



Kumtor Gold Company

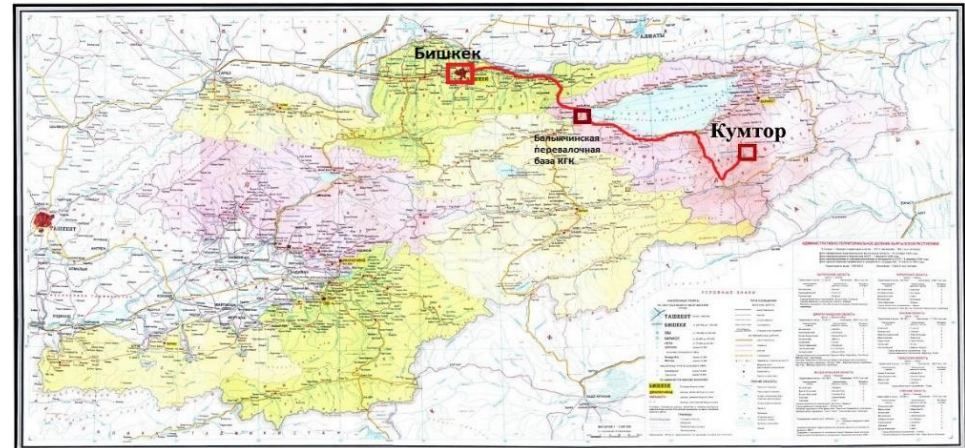
centerraGOLD



2018

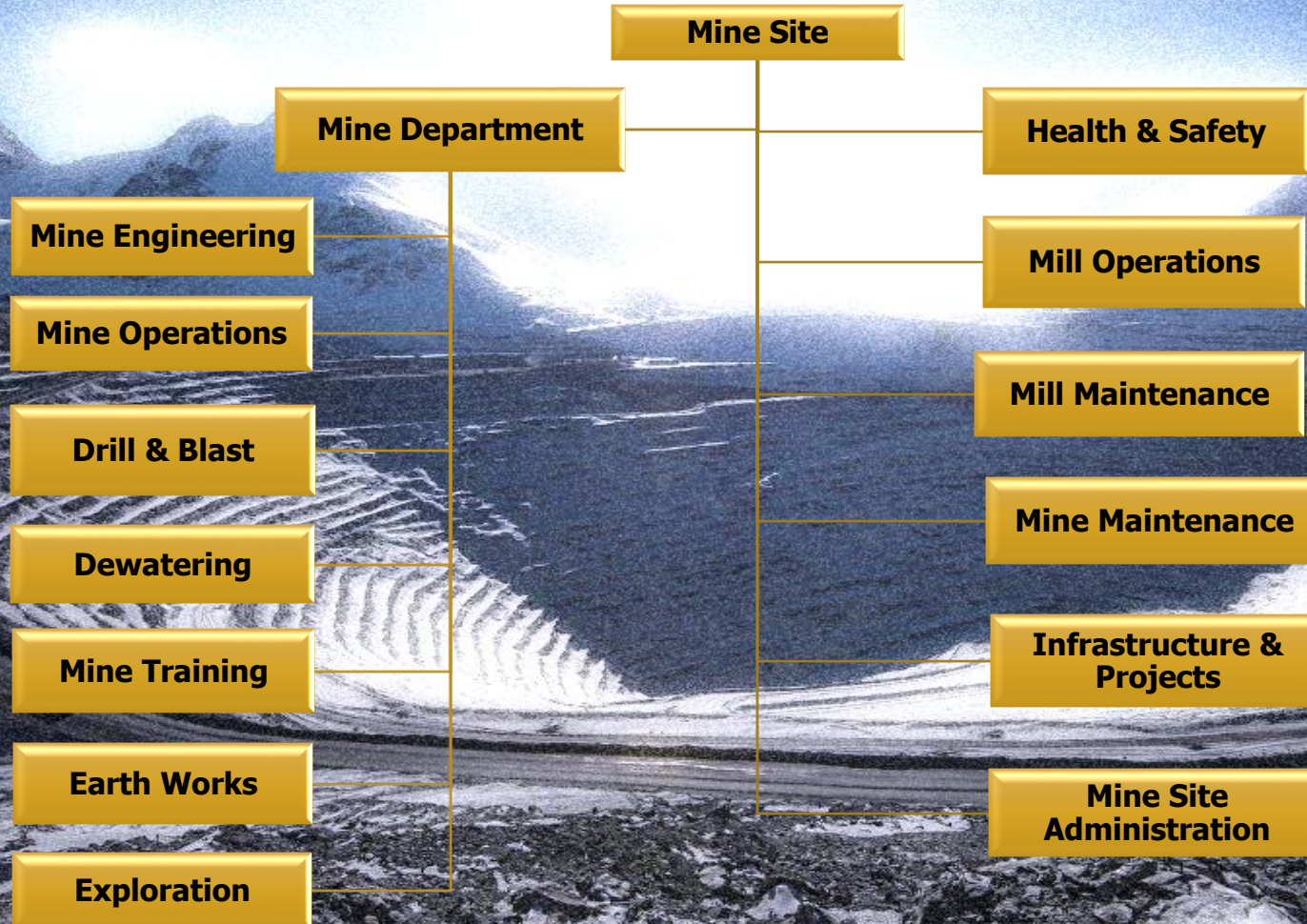


- Kumtor is one of the highest gold deposits in the world.
- The deposit was discovered in the Central Tien Shan at an altitude of 4,200 meters in 1978.
- The Kumtor mine, located in the Kyrgyz Republic, is the largest gold mine operated in Central Asia.
- Centerra Gold Inc. is a Canadian gold mining company engaged in operating, developing, exploring and acquiring gold deposits in North America, Asia and other regions of the world.



- Kumtor Gold Company provides jobs for more than 3,792 people. 98% of the company full-time employees are Kyrgyz citizens.

Mine Site Organization



- Safety of employees, production processes and environmental protection are the **main priorities** of the Kumtor Gold Company.
- At all stages of our operations we adhere to the slogan -

"No job is so important that we cannot take the time to do it safely"



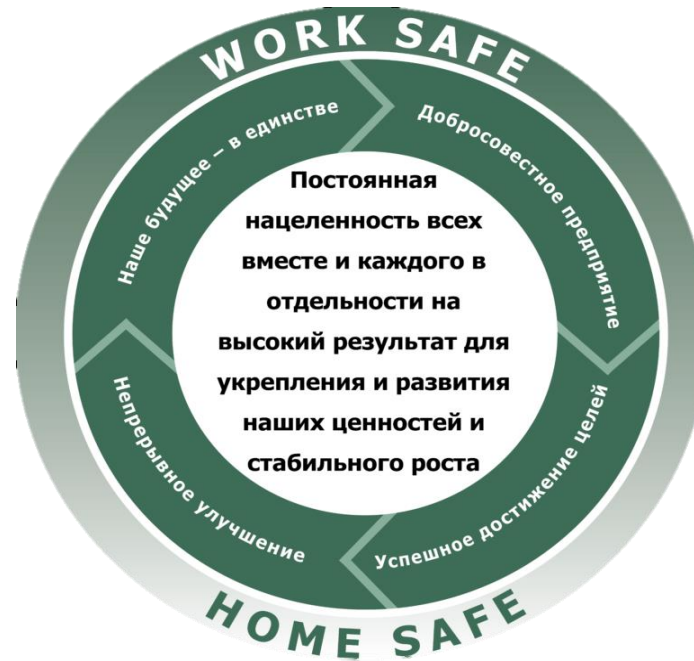
Health and Safety

- To achieve its main goal - zero injury rate - the Company develops a culture of zero tolerance of violations in the field of health and operational safety at all its production facilities. To complete this task, the Company successfully implemented the **"WORK SAFE - HOME SAFE"** Program.
- Work Safe/Home Safe** Program is a program aimed at improving the safety culture and achieving a zero injury rate.

Work Safe

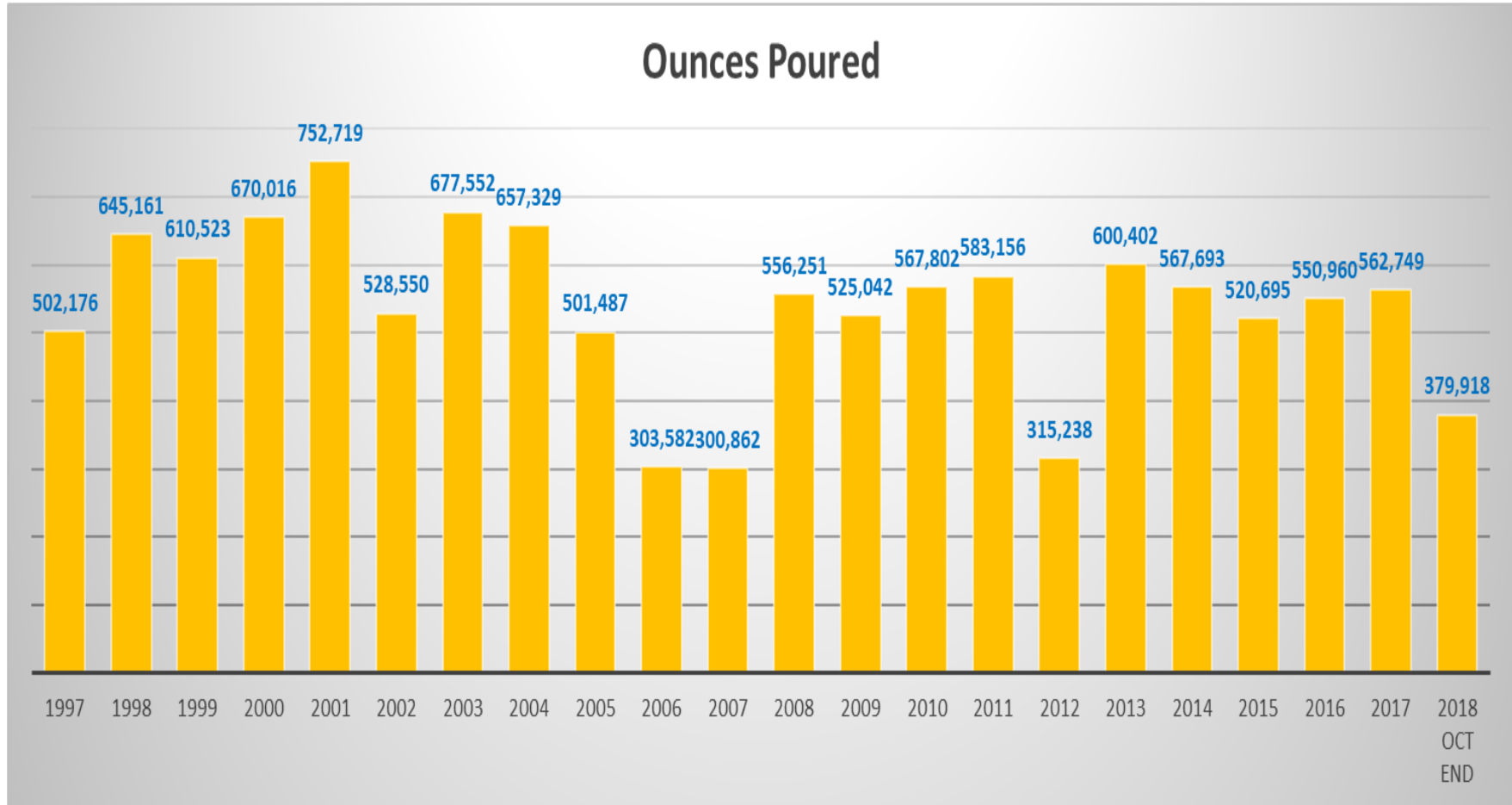
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Home Safe



We firmly believe that: only safe operation is really successful.

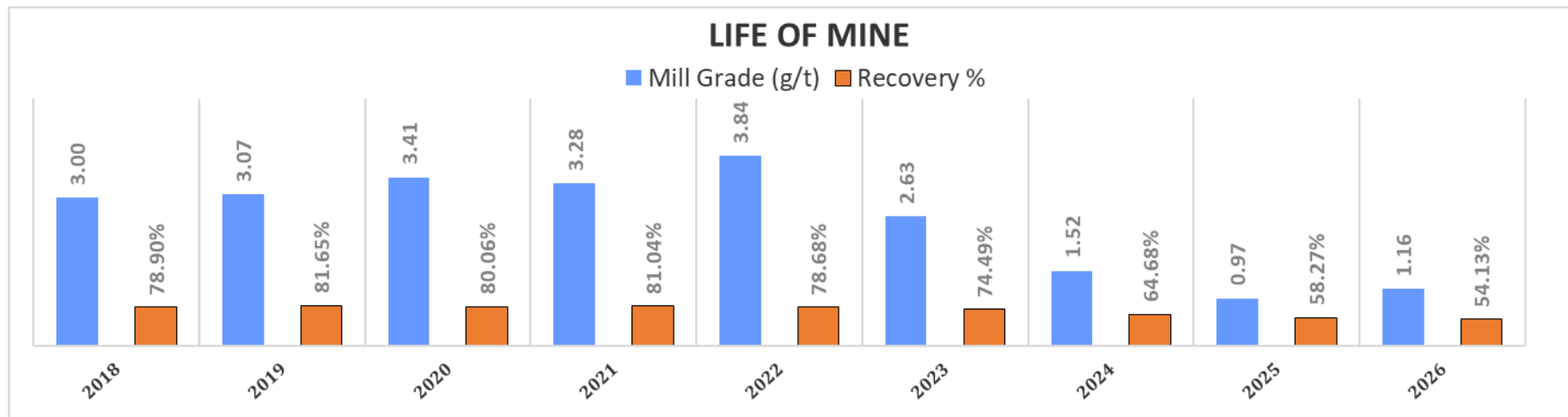
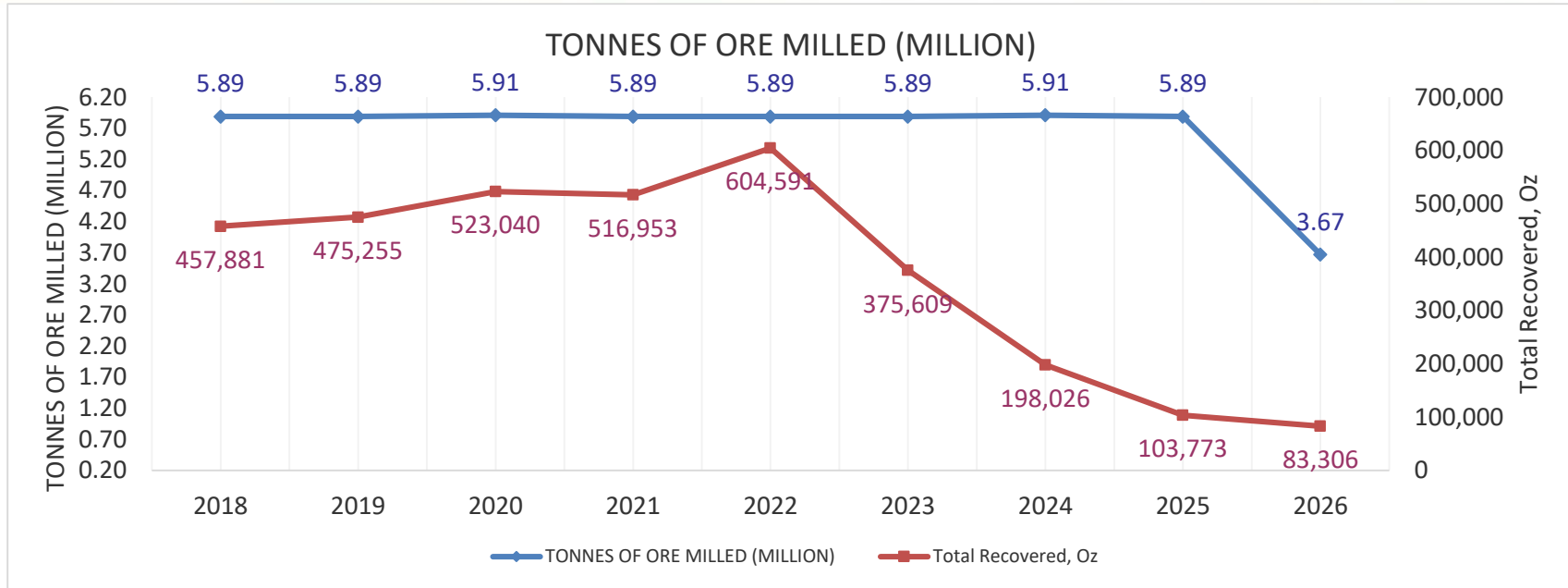




- From 1997 to October 2018, 11.8 million ounces or 369.5 tons of gold were poured.
- In 2017, 562,749 ounces of gold were poured.



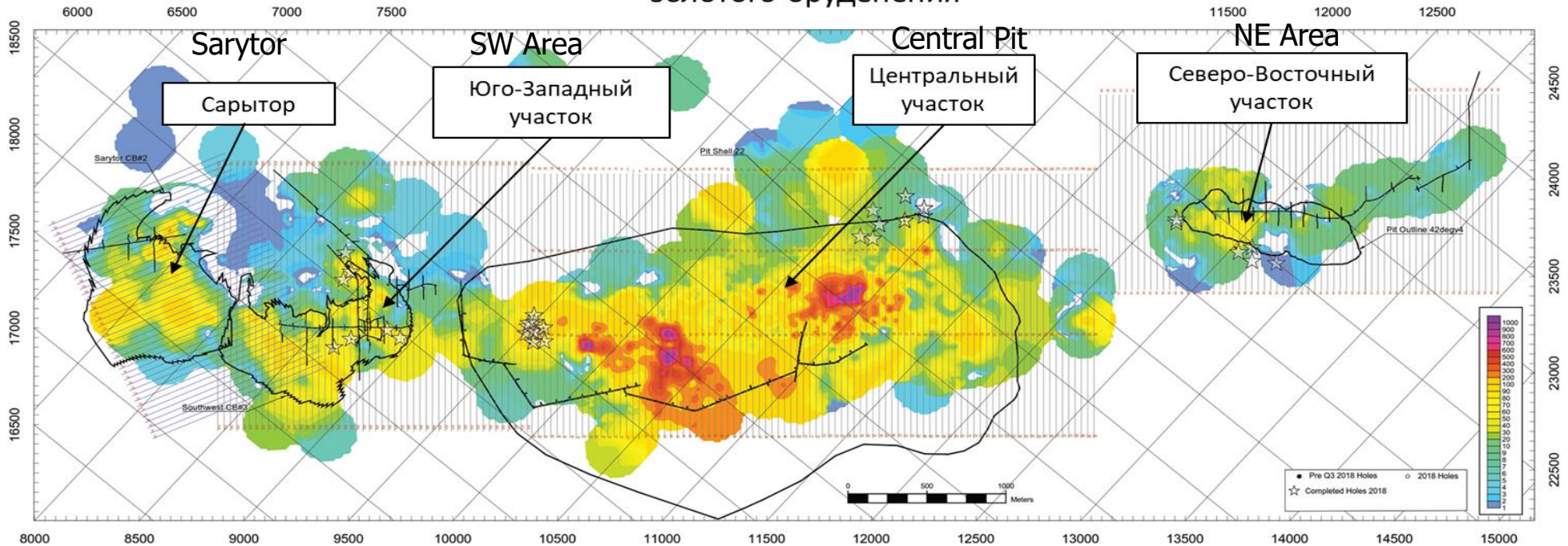
	2018	2019	2020	2021	2022	2023	2024	2025	2026	LOM
Total Tonnes Mined (millions)	173.00	164.35	157.01	168.02	132.65	85.55	-	-	-	880.58
Mining Rate (t/d) (millions)	0.47	0.45	0.43	0.46	0.36	0.23	-	-	-	0.4
Mill Tonnes (millions)	5.89	5.89	5.91	5.89	5.89	5.89	5.91	5.89	3.67	50.83
Mill Grade (g/t)	3.00	3.07	3.41	3.28	3.84	2.63	1.52	0.97	1.16	2.60
Contained Oz	567,324	581,653	647,662	621,555	727,677	497,921	289,288	183,783	136,990	4,253,853
Recovery %	78.90%	81.65%	80.06%	81.04%	78.68%	74.49%	64.68%	58.27%	54.13%	77.37%
Recovered Oz	447,609	465,715	519,108	513,021	600,659	371,677	194,094	99,841	79,374	3,291,098
Carbon Fines Recovered Oz	10,272	9,539	3,932	3,932	3,932	3,932	3,932	3,932	3,932	47,336
Total Recovered, Oz	457,881	475,255	523,040	516,953	604,591	375,609	198,026	103,773	83,306	3,338,434



Mineralization Map

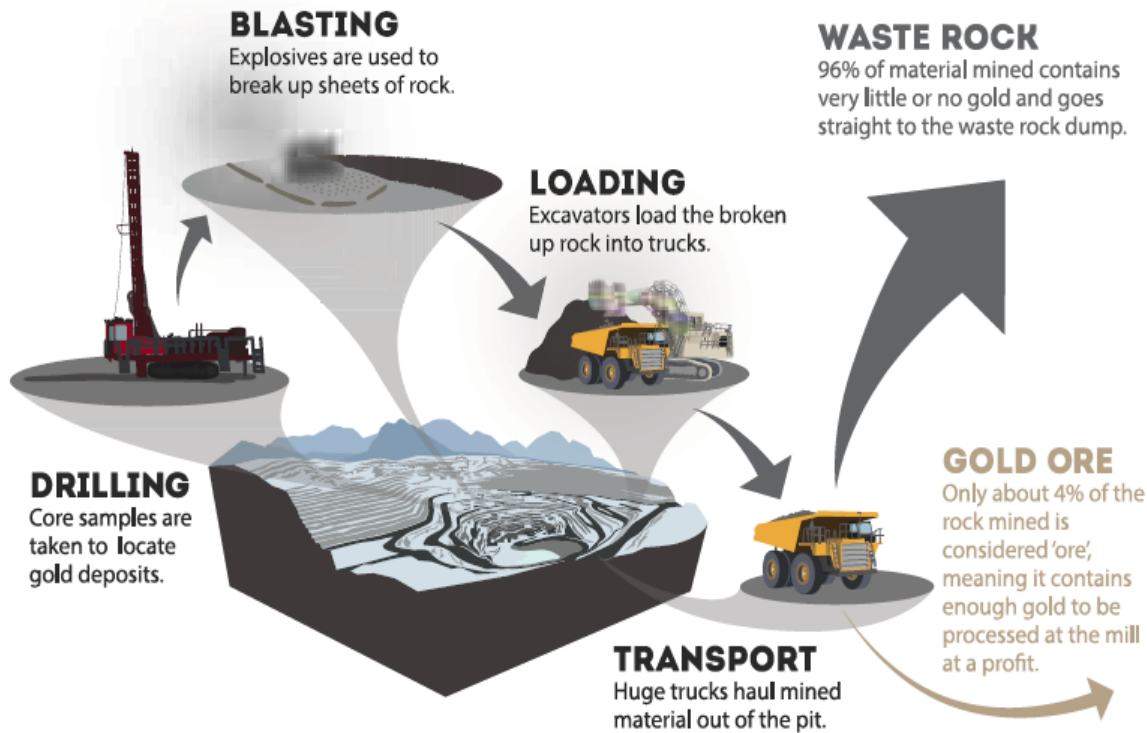
Месторождение Кумтор Карта интенсивности распространения золотого оруденения

Kumtor Deposit



- In 2018, geological exploration works were resumed at the Mine.
- Planned exploration work is aimed at estimating the possible resources on the flanks of the South-West, Central Pit, North-East and Sarytor Areas.
- The initial exploration program is scheduled for 2 years.
- It is planned to drill a total of 156 exploration holes with a total volume of 56 thousand meters.
- The potential increase in resources is 3.5 million ounces.
- 2018-2019 exploration costs will amount to \$17 million.

- Mine operations are being performed on 24/7 schedule.
- People work in 2 shifts for 12 hours (1-hour break).
- In 2017, the open pit mine rock production amounted to 182 million tons, of which 5.0 million tons of ore.
- The average daily production in 2018 was 484 thousand tons / day.

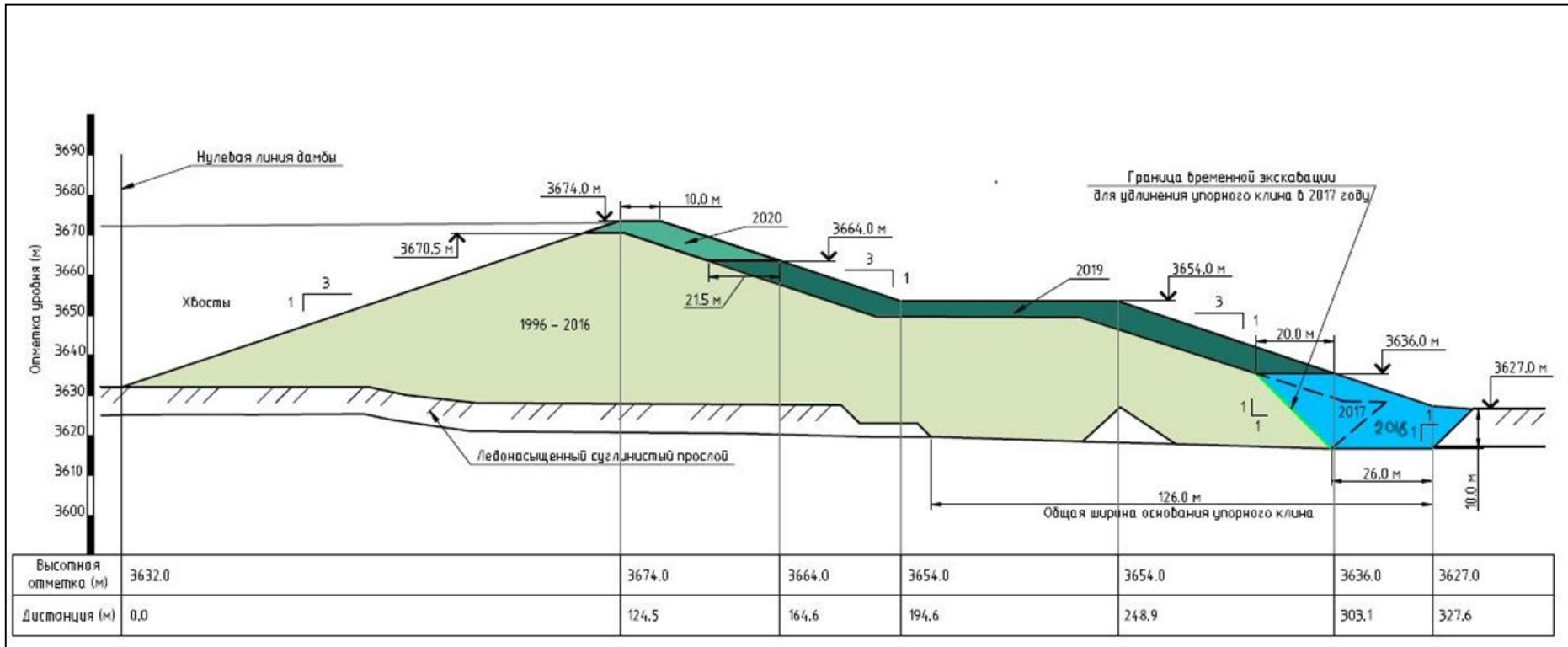




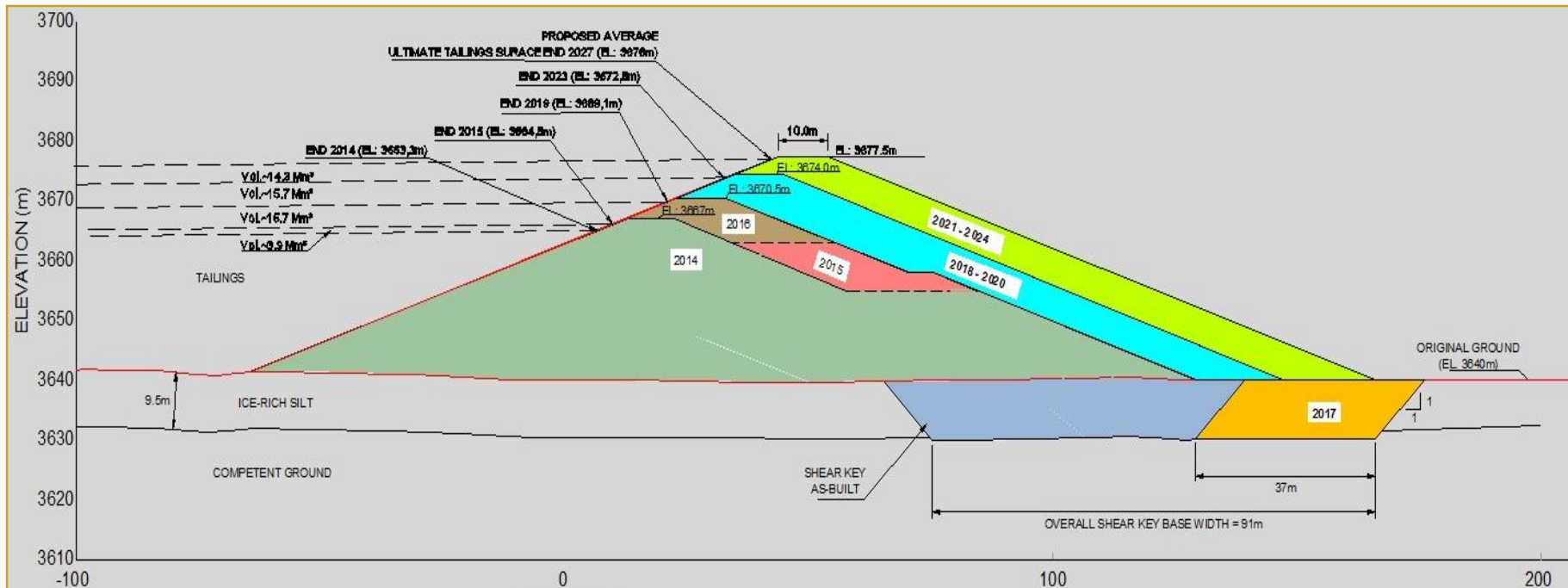
Mine Equipment:

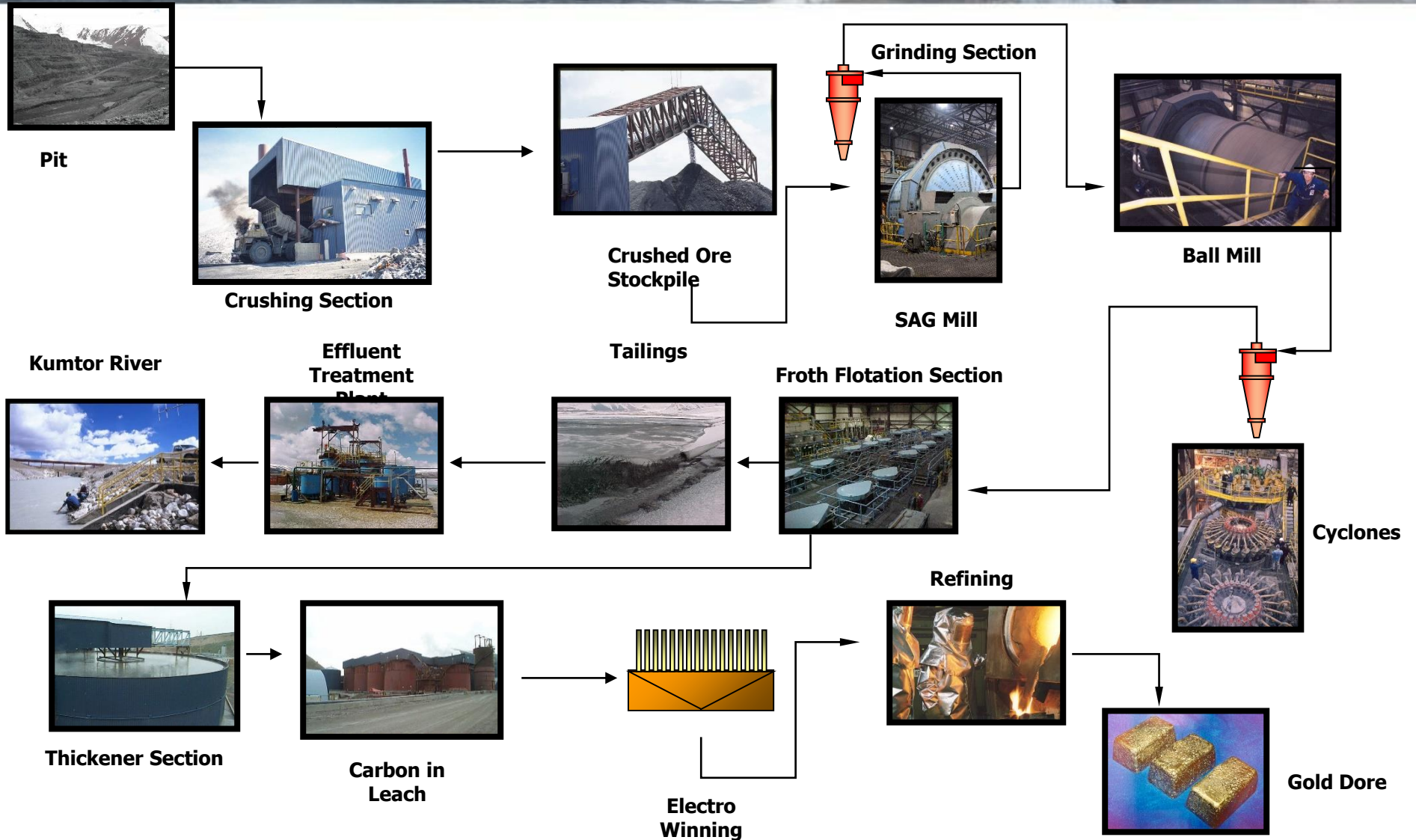
- Trucks
 - CAT 789 x 71 units
 - CAT 785 x 28 units
 - 785 converted fuel trucks x 2 units
 - 785 converted water trucks x 2 units
 - 777 converted water trucks x 2 units
- Shovels
 - Liebherr Shovel x 9 units
 - Hitachi Shovel x 5 units
- Dozers
 - CAT D10 x 15 units
 - CAT RTD x 6 units
- Graders
 - CAT 24M x 3 units
 - CAT 16 x 8 units
- Loaders
 - CAT 992 x 2 units
 - CAT 988 x 2 units
 - CAT 966 x 1 unit
- Excavators
 - CAT 374 x 2 units
 - CAT 329 x 1 units
- Drills
 - DR460 x 3 units
 - D55S x 5 units
 - Pre-Shear x 1 unit

- Tailings dam crest is located at the elevation of 3670.5m asl. at the moment and is able to contain 95.69Mm³ of the mill waste. Current tailings contents amount to 86.17Mm³.
- According to the current project, the Tailings Dam will be raised to the elevation of 3,674.0, which will ensure the capacity of the Tailing Storage Facility sufficient for the Mill waste until the end of 2024 of 109.45Mm³.
- Completion of the dam raising project is scheduled by the end of 2020.

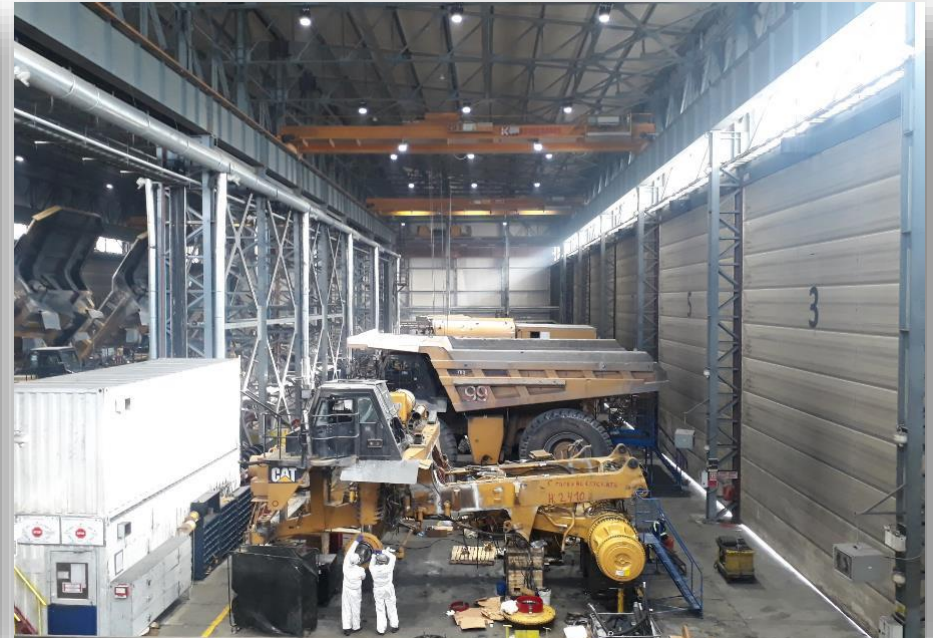


- After completion of research works, the next stage is a design of the dam extension up to the elevation of 3,677.5, which will ensure capacity of the Tailing Storage Facility sufficient for the Mill waste until the LOM end (2027). Total capacity will amount to 117.89 Mm³.
- The design will be prepared by:
 - ✓ Scientific and Design Laboratory of Geotechnical Structures Stability
 - ✓ BGC Engineering Inc. (Canada).





- Mega Shop is intended to service all HD fleet operated on mine site, i.e. Off-Highway trucks CAT 785/789, dozers, drills, graders, Liebherr & Hitachi shovels are brought to the work shop for the overhauls and PMs



- Pit Shop is the shop to repair all auxiliary units, such as the dozers, drills (for hydro drilling), graders, and Liebherr cranes.

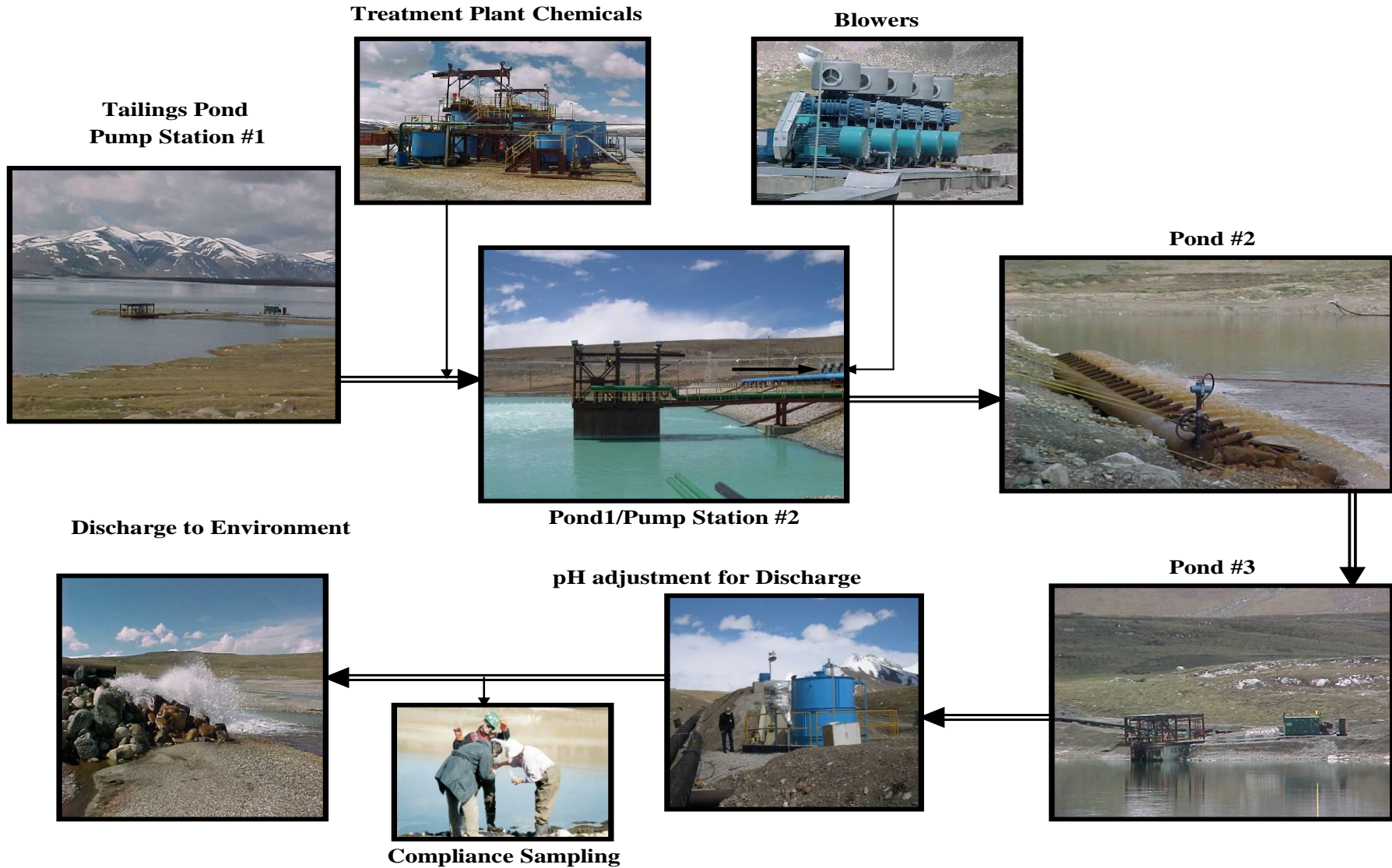


Environmental monitoring programs follow Kyrgyz and international standards, and include:

- Water quality and flow;
- Effluent quality and flow;
- Biodiversity;
- Air quality;
- Waste streams;
- Acid rock drainage;
- Meteorology.







- The untreated water from the tailings pond is pumped by the pumps located at the Pump Station #1 into Pond #1.
- Reagents are added to the water before being discharged into Pond #1. In Pond #1, effluents are aerated to ensure better water mix with reagents and improve the treatment process.
- In Pond #1, the main process of sodium cyanide decomposition takes place.
- Using the pumps located at the Pump Station #2, treated water, is pumped into Pond #2. During the pumping process, a reagent (ferrous sulfate) is added to water for better settling of insoluble solids.
- From Pond #2, the water flows through the crossflow into Pond #3, where the final treatment of water and settling of insoluble solids take place.
- Using the pumps of Pump Station #3, the treated water is pumped to be discharged into the Kumtor River.
- Every 6 hours, ETP operators make tests for the cyanide content in water before, during and after treatment.



Thanks for attention!

