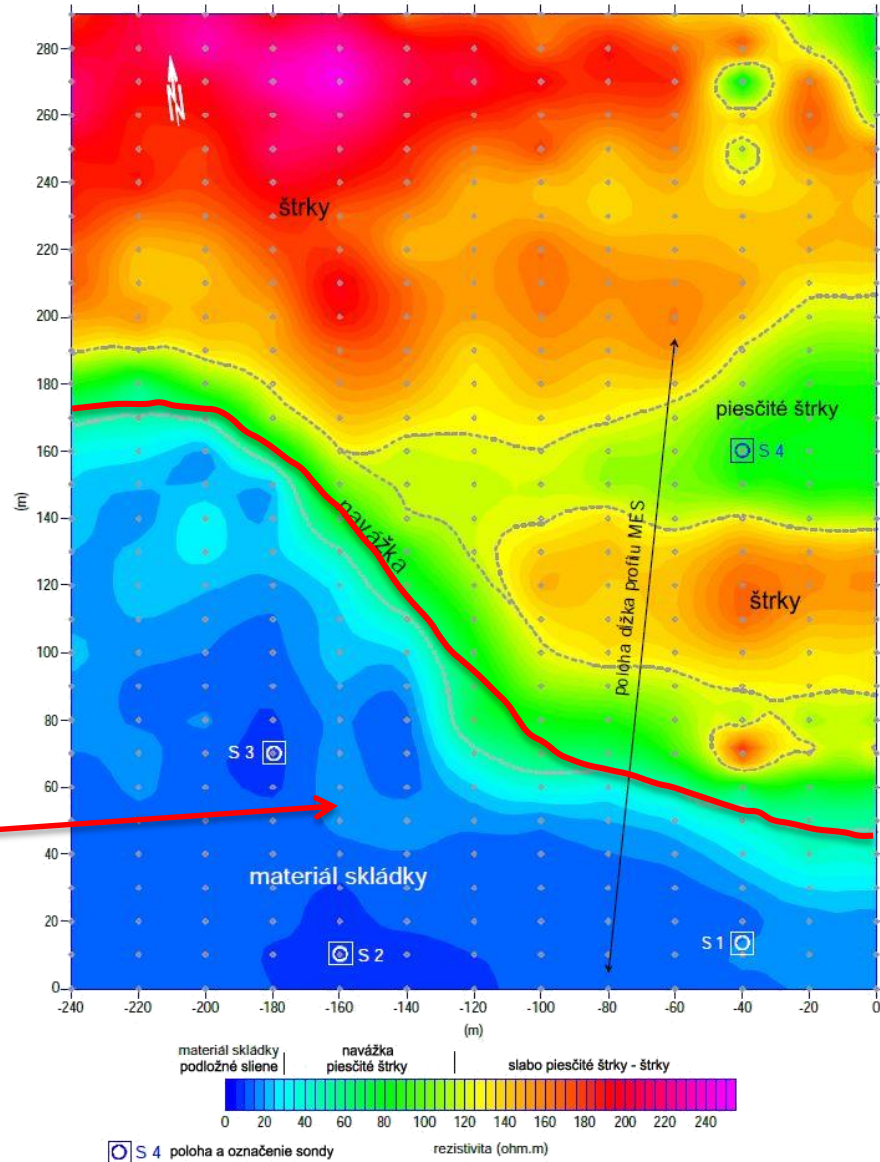
X	Y	Z
-5635780.57	-1283528.66	131.02

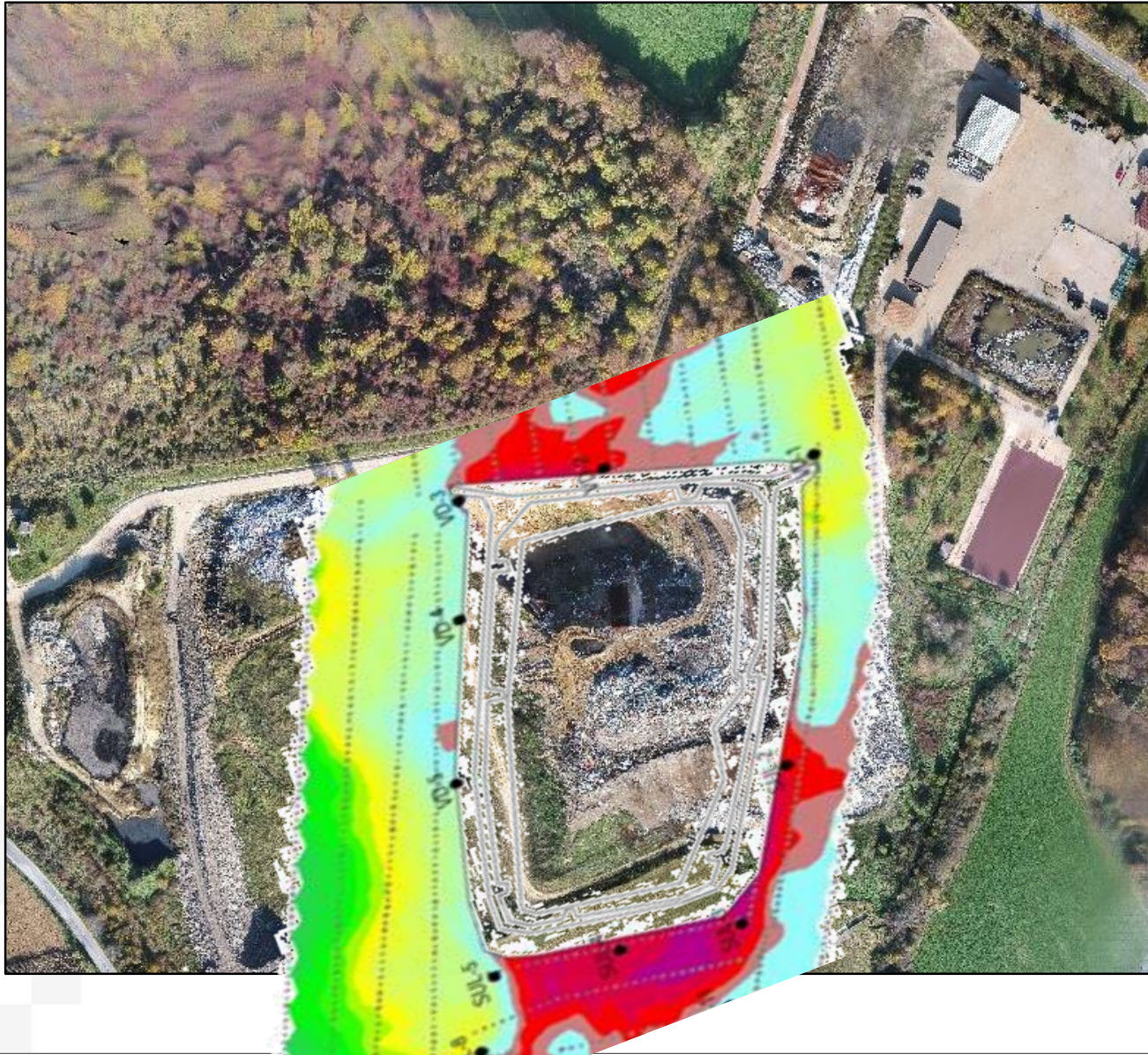


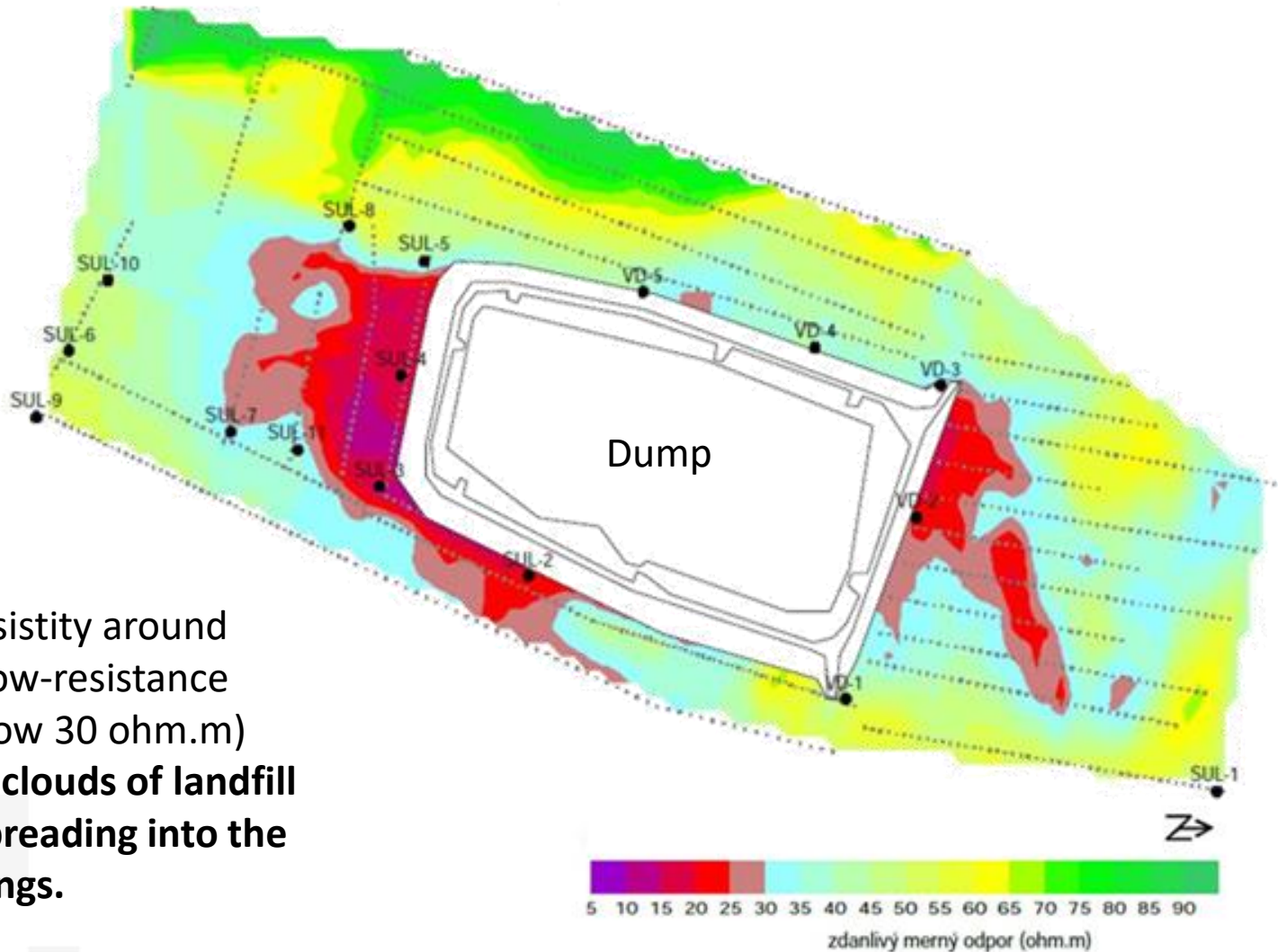
Type of material:

- Dump material
- Gravels
- Sandy gravel
- Embankments

Dump area







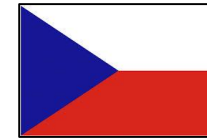
Map of resistivity around dump -> low-resistance areas (below 30 ohm.m) represent clouds of landfill leaches spreading into the surroundings.

References in the field:

- Automotive industry
- Petroleum industry
- Cement production
- Construction companies
- Agricultural sector
- Surveying companies
- Security and forensic companies
- Police
- Municipalities
- Property owners

Countries:

- Slovakia
- Germany
- Czech republic
- Romania
- Brasil
- Russia
- Argentina
- Ukrain
- Turkey
- Spain
- USA
- Peru
- ...





Slovnaft



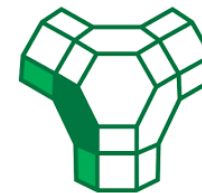
PEUGEOT



ŠKODA



ČESKOMORAVSKÝ
CEMENT
HEIDELBERGCEMENT Group



THANK YOU FOR YOUR
ATTENTION

DO YOU HAVE ANY QUESTIONS?
WE ANSWER TO YOU LATER...
IF WE WILL KNOW ;)



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