October 15, 2010 Breakthrough eastern tunnel

2008 Tunnel length: 7.148m (1)
2009 Tunnel length: 7.116m (2)  
Tunnel length: 10,722m (3)
Tunnel length: 10,703m (4)
Tunnel length: 10,722m (3)
Tunnel length: 10,703m (4)
Tunnel length: 11,098m (5)
Tunnel length: 11,118m (6)
Tunnel length: 11,118m (6)
Tunnel length: 13,426m (7)
Tunnel length: 14,088m (8)
Tunnel length: 10,885m (8)
Tunnel length: 10,885m (8)

(1) Gabi I, Herrenknecht Gripper TBM S-421, Ø 9.58m
(2) Gabi II, Herrenknecht Gripper TBM S-422, Ø 9.58m
(3) Gabi I, Herrenknecht Gripper TBM S-229, Ø 9.58m
(4) Gabi II, Herrenknecht Gripper TBM S-230, Ø 9.58m
(5) Sissi, Herrenknecht Gripper TBM S-210, Ø 9.43m
(6) Heidi, Herrenknecht Gripper TBM S-211, Ø 9.43m
(7) Sissi, Herrenknecht Gripper TBM S-210, Ø 8.83m
(8) Heidi, Herrenknecht Gripper TBM S-211, Ø 8.83m

October 2003 and January 2004: Start of regular tunnelling.
July 19, 2009: 56m of new tunnel are created in just 24 hours. This is deemed to be a world record for a hard rock TBM of such dimensions.
June 16, 2009 and September 16, 2009: The machines reach their targets after just 18 months – 6 months ahead of schedule. Deviation from the ideal axis measures only 4mm in the horizontal and 8mm in the vertical.
Top tunnelling performances: 68m/day, 210m/week, 688m/month.

June 2005: A mixture of water and fine material entered the cutterhead in the western tube. The TBM must be freed and cannot restart tunnelling until November.
June and October 2006: The construction site teams successfully complete tunnelling at the end of the lots, 9 and/or 6 months ahead of the schedule.
Top tunnelling performances: 40m/day, 210m/week, 688m/month.

March 2010: A rock fall in the western tube and the subsequent stabilization measures interrupt tunnelling here until July.
October 15, 2010: Breakthrough in the eastern tube. World record.
Top tunnelling performances: 36m/day, 179m/week, 705m/month.

April and May 2008: Start of regular tunnelling.
July 19, 2009: 56m of new tunnel are created in just 24 hours. This is deemed to be a world record for a hard rock TBM of such dimensions.
June 16, 2009 and September 16, 2009: The machines reach their targets after just 18 months – 6 months ahead of schedule. Deviation from the ideal axis measures only 4mm in the horizontal and 8mm in the vertical.
Top tunnelling performances: 68m/day, 210m/week, 688m/month.

March 2010: A rock fall in the western tube and the subsequent stabilization measures interrupt tunnelling here until July.
October 15, 2010: Breakthrough in the eastern tube. World record.
Top tunnelling performances: 36m/day, 179m/week, 705m/month.

January and February 2003: Start of regular tunnelling.
2003: After just 200 meters the tunnellers unexpectedly encountered unstable kakirites. This slows down tunnelling for 6 months, since every meter of tunnel must be secured in a complex process.
September 6 and October 26, 2006: Successful breakthroughs at the Faido underground multifunctional station.
Top tunnelling performances: 38m/day, 190m/week, 619m/month.

2008 Tunnel length: 11,098m (5)
2009 Tunnel length: 11,118m (6)
2007 Tunnel length: 11,118m (6)
2006 Tunnel length: 13,426m (7)
2003 Tunnel length: 14,088m (8)