

HRZZ

Istraživački projekti

**Proizvodnja željeza uz rijeku Dravu u antici i srednjem vijeku:
stvaranje i transfer znanja, tehnologija i roba**

Voditeljica projekta: dr. Tajana Sekelj Ivančan , Institut za arheologiju

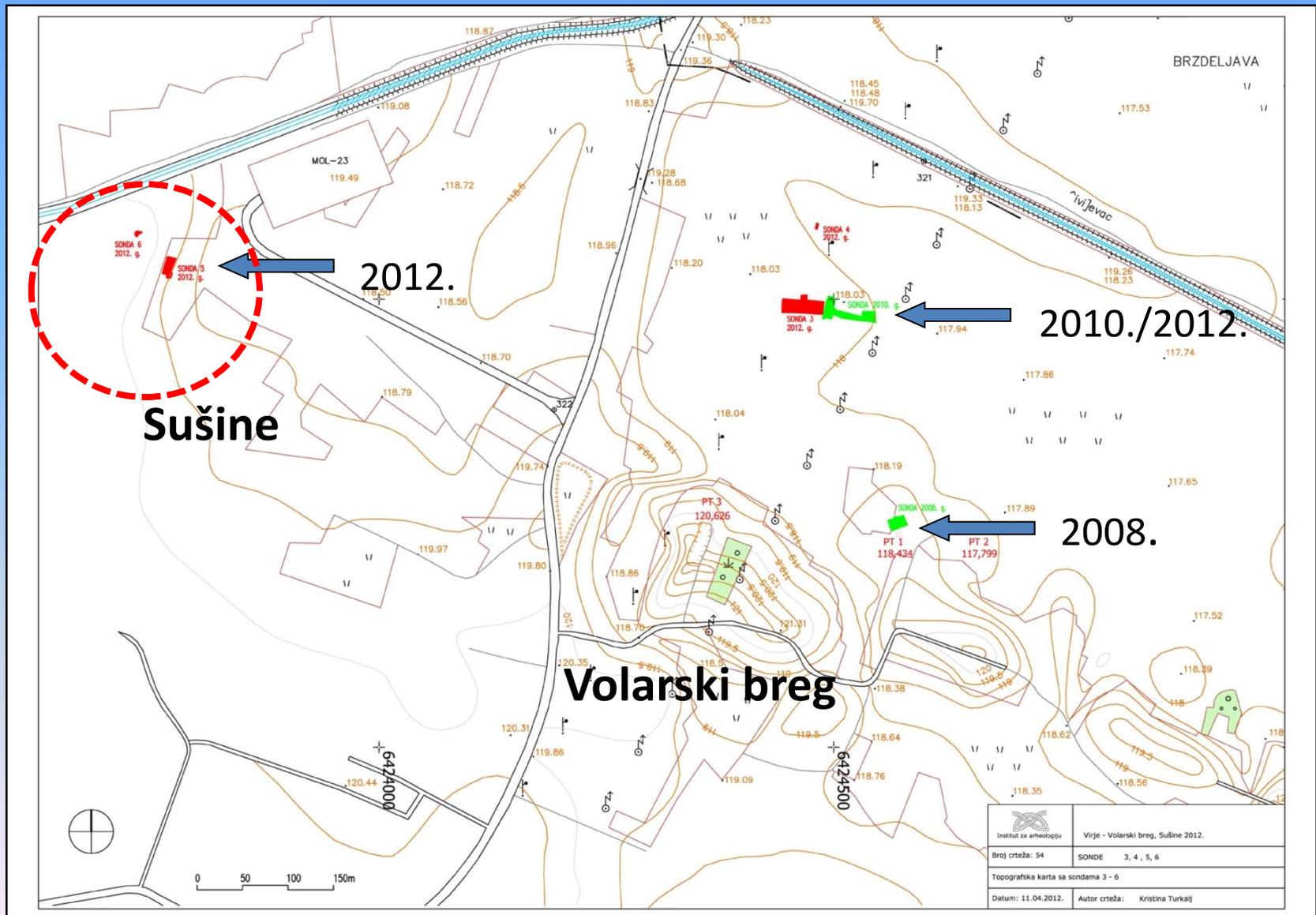
**GEOFIZIČKA I ARHEOLOŠKA ISTRAŽIVANJA NA NALAZIŠTU VIRJE –
TALIONIČKOJ RADIONICI IZ VREMENA KASNE ANTIKE I RANOG
SREDNJEG VIJEKA**

Branko Mušič i Tajana Sekelj Ivančan

Zagreb. 30. 03. 2017



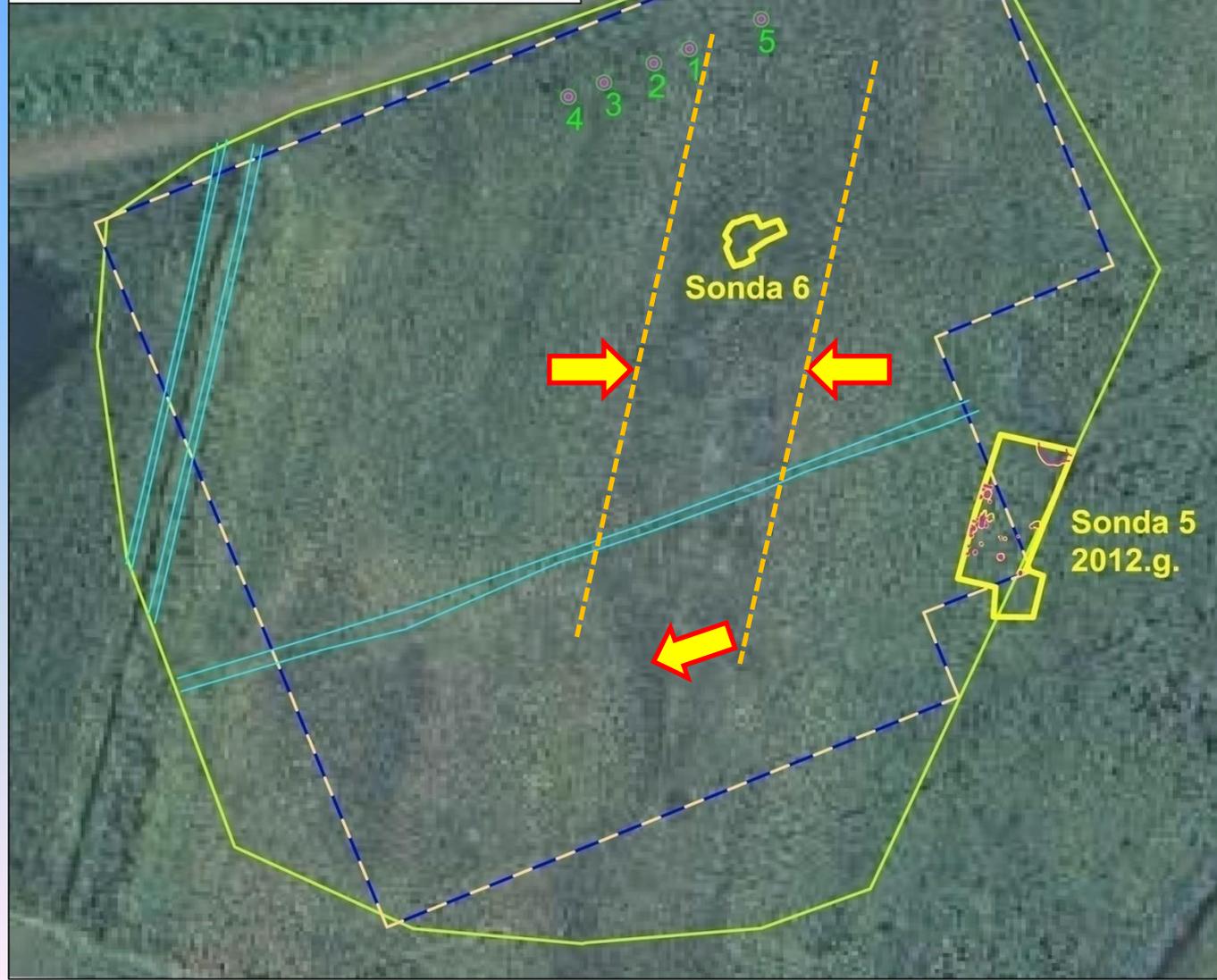
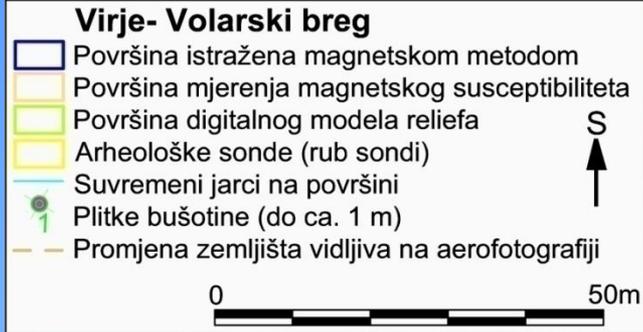
Virje – arheološke sonde v letih 2008-2012



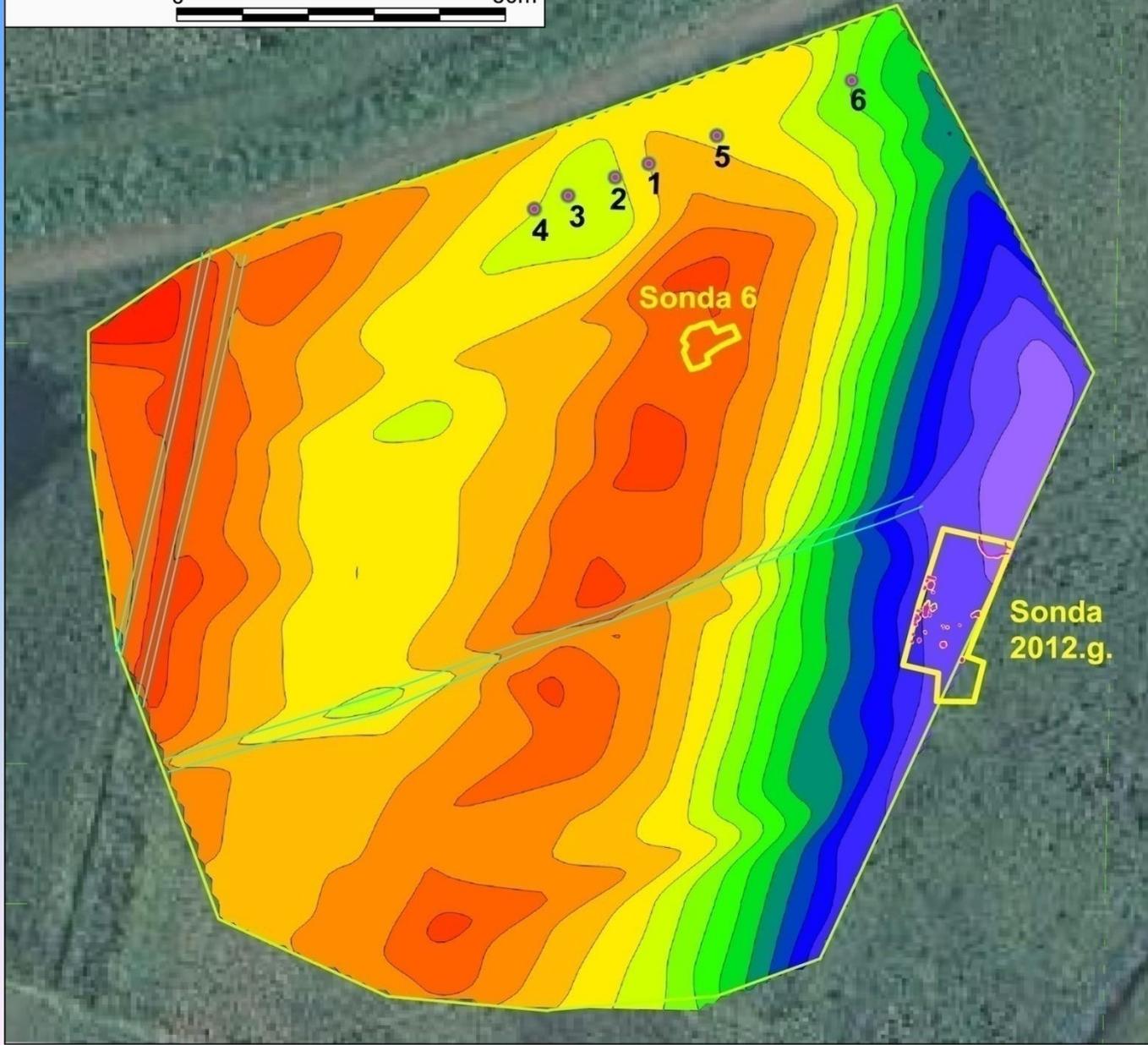


POVRŠINE ISTRAŽENE GEOFIZIČKOM METODOM

AEROFOTOGRAFIJA



DIGITALNI MODEL RELIEFA umjesto LIDAR-a



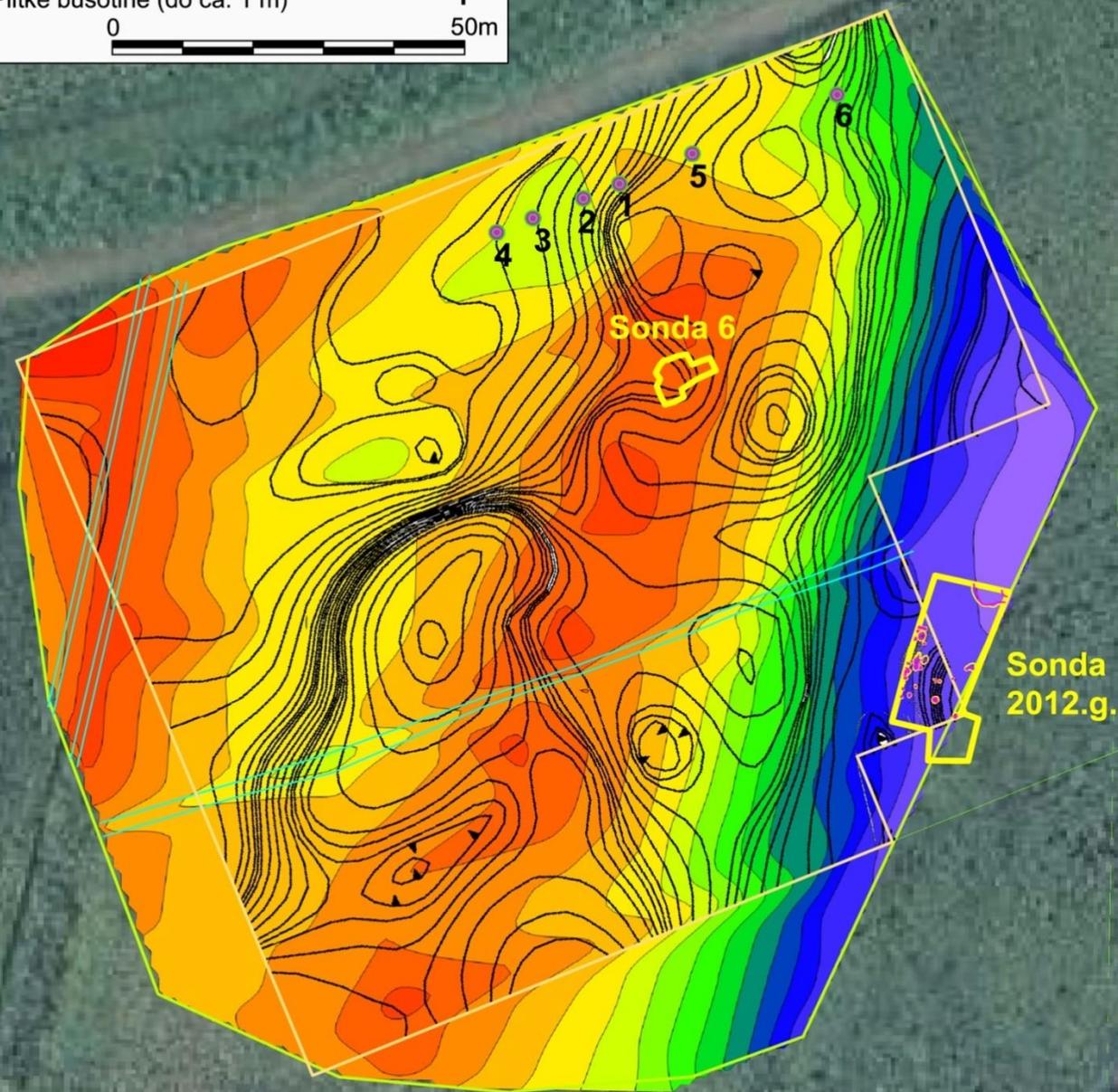
DIGITALNI MODEL RELIEFA i KARTIRANJE MAGNETSKOG SUSCEPTIBILITETA (Kappameter KT-5)

Virje- Volarski breg

-  Površina mjerenja magnetskog susceptibiliteta
-  Površina digitalnog modela reliefa
-  Arheološke sonde (rub sondi)
-  Suvremeni jarci na površini
-  Plitke bušotine (do ca. 1 m)

0  50m

S 



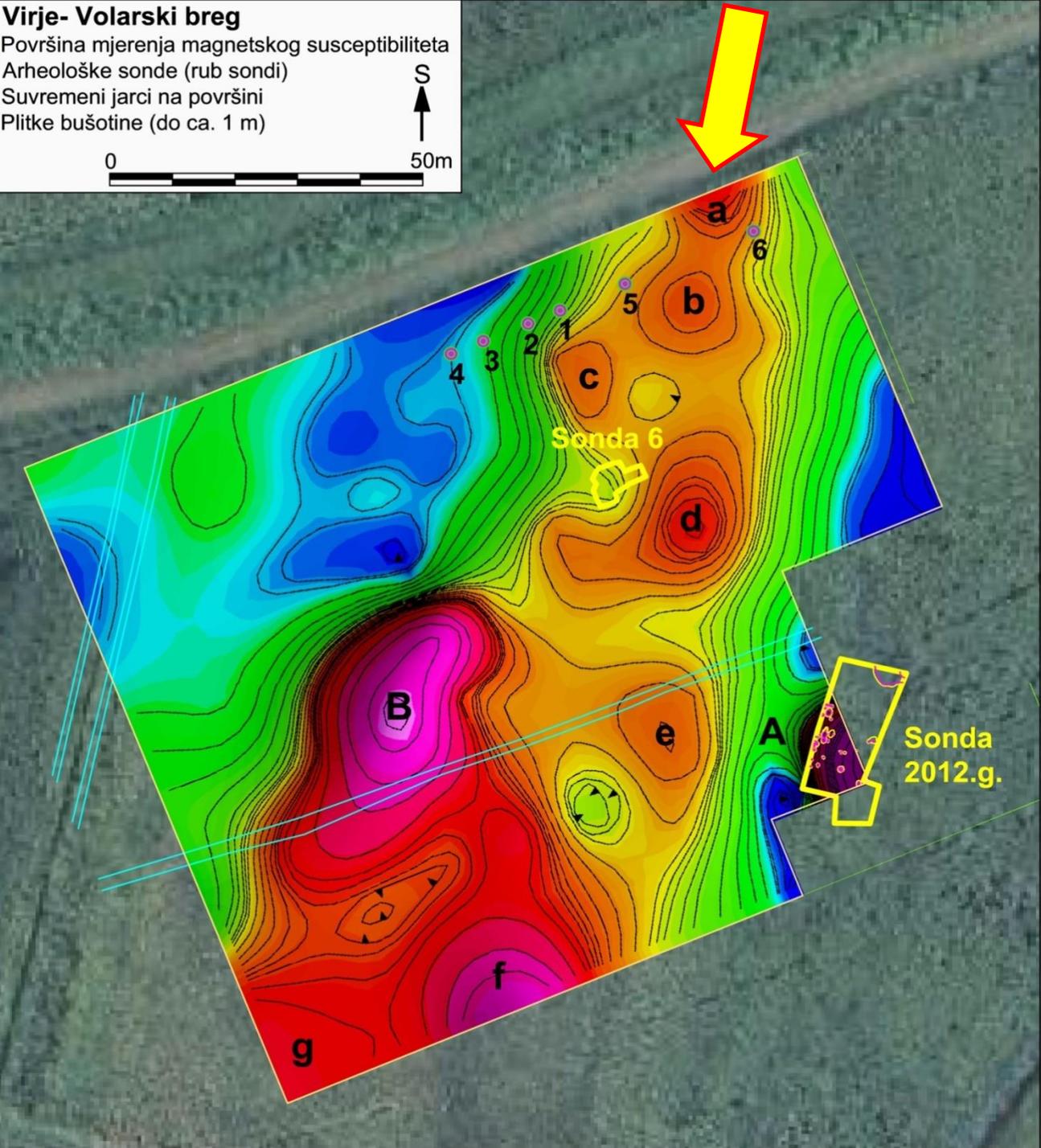
KARTIRANJE MAGNETSKOG SUSCEPTIBILITETA (Kappameter KT-5)

Virje- Volarski breg

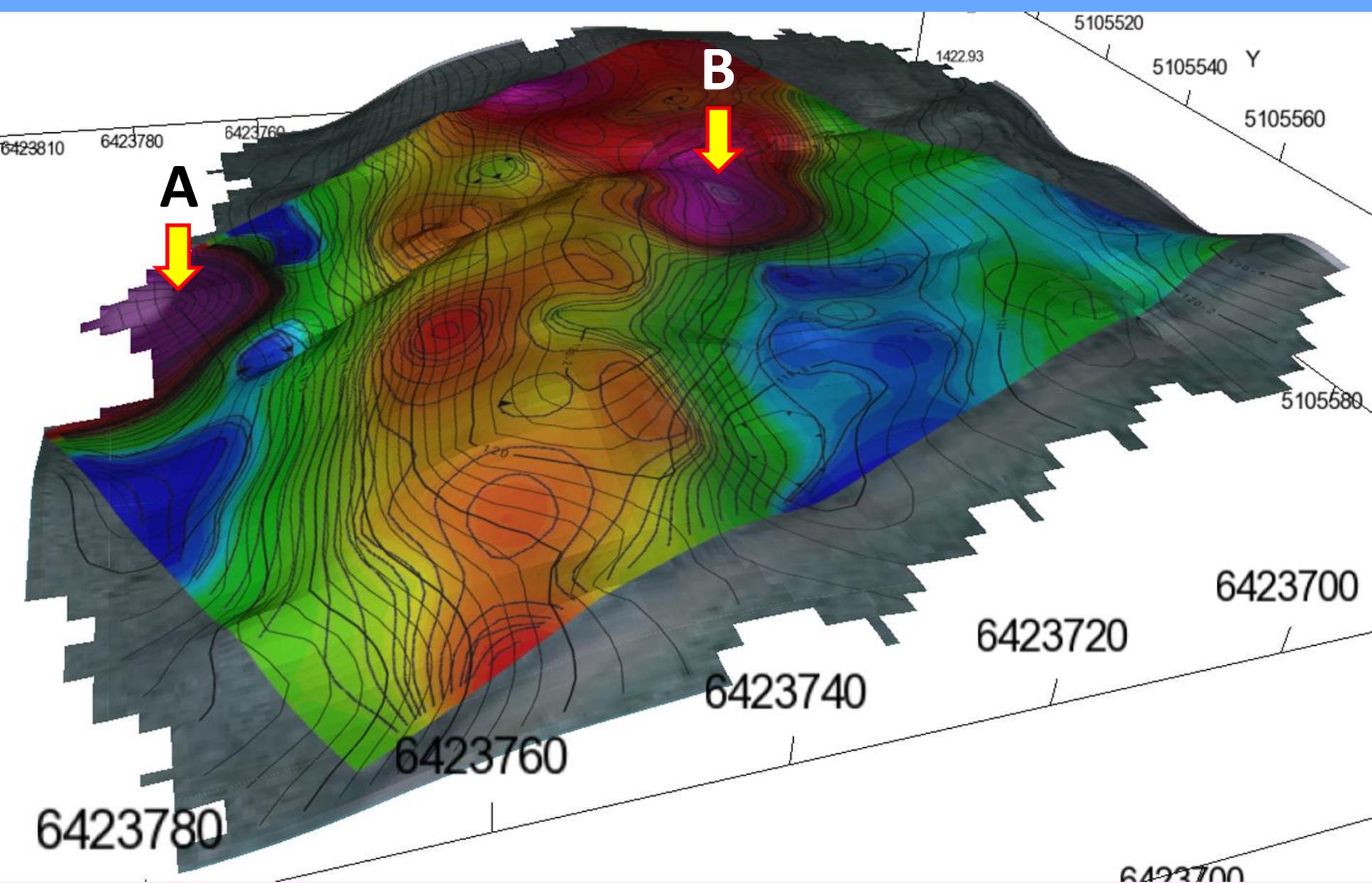
-  Površina mjerenja magnetskog susceptibiliteta
-  Arheološke sonde (rub sondi)
-  Suvremeni jarci na površini
-  Plitke bušotine (do ca. 1 m)

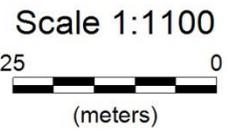
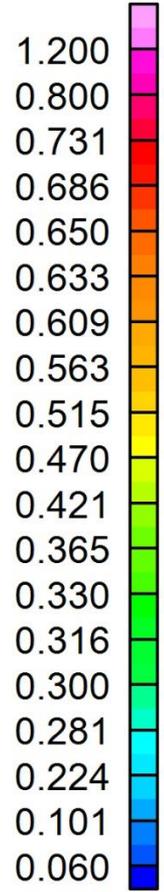
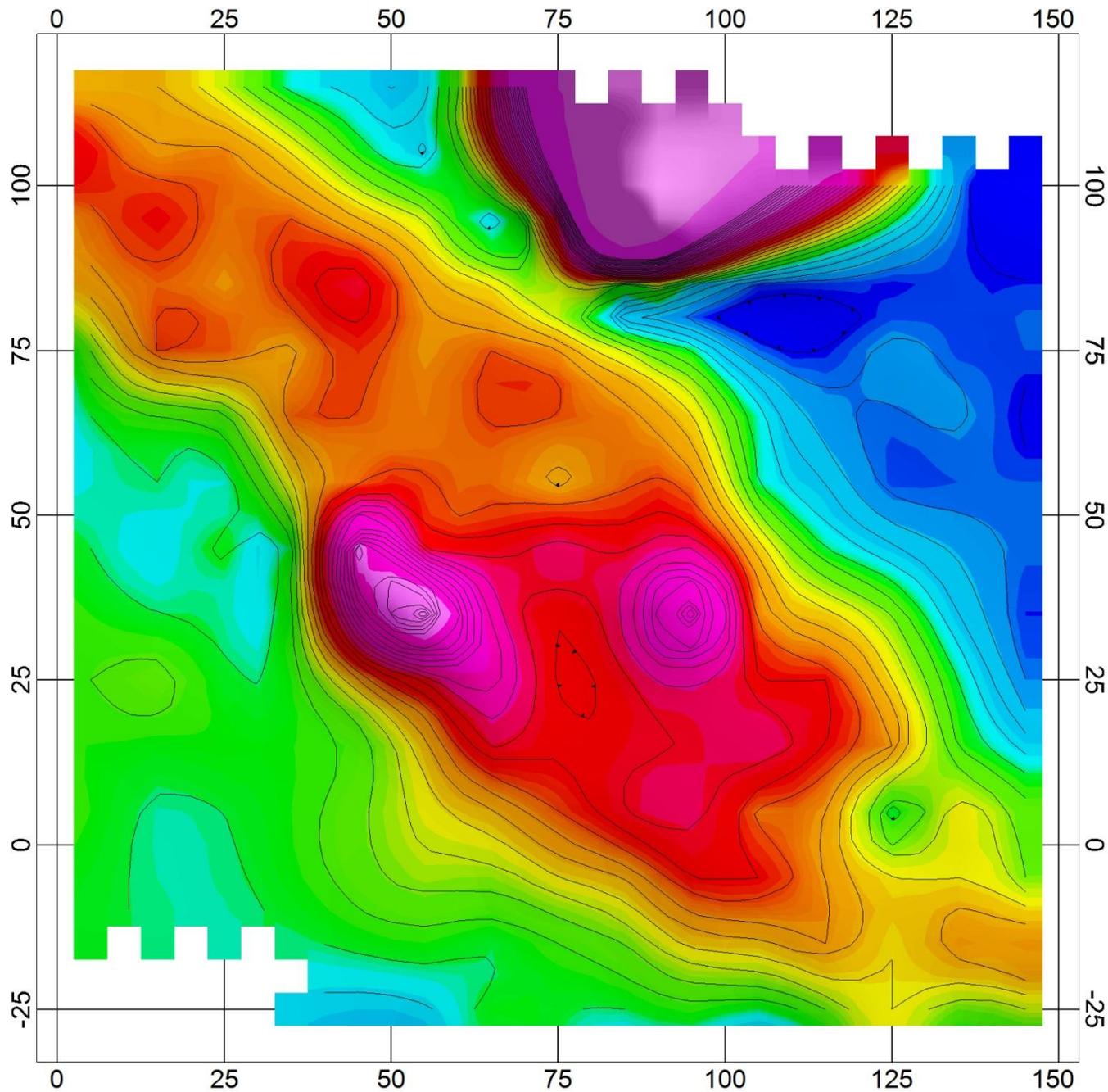
0  50m

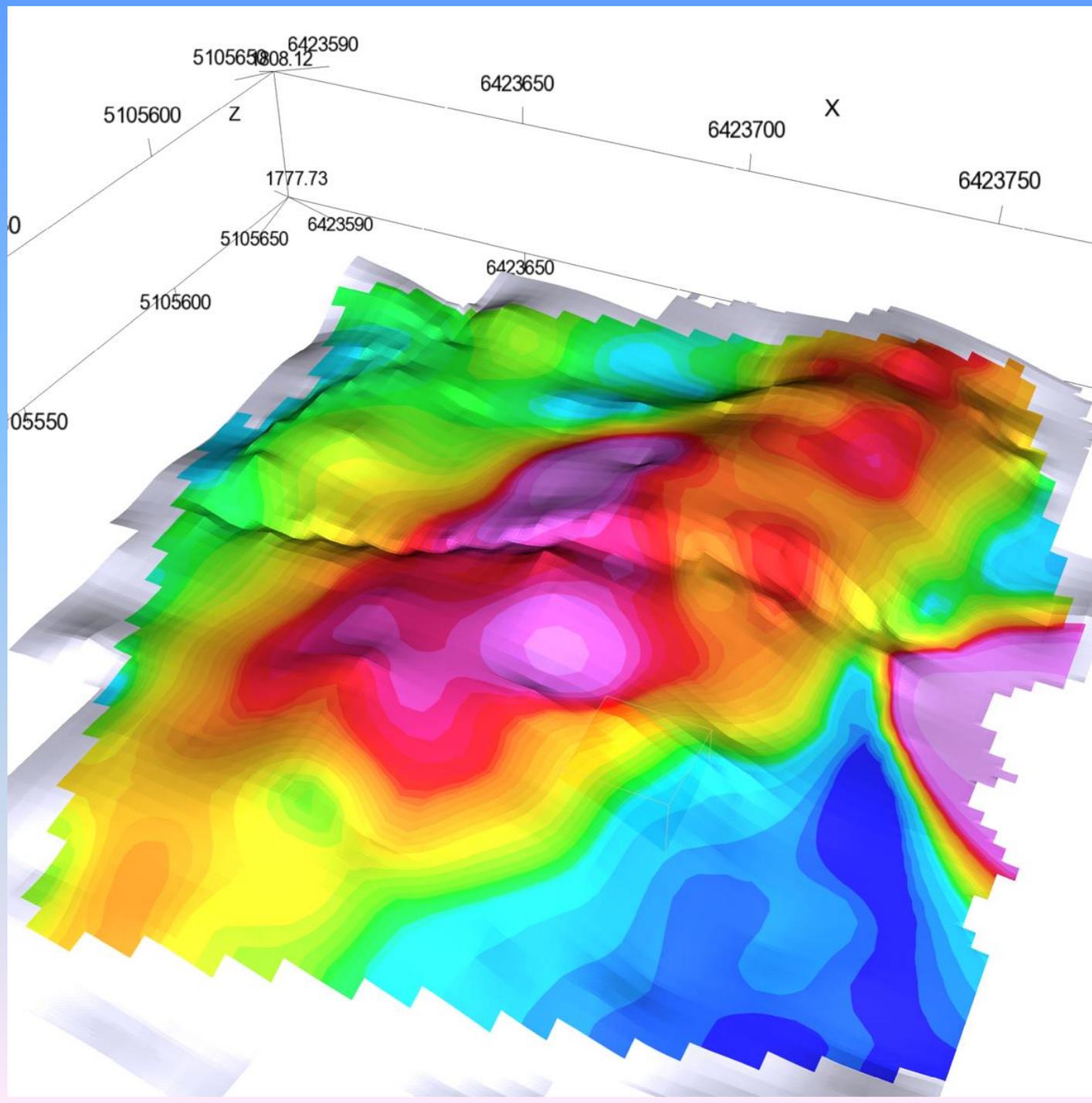
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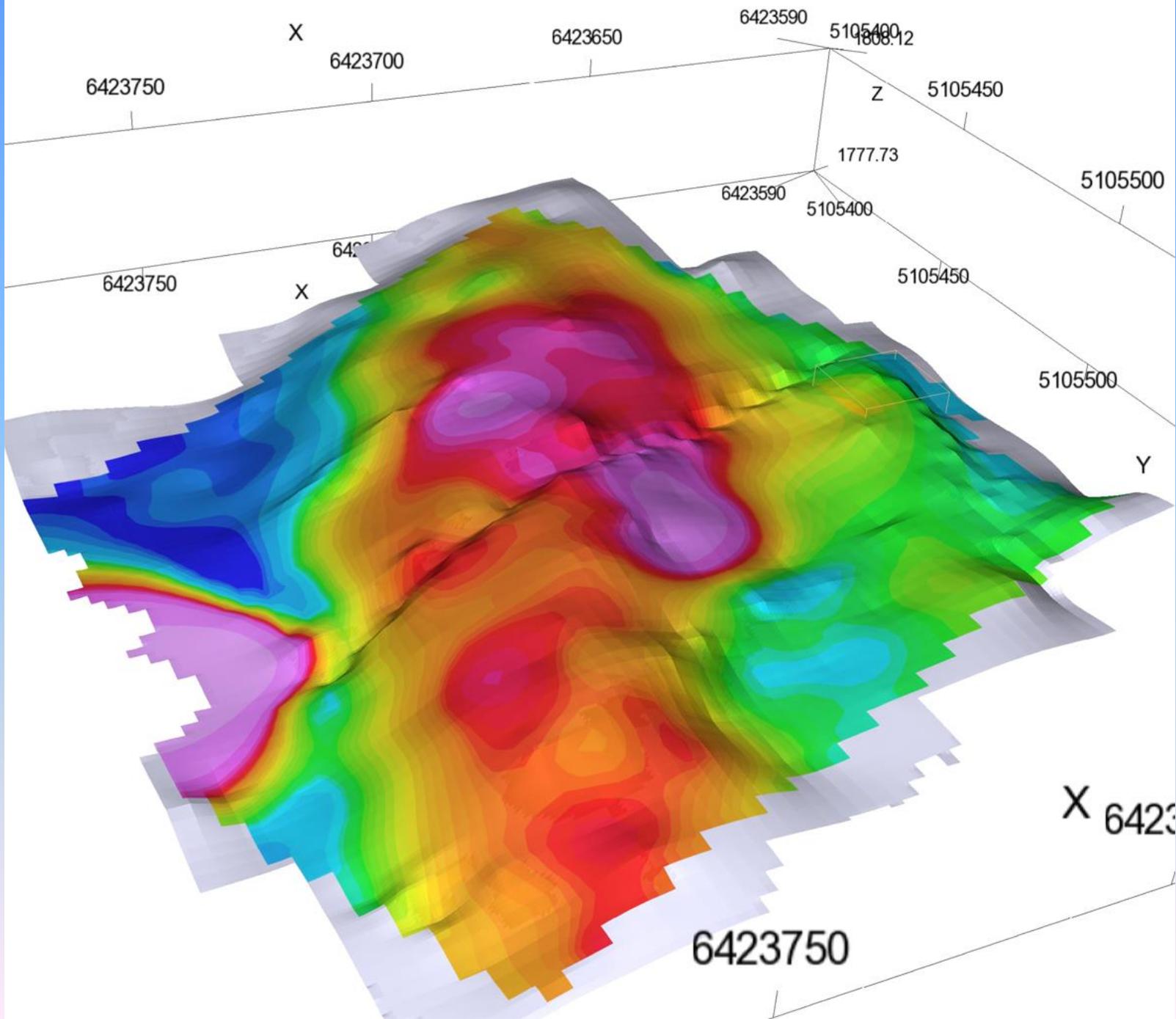


REZULTATI KARTIRANJA MAGNETSKOG SUSCEPTIBILITETA NA DIGITALNOM MODELU RELIEFA





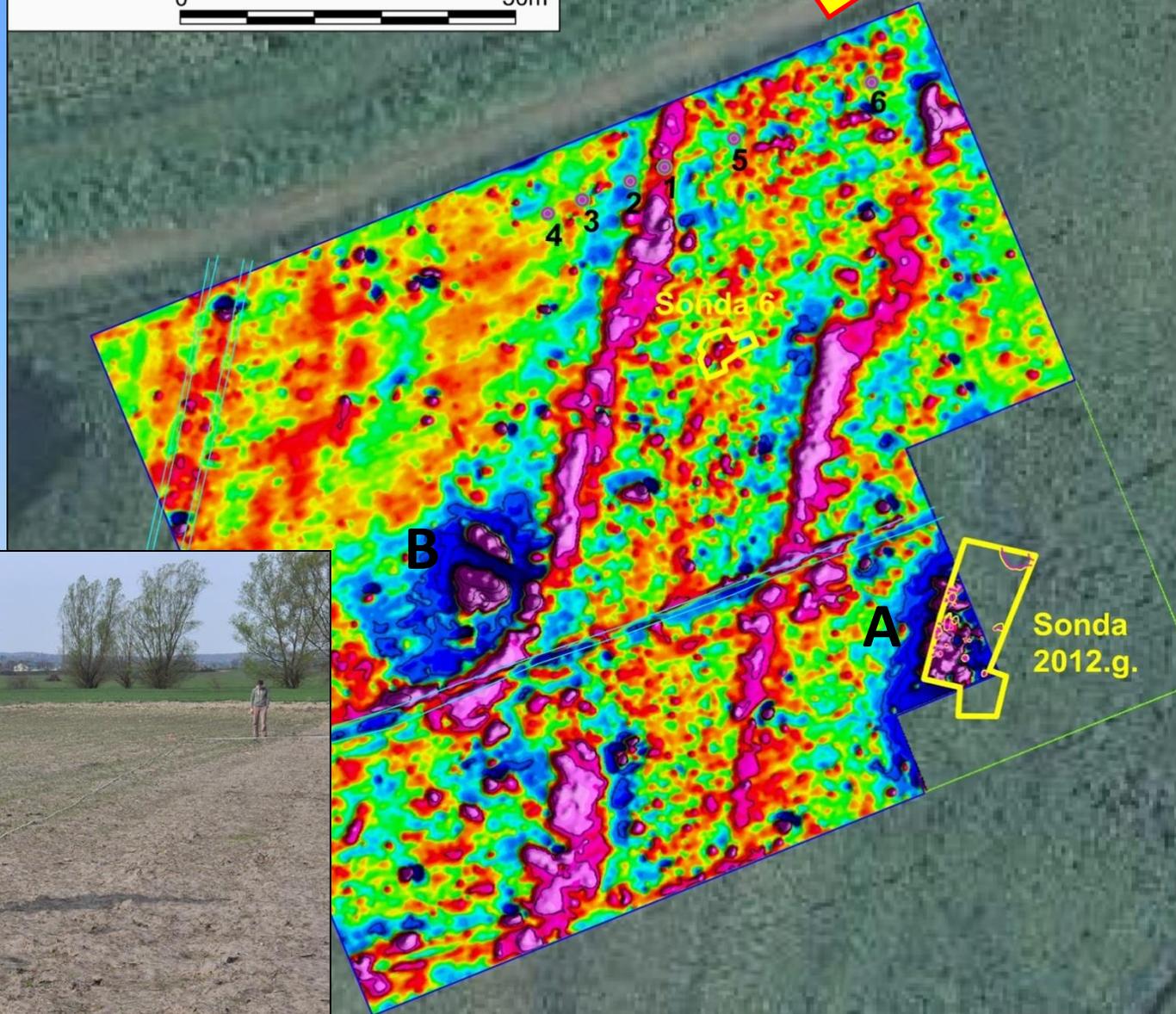




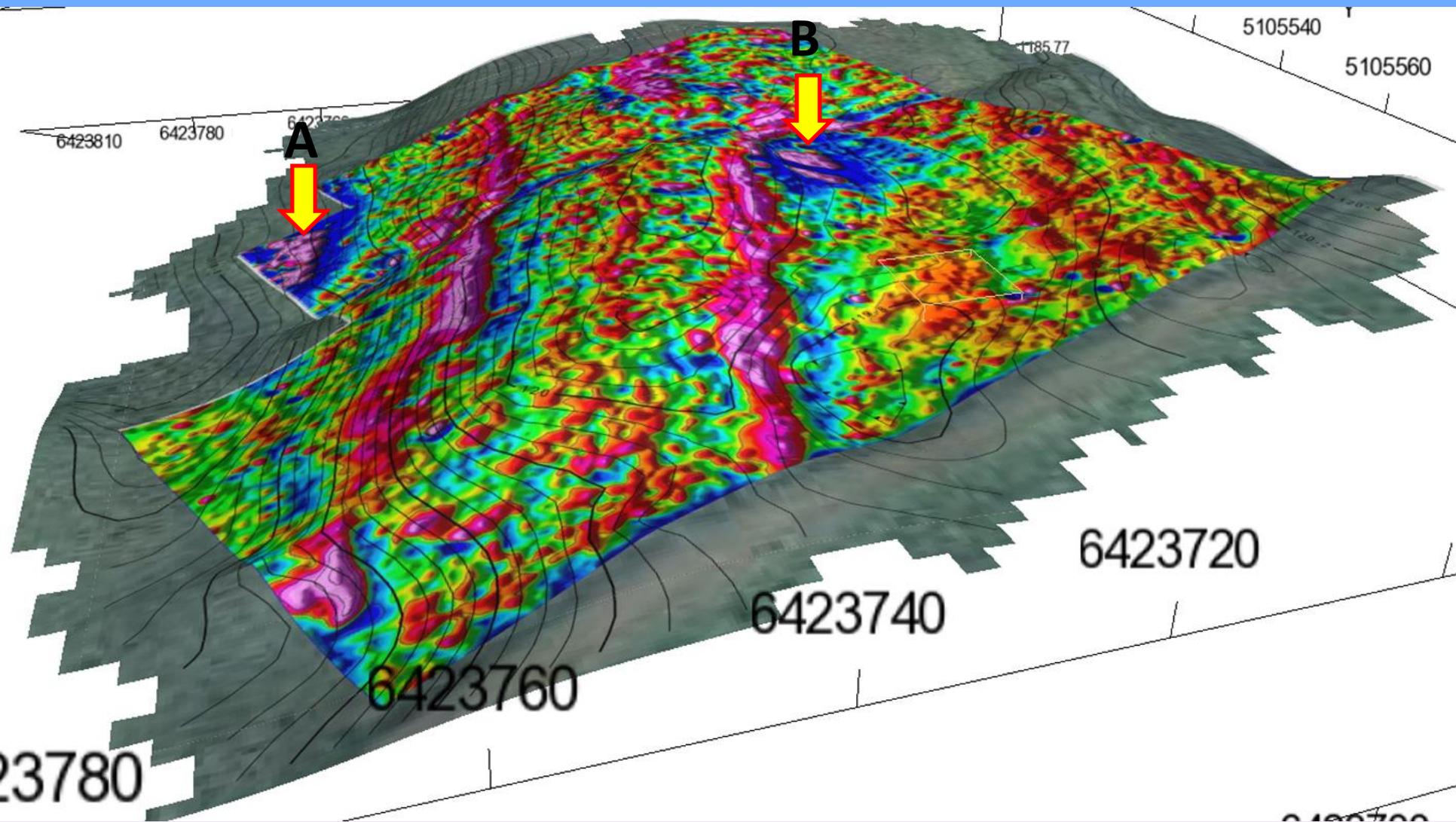
MAGNETSKA METODA

Gradient magnetskog polja

(Geometrics G-858)



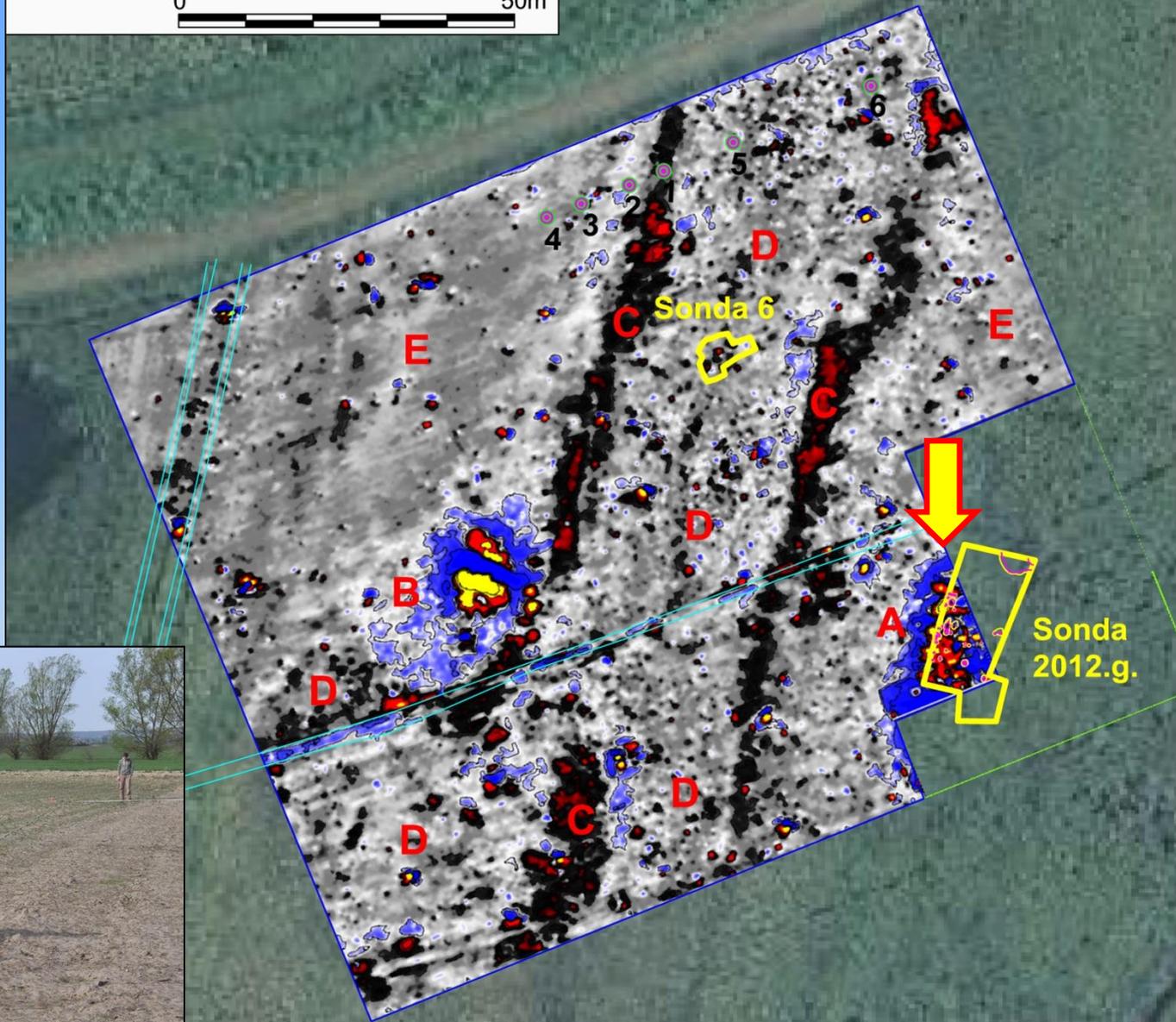
REZULTATI MAGNETSKE METODE NA DIGITALNOM MODELU RELIEFA



MAGNETSKA METODA

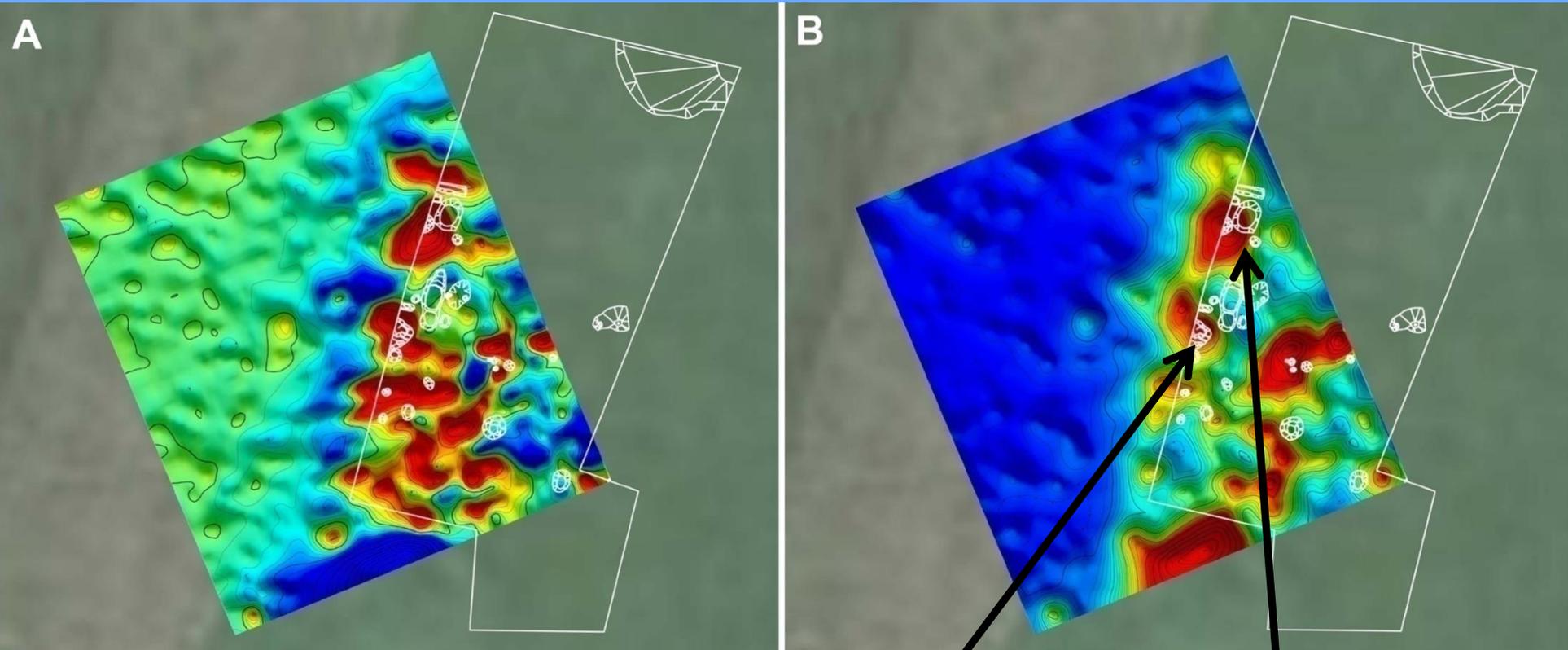
Gradient magnetskog polja

(Geometrics G-858)



REZULTATI MAGNETSKE METODE NA PODRUČJU ARHEOLOŠKIH SONDI

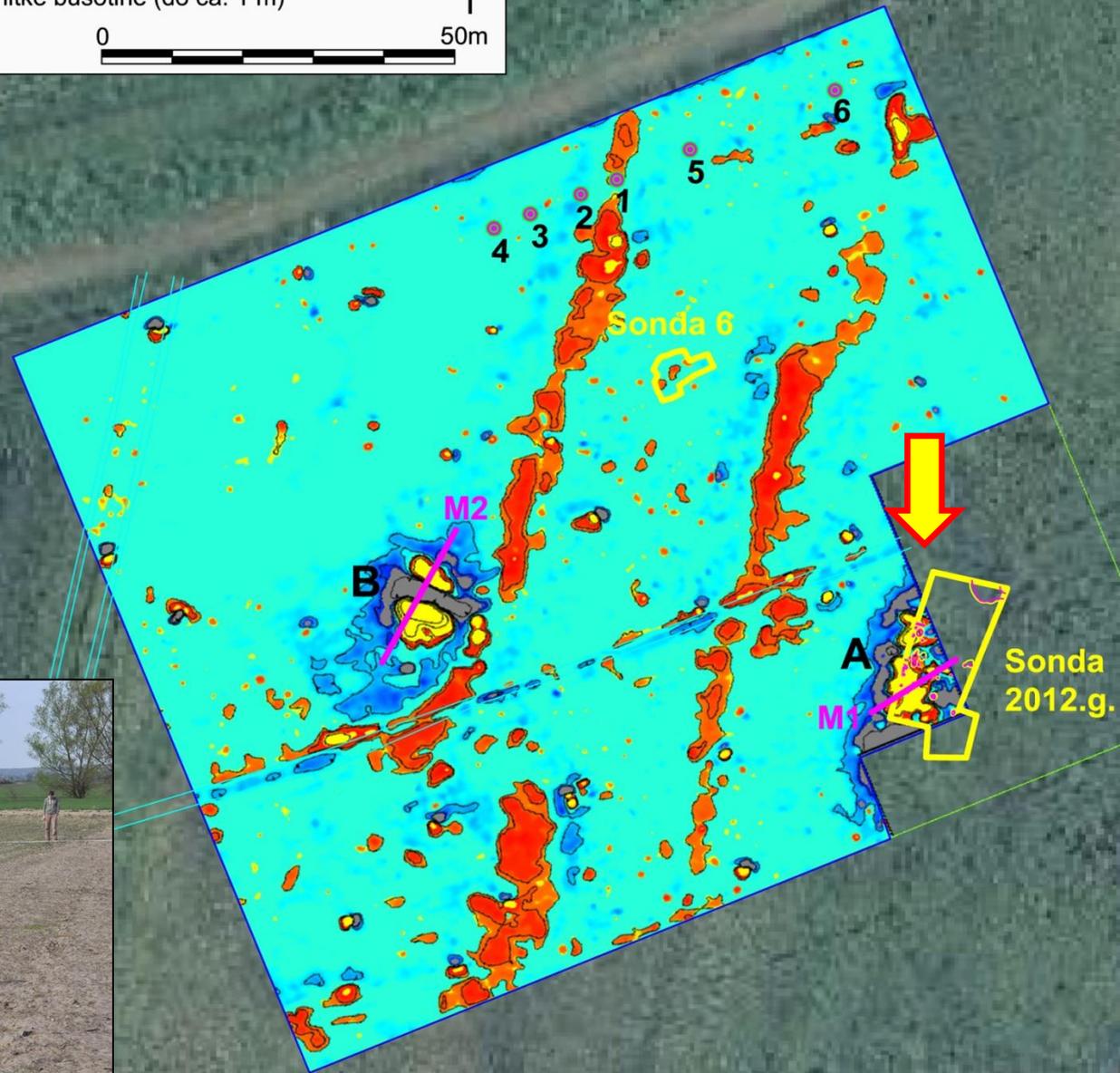
Gradient magnetskog polja
(Geometrics G-858)



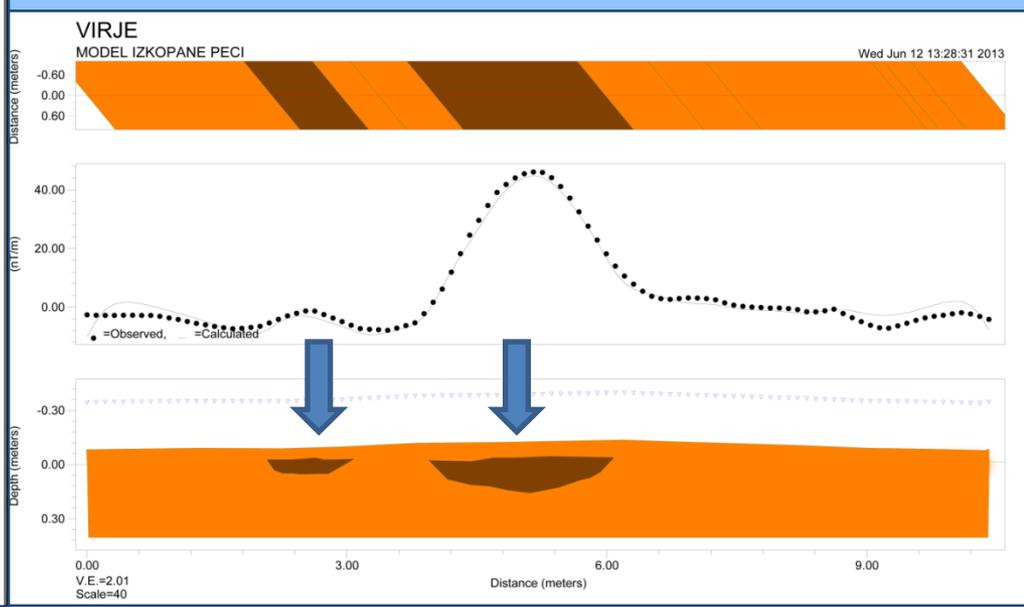
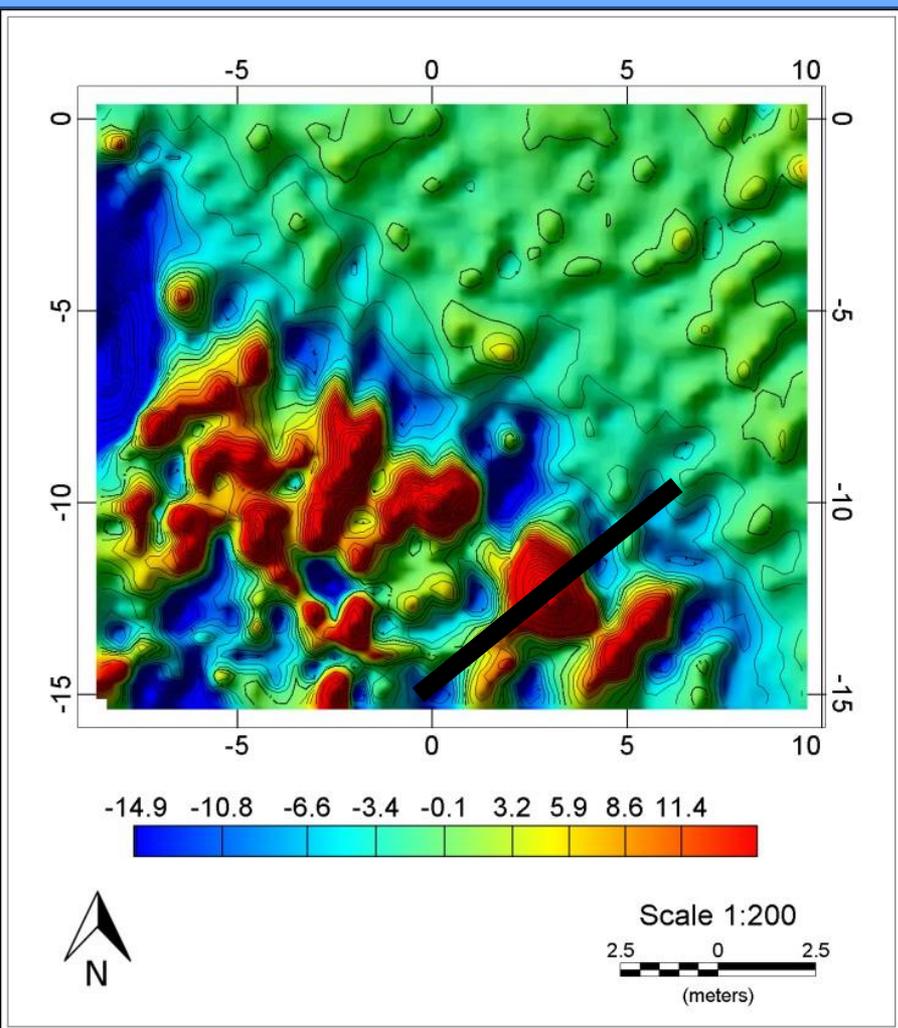
MAGNETSKA METODA

Gradient magnetskog polja

(Geometrics G-858)



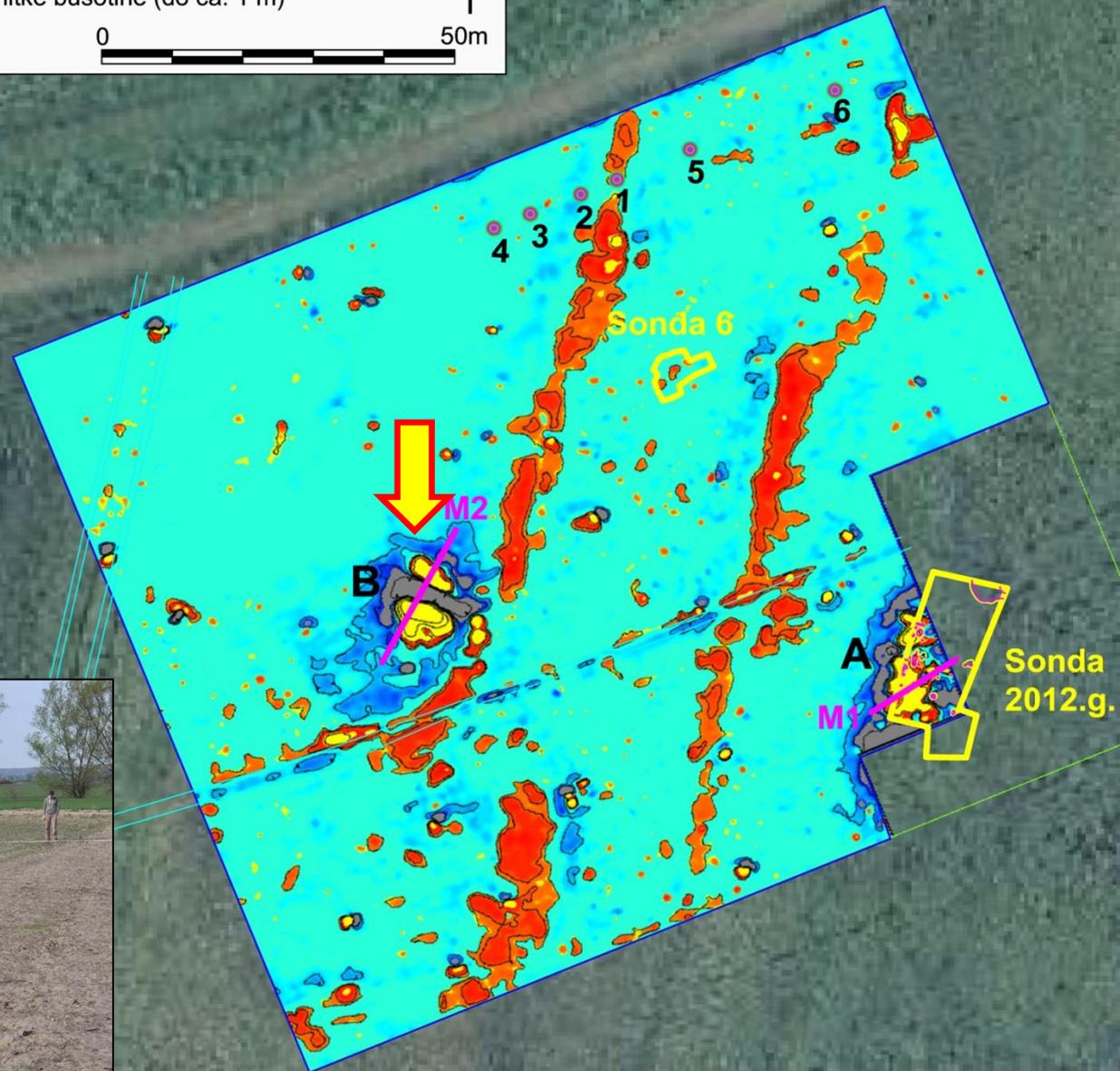
2D MAGNETSKI MODEL NA PODROČJU ARHEOLOŠKIH SONDI



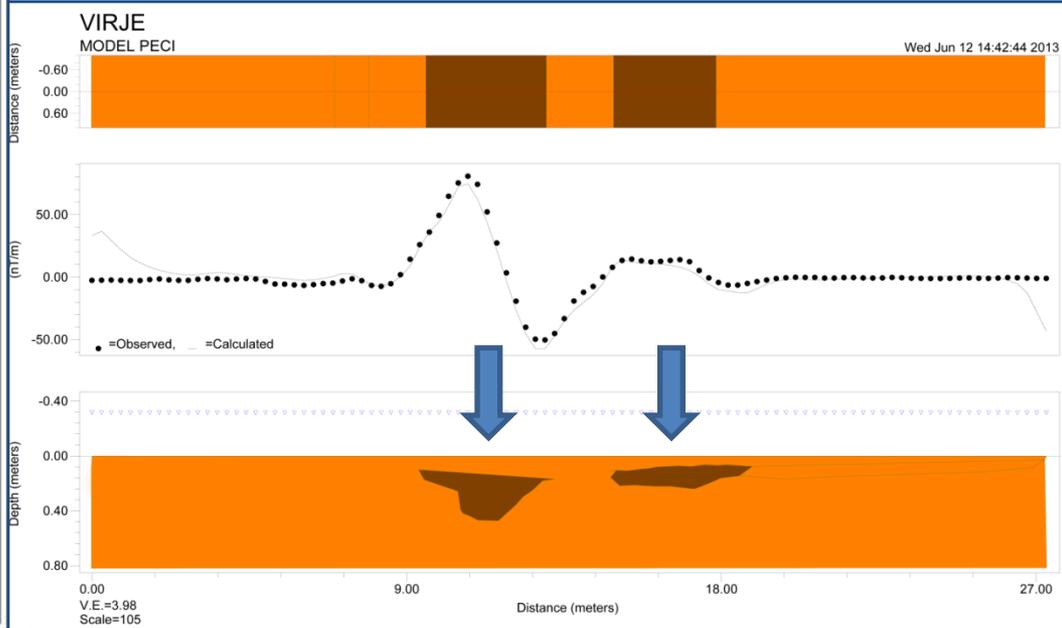
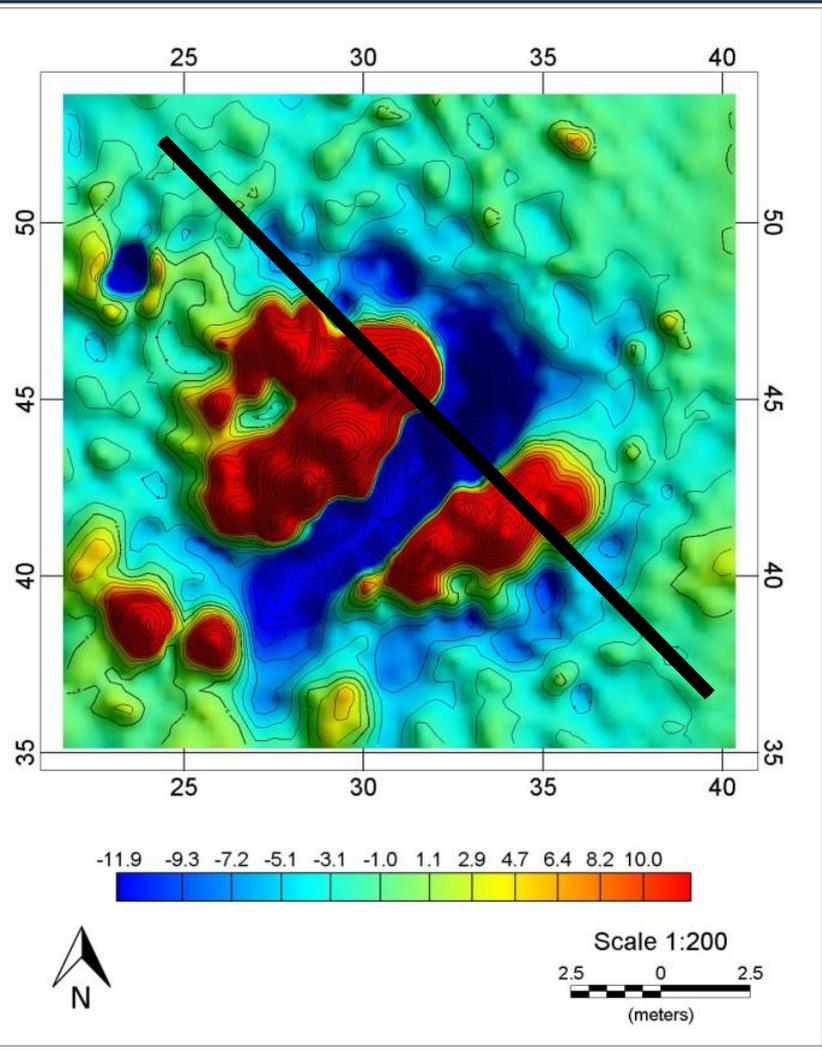
MAGNETSKA METODA

Gradient magnetskog polja

(Geometrics G-858)



2D MAGNETSKI MODEL NA ARHEOLOŠKO JOŠ NEISTRAŽENOJ POVRŠINI



Virje- Volarski breg

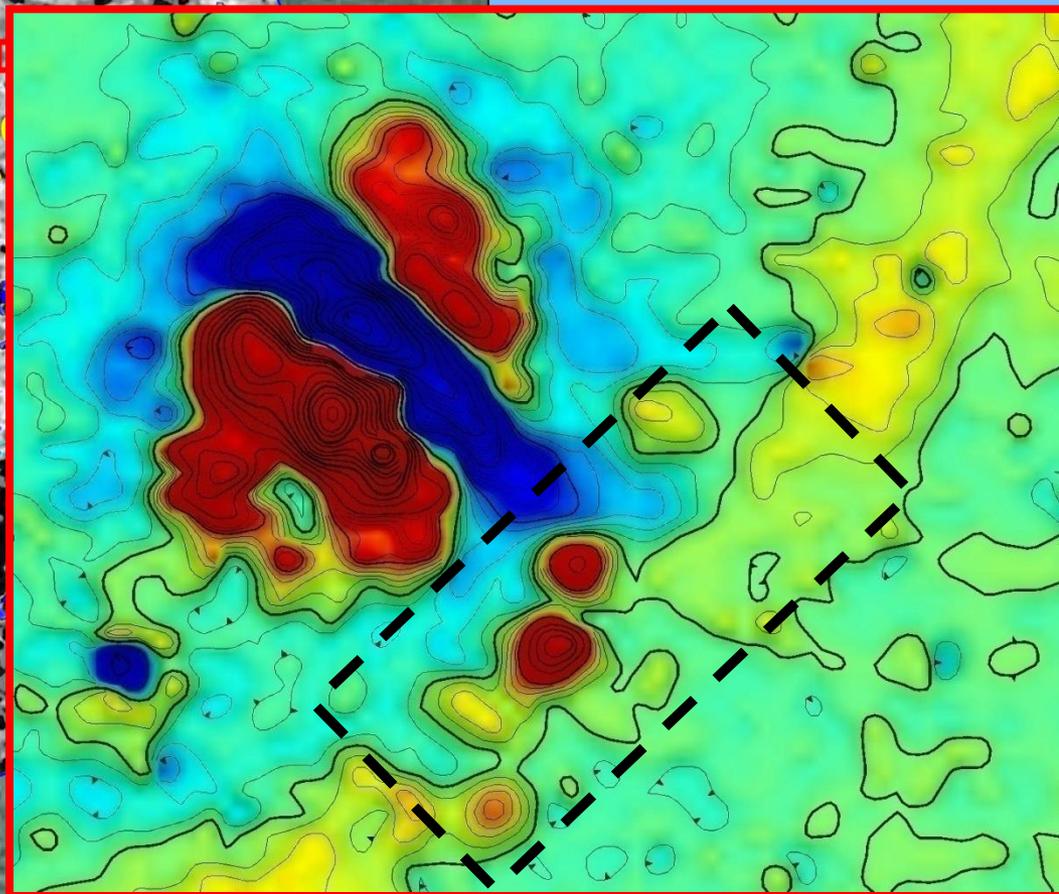
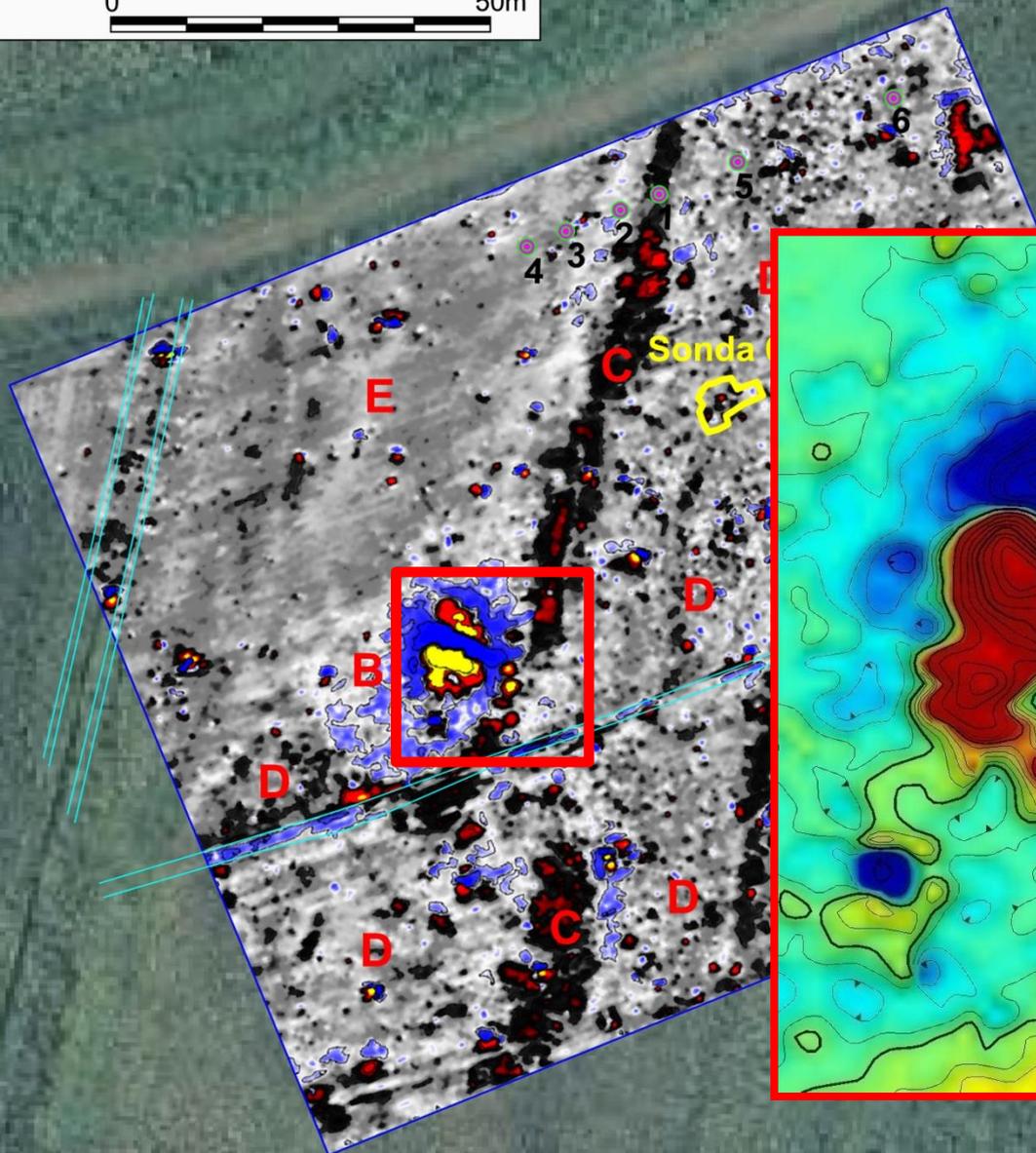
-  Površina istražena magnetskom metodom
-  Arheološka sonda (rub sonde)
-  Suvremeni jarci na površini
-  1 Plitke bušotine (do ca. 1 m)

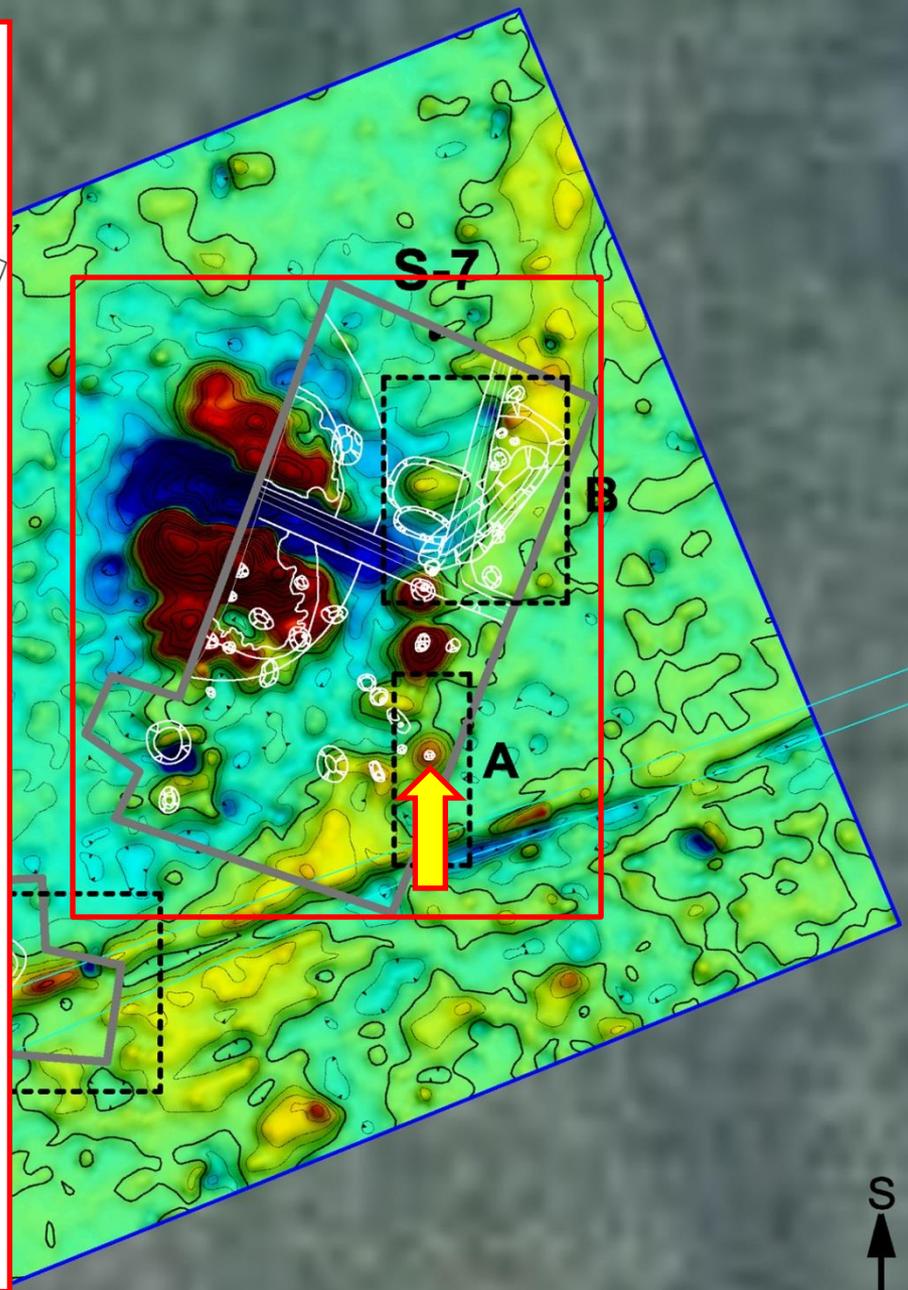
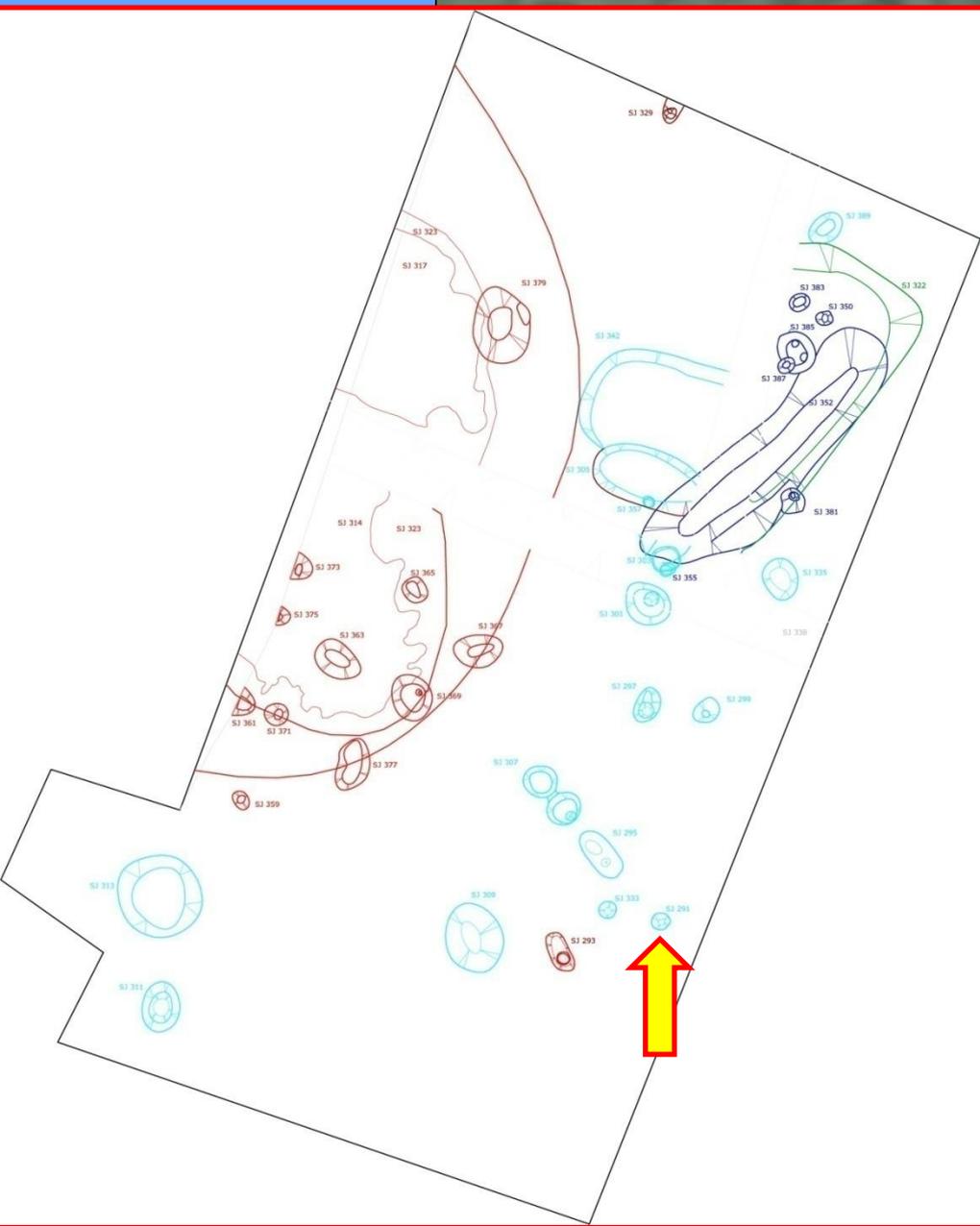
0 50m

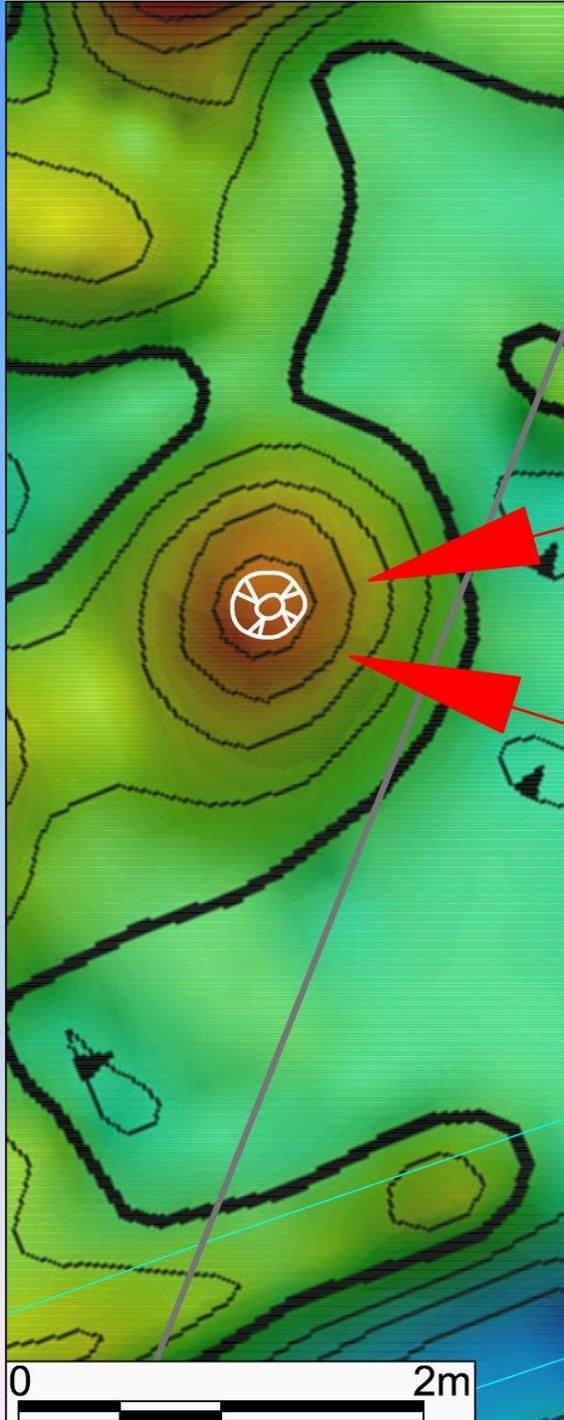


MAGNETSKA METODA

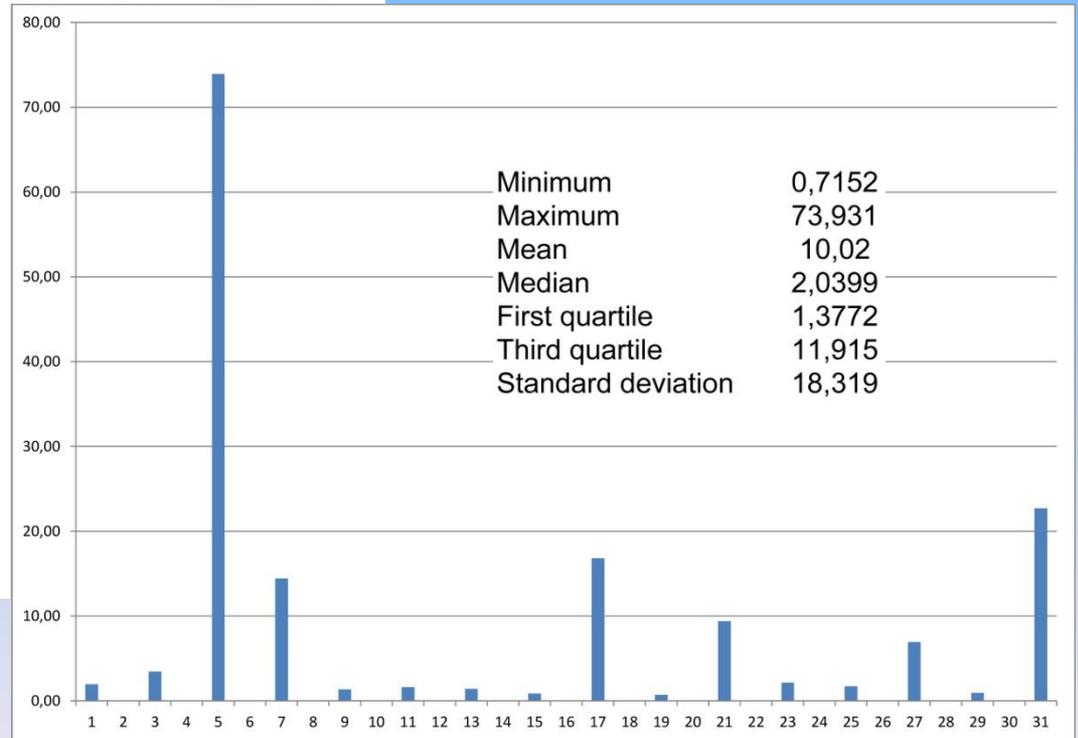
Gradient magnetskog polja
(Geometrics G-858)





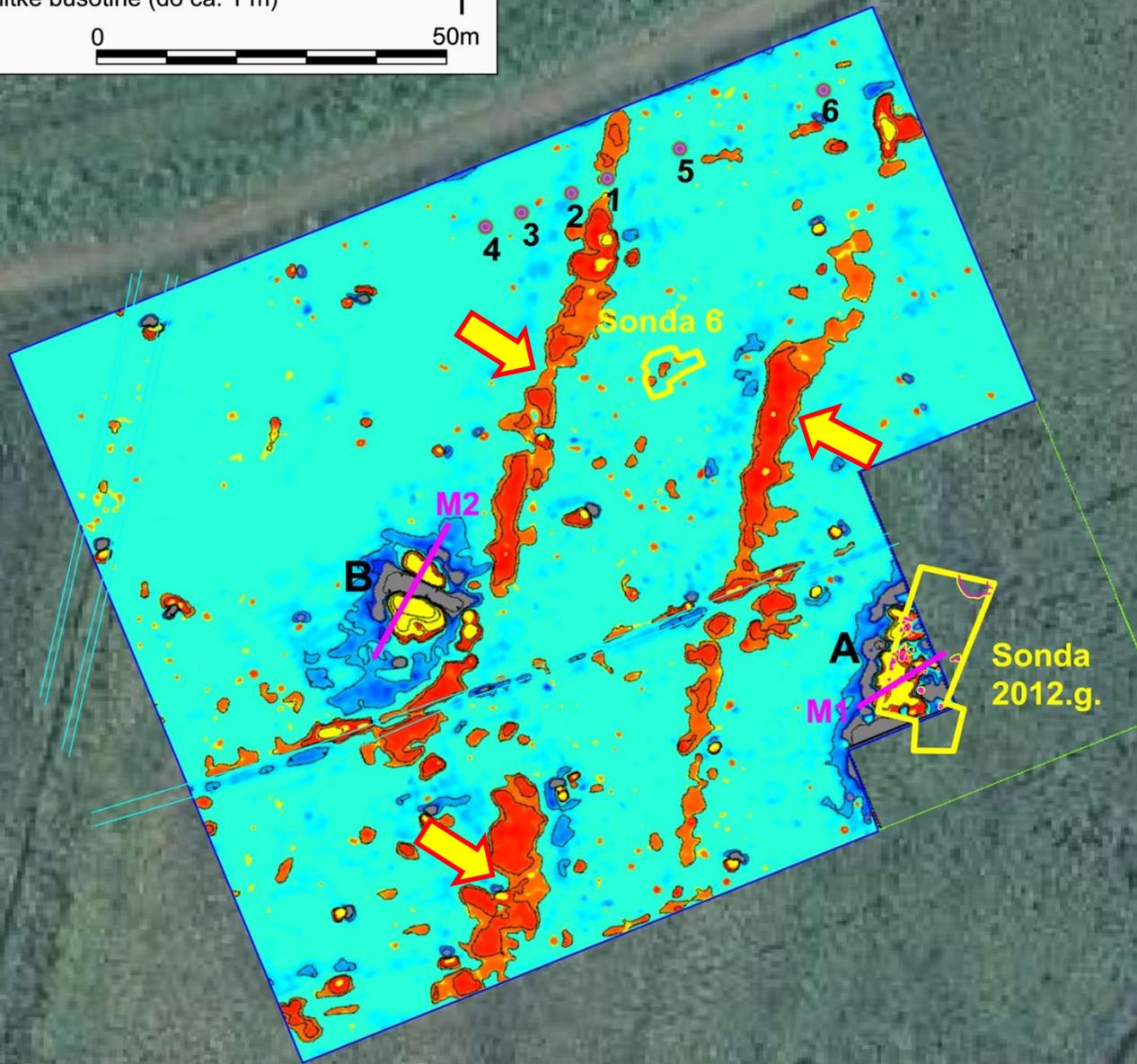


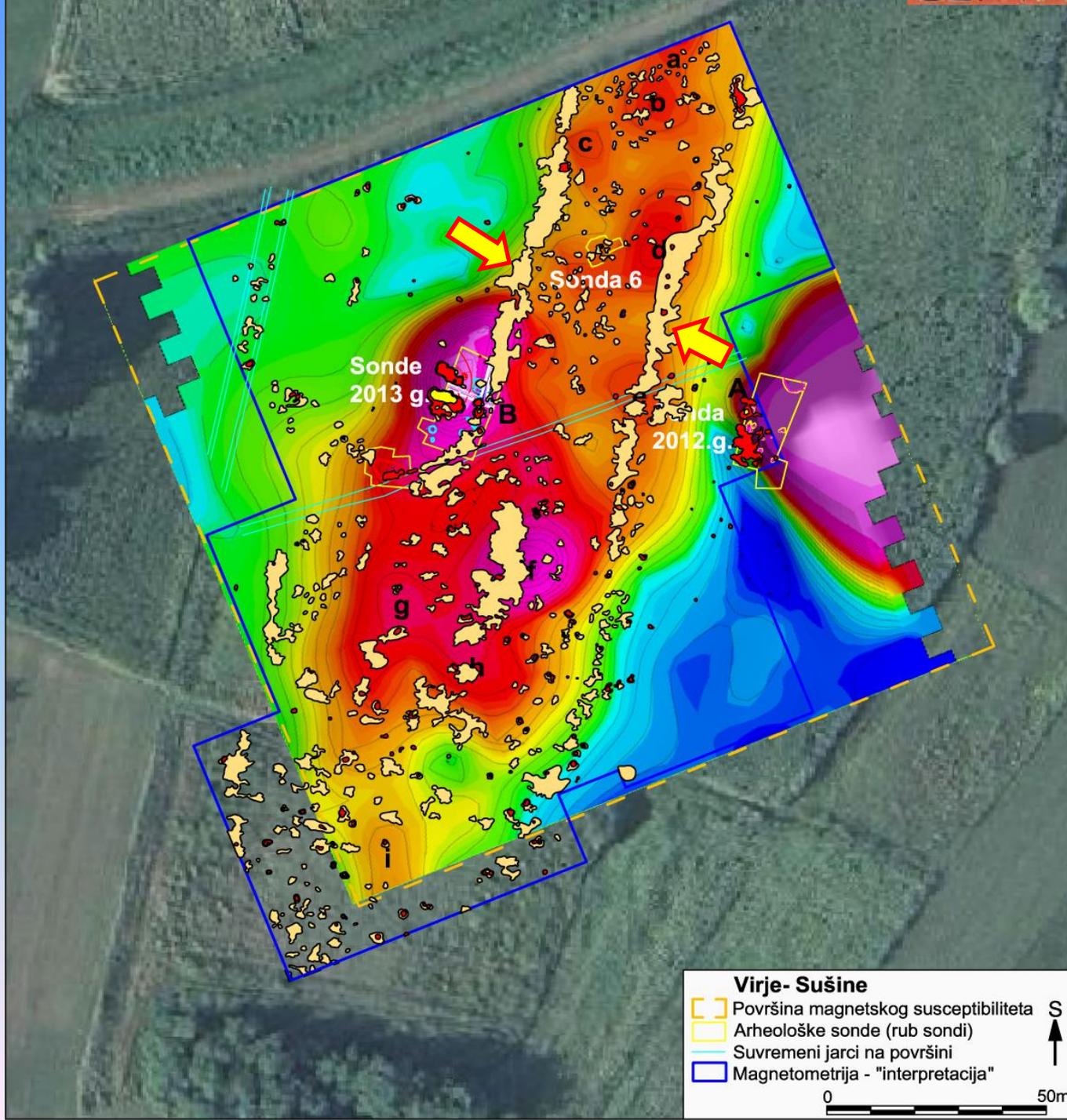
Vrijednosti magnetskog susceptibiliteta po uzorcima										srednja vrijednost	
VIRJE S7 SJ - 312 U - 185	1,406	2,48	2,118	2,809	1,469	1,432	2,185	1,581	2,319	1,599	1,94
VIRJE S7 SJ - 310 U - 178	2,233	3,439	3,651	6,468	4,734	2,396	3,714	2,419	3,015	2,524	3,46
VIRJE S7 SJ - 296 U - 158	83,04	56,97	87,94	76,9	74,73	76,44	71,93	66,95	71,86	72,55	73,93
VIRJE S7 SJ - 292 U - 165	15,04	16,43	14,84	14,24	13,3	15	12,73	13,1	13,33	16,29	14,43
VIRJE S7 SJ - 294 U - 167	1,32	1,308	1,234	1,289	1,438	1,327	1,509	1,289	1,434	1,293	1,34
VIRJE S7 SJ - 337 U - 174	1,393	1,484	1,275	1,196	2	2,17	1,927				
VIRJE S7 SJ - 304 U - 176	1,211	1,285	1,29	1,318	1,239	1,898	1,236				
VIRJE S8 SJ - 336 U - 160	0,877	0,797	0,732	0,72	0,922	0,77	1,263				
VIRJE S7 SJ - 302 U - 169	17,17	20,41	16,8	15,23	17,23	19,09	15,6				
VIRJE S8 SJ - 334 U - 180	0,713	0,711	0,766	0,824	0,636	0,682	0,687				
VIRJE S9 SJ - 306B U - 172	6,716	9,14	11,52	13,76	13,13	8,641	8,772				
VIRJE S7 SJ - 308 U - 156	2,011	2,415	2,062	2,121	2,29	1,906	2,457				
VIRJE S7 SJ - 298 U - 152	1,658	1,604	1,616	1,729	1,641	1,9	1,897				
VIRJE S7 SJ - 302 U - 154	8,792	6,206	6,472	5,661	7,207	8,049	6,052				
VIRJE S7 SJ - 351 U - 200	0,968	1,142	0,713	0,76	0,865	1,029	0,881				
VIRJE S7 SJ - 290 U - 163	22,61	21,55	17,05	29,51	22,31	25,29	21,71				



Virje- Volarski breg

-  Površina istražena magnetskom metodom
-  Arheološka sonda (rub sonde)
-  Položaj 2D magnetnih modela (M1 i M2)
-  Suvremeni jarci na površini
-  1 Plitke bušotine (do ca. 1 m)



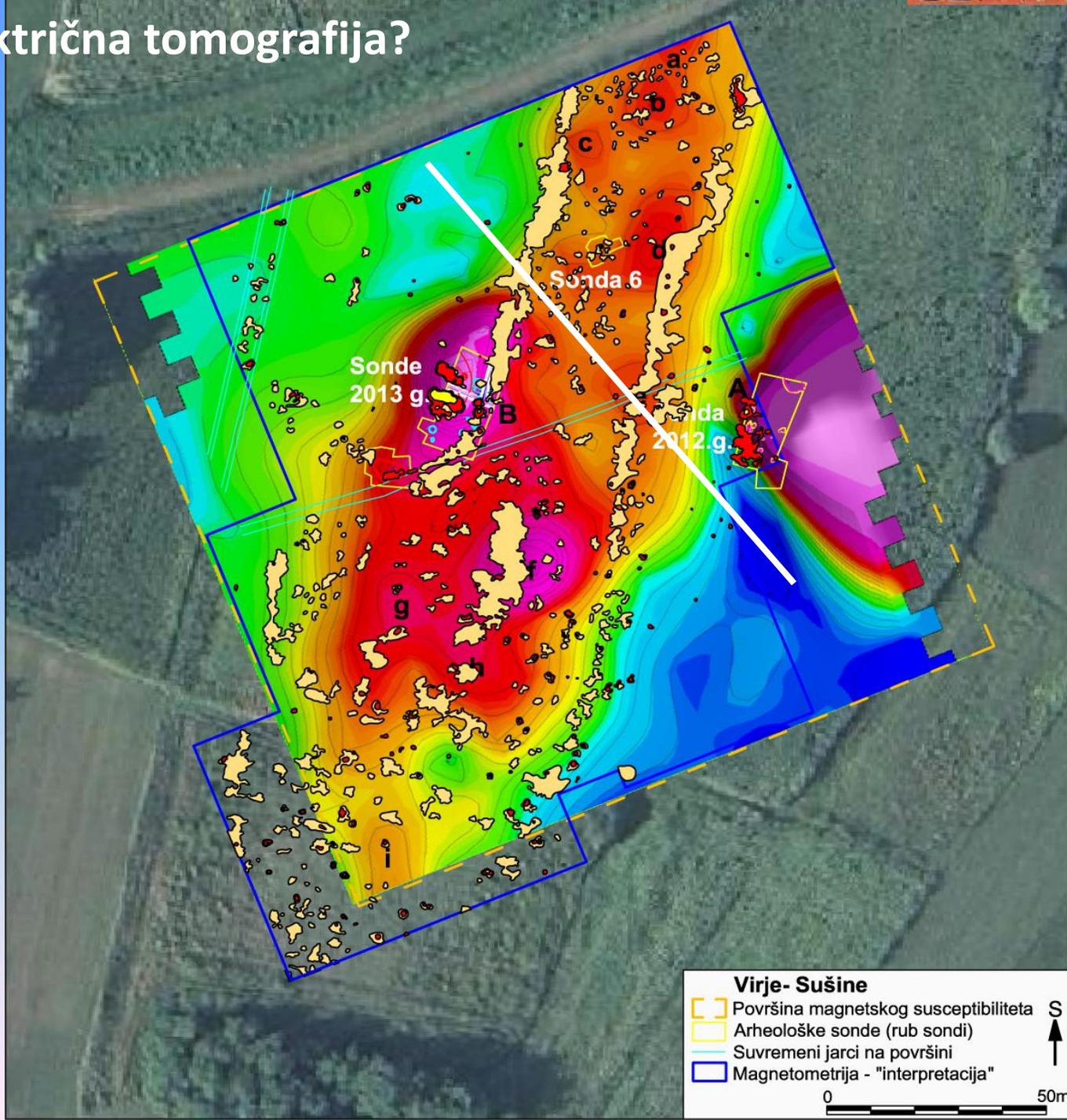


Sonda 2013.g.

Sonda 6

Sonda 2012.g.

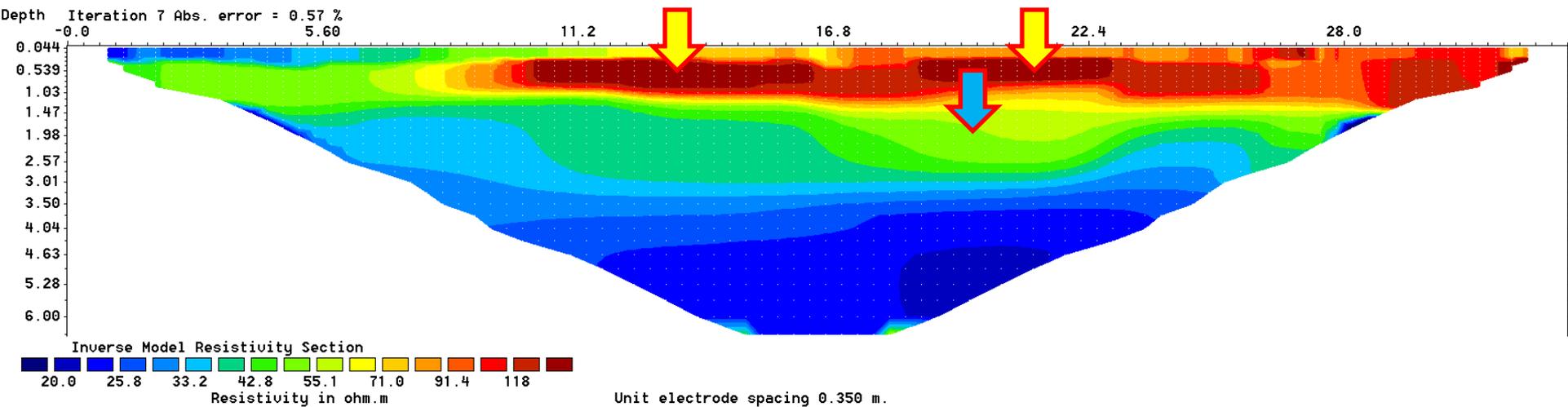
2D geoelektrična tomografija?



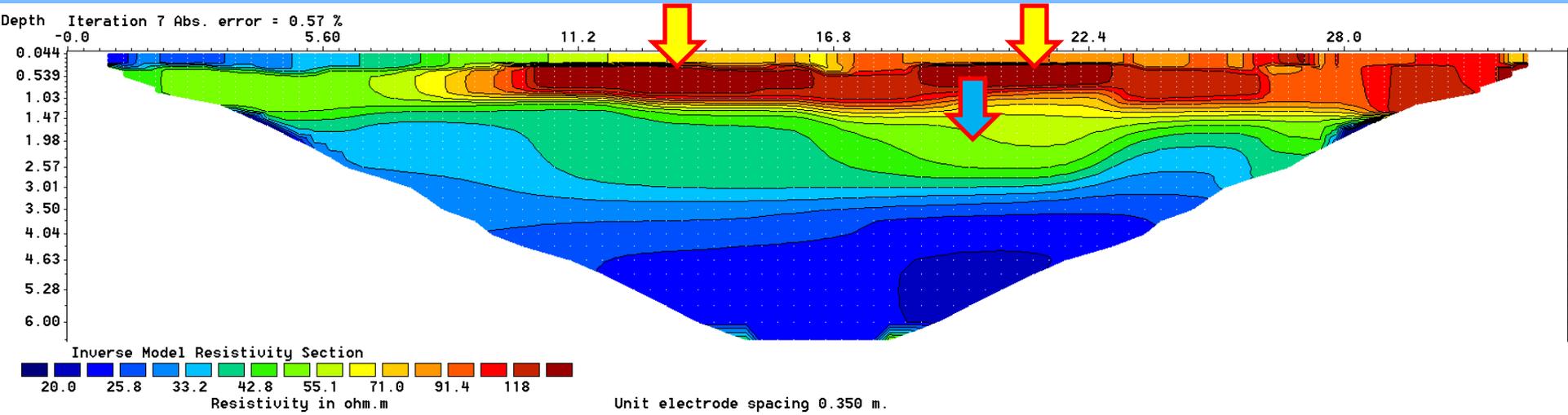
2D geoelektrična tomografija



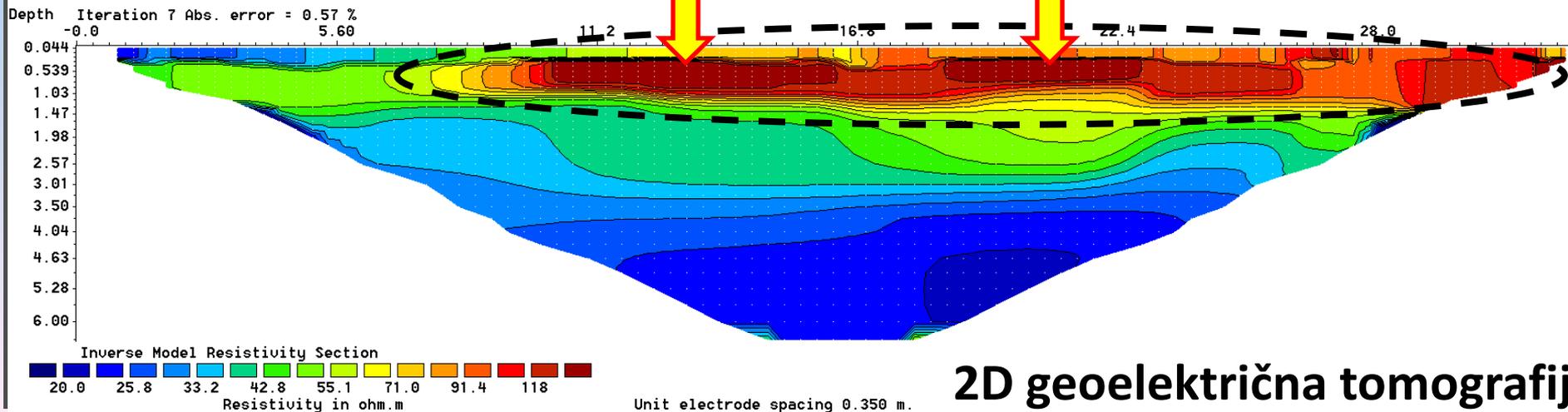
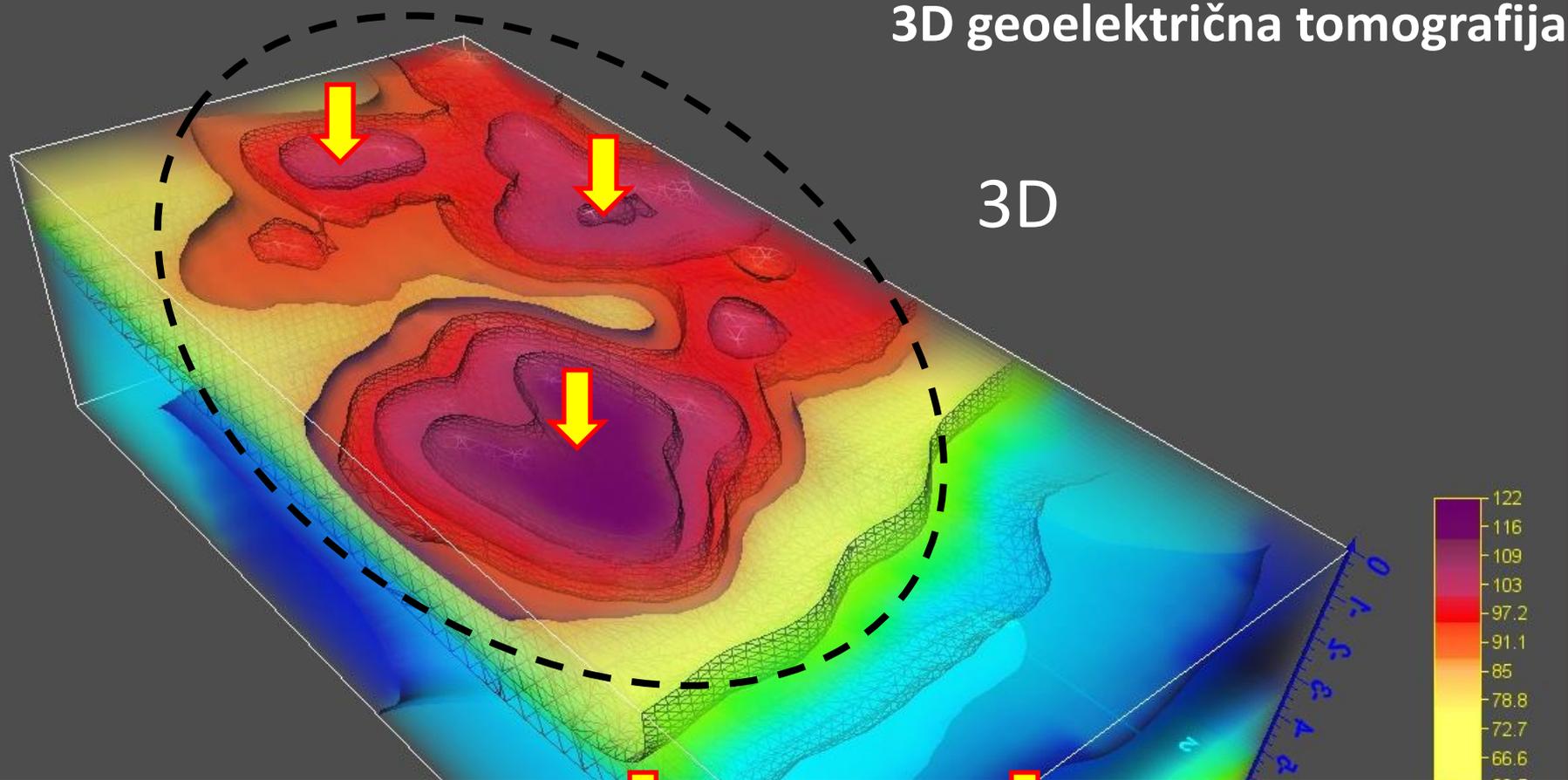
2D geoelektrična tomografija



2D geoelektrična tomografija



3D geoelektrična tomografija



3D geoelektrična tomografija stratigrafija

