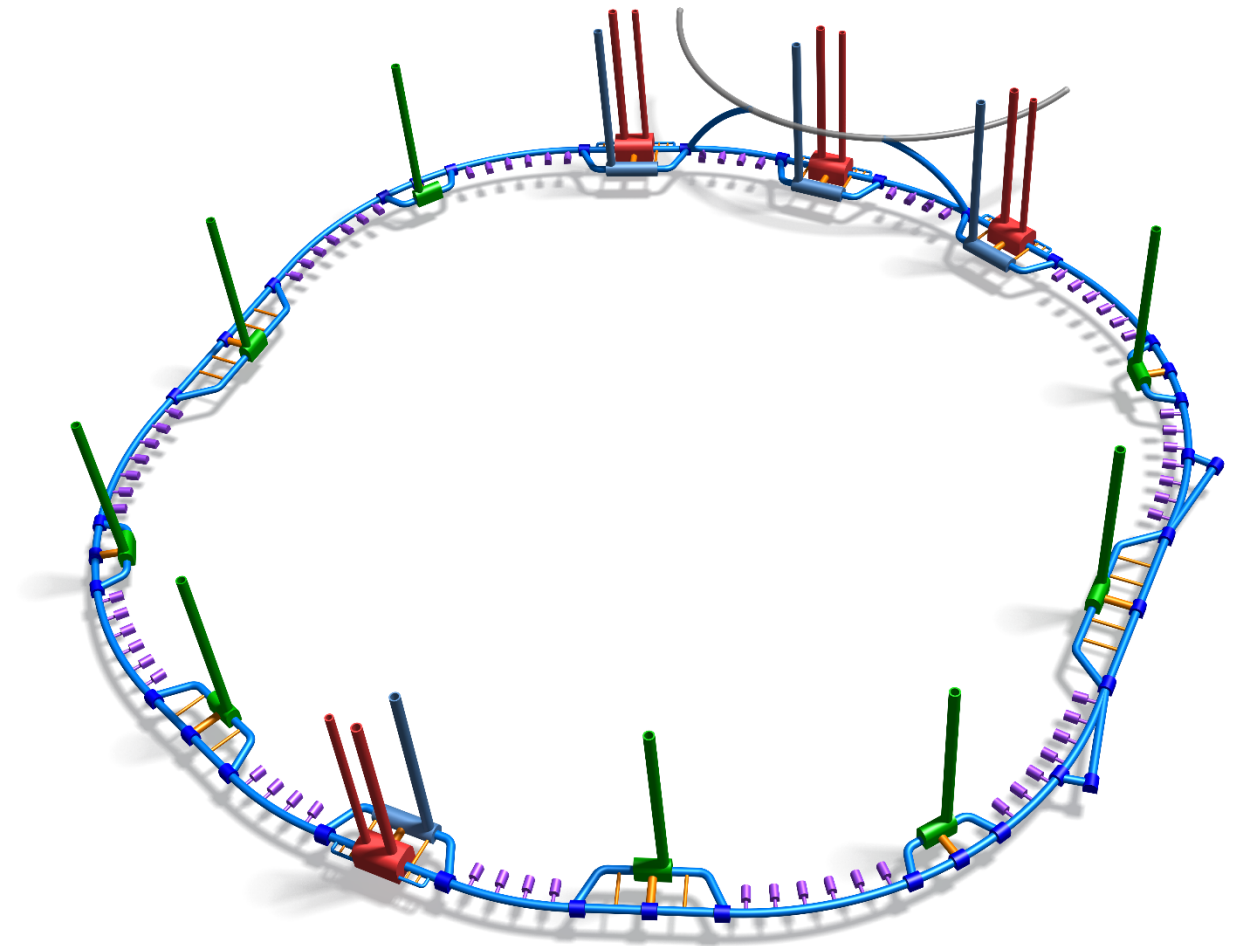
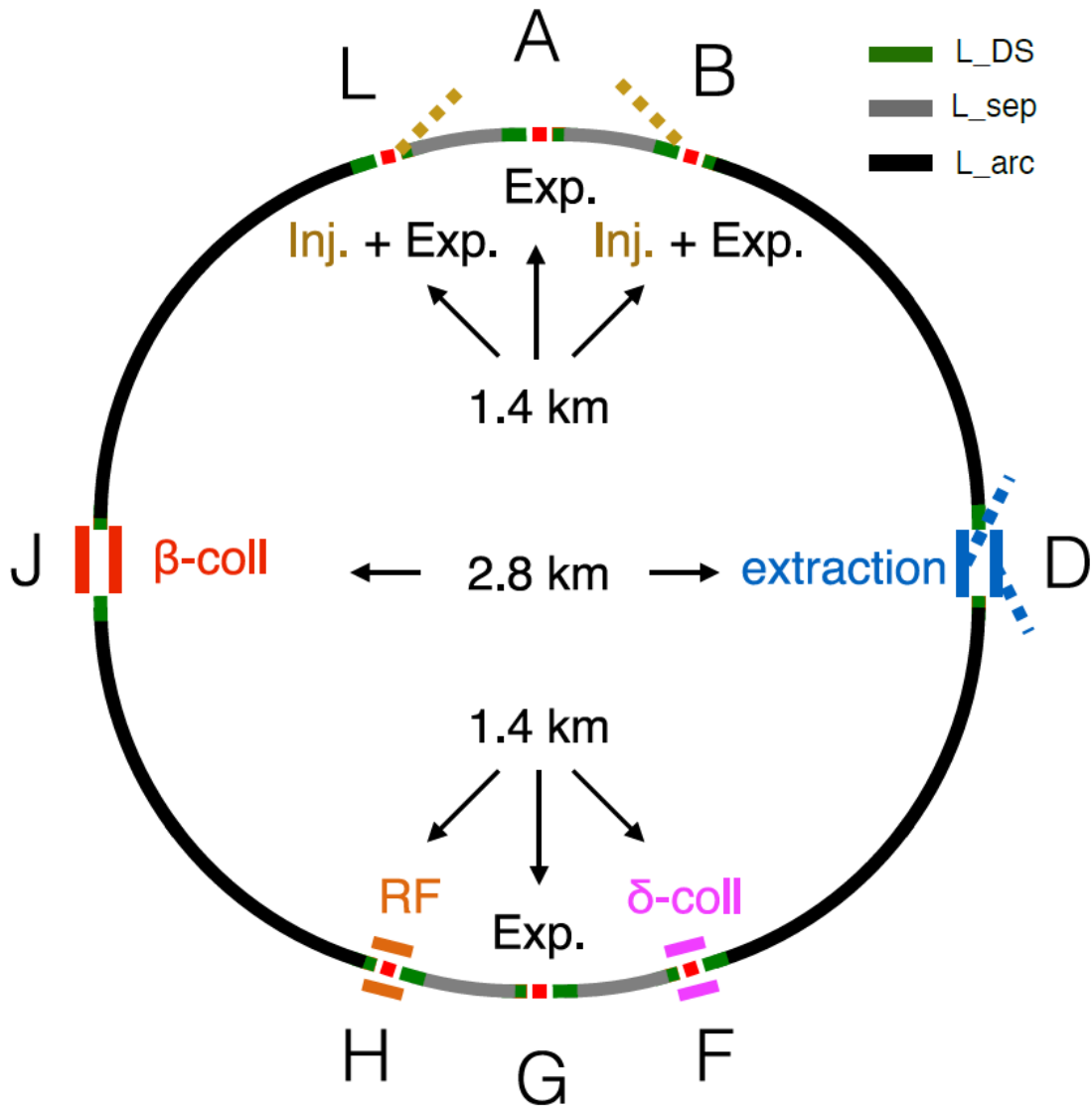


Schematic update – 97.75 km:



**Alignment**   Shafts   Query

Choose alignment option  
 V4variation\_v2017-2

Tunnel elevation at centre: 322mASL

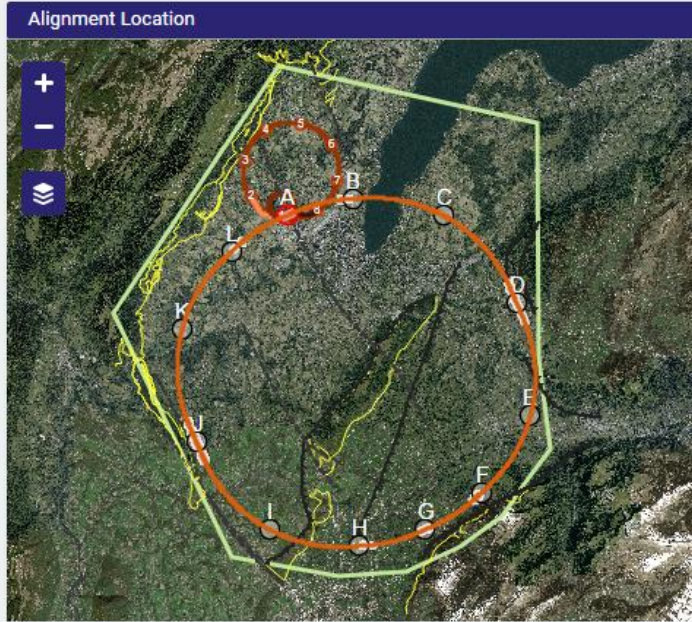
Grad. Params

Azimuth (°): -23.5  
 Slope Angle x-x(%): 0.3  
 Slope Angle y-y(%): 0.08

**LOAD**   **SAVE**   **CALCULATE**

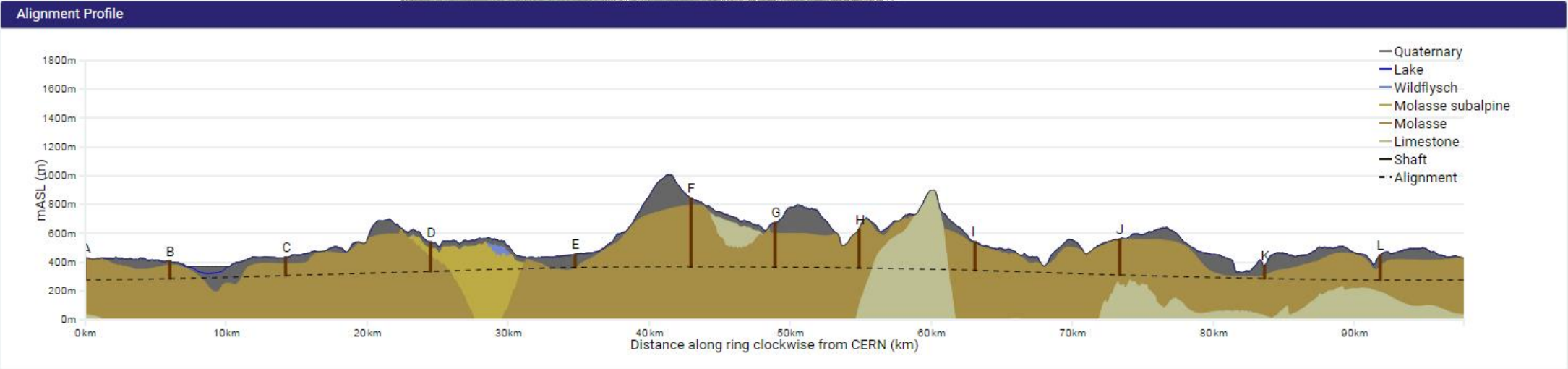
Alignment centre  
 X: 2499941   Y: 1107760

	CP 1		CP 2	
	Angle	Depth	Angle	Depth
LHC	37°	49m	-40°	83m
SPS		121m		126m
TI2		121m		126m
TIB		51m		118m



**Geology Intersected by Shafts**   Shaft Depths

Point	Actual	Shaft Depth (m)			Geology (m)		
		Molasse SA	Wildflysch	Quaternary	Molasse	Urgonian	Limestone
A	152	0	0	0	152	0	0
B	121	0	0	26	95	0	0
C	127	0	0	44	83	0	0
D	205	66	0	40	100	0	0
E	89	0	0	89	0	0	0
F	476	0	0	49	427	0	0
G	307	0	0	73	234	0	0
H	266	0	0	0	266	0	0
I	198	0	0	11	187	0	0
J	248	0	0	1	247	0	0
K	88	0	0	70	18	0	0
L	172	0	0	89	83	0	0
<b>Total</b>	<b>2449</b>	<b>66</b>	<b>0</b>	<b>492</b>	<b>1892</b>	<b>0</b>	<b>0</b>



- Avoids Jura and Pre-alps limestone
- Shafts L,A&B in “reasonable” locations
- Total shaft depths significantly reduced from previous versions
- Shaft at experimental point at G not too deep.



**Alignment Shafts Query**

Choose alignment option

Tunnel elevation at centre: 322mASL

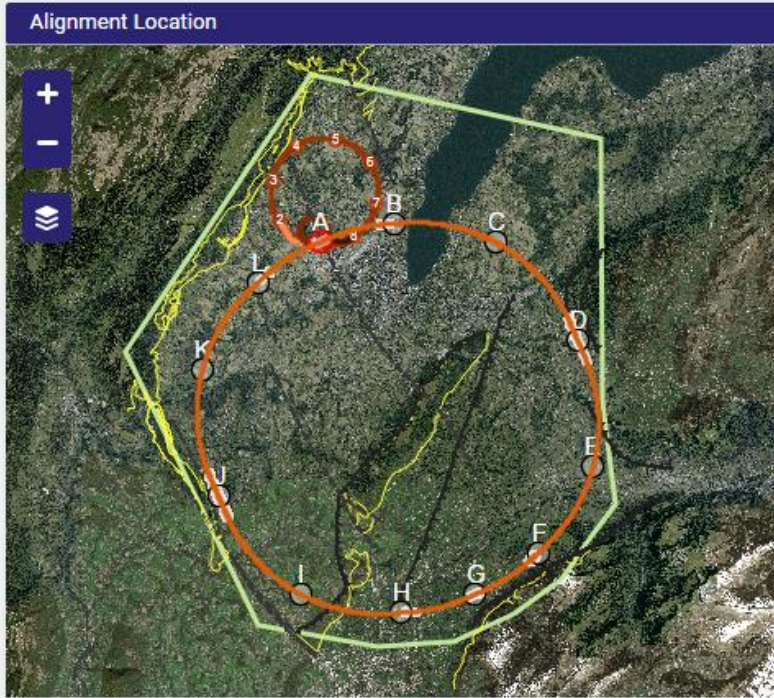
Grad. Params

Azimuth (\*): -23.5  
 Slope Angle x-x(%): 0.3  
 Slope Angle y-y(%): 0.08

**LOAD SAVE CALCULATE**

Alignment centre  
 X: 2499941 Y: 1107760

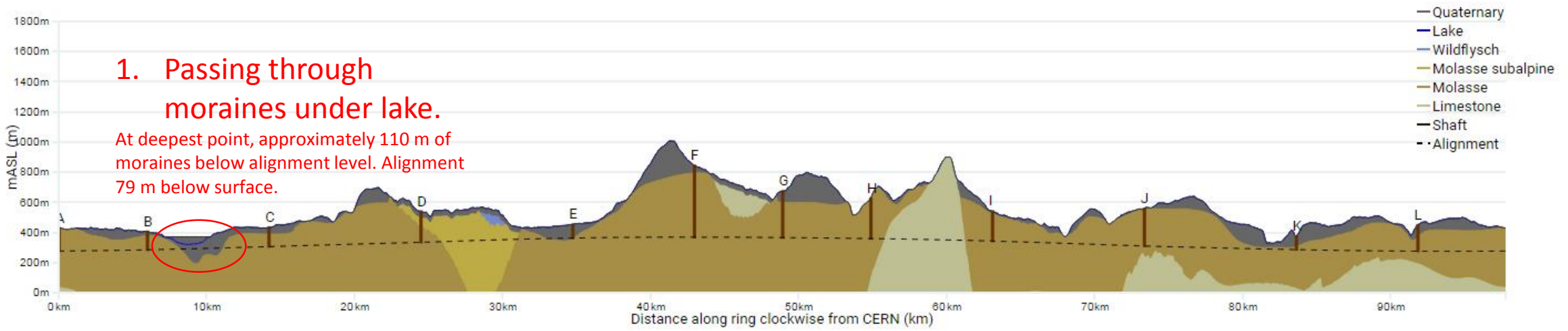
	CP 1		CP 2	
	Angle	Depth	Angle	Depth
LHC	37°	49m	-40°	83m
SPS		121m		126m
TI2		121m		126m
TI8		51m		118m



**Geology Intersected by Shafts Shaft Depths**

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		Molasse SA	Wildflysch	Quaternary	Molasse	Urgonian	Limestone
A	152	0	0	0	152	0	0
B	121	0	0	26	95	0	0
C	127	0	0	44	83	0	0
D	205	66	0	40	100	0	0
E	89	0	0	89	0	0	0
F	476	0	0	49	427	0	0
G	307	0	0	73	234	0	0
H	266	0	0	0	266	0	0
I	198	0	0	11	187	0	0
J	248	0	0	1	247	0	0
K	88	0	0	70	18	0	0
L	172	0	0	89	83	0	0
<b>Total</b>	<b>2449</b>	<b>66</b>	<b>0</b>	<b>492</b>	<b>1892</b>	<b>0</b>	<b>0</b>

**Alignment Profile**





**Alignment**   Shafts   Query

Choose alignment option

Tunnel elevation at centre: 322mASL

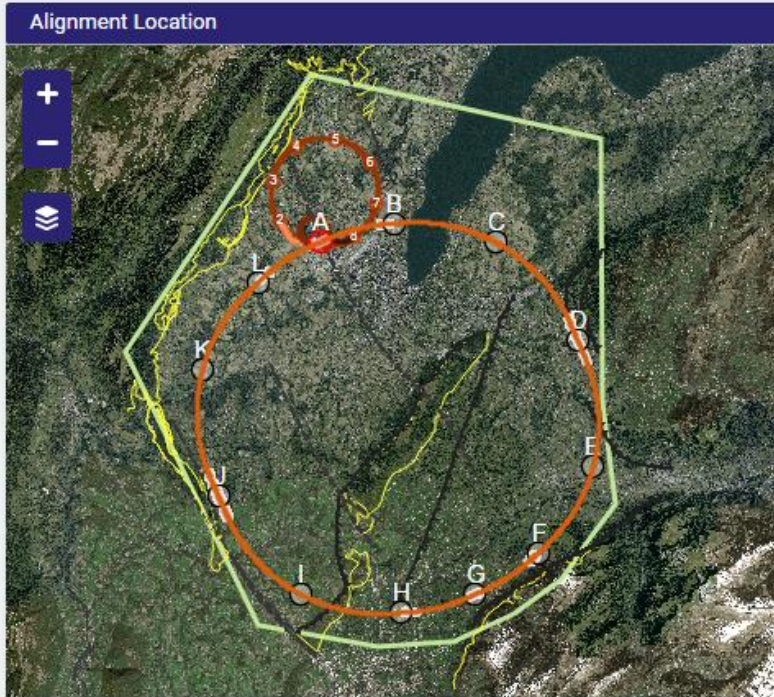
Grad. Params

Azimuth (\*): -23.5  
 Slope Angle x-x(%): 0.3  
 Slope Angle y-y(%): 0.08

**LOAD**   **SAVE**   **CALCULATE**

Alignment centre  
 X: 2499941   Y: 1107760

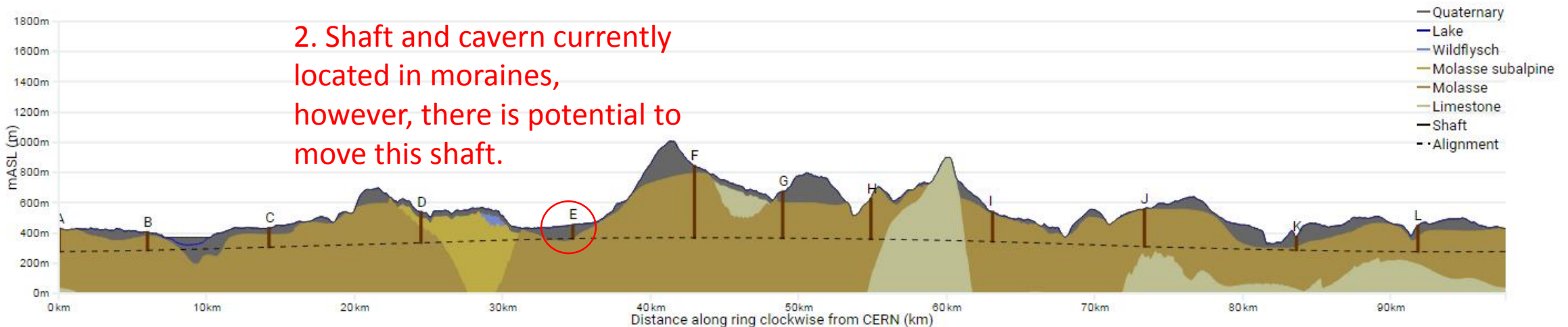
	CP 1		CP 2	
	Angle	Depth	Angle	Depth
LHC	37°	49m	-40°	83m
SPS		121m		126m
TI2		121m		126m
TI8		51m		118m



**Geology Intersected by Shafts**   **Shaft Depths**

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		Molasse SA	Wildflysch	Quaternary	Molasse	Urgonian	Limestone
A	152	0	0	0	152	0	0
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C	127	0	0	44	83	0	0
D	205	66	0	40	100	0	0
E	89	0	0	89	0	0	0
F	476	0	0	49	427	0	0
G	307	0	0	73	234	0	0
H	266	0	0	0	266	0	0
I	198	0	0	11	187	0	0
J	248	0	0	1	247	0	0
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<b>Total</b>	<b>2449</b>	<b>66</b>	<b>0</b>	<b>492</b>	<b>1892</b>	<b>0</b>	<b>0</b>

**Alignment Profile**





**Alignment Shafts Query**

Choose alignment option

Tunnel elevation at centre: 322mASL

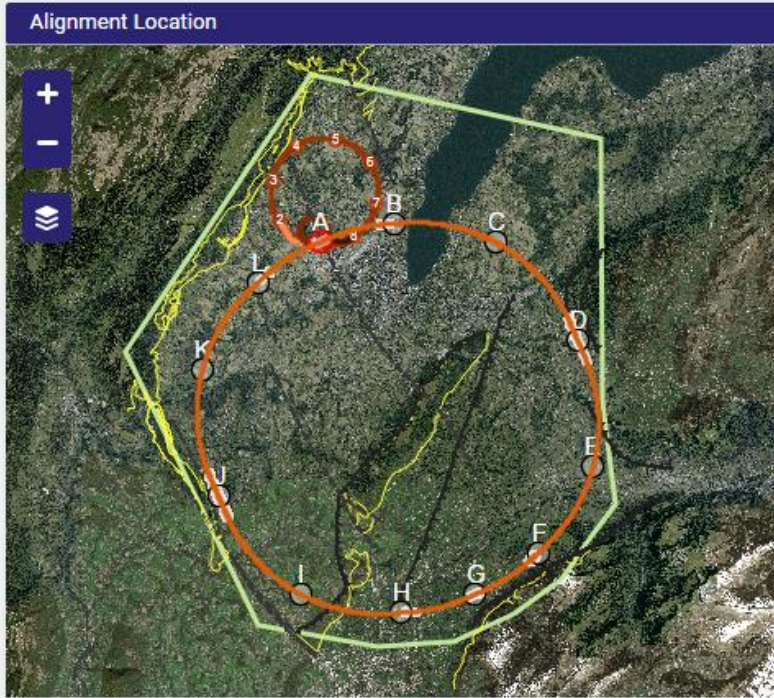
Grad. Params

Azimuth (\*): -23.5  
 Slope Angle x-x(%): 0.3  
 Slope Angle y-y(%): 0.08

**LOAD SAVE CALCULATE**

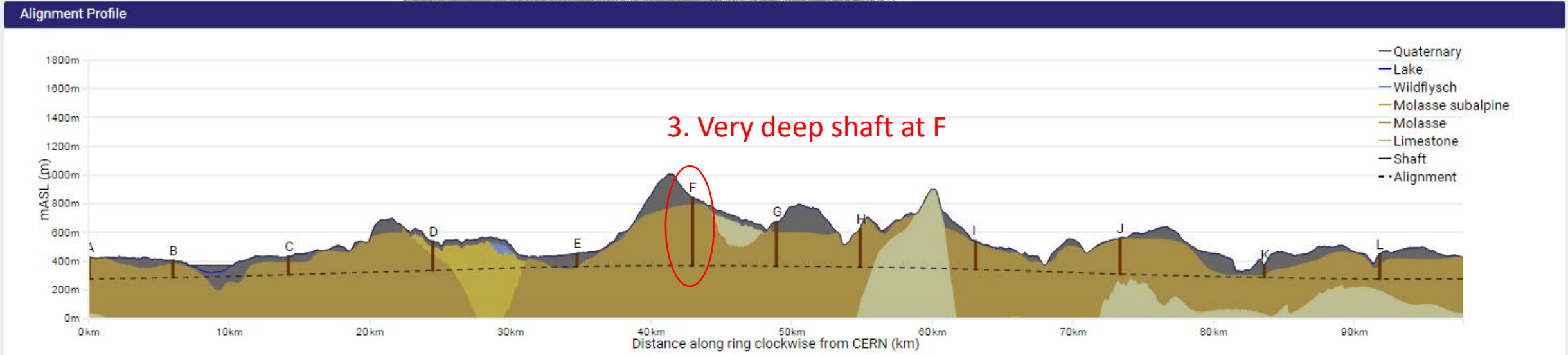
Alignment centre  
 X: 2499941 Y: 1107760

	CP 1		CP 2	
	Angle	Depth	Angle	Depth
LHC	37°	49m	-40°	83m
SPS		121m		126m
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D	205	66	0	40	100	0	0
E	89	0	0	89	0	0	0
F	476	0	0	49	427	0	0
G	307	0	0	73	234	0	0
H	266	0	0	0	266	0	0
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<b>Total</b>	<b>2449</b>	<b>66</b>	<b>0</b>	<b>492</b>	<b>1892</b>	<b>0</b>	<b>0</b>





**Alignment Shafts Query**

Choose alignment option

Tunnel elevation at centre: 322mASL

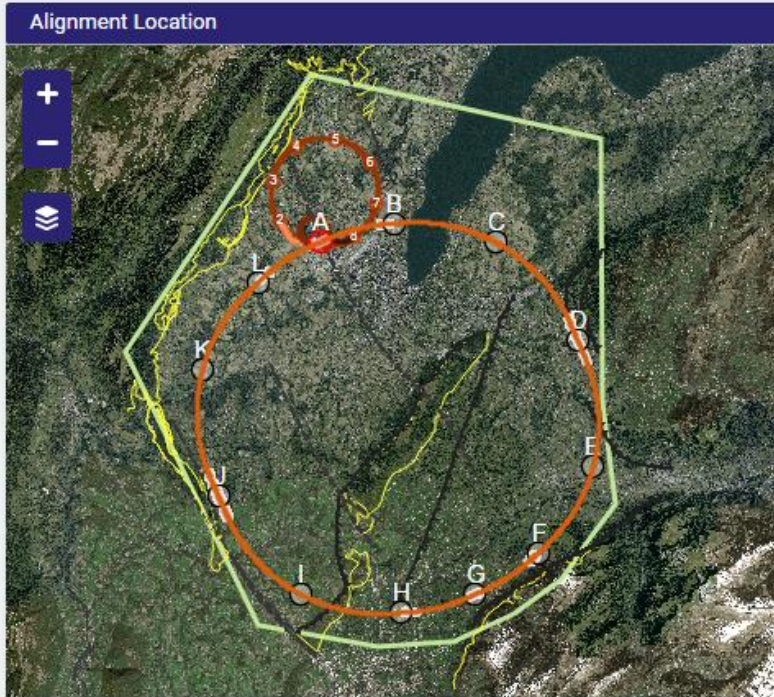
Grad. Params

Azimuth (\*): -23.5  
 Slope Angle x-x(%): 0.3  
 Slope Angle y-y(%): 0.08

**LOAD SAVE CALCULATE**

Alignment centre  
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D	205	66	0	40	100	0	0
E	89	0	0	89	0	0	0
F	476	0	0	49	427	0	0
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I	198	0	0	11	187	0	0
J	248	0	0	1	247	0	0
K	88	0	0	70	18	0	0
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<b>Total</b>	<b>2449</b>	<b>66</b>	<b>0</b>	<b>492</b>	<b>1892</b>	<b>0</b>	<b>0</b>

**Alignment Profile**

