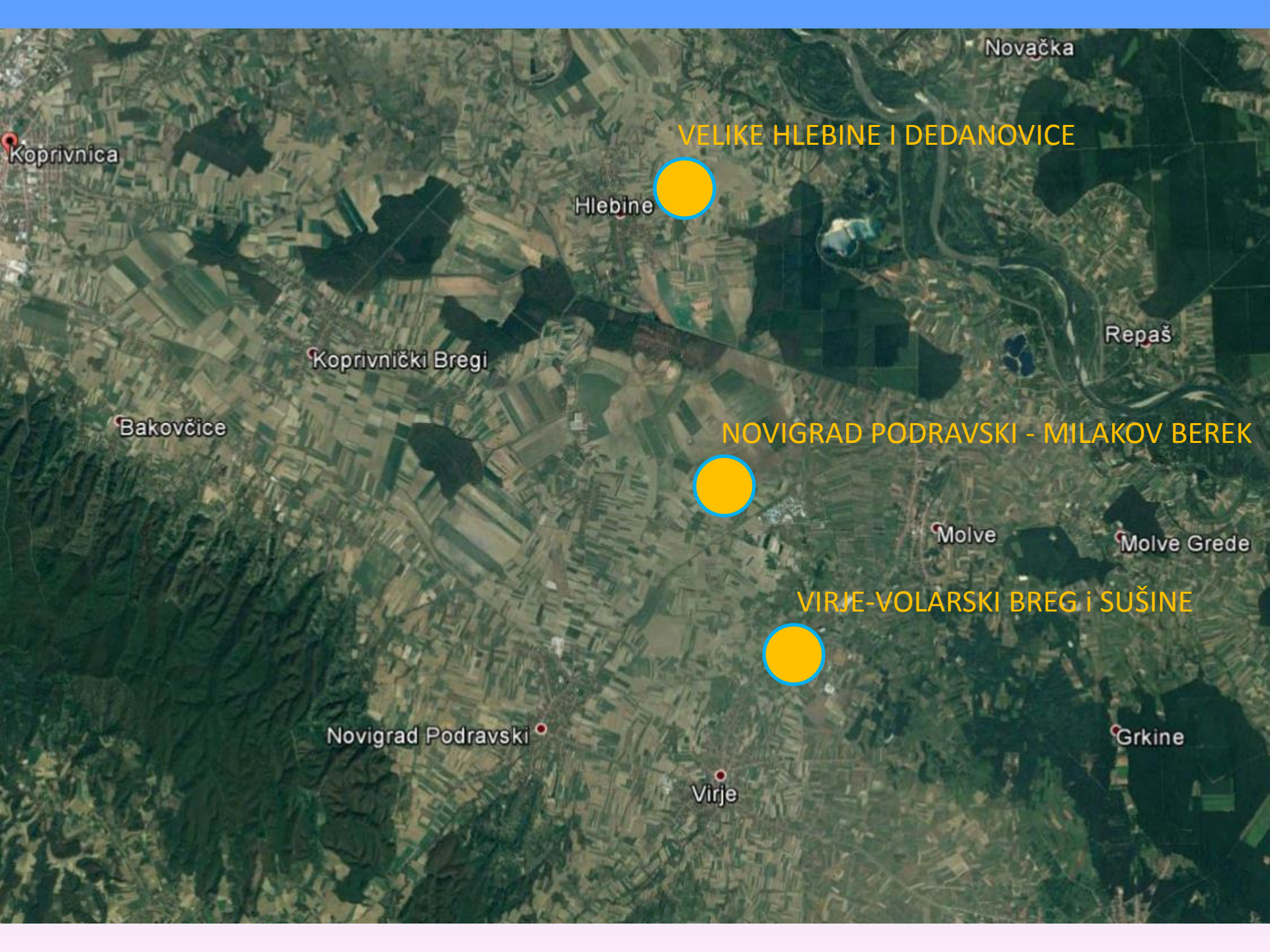


TRANSFER – ŽELEZARSTVO OB REKI DRAVI V RIMSKEM IN ZGODNIESREDNJEVEŠKEM OBDOBJU

Branko Mušič, Tajana Sekelj-Ivančan, Sibila Borojević Šošarić, Igor Medarić,
Barbara Horn, Tomislav Brenko in Stanko Ružičić





Novačka

Koprivnica

VELIKE HLEBINE I DEDANOVICE

Hlebine

Koprivnički Bregi

Repaš

Bakovčice

NOVIGRAD PODRAVSKI - MILAKOV BEREK

Molve

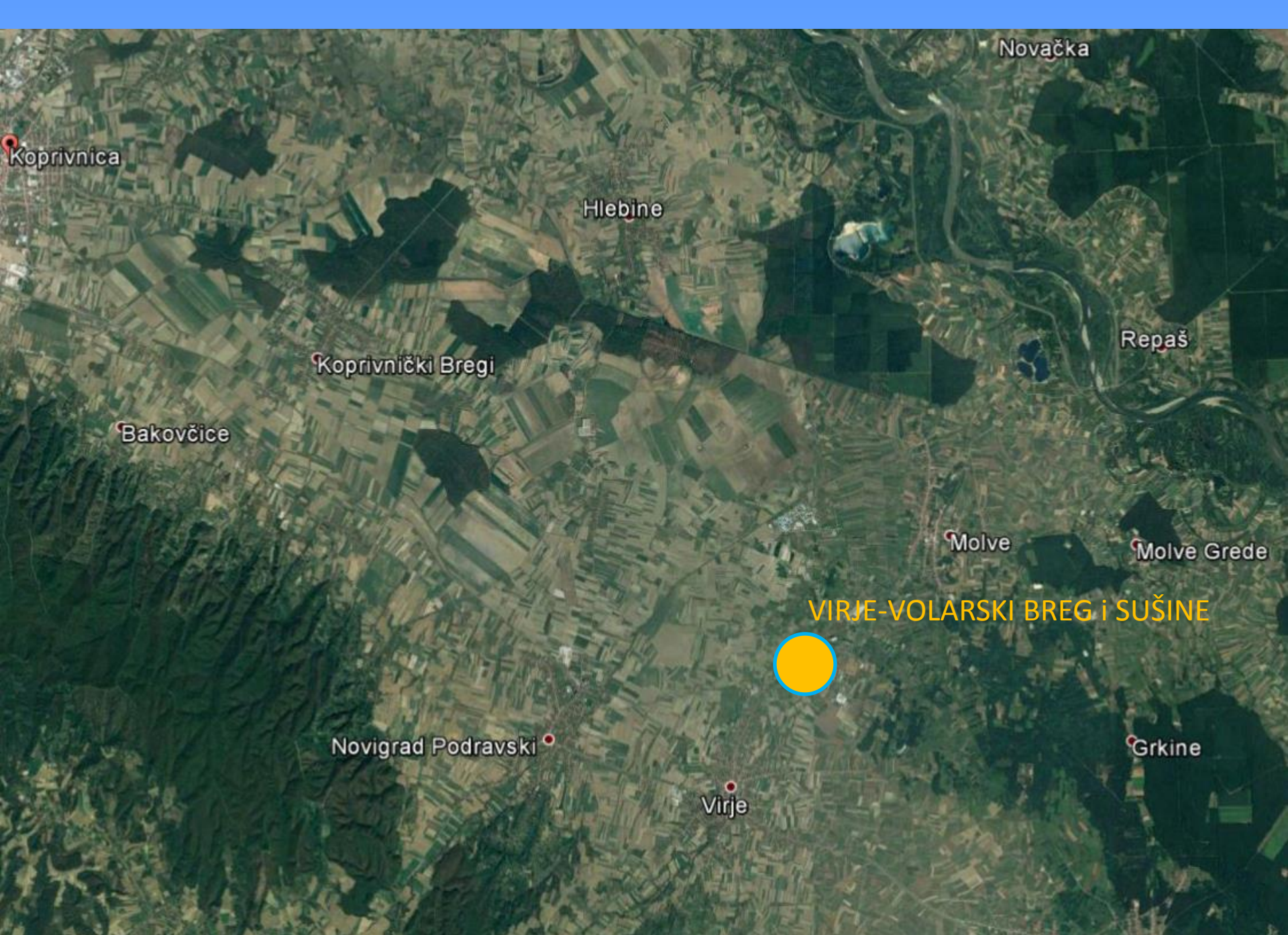
Molve Grede

VIRJE-VOLARSKI BREG I SUŠINE

Novigrad Podravski

Grkine

Virje



Novačka

Koprivnica

Hlebine

Koprivnički Bregi

Repaš

Bakovčice

Molve

Molve Grede

VIRJE-VOLARSKI BREG I SUŠINE

Novigrad Podravski

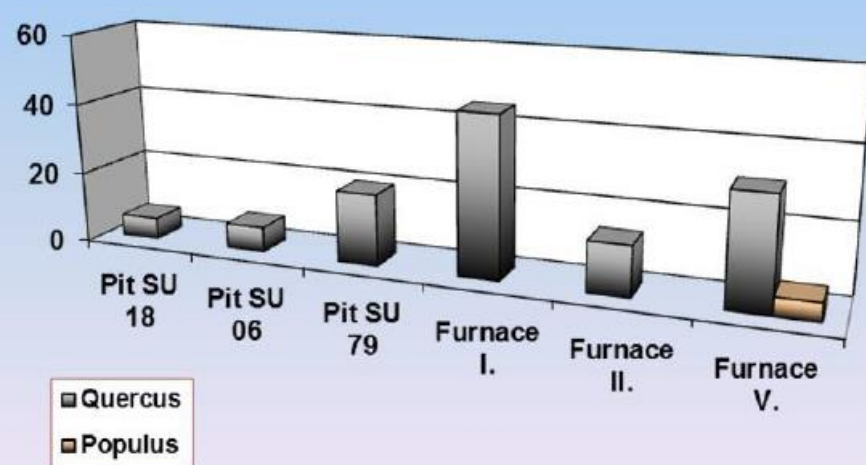
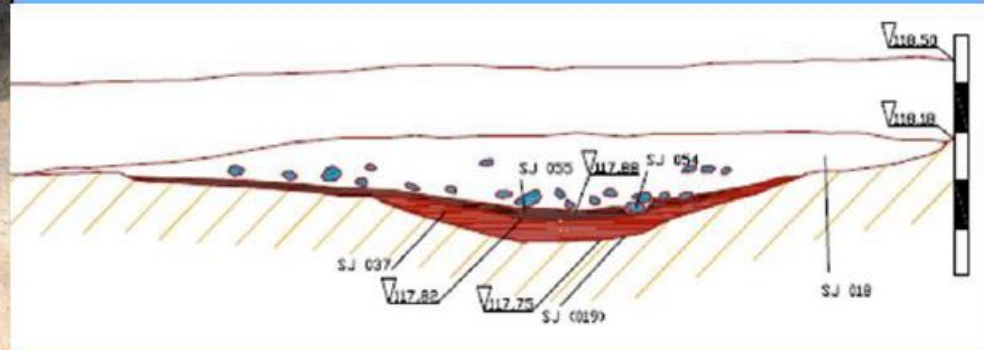
Grkine

Virje

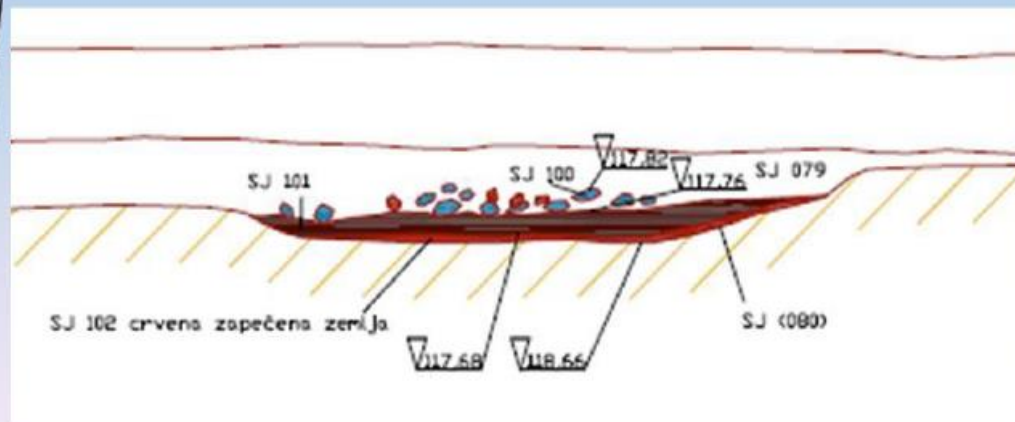
Pits for making charcoal



Pit SU 18

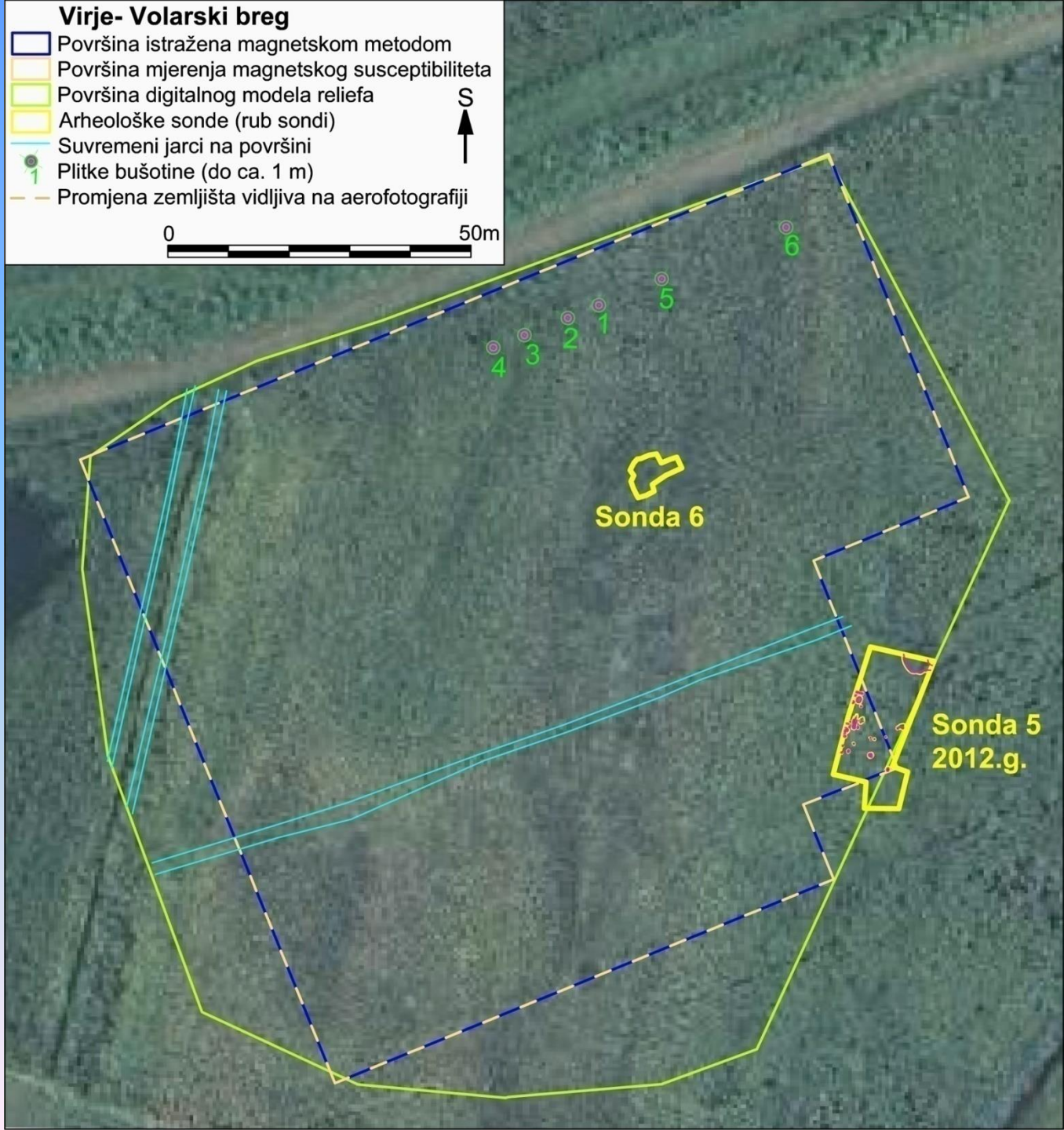
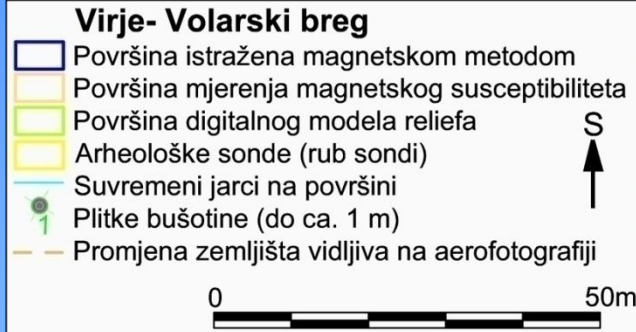


Pit SU 79

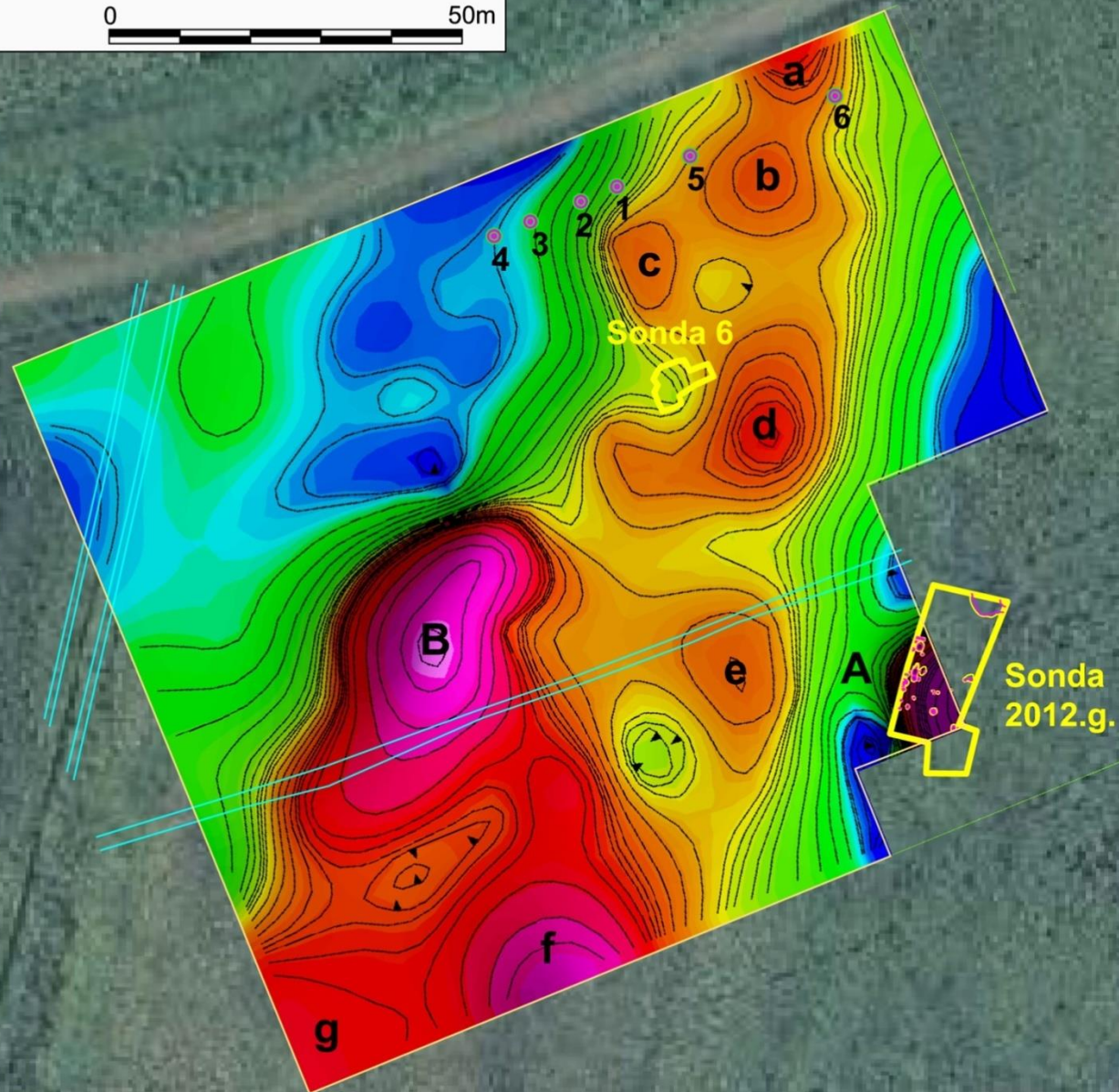
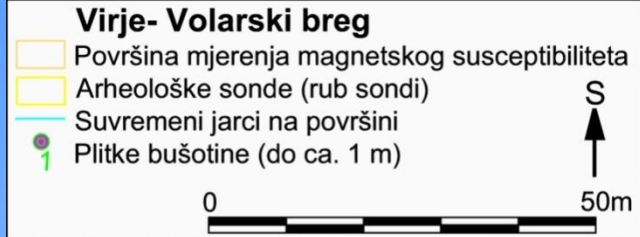




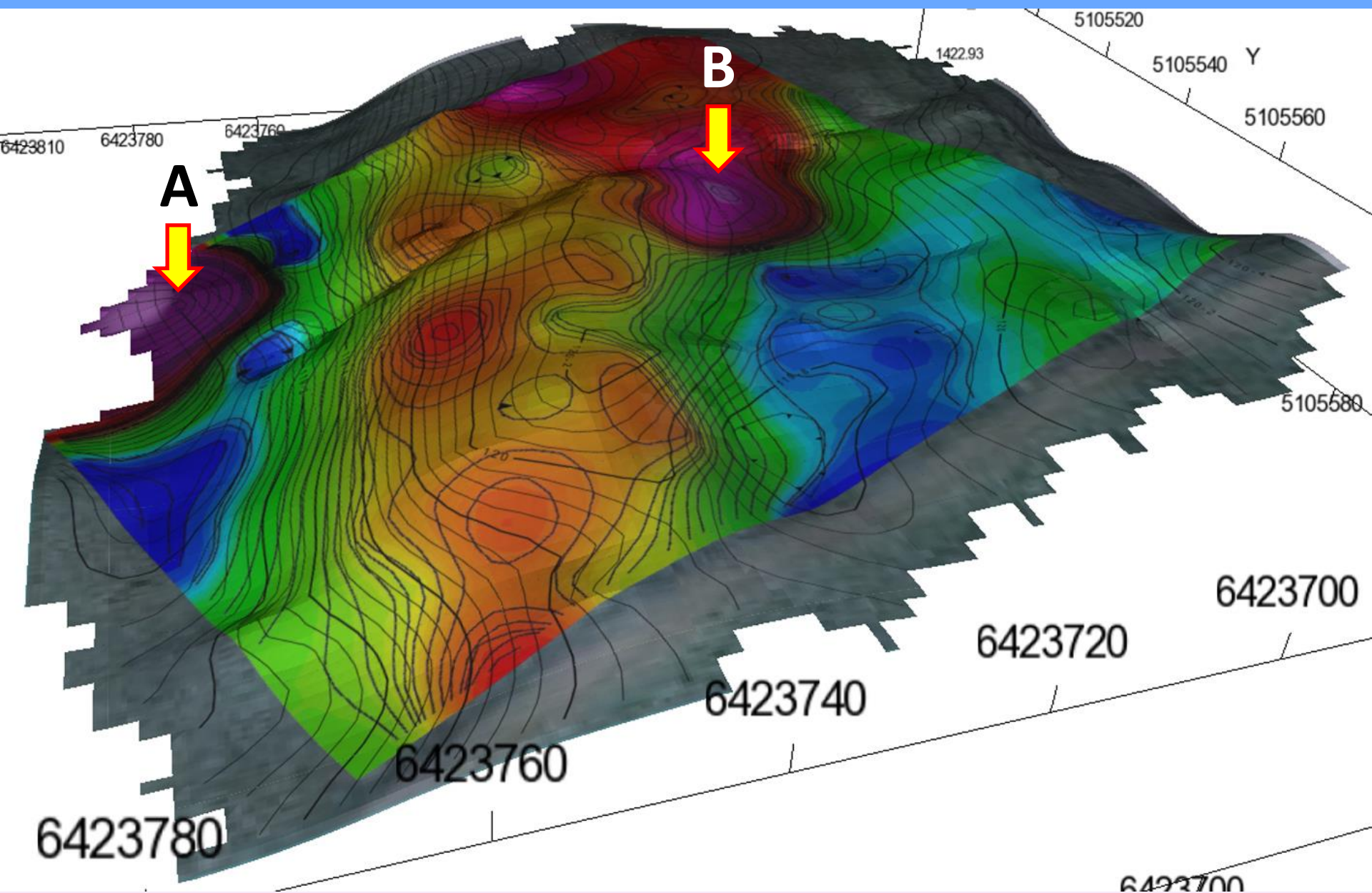
POVRŠINE ISTRAŽENE GEOFIZIČKOM METODOM



KARTIRANJE MAGNETSKOG SUSCEPTIBILITETA (Kappameter KT-5)



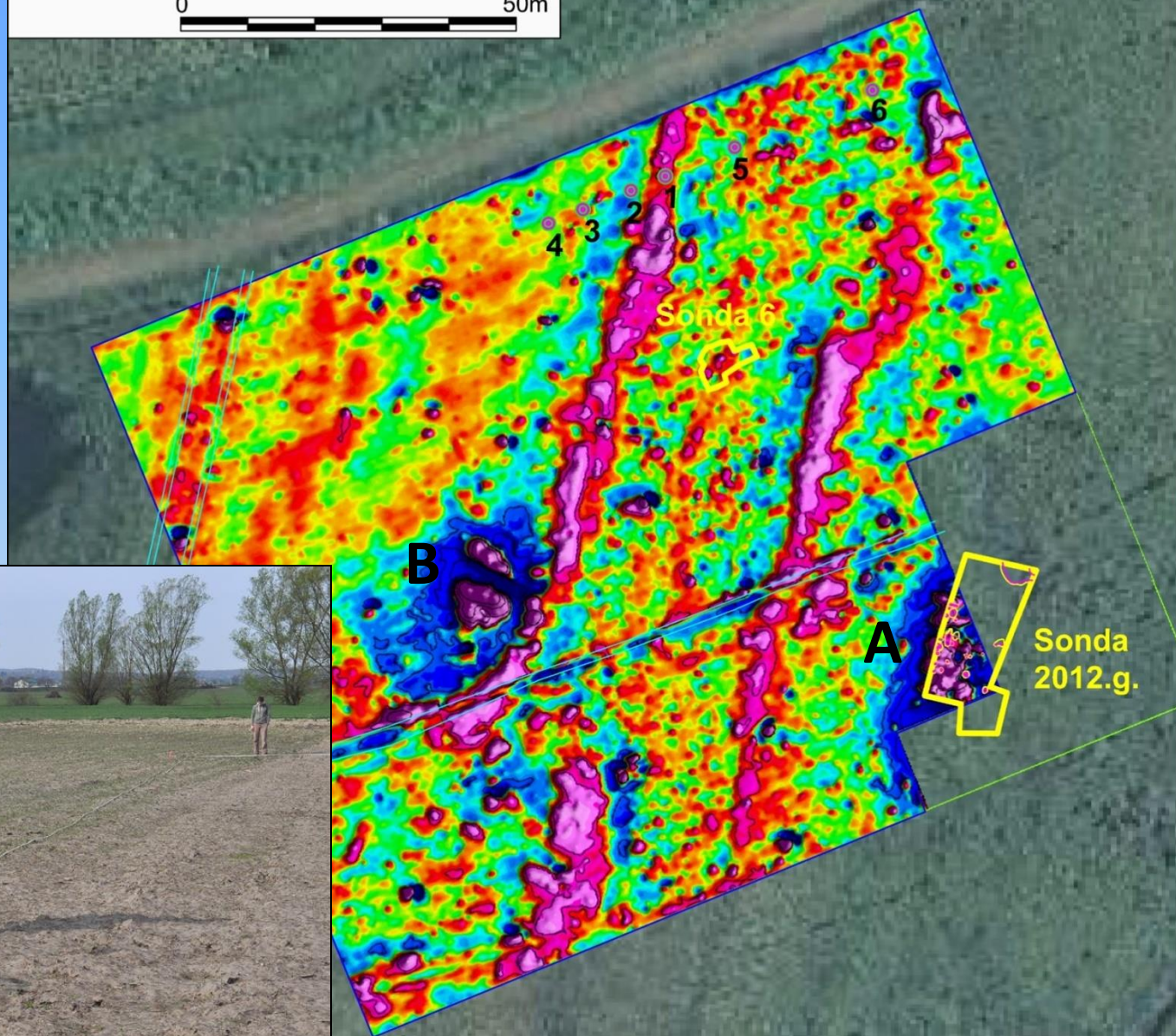
REZULTATI KARTIRANJA MAGNETSKOG SUSCEPTIBILITETA NA DIGITALNOM MODELU RELIEFA



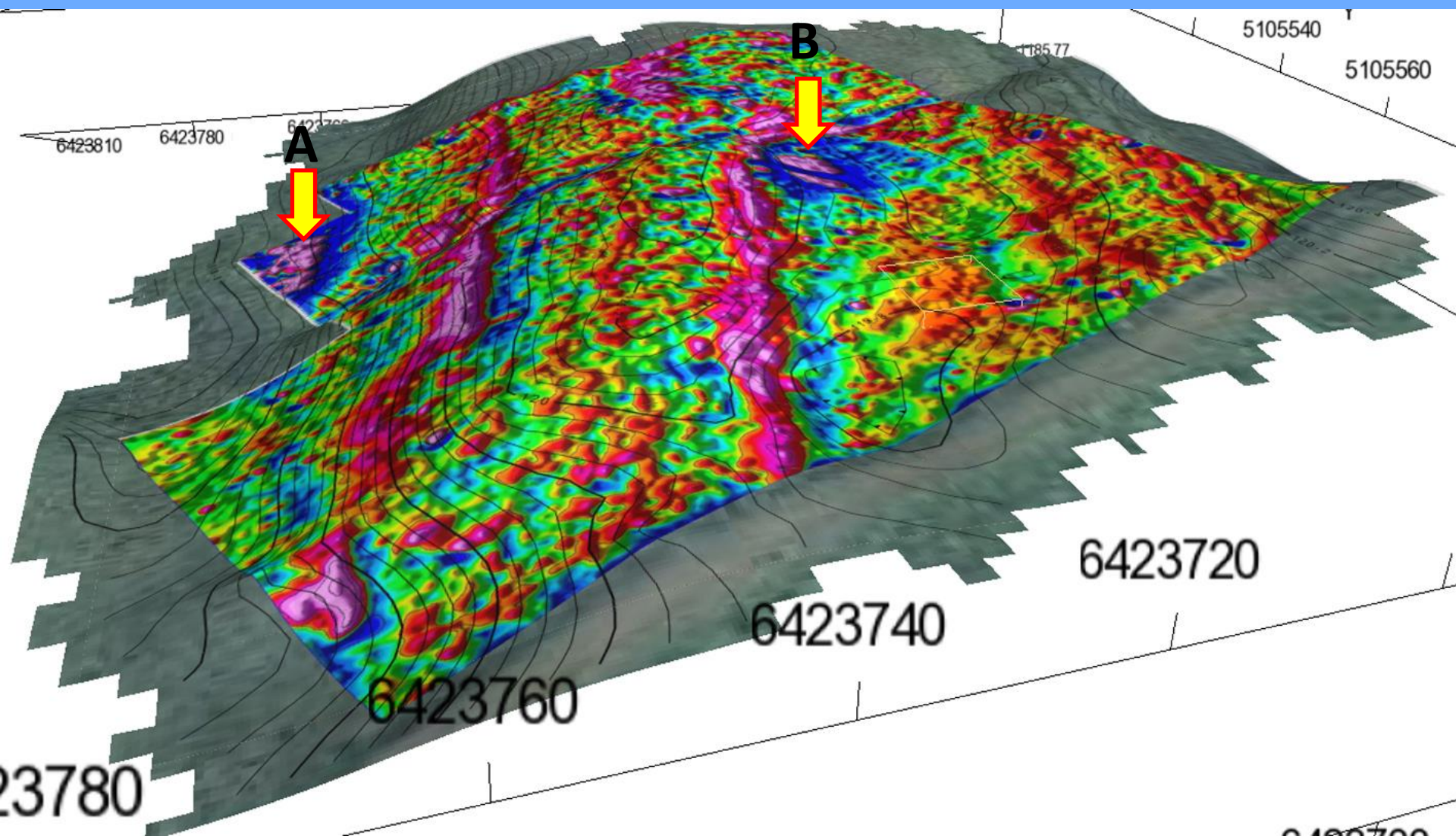
MAGNETSKA METODA

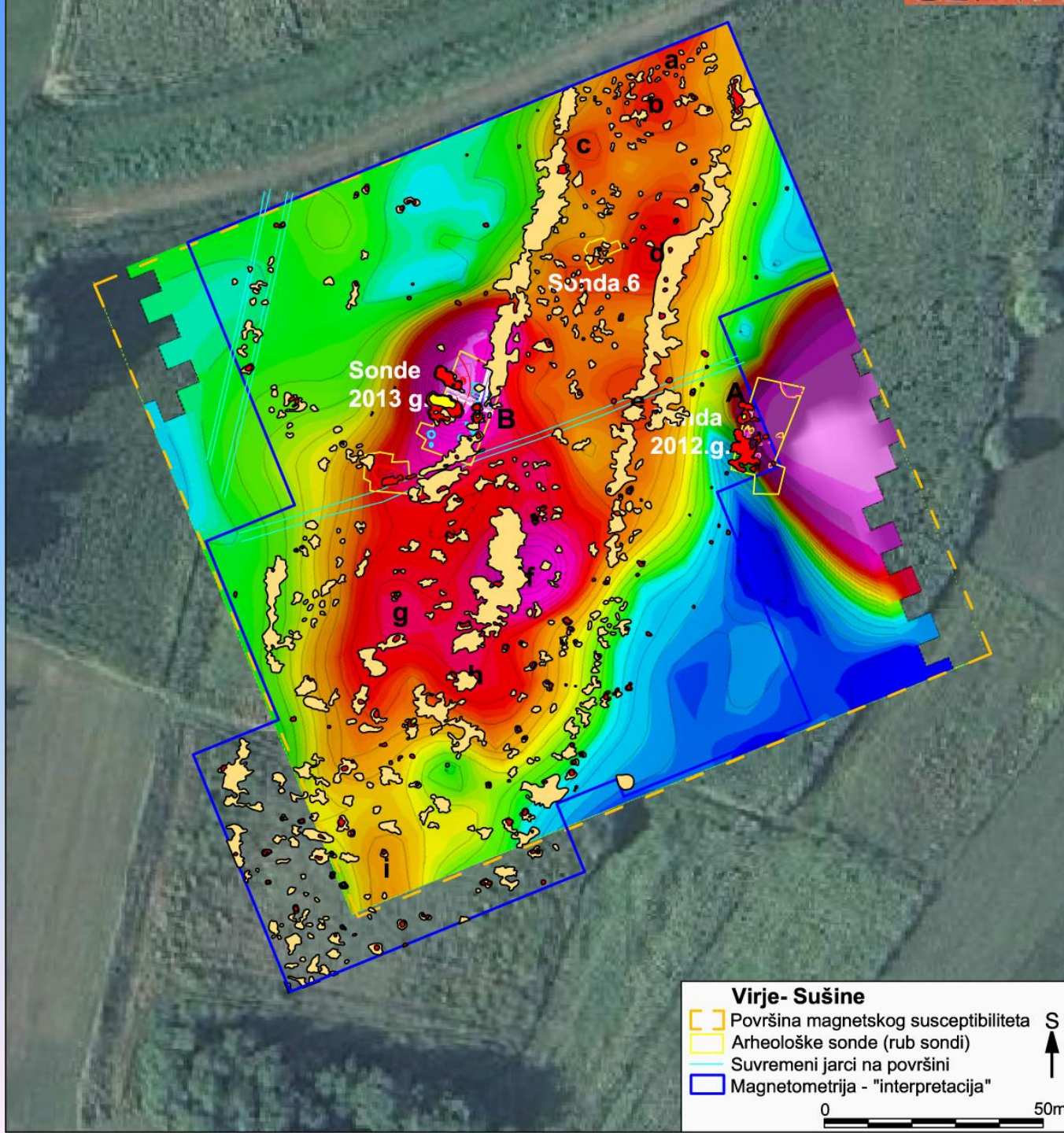
Gradient magnetskog polja

(Geometrics G-858)



REZULTATI MAGNETSKE METODE NA DIGITALNOM MODELU RELIEFA





Virje- Volarski breg

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

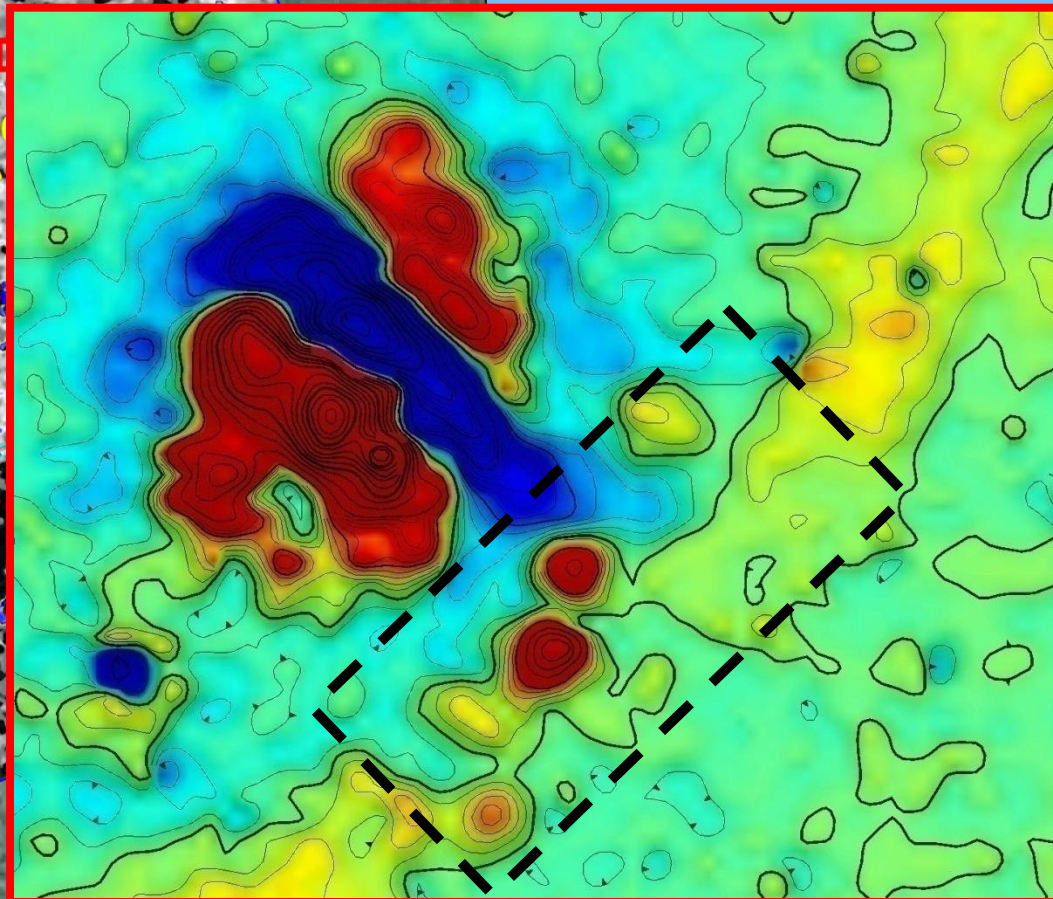
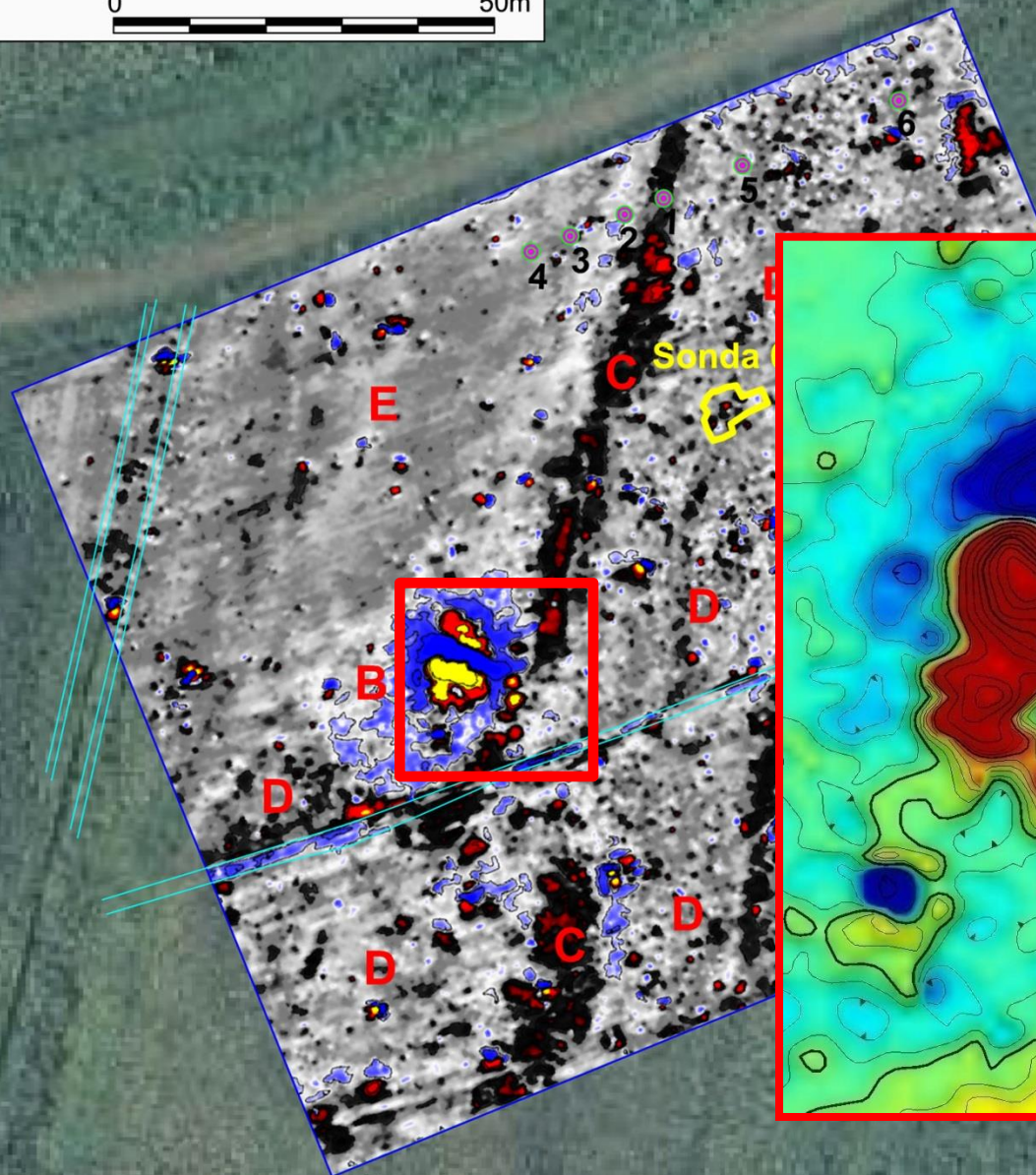
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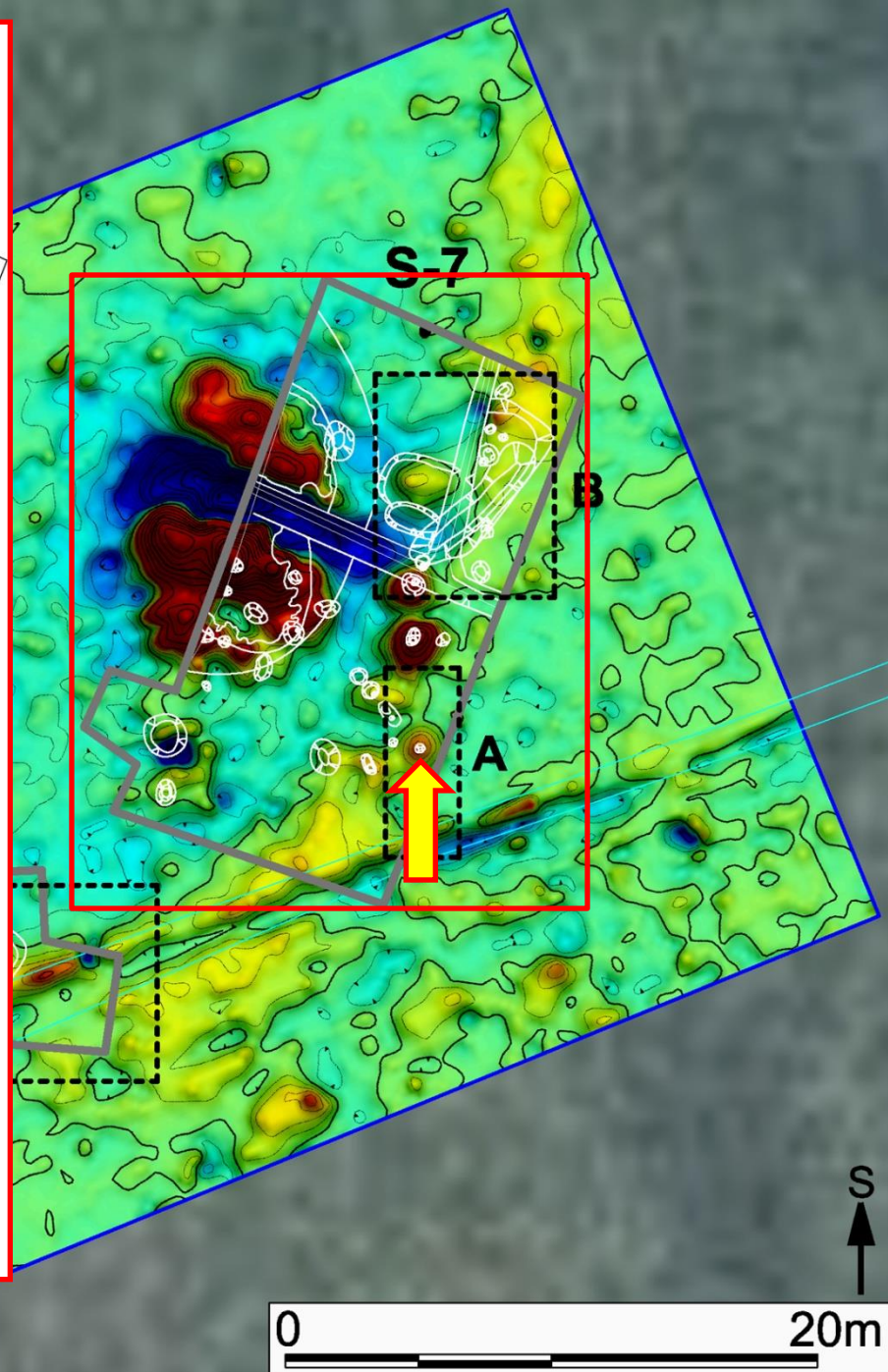
0 50m

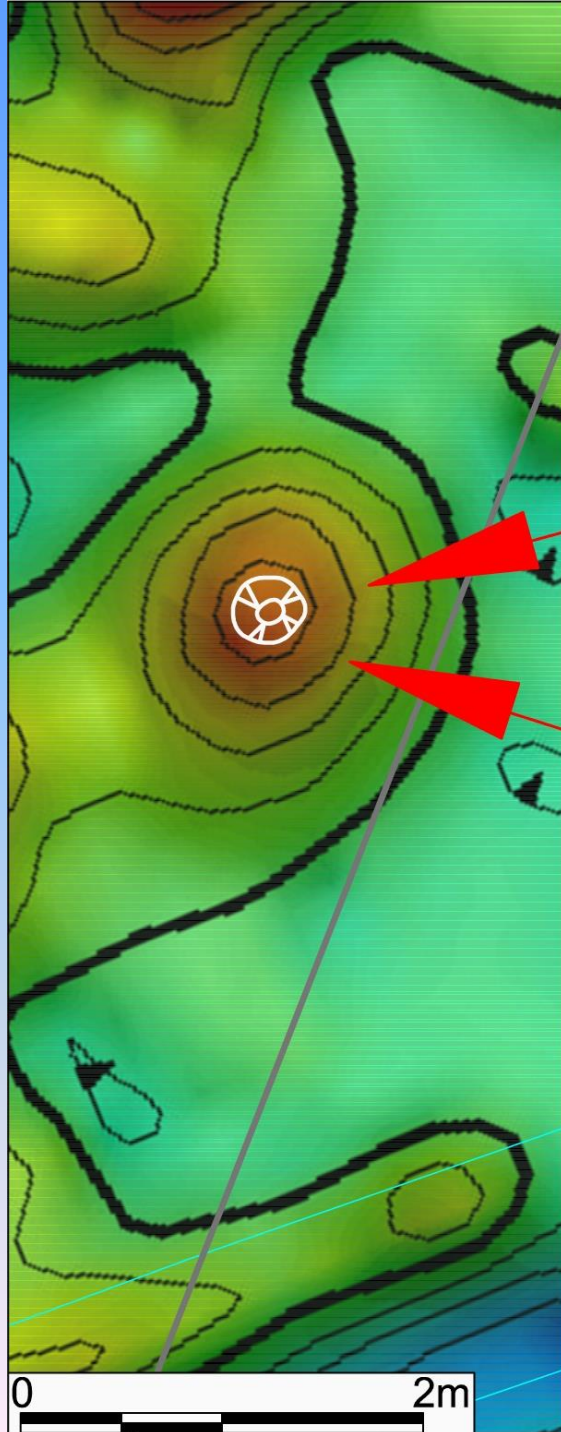
S

MAGNETSKA METODA

Gradient magnetskog polja
(Geometrics G-858)





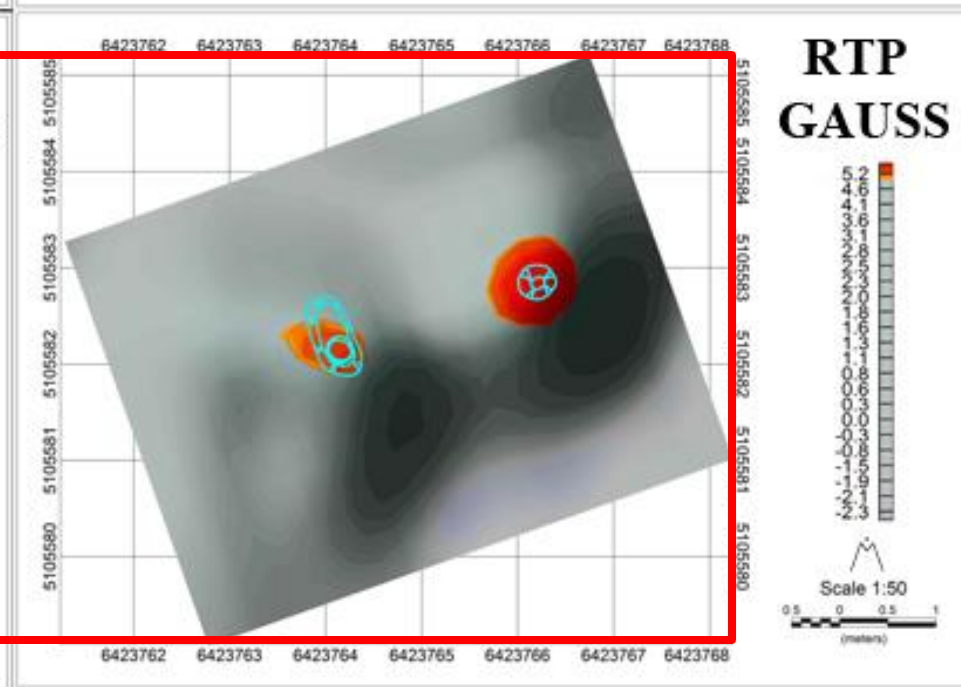
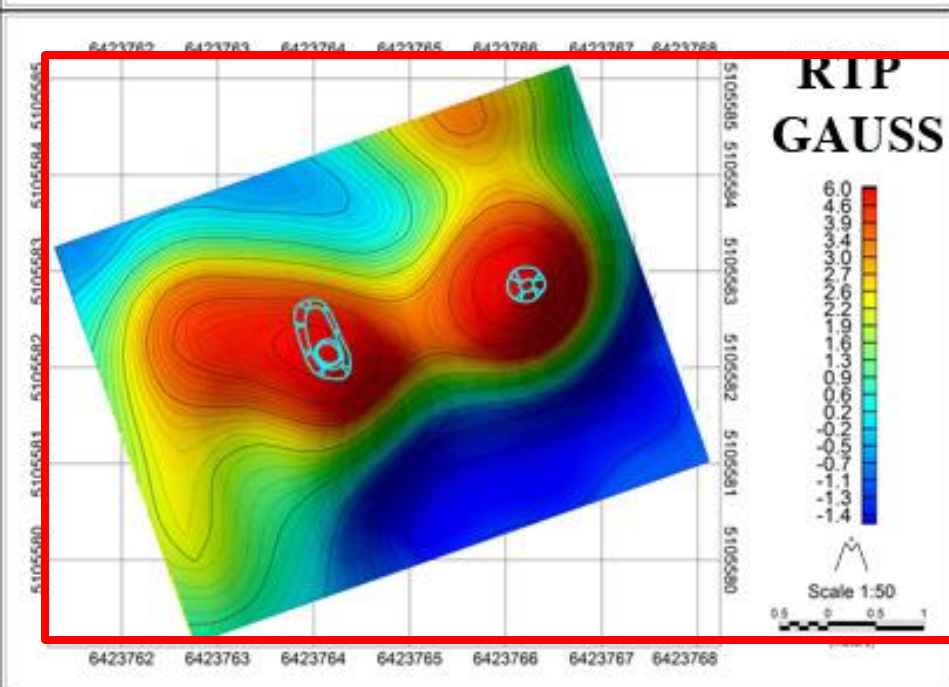
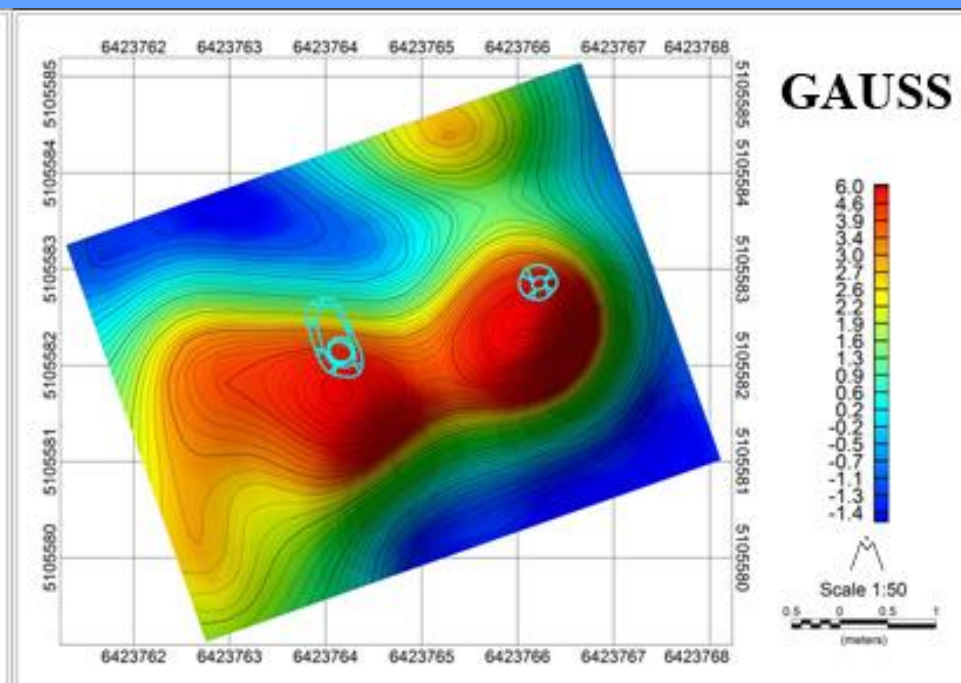
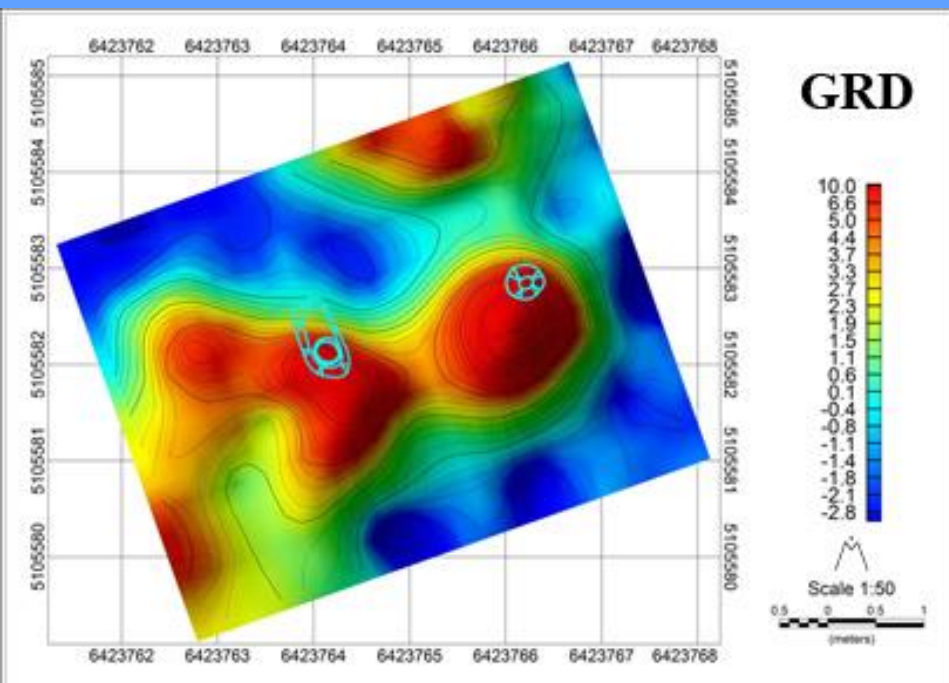




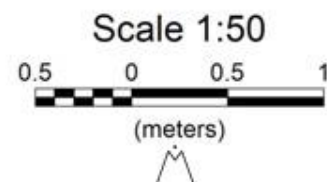
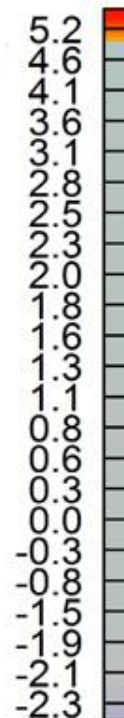


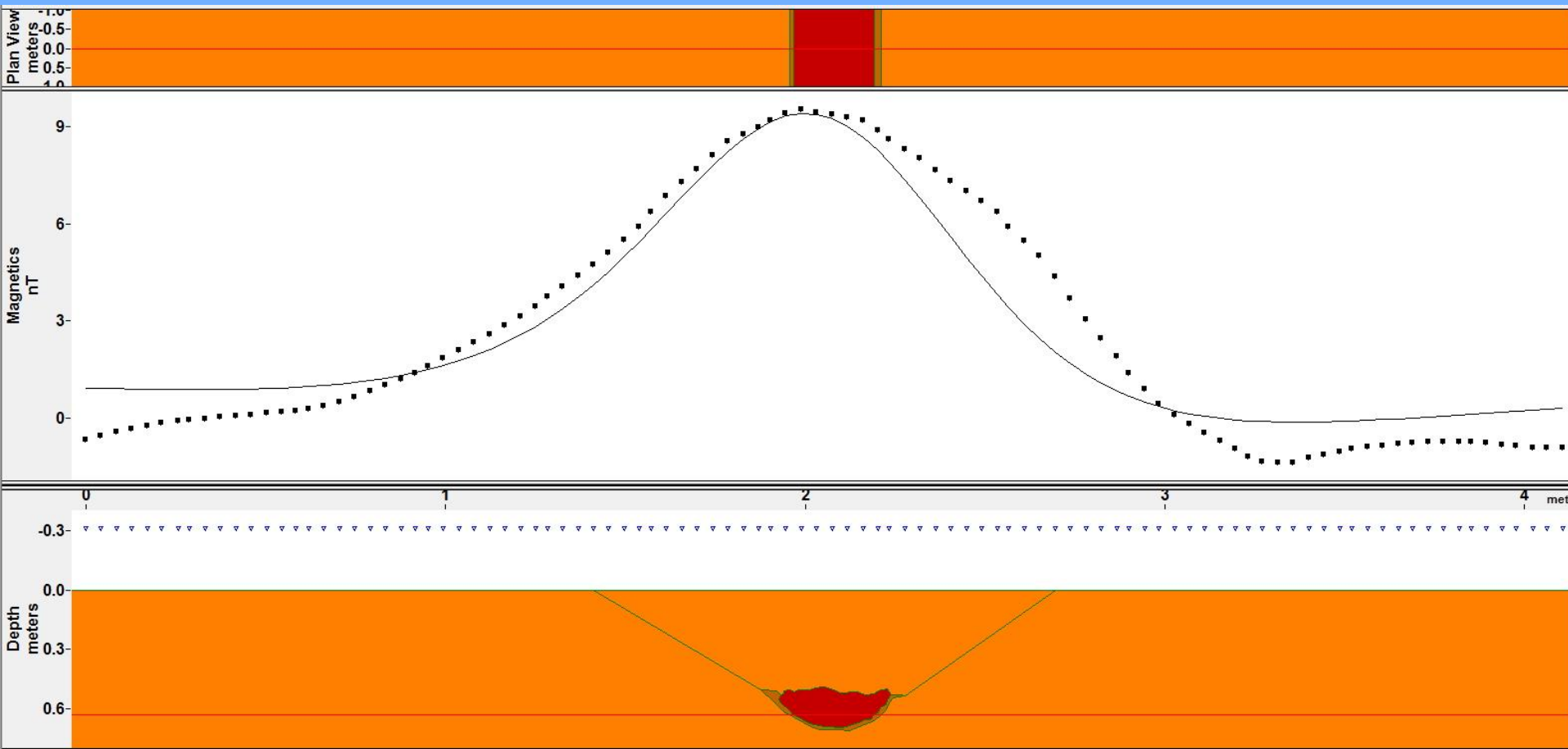


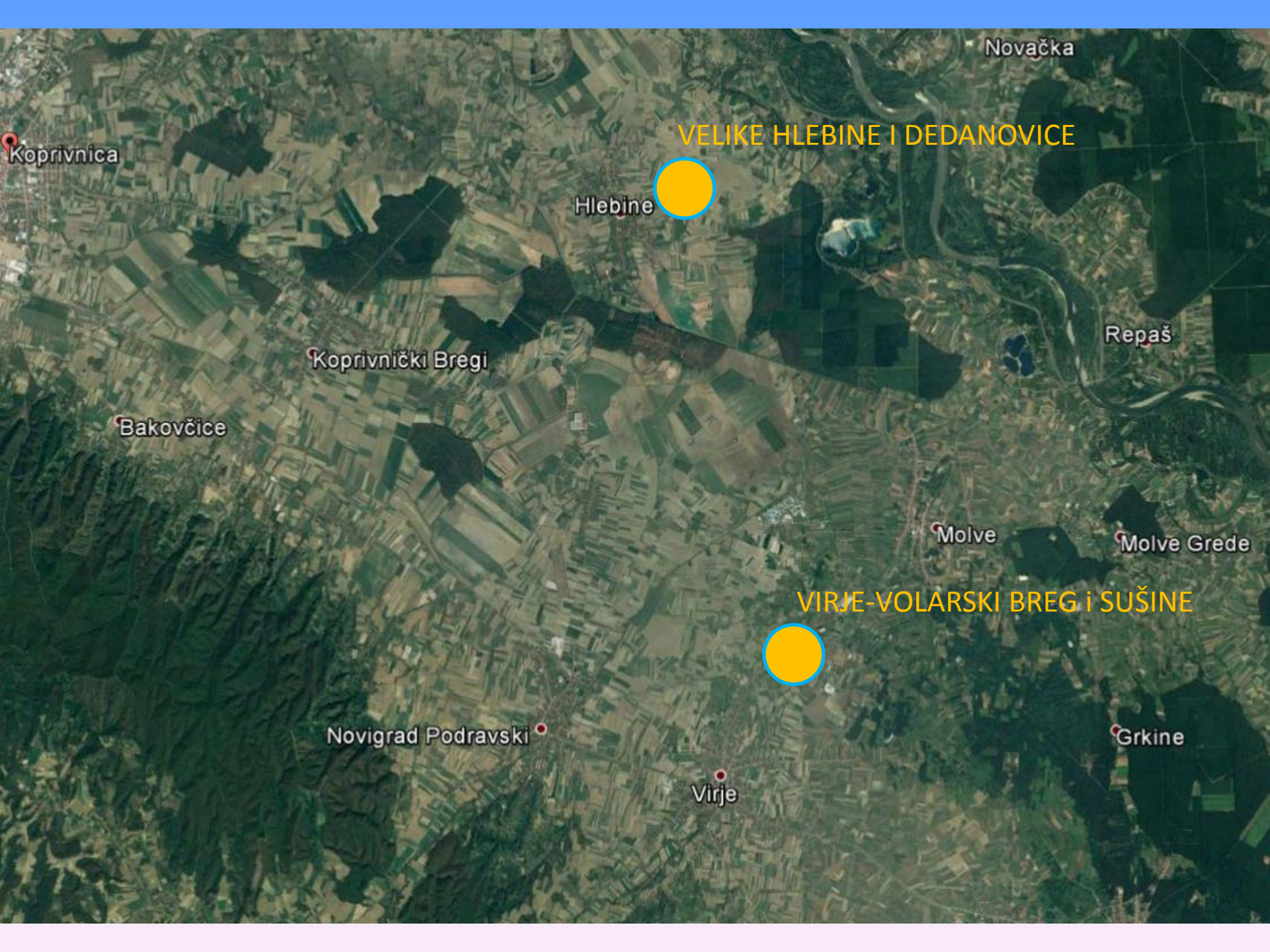




2D PROFIL







Novačka

VELIKE HLEBINE I DEDANOVICE

Koprivnica

Hlebine

Repaš

Koprivnički Bregi

Bakovčice

Molve

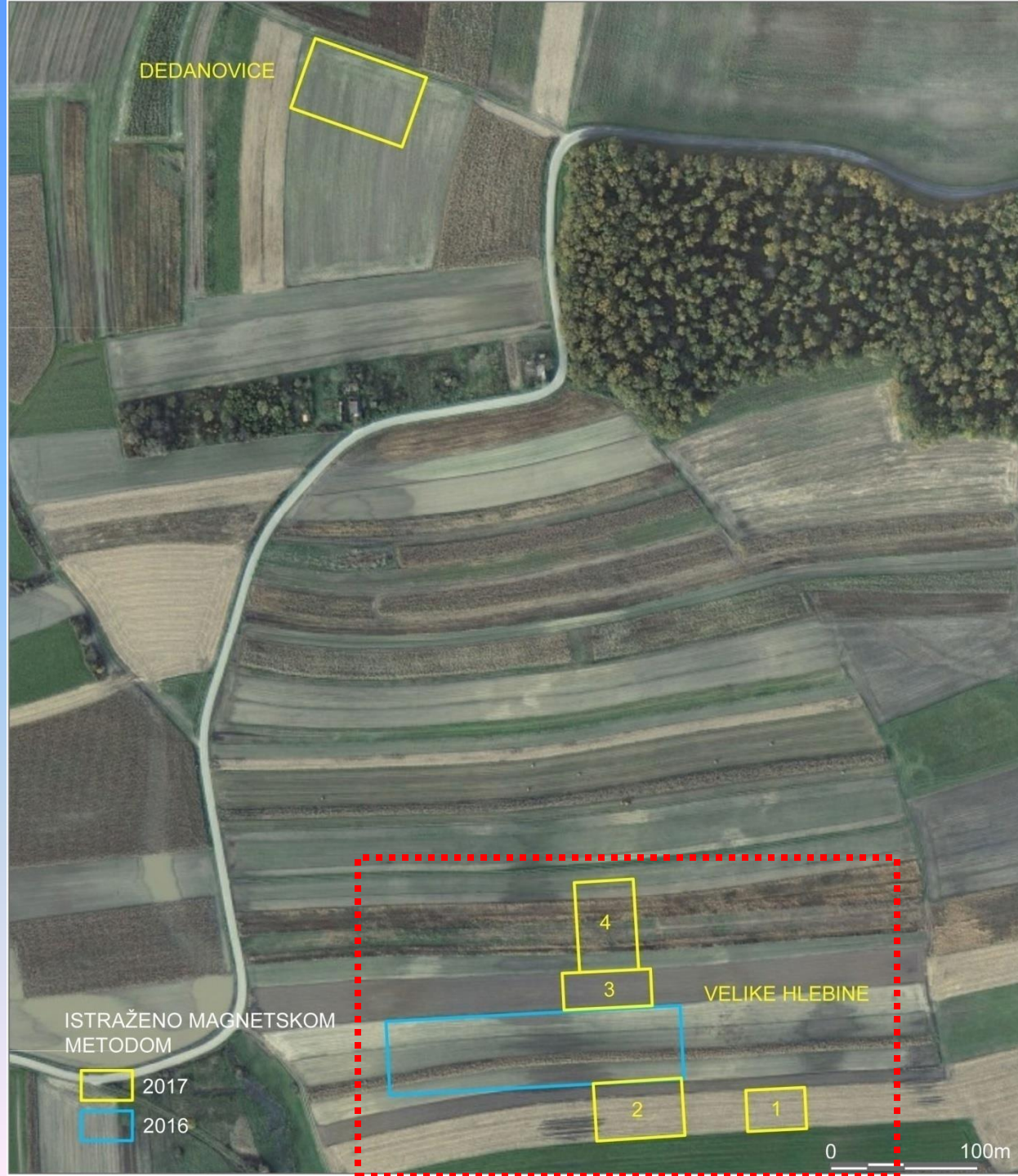
Molve Grede

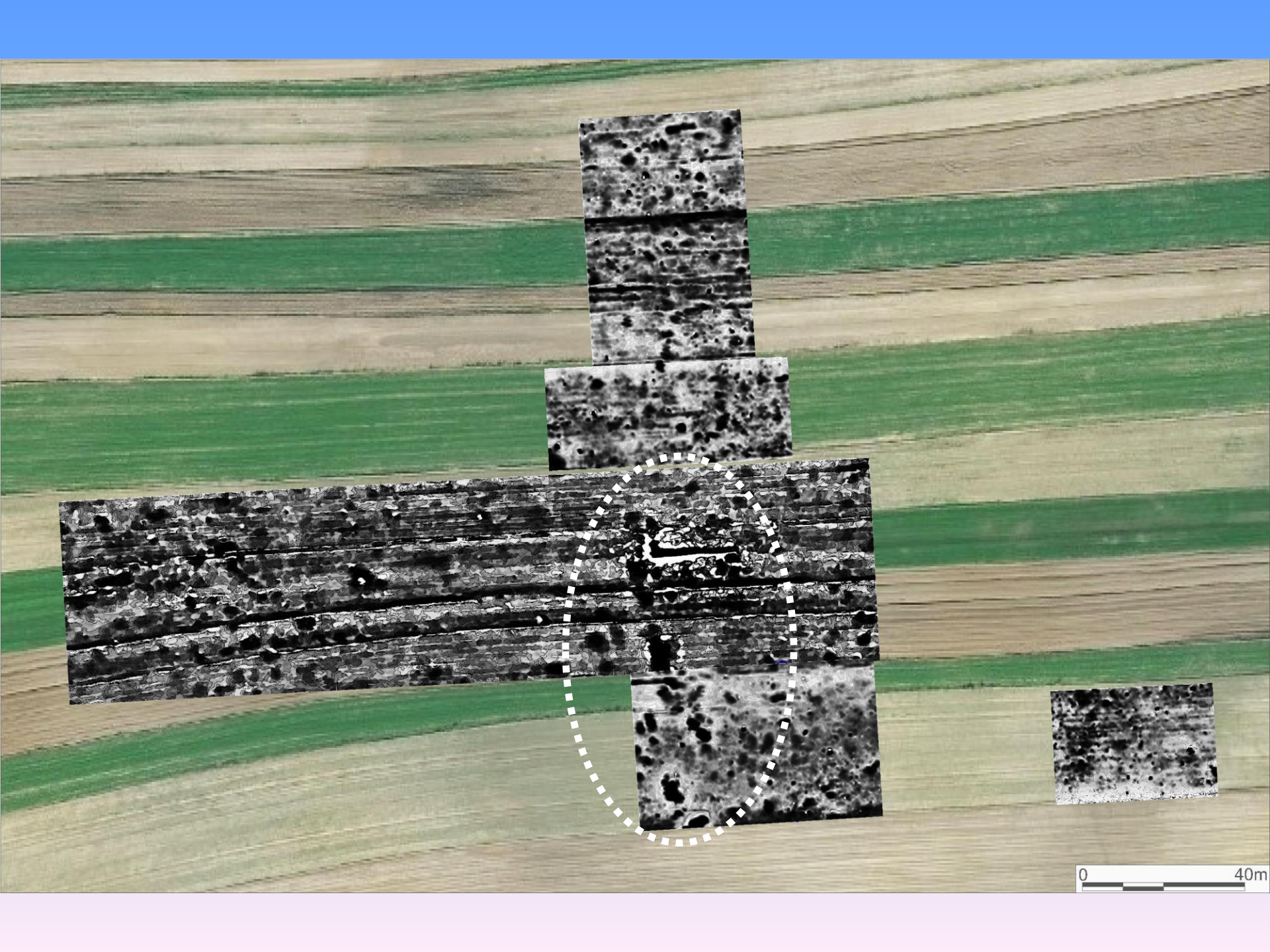
VIRJE-VOLARSKI BREG I SUŠINE

Novigrad Podravski

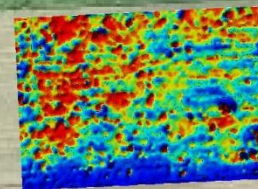
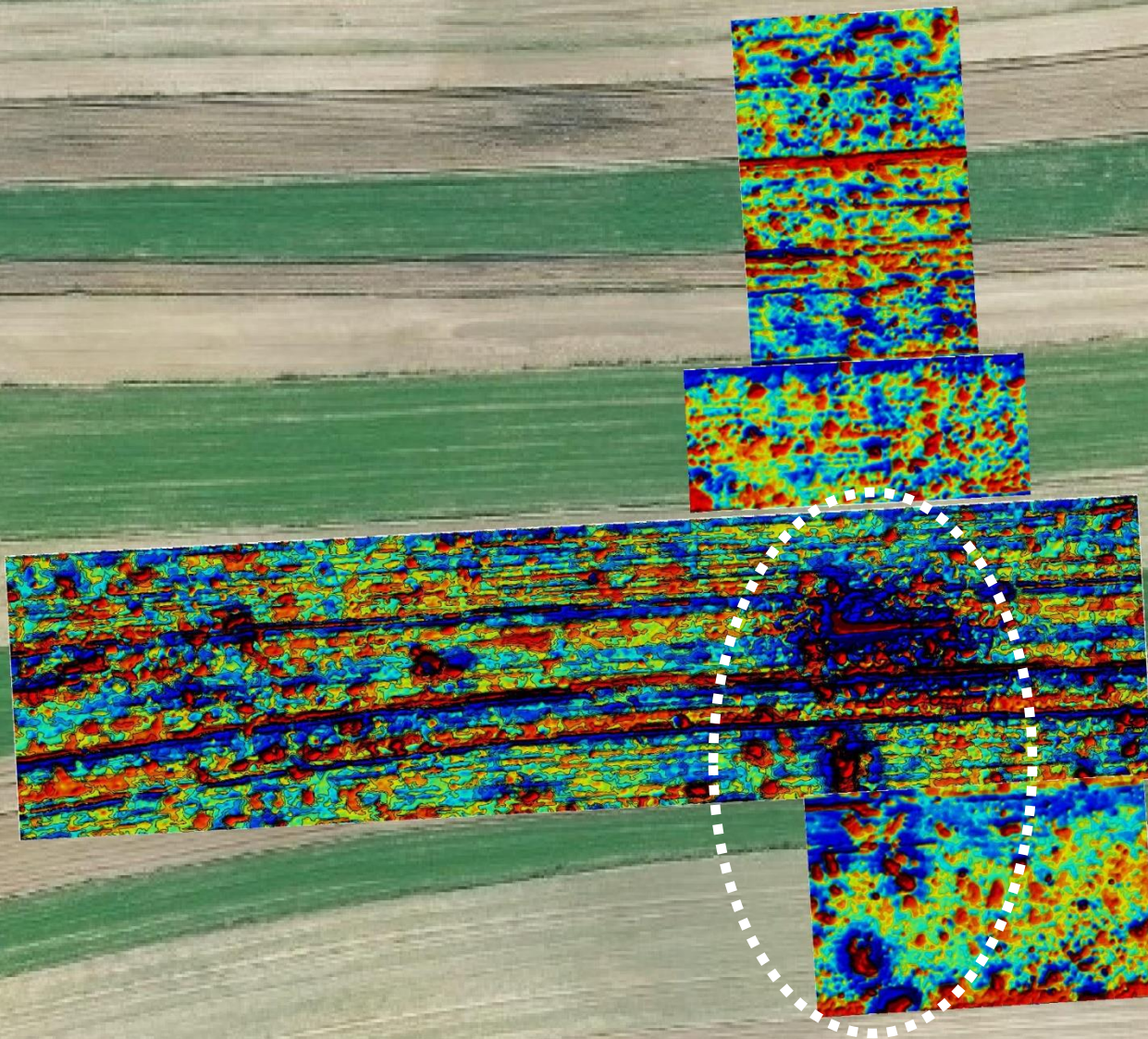
Grkine

Virje

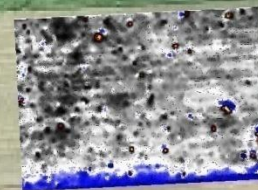
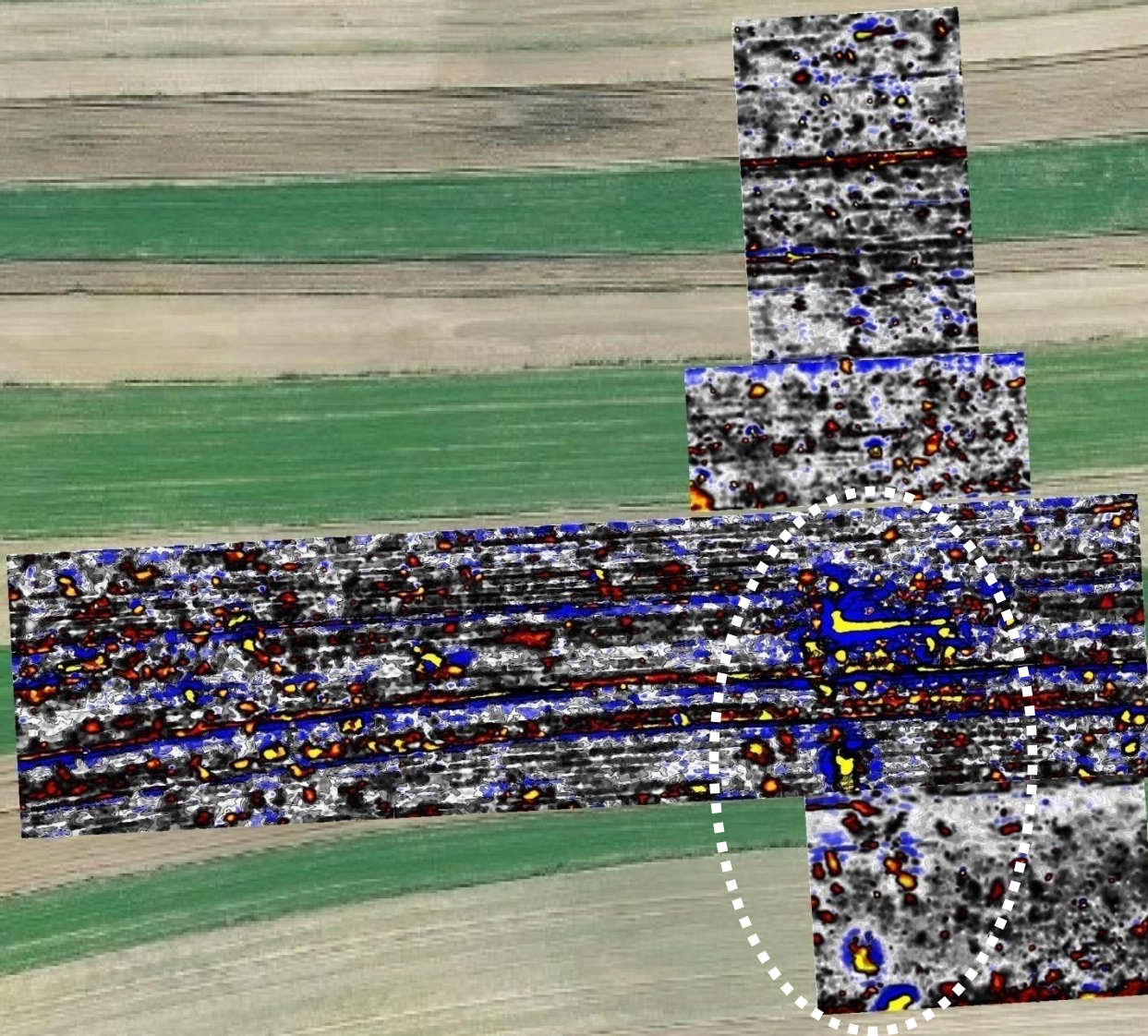




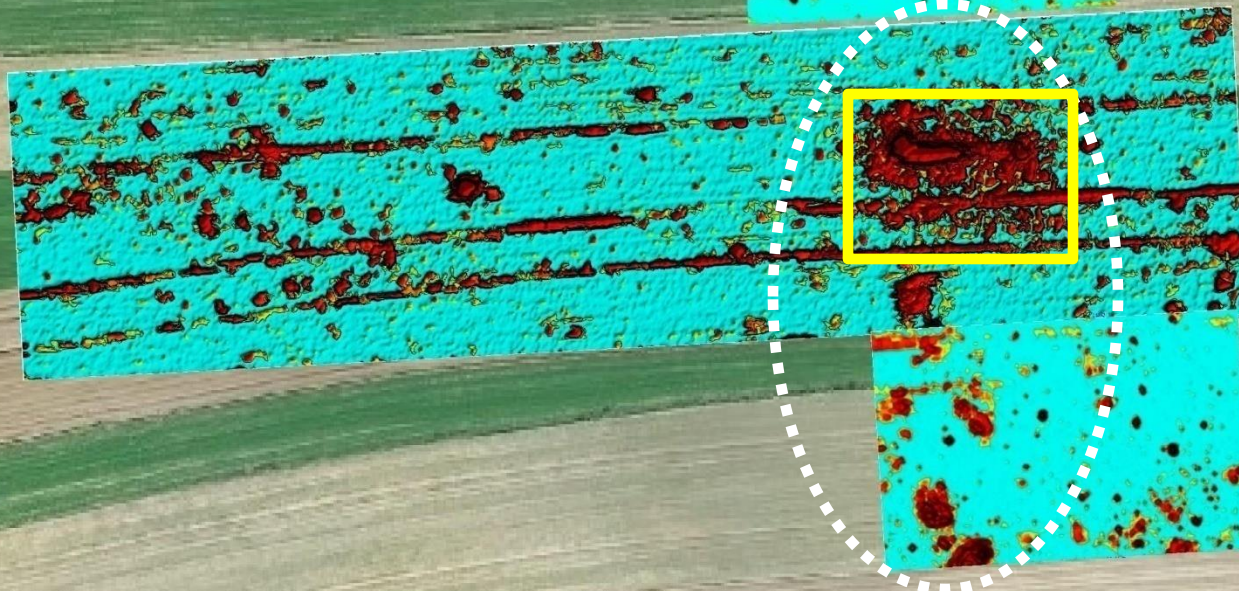
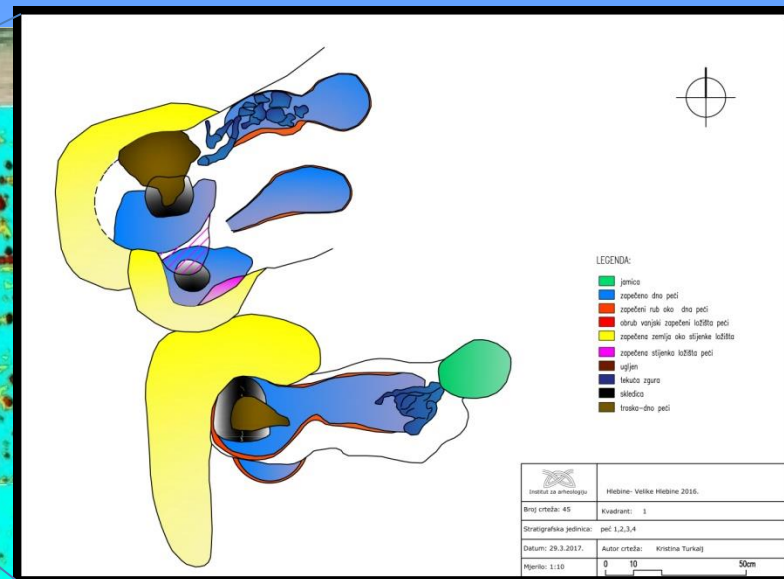
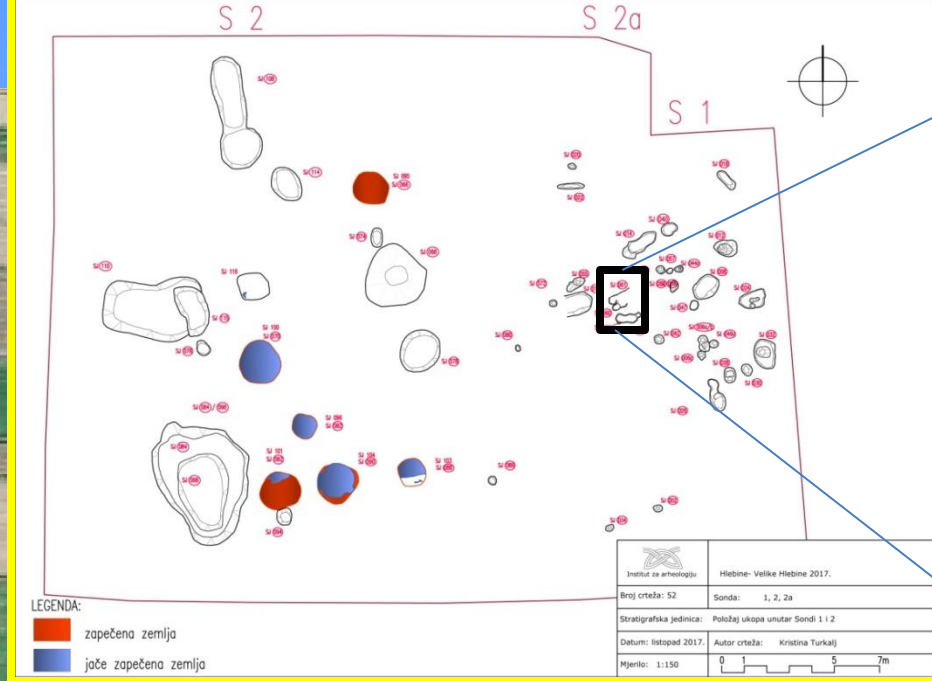
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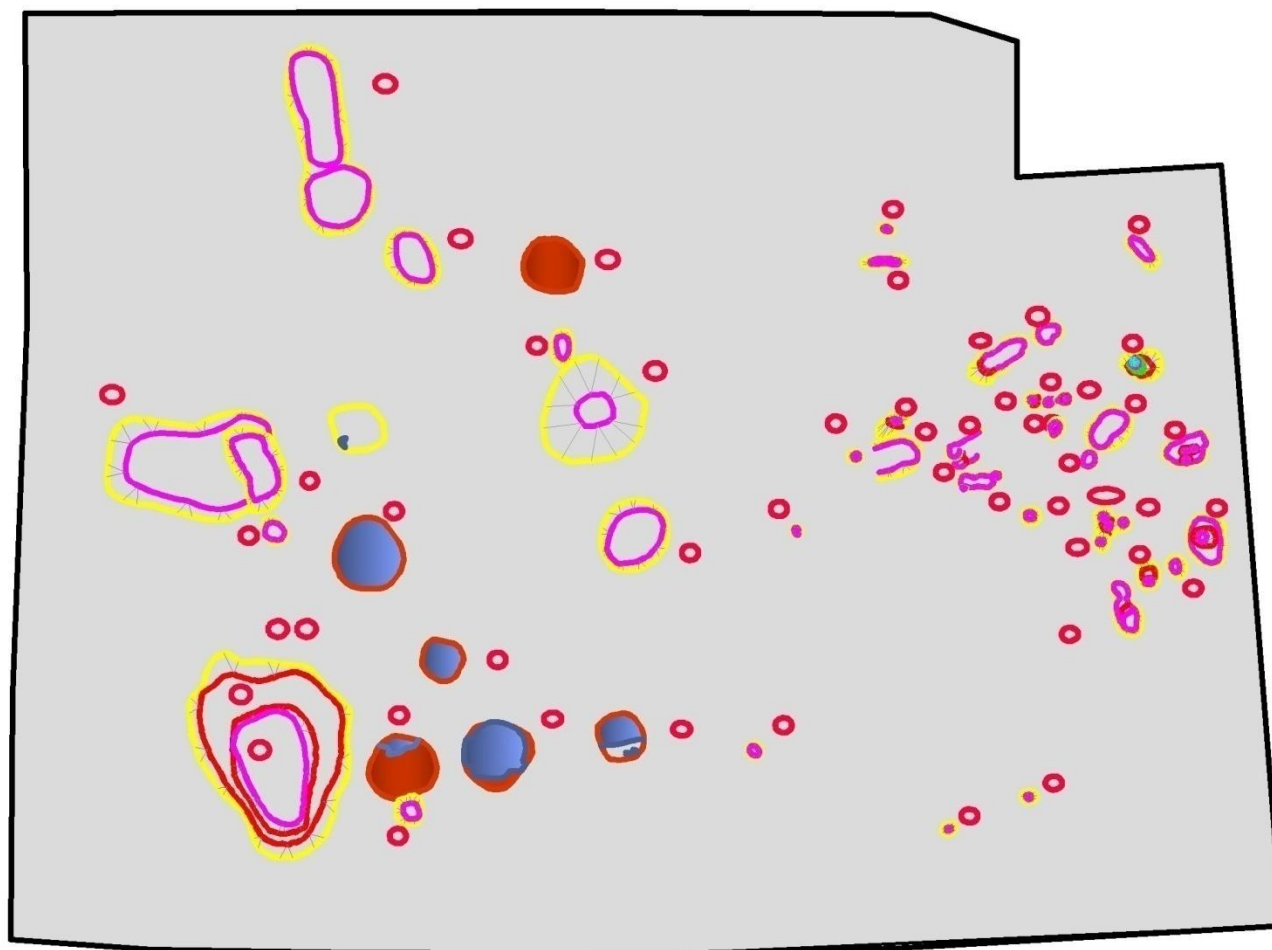


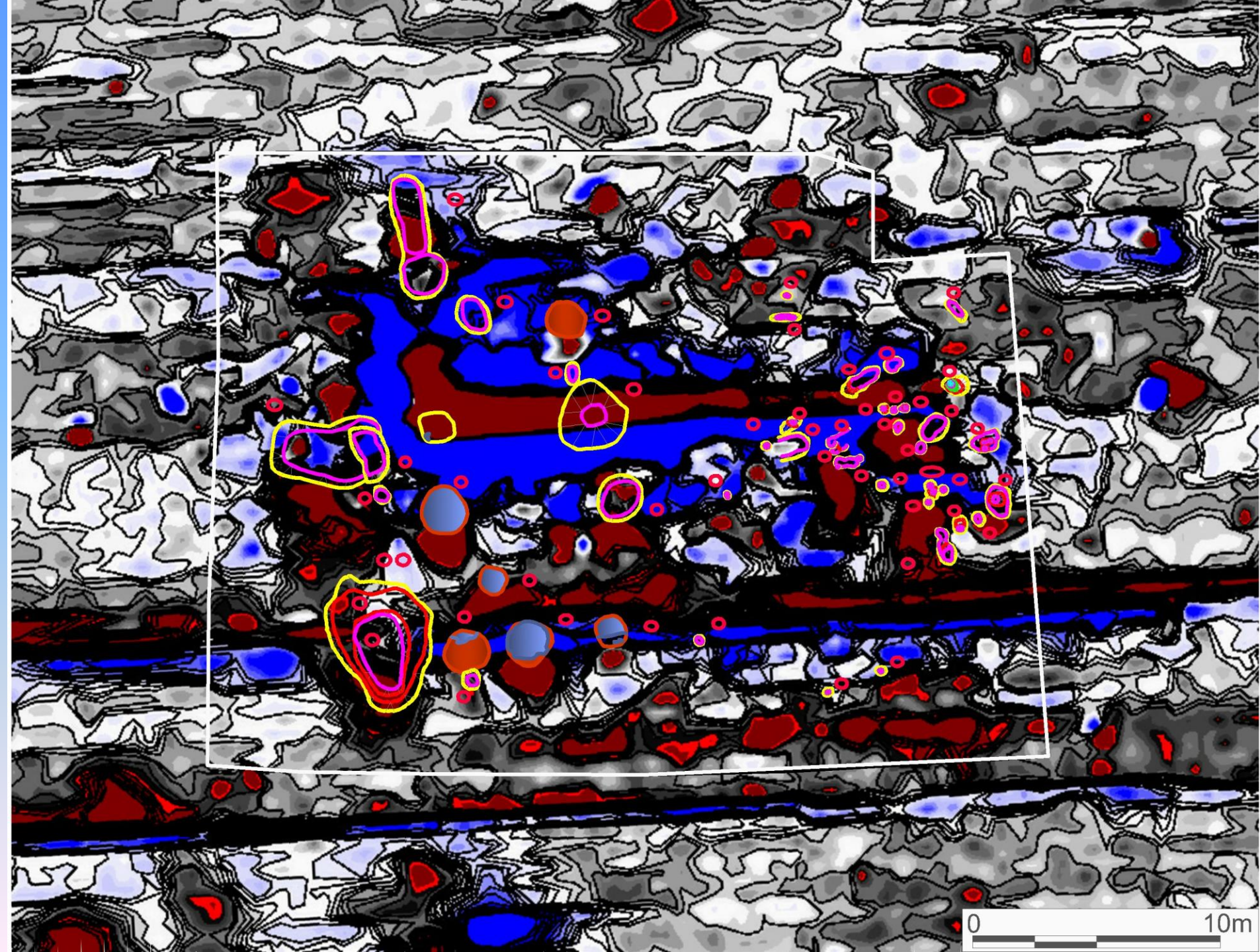
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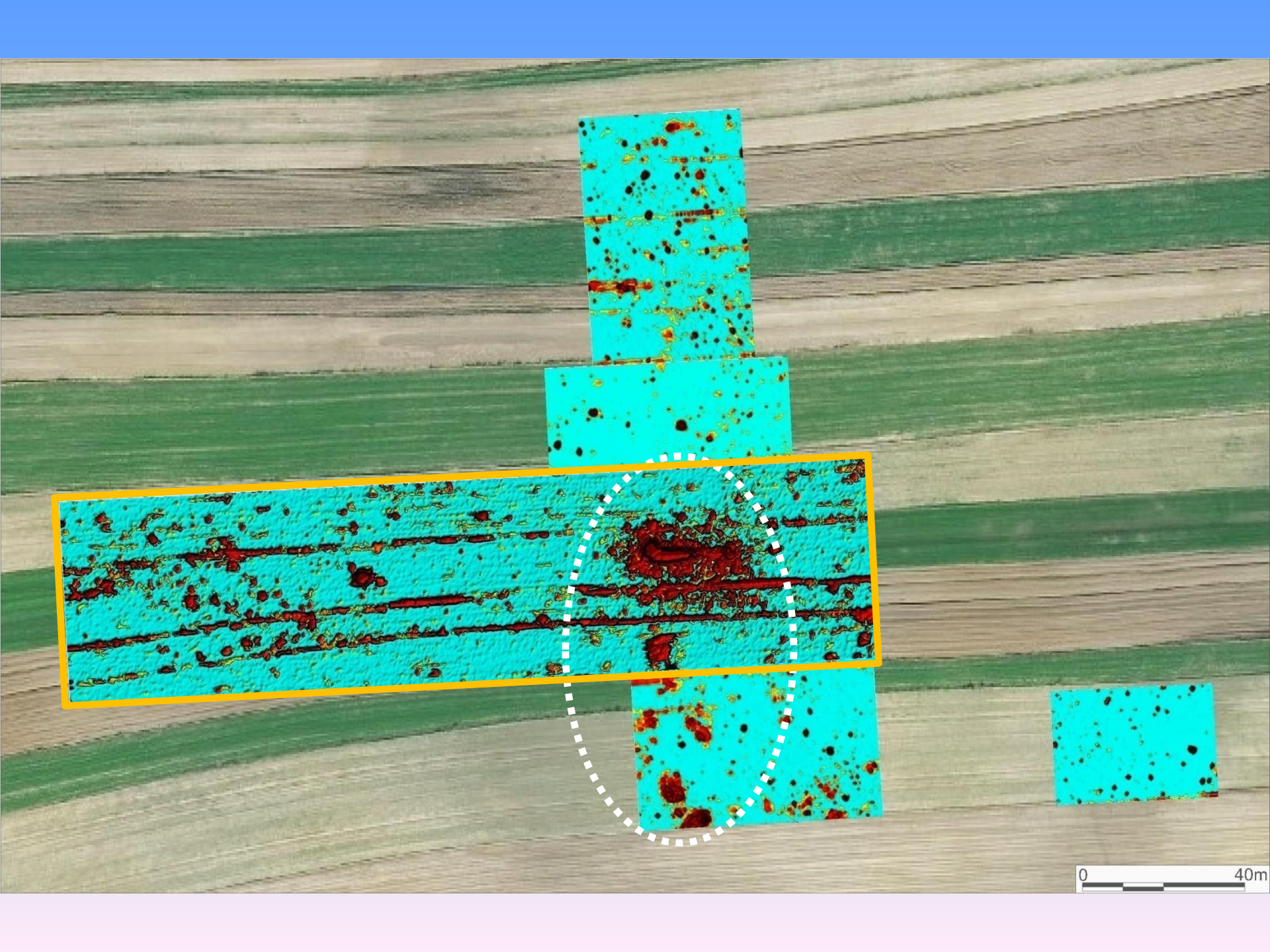


0 40m

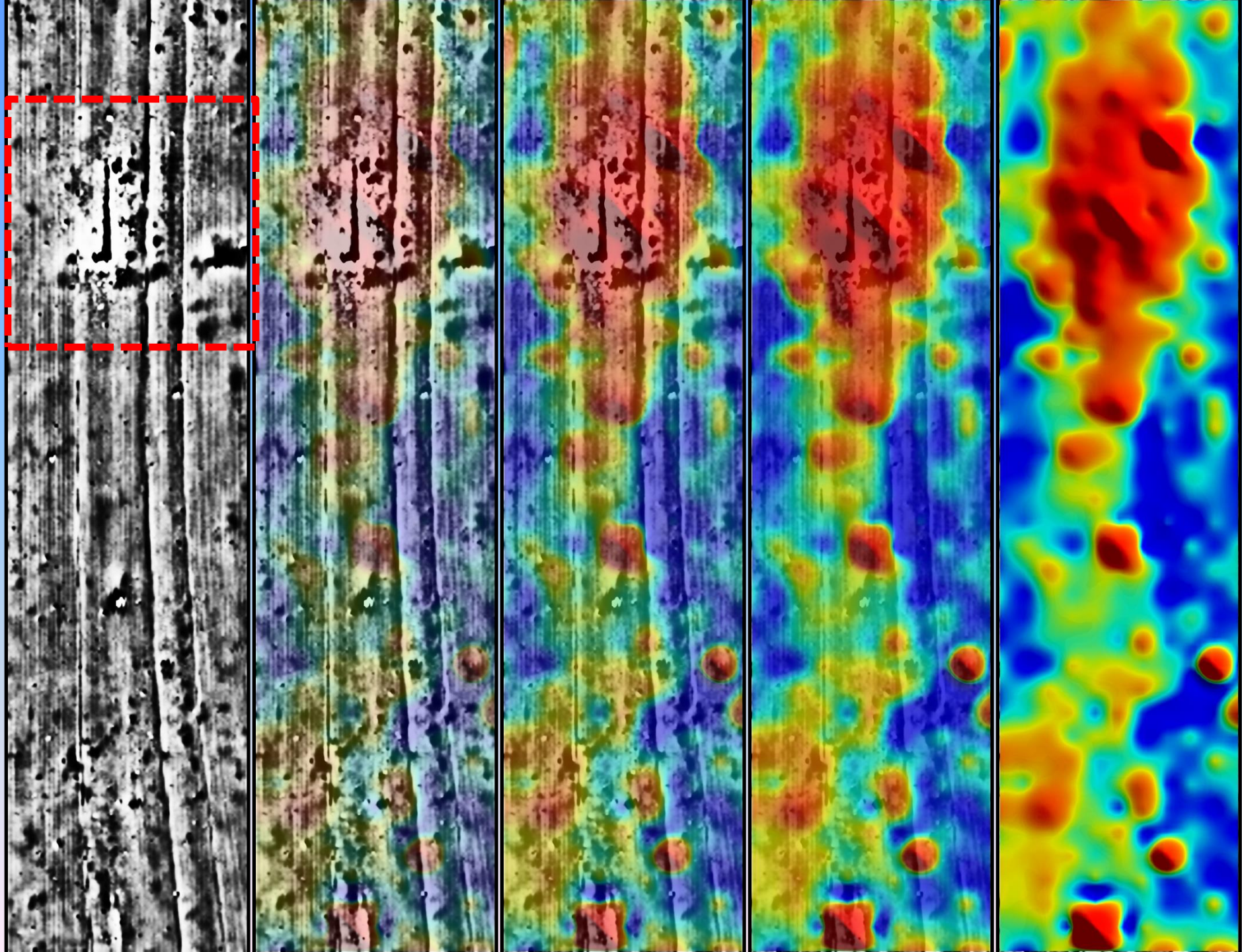


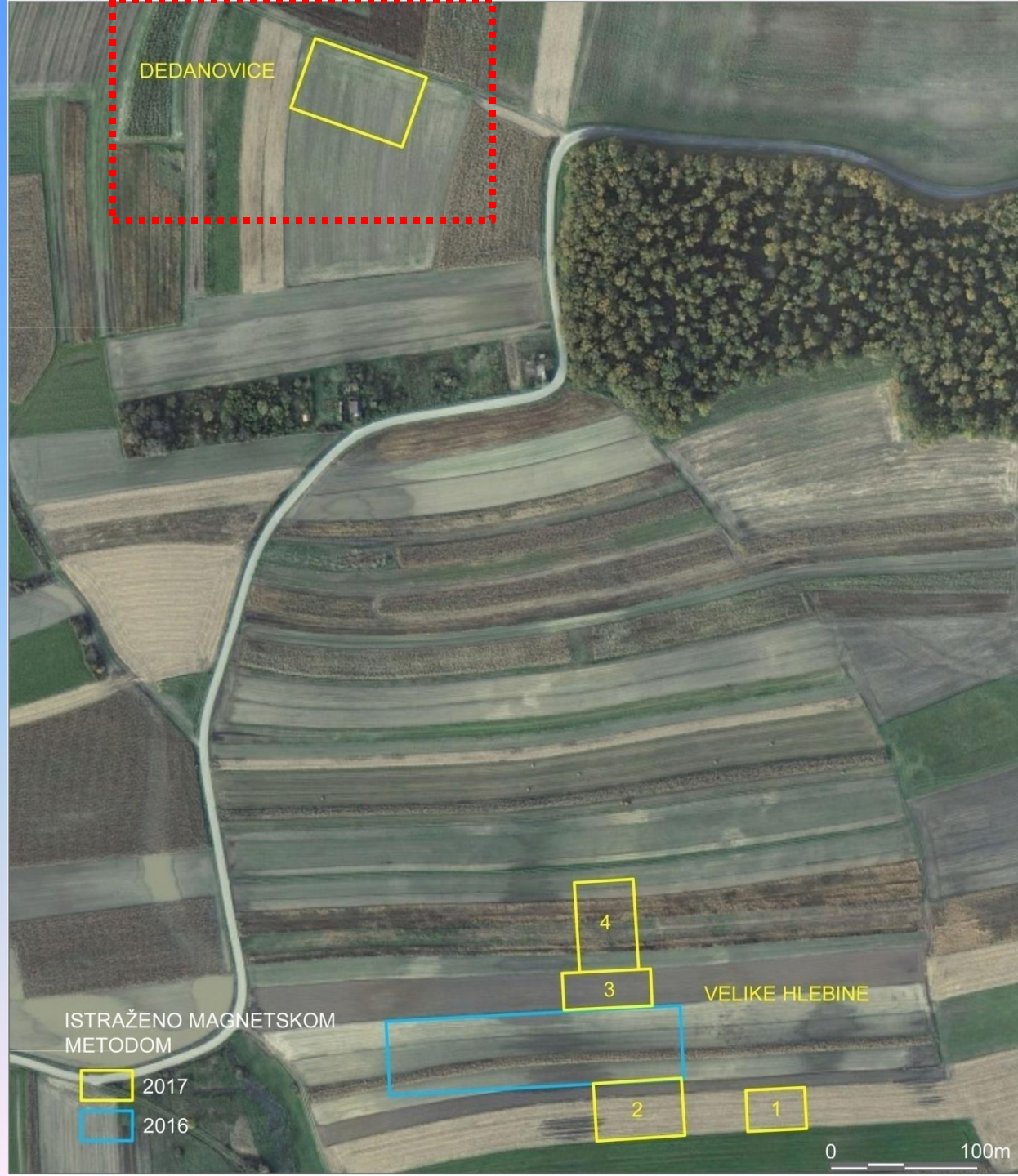






0 40m







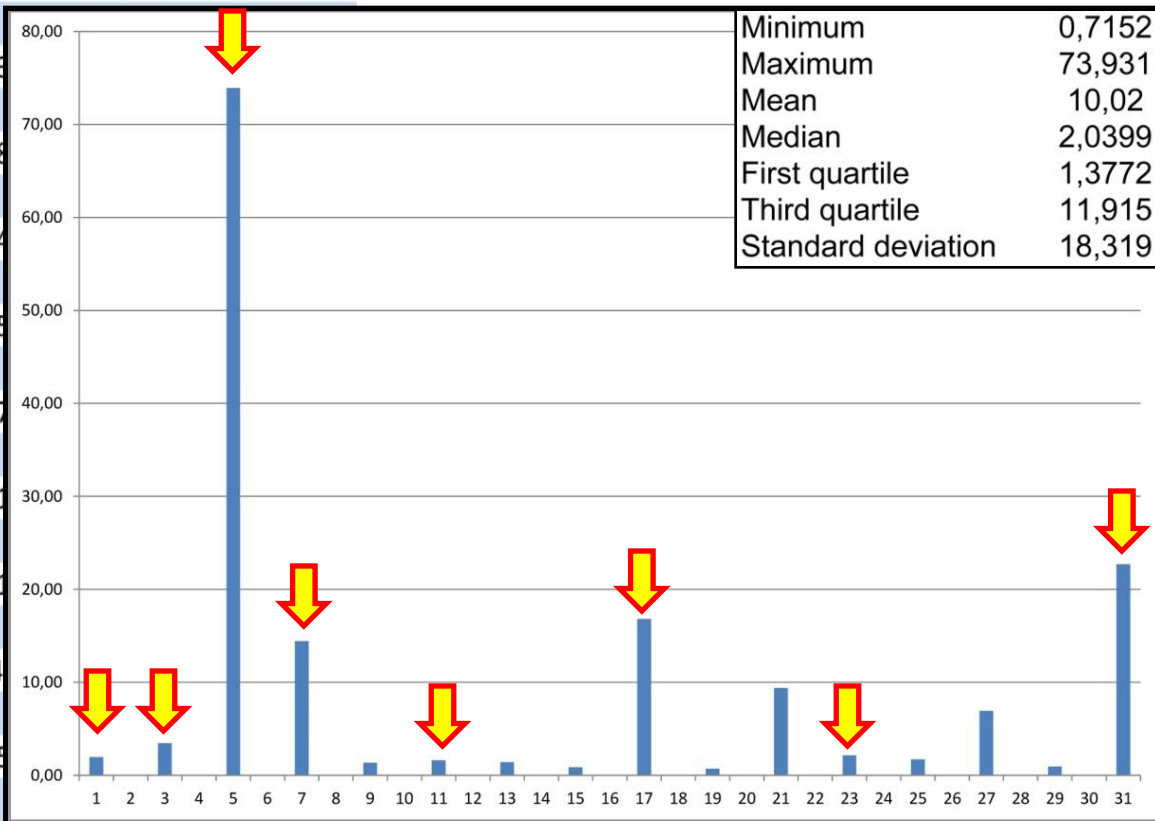


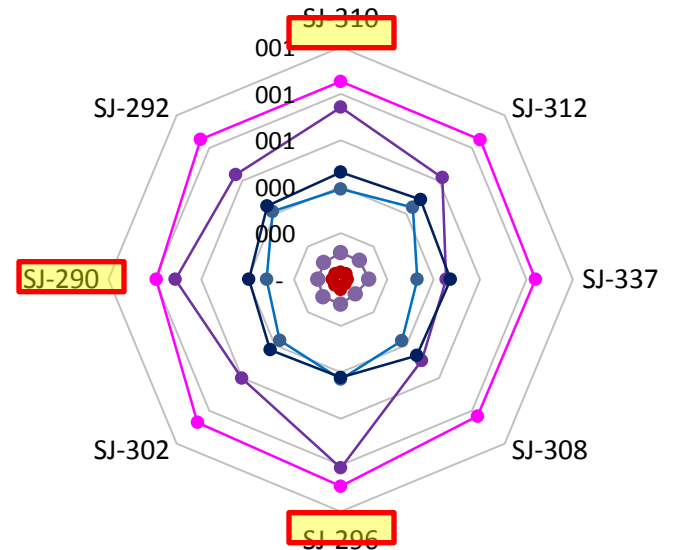
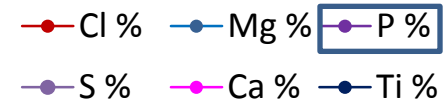
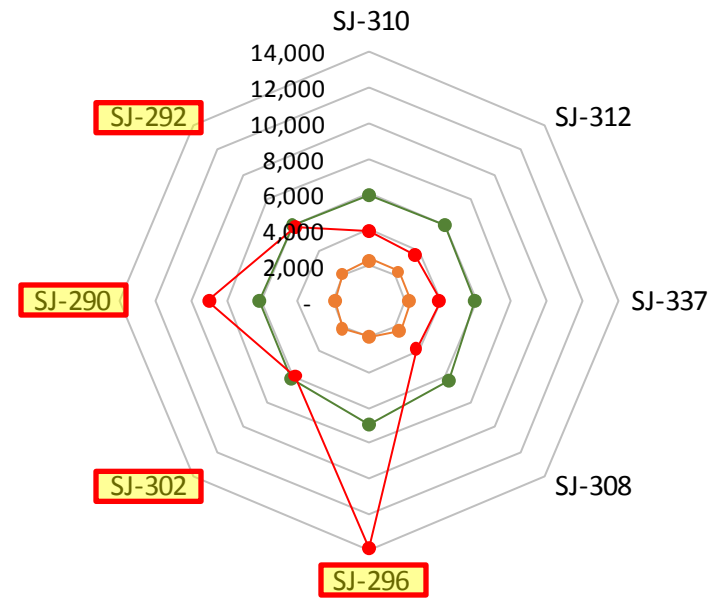
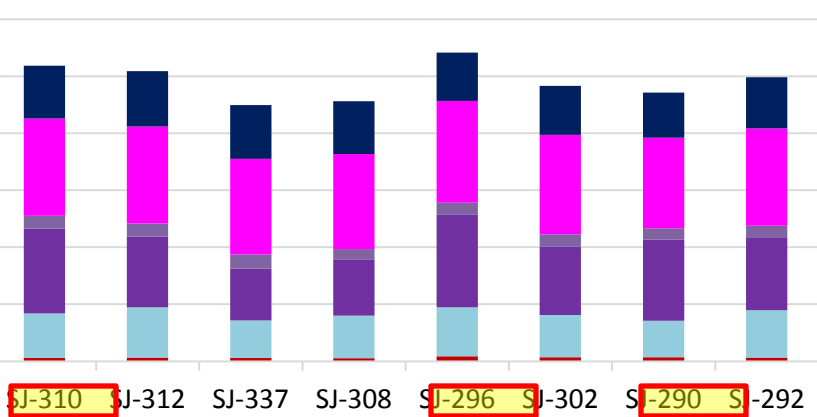
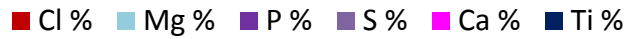
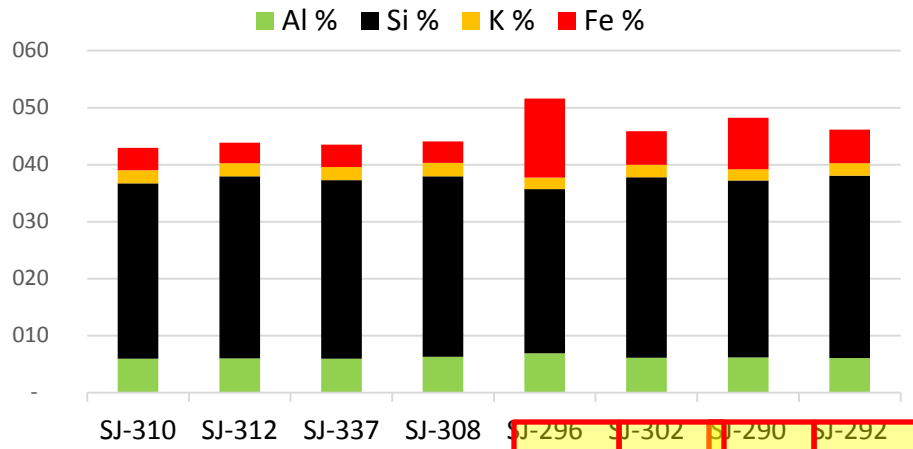


Vrijednosti magnetskog susceptibiliteta po uzorcima

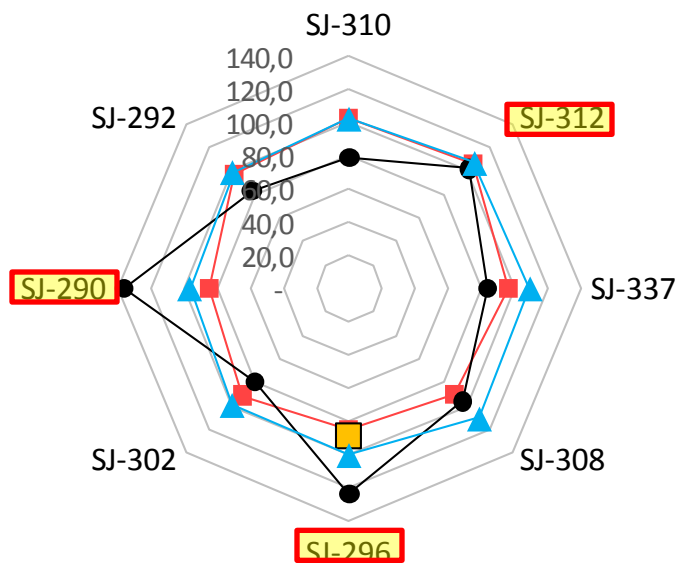
srednja
vrijednost

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										
15,04	16,43									16,29	14,43
VIRJE	S7										
1,32	1,308									1,293	1,34
VIRJE	S7										
1,393	1,484									1,615	1,61
VIRJE	S7										
1,211	1,285									2,041	1,41
VIRJE	S8										
0,877	0,797									0,789	0,85
VIRJE	S7										
17,17	20,41									15,29	16,80
VIRJE	S8										
0,713	0,711									0,81	0,72
VIRJE	S9										
6,716	9,14									7,334	9,40
VIRJE	S7										
2,011	2,415									2,14	
VIRJE	S7										
1,658	1,604	1,616	1,729	1,641	1,9	1,897	1,513	1,999	1,647	1,72	
VIRJE	S7	SJ - 302	U - 154								
8,792	6,206	6,472	5,661	7,207	8,049	6,052	5,454	7,015	8,392	6,93	
VIRJE	S7	SJ - 351	U - 200								
0,968	1,142	0,713	0,76	0,865	1,029	0,881	1,053	0,948	1	0,94	
VIRJE	S7	SJ - 290	U - 163								
22,61	21,55	17,05	29,51	22,31	25,29	21,71	21,17	25,11	20,74	22,71	

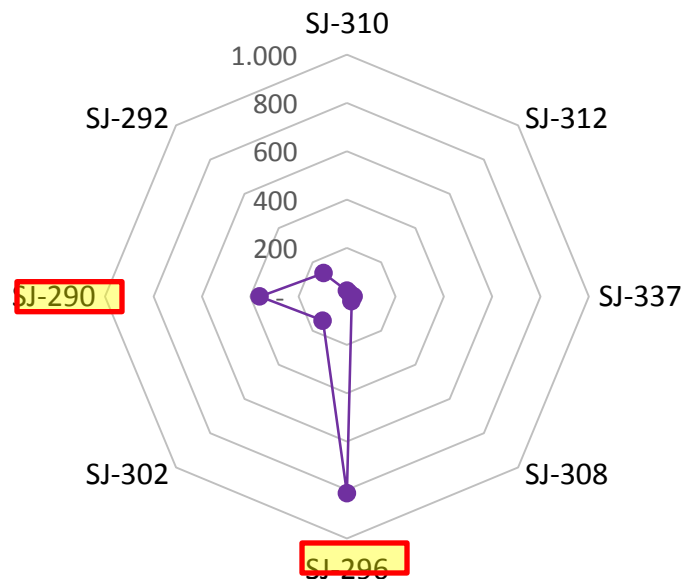




■ Zn ppm
 ● Cr ppm
 ■ Cu ppm
 ▲ Sr ppm



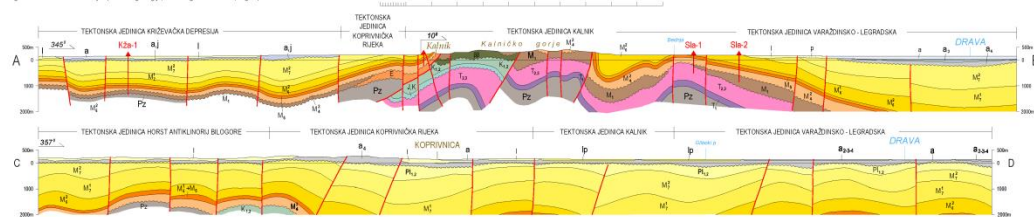
● As ppm



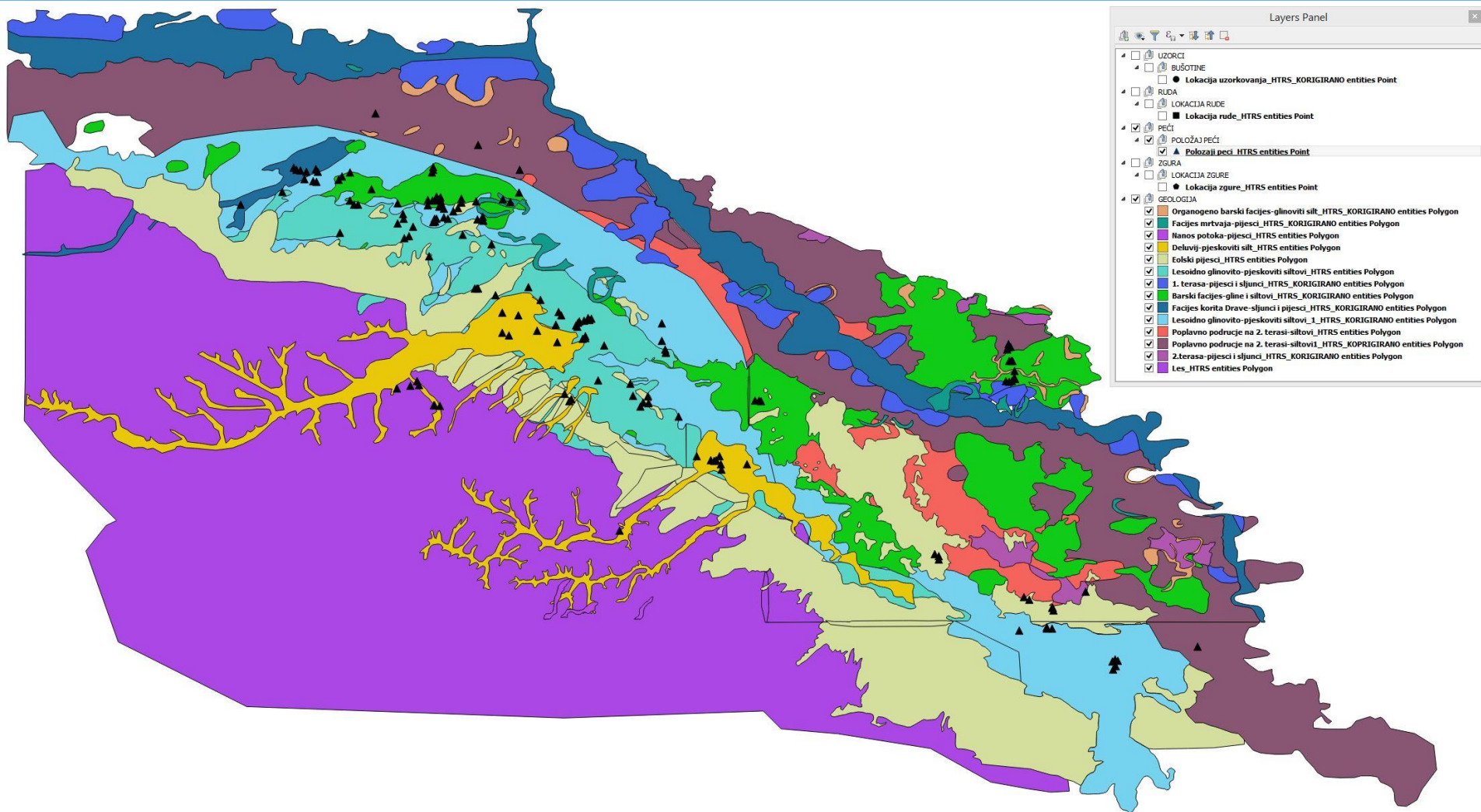
Vrijednosti magnetskog susceptibiliteta po uzorcima										srednja vrijednost
VIRJE	S7	SJ - 312	U - 185							
1,406	2,48	2,118	2,809	1,469	1,432	2,185	1,581	2,319	1,599	1,94
VIRJE	S7	SJ - 310	U - 178							
2,233	3,439	3,651	6,468	4,734	2,396	3,714	2,419	3,015	2,524	3,46
VIRJE	S7	SJ - 296	U - 158							
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	1,648	1,399	1,615	1,61
VIRJE	S7	SJ - 304	U - 176							
1,211	1,285	1,29	1,318	1,239	1,898	1,236	1,332	1,254	2,041	1,41
VIRJE	S8	SJ - 336	U - 160							
0,877	0,797	0,732	0,72	0,922	0,77	1,263	0,859	0,747	0,789	0,85
VIRJE	S7	SJ - 302	U - 169							
17,17	20,41	16,8	15,23	17,23	19,09	15,6	18,12	13,07	15,29	16,80
VIRJE	S8	SJ - 334	U - 180							
0,713	0,711	0,766	0,824	0,636	0,682	0,687	0,641	0,682	0,81	0,72
VIRJE	S9	SJ - 306B	U - 172							
6,716	9,14	11,52	13,76	13,13	8,641	8,772	5,397	9,583	7,334	9,40
VIRJE	S7	SJ - 308	U - 156							
2,011	2,415	2,062	2,121	2,29	1,906	2,457	2,098	1,962		2,14
VIRJE	S7	SJ - 298	U - 152							
1,658	1,604	1,616	1,729	1,641	1,9	1,897	1,513	1,999	1,647	1,72
VIRJE	S7	SJ - 302	U - 154							
8,792	6,206	6,472	5,661	7,207	8,049	6,052	5,454	7,015	8,392	6,93
VIRJE	S7	SJ - 351	U - 200							
0,968	1,142	0,713	0,76	0,865	1,029	0,881	1,053	0,948	1	0,94
VIRJE	S7	SJ - 290	U - 163							
22,61	21,55	17,05	29,51	22,31	25,29	21,71	21,17	25,11	20,74	22,71



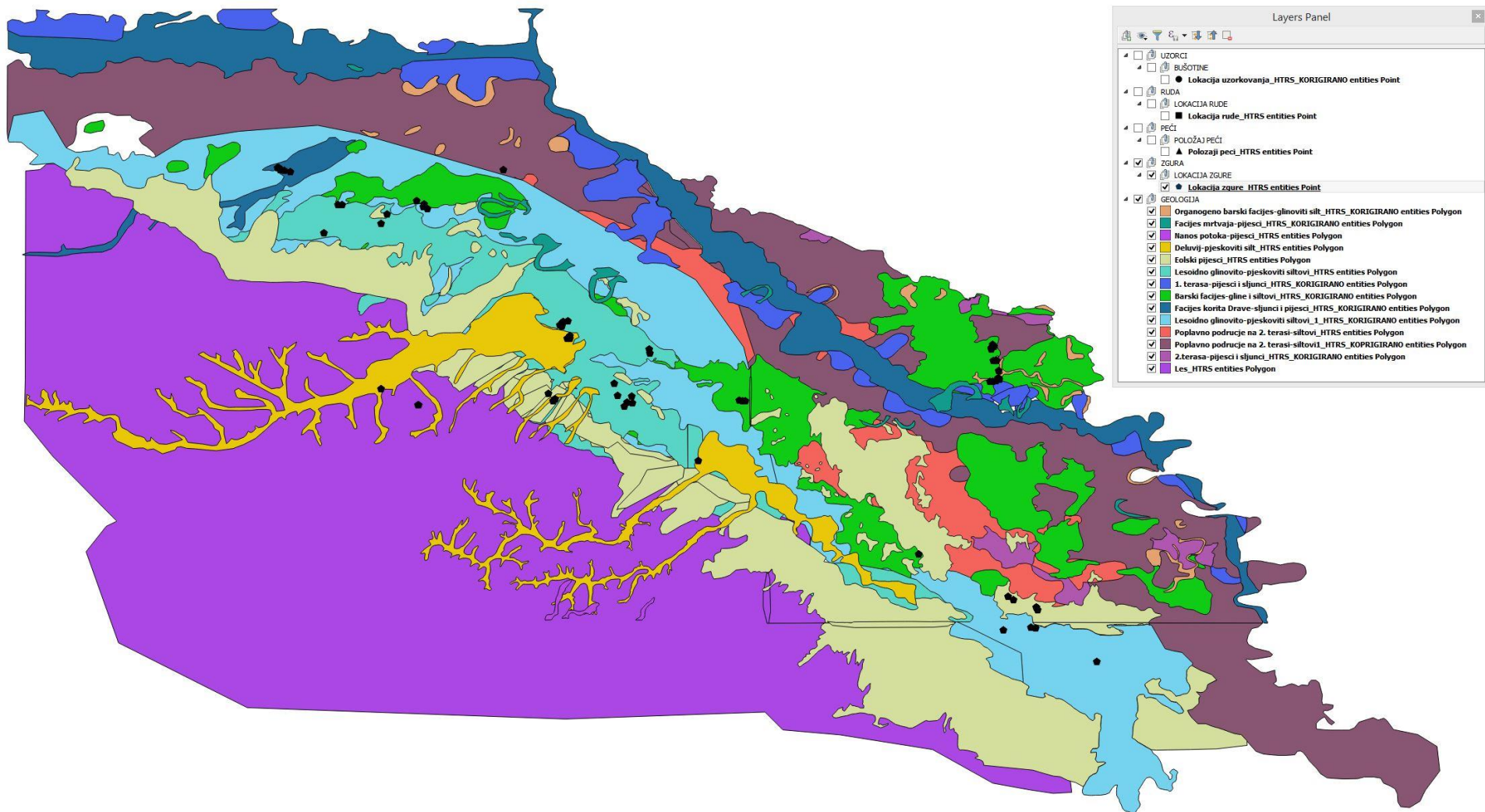
Izdaje Hrvatski geološki institut, Zagreb, 2013.



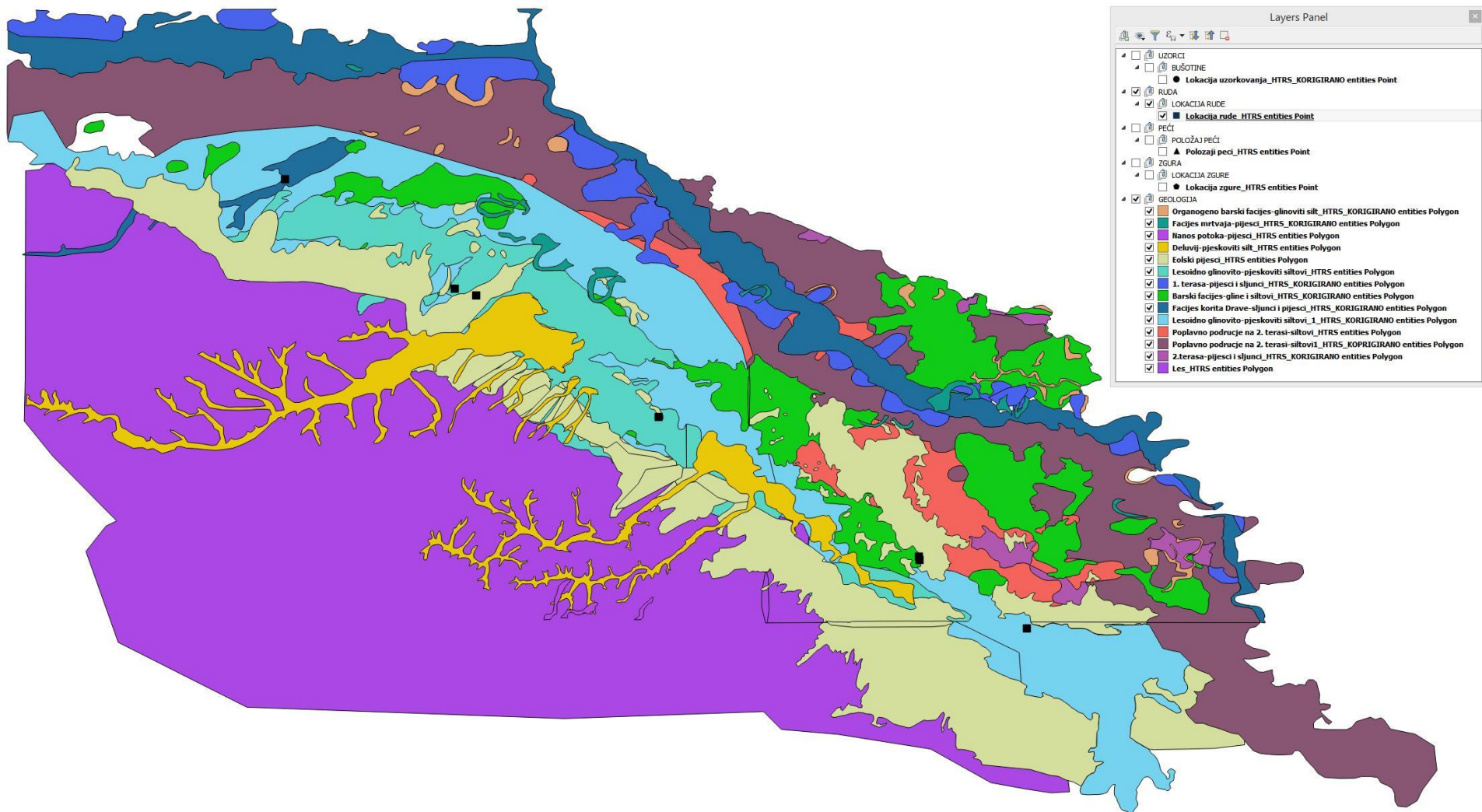
LOKACIJE ŽLINDRE



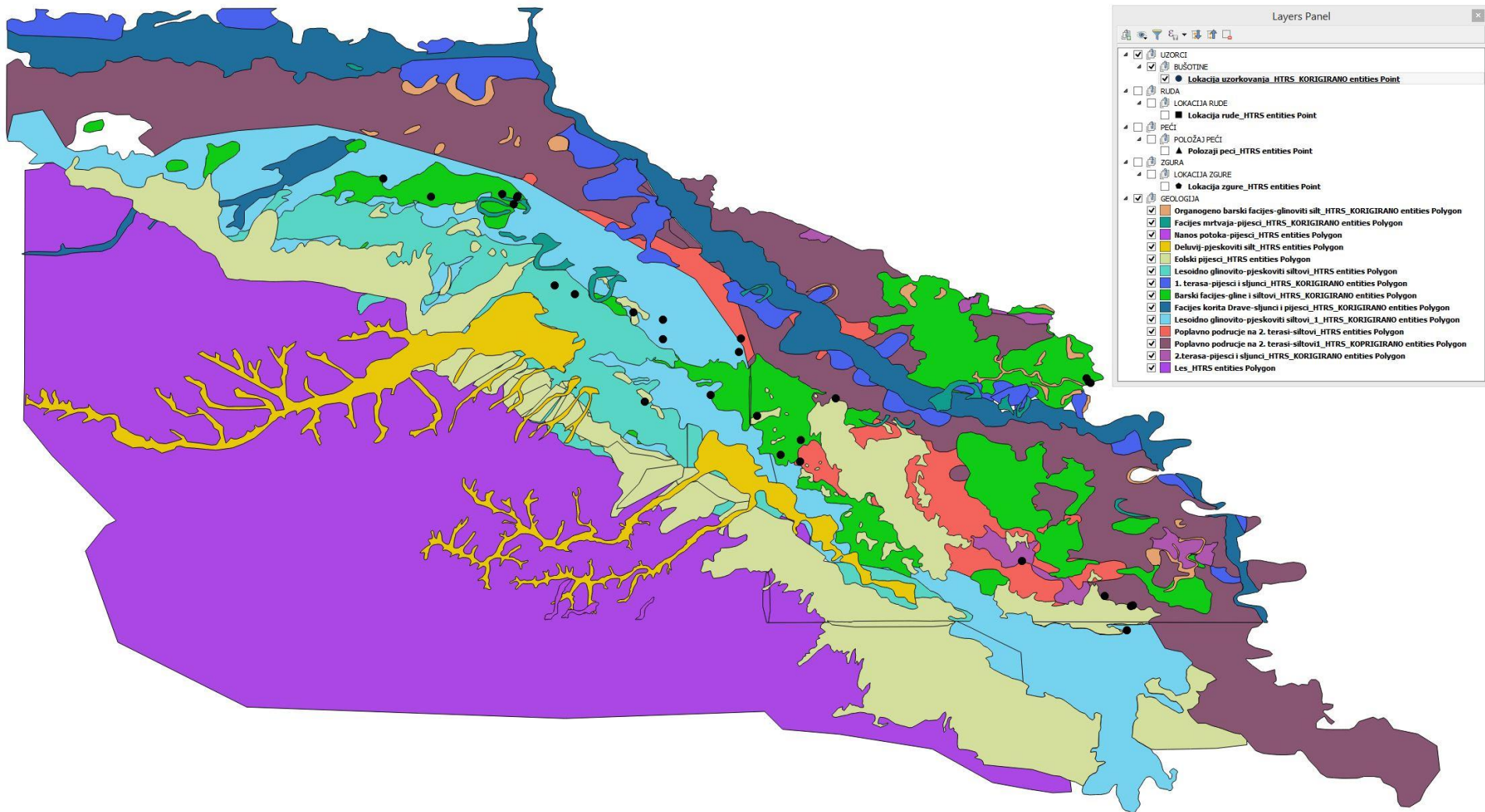
LOKACIJE PEČI

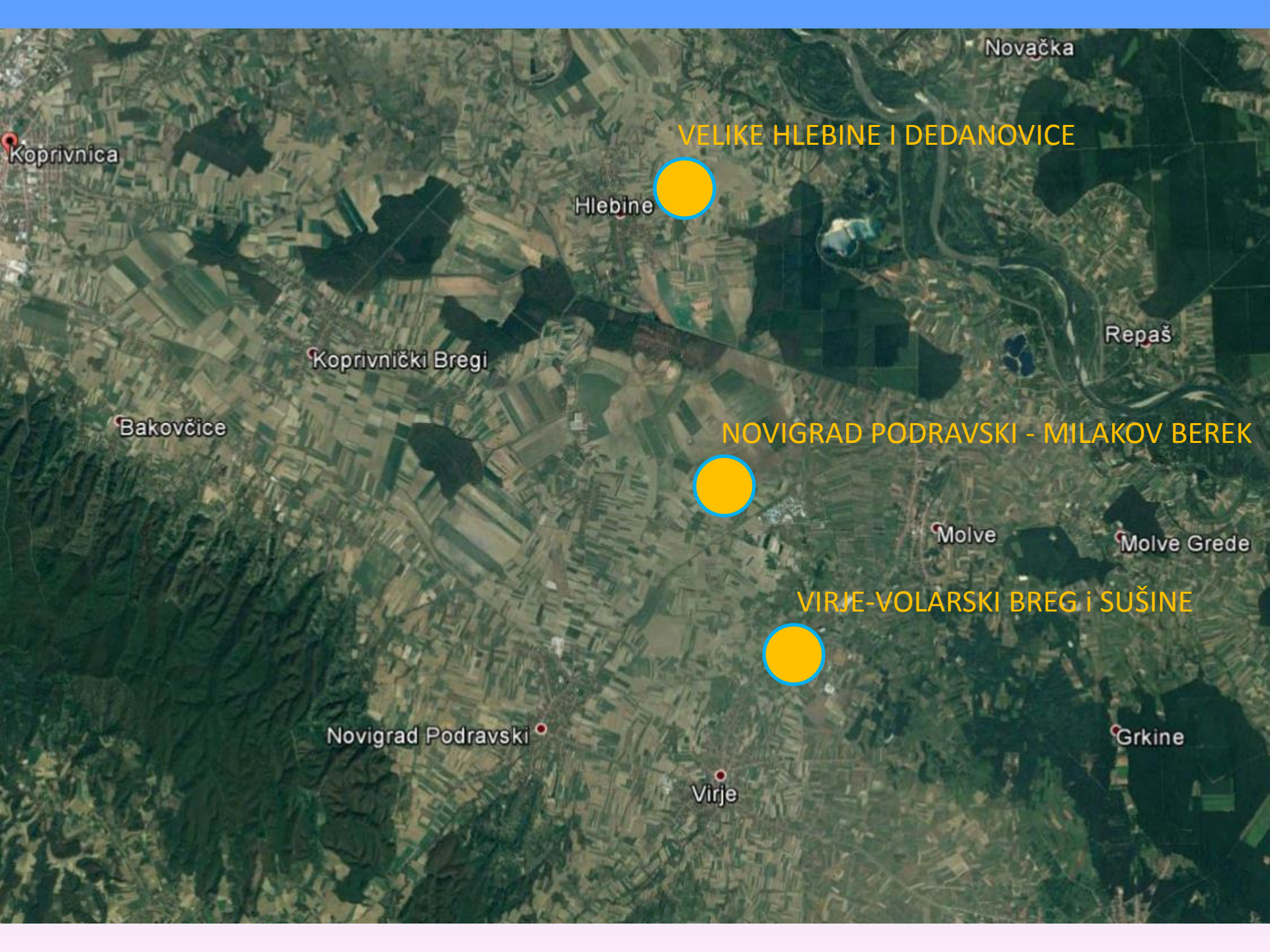


LOKACIJE RUDE



LOKACIJE VRTIN





Novačka

VELIKE HLEBINE I DEDANOVICE

Hlebine

Repaš

Koprivnički Bregi

Bakovčice

NOVIGRAD PODRAVSKI - MILAKOV BEREK

Molve

Molve Grede

VIRJE-VOLARSKI BREG I SUŠINE

Novigrad Podravski

Virje

Grkine

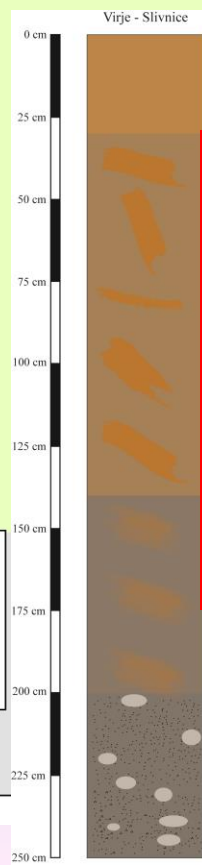
Koprivnica



Legenda

- lokacija uzorkovanja
- Lesoidno glinovito - pjeskoviti siltovi
- Barski facijes - gline i siltovi

0 0,25 0,5 Km

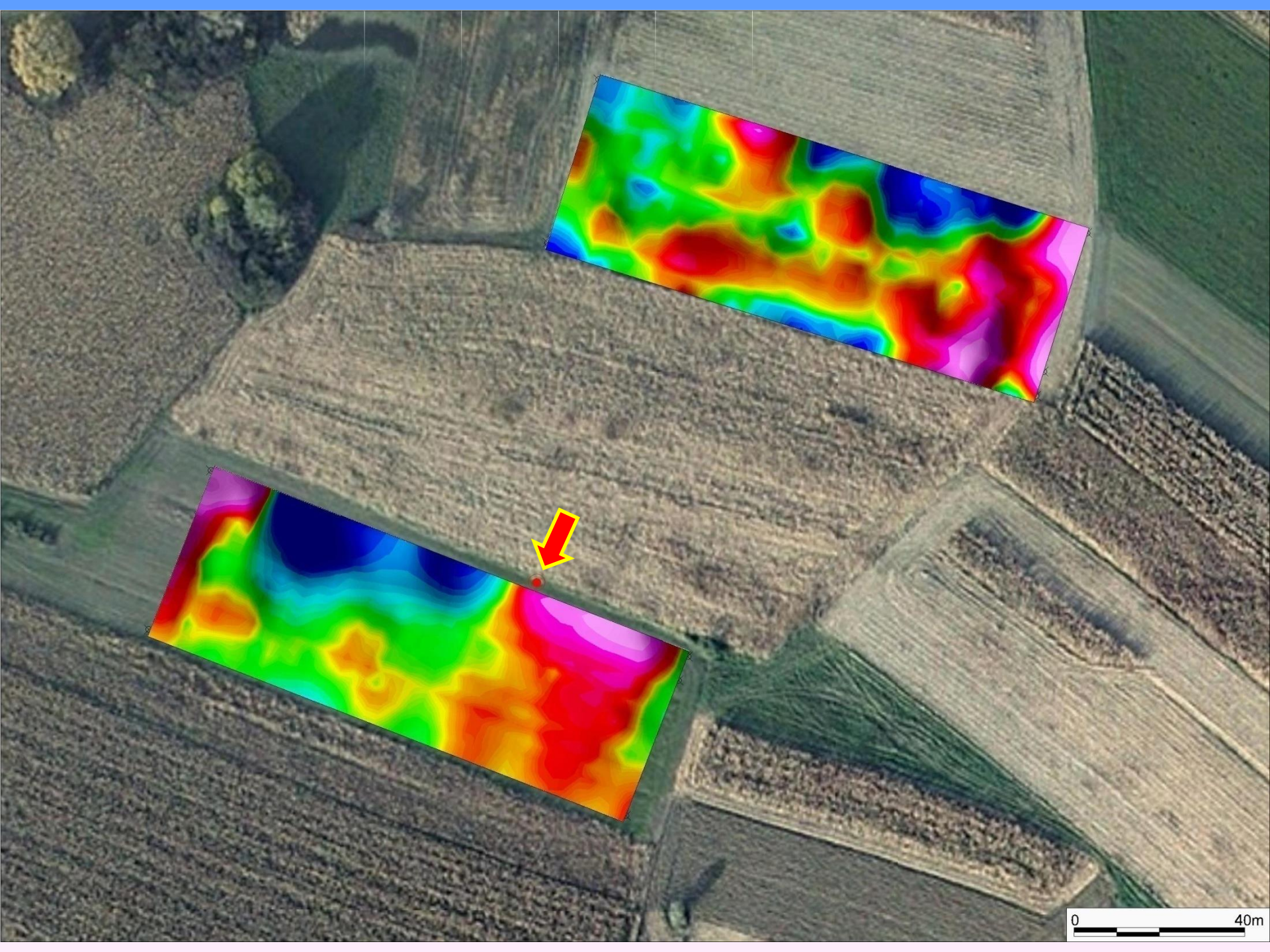


Fe oksidi

Legenda

- Prah
- Prah sa narančastim prevlakama
- Prah sa manjim intenzivnom prevlaka
- Pijesak sa pokojom valuticom

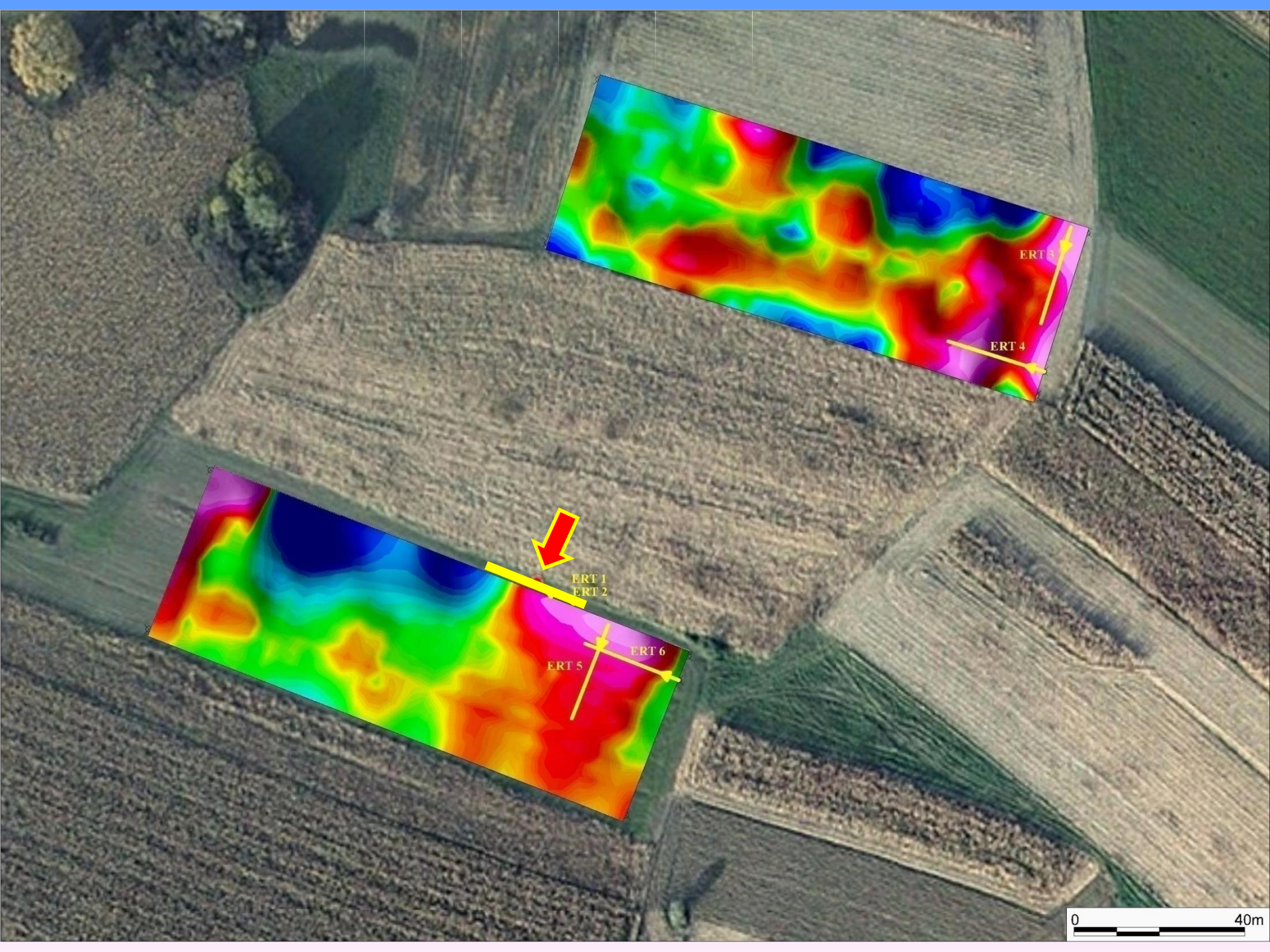




0 40m

2D resistivity tomography





2D UPORNOSTNA TOMOGRAFIJA

