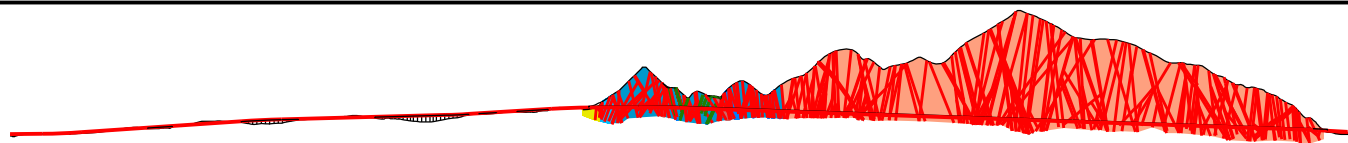


DIAL'NICA D1

LIETAVSKÁ LÚČKA - VIŠŇOVÉ - DUBNÁ SKALA



INVESTOR / EMPLOYER



**NÁRODNÁ
DIAĽNIČNÁ
SPOLOČNOSŤ**

Dúbravská cesta 14
841 04 Bratislava
Slovenská republika

Pečiatka
Stamp

HLAVNÝ INŽINIER STAVBY
EMPLOYER'S REPRESENTATIVE
Ing. Milan ČÍČKA

Podpis
Signature

STAVEBNÝ DOZOR / ENGINEER



Združenie SD – Višňové

VEDÚCI TÍMU STD / ENGINEER
Ing. Flávia BALUCHA

HLAVNÝ BANSKÝ MERAČ
CHIEF MINE SURVEYOR
Ing. Jaroslav SPAC

Pečiatka
Stamp

AUTORIZOVANÝ GEODETA A KARTOGRAF
RESPONSIBLE SURVEYOR
Ing. Ján HUBA

Pečiatka
Stamp

Náležitostami a
presnosťou
zodpovedá podpisom

Podpis
Signature

Podpis
Signature

GEOTECHNICKÝ MONITORING

GEOTECHNICAL MONITORING

Meranie 3D posunov v tuneli, na portálových stenách a v okolí portálov.

Measuring of 3D movement in the tunnel and on the portals walls and around the portals.

Zhotoviteľ GTM:
Contractor GTM:

GEODETICCA, s.r.o.
Floriánska 19
Košice, 040 01



GEODETICCA
VIA PROXIMA EST VIA GEODETICCA

Dátum / Date: 24.09.2020

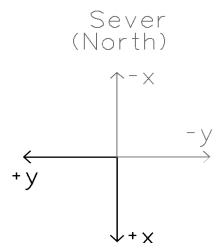
Vypracoval / Elaborated by: Ing. Pavol VAŠKO

Projekt / Project: Diaľnica D1 Lietavská Lúčka – Višňové – Dubná Skala
 Objekt / Object: Tunel Višňové - Západný portál / West portal

Body na portálových stenách / Points on the portal walls

Meranie č./Meas. No. 0		1.4.2015		Meranie č./Meas. No. 91		2.6.2020		Meranie č./Meas. No. 92		24.6.2020		Súradnicový rozdiel: $K_x - K_{x-1}$			Súradnicový rozdiel: $K_x - K_0$		
Č.b/Pt. No	Súradnice/Coordinates (JTSK)			Č.b/Pt. No	Súradnice/Coordinates (JTSK)			Č.b/Pt. No	Súradnice/Coordinates (JTSK)			Δ Súr./Δ Coords. (JTSK)			Δ Súr./Δ Coords. (JTSK)		
	Y ₀	X ₀	Z ₀		Y _k	X _k	Z _k		Y _k	X _k	Z _k	Δy	Δx	Δz	Δy	Δx	Δz
	(m)	(m)	(m)		(m)	(m)	(m)		(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	
MS1.1	440117.689	1180454.577	556.593	MS1.1	440117.694	1180454.585	556.588	MS1.1	440117.694	1180454.584	556.588	0.000	-0.001	0.000	0.005	0.007	-0.005
MS2.2	440097.564	1180471.691	560.333	MS2.2	440097.565	1180471.699	560.326	MS2.2	440097.566	1180471.698	560.328	0.001	-0.001	0.002	0.002	0.007	-0.005
MS2.3	440098.762	1180472.948	555.557	MS2.3				MS2.3	440098.765	1180472.953	555.553						
MS3.1	440103.074	1180486.222	565.060	MS3.1	440103.066	1180486.230	565.055	MS3.1	440103.066	1180486.229	565.054	0.000	-0.001	-0.001	-0.008	0.007	-0.006
MS3.2	440103.939	1180485.744	560.302	MS3.2	440103.924	1180485.754	560.299	MS3.2	440103.929	1180485.749	560.296	0.005	-0.005	-0.003	-0.009	0.005	-0.006
MS3.3	440104.511	1180485.165	555.706	MS3.3				MS3.3									
MS4.1	440116.532	1180499.719	564.659	MS4.1	440116.525	1180499.717	564.629	MS4.1	440116.524	1180499.717	564.629	-0.001	0.000	0.000	-0.008	-0.002	-0.030
MS4.2	440116.914	1180498.611	559.807	MS4.2	440116.916	1180498.595	559.782	MS4.2	440116.916	1180498.597	559.782	0.000	0.002	0.000	0.002	-0.014	-0.025
MS5.2	440130.426	1180510.336	564.642	MS5.2				MS5.2	440130.419	1180510.328	564.621				-0.007	-0.008	-0.021
MS5.3	440131.323	1180509.460	560.312	MS5.3	440131.323	1180509.450	560.293	MS5.3	440131.324	1180509.450	560.293	0.001	0.000	0.000	0.001	-0.010	-0.019
MS5.4	440131.811	1180508.770	555.813	MS5.4	440131.813	1180508.763	555.794	MS5.4	440131.813	1180508.766	555.794	0.000	0.003	0.000	0.002	-0.004	-0.019
MS6.2	440141.542	1180521.059	564.629	MS6.2	440141.534	1180521.053	564.603	MS6.2	440141.534	1180521.053	564.604	0.000	0.000	0.001	-0.008	-0.006	-0.025
MS6.3	440142.367	1180520.474	560.370	MS6.3	440142.363	1180520.454	560.345	MS6.3	440142.364	1180520.456	560.348	0.001	0.002	0.003	-0.003	-0.018	-0.022
MS6.4	440143.032	1180519.993	555.816	MS6.4	440143.043	1180519.978	555.792	MS6.4	440143.043	1180519.979	555.793	0.000	0.001	0.001	0.012	-0.014	-0.023
MS7.1	440153.802	1180521.795	564.596	MS7.1	440153.798	1180521.796	564.581	MS7.1	440153.795	1180521.797	564.582	-0.003	0.001	0.001	-0.007	0.002	-0.014
MS7.3	440152.900	1180520.633	560.366	MS7.3	440152.897	1180520.633	560.352	MS7.3	440152.895	1180520.635	560.352	-0.002	0.002	0.000	-0.005	0.002	-0.014
MS7.4	440151.834	1180519.642	555.567	MS7.4	440151.829	1180519.639	555.554	MS7.4	440151.828	1180519.641	555.555	-0.001	0.002	0.001	-0.006	-0.001	-0.012
MSX.3	440109.524	1180492.707	563.628	MSX.3				MSX.3	440109.499	1180492.728	563.624				-0.025	0.021	-0.004
MSX.5	440124.221	1180504.328	562.798	MSX.5	440124.222	1180504.314	562.774	MSX.5	440124.223	1180504.314	562.775	0.001	0.000	0.001	0.002	-0.014	-0.023
MSX.6	440125.088	1180503.870	558.277	MSX.6	440125.098	1180503.851	558.254	MSX.6	440125.097	1180503.851	558.256	-0.001	0.000	0.002	0.009	-0.019	-0.021
MSX.10	440136.147	1180515.672	563.586	MSX.10	440136.136	1180515.672	563.566	MSX.10	440136.137	1180515.675	563.567	0.001	0.003	0.001	-0.010	0.003	-0.019
MSX3.1	440108.830	1180491.491	566.481	MSX3.1	440108.820	1180491.501	566.473	MSX3.1	440108.818	1180491.503	566.475	-0.002	0.002	0.002	-0.012	0.012	-0.006
MSX3.2	440110.111	1180492.786	566.486	MSX3.2	440110.098	1180492.796	566.475	MSX3.2	440110.098	1180492.798	566.477	0.000	0.002	0.002	-0.013	0.012	-0.009
MS22.1	440128.367	1180504.617	557.328	MS22.1	440128.371	1180504.612	557.319	MS22.1									
MS22.2	440127.997	1180505.005	559.571	MS22.2	440128.003	1180504.999	559.567	MS22.2	440128.003	1180504.999	559.567	0.000	0.000	0.000	0.006	-0.006	-0.004
MS22.3	440127.971	1180505.180	560.983	MS22.3	440127.973	1180505.176	560.978	MS22.3	440127.974	1180505.176	560.977	0.001	0.000	-0.001	0.003	-0.004	-0.006

Súradnicové rozdiely - smer posunov

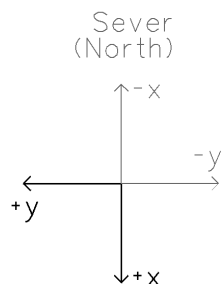


Projekt / Project: Diaľnica D1 Lietavská Lúčka – Višňové – Dubná Skala
 Objekt / Object: Tunel Višňové - Západný portál / West portal

Body na portálových stenách - puklina nad JTR / Points on the portal walls - crash over the JTR

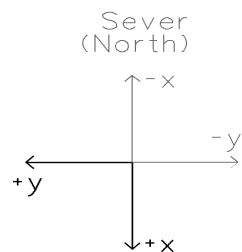
Meranie č./Meas. No. 0		29.7.2015		Meranie č./Meas. No. 84		2.6.2020		Meranie č./Meas. No. 85		24.9.2020		Súradnicový rozdiel: K_x - K_{x-1}			Súradnicový rozdiel: K_x-K₀		
Č.b/Pt. No	Súradnice/Coordinates (JTSK)			Č.b/Pt. No	Súradnice/Coordinates (JTSK)			Č.b/Pt. No	Súradnice/Coordinates (JTSK)			Δ Súr./Δ Coords. (JTSK)			Δ Súr./Δ Coords. (JTSK)		
	Y ₀	X ₀	Z ₀		Y _k	X _k	Z _k		Y _k	X _k	Z _k	Δy	Δx	Δz	Δy	Δx	Δz
	(m)	(m)	(m)		(m)	(m)	(m)		(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)
MS20.1	440139.237	1180518.587	568.651	MS20.1	440139.245	1180518.578	568.638	MS20.1	440139.244	1180518.579	568.637	-0.001	0.001	-0.001	0.007	-0.008	-0.014
MS20.2	440143.920	1180523.246	568.663	MS20.2	440143.924	1180523.239	568.649	MS20.2	440143.923	1180523.240	568.648	-0.001	0.001	-0.001	0.003	-0.006	-0.014
MS20.3	440144.724	1180524.038	568.710	MS20.3	440144.726	1180524.032	568.698	MS20.3	440144.725	1180524.034	568.699	-0.001	0.002	0.001	0.001	-0.004	-0.011
MS20.4	440147.846	1180527.275	568.726	MS20.4	440147.848	1180527.270	568.713	MS20.4	440147.847	1180527.272	568.713	-0.001	0.002	0.000	0.001	-0.003	-0.013
MS21.1	440143.239	1180521.998	566.468	MS21.1	440143.238	1180521.994	566.463	MS21.1	440143.239	1180521.996	566.464	0.001	0.002	0.001	0.000	-0.002	-0.004
MS21.2	440145.355	1180524.161	566.491	MS21.2	440145.355	1180524.158	566.487	MS21.2									

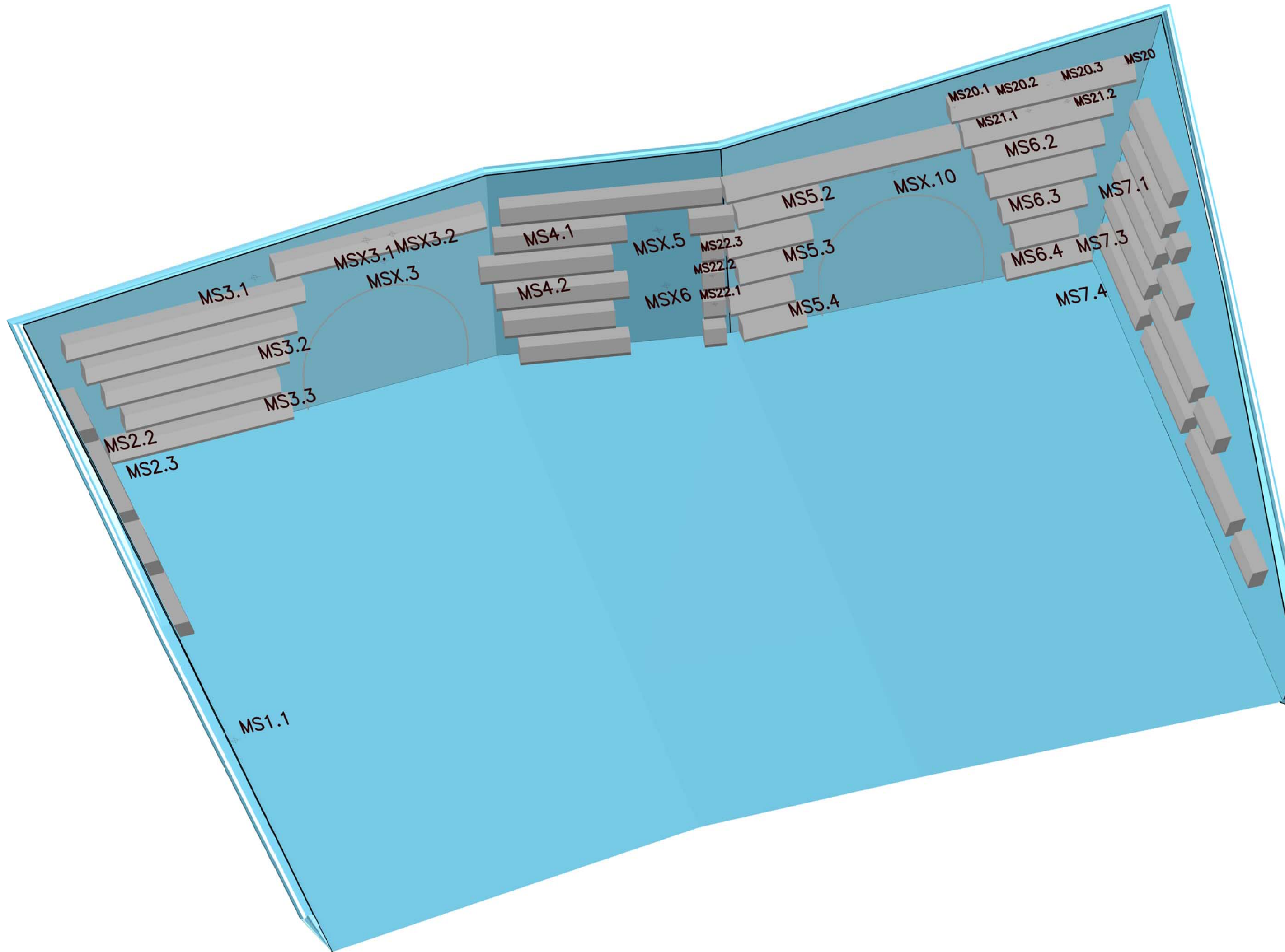
Súradnicové rozdiely - smer posunov

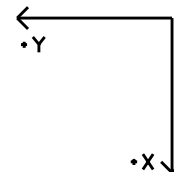


Meranie č./Meas. No. 0		8.4.2015		Meranie č./Meas. No. 86		2.6.2020		Meranie č./Meas. No. 87		24.9.2020		Súradnicový rozdiel: K_x - K_{x-1}			Súradnicový rozdiel: K_x-K₀		
Č.b/Pt. No	Súradnice/Coordinates (JTSK)			Č.b/Pt. No	Súradnice/Coordinates (JTSK)			Č.b/Pt. No	Súradnice/Coordinates (JTSK)			Δ Súr./Δ Coords. (JTSK)			Δ Súr./Δ Coords. (JTSK)		
	Y ₀	X ₀	Z ₀		Y _k	X _k	h _k		Y _k	X _k	h _k	Δy	Δx	Δz	Δy	Δx	Δz
	(m)	(m)	(m)		(m)	(m)	(m)		(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)
CD-VW01/10	440191.051	1180517.651	562.014	CD-VW01/10				CD-VW01/10									
CD-VW02/10	440148.706	1180539.278	573.863	CD-VW02/10	440148.707	1180539.267	573.852	CD-VW02/10	440148.706	1180539.268	573.852	-0.001	0.001	0.000	0.000	-0.010	-0.011
CD-VW03/10	440149.116	1180560.371	573.509	CD-VW03/10	440149.128	1180560.373	573.512	CD-VW03/10	440149.126	1180560.370	573.510	-0.002	-0.003	-0.002	0.010	-0.001	0.001
CD-VW04/10	440094.964	1180525.066	577.736	CD-VW04/10	440094.968	1180525.052	577.705	CD-VW04/10	440094.969	1180525.053	577.705	0.001	0.001	0.000	0.005	-0.013	-0.031
CD-VW05/10	440080.587	1180539.148	583.071	CD-VW05/10	440080.612	1180539.151	583.028	CD-VW05/10	440080.611	1180539.152	583.026	-0.001	0.001	-0.002	0.024	0.004	-0.045
CD-VW06/10	440090.730	1180443.482	560.630														
CD-VW10/10	440096.361	1180469.314	564.181														
S1_CD-VW12/10	440117.922	1180548.885	577.597	CD-VW12/10	440117.910	1180548.852	577.562	CD-VW12/10	440117.909	1180548.852	577.560	-0.001	0.000	-0.002	-0.013	-0.033	-0.037
CD-VW13/10	440080.569	1180503.704	573.987	CD-VW13/10	440080.589	1180503.728	573.961	CD-VW13/10	440080.588	1180503.730	573.960	-0.001	0.002	-0.001	0.019	0.026	-0.026
HG2	440101.978	1180513.010	573.271	HG2	440101.979	1180512.997	573.232	HG2	440101.980	1180513.000	573.233	0.001	0.003	0.001	0.002	-0.010	-0.038
IN1	440133.421	1180540.841	575.041	IN1	440133.413	1180540.819	575.023	IN1	440133.415	1180540.821	575.022	0.002	0.002	-0.001	-0.006	-0.019	-0.019
IN2	440104.725	1180536.406	578.362	IN2	440104.739	1180536.394	578.271	IN2	440104.739	1180536.395	578.270	0.000	0.001	-0.001	0.014	-0.011	-0.092
IN3	440087.800	1180500.533	572.617	IN3	440087.816	1180500.563	572.581	IN3	440087.819	1180500.564	572.581	0.003	0.001	0.000	0.019	0.031	-0.036
INKL-AG1	440127.017	1180535.694	574.631	INKL-AG1	440127.008	1180535.671	574.595	INKL-AG1	440127.006	1180535.671	574.593	-0.002	0.000	-0.002	-0.011	-0.023	-0.038
INKL01	440161.830	1180528.329	569.077	INKL01				INKL01									
INKL04	440144.157	1180535.731	574.416	INKL04	440144.152	1180535.712	574.403	INKL04	440144.152	1180535.714	574.403	0.000	0.002	0.000	-0.005	-0.017	-0.013
INKL07	440113.117	1180529.024	574.724	INKL07	440113.113	1180529.021	574.652	INKL07	440113.112	1180529.023	574.652	-0.001	0.002	0.000	-0.005	-0.001	-0.072
INKL10	440090.291	1180534.907	580.872	INKL10	440090.311	1180534.901	580.825	INKL10	440090.311	1180534.902	580.824	0.000	0.001	-0.001	0.020	-0.005	-0.048
INKL13	440090.293	1180502.835	572.608	INKL13	440090.296	1180502.858	572.552	INKL13	440090.297	1180502.859	572.552	0.001	0.001	0.000	0.004	0.024	-0.056
INKL16	440105.379	1180507.468	571.608	INKL16	440105.381	1180507.446	571.585	INKL16	440105.382	1180507.446	571.585	0.001	0.000	0.000	0.003	-0.022	-0.023
INKL17	440113.952	1180514.634	571.960	INKL17	440113.954	1180514.617	571.934	INKL17	440113.956	1180514.616	571.934	0.002	-0.001	0.000	0.004	-0.018	-0.026

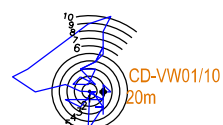
Súradnicové rozdiely - smer posunov



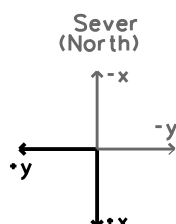
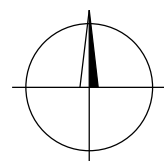




440200,00
1180500,00



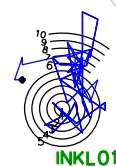
Mierka /Scale : 1:500



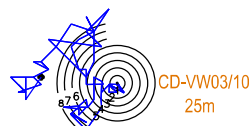
Projekt / Project: Ďiaľnica D1 Lietavská Lúčka - Višnové - Dubná Skala
Objekt / Object: Tunel Višnové - Západný portál / West portal

Body na záhlaví pažníc inklinometrov a piezometrov.
Points on the head of the inclinometer and piezometer pipes.

Dátum / Date: 24.09.2020



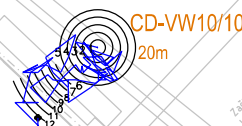
CD-VW02/10
25m



CD-VW03/10
25m



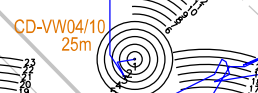
CD-VW12/10
30m



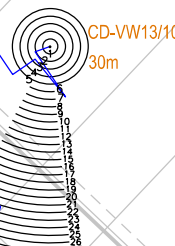
CD-VW10/10
20m



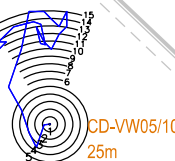
CD-VW06/10
20m



CD-VW04/10
25m



CD-VW13/10
30m



CD-VW05/10
25m

20,9

Koniec úseku ražne
km 20,923 999