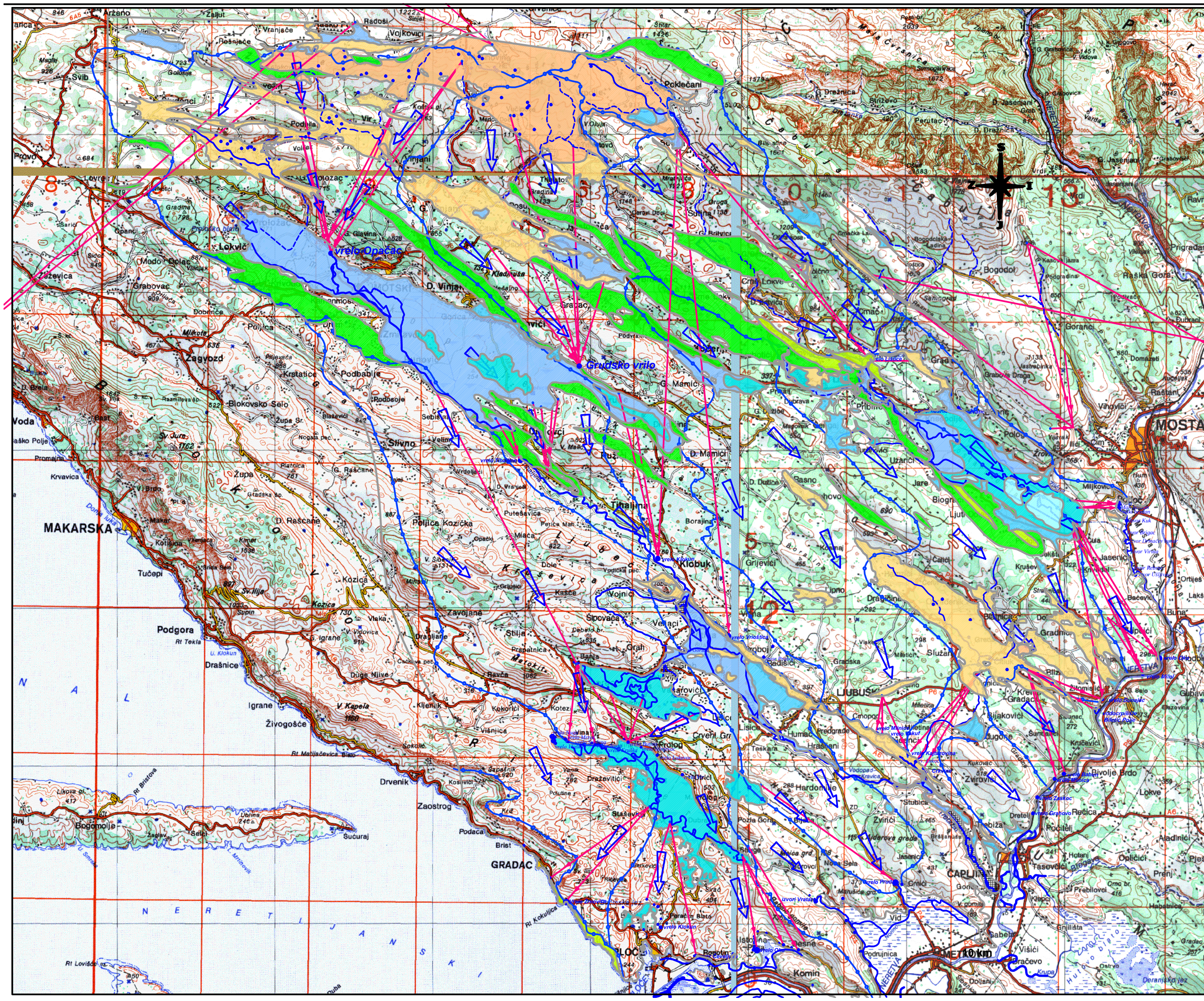

HIDROGEOLOŠKA KARTA DESNE OBALE NERETVE

RAZVODNICE I REZULTATI TRASIRANJA PODZEMNIH VODA

hydrogeological map of the right bank of the Neretva

The watershed and results trasing groundwater

1 . 200 000

HYDROGEOLOGICAL COLUMN

STAROST *AGE*	GRAFIČKI PRIKAZ *CHART stratigraphic units*	DEBLJINA *THICKNESS* (m)	LITOLOŠKI OPIS *lithological description*	HIDROGEOLOŠKA FUNKCIJA *hidrogeological functions*
KVARTAR		< 15	Vapnenačka drobina sa crvenicom *(limestone debris with red soil)*	Slaba međuzrnska poroznost, funkcija krovinskog izolatora *(low intergranular porosity function hanging insulators)*
	al	< 25	Šljunak i pijesak svih granulacija *(Gravel and sand of different grit)*	Srednja do dobra međuzrnska poroznost, hidrogeološki kolektor *(Medium to good intergranular porosity, hydrogeological collector)*
TERCIJAR – Neogen	²Pl	320	Lapori, gline, pijesak s lignitom *Marl, clay, sand with lignite*	Vrlo slaba pukotinska poroznost. Ima funkciju hidrogeološke bočne barijere *Very weak fissure permeability. There hydrogeological side barriers*
	¹Pl	300	Bijeli lapori *white marl*	Stjenovite mase sa srednje razvijenom pukotinskom poroznošću. U sklopu terena je vodonosnik sa malim brzinama tečenja podzemnih voda *Rock mass with secondary porosity developed fissures. Within the grounds is an aquifer with low-speed flow of groundwater*
	²M	350	Lapori i laporoviti vapnenci *Marl and marly limestones*	
	¹M	50	Gline i lapori s ugljem *Clay and marl with coal*	
TERCIJAR – Paleogen	E,Ol	900	Debelo uslojeni konglomerati, pješčenjaci i lapori (Promina naslage) *Thickly bedded conglomerates, sandstones and marls (Promina deposits)*	
	$E_{2,3}$	440	Fliš: pješčenjaci, lapori i konglomerati *Flysch: sandstones, marls and conglomerates*	Vrlo slaba pukotinska poroznost. Ima funkciju hidrogeološke bočne barijere *Very weak fissure permeability. There hydrogeological side barriers*
	$E_{1,2}$	420	Debelo i tanko uslojeni vapnenci *Thick and thin-bedded limestones*	intenzivno okršeni vapnenci s jakom pukotinskom i kavernoznom poroznošću. Hidrogeološki kolektor sa jačim podzemnim tečenjem duž tektonskih lomova *intensively karstified limestone with a strong joint and cavernous porosity. Hydrogeological collector with a stronger underground flow along tectonic fractures*
	Pc,E	200	Debelo uslojeni vapnenci *Thick-bedded limestones*	
KREDA – Gornja kreda	$K_2^{2,3}$	500	vapnenci i proslojci dolomita *limestone and dolomite*	
	²$K_2^{1,2}$ / K_2^1 / ¹$K_2^{1,2}$	600	vapnenci i proslojci dolomita *limestone and layers dolomite*; Pločasti vapnenci *Plate limestones*; vapnenci s rožnjacima i proslojci dolomita *limestones with cherts are the layers dolomite*	
	$K_{1,2}$	360	Dolomiti, dolomitični vapnenci, vapnenci i brečasti vapnenci *Dolomite, dolomitic limestone, limestone breccia and limestone*	Karbonatne stijene s litološkim promjenama. Kavernozna i pukotinsku poroznost. Kaverne su razvijene u zonama intenzivne tektonske oštećenosti stijene. Tečenje podzemnih voda je u zoni većih tektonskih lomova. *Carbonate rocks with lithological changes. Cavernous and fracture porosity. Caverns are developed in areas of intense tectonic damage the rock. Groundwater flow in the zone of larger tectonic fractures.*
KREDA – Donja kreda	²K_1	500	Debelo i tanko uslojeni vapnenci i tanki proslojci dolomita *Thick and thin-bedded limestones and thin dolomite*	
	¹K_1	550	Masivni dolomiti s uloščima vapnenaca *Massive dolomite limestone with layers*	Slaba pukotinska poroznost . Pojava velikih kaverni je samo u zonama intenzivne tektonske oštećenosti *Low fissure permeability. The emergence of large caverns only in areas of intense tectonic damage* / intenzivno okršeni vapnenci s jakom pukotinskom i kavernoznom poroznošću. Hidrogeološki kolektor sa jačim podzemnim tečenjem duž tektonskih lomova *intensively karstified limestone with a strong joint and cavernous porosity. Hydrogeological collector with a stronger underground flow along tectonic fractures*
JURA – Malm	$J_3^{2,3}$ / J_3 / $J_3^{1,2}$	880	Vapnenci i masivni dolomiti *Limestones and dolomites massive*; Uslojeni grudvasti vapnenci *Layered lumpy limestone*; Masivni i uslojeni vapnenci *Massive and bedded limestones*	
JURA – Doger	$J_{1,2}$	460	Grudvasti laporoviti vapnenci i proslojci dolomita *Lumpy marly limestone and dolomite*	Karbonatne stijene s litološkim promjenama. Kavernozna i pukotinsku poroznost. Kaverne su razvijene u zonama intenzivne tektonske oštećenosti stijene. Tečenje podzemnih voda je u zoni većih tektonskih lomova. *Carbonate rocks with lithological changes. Cavernous and fracture porosity. Caverns are developed in areas of intense tectonic damage the rock. Groundwater flow in the zone of larger tectonic fractures.*
JURA – Lijas	$J_1^{2,3}$	350	Uslojeni vapnenci i proslojci dolomita *Bedded limestone and dolomite*	
	$J_1^{1,2}$	250	Masivni dolomiti s proslojcima vapnenaca *Massive dolomites with layers of limestone*	Slaba pukotinska poroznost . Pojava velikih kaverni je samo u zonama intenzivne tektonske oštećenosti *Low fissure permeability. The emergence of large cavern only in areas of intense tectonic damage*

HIDROGEOLOŠKE OZNAKE
(HIDROGEOLOGICAL MARKS)

IZVORI :

0,1 - 1
1-10
10-100
100-1000
> 1000

stalni izvori
minimalna izdašnost (l/s)
permanent flow
The minimum yield (l/s)

1-10
10-100
100-1000
> 1000

povremeni izvori
srednja izdašnost (l/s)
intermittent flow
the mean abundance (l/s)

ponor *(abyss)*

veći ponor *(greater abyss)*

utvrđena odzemna veza
established an underground connection

Primarna hidrogeološka razvodnica
Primary hydrogeological watershed

Sekundarna hidrogeološka razvodnica
Secondary hydrogeological watershed

Generalni pravac tečenja podzemnih voda
(General direction of groundwater flow)

Prilog 2.