Environmental Monitoring Report

PUBLIC
Project №: 50176-002
Semestral Report (July – December 2025)
January 2026

Kyrgyz Republic: Issyk-Kul Wastewater Management Project

Prepared by the Drinking Water Supply and Sewerage Development Department under the Ministry of Water Resources, Agriculture and Processing Industry of the Kyrgyz Republic (DWSSDD) in consortium with Temelsu International Engineering Inc., Design and Supervision Consultant for the Asian Development Bank (ADB).

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Abbreviations

ADB	:	Asian Development Bank
APS	:	Architecture and Planning Specifications
APU/ETU	:	Russian acronym for Architectural and Technical Approval
BOD_5	:	Biological Oxygen Demand (5 day)
BOQ	:	Bills of Quantity
BV	:	Balykchy Vodokanal
COD	:	Chemical Oxygen Demand
CabMin KR	:	Cabinet of Ministers of the Kyrgyz Republic
DWSSDD	:	Drinking Water Supply and Sewerage Development Department under the Ministry of Water Resources, Agriculture and Processing Industry of the Kyrgyz Republic
DSC	:	Design and Supervision Consultant
EA	:	Executing Agency
EHS	:	Environment, Health and Safety
EMP	:	Environmental Management Plan
ETS	:	Engineering and Technical Specifications
ICB	:	International Competitive Bidding
IEE	:	Initial Environmental Examination
IFC	:	International Finance Corporation
ISDP	:	Issyk-Kul Sustainable Development Project
ITA	:	Issyk-Kul Territorial Administration
IWMP	:	Issyk-Kul Wastewater Management Project
KVK	:	Karakol Vodokanal
LARP	:	Land Acquisition and Resettlement Plan
MNRETS	:	Ministry of Natural Resources, Ecology and Technical Supervision of Kyrgyz Republic
NTP	:	Notice to Commence
OOS	:	Russian acronym for Environment Protection
OVOS	:	Russian acronym for “Assessment of Environmental Impacts”
PIU	:	Project Implementation Unit
PMO	:	Project Management Office
PRGKRIKO	:	Permanent Representative of the President of the Kyrgyz Republic in Issyk-Kul Region
MCAHCS	:	Ministry of Construction, Architecture, Housing and Communal Services of the Kyrgyz Republic

SAEMR	:	Semi - Annual Environmental Monitoring Report
SSEMP	:	Site-Specific Environmental Management Plan
SNiP	:	Russian acronym for Construction Codes and Regulations
SPZ	:	Sanitary Protection Zone
WSS	:	Water supply and sanitation
WWTP	:	Wastewater Treatment Plant

Units and Currencies

°C	degree Celsius
ha	hectare
km	kilometres
m^3	cubic meters
m^3/d	cubic meter per day
mg/l	milligram per litre
Mg/Ol	milligram Oxygen per liter
MLD	million liter per day
US $	United States Dollar

Executive Summary

1. **Project Background**. The objective of the Issyk-Kul Wastewater Management Project (IWMP) is to improve wastewater services in two lakeshore cities on Issyk-Kul Lake, in the eastern region of the Kyrgyz Republic. It will upgrade and expand the existing wastewater systems, build institutional capacity, and strengthen the sustainability of the water supply and sanitation (WSS) utilities in Balykchy and Karakol. As per the ADB Safeguard Policy Statement (SPS) 2009, this project was classified as environmental category "B". Based on the construction activities, this project was divided into various subprojects namely

- Construction of a Sewerage Network in Balykchy "Western" - (Contract No. W1 Lot 1)
- Construction of a Sewerage Network in Balykchy "Eastern" - (Contract No. W1 Lot 2)
- Construction for Expansion of Sewer Network in Karakol "Southern" - (Contract No. W2 Lot 1)
- Construction for Expansion of Sewer Network in Karakol "Northern" - (Contract No. W2 Lot 2)
- Pump Station and Rising Main 1.7km in Karakol (Contract No. W2)
- Construction of Karakol Wastewater Treatment Plant (WWTP) (Contract No. W3)
- Construction of Balykchy Wastewater Treatment Plant (WWTP) (Contract No. W4)

2. Additional subprojects for network expansion in Balykchy (11.034 km) and Karakol (12.24 km) have been included in the IWMP. These are supported by the ADB grant and comprise the following:

- Construction of Additional Sewerage Network in Balykchy (Contract No. W1.3 Lot 1)
- Construction of Additional Sewerage Network in Balykchy (Contract No. W1.4 Lot 2)
- Construction for Additional Expansion of Sewer Network in Karakol (Contract No. W2.3 Lot 1)
- Construction for Additional Expansion of Sewer Network in Karakol (Contract No. W2.4 Lot 2)

3. The Executive Agency (EA) is Drinking Water Supply and Sewerage Development Department (DWSSDD) under the Ministry of Water Resources, Agriculture and Processing Industry of the Kyrgyz Republic and the project Implementing Agency (IA) is "Office of the Plenipotentiary Representative of the President of the Kyrgyz Republic in the Issyk-Kul region, Mayor's Office and Vodokanal of Balykchy and Karakol cities". Temelsu International Engineering Inc. has been contracted by DWSSDD as a Design and Supervision Consultant (DSC) for the implementation of this project.

4. **Design approval status**.

(i) **Sewerage Network**: The detailed design for all four sewerage network packages was finalized and approved prior to the commencement of construction, which has since been completed.

Contract No. W1	Construction of Extension of Balykchy Sewerage Network, Lot 1 "Western"
	Construction for Expansion of Sewer Network in Balykchy, Lot 2 "Eastern"
	Construction for Expansion of Sewer Network in Karakol, Lot 1 "Southern"

Contract No. W2	Construction for Expansion of Sewer Network in Karakol, Lot 2 " Northern"

(ii) **Additional Expansion of Sewer Network**: The detailed design for all four sewerage network packages was finalized and approved prior to the commencement of construction

Contract No. W1.3 Lot 1	Construction of Additional Sewerage Network in Balykchy
Contract No. W1.4 Lot 2	
Contract No. W2.3 Lot 1	Construction for Additional Expansion of Sewer Network in Karakol
Contract No. W2.4 Lot 2	

(iii) **Pump station and Wastewater Treatment Plants (WWTPs**):

- Contract No. W3.1 (Pump Station and Rising Main 1.7 km in Karakol): The design for the proposed pump station in Karakol has been finalized by the end of June 2025, In the second half of August 2025, the Contractor has started preparing the reservoir for correct elevations and installing the inlet and outlet holes and nozzles on the reservoir.
- Contract No. W3.0 (Construction of Karakol Wastewater Treatment Plant (WWTP)): No major design changes were observed between July and December 2025.
- Contract No. W4.0 (Construction of Balykchy Wastewater Treatment Plant (WWTP)): The detailed design for the Balykchy WWTP was finalized and approved prior to the commencement of construction works. The construction of this package has been completed.

~~5.~~ **EMP in Contract agreement**. The ADB cleared EMP has been incorporated into the contract agreements for all packages, including the additional Expansion of Sewer Network subproject packages.

6. **Contract(s) Awarded in IWMP**

Name of Package	Description	Name of Contractor	Physical progress/ Status
Construction of a Sewerage Network in Balykchy- (Contract No. W1 Lot 1)	This contract works include construction of 5.34 km sewerage network in Western part of Balykchy and includes the following streets: • Togolok Moldo street • Mambetaliev street • Ozyornaya Street	LLC Impuls -Osh	100% Completed by July 21,2023
Construction of a Sewerage Network in Balykchy- (Contract No. W1 Lot 2):	Contents of this contract consists of construction of 5.32 km sewerage network in Eastern part of Balykchy in the following streets: • Toktosunov street • Sharipov street	Profit Express Ltd.	100% Completed by August 01, 2023

Name of Package	Description	Name of Contractor	Physical progress/ Status
	• Kaldybaev street.		
Contract No. W1.3 Lot 1 Contract No. W1.4 Lot 2	This contract includes the construction of an additional 11.034 km sewer network and three sewer pumping stations located at Sportivnaya Street, Pervomayskaya Street, and Kalinina. • Bekturova Street. (Sportivnaya Street.) • Zapadnaya Street • Sultanova Street. (Pervomayskaya Street.) • Kadyr-Ake Street (Kalinina) • Abdrakhmanova Street	-	Under bid evaluation stage
Construction for Expansion of Sewer Network in Karakol - (Contract No. W2 Lot 1)	Total length of 6.71 km of sewerage network will be constructed under this contract in the Southern part of Karakol in the following sites: • Akhunbaeva Street from Lenin Street to Moskovskaya Street • Duisheeva street from Dzhusayev street to Moskovskaya street • Moskovskayaa Street from Akhunbaev Street to Oktyabrskaya Street	LLC ME "MINUR"	100% Completed by September 30, 2023
Construction for Expansion of Sewer Network in Karakol – (Contract No. W2 Lot 2)	This contract contains construction of 5.94 km sewerage network at the North side of Karakol at the following sites • Oktyabrskaya Street from Gebze Street to Kuchukov Street • Dzhusayev Street from Przhevalsky Street to Shorukov Street	Consortium of Inzhenernaya Zashchita Ltd. and Polymer Snab Asia Ltd.	100% Completed by October 5, 2023
Contract No. W2.3 Lot 1 Contract No. W2.4 Lot 2	A total of 12.24 km of sewerage network will be constructed under this contract in Karakol City. The selected street is • Zhusaeva Street. from Bektenov Street. to Przhevalsky Street	Inzhenernaya zashchita" LLC	17.8%

Name of Package	Description	Name of Contractor	Physical progress/ Status
	• Asanaliev Street. from Karasaev Street. to Korolkov Street • From Irada orphanage (Brick Factory) to Checherin Street. along Zhamansarieva Street. • Tyupskaya Street. from Udilov Street. to Portovaya Street., from Tyupskaya along Portovaya to Valikhanov Street • Zhamansarieva St. from Bektenov Street. to Przhevalsky Street • Kharkovskaya Street. from Karasaev Street. to Toktogul Street • Alybakova Street. from Gagarin Street. to Kyshtobayev Street • Alybakova Street. from Akhunbaev Street. to Rakhmanov Street • Orozbekov Street. from Krutikov Street. to Akhunbaev Street., from Akhunbaev to Derbishev Street • Aldashev Street. from Naberezhnaya Street. to Chkalov Street., section from Chkalov Street. to Bektenov Street., and from Bektenov to Torgoev Street. along Bektenov Street • Lenin Street. from Akhunbaev Street. to Dyusheev Street., from Lenin to Zhusaeva via Dyusheev Street • From Karasaev Street. along Shopokov Street. to Kurochkin Street., from Kurochkin to Toktogul School, across the school grounds to the existing sewer manhole • From Mukhtar Street. along Ippodromnaya		

Name of Package	Description	Name of Contractor	Physical progress/ Status
	Street. to Yntymak Street., from Yntymak to the boiler house, from the boiler house between houses No. 11 and No. 8 to the tuberculosis hospital, from the tuberculosis hospital to Zhantoshev Street. via Michurin Street • Geological section: gravity line pressure line		
Pump Station[1] and Rising Main 1.7km in Karakol (Contract No. W3.1)	This item consists of SPS-4 Pump Station in Pristan, sewerage collector from SPS 4 –SPS 2, 200 m Pressure Line crossing Karakol River and reconstruction of 28 manholes	LLC "Tunuk-Kurulush"	65.0%
Construction of Karakol Wastewater Treatment Plant (WWTP) (Contract No. W3.0)	Wastewater Treatment plant with the capacity of 12,000 m^3/day will be constructed on "Design & Build" contract.	Joint Venture HAYAT GROUP LLC and BIOWORKS Verfahrenstechnik GmbH	77.9%
Construction of Balykchy Wastewater Treatment Plant (WWTP) (Contract No. W4.0)	Wastewater Treatment plant with the capacity of average 4,200 m^3/day will be constructed on "Design & Build" bases.	CCCC Tianjin Dredging Co., Ltd, China Road and Bridge Corporation and China Northeast Municipal Engineering Design and Research Institute Co.	100% Completed by June 30, 2024 (technical completion). Operation under the responsibility of the Contractor is going on.

7. Unanticipated Impacts including Change of Scope or Design

Sl.no	Item	Description	Status	Remarks
	Sewerage Network			
1	Sewerage Network Sub-packages	Balykchy: W1 Lot 1, W1 Lot 2, Karakol: W2 Lot 1, W2 Lot 2	Completed	No changes in scope or design
2	Additional Sewer Network Subprojects	Balykchy: W1.3 Lot 1, W1.4 Lot 2,	Work in progress on Karakol subprojects.	Balykchy subproject not awarded, under bid evaluation.

[1] Detail design is completed and submitted to State Expertise for approval in April and approval was received on 05.06.2023

Sl.no	Item	Description	Status	Remarks
		Karakol: W2.3 Lot 1, W2.4 Lot 2		Design finalized (no changes in scope or design).
3	Karakol Pump Station & Rising Main	Pump Station + 1.7 km Rising Main	Work in progress	No changes in scope or design
	WWTP Packages (Design-Build contracts)			
4	Balykchy WWTP	Mechanical sludge dewatering facility installed (instead of drying beds)	Completed	Under the DLP (until January 2026). No design changes: WWTP plant operated as per approved design
5	Karakol WWTP	Concept design approved; 1st, 2nd, and 3rd stage designs submitted and approved	Work in progress	No design changes: construction carried out based on approved design

8. **Environmental Safeguards Implementation Status.** All four sewer network subproject packages Contract No. W1 (Lot 1 and Lot 2 in Balykchy) and Contract No. W2 (Lot 1 and Lot 2 in Karakol) have been completed. Project Completion Certificates (PCCs) were issued on 10 August 2023 for the Balykchy packages and on 28 November 2023 for the Karakol packages. The Post-Construction Environmental Audit Report (PCEAR) for the sewerage networks in Balykchy and Karakol was finalized and disclosed in April 2024 on the ADB website, as an annexure to the SAEMR (July–December 2023). During the construction period, the EHS requirements outlined in the approved SSEMP were implemented by all contractors to the satisfaction of the Engineer (DSC).

9. For the additional sewer network subproject packages (Karakol: W2.3 Lot 1 and W2.4 Lot 2), the SSEMP for the Karakol subprojects was approved by the PMO. Accordingly, the contractor completed the pre-construction requirements, including obtaining the necessary clearances, permissions, and NoCs from the competent authorities. At the site, all labourers were provided with PPE and other basic facilities as required and specified in the SEMP. The PMO Environmental Specialist, K. Sh. Zhundubaev, conducted introductory training for the H&S Engineer and Site Manager of Inzhenernaya Zashchita Ltd.

10. For the Pump Station and 1.7 km Rising Main in Karakol (Contract No. W3.1), the contractor adopted the SSEMP, which was approved by the PMO on 24 April 2025. Labourers were provided with basic amenities and PPE. Barricading around the site was completed, along with the installation of safety information boards (Do’s and Don’ts).

11. Construction of the Karakol WWTP (Contract No. W3), the construction-stage EMP has been adopted at the Karakol WWTP site to the satisfaction of the DSC. The required environmental monitoring has been conducted, and pollution levels have been observed to remain within the stipulated limits (refer to Chapter 4). On 24 September 2025, however, a minor injury occurred during bypass pipeline installation due to trench wall movement following heavy rainfall. The injured survey assistant received immediate medical attention and is in stable condition. In response, the contractor secured the excavation area, conducted a safety

inspection, and briefed site personnel on enhanced safety protocols to prevent recurrence. Monthly odour monitoring has also been carried out by the PIU-appointed CLO using a portable multi-gas detector (BOSEA version: BSA20180501001), which confirmed that H_2S levels are within permissible limits.

12. The construction of the Balykchy WWTP (Package W4) was completed, and the DSC issued the PCC on 13 July 2024. The WWTP is now under the DLP with the contractor until January 2026. During this period, the contractor was instructed to adopt the post-construction EMP (reviewed and approved by the ADB). Accordingly, the contractor has complied with the recommended management and mitigation measures. Environmental monitoring has also been conducted, as discussed in Chapter 4. The EMP implementation has been monitored by the PIU Balykchy and the PMO.

13. **Site Inspections and Audits.** The construction sites were audited by DSC's International and National Environmental Specialists to verify compliance with the measures specified in the SEMP. The DSC Environmental Specialist visited the project sites in Karakol on 24 July 2025, 15 August 2025, 25 September 2025, 17 October 2025, 24 November 2025, and 18 December 2025 (together with the International Specialist) to monitor the contractors' EMP implementation status. With the exception of environmental monitoring for (i) the construction of the Pump Station and 1.7 km Rising Main, and (ii) the construction of the additional sewer network in Karakol, most of the EMP mitigation measures including health and safety management measures were complied with by the contractors.

14. **Grievances status**. During the reporting period July–December 2025, a total of 4 requests were received regarding the Karakol facilities. All requests came from residents of the Geolog settlement and concerned the provision of project information. The information was provided in a timely manner, and all requests have been closed.

15. **Environmental Monitoring**. Construction activities for the sewerage networks in Balykchy and Karakol, under Contract No. W1 (Lot 1 and Lot 2, Balykchy) and Contract No. W2 (Lot 1 and Lot 2, Karakol), have been completed, and the respective Project Completion Certificates have been formally issued. Accordingly, no further environmental monitoring is envisaged for these subcomponents.

16. In relation to the additional sewer network subprojects in Balykchy and Karakol, it has been observed that the contractor Inzhenernaya Zashchita LLC, engaged under Contract No. W2.3 Lot 1 and W2.4 Lot 2 for sewer network implementation in Karakol, has not undertaken the required environmental monitoring. The matter has been formally raised with the contractor, and they have been advised to initiate monitoring activities without further delay.

17. With respect to the Pump Station and Rising Main (1.7 km) in Karakol, under Contract No. W3.1, it has been noted that the contractor Tunuk Kurulush has not undertaken the required environmental monitoring. This issue has been formally communicated to the contractor, and they have been advised to commence monitoring activities at the earliest to ensure compliance.

18. At the Karakol WWTP (Contract No. W3.0), the Department of Monitoring under MNRETS conducted ambient air quality, river water quality, and WWTP effluent quality

monitoring on 26 August 2025 and 3 December 2025. The recorded values for all key air and water quality parameters were well within the stipulated environmental standards, indicating satisfactory compliance.

19. Under Contract No. W4.0 (Balykchy WWTP), all construction activities, including civil works, have been completed, and the facility is now operational. The contractor, China Road and Bridge Corporation, is currently responsible for WWTP operation during the Defects Liability Period (DLP). As part of the operational-phase Environmental Management Plan (EMP), water quality monitoring was conducted, and BOD values were found to exceed stipulated European standards. This was traced to unauthorized sewage entry from a poultry industry, for which corrective action has been taken[2]. However, other environmental parameters such as air quality and noise levels were not monitored during the reporting period.

[2] Vodokanal has issued an official order and has stopped the discharge of wastewater from the poultry farm (see Appendix 8 for the official document)

1 INTRODUCTION

1.1 Introduction

20. This report is the 12th Semi-Annual Environmental Monitoring Report (SAEMR) for the Issyk-Kul Wastewater Management Project (the Project)[3]. It covers the project activities between the period of 01st July 2025 and 31st December 2025.

1.2 Headline Information

21. To secure sustainable and reliable wastewater treatment services in Balykchy City and Karakol City, the existing sewerage networks will be improved and expanded (new connections will be added) and the existing abandoned wastewater treatment plants (WWTPs) will be replaced with new WWTPs (with higher capacity and modern technology) constructed at Balykchy city and Karakol city. The project is expected to achieve the following outputs:

i. Balykchy and Karakol wastewater systems improved.
ii. Improved capacity of "Vodokanals"
iii. Septage management services improved, and sanitation and hygiene awareness increased.

22. At present, the total coverage of households with sewage networks is at a low level, i.e. only 35% in Balykchy City and 45% in Karakol City. In this regard, the Project focuses on sewage treatment facilities, expansion of sewerage networks, considering the connection of an additional 850 households in Balykchy city and 1200 households in Karakol city. The implementation of this activity will increase the coverage rate to an estimated 45% in Balykchy and 60% in Karakol.

23. **Environment category.** The project has been classified as environmental category "B" according to ADB Safeguard Policy Statement (SPS) 2009, the impacts of the subproject were assessed in the Initial Environmental Examination (IEE). The project envisages temporary environmental impacts during the construction phase mainly due to dust, noise, vibration, solid waste, and movement of construction equipment, as well as obstructed traffic. These impacts are managed by adopting SEMPs.

24. During the reporting period within the framework of the Project:

A. <u>Balykchy City</u>

- **<u>Construction of a Sewerage Network in Balykchy - Contract No. - W1 Lot 1 (Contractor: Impulse Osh Ltd)</u>**. All construction activities under the scope of the contract, including additional agreed works, were completed by the contractor. Post-completion, inspections and functional testing of the installed sewer lines and associated manholes were conducted jointly by representatives from the Design and Supervision Consultant (DSC), Project Implementation Unit (PIU), and Balykchy Vodokanal. Based on satisfactory inspection outcomes, the contractor submitted a formal application for issuance of the Completion Certificate on 21st July 2023. Following review,

[3] Please note, the word "Project" indicates "IWMP" in this SAEMR report

the DSC issued the Completion Certificate on 10th August 2023, confirming fulfilment of contractual obligations and readiness for operational integration.

- **Construction of Sewerage Network in Balykchy - Contract No. W1 Lot 2 (Contractor: Profit Express Ltd)**. The contractor completed all works within the scope of the contract, including additional works. The sewer lines and associated manholes were inspected and tested by representatives of the DSC, PIU, and Balykchy Vodokanal. Following these inspections, the contractor applied for the issuance of the Completion Certificate on 28th July 2023. The DSC subsequently issued the Completion Certificate on 10th August 2023.
- **Construction of additional Sewerage Network in Balykchy – Contract No. W1.3 Lot 1, W1.4 Lot 2.** is still at the bid evaluation stage
- **Construction of Balykchy Wastewater Treatment Plant (WWTP) - Contract No. W4 (Contractor: CCCC Tianjin Dredging Co., Ltd, China Road and Bridge Corporation and China Northeast Municipal Engineering Design and Research Institute Co., Ltd Joint Venture (Lead by China Road and Bridge Corporation)).** The contractor completed all works within the scope of the contract and submitted a request for the Project Completion Certificate on 30 June 2024. Following inspection of all equipment and systems, the DSC confirmed that the Balykchy WWTP was ready for technical completion. Accordingly, the Certificate of Completion was issued by the DSC on 13 July 2024, with 30 June 2024 recorded as the date of technical completion. Upon completion of commissioning and operational acceptance, the plant operated under the contractor's responsibility until November 2025. However, due to a technical glitch in one of the equipment, the DLP was extended until January 2026.
- Monthly environmental monitoring of water quality was conducted at the Wastewater Treatment Plant (WWTP). The monitoring results indicate that WWTP operations did not cause any adverse impacts on the surrounding environment. Detailed laboratory analyses and results are provided in Annexure 5 for reference and validation.

B. Karakol City:

- **Construction for Expansion of Sewer Network in Karakol - Contract No. W2 Lot 1 (Contractor: Minur Ltd).** The contractor has completed all works within the scope of the contract, including additional works. The sewer lines and associated manholes were inspected and tested by representatives from the DSC, PIU, and Karakol Vodokanal, confirming that the previously observed defects had been rectified by the contractor. Following these inspections, the Completion Certificate was issued by the DSC on 28 November 2023.

- **Construction for Expansion of Sewer Network in Karakol – Contract No. W2 Lot 2 (Contractor: Inzhenernaya Zashchita Ltd. and Polymer Snab Asia Ltd).** The contractor has completed all works within the scope of the contract, including additional works. The sewer lines and associated manholes were inspected and tested by representatives of the DSC, PIU, and Vodokanal, confirming that all previously observed defects had been rectified by the contractor. Following these inspections, the DSC issued the Completion Certificate on 28 November 2023.
- **Construction of additional Sewerage Network in Karakol - Contract No. W2.3 Lot 1, W2.4 Lot 2**: This subproject (Packages Lot 1 and Lot 2) was awarded on 21 August 2025 to Inzhenernaya Zashchita LLC. The contractor already has prior experience, having successfully completed W2–Lot 2 in Karakol. The contractor has submitted the SSEMP, which has been approved by the PMO. The designs for this additional sewer network have been finalized, and the contractor has been instructed to commence construction works.
- **Replacement of 200 m of discharge pipeline from Karakol WWTP to the irrigation pond of Ak-Suu DDWR, construction of 50m^3 wastewater tank in Pristan-Przhevalsk and rehabilitation of 28 manholes of the main collector to Karakol WWTP, Contract No. W3.1.** The contract for this subproject was signed on 11 March 2025, and the site was handed over to the contractor by 5 April 2025. During the reporting period, the contractor Tuunuk Kurulush Ltd. carried out construction works. The receiving tank (50 m³) for SPS-4 in Pristan-Pryezvalsk was completed, along with the rehabilitation of manholes on the main collector leading to the WWTP. Installation of a 0.2 km discharge pipe across the Karakol River has commenced.
- **Construction of Karakol Wastewater Treatment Plant (WWTP) - Contract No. W3.0, (Contractor: HAYAT Group LLC and BIOWORKS Verfahrenstechnik GmbH).**
    - Monthly odour monitoring was conducted by the PIU-appointed Community Liaison Officer (CLO) using a portable multi-gas detector (BOSEA, version: BSA20180501001). Observations confirmed that hydrogen sulfide (H_2S) levels remained within permissible limits
    - Training sessions on environmental safeguards and occupational health and safety (OHS) were conducted on 25 July 2025 and 26 August 2025, aimed at enhancing the contractor's and site personnel's understanding of regulatory requirements, ADB standards, and practical mitigation measures
    - River water quality, WWTP water quality, and ambient air quality monitoring were conducted on 26 August 2025 and 3 December 2025, facilitated by the Ministry of Natural Resources, Ecology and Technical

Supervision (MNRETS). Additionally, noise measurements were carried out on 1 September 2025 and 29 November 2025 by the Karakol Interdistrict Center for Disease Prevention and State Sanitary and Epidemiologic Surveillance, operating under the Ministry of Health of the Kyrgyz Republic (KR MoH). The laboratory results are presented in **Annexure 6.**

2 COMPLIANCE TO ENVIRONMENTAL SAFEGUARDS PER LOAN/GRANT AGREEMENTS AND PAM

Table 2-1: Compliance of KGZ: Issyk-Kul Wastewater Management Project with Environmental Safeguards per Loan/Grant Agreements.

Sl. no	Loan Agreement Reference	Environmental Compliance Requirements	Compliance Status					Remarks
			Sewerage network- karakol		PS at karakol (W3,1)	WWTP		
			W2.3 Lot 1	W2.4 Lot 2		Karakol (W3.0)	Balykchy (W4.0)	
1.	Schedule 4 (Conditions for Award of Contract)	Para 7. The borrower shall not award any Works contracts which involve environmental impacts until: (i) the State Agency of the Environmental protection and Forestry of the Borrower has granted the final approval of the IEE; and (ii) the relevant provisions from the EMP are incorporated into the Works contract	✓	✓	✓	✓	✓	**Complied**. (i) Clearance from the State Agency for Environmental Protection and Forestry has been obtained for all packages, including both completed and ongoing works. (ii) The bid documents and contract agreements prepared for all ongoing and completed packages include the EMP, which has been approved by the ADB
2.	Schedule 5 (Execution of Project)	Para 2. The borrower, through the Project Executing Agency and Implementing agencies, shall ensure that the preparation, design, construction, implementation, operation and decommissioning of the project and all project facilities comply with (a) all applicable laws and regulations of the borrower relating to environment, health and safety: (b) the Environmental	✓	✓	✓	✓	✓	**Being complied**. The additional sewer network, pumping station (including the discharge pipeline and storage tank) and the WWTPs have been designed in accordance with applicable laws and regulations. In line with ADB policy requirements, an IEE has been prepared

Sl. no	Loan Agreement Reference	Environmental Compliance Requirements	Compliance Status					Remarks
			Sewerage network- karakol		PS at karakol (W3,1)	WWTP		
			W2.3 Lot 1	W2.4 Lot 2		Karakol (W3.0)	Balykchy (W4.0)	
		safeguards; and (c) all measures and requirements set forth in the EMP and any corrective or preventative actions set forth in the safeguards monitoring report.						for all project components. Based on the assessment, appropriate mitigation and management plans have been developed. The IEE was disclosed in September 2018. The EMP (included in the IEE) has been revised (subproject specific) and incorporated into the contract agreement for contractors to implement the prescribed management measures during construction. The observations and recommendations provided in the SEMR shall also be adopted
3.	Environment	Para 3. The borrower shall ensure that the preparation, design, construction, implementation, operation and decommissioning of the project and all project facilities comply with (a) all applicable laws and regulations of the borrower relating to environment, health and safety: (b) the Environmental safeguards; and (c) all measures	✓	✓	✓	✓	✓	**Being complied**. Refer remarks shared for Sl.no 2

Sl. no	Loan Agreement Reference	Environmental Compliance Requirements	Compliance Status					Remarks
			Sewerage network- karakol		PS at karakol (W3,1)	WWTP		
			W2.3 Lot 1	W2.4 Lot 2		Karakol (W3.0)	Balykchy (W4.0)	
		and requirements set forth in the EMP and any corrective or preventative actions set forth in the safeguards monitoring report						
4.	Land acquisition and Involuntary Resettlement	Para 4. The borrower shall ensure that all land and all right-of-way required for the project are made available to the works contractor in accordance with the schedule agreed under the related works contract and all land acquisition and resettlement activities are implemented in compliance with (a) all applicable laws and regulations of the borrower relating to land acquisition and involuntary resettlement; (b) the involuntary resettlement safeguards; (c) the LARF; and (d) all measures and requirements set forth in the LARP, and any corrective or preventative actions set forth in the safeguards monitoring report	✓	✓	✓	✓	✓	**Being complied**. The additional sewer network and discharge pipelines (PS to Karakol) have been proposed along the available right of way to avoid any land acquisition and resettlement impacts. During the preparation of the design, all applicable laws and regulations have been referenced and applied. Both WWTPs are proposed to be constructed on the existing WWTP land; therefore, no new land acquisition is envisaged
		Para 5. Without limiting the application of the Involuntary Resettlement Safeguards, the LARF or the LARP, the Borrower shall ensure, or cause the Project	✓	✓	✓	✓	✓	**Being complied**. Refer remarks shared for Sl.no 4

Sl. no	Loan Agreement Reference	Environmental Compliance Requirements	Compliance Status					Remarks
			Sewerage network- karakol		PS at karakol (W3,1)	WWTP		
			W2.3 Lot 1	W2.4 Lot 2		Karakol (W3.0)	Balykchy (W4.0)	
		Executing Agency to ensure, that no physical or economic displacement takes place in connection with the project unit (a) Compensation and other entitlements have been provided to affected people in accordance with the LARP; and (b) A comprehensive income and livelihood restoration program has been established in accordance with the LARP						
5.	Indigenous Peoples	Para 6. The borrower shall ensure that the project does not have any indigenous peoples impacts, all within the meaning of ADBs SPS. In the event that the project does have any such impact, the borrower shall take all steps required to ensure that the project complies with the applicable laws and regulations of the borrower and with ADBs SPS.	N/A	N/A	N/A	N/A	N/A	**Complied**. There are no indigenous people in the project site.
6.	Human and finance resources to implement safeguards requirements	Para 7. The borrower shall make available necessary budgetary and human resources to fully implement the EMP and LARP	✓	✓	✓	✓	✓	**Complied**. EMP budget provisions have been included in the project cost. As per the institutional arrangement (mentioned in

Sl. no	Loan Agreement Reference	Environmental Compliance Requirements	Compliance Status					Remarks
			Sewerage network- karakol		PS at karakol (W3,1)	WWTP		
			W2.3 Lot 1	W2.4 Lot 2		Karakol (W3.0)	Balykchy (W4.0)	
								the IEE), safeguard staff are included in the PMO, DSC and Contractors to implement the EMP and LARP
7.	Safeguards – related provision in bidding documents and work contracts	Para 8. The borrower shall ensure that all bidding documents and contracts for work contain provisions that required contractors to: (a) Comply with the measures relevant to the contractor set forth in the IEE, the EMP and the LARP (to the extent they concern impacts on affected people during construction) (b) Make available a budget for all such environmental and social measures (c) Provide the borrower with a written notice of any unanticipated environmental, resettlement or indigenous peoples risks or impacts that arise during construction, implementation or operation of the project that were not considered in the IEE, EMP and LARP; (d) Adequately record the condition of roads, agriculture land and	✓	✓	✓	✓	✓	**Being complied**. (a) Safeguard provision given in the contract agreement (set forth in the IEE, the EMP and the RP) are being monitored by the PMO, PIU and DSC for effective implementation. (b) Budgetary provision has been included in the project cost (c) There are no land acquisition or resettlement issues in any of the subproject packages. If any arise during execution, they will be communicated well in advance (d) Please refer to the remark above.

Sl. no	Loan Agreement Reference	Environmental Compliance Requirements	Compliance Status					Remarks
			Sewerage network- karakol		PS at karakol (W3,1)	WWTP		
			W2.3 Lot 1	W2.4 Lot 2		Karakol (W3.0)	Balykchy (W4.0)	
		other infrastructure prior to starting to transport materials and construction; and (e) Reinstate pathways, other local infrastructure and agriculture land to at least their pre-project condition upon the completion of construction.						(e) If there are any disturbances to local infrastructure or agriculture, they will be reinstated in consultation and under the guidance of the DSC
8.	Safeguard monitoring and reporting	Para 9. The borrower shall do the following (a) Submit safeguard monitoring reports to ADB i. In respect of implementation of and compliances with Environmental safeguards and the EMP, semiannual, during construction and the implementation of the project until the issuances of ADB's project completion report unless a longer period is agreed in the EMP; and ii. In respect of implementation of and compliance with Involuntary Resettlement Safeguards and the LARP, semiannually during the implementation of the project	✓	✓	✓	✓	✓	**Being Complied**. (a) Semiannual Environmental monitoring report has been prepared and shared with ADB for approval and further disclosure. This SEMR for the period July to December 2025 shall be submitted for the ADB review and approval.

Sl. no	Loan Agreement Reference	Environmental Compliance Requirements	Compliance Status					Remarks
			Sewerage network- karakol		PS at karakol (W3,1)	WWTP		
			W2.3 Lot 1	W2.4 Lot 2		Karakol (W3.0)	Balykchy (W4.0)	
		and the LARP until the issuance of ADBs Project completion report unless a longer period in the LARP; and disclose relevant information from such reports to the respective affected people under the environmental safeguards and the involuntary resettlement safeguards promptly upon submission. (b) If any unanticipated environmental and / or social risks and impacts arise during construction, implementation or operation of the project that were not considered in the IEE, EMP and the LARP, promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan; and (c) Report any actual or potential breach of compliance with the measures and requirements set forth in the EMP and the LARP,						(b) Not envisaged (c) Not envisaged

Sl. no	Loan Agreement Reference	Environmental Compliance Requirements	Compliance Status					Remarks
			Sewerage network- karakol		PS at karakol (W3,1)	WWTP		
			W2.3 Lot 1	W2.4 Lot 2		Karakol (W3.0)	Balykchy (W4.0)	
		promptly after becoming aware of the breach						
9.	Prohibited list of investments	Para 10. The borrower shall ensure that no proceeds of the loan are used to finance any activity included in the list of prohibited investment activities provided in Appendix 5 of the SPS	✓	✓	✓	✓	✓	**Being Complied**.
10.	Labor standards, health and Safety	Para 11. The borrower shall ensure that the core labor standards and the applicable laws and regulations of the borrowers are complied with during the project implementation. The borrower shall include specific provisions in the bidding documents and contracts financed by ADB under the project requiring contactors to, among other things (a) comply with the applicable labor law and regulations of the borrower and incorporate applicable work place occupational safety norms;	✓	✓	✓	✓	✓	**Being Complied**. (a) The applicable labor laws have been adopted for all packages. For the additional sewer networks and Pumping Station to Karakol (discharge pipelines), local laborers will be engaged. At the Balykchy WWTP, the project is in the DLP phase and managed by contractor

Sl. no	Loan Agreement Reference	Environmental Compliance Requirements	Compliance Status					Remarks
			Sewerage network- karakol		PS at karakol (W3,1)	WWTP		
			W2.3 Lot 1	W2.4 Lot 2		Karakol (W3.0)	Balykchy (W4.0)	
		(b) not use child labor; (c) not discriminate workers in respect of employment and occupation; (d) not use forced labor; (e) allow freedom of the association and effectively recognize the right to collective bargaining; and (f) disseminate, or engage appropriate service providers to disseminate, information on the risks of sexually transmitted diseases, including HIV/AIDS, to the employees of contractors engaged under the project and to number of the local communities surrounding the project area, particularly women.						staff from China along with local workers. At the Karakol WWTP, construction works are being carried out by local laborers. (b) Use of child labours are strictly prohibited (c) Laborers are provided with basic amenities across all packages. (d) There are no forced labours observed in the project site (e) and (f) Wages for the laborers are fixed in accordance with national labor laws. Health camps are conducted for the workers, during which information related to HIV/AIDS is shared.
11.	Gender and development	Para 13. The borrower through the project Executing Agency shall ensure that (a) the GAP is implemented in accordance with its	✓	✓	✓	✓	✓	**Being complied**. GAP has been prepared and disclosed for this project, the implementation

Sl. no	Loan Agreement Reference	Environmental Compliance Requirements	Compliance Status					Remarks
			Sewerage network- karakol		PS at karakol (W3,1)	WWTP		
			W2.3 Lot 1	W2.4 Lot 2		Karakol (W3.0)	Balykchy (W4.0)	
		terms (d) the bidding documents and contracts included relevant provisions for contractors to comply with the measures set forth in the GAP; (c) adequately resources are allocated for implementation of the GAP; and (d) progress on implementation of the GAP, including progress towards achieving key gender outcome and output targets are regularly monitored and reported to ADB.						measures suggested in the GAP shall be monitored and reported to ADB.

3 PROJECT DESCRIPTION AND CURRENT ACTIVITIES

3.1 Project Description

25. The Issyk-Kul Wastewater Management Project is aimed to maintain the sensitive ecosystem balance of Issyk-Kul Lake, improve and expand access to reliable, sustainable and affordable sewerage services in Balykchy and Karakol, and provides the construction and expansion of existing wastewater treatment systems, strengthening institutional capacity and increasing the sustainability of water supply and sanitation services (WSS) in Balykchy and Karakol. The project outcomes should ensure

(i) Improved sewerage and wastewater treatment systems in the cities of Balykchy and Karakol,
(ii) Strengthened institutional capacity of Vodokanal Municipal Enterprises in the cities of Balykchy and Karakol, and
(iii) Improved septic sludge management and sanitation.

26. This project will increase access to potable water and safe sanitation services, including use of proven technologies for treatment and disposal of solid and liquid waste in the cities of Balykchy and Karakol and includes three components.

- Component (A): Wastewater Treatment and collection
- Component (B): Enhancing Vodokanals institutional and service-oriented capacity.
- Component (C): Improve awareness for public health implications and wastewater management in Balykchy and Karakol

Figure 3-1: Location of Project Towns of Balykchy and Karakol

a) Balykchy Sewerage Network Extension:

27. Currently, 4156 households and 106 commercial/industrial/institutional/tourism organizations are connected to the sewerage system in Balykchy. The existing sewerage network consists of 64 km of non-pressure sewers built in the 1970s and currently serves

about 40% of the population. The project will provide 10.6 km of sewer networks on six streets, which will connect about 4015 additional households (55%) to the sewer network.

b) Karakol Sewerage Network Extension:

28. About 38% of all households in Karakol are connected to the sewage system, most of which live in multi-story buildings. Currently, about 25,000 people (7,301 households) use services of a centralized sewage system. The length of the sewerage network of the city is approximately 110 km. In addition, the municipal enterprise “Karakol Vodokanal” provides sewerage services to 38 budget organizations, 251 commercial enterprises and 1 industrial enterprise. The project will provide 12.7 km of sewer networks on six streets, which will connect about 3,248 additional households (55%) to the sewer network.

c) Construction of a Pump Station (PS 4) at Pristan, Karakol city:

29. In addition to the non-pressure sewerage system in Karakol, the village of Pristan (TSU No. 8) is served by a gravity-pressure combined system. This system includes 4 pump stations, 3 of which were rehabilitated under the first phase of Issyk-Kul Sustainable Development Project (IKSDP). The fourth sewage pump station is located in close proximity to Issyk-Kul Lake and is in a semi-ruined non-operating stating. Based on loads resulted from wastewater volume, the technical solutions for SPS No.4 in Karakol City are adopted as 2 phases of construction:

- The following structures are considered for Phase 1 of construction.
    - The receiving reservoir is a steel wastewater tank with a storage capacity of up to 50 m^3.
    - Site for placement of a reservoir with an area of 1350 m^2 with perimeter fencing along the guard zone and vehicle access.
    - Sewage trucks with a tank volume of 16 m^3 to transport out sewage.
- The following structures are considered for Phase 2 of construction.
    - Sewage Pump station with two submersible pumps (one - operating, one - standby). The capacity is 30 m^3 /h, head is 35 m. The pumps will work in turns in the order determined by an automatic control system.
    - Pump station is supplied as a package, it includes (i) Fiberglass receiving tank, (ii) Submersible pumps, (iii) Pump control panel and (iv) Pavilion above the pump station with an approximate dimension of 2.5x2.5 m.
    - Emergency reservoir in metal structures with an effective volume of up to 50m^3.
    - Pressure collector for a length is 2.9 km shall be installed underground. At intersection with Karakol river, the collector will be installed in a case with D_u+350 mm, which is placed inside one-span metal truss. A special manhole with discharge valve will be installed at the lower part of collector for dewatering of the collector lower part.

- On-site power supply networks with the installation of own transformer 25 kVA. Power load is 22 kW.
- Pump station site with an area of 1350 m^2 with vehicle access and fencing along the perimeter.

d) Balykchy WWTP Reconstruction

30. The Balykchy Sewage Treatment Plant is designed to cope with 4200 m^3/d incoming wastewater. The process includes a mechanical treatment stage comprising coarse screen, fine screen and grit removal units, biological treatment, and sludge drying. The biological treatment unit is an integrated sewage treatment tank designed for the project, which consists of the modified A20 biochemical tank, sludge pump tank, secondary sedimentation tank, and secondary lift pump tank.

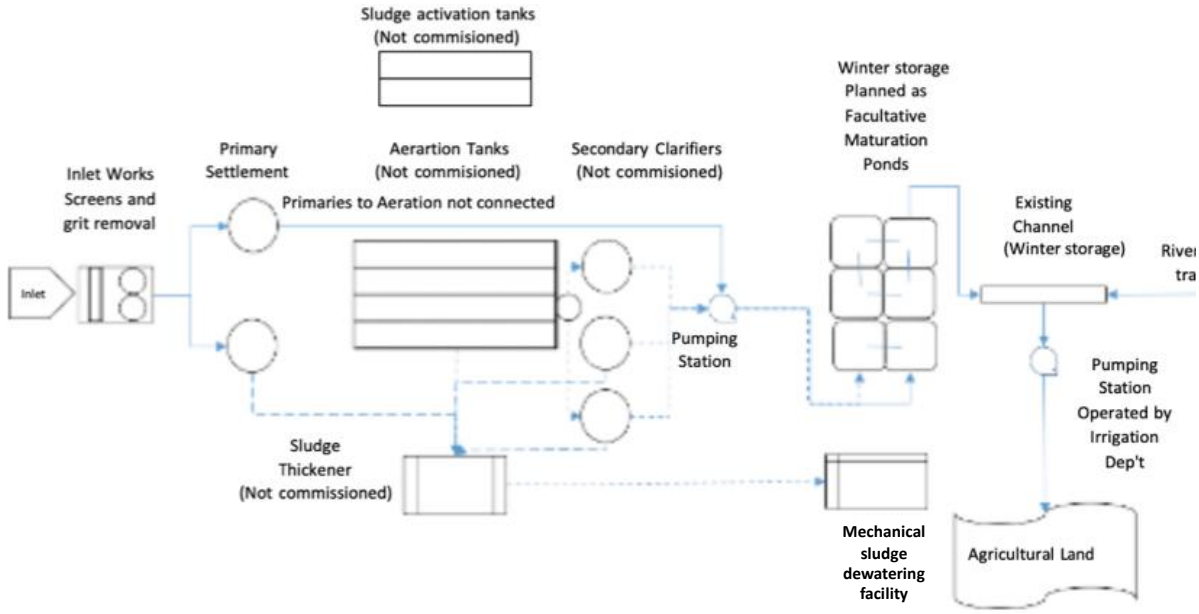

Figure 3-2: Schematic Illustration of Balykchy WWTP Process

e) Karakol WWTP Reconstruction

31. The new WWTP will be constructed at the site of the existing treatment plant. All existing structures have been demolished and removed. The facility will utilize an activated sludge system with separate aerobic digestion, applying the A2O (Anaerobic–Anoxic–Oxic) biological treatment process, in line with project specifications. The WWTP will include the following components: a compact separation receiving station; mechanical pre-treatment units (coarse screen, fine screen, grit and grease removal); a dosing station for chemical flocculation; A2O biological treatment (anaerobic, anoxic, and aerobic zones); an air blower station; secondary settling tanks; a recirculation sludge pump station; return and waste sludge pump station; chlorine-based disinfection system; gravity sludge thickening; aerobic sludge digestion; supernatant pump station; storage area for dewatered sludge; and an odor control system. The total area of the existing treatment facility is 14,210.0 m², with a treatment

capacity of 12,000 m³/day. The project scope includes construction of all treatment facilities as well as landscaping of the surrounding territory.

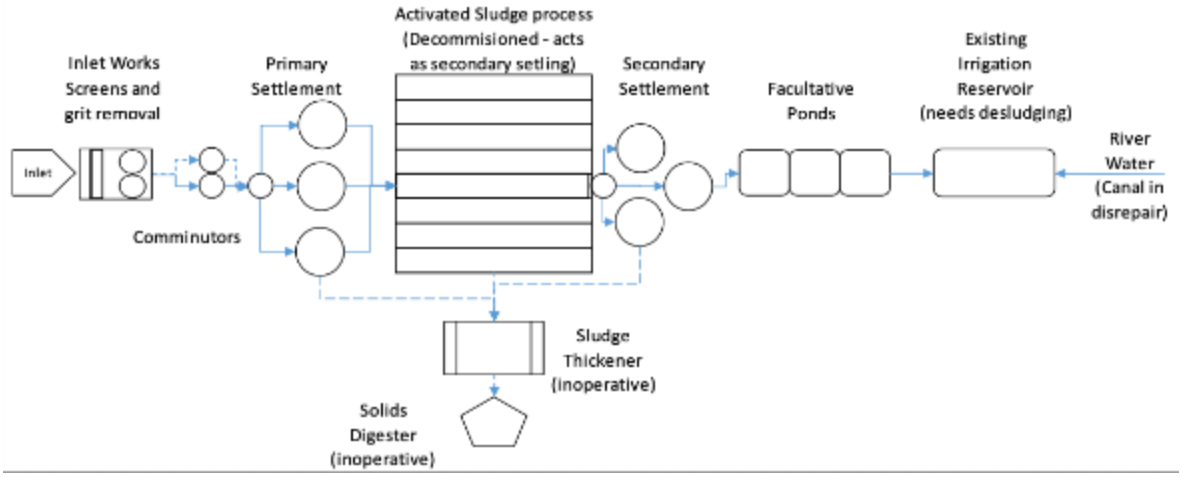

Figure 3-3: Schematic Illustration of Karakol WWTP processes

3.2 Project Contracts and Management

32. Project contract details are presented in Table 3-1. A list of main organizations involved in the project and relating to Environmental Safeguards is given Table 3-2 and illustrated at Figure 3-4. It includes names of experts from the Project Management Office, Design and Supervision Consultants, and Contractors.

Table 3-1: Project Contract Details

Lots	Scope	Contractor	Signed Date	Approval date	Name of personnel	Civil works		Overall progress as of December 2025 (in %)
				SSEMP	EHS officer	Start Date	End Date	
Contract No. W2.3 Lot 1, W2.4 Lot 2	Construction of 12.24 km of additional sewer network under this contract in Karakol	Inzhenernaya zashchita" LLC	21 Aug 2025	2 Oct 2025	Nurlan T. Satybaldiev	03 Sep 2025	03 Sep 2026	17.76%
Contract No. W3.1	Pump Station and Rising Main 1.7km in Karakol	LLC "Tunuk-Kurulush"	11 Mar 2025	24 Apr 2025	Mr. Bekkhoz-hoeva Asel	04 Apr 2025	30 Nov 2025	65.0%
Contract No. W3.0	Construction of Karakol Wastewater Treatment Plant (WWTP)	Joint Venture HAYAT GROUP LLC and BIOWORKS Verfahrenstechnik GmbH	21 Dec 2022	Apr 2024	Ms. Anara K. Bukarova	06 May 2024	1 Jun 2026	77.9%
Contract No. W4.0	Construction of Balykchy Wastewater Treatment Plant (WWTP)	CCCC Tianjin Dredging Co., Ltd, China Road and Bridge Corporation and China Northeast Municipal Engineering	23 Aug 2021	1 Sep 2022	Mr. Saparbek Sagynov	01 Sept 2023 Department	30 Jun 2024	Construction works are 100% complete; DLP is in progress

Lots	Scope	Contractor	Signed Date	Approval date	Name of personnel	Civil works		Overall progress as of December 2025 (in %)
				SSEMP	EHS officer	Start Date	End Date	
		Design and Research Institute Co.						

Table 3-2: Environmental Safeguards Management for the Project

Borrower	Ministry of Finance of the Kyrgyz Republic
Executive Agency	Drinking Water Supply and Sewerage Development Department under the the Ministry of Water Resources, Agriculture and Processing Industry of the Kyrgyz Republic
Project Management Office (PMO)	
PMO Environmental Officer	Mr. Kylychbek Sheralievich Zhundubaev
e-mail:	environmental@IWMP.kg
Tel:	+ 996 507 22 06 68
Design and Supervision Consultant (DSC)	
Organization:	**Temelsu International Engineering Services Inc**
DSC International Environmental Safeguard Specialist	K. Pushpanathan
e-mail:	k.pushpanathan@gmail.com mailto:temelsu@temelsu.com.tr
Tel:	+91 9382315901
DSC National Environmental Specialist:	Olga Zinina (part-time basis)
e-mail:	zinola@yandex.ru mailto:temelsu@temelsu.com.tr
Tel:	+996 555475577
Contractors	
Contractor for Karakol WWTP	**Joint Venture HAYAT GROUP LLC and BIOWORKS Verfahrenstechnik GmbH**
Project Manager	Hürcan Canatan
Chief Civil Engineer	Gasim Kazimov
Health and Safety Staff	Kerimbek M. Kozhobaev
Surveyor	Nurlan Alikhanov
Architecture	Tilek M. Abdymutalypov
Construction Engineer	Aman M. Metebaev
Environmental Engineer	Anara K. Bukarova
Contractor for Balykchy WWTP	**Consortium of Contractor CCCC Tianjin Dredging Co., Ltd, China Road and Bridge Corporation and China Northeast Municipal Engineering Design and Research Institute Co., Ltd Joint Venture**
Project Manager	Yu Zhiping

Chief Civil Engineer	Beishenbai Zhanboev
Health and Safety Staff	Yuan Anfeng
Surveyor	Feng Longlong
Construction Engineer	Chen Jian
Environmental Engineer	Saparbek Sagynov
Contractor for Construction of Pump Station (PS 4) at Pristan, Karakol City	**LLC "Tunuk-Kurulush"**
Project Manager	Omurkulov Erkin
Chief Civil Engineer	Borubaev Idris Dzhaparovich
Health and Safety Staff	Esenbaeva Raushan
Surveyor	Toktogonov Bolot
Construction Engineer	Esenbaev Sarbagysh
Environmental Engineer	Bekkhozhoeva Asel
The contractor for the additional sewer network in Karakol	**Inzhenernaya Zashchita LLC**
Project Manager	Aidar Galiev
Chief Civil Engineer	Melis Baliev
Health and Safety Staff	Aidar Galiev
Surveyor	Mirlan Abdrahmanov
Construction Engineer	Melis Baliev
Environmental Engineer	Nurlan Satybaldiev

33. The following organizations and/or staff are responsible for environmental monitoring and/or supervision during the design and construction:

a. **PMO Environmental Specialist**. To carry out overall coordination in implementing the SEMP, monitoring and control to ensure Contractors' compliance with the norms and requirements of the national environmental legislation, the ADB's Safeguards Policy Statement and prepare analytical documents and reports.

b. **International and National Environmental Safeguard Specialists of DSC**. To assist the PMO Environmental Officer in coordinating and overseeing design, construction supervision and monitoring activities under the project based on the contract. To undertake the technical oversight for the delivery of all safeguard measures, ensures that SEMP mitigation and monitoring measures implemented, and compliance reporting completed.

c. **Contractor's environmental managers and/or Health, Safety and Environmental officers.** Responsible for preparation and implementation of SEMP. EHS officers of Contractors carry out the activities stipulated in SEMPs, monitoring and control to ensure Contractors' compliance with the norms and requirements of national environmental legislation and ADB Safeguards Policy.

d. Authorized state bodies and their territorial divisions:

(i) Ministry of Construction, Architecture, Housing and Communal Services of the Kyrgyz Republic (MCACHS),

(ii) Water Resources Service under the Ministry of Water Resources, Agriculture and Processing Industry of the Kyrgyz Republic (WRS)
(iii) Department Drinking Water Supply and Sewerage Development under the Ministry of Water Resources, Agriculture and Processing Industry of the Kyrgyz Republic (DWSSDD),
(iv) Project Implementation Units in Karakol and Balykchy (PIUs),
(v) Ministry of Natural Resources, Ecology and Technical Supervision of the Kyrgyz Republic (MNRETS),
(vi) Department for Disease Prevention and State Sanitary and Epidemiological Control and the Karakol Inter district Centre for Disease Prevention and State Sanitary and Epidemiological Control under the Ministry of Health KR (MoH),
(vii) Ministry of Culture, Information and Youth Policy (MCISYP),
(viii) Ministry of Emergency Situations (MES) and others.

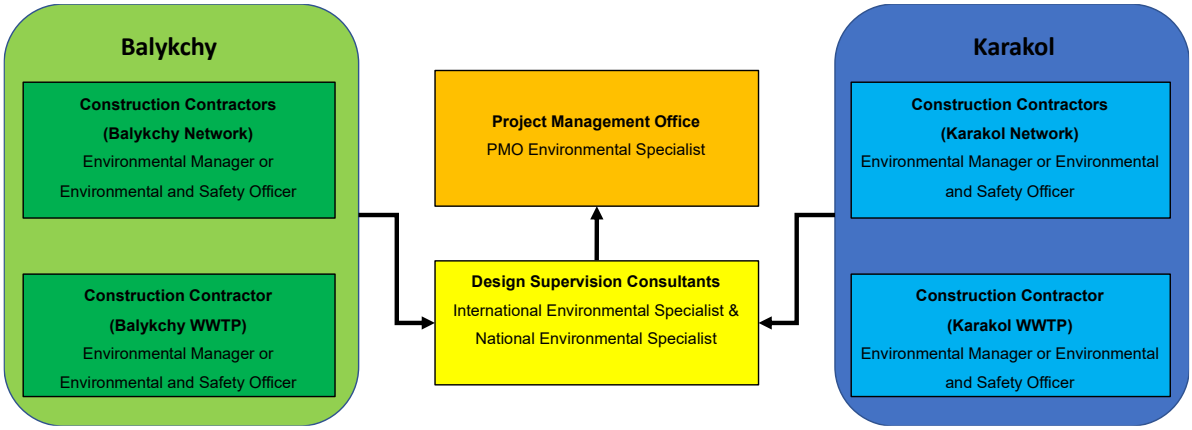

Figure 3-4: Organogram of Environmental Safeguards of the Project

3.3 Project Activities During Current Reporting Periods.

Contract Package Number and Works Title	**W1 Lot 1:** Construction of Extension of Balykchy Sewerage Network, “Western” **W1 Lot 2:** Construction for Expansion of Sewer Network in Balykchy, "Eastern" **W2 Lot 1:** Construction for Expansion of sewer network in Karakol, Lot 1: "Southern" **W2 Lot 2:** Construction for Expansion of sewer network in Karakol, Lot 2: “North"
Work Progress	Completed
Contract Package Number and Works Title	**W1.3 Lot 1** and **W1.4 Lot 2** - Construction of Additional Balykchy Sewerage Network
Work Progress	Under bid evaluation stage
Contract Package Number and Works Title	**W2.3 Lot 1** - Construction for Additional Expansion of Sewer Network in Karakol, Lot 1: "North"

	W2.4 Lot 2 - Construction for Additional Expansion of sewer network in Karakol, Lot 2: "South"
Work Progress	The contract was signed on 21 August 2025, and the sewer network designs were verified and approved for construction. As a mandatory requirement, the contractor prepared and submitted the SSEMP, which was reviewed and approved by the PMO. Based on this approval, the contractor commenced construction on 3 September 2025. As part of the pre-construction requirements, the contractor obtained the necessary NoCs, permits, and clearances from the competent authorities prior to initiating construction. **W2.3 Lot 1:** The Contractor has constructed lines on Alybakova and Lenin streets and implemented 3,027 m^3 earthworks, supplied 2,832 m DN 200, 938 m DN 300 PE pipes and installed 379m DN 200 pipes, and installed 6.51 m^3 of concrete manholes. Due to seasonal weather conditions, the Contractor suspended works until spring. **W2.4 Lot 2:** The Contractor has implemented works in Tupskyi street and Geolog Village. By the end of November, the Contractor provided 786 m and installed 239 m of DN 200 pipes, carried out 703 m^3 of earthworks and installed 4.80 m^3 of concrete manholes. Due to seasonal weather conditions, the Contractor suspended works until spring.

Pipelaying works are in progress on Alybakova and Lenin Streets

Pipelaying works are in progress on Tupskyi Street and in Geolog Village

Contract Package Number and Works Title	**W3.1:** Pump Station and Rising Main 1.7km in Karakol
Work Progress	The contractor has completed the rehabilitation of 28 manholes, and the reservoir tank in Pristan has been installed and finalized, including associated manholes, backfilling, and fencing around the reservoir site, in line with the revised and adopted design. River crossing works for the pipeline have commenced and are ongoing. Meanwhile, the existing discharge pipe from Lagoon No. 4 to the discharge manhole was found damaged and partly clogged. As an additional work (Change Order), the contractor will replace it with a new 500 mm diameter pipe and construct an outlet chamber and a new manhole.

Barricading has been provided along with the project information board.	
	
Labourers with PPEs and safety gear	

Contract Package Number and Works Title	**W3:** Procurement of Plant Design, Supply, and Installation of WWTP in Karakol
Work Progress	**Civil Works**: Overall civil and architectural works reached 86% completion, while site works (including electro-mechanical installations, not yet started) stand at 71.56%. Key structures such as the inlet chamber, sedimentation tanks, workshop, administration building, and guard house are nearly complete, with most other facilities progressing between 68% and 99%. **Electrical, Mechanical, and Procurement**: Equipment and material deliveries under Schedule 1 are 82.91% complete, with most piping materials already on site. As a result, about 85% of site piping works have been finished
	
Safety information boards have been provided near the construction area	

	
Dust suppression measures have been adopted	**Barricading has been provided along with the safety information board**
	
Construction materials are stored in the demarcated area	**View of the WWTP site**
	
Labourers are provided with winter safety construction wea	**Barricading has been provided**

Contract Package Number and Works Title	**W4:** Design and Build WWTP Balykchy
Work Progress	The project achieved technical completion on 30 June 2024. Following successful commissioning and operational acceptance, the plant transitioned to contractor-led operations and has been running continuously since November 2024. In accordance with contractual provisions, this operational

	arrangement was originally scheduled to conclude in November 2025. However, during this period, certain inconsistencies were observed in the machinery performance. Consequently, the Operation period has been extended until January 2026 to ensure corrective measures and stable operations. Consequently, the Defect Liability Period has been extended until January 2026.
	
Newly paved access road with completed manhole installation	**Pump room provided with acoustic enclosure**
	
Wild vegetation is being removed around the UV unit	**Coal-Fired Boiler Setup**

3.4 Description of any Changes to Project Design

34. **Balykchy**. The sewer network packages and construction work for the Balykchy WWTP have been completed and are currently in operation; therefore, no design modifications are required. The additional sewer network for Balykchy is still under bid evaluation, and design changes are anticipated once procurement is finalized.

35. **Karakol**. For the ongoing Karakol WWTP construction activities, no major design changes were identified during the latest monitoring period (July–December 2025). Project design development is actively progressing for the Pump Station and 1.7 km Rising Main in Karakol. For the additional sewer network, no design changes are proposed, and implementation remains aligned with the final design shared with the contractor.

3.5 Description of any Changes to Agreed Construction Methods

36. There is no change in the construction methods.

4 ENVIRONMENTAL SAFEGUARD ACTIVITIES

4.1 General Description of Environmental Safeguard Activities

4.1.1 Expansion of Sewer Network in Balykchy and Karakol

37. All four sewer network packages W1 (Lot 1 and Lot 2 in Balykchy) and W2 (Lot 1 and Lot 2 in Karakol) have been completed. The Project Completion Certificates were issued on 10th August 2023 for the Balkhi packages and on 28th November 2023 for the Karakol packages. The Post-Construction Environmental Audit Report (PCEAR) for the sewerage networks in Balykchy and Karakol was disclosed on the ADB website in April 2024.

4.1.2 Construction of Additional Sewer Network in Balykchy

38. The package is still under bid evaluation, and the contract has not yet been awarded

4.1.3 Construction of Balykchy WWTP

39. The construction of the Balykchy WWTP was completed, and the Certificate of Completion was issued by the DSC on 13 July 2024. A Post-Construction Environmental Audit Report (PCEAR), prepared by the DSC, was reviewed by the PMO and subsequently approved by ADB. The approved report was incorporated into SAEMR 10 (July–December 2024) and disclosed in June 2025. Following commissioning and operational acceptance, the plant has been under the contractor's responsibility and operating continuously since November 2024. This arrangement remains in effect throughout the Defect Liability Period (DLP), originally scheduled to conclude in November 2025. However, due to inconsistent performance of certain machinery and equipment, the DLP has been extended until January 2026.

40. In line with ADB's recommendation to strengthen environmental management measures as outlined in the IEE disclosed for the Issyk-Kul Wastewater Management Project (2018), a separate Environmental Management Plan (EMP) for the Operation Stage of the Balykchy WWTP was prepared by the DSC. The draft EMP was discussed with the PMO and updated as necessary prior to submission to ADB for concurrence and approval. The approved EMP has been disseminated to the Balykchy Vodokanal (PIU) and the contractor.

41. During the EMP (Operation Stage), the contractor cleared all temporary structures and, with support from Balykchy Vodokanal, removed construction waste and debris. Monthly water quality monitoring has been ongoing at the Balykchy WWTP. Noise and vibration monitoring was carried out on 26 September 2025. Air quality monitoring was also undertaken during the reporting period.

42. The training was conducted from 18 to 30 October 2025 and aimed at developing the competencies required for modernization of the water supply and wastewater sector, as well as increasing women's participation in technical and managerial processes. Refer to **Annexure 1** for details.

4.1.4 Construction of Karakol WWTP

43. Excavation of the plant area and foundations of major structures including the Preliminary Treatment Building, Aeration Tanks, Sedimentation Tanks, Sludge Stabilization

Tank, Chlorination Building, and Pumping Station have been completed, with wall concreting and brickwork advancing steadily (Aeration Tanks ~85%, Sedimentation Tanks ~75%). Structural works of the Transformer, Blower, Guardhouse, Workshop, and Administrative Buildings are largely complete, with doors and windows installation at ~95%. Civil works of the Diesel Storage Tank are finished, fire and potable water tanks are nearly complete, and fencing around the plant has reached ~90% (manufacturing 100%, installation 60%). Overall, the project is progressing well with most foundations completed and superstructure works significantly advanced.

44. Ambient air quality monitoring was conducted on 26 August 2025 and 3 December 2025 in the vicinity of the construction site, with technical support from the MNRETS. Noise measurements were carried out on 1 September 2025 and 29 November 2025 by the Karakol Interdistrict Center for Disease Prevention and State Sanitary and Epidemiologic Surveillance under the Ministry of Health of the Kyrgyz Republic (KR MoH), ensuring alignment with applicable regulatory standards.

45. During the reporting period (July to December 2025), two training sessions were conducted on 25 July 2025 and 26 August 2025 for the subcontractor Issyk-Kul Suu Kurulush Ltd, engaged at the Karakol Wastewater Treatment Plant (WWTP). The training aimed to strengthen on-site compliance with environmental safeguards and occupational health and safety. Refer to **Annexure 1** for details.

Snapshots from EHS training – Karakol WWTP

4.1.5 Construction of Pump Station and Rising Main 1.7km in Karakol

46. The construction site was handed over to the contractor on 5 April 2025. As part of the pre-construction Phase, the contractor developed and submitted the Site-Specific

Environmental Management Plan (SSEMP) to the PMO, which was formally approved on 24 April 2025. During the reporting period, the contractor Tunuk Kurulush Ltd. was carrying out construction works. The construction of receiving tank (50 m3) for SPS-4 in Pristan-Pryezvalsk was completed, as well as the rehabilitation of manholes on the main collector leading to the WWTP. Installation of a discharge pipe (0.2 km) across the Karakol River has started.

4.1.6 Construction of Additional Sewer Network in Karakol

47. The Contractor, Inzhenernaya Zashchita Ltd., commenced works in October 2025 following approval of the SSEMP (approved on 02 October 2025). The PMO Environmental Specialist, K.Sh. Zhundubaev, conducted an introductory training for the H&S Engineer and Site Manager of Inzhenernaya Zashchita Ltd. on 17 October 2025. The training covered the following topics:

- Environmental monitoring
- Requirements for arrangement of a construction area in accordance with the SSEMP and national legal requirements
- Occupational health and safety measures (availability of PPE, provision of hot meals and drinking water at the construction site)

4.2 Site Audits

48. The construction sites were audited by DSC's International and National Environmental Specialists, Pushpanathan and Olga Zinina, to verify compliance with measures specified in the SSEMP (refer to Annexure 3 for site photos). The DSC Environmental Specialist visited the project sites in Karakol on 24 July 2025, 15 August 2025, 25 September 2025, 17 October 2025, 24 November 2025, and 18 December 2025 (together with the International Specialist). These visits were undertaken to assess the implementation status of the SSEMP in line with the commitments agreed upon by the Contractor. It was observed that most mitigation measures under the Environmental Management Plan (EMP) were effectively complied with (refer to **Annexure 2**). Site photos are provided in **Annexure 3**.

Table 4-1: **Audit of sites (Non-Compliances Tracking)**

(i)	Scope of Audit		:	EMP Compliance Monitoring in the IWMP construction sites								
(ii)	Auditor		:	Ms. O.V. Zinina (DSC's National Environmental Specialist)								
(iii)	Auditees		:	Ms. Anara Burkhanova, Karakol (Environmental Specialist for package W3) Mr. Kerimbek Kozhobaev (HS for package W4) Ms. A.B. Bekbojoeva (Environmental Engineer of Tunuk Kurulush Ltd.) Ms. Esenbaeva R (HSE of Tunuk Kurulush Ltd.) Mr. N. T. Satybaldiev (HSE Engineer of Inzhenernaya Zashchita Ltd.)								
S.no	**Site/ Location**	**Date Recorded**	**Category**	**Description of Issue**	**Corrective Action/s**	**NCN No**	**NC Level**	**Due Date**	**Priority**	**Person Responsible**	**Status**	**Date Closed**
1	Tunuk - Kurulush	14.05.25	Other	Site passport is missing at Site of SPS and Crossing the	Establish the site's passport	N54	N/A	01.06.25	Low	Site Manager	Closed	04.10.25

(i)	Scope of Audit	:	EMP Compliance Monitoring in the IWMP construction sites
(ii)	Auditor	:	Ms. O.V. Zinina (DSC's National Environmental Specialist)
(iii)	Auditees	:	Ms. Anara Burkhanova, Karakol (Environmental Specialist for package W3) Mr. Kerimbek Kozhobaev (HS for package W4) Ms. A.B. Bekbojoeva (Environmental Engineer of Tunuk Kurulush Ltd.) Ms. Esenbaeva R (HSE of Tunuk Kurulush Ltd.) Mr. N. T. Satybaldiev (HSE Engineer of Inzhenernaya Zashchita Ltd.)

S.no	Site/ Location	Date Recorded	Category	Description of Issue	Corrective Action/s	NCN No	NC Level	Due Date	Priority	Person Responsible	Status	Date Closed
				Karakol River								
2	Tunuk - Kurulush	14.05.25	Safety	The fence is broken	The safety log must be located at the construction site	N55	N/A	01.06.25	Low	Site Manager	Closed	04.10.25
3	Tunuk - Kurulush	14.05.25	Safety	no first aid kit	Purchasing a first aid kit	N56	N/A	01.06.25	Low	Site Manager	Closed	04.10.25
4	Karakol WWTP	25.09.25	Health	there is no shoring of trenches	Provide trench wall shoring 'or make the trench edge gently sloping	N57	N/A	30.10.25	Medium	HSE Engineer	Closed	01.10.25
5	Inzhenernaya zashchita	17.10.25	Safety	Trenches are not safe.	Trenches are not barricaded. Provide shoring or make the trench edge gently sloping	N58	N/A	23.10.25	Medium	HSE Engineer	Closed	20.10.25
6	Inzhenernaya zashchita	17.10.25	Health	First aid kit is not available.	A first aid kit must be available on the site.	N59	N/A	20.10.25	Low	Site Manager	Closed	20.10.25

Table 4-2: Corrective actions at the project site (snapshots taken after rectification of non-compliance)

<table>
<tr><th colspan="2">Construction of Pump Station and Rising Main 1.7km in Karakol</th></tr>
<tr><td>  </td><td>  </td></tr>
<tr><td>Without fencing the site</td><td>Appropriate fencing with safety display boards is provided</td></tr>
<tr><th colspan="2">Construction of Additional Sewer Network in Karakol</th></tr>
<tr><td>  </td><td> 
</td></tr>
<tr><td>In the absence of site barricading</td><td>Barricading has been provided along with safety information boards at the site</td></tr>
</table>

4.2.1 Issues Tracking (Based on Non-Conformance Notices)

49. During the reporting period, construction activities for the Karakol Wastewater Treatment Plant (WWTP), Construction works for the Pump Station and 1.7 km Rising Main in Karakol and Construction of Additional Sewer Network in Karakol were ongoing. A summary of the audit findings highlighting observed deviations, mitigation measures implemented, and overall compliance status is presented in the following tables. The corresponding Non-Conformity Tracking Report is attached as **Annexure 4**.

Table 4-3: Summary Table

Total Number of Issues for Project (In 2025)	6
Number of Open Issues	-
Number of Closed Issues	6
Percentage by Closed Issues	100%
Issues Opened this Reporting Period	3
Issues Closed this Reporting Period	3
Issues Closed on Time	50%
Percentage of Closed Issues	100%
Percentage of Open Issues	-

Table 4-4: Issues by Category In this period

Environmental Protection	-
Social	-
Health	2
Safety	3
Other	1

4.2.2 Trends

50. Comparison of previous and current period Non-compliance issues is given in Table 4-5

Table 4-5: Comparison of Trends

Semi - Annual Environmental Monitoring Reports	Total No of Issues	Issues Closed	Percentage of Issues closed late		Open issues
			This reporting period	Previous reporting period	
5	11	9	-	2	2
6	28	28	4	-	-
7	7	6	3	-	1
8	18	18	8	-	-
9	16	12	12	4	4
10	10	10	10	-	-
11	3	-	-	-	3
12	3	6	3	3	-

51. As per Table 4-5, the main non-compliances were caused by insufficient arrangements for activities specified in the SSEMP. To reduce the number of non-compliances, additional training on the measures provided in the SSEMP are required not only for the engineering staff, but also for the labours/workers.

52. Unanticipated Environmental Impacts or Risks. Except an incident happened on 24 September 2025, ground movement in a trench at Karakol WWTP after heavy rainfall caused a minor injury to a survey assistant. Immediate medical care was provided. The Contractor secured and stabilized the excavation, conducted safety inspections, and briefed personnel on enhanced safety protocols to prevent recurrence. Other this, during the current reporting period (July to December 2025), no unanticipated Environmental impacts or risks that have been encountered or identified.

53. The compliance to the Labor standards, health and Safety (as indicated in the loan covenant) is provided in the Table 4-6.

Table 4-6: Labor standards, health and safety – Loan Covenants

Sl.no	Loan Agreement Reference	Environmental Compliance Requirements	Compliance Status	Remarks
12.	Labor standards, health and Safety	Para 11. The borrower shall ensure that the core labor standards and the applicable laws and regulations of the borrowers are complied with during the project implementation. The borrower shall include specific provisions in the bidding documents and contracts financed by ADB under the project requiring contactors to, among other things		
		(a) comply with the applicable labor law and regulations of the borrower and incorporate applicable workplace occupational safety norms.		(a) The applicable labor law has been adopted. During the construction of the Karakol WWTP, Pump Station, Rising Main (1.7 km), and the Additional Sewer Network in Karakol, only local laborers are engaged
		(b) not use child labor.	**Being Complied**	(b) Use of child labours are strictly prohibited
		(c) not discriminate workers in respect of employment and occupation.		(c) There are no grievances or complaints received from any of the labours.
		(d) not use forced labor.		(d) There are no forced labours observed in the project site
		(e) allow freedom of the association and effectively recognize the right to collective bargaining; and		(e) and
		(f) disseminate, or engage appropriate service providers to disseminate, information on the risks of sexually transmitted diseases, including HIV/AIDS, to the employees of contractors engaged under the project and to number of the local communities surrounding the		(f) wages for the labours are fixed as per the country labour law. Health camps are conducted for the labours through which the information pertaining to HIV/AIDS is shared.

Sl.no	Loan Agreement Reference	Environmental Compliance Requirements	Compliance Status	Remarks
		project area, particularly women.		

4.2.3 ADB Loan Review Mission (November 2025)

54. The observations and recommendations outlined in the aide-memoire on environmental safeguards have been duly reviewed by the PMO and DSC. In accordance with this review, the contractor has been instructed to implement additional measures aligned with the agreed activities, as stipulated in the ADB aide-memoire. Furthermore, as part of its monitoring obligations, the DSC shall document the suggested measures during site audits. The subsequent table presents the status of actions undertaken in response to ADB's recommendations.

Table 4-7: Action plan with specific deadlines based on the mission findings

Sl.no (Reference to Aide memoir)	Agreed activity	Responsible	Status
20	Environmental Safeguards: • Maintain daily toolbox talks and OHS training. • Continue dust suppression as concrete works progress. • Continue monthly odor checks and reporting by the CLO. • Complete instrumental air and noise monitoring and carry out scheduled surface-water monitoring. • Maintain regular reporting and notify ADB of any unanticipated impacts as well as any incidents occurred at the site.	PMO/ Karakol PIU	Regularly

5 ENVIRONMENTAL MONITORING RESULTS

5.1 Overview of Monitoring Conducted during the Current Period

55. During the reporting period (July–December 2025), environmental monitoring was not undertaken for the construction of the Pump Station and Rising Main (1.7 km) under Contract #W3.1, and the additional Sewer Network in Karakol under Contracts #W2.3 and #W2.4. Although Contract #W3.1 commenced in April 2025, the Contractor worked intermittently—engaging on site for only 1–2 weeks at a time and then diverting to other projects for 2–3 weeks. This irregular work schedule, combined with the fact that the agreement with MNRET was not signed due to intermediate construction activities, further delayed monitoring arrangements. In November, construction was suspended entirely due to the winter season, making site works impractical and preventing monitoring. As monitoring is directly linked to active construction activities, the suspension and irregular progress meant that no meaningful environmental data could be collected during this period. Accordingly, the absence of monitoring is justified, and activities will recommence once construction resumes in April, ensuring compliance with safeguard requirements.

5.1.1 Air Quality

56. For Balykchy (Contract # W4.0), Ambient air quality monitoring was conducted by the MNRETS on 24 October 2025. (refer to **Annexure 6** for AAQ data).

Table 5-1: Air Quality Monitoring Results at Balykchy WWTP

Sl.no.	Name of tested parameter	Test results by points, mg/m^3			Maximum single MPC, mg/m^3
		831 – western side;	832 – eastern side;	833 – northern side	
24 October 2025					
1	Sulphur dioxide	0.110 ± 0.013	0.098 ± 0.012	0.102 ± 0.012	0.5
2	Nitrogen dioxide	0.185 ± 0.033	0.145 ± 0.026	0.162 ± 0.029	0.085
3	Carbon monoxide	0.300 ± 0.060	0.300 ± 0.060	0.200 ± 0.040	5.0
4	Suspended solids	0.157 ± 0.039	0.157 ± 0.039	0.313 ± 0.078	0.5

Source: Department of Monitoring under the MNRETS

57. According to the results of chemical tests of the samples of atmospheric air, an exceedance in comparison with the MPC (maximum permissible concentration) for nitrogen dioxide was observed: at point No. 831 – 2.2 times; at point No. 833 – 1.9 times. The remaining indicators are within the limits. The Hygienic Standards for MPC of pollutants in atmospheric air of populated areas were approved by Resolution of the Government of the Kyrgyz Republic No. 201 (Appendix 17) dated April 11, 2016.

58. For WWTP at Karakol (Contract # W3.0), the environmental monitoring for air quality (sulphur dioxide, nitrogen, carbon monoxide, and suspended solids) was conducted by the Monitoring Department of MNRETS on 26 August 2025 and 3 December 2025 (refer to **Annexure 6** for AAQ data).

Table 5-2: Air Quality Monitoring Results at Karakol WWTP

Sl.no.	Name of tested parameter	Test results by points, mg/m³				Maximum single MPC, mg/m³
		Settlement Geolog	East side of the site	South side of the site	Northwest side of the site	
26 August 2025						
1	Sulphur dioxide	0,212±0,025	0,201±0,008	0,181±0,021	0,264±0,031	0,5
2	Nitrogen dioxide	0,235±0,042	0,043±0,008	0,224±0,043	0,233±0,041	0,085
3	Carbon monoxide	0,3±0,06	0,4±0,08	0,3±0,06	0,4±0,08	5.0
4	Suspended solids	0,164±0,041	0,149±0,054	0,164±0,041	0,164±0,041	0,5
03 December 2025						
1	Sulphur dioxide	0,319±0,038	0,311±0,037	0,308±0,037	0,302±0,036	0,5
2	Nitrogen dioxide	0,110±0,020	0,098±0,018	0,119±0,021	0,133±0,024	0,085
3	Carbon monoxide	0,3±0,06	0,3±0,06	0,4±0,08	0,3±0,06	5.0
4	Suspended solids	0,151±0,038	0,151±0,038	0,151±0,038	0,151±0,038	0,5

Source: Department of Monitoring under the MNRETS

59. The AAQ monitoring conducted in August and December 2025 indicated that sulphur dioxide (0.181–0.264 mg/m³ in August; 0.302–0.319 mg/m³ in December), carbon monoxide (0.3–0.4 mg/m³ in both periods), and suspended solids (0.149–0.164 mg/m³ in August; 0.151 mg/m³ in December) were consistently within the permissible limits. Nitrogen dioxide concentrations (0.043–0.235 mg/m³ in August; 0.098–0.133 mg/m³ in December) were observed to be above the maximum permissible concentration of 0.085 mg/m³ at several points, highlighting an area that requires continued attention. While sulphur dioxide levels showed a slight increase in December compared to August, they remained within the threshold, and nitrogen dioxide remains the parameter to be monitored more closely moving forward.

5.1.2 Odour Monitoring for Karakol WWTP

60. As per the Sanitary Protection Zone (SPZ) for Karakol WWTP (including the lagoons), which is approved on 11th September 2023 by the head of the Issyk-Kul Regional Department of MNRETS, shows the recorded Hydrogen sulphide (H_2S) concentration (0.000631 mg/m^3) near the settlement area (Geolog village) is below the WHO air quality guideline for Hydrogen sulfide, which is 150µg/m^3 (0.15 mg/m^3). However, as per the ADB, the residents from Geolog village have shared complaints regarding the fouling smell (H_2S) arising from the WWTP (including the lagoons), because of this ADB has requested the PMO to prepare an odour monitoring plan for a continuous air quality monitoring (particularly on H_2S) using a portable multi-gas detector (BOSEA version: BSA20180501001).

61. Given this, the odour monitoring plan was prepared by drafting a suitable methodology, including the frequency of monitoring and reporting. The plan was cleared by ADB on 3 April 2025 and is being implemented by the Community Liaison Officer (CLO) assigned by the PMO.

62. In compliance with the PMO's directive, the Design Supervision Consultant (DSC) facilitated targeted capacity-building sessions for the Community Liaison Officer (CLO) on odour pollution assessment, using the multi-gas detector (BOSEA, Model No.: BSA20180501001). Following the training, the CLO initiated systematic monitoring at designated reference locations, as outlined in the approved Odour Monitoring Report. The completed monitoring format

(monthly-wise) is presented in Figure 5-1, capturing recorded values and demonstrating compliance tracking across key observation points.

63. Based on the outputs of the odour monitoring conducted using the multi-gas detector, the recorded concentration of hydrogen sulfide (H_2S) across all reference points remains negligible and well below threshold levels. Importantly, no odour-related grievances or complaints have been reported by residents of Geolog village in relation to activities at the Wastewater Treatment Plant (WWTP) site, indicating satisfactory environmental performance and community acceptance during the reporting period.

Проект «Управление сточными водами Иссык-Куля»
Issyk-Kul Wastewater Management Project

Отчет о результатах измерения запаха на КОС г. Каракол и в п. Геолог /
Report on odor measurement results at the Karakol WWTP and Geolog Village

#	**Дата/** Date: (DD/MM/YYYY)	**Время/** Time:	**Результаты измерения H2S (ч/млн) в контрольных точках (Кт) /** H2S (ppm) measurement results in reference points (RP)					
			У колодца / At the manhole	**Кт №1 (возле биопруда №4) /** RP#1 (by BP#4)	**Кт №2 /** Reference point #2	**Кт №3 /** Reference point #3	**п. Геолог/** Geolog village	**Расстояние от биопруда №4 до точки с измеренным «0» значением (м)/** Distance to the point with measured "0" value (m)
1.	1.07.25	8.24	10	0	0	0	0	
		17.46	5	0	0	0	0	
2.	2.07.25	6.48	10	0	0	0	0	
		16.59	6	0	0	0	0	
3.	3.07.25	12.04	9	0	0	0	0	
		17.39	7	0	0	0	0	
4.	4.07.25	12.10	7	0	0	0	0	
		18.30	5	0	0	0	0	
5.	7.07.25	11.36	17	0	0	0	0	
		17.19	5	0	0	0	0	
6.	8.07.25	12.22	4	0	0	0	0	
		17.19	7	0	0	0	0	
7.	9.07.25	12.16	4	0	0	0	0	
		17.07	10	0	0	0	0	
8.	10.07.25	12.00	4	0	0	0	0	
		18.04	4	0	0	0	0	
9.	11.07.25	13.35	12	0	0	0	0	
		17.56	8	0	0	0	0	
10	14.07.25	11.49	7	0	0	0	0	
		17.13	7	0	0	0	0	
11	15.07.25	16.50	5	0	0	0	0	
		16.52	9	0	0	0	0	
12	16.07.25	12.14	5	0	0	0	0	
		18.40	8	0	0	0	0	
13	17.07.25	12.44	11	0	0	0	0	
		18.02	13	0	0	0	0	
14	18.07.25	8.17	24	0	0	0	0	
		19.00	6	0	0	0	0	
15	21.07.25	8.24	4	0	0	0	0	
		16.14	4	0	0	0	0	
16	22.07.25	11.17	6	0	0	0	0	
		17.31	8	0	0	0	0	
17	23.07.25	8.02	21	0	0	0	0	
		17.48	5	0	0	0	0	
18	24.07.25	8.12	4	0	0	0	0	
		17.42	4	0	0	0	0	
19	25.07.25	8.25	68	0	0	0	0	
		16.59	20	0	0	0	0	
20	28.07.25	8.23	5	0	0	0	0	
		16.02	24	0	0	0	0	
21	29.07.25	8.10	36	0	0	0	0	
		17.57	35	0	0	0	0	
22	30.07.25	8.02	63	0	0	0	0	
		17.13	20	0	0	0	0	
23	31.07.25	7.19	12	0	0	0	0	
		17.00	57	0	0	0	0	

Измерения проведены: Recorded by:	**Исанов С.Д., Специалист ОРП г. Каракол по связям с общественностью** Isanov Sabyrbek, Community Liaison Officer, Karakol PIO
Проверил (ОРП): Verified by (PIO):	**Джаныбеков А.К., Менеджер ОРП г. Каракол** Dzhanybekov A.K., Karakol PIO Manager

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			У колодца / At the manhole	**Кт №1 (возле биопруда №4)** / RP#1 (by BP#4)	**Кт №2** / Reference point #2	**Кт №3** / Reference point #3	**п. Геолог/** Geolog village	**Расстояние от биопруда №4 до точки с измеренным «0» значением (м)/** Distance to the point with measured "0" value (m)
1	1.08.25	7.52	7	0	0	0	0	
		13.38	5	0	0	0	0	
2	4.08.25	7.48	12	0	0	0	0	
		17.30	16	0	0	0	0	
3	5.08.25	7.56	24	0	0	0	**0**	
		17.00	6	0	0	0	0	
4	6.08.25	7.38	6	0	0	0	0	
		17.47	17	0	0	0	0	
5	7.08.25	7.56	6	0	0	0	0	
		17.17	4	0	0	0	0	
6	8.08.25	7.36	12	0	0	0	0	
		16.48	0	0	0	0	0	
7	11.08.25	8.06	5	0	0	0	0	
		17.47	5	0	0	0	0	
8	12.08.25	13.14	5	0	0	0	0	
		18.46	12	0	0	0	0	
9	13.08.25	7.40	7	0	0	0	0	
		17.49	5	0	0	0	0	
10	14.08.25	7.32	14	0	0	0	0	
		17.05	5	0	0	0	0	
11	15.08.25	8.04	12	0	0	0	0	
		17.15	7	0	0	0	0	
12	18.08.25	7.39	4	0	0	0	0	
		17.27	4	0	0	0	0	
13	19.08.25	7.57	11	0	0	0	0	
		18.33	13	0	0	0	0	
14	20.08.25	7.48	13	0	0	0	0	
		16.40	0	0	0	0	0	
15	21.08.25	7.48	10	0	0	0	0	
		17.55	5	0	0	0	0	
16	22.08.25	7.33	12	0	0	0	0	
		16.38	11	0	0	0	0	
17	25.08.25	11.08	8	0	0	0	0	
		18.08	4	0	0	0	0	
18	26.08.25	10.21	6	0	0	0	0	
		16.50	6	0	0	0	0	
19	27.08.25	10.00	0	0	0	0	0	
		17.00	6	0	0	0	0	
20	28.08.25	10.11	5	0	0	0	0	
		17.29	11	0	0	0	0	
21	29.08.25	10.10	0	0	0	0	0	
		16.55	0	0	0	0	0	

Измерения проведены: Recorded by:	**Исанов С.Д., Специалист ОРП г. Каракол по связям с общественностью** Isanov Sabyrbek, Community Liaison Officer, Karakol PIO	
Проверил (ОРП): Verified by (PIO):	**Джаныбеков А.К., Менеджер ОРП г. Каракол** Dzhanybekov A.K., Karakol PIO Manager	

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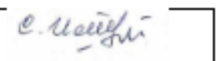
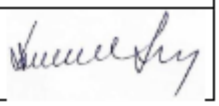
			В колодце / In the manhole	**Кт №1 (у биопруда №4)** / RP#1 (by BP#4)	**Расстояние от биопруда №4 до точки с измеренным «0» значением (м)**/ Distance to the point with measured "0" value (m)	**Кт №2** / Reference point #2	**Кт №3** / Reference point #3	**п. Геолог/** Geolog village
1.	1.09.25	17.52	4	0		0	0	0
2.	2.09.25	17.30	10	0		0	0	0
3.	3.09.25	16.44	11	0		0	0	0
4.	4.09.25	16.01	4	0		0	0	0
5.	5.09.25	15.50	0	0		0	0	0
6.	8.09.25	17.22	4	0		0	0	0
7.	9.09.25	17.51	4	0		0	0	0
8.	10.09.25	17.20	5	0		0	0	0
9.	11.09.25	18.31	10	0		0	0	0
10	12.09.25	17.42	6	0		0	0	0
11	15.09.25	16.30	0	0		0	0	0
12	16.09.25	12.55	6	0		0	0	0
13	17.09.25	17.52	6	0		0	0	0
14	18.09.25	17.27	8	0		0	0	0
15	19.09.25	17.45	9	0		0	0	0
16	22.09.25	16.50	0	0		0	0	0
17	23.09.25	15.58	11	0		0	0	0
18	24.09.25	15.59	6	0		0	0	0
19	25.09.25	15.52	7	0		0	0	0
20	26.09.25	16.22	5	0		0	0	0
21	29.09.25	18.16	8	0		0	0	0
22	30.09.25	8.01	4	0		0	0	0

Измерения проведены: Recorded by:	**Исанов С.Д., Специалист ОРП г. Каракол по связям с общественностью** Isanov Sabyrbek, Community Liaison Officer, Karakol PIO	
Проверил (ОРП): Verified by (PIO):	**Джаныбеков А.К., Менеджер ОРП г. Каракол** Dzhanybekov A.K., Karakol PIO Manager	

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			В колодце / In the manhole	**Кт №1 (у биопруда №4) /** RP#1 (by BP#4)	**Расстояние от биопруда №4 до точки с измеренным «0» значением (м)**/ Distance to the point with measured "0" value (m)	**Кт №2 /** Reference point #2	**Кт №3 /** Reference point #3	**п. Геолог/** Geolog village
1.	1.10.25	17.04	6	0		0	0	0
2.	2.10.25	14.10	4	0		0	0	0
3.	3.10.25	15.07	5	0		0	0	0
4.	6.10.25	17.18	14	0		0	0	0
5.	7.10.25	16.46	11	0		0	0	0
6.	8.10.25	16.43	10	0		0	0	0
7.	9.10.25	15.47	10	0		0	0	0
8.	10.10.25	16.25	11	0		0	0	0
9.	13.10.25	18.00	12	0		0	0	0
10	14.10.25	18.34	9	0		0	0	0
11	15.10.25	17.49	11	0		0	0	0
12	16.10.25	17.40	9	0		0	0	0
13	17.10.25	16.40	0	0		0	0	0
14	20.10.25	16.37	10	0		0	0	0
15	21.10.25	16.05	0	0		0	0	0
16	22.10.25	17.40	5	0		0	0	0
17	23.10.25	17.29	9	0		0	0	0
18	24.10.25	15.55	12	0		0	0	0
19	27.10.25	17.25	16	0		0	0	0
20	28.10.25	17.23	10	0		0	0	0
21	29.10.25	17.51	5	0		0	0	0
22	30.10.25	16.06	0	0		0	0	0
23	31.10.25	17.05	5	0		0	0	0

Измерения проведены: Recorded by:	**Исанов С.Д., Специалист ОРП г. Каракол по связям с общественностью** Isanov Sabyrbek, Community Liaison Officer, Karakol PIO	С. Исанов
Проверил (ОРП): Verified by (PIO):	**Джаныбеков А.К., Менеджер ОРП г. Каракол** Dzhanybekov A.K., Karakol PIO Manager	

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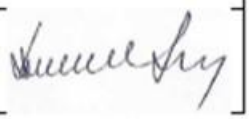
			В колодце / In the manhole	**Кт №1 (у биопруда №4) /** RP#1 (by BP#4)	**Расстояние от биопруда №4 до точки с измеренным «0» значением (м)/** Distance to the point with measured "0" value (m)	**Кт №2 /** Reference point #2	**Кт №3 /** Reference point #3	**п. Геолог/** Geolog village
1.	3.11.25	16.30	0	0		0	0	0
2.	4.11.25	17.05	0	0		0	0	0
3.	5.11.25	17.15	0	0		0	0	0
4.	6.11.25	17.43	8	0		0	0	0
5.	7.11.25	18.02	8	0		0	0	0
6.	10.11.25	16.05	0	0		0	0	0
7.	11.11.25	18.09	4	0		0	0	0
8.	12.11.25	16.34	7	0		0	0	0
9.	13.11.25	18.08	6	0		0	0	0
10	14.11.25	18.06	7	0		0	0	0
11	17.11.25	16.11	5	0		0	0	0
12	18.11.25	16.00	0	0		0	0	0
13	19.11.25	17.15	7	0		0	0	0
14	20.11.25	15.38	6	0		0	0	0
15	21.11.25	10.32	6	0		0	0	0
16	24.11.25	16.53	4	0		0	0	0
17	25.11.25	16.29	7	0		0	0	0
18	26.11.25	16.55	6	0		0	0	0
19	27.11.25	17.34	11	0		0	0	0
20	28.11.25	16.08	0	0		0	0	0

Измерения проведены: Recorded by:	**Исанов С.Д., Специалист ОРП г. Каракол по связям с общественностью** Isanov Sabyrbek, Community Liaison Officer, Karakol PIO	
Проверил (ОРП): Verified by (PIO):	**Джаныбеков А.К., Менеджер ОРП г. Каракол** Dzhanybekov A.K., Karakol PIO Manager	

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			В колодце / In the manhole	**Кт №1 (у биопруда №4) /** RP#1 (by BP#4)	**Расстояние от биопруда №4 до точки с измеренным «0» значением (м)/** Distance to the point with measured "0" value (m)	**Кт №2 /** Reference point #2	**Кт №3 /** Reference point #3	**п. Геолог/** Geolog village
1.	1.12.25	16.07	0	0		0	0	0
2.	2.12.25	16.36	5	0		0	0	0
3.	3.12.25	15.50	4	0		0	0	0
4.	4.12.25	16.15	0	0		0	0	0
5.	5.12.25	17.04	5	0		0	0	0
6.	8.12.25	16.49	4	0		0	0	0
7.	9.12.25	16.53	6	0		0	0	0
8.	10.12.25	16.00	0	0		0	0	0
9.	11.12.25	17.37	5	0		0	0	0
10	12.12.25	18.03	4	0		0	0	0
11	15.12.25	17.00	6	0		0	0	0
12	16.12.25	16.56	9	0		0	0	0
13	17.12.25	17.31	7	0		0	0	0
14	18.12.25	17.05	8	0		0	0	0
15	19.12.25	16.38	6	0		0	0	0
16	22.12.25	16.34	5	0		0	0	0
17	23.12.25	17.03	7	0		0	0	0
18	24.12.25	16.50	4	0		0	0	0
19	25.12.25	17.26	5	0		0	0	0
20	26.12.25	16.59	4	0		0	0	0
21	29.12.25	17.20	5	0		0	0	0
22	30.12.25	8.37	4	0		0	0	0
23	31.12.25	8.50	0	0		0	0	0

Измерения проведены: Recorded by:	**Исанов С.Д., Специалист ОРП г. Каракол по связям с общественностью** Isanov Sabyrbek, Community Liaison Officer, Karakol PIO	
Проверил (ОРП): Verified by (PIO):	**Джанybеков А.К., Менеджер ОРП г. Каракол** Dzhanybekov A.K., Karakol PIO Manager	

Figure 5-1: Odour monitoring at Karakol

5.1.3 Noise Levels

64. The noise monitoring conducted at the WWTP area on 29 September 2025 shows that the Pump P-302 and Biological Treatment Tank are the main contributors of low-frequency vibration noise, with octave band levels reaching 77–78 dB at 31.5 Hz and overall LAeqv values between 53–67 dB(A). The Screen Building registers a more balanced mid-frequency wide-band spectrum with LAeqv at 61 dB(A), while the Administration Building records the lowest average levels at 50 dB(A) but occasional peaks up to 67 dB(A). Overall, the data confirms that continuous low-frequency vibration and intermittent tonal components characterize the WWTP equipment areas, with all measured levels remaining within occupational exposure limits. The corresponding dataset is presented in Tables 5-3 detailing location-specific readings and compliance verification (refer to **Annexure 5** for Noise Levels).

Table 5-3: Noise Monitoring – Karakol WWTP (29 September 2025)

#	Place of measurement	Nature of noise						Sound pressure levels in dB in octave bands with geometric mean frequencies in Hz									Sound level (dBa) LAeqv.	Sound level (dBa) LAmax.
		Spectrum		Time														
		Wide band	Tone	Continuous	Vibrating	Intermittent	Impulse	**31.5**	**63**	**125**	**250**	**500**	**1000**	**2000**	**4000**	**8000**		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Latitude: 42°45’66’’; Longitude: 76°11’50’’																		
1	Pump P-302							77	61	58	50	48	49	45	37	36	**53**	**68**
Latitude: 42°45’67’’; Longitude: 76°11’80’’																		
2	Screen building							69	60	56	58	59	57	52	45	39	**61**	**66**
Latitude: 42°45’67’’; Longitude: 76°11’43’’																		
3	Biological treatment tank							78	72	60	64	63	64	57	47	40	**67**	**61**
Latitude: 42°45’66’’; Longitude: 76°11’28’’																		
4	Near the administrative building							80	60	54	52	47	45	41	37	37	**50**	**67**

65. The consortium of Hayat Group LLC and Bioworks Verfahrenstechnik GmbH engaged the Health Laboratory of the Karakol Inter-District Center for Disease Prevention and State Sanitary Epidemiological Surveillance under the KR MoH to measure noise levels at the WWTP site and in the vicinity of the residential area (Geolog Settlement). Noise levels at the Karakol WWTP area were measured on 1 September 2025 and 29 November 2025. The following table presents the results of the noise monitoring (refer to **Annexure 6** for Noise Levels).

Table 5-4: Noise Monitoring – Karakol WWTP (1 September 2025)

№	Place of measurement	Nature of noise						Sound pressure levels in dB in octave bands with geometric mean frequencies in Hz									Sound level (dBA)
		Spectrum		Time													
		Wide band	Tone	Continuous	Vibrating	Intermittent	Impulse	31.5	63	125	125	500	1000	2000	4000	8000	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Near storage area																
								107	95	87	82	78	75	73	71	69	80 (MPL)
	Leq							71.9	66.4	64.4	59.2	60.7	8.26	55.5	45.0	41.3	75.8±2.7
2	Area near administration building																
								107	95	87	82	78	75	73	71	69	80 (MPL)
	Leq							71.0	63.5	55.4	60.3	55.5	53.9	54.7	47.2	39.5	75.4±2.6
3	Area near sedimentation basin																
	Leq							107	95	87	82	78	75	73	71	69	80 (MPL)

	Slow max							54.7	47.2	39.5	35.1	36.7	35.1	53.9	33.8	39.7	76.1±2.6
4	Settlement geolog																
	Leq							107	95	87	82	78	75	73	71	69	80 (MPL)
								25.9	45.0	45.9	30.9	28.9	28.3	30.1	31.1	33.5	69.8±2.5

Table 5-5: Noise Monitoring – Karakol WWTP (29 November 2025)

№	Place of measurement	Nature of noise						Sound pressure levels in dB in octave bands with geometric mean frequencies in Hz									Sound level (dBA)
		Spectrum		Time													
		Wide band	Tone	Continuous	Vibrating	Intermittent	Impulse	31.5	63	125	125	500	1000	2000	4000	8000	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Site, camp																
								107	95	87	82	78	75	73	71	69	80 (MPL)
	Leq							65.1	61.2	60.8	51.1	46.3	43.1	43.0	41.1	33.5	73.2±2.6
2	Area of administration																
	Leq							107	95	87	82	78	75	73	71	69	80 (MPL)
	Slow max							62.1	60.9	59.5	48.7	46.5	43.2	41.1	39.5	31.6	74.5±2.6
3	Settlement geolog																
	Leq							107	95	87	82	78	75	73	71	69	80 (MPL)
								53.8	54.6	46.6	38.2	32.8	25.8	19.7	20.7	20.1	69.3±2.4

66. Noise monitoring conducted at the Karakol WWTP site and surrounding areas in September and November 2025 confirmed that all measured values remained below the maximum permissible limit of 80 dBA. In September, sound levels near the storage area (Leq 75.8±2.7 dBA), administration building (Leq 75.4±2.6 dBA), and sedimentation basin (Slow max 76.1±2.6 dBA) were close to the threshold, while the Geolog Settlement recorded a lower level (69.8±2.5 dBA), indicating no adverse impact on residents. In November, similar patterns were observed, with site camp (Leq 73.2±2.6 dBA) and administration area (Slow max 74.5±2.6 dBA) remaining compliant but near the limit, and the Geolog Settlement again showing a significantly lower level (69.3±2.4 dBA). Overall, both monitoring rounds demonstrate compliance with prescribed standards, with site-adjacent areas requiring continued observation and residential areas remaining comfortably within safe limits.

5.1.4 Vibration Monitoring

67. The vibration monitoring conducted at the WWTP area shows that the Pump P-302 recorded octave band levels ranging from 80 dB at 2 Hz to 59 dB at 63 Hz, with corrected equivalent values of 90 dB(A) (LAeqv) and 99 dB(A) (LAmax). The Screen Building and Biological Treatment Plant exhibited similar vibration spectra, with high levels at lower frequencies (91 dB at 2 Hz, tapering to 58–61 dB at 63 Hz), and corrected values of 86–90 dB(A) (LAeqv) and 93–96 dB(A) (LAmax). Near the Administration Building, vibration levels were slightly lower but still significant, ranging from 90 dB at 2 Hz to 59 dB at 63 Hz, with corrected values of 83 dB(A) (LAeqv) and 89 dB(A) (LAmax). Overall, the data indicates that vibration across the WWTP facilities is dominated by low-frequency components (2–16 Hz), consistent with mechanical

equipment operation and structural transmission, with all results remaining within the expected range for technical and transport-related vibration sources.

Table 5-6: Vibration Monitoring – Balykchy WWTP (29 September 2025)

	Place of measurement	Vibration type				Sound pressure levels in dB in octave bands with geometric mean frequencies in Hz						Adjusted and equivalent adjusted values and their levels		Measurement uncertainty ±dB
		Total			local									
		transport	Transport-technological	technological		2	4	8	16	31,5	63	Frequency correction W m (dB) LAequ	Frequency correction W m (dB) LAmax	
1	2	3	4	5	6	7	8	9	10	11	12	13		14
1	Latitude: 42° 45'66"; Longitude: 76°11'50".													
	Pump P-302					93	90	68	63	61	59	91	97	
	Slow max											90		
2	Latitude: 42° 45'67"; Longitude: 76°11'80".													
	Grid Building					92	90	86	84	59	61	85	88	
	Slow max											90		
3	Latitude: 42° 45'67"; Longitude: 76°11'43".													
	Reservoir Biological treatment			+		99	90	87	84	59	59	89	95	
	Slow max											90		
4	Latitude: 42° 28'2"; Longitude: 75°57'23".													
	Leq			+		89	80	75	70	58	53	85		
	Slow max											90		
5	Latitude: 42° 45'66"; Longitude: 76°11'28 ".													
	Near the administrative building			+		94	90	87	84	62	59	96	102	
	Slow max											90		

68. Vibration monitoring activities were not undertaken at the Wastewater Treatment Plant (WWTP) site under Contract #W4.0, since the major piling and excavation works have been completed and the construction of the structures is approaching completion. Consequently, vibration-related impacts are not expected.

5.1.5 Surface water Quality

69. Surface water samples were collected from Karakol River and Kara-Suu Creek and analysed for suspended solids and oil products. The sampling locations are fixed to cover both the upstream and downstream of both the Karakol River and Kara-Suu Creek. The outcome of the analysis is given in the following table (refer to **Annexure 6** for Surface water Quality).

Table 5-7: surface water quality for Karakol River and Kara-Suu Creek

Sl.no.	Water quality parameter	Test results by points, mg/m^3				MPC, mg/l	
		500m upstream of Karakol River	500m Downstream of Karakol River	500m upstream of Kara-Suu Creek	500m Downstream of Kara-Suu Creek	Fishery	Domestic

26 August 2025							
1	Suspended solids	6,4±1,92	8,0±2,4	8,4±2,52	12,4±2,48	Increase. 025/0.75	
2	Oil products	<0,005	<0,005	<0,005	<0,005	0,05	0,3
3 December 2025							
1	Suspended solids	1,2	1,0	1,4	1,0	Increase. 025/0.75	
2	Oil products	<0,005	<0,005	<0,005	<0,005	0,05	

70. Water quality monitoring carried out on 26 August and 3 December 2025 at upstream and downstream points of the Karakol River and Kara-Suu Creek showed encouraging results. Oil products remained consistently below detection limits (<0.005 mg/l) in both rounds, well within fishery and domestic standards, reflecting stable conditions with no signs of hydrocarbon contamination. Suspended solids displayed some variation: in August, values ranged between 6.4±1.92 and 12.4±2.48 mg/l, with downstream points showing slightly higher concentrations. By December, levels had reduced considerably (1.0–1.4 mg/l), remaining comfortably within permissible limits for both fishery and domestic use. Overall, the results suggest that while suspended solids were temporarily elevated during the August sampling, conditions improved by December, highlighting a positive trend towards stabilization of water quality

71. Inlet and outlet wastewater samples from the lagoon were collected on 26 August 2025 and 3 December 2025. These were analysed for (i) Ammonia Nitrogen, (ii) Nitrite Nitrogen, (iii) Nitrate Nitrogen, (iv) Suspended solids, (v) Synthetic surfactants, (vi) Permanganate index, and (vii) BOD_5. The results are presented in the table below.

Table 5-8: Lagoon water quality

Parameters	Inlet, mg/l	Outlet, mg/l	MPC	
			Fishery	Irrigation
26 August 2025				
Ammonia Nitrogen	10,23±1,43	14,11±1,97	0,4	0,1
Nitrite Nitrogen	0,008±0,004	0,01±0,005	0,02	0,15
Nitrate Nitrogen	3,21±0,8	6,23±1,56	9,0	10,2
Suspended solids	236,00±23,6	524,0±52,4	Increase 0.75	
Synthetic surfactants	1,2	2,67	0,1	2,5
Permanganate index	168.72	216.72	-	-
BOD 5	530.0	685.0	3.0	-
3 December 2025				
Ammonia Nitrogen	18,94±2,65	19,19±2,69	0,4	0,1
Nitrite Nitrogen	0,06±0,03	0,06±0,03	0,02	0,15
Nitrate Nitrogen	0,69±0,34	0,77±0,38	9,0	10,2
Suspended solids	180,00±18,00	228,0±22,8	Increase 0.75	
Synthetic surfactants	1.21	1.74	0,1	2,5
Permanganate index	77.36	124.56	-	-
BOD 5	342.0	557.0	3.0	-

72. Monitoring of lagoon inlet and outlet water samples in August and December 2025 showed that oil products and nitrate nitrogen remained within permissible limits, while nitrite nitrogen was compliant in August but slightly above fishery standards in December. Ammonia nitrogen, suspended solids, synthetic surfactants, permanganate index, and BOD_5 were consistently elevated in both months, though December values indicated improvement compared to August, particularly for suspended solids, organic load, and BOD_5. Overall, results suggest that while

several parameters remain above standards, December monitoring reflects a positive trend towards stabilization of water quality.

5.1.6 WWTP Water Quality monitoring- Balykchy WWTP

73. As part of the routine monthly monitoring, treated water at the Balykchy WWTP has been sampled and analysed in accordance with European discharge standards. The following table shows the results.

Table 5-9: Wastewater monitoring results - Balykchy WWTP

Sl.no	Parameters	July	August	October	November	European standard*
1	NH_4-N (mg/L)	7.5	1.46	1.07	1.72	≤10
2	NO_2-N (mg/L)	0.021	0.02	0.01	0.02	≤0.5–1.0 (typical permit)
3	NO_3-N (mg/L)	1.54	8.64	11.22	10.24	≤15 (TN in sensitive areas)
4	pH	7.38	7.22	6.94	6.94	6.5–8.5
5	Chloride (mg/L)	102.81	104.93	106.35	113.44	≤300
6	Sulfate (mg/L)	52	56	64	68	≤250–500
7	TSS (mg/L)	102	24.4	12	16	≤35
8	Permanganate oxidizability (mgO/L)	31.12	–	–	–	≤40 (COD proxy)
9	BOD_5 (mg/L)	94	45	30	45	≤25
10	SPAV (mg/L)	0.56	–	–	–	≤0.5–1.0 (detergents)
11	Iron (mg/L)	<0.02	<0.02	<0.02	<0.02	≤0.1–0.3

**Urban Wastewater Treatment Directive (91/271/EEC)*

74. Monitoring results indicated that while most parameters at the WWTP remained within European discharge standards, BOD_5 values were consistently elevated above the permissible limit, reflecting a significant organic load in the treated effluent. In response to this exceedance, the Project Management Office (PMO) formally addressed the matter by issuing a letter (Refer **Annexure 8**) to the industry responsible for discharging wastewater into the municipal sewer system. The communication emphasized the need for corrective measures to reduce BOD_5 concentrations and ensure compliance with discharge standards. This action highlights the regulatory follow-up undertaken to safeguard treatment efficiency and protect downstream water quality.

5.1.7 Topsoil Management.

75. The Contractor of Karakol WWTP, together with representatives of the Karakol Municipal Enterprise 'Vodokanal', determined the site for stockpiling the fertile soil layer before commencing works on the site and prepared an Act reflecting its intended use after completion of the construction works. It should be noted that the documents, as well as the site and stockpiling measures, were reviewed by the ADB Environmental Safeguards Mission on April 4–11, 2025.

76. The topsoil has been stripped and stockpiled in an undisturbed area, away from construction traffic and activities, thereby fulfilling the requirement for initial removal and preservation. The mound is stable, compact, and within the prescribed height limit of 1.5 m, with no signs of erosion, runoff, or weed growth. Although a cover has not been provided, the prevailing climatic conditions are sufficient to maintain soil integrity without artificial protection. As construction is incomplete, direct return of topsoil is not yet feasible, and no additional handling has occurred beyond the initial placement. Given these conditions, the current management practice adequately preserves soil quality for future reuse, and further mitigation measures such

as covering or weed removal are not necessary at this stage. DSC will continue monitoring and advise the Contractor if site conditions change.

5.2 Sanitary Protection Zone (SPZ)

77. The capacity of the designed WWTP is 12000 m^3/day. According to the Sanitary and Epidemiological Rules and regulations "Sanitary protection zones and sanitary classification of enterprises, structures, and other facilities" (Government Decree No. 201 dated April 11, 2016), the size of the SPZ for WWTP facilities the size of the SPZ for Karakol WWTP with a design capacity of treatment facilities of more than 5.0 and up to 50 thousand m^3/day should be 400 m.

Figure 5-1: Sanitary Protection Zone of the sewage treatment plant 400 metres (Yellow contour is the SPZ boundary of the WWTP. The size of the SPZ is 400 metres from the boundary of the WWTP)

78. SPZ report passed through the State Environmental Expertise and was approved on 11.09.2023 by the Issyk-Kul Regional Department of MNRETS. According to the report, the source data for the calculation of emissions of pollutants into the atmosphere from the sewage treatment plant are the results of the inventory of sources of emissions of harmful substances into the atmosphere and the source data provided by the Contractor. The report provides the results of calculations of the maximum one-time and gross annual emissions of pollutants into the atmosphere, as well as calculations of the dispersion of pollution in the atmospheric air. Within the borders where all production facilities will be located, the concentration of hydrogen sulfide is 3 MPC, but already at the border of the land plot, the concentration will be 1.5 MPC. At the northern border of the land plot of the treatment facilities, the concentration will decrease to 0.4 MPC, and at the border of the SPZ, it will be 0.2 MPC. This means that the concentration of hydrogen sulfide at the SPZ border will be 5 times less than the established maximum permissible concentration.

79. Calculation of surface concentration of emissions of ammonia, methane, Methyl mercaptan, hydrogen sulfide at the SPZ

The calculation is based on this formula $d = 16\sqrt{\upsilon_M}$ при $\upsilon'_M > 2$.

Parameters	cm (mg/m^3)	Concentration at the boarder of 400 meters (s, mg/m^3)
Methane	0,16711205	0,111682
Ammonia	0,001629601	0,001089
Hydrogen sulphide	0,000943976	0,000631

Methyl mercaptan	2,0186E-07	0,000000

80. Based on the calculations carried out, it can be concluded that the maximum surface concentration of emissions of ammonia, methane, methyl mercaptan, hydrogen sulfide at the boundary of the WWTP site does not exceed and is equal to 0.1 MPC. The report also states that to reduce the negative impact of production facilities on the residential development and to ensure hygienic standards the maximum landscaping of the SPZ territory with the mandatory planting of trees and shrubs on the side of residential development is proposed. The selection of species for landscaping of the sanitary protection zones preference is given to mixed tree and shrub plantings, which have biological stability and high decorative qualities in comparison with single-species plantings. At least 50% of the total number of trees planted should be the main tree species with the highest sanitary and hygienic effectiveness, viability in the given soil and climate conditions, and tolerance to emissions.

5.3 Trends

81. Environmental monitoring, including noise, vibration (September 2025), and monthly WWTP water quality, has been conducted at the Balykchy WWTP. However, although ambient air quality monitoring was carried out, the results have not been included in this SAEMR due to issues in sharing the data by the laboratory with the contractor.

82. For the Karakol WWTP, environmental monitoring was undertaken in August and December 2025, following the commencement of infrastructure works. Monitoring parameters included standard air, noise, and water quality indicators.

83. Environmental monitoring was not conducted for Contract Package W3.1 (Construction of Pump Station and Rising Main, 1.7 km in Karakol) and Contract Packages W2.3 and W2.4 (Construction of Additional Sewer Network in Karakol) during this reporting period. The contractors, Tunuk Kurulush Ltd and Inzhenernaya Zashchta Ltd, is required to formalize an agreement with an accredited laboratory to initiate instrumental environmental monitoring. The Design and Supervision Consultant (DSC) will provide full technical and procedural support to facilitate the onboarding of the laboratory and ensure timely commencement of compliant monitoring activities

5.4 Summary of Monitoring/ Observation Outcomes.

- In the Karakol WWTP construction site, the HSE Engineers conduct daily visual and quarterly instrumental monitoring and keep records of excess soil, as well as generated solid domestic wastes etc.
- During the reporting period, observations confirmed that all personnel engaged in operation-phase activities at the Balykchy WWTP were equipped with appropriate Personal Protective Equipment (PPE) in accordance with site-specific safety protocols and regulatory requirements. Furthermore, all workers received adequate training to address potential emergency scenarios, ensuring operational readiness and alignment with both national occupational safety standards and MDB safeguard provisions.
- On-site sanitation and health provisions have been adequately arranged. Karakol WWTP construction site is equipped with latrines, waste bins, and a first aid kit. A dedicated medical facility is operational within the WWTP area, staffed permanently and supplied with sanitizing materials. Additionally, two outdoor toilets have been installed at the construction site.

- Safety briefings are conducted regularly to the construction labours
- During the observation period, no significant signs of negative environmental impact were identified. It is confirmed by the instrumental measurements at the Karakol site.
- Tunuk Kurulush Ltd and Inzhenernaya Zashchita Ltd have not yet formalized contractual arrangements with certified laboratories for the required environmental testing. It is necessary to expedite the contract signing process to ensure the timely commencement of instrumental monitoring and maintain alignment with environmental safeguard commitments.

5.5 Material Resources Utilization

84. The primary resources utilized during construction activities are water and electricity. Water is used for domestic consumption, hygiene maintenance within the construction camp, and technical applications such as dust suppression. The supply of water is arranged through a formal contract with Karakol Vodokanal.

Table 5-10: Material Resources Utilization

#	Name of Contractor	Electricity for the reporting period, kW/h	Water for the reporting period (m^3)
1.	Consortium of "JV LLC Hayat Group and Bioworks Verfahrenstechnik Gmbh"	63399.0	2088.0
2.	Tunuk Kurulush Ltd.	122.0	1.0
3.	Inzhenernaya Zashchita Ltd.	-	-
	Total	**63521**	**2089.0**

5.6 Waste Management

85. Waste management is carried out in accordance with the SSEMP. Contractors have signed agreements with municipal services for the removal of solid waste generated during construction. The table below presents the amount of waste produced by contractors during the reporting period. The JV Hayat Group Ltd and Bioworks Verfahrenstechnik GmbH signed a contract with ME Tazalyk for waste disposal, with excess soil stored in designated areas identified by ME Tazalyk. Similarly, Tunuk Kurulush Ltd and Inzhenernaya Zashchita Ltd signed a contract with ME Tazalyk for disposal of waste at the municipal landfill located 5 km from Karakol city, with excess soil stored in designated areas identified by ME Tazalyk. The volume and type of waste generated by each contractor during the reporting period are summarized in the table below.

Table 5-11: Waste generated during construction works

#	Name of Contractor	Excess soil (m^3)	Solid domestic wastes (t)	Construction and demolition waste (t)
1.	Consortium of "JV LLC Hayat Group and Bioworks Verfahrenstechnik Gmbh"	-	112.5	-
2.	Tunuk Kurulush Ltd.	-	0.02	-
3.	Inzhenernaya Zashchita Ltd.		0.015	
	Total:	**-**	**112.535**	**-**

5.7 Occupational and Community Health and Safety Monitoring

5.7.1 Community Health and Safety

86. On September 24, 2025, an unfortunate incident occurred at the Karakol WWTP construction site during elevation-setting works. Due to high soil moisture, the emergency discharge trench wall gave way, causing injury to Mr. Bayirzhan Isanov, who sustained a closed comminuted fracture of the leg. He was immediately hospitalized at the regional facility and received the necessary medical attention (refer **Annexure 7**).

87. During the reporting period, no incidents were recorded in Contract Package W2 (Construction of Pump Station and Rising Main, 1.7 km in Karakol) or in Contract Packages W2.3 and W2.4 (Construction of Additional Sewer Network in Karakol) that led, or could have led, to health and safety risks for the population. All construction activities were undertaken during working hours (9:00 a.m. to 6:00 p.m.). Prior to the commencement of works, the local community was notified in advance about the planned activities and the risks associated with proximity to open trenches. No traffic accidents were reported during this period.

5.7.2 Worker's safety and health

88. Except for the minor incident that occurred on 24 September 2025 at the Karakol WWTP (The labourer's condition is stable, and he has resumed attending university. The Contractor has covered all hospitalization and medical requirements.), there were no accidents or serious incidents involving workers during the reporting period for the ongoing work packages. The contractors have appointed HSE Engineers, and their personnel regularly provide instructions on safety and environmental protection. Construction workers are supplied with the necessary PPE, first aid kits, and sanitizers. A first aid station has been established at the Karakol WWTP, staffed by a qualified nurse. Contractors for each subproject conduct workplace inspections to safeguard the health and safety of workers and surrounding communities. The contractors' HSE staff also conduct regular briefings on safety practices and the proper use of PPE during construction activities.

5.8 Capacity Building/ Training

89. Karakol WWTP – Hayat Group Ltd (Subcontractor Issyk-Kul Suu Kurulush Ltd). Trainings held on 25 July 2025 (13 participants) and 26 August 2025 (6 participants).

- Topics: environmental safeguards, occupational health and safety, risk assessment, PPE use, site safety, and compliance with environmental legislation.
- Additional retraining conducted in August at the Intersectoral Training Center (Karakol branch) for 6 workers in specialized trades (crane slinger, welders, polyethylene pipe installers, electrician).
- Certificates of work authorization issued upon completion

90. Construction of Additional Sewerage Network in Karakol – Inzhenernaya Zashchita Ltd

- Introductory training conducted on 17 October 2025 by PMO Environmental Specialist.
- Participants: HSE Engineer and Site Manager.
- Topics: environmental monitoring, SSEMP compliance, national legal requirements, occupational health and safety measures (PPE, provision of hot meals and water).

91. Balykchy WWTP and PIU Staffs – Study Tour in People Republic of China (PRC)

- Training conducted 18–30 October 2025 in the People's Republic of China, organized by JV CCCC Tianjin Dredging Co., Ltd, CRBC, and China Northeast Municipal Engineering Design Institute.
- 19 participants (including 6 women) attended, supporting gender balance objectives.
- Modules covered:
    - Module A: Operation and maintenance of water supply and wastewater treatment enterprises (hydraulics, water chemistry, modern treatment methods, automation, monitoring).
    - Module B: Management of municipal enterprises (urban water management, tariff setting, digital technologies, smart water systems).
- Practical site visits to major water and wastewater facilities and technology companies in Tianjin and Zhezou City.
- Outcomes: enhanced technical and managerial competencies, strengthened women's participation, exposure to advanced PRC practices, and improved institutional capacity for sector modernization.

5.9 Grievance Redress Mechanism

92. The Grievance Redress Mechanism (GRM) is established to deal with applications, complaints and queries from APs regarding land acquisition, compensation and resettlement, environmental and gender issues in a timely and appropriate manner.

93. The GRM was created at the project preparation stage in accordance with the order No. 219 of June 21, 2018, of the State Agency for Architecture, Construction, Housing and Communal Services under the Government of the Kyrgyz Republic and updated at the project implementation stage in accordance with the order No. 153 dated July 2, 2019. It was updated at the project implementation stage by Order No. 153 dated 2 July 2019 and Order No. 145 dated 29 July 2020 of the State Water Resources Agency under the Government of the Kyrgyz Republic.

94. The commission for reviewing complaints and appeals under the Grievance Redress Mechanism (GRM) was updated in accordance with Order No. 140, issued on 31 December 2021 by the State Agency for Architecture, Construction, Housing and Communal Services under the Cabinet of Ministers of the Kyrgyz Republic.

95. Due to frequent changes in the structure of the Government of the Kyrgyz Republic, since the start of IWMP implementation the Executing Agency (EA) – DWSSDD has been transferred between the former SAWR, the Ministry of Transport, Architecture, Construction and Communications of the Kyrgyz Republic, and the State Agency for Architecture, Construction, Housing and Communal Services (Gosstroy). At present, it operates under the Ministry of Water Resources, Agriculture and Processing Industry of the Kyrgyz Republic, while retaining all its core tasks, functions, and authorities, including those related to IWMP implementation, and continues to act as the legal successor. The composition of commissions at both central and local levels, as well as the positions of state and municipal authorities, has remained unchanged. Therefore, considering that the project implementation period will conclude in late 2026, there is no need to amend the above-mentioned Gosstroy order.

96. To assist the complainant(s) in formally presenting their appeals and grievances, GRG has designated Local Focal Persons (LFPs) who are readily accessible to affected persons. LFPs are located in the cities of Balykchy and Karakol.

97. The two focal contact persons are:

- For Balykchy: Kolbay Karasartov, Balykchy PIU Manager, 58 Karalaeva str., MP Vodokanal, email: managerbalykchy@iwmp.kg Tel: +996 700 503 421
- For Karakol: O. I. Zavyalova Project Consultant, ME Vodokanal 3 Tyupskaya str., email: olenka.zavyalova.57@mail.ru Tel: +996 555 040 074 and S.D. Isanov Community Liason Officer, Karakol PIU, email: clo@iwmp.kg Tel: +996 702 773 802

98. No complaints and appeals have been received in Balykchy during the reporting period.

99. During the reporting period July–December 2025, a total of four requests were received regarding the Karakol facilities. All requests originated from residents of the Geolog settlement and concerned the provision of project-related information. The information was provided in a timely manner, and all requests have been duly closed.

Table 5-12: Complaints and appeals in Karakol city from July to December 2025

№	Name of measures on appeals/complaints/ suggestions	Date	Location	Number of participants [1]	F	M	Discussed issues
1	Meeting of PIU Karakol with the residents of Geolog village	07.08.2025	PIU Karakol	2	0	2	A resident of the Geolog village, T. Koichuev, visited the PIU office in Karakol regarding the progress of social facilities in the Geolog village. T. Koichuev was informed that a tender has been completed for the procurement of materials and equipment for the modernization of social facilities in the village (a children's playground complex, electricity supply line and transformer, and water supply line), and Kagan LLC was selected. This information has been shared with all residents of

№	Name of measures on appeals/complaints/ suggestions	Date	Location	Number of participants [1]	F	M	Discussed issues
							the Geolog village via the WhatsApp group. Installation will be carried out by the relevant municipal services in accordance with the MoU. The contract for the construction of the sewerage system in the Geolog village is in the process of being signed with Engenernaya Zashita LLC. After the submission and receipt of documents for the land plot for the water intake facility (WIF), IWMP will procure the WIF and a submersible pump.
2	Meeting with the residents of Geolog village	20.10.2025	Geolog village	2	1	1	A resident of the Geolog village A. Adybaeva, submitted a collective appeal to the First Deputy of the PROPKRIO regarding the extension of the main sewerage network in the Geolog village to her house. A. Adybaeva was informed that the

№	Name of measures on appeals/complaints/ suggestions	Date	Location	Number of participants [1]	F	M	Discussed issues
							construction of the main sewerage network in the Geolog village with Engenernaya Zashita LLC has started in Karakol. All adjacent households and apartments are required to connect at their own expense, regardless of their distance from the main sewerage network.
3	Meeting of Karakol PIU with the residents of Geolog village	01.11.2025	PIU Karakol	2	0	2	A resident of the Geolog village, M. Kadyrov, visited the PIU office in Karakol regarding the progress of implementation of social facilities in the Geolog village. Resident M. Kadyrov was informed that the supplier Kagan LLC has delivered materials and equipment for the modernization of social facilities (a playground complex, an electricity supply line and transformer, and a water supply line). This information was

№	Name of measures on appeals/complaints/ suggestions	Date	Location	Number of participants [1]	F	M	Discussed issues
							communicated to all residents of the Geolog village through a WhatsApp group. Installation will be carried out by the relevant municipal services in accordance with the MoU. Engenernaya Zashita LLC will construct the sewerage system in Geolog village. The Aiyl Okmotu of the Altyn-Arashan Aiyl Aimak changed the designated use of the land plot intended for the children's playground to land allocated for the construction of a water intake facility (WIF).
4	Meeting of Karakol PIU with the residents of Geolog village	26.11.2025	PIU Karakol	3	0	3	A resident of the Geolog village, A. Yryskulov, visited the PIU office in Karakol regarding the connection of the sanitary facilities of his house to the main sewer manhole. "I am contacting you because a sewerage network is being constructed along our street, and its level is

№	Name of measures on appeals/complaints/ suggestions	Date	Location	Number of participants [1]	F	M	Discussed issues
							higher than the level of my house. As a result, connecting to the sewerage system appears to be impossible for me. We live near the wastewater treatment plant, and connection to the sewerage system is mandatory for us. The sewerage contractors have already constructed the network up to my house. I request that this issue be reconsidered and resolved positively." On 26 November 2025, a meeting was held with resident A. Yryskulov in the Geolog village in the presence of the PIU Karakol Manager A.K. Dzhanybekov. After reviewing the situation on site, A.K. Dzhanybekov proposed to measure the elevation differences between the sewer manhole and the house using a surveying instrument and,

№	Name of measures on appeals/complaints/ suggestions	Date	Location	Number of participants [1]	F	M	Discussed issues
							after clarification, to introduce the necessary adjustments. On 05 December 2025, a commission visited the site and identified that at plot No. 14 it is necessary to lower the sewer pipe to the required elevation to enable houses to connect to the sewerage system. An inspection report (act) was prepared. After discussion, the commission made the following decisions: To construct a sewerage pipeline from the house of A. Yryskulov along the house of A. Temishov, with a total length of 120 m, a depth of 1.2 m, and a pipe diameter of 150 mm. To finance the above-mentioned works at the Contractor's expense, using contingency funds or savings achieved.

№	Name of measures on appeals/complaints/ suggestions	Date	Location	Number of participants [1]	F	M	Discussed issues
							To instruct the design organization ENCON LLC to prepare the corresponding amendments to the detailed design

6 FUNCTIONING OF THE SEMP

6.1 SEMP Review

100. Contract No. W4.0 (Construction of the Balykchy Wastewater Treatment Plant) was completed, and the Design and Supervision Consultant (DSC) issued a certificate completion in August 2024. The PCEAR was prepared and disclosed through SAEMR 10 (June–December 2024) on the ADB website. An operational-stage Environmental Management Plan (EMP) was also prepared and cleared by the ADB. During the Defects Liability Period (DLP), the contractor, and during the operational phase, the PIU, are advised to implement the prescribed EMP measures. Accordingly, the contractor has conducted water quality monitoring, and the results have been presented in this SAEMR (see Chapter 5).

101. For Contract No. W3.0 (Construction of the Karakol Wastewater Treatment Plant), construction activities commenced in May 2024. In accordance with the Site-Specific Environmental Management Plan (SSEMP), environmental monitoring of ambient air quality, surface water quality (river, creek, and lagoon), and noise levels was carried out in August and December 2025. Analytical results indicate that the construction has not caused any significant environmental impact on the surrounding area. Field observations confirm effective SSEMP implementation, with essential facilities such as toilets and drinking water provided on site. As the project site is inaccessible to the public, however, safety barricades have been installed to secure the construction area. In addition, all construction materials are covered with tarpaulin or plastic sheets during transport to prevent spillage and dust generation.

102. For Contract No. W3.1 (Pump Station and Rising Main, 1.7 km in Karakol), the contractor developed and submitted the Site-Specific Environmental Management Plan (SSEMP) to the PMO, which was formally approved on 24 April 2025. The approved SSEMP has been adopted by the contractor during the construction of the Pump station and manhole construction).

103. For Contract Nos. W2.3 and W2.4 (Construction of the Additional Sewerage Network in Karakol), the contractor prepared and submitted the Site-Specific Environmental Management Plan (SSEMP) to the PMO for formal approval. Following the review, the SSEMP was approved by the PMO on 2 October 2025. The approved SSEMP has since been adopted for the construction of the sewerage network.

6.2 Grievances Redressal.

104. No grievances were reported in Balykchy during the July to December 2025 period, suggesting ongoing stakeholder satisfaction. In Karakol, however, a total of 4 complaints were received and were constructively addressed by the PIU, ensuring the concerns of the local community were satisfactorily resolved.

7 GOOD PRACTICES AND OPPORTUNITY FOR IMPROVEMENT

7.1 Good Practice

105. Under Contract No. W3.0 (Construction of the Karakol Wastewater Treatment Plant), several good practices in occupational health, safety, and hygiene have been observed. Municipal solid waste collection is actively practiced on-site, reflecting the contractor's commitment to maintaining a clean work environment. The kitchen and dining areas were found to be hygienically maintained. Three toilets have been installed at strategic locations, ensuring accessibility for labourers across the site.

106. Deep excavated areas are properly barricaded with information boards, and construction materials are stored in designated areas, which prevents spillage and helps avoid minor accidents or injuries

	
Barricading has been provided for deep excavated areas	Shuttering materials are stored in designated areas
	
Toilet Facility for Labours	First aid facility

107. First aid facilities are in place and assessed to be satisfactory. An on-site first aider is available to respond to emergencies, and security personnel have also been trained in basic first aid. Additionally, a dedicated shed for arc and electric welding has been provided, offering shelter and safety for workers during rainy conditions.

108. Dining facilities have been provided for the subcontracted workers, along with shade provisions. Water supply has also been made available for the workers. In addition, a dedicated vehicle wash area has been established.

	
Dining facility for subcontracted workers	Construction vehicle wash area provided

7.2 Opportunities for Improvement

109. Under Contract No. W3.0 (Construction of the Karakol Wastewater Treatment Plant), regular training sessions on Site Specific Environmental Management Plan (SSEMP) implementation, health, and safety should be organized for construction workers to ensure continued compliance and awareness.

110. For Contract No. W4.0 (Operation of the Balykchy Wastewater Treatment Plant), Environment, Health, and Safety (EHS) monitoring of the landscaping area should be organized to ensure better survival of plants and trees planted along the boundary. Environmental monitoring, as prescribed in the operational-stage EMP, must be strictly implemented.

111. For Contract No. W2.3 and W2.4, the additional Sewage Network Contracts Lot1 and Lot2, consultation with the local community needs to be improved. The construction work schedule/plan should be shared with them to enable better understanding and allow them to plan their activities accordingly. Roadside trees and vegetation must be preserved and protected from damage during the laying of sewer networks.

8 SUMMARY AND RECOMMENDATIONS

8.1 Summary

112. In Balykchy, the sewerage network contracts W1 Lot 1 and Lot 2 have been completed, with completion certificates issued in August 2023. The additional sewerage network contracts W1.3 and W1.4 remain at the bid evaluation stage. The Balykchy Wastewater Treatment Plant (Contract W4), constructed by the JV led by China Road and Bridge Corporation, was technically completed in June 2024 and certified in July 2024. The plant operated under the contractor's responsibility until November 2025 but extended to January 2026 due to a technical glitch. Monthly water quality monitoring confirmed that operations did not cause adverse environmental impacts.

113. In Karakol, sewerage network contracts W2 Lot 1 and Lot 2 were completed in November 2023. The additional sewerage network contracts W2.3 and W2.4 were awarded in August 2025 to Inzhenernaya Zashchita LLC, with SSEMP approval and instructions to commence construction. Contract No W3.1, Construction of the Pump Station and Rising Main, covering pipeline replacement, tank construction, and manhole rehabilitation, was signed in March 2025 and is progressing, with the tank completed and manholes rehabilitated. The Karakol Wastewater Treatment Plant (Contract No W3.0), implemented by Hayat Group LLC and Bioworks GmbH, has seen regular odour monitoring, which confirmed hydrogen sulfide levels within permissible limits. Environmental safeguard and occupational health and safety trainings were conducted in July and August 2025, while water, air, and noise monitoring between August and December 2025 confirmed compliance with standards.

114. Compliance with ADB loan agreement safeguards has been maintained across all packages. Initial Environmental Examinations (IEEs) were approved, EMPs integrated into contracts, and land acquisition avoided by using existing rights-of-way and WWTP lands. Labor standards were upheld, with no child or forced labor observed, and gender action plan (GAP) measures implemented, including women's participation in training programs. Safeguard monitoring reports have been prepared and disclosed semi-annually, ensuring transparency.

115. The following safeguard documents have been prepared and processed during the reporting period:

- For Contract No. W2.3 and W2.4 involving the construction of additional sewer network in karakol, the Site-Specific Environmental Management Plan (SSEMP) was prepared and submitted by the contractor to the Project Management Office (PMO), receiving formal approval on 3 October 2025. This approval marks a key pre-construction compliance milestone under ADB safeguards requirements, ensuring that site-level environmental and occupational health measures are aligned with the regulatory requirements

8.2 Recommendations

116. Community consultation in Karakol should be further strengthened, with construction schedules shared to minimize disruption and allow residents to plan accordingly.

- Environmental monitoring was not undertaken during July–December 2025 for the Pump Station, Rising Main, and Sewer Network contracts, as construction activities were suspended in November due to the winter season. Since monitoring is directly linked to

active works, the absence of data is justified. It is recommended that monitoring activities recommence in April 2026 once construction resumes, ensuring full compliance with safeguard requirements.

- Following the trench ground movement at Karakol WWTP on 24 September 2025, which resulted in a minor injury to a survey assistant, immediate medical care was provided and corrective measures were implemented. The Contractor secured and stabilized the excavation, conducted safety inspections, and reinforced safety briefings. It is recommended that enhanced excavation safety protocols and regular inspections continue to be enforced throughout construction to prevent recurrence and ensure worker safety

ANNEXURES

Annexure 1: Capacity Building Report

A. Training at Karakol WWTP

In line with the SSEMP requirements and environmental safeguard requirements, the contractor for Package W3 (Hayat Group Ltd) organized a series of trainings for subcontractor workers and site personnel at the Karakol Wastewater Treatment Plant (WWTP) during July–August 2025. These trainings aimed to strengthen awareness of environmental safeguards, occupational health and safety practices, and compliance with national legislation and ADB standards.

a) **Session 1 – July 25, 2025**

- **Participants:** 13 workers from subcontractor *Issyk-Kul Suu Kurulush Ltd.*
- **Facilitators:**
  - Environmental Specialist – *A.K. Bukarova* (Hayat Group Ltd.)
  - OHS Engineer – *K. Kozhobaev* (Hayat Group Ltd.)
- **Topics Covered:**
- Ecological safety and waste management practices
- Site monitoring plan and OHS monitoring
- Risk assessment and hazard identification
- Use of personal protective equipment (PPE)
- General site safety measures

b) **Session 2 – August 26, 2025**

- **Participants:** 6 bricklayers from subcontractor *Issyk-Kul Suu Kurulush Ltd.*
- **Facilitators:** Same as Session 1
- **Topics Covered:**
- Organization of OHS during WWTP construction
- Compliance with environmental legislation and regulatory norms

c) **Worker Retraining – August 2025**

As part of continuous compliance with OHS regulations, Hayat Group Ltd. sent selected employees for retraining at the **Intersectoral Training Center (Karakol branch)**.

- **Professions Trained:**
  - Slinger for cranes – 2 persons
  - Electric and gas welder – 2 persons
  - Welder-Installer of polyethylene pipes and geomembranes – 3 persons
  - Electrician – 1 person
- **Outcome:**
  - Certificates of work authorization issued upon completion
  - Training costs funded by the contractor
  - Total retrained: 8 workers

d) **Key Observations**

- Trainings were well-structured and aligned with SSEMP and EMP requirements.
- Participation ensured both subcontractor workers and specialized trades received updated knowledge.
- Retraining strengthened technical capacity and compliance with OHS standards.
- Certificates issued provide formal authorization for specialized work, enhancing site safety and accountability.

Training 25.07.2025_Karakol WWTP_Minutes of the meeting

«Ысык-Көл саркынды сууларын башкаруу» долбоору
Проект "Управления сточными водами "

г. Каракол, Иссык-Кульская область

ПРОТОКОЛ №5 ТРЕ́НИНГА ПО ЭКОЛОГИЧЕСКИМ ЗАЩИТНЫМ МЕРАМ , ОХРАНЕ ТРУДА И ТЕХНИКЕ БЕЗОПАСНОСТИ ПРИ СТРОИТЕЛЬСТВЕ КОС г. КАРАКОЛ НА РАБОЧИХ МЕСТАХ СУБПОДРЯДНОЙ ОРГАНИЗАЦИИ "ИССЫК-КУЛЬ СУУ КУРУЛУШ"

г. Каракол 25 июля 2025 года.

Лист регистрации участников, фото участников прилагается

Повестка дня тренинга:

№	Тема:	Докладчик /выступающий
1	• Соблюдение мер техники безопасности и охраны труда на рабочих местах. Оказание ПМП при падении с высоты • Соблюдение норм и правил по охране окружающей среды	Инженер ОТ и ТБ Кожобаев К.М. Эколог «ОсОО Хайят Групп» Букарова А.К.

При участии мастера участка Субподрядчика Нурахунова А.

Инженер ОТ и ТБ«ОсОО Хайят Групп» Кожобаев К.М.- Основная задача Подрядчика обеспечить на строительном учатске Технику безопасности и охрану труда. Вы участвуете в международном проекте , строительстве стратегического объекта, требования которых в первую очередь соблюдение ТБ и обеспечение экологической безопасности.

Соблюдение мер техники безопасности –основная задача Подрядчика, докладчик пояснил, что в обязательном порядке необходимо надевать защитные каски, защитные очки, респираторы, СИЗ для защиты слуха жилеты, рабочие перчатки, работающим на высоте кроме сказанного необходимо надевать монтажные пояса и другие страховочные средства, без них проведение строительных работ на площадке запрещено это требования не для инженера ТБ, не для руководства и проверяющих, это безопасность вас самих, вашей безопасности, сохранения вашего здоровья .

Необходимо в рабочем порядке содержать свои рабочие места, постоянно надевать каски, при движении по участку внимательно смотреть по сторонам, так как постоянно на участке работают тяжелые механизмы, движется авторанспорт, работают погрузчики.

Одно из важнейших мероприятий это оказание первой медицинской помощи в случае травм от различных случаев, ожогов,падений с высоты и др. , к примеру при падении с высоте, в первую очередь проверить сознание, встряхнуть пострадавшего за плечи, громко спросить его состояние, определить наличи е пульса самостоятельного дыхания, реакцию зрачков на свет, необходимо проверить наличие дыхания и открыть дахательные пути , определить область травмы и вызвать скорую медицинскую помощь. При отсутсвии пульса применить искусственное дыхание , прямой массаж сердца, при наличии открытой раны, остановить кровотечение либо придавить рану , либо завязать чуть выше ранения, самостоятельно не вытаскивать предметы из раны. Чтобы избежать таких случаев, необходимо соблюдать охрану труда и требования техники безопасности на рабочих местах.

Эколог «ОсОО Хайят Групп» Букарова А.К.- Как уже было сказано ранее, соблюдение Техники безопасности и охраны труда это ваша безопасность, необходимо соблюдать также экологическую безопасность, содержать свои рабочие места в порядке, мусор не разбрасывать , на площадке установлены контейнеры, для пластика отдельно, у нас в г.Каракол внедрена переаботка пластика, каждый из вас должен вносить вклад в дело охраны окружающей среды, не только на строительной площадке но и дома, на природе, начинать нужно с себя. За нарушения природоохранного законодательства предусмотрена ответственность, за вырубку деревьев, за мусор и др. Поэтому прошу Вас соблюдать нормы и правила природоохранного законодательства и всем вам успехов и удачи.

Подписи : К. Кожобаев

А. Букарова

Список работников субподрядной организации ОсОО «Ысык-Кол Суу Курулуш» о получении инструктажа по охране труда и технике безопасности, экологическим защитным мерам , оказание первой медицинской помощи в строительной площадке КОС г.Каракол

№ п/п	Дата	Ф.И.О	Должность	Подпись
1	25.07.	Имембаев Аскат	уста	[signature]
2	25.07.25	Джанзаков Ба.	уста	[signature]
3	25.07.25	Жакшылык у Р	Арматурщик	[signature]
4	25.07.25	Талаев Улан	Арматурщик	[signature]
6	25.07.	Мусобаев Самат	Арматурщик	[signature]
6	25.07	Абдыкадыров Н.А	Арматурщик	[signature]
7	25.07.	Маданбеков У.	Каменщик	[signature]
8	25.07.	[illegible] А.	Каменщик	[signature]
9	25.07.	Мукашаков Б	Арматурщик	[signature]
10	25.07.	Мукашов А	Арматурщик	[signature]
11	25.07	Жекмуратов Н	Арматурщик	[signature]
12	25.07	Нурлан у М.	Арматурщик	[signature]
13	25.07.	Улан у М	Арматурщик	[signature]
14				

Инженер по ОТ и ТБ [signature] Кожобаев К.М.

Инженер эколог [signature] Букарова А.К.

Медсестра [signature] Бейшембаева Б.

Training 26.08.2025_Karakol WWTP_Minutes of the meeting

«Ысык-Көл саркынды сууларын башкаруу» долбоору
Проект "Управления сточными водами "

г. Каракол, Иссык-Кульская область

ПРОТОКОЛ №6 ТРЕНИНГА ПО ЭКОЛОГИЧЕСКИМ ЗАЩИТНЫМ МЕРАМ , ОХРАНЕ ТРУДА И ТЕХНИКЕ БЕЗОПАСНОСТИ ПРИ СТРОИТЕЛЬСТВЕ КОС г. КАРАКОЛ НА РАБОЧИХ МЕСТАХ СУБПОДРЯДНОЙ ОРГАНИЗАЦИИ "ИССЫК-КУЛЬ СУУ КУРУЛУШ"

(Бригада каменьщиков)

г. Каракол 26.08. 2025 года.

Лист регистрации участников, фото участников прилагается

Повестка дня треннинга:

№	Тема:	Докладчик /выступающий
1	• Соблюдение мер техники безопасности и охраны труда на рабочих местах. • Соблюдение норм и правил по охране окружающей среды	Инженер ОТ и ТБ КФ «ОсОО Хайят Групп» Кожобаев К.М. Эколог КФ «ОсОО Хайят Групп» Букарова А.К.

При участии инженера-строителя КФ ОсОО "Хайят Групп" **Метебаева А.**

Инженер ОТ и ТБ«ОсОО Хайят Групп» Кожобаев К.М.- Основная задача Подрядчика обеспечить на строительном учатске Технику безопасности и охрану труда. Вы участвуете в международном проекте , строительстве стратегического объекта, требования которых в первую очередь соблюдение ТБ и обеспечение экологической безопасности.

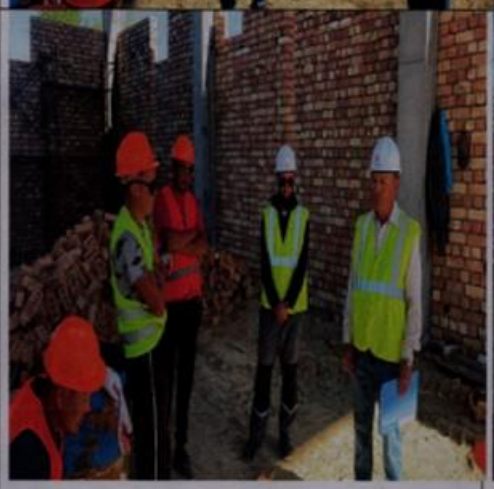
Так как вы новая бригада каменьщиков, сегодня мы проведеи вам инструктаж по ТБ на рабочих местах, соблюдение мер техники безопасности –основная задача вашей безопасности, в обязательном порядке необходимо надевать защитные каски, защитные очки, респираторы, СИЗ для защиты слуха жилеты, рабочие перчатки, работающим на высоте кроме сказанного необходимо надевать монтажные пояса так как ваш объект является высотным, с обеих сторон необходимо устанавливать, леса, не оставлять при окончании работ остатки кирпичей, так как в случает ветра или др. обстоятельств, возможно падение с высоты и ушибы.

Необходимо в рабочем порядке содержать свои рабочие места, постоянно надевать каски, при движении по участку внимательно смотреть по сторонам, так как постоянно на участке работают тяжелые механизмы, движется авторанспорт, работают погрузчики.

Чтобы избежать таких случаев, необходимо соблюдать охрану труда и требования техники безопасности на рабочих местах.

Эколог «ОсОО Хайят Групп» Букарова А.К.- Прошу Вас соблюдать нормы и правила природоохранного законодательства, содержать свое рабочее место в чистоте и порядке, мусор складировать в контейнеры, также соблюдать чистоту на стоянке автотранспорта, мусор свой забирайте домой или складывайте в мусорные контейнеры. По состоянию строительной площадки мы еще не получали замечаний, поэтому нам необходимо держать эту марку, желаю вам успехов, вы одна из бригад, которые соблюдают все правила. Успехов вам и работы без травм и нарушений.

Подписи : К. Кожобаев
А. Букарова



Список работников субподрядной организации ОсОО «Ысык-Кол Суу Курулуш» о получении инструктажа по охране труда и технике безопасности, экологическим защитным мерам , оказание первой медицинской помощи в строительной площадке КОС г.Каракол

№ п/п	Дата	Ф.И.О	Должность	Подпись
1	26.08.	Асанбеков Т	Каменщик	
2.	26.08	Жоков А.	Каменщик	
3.	26.08	Абдиев М	Каменщик	
4.	26.08	Сеитов Р.	Каменщик	
5.	26.08	Кочкаматов	Каменщик	
6.	26.08	Шегебаев А.	Инж. строит.	

Инженер по ОТ и ТБ Кожобаев К.М.

Инженер эколог Букарова А.К.

Медсестра Бейшембаева Б.

B. Construction of additional sewerage netwrok in karakol - Inzhenernaya Zashchita Ltd.

On 17 October 2025, the PMO Environmental Specialist, Mr. K.Sh. Zhundubaev, conducted an introductory training session for the Health and Safety Engineer and Site Manager of Inzhenernaya Zashchita Ltd. The training focused on key areas, including environmental monitoring, requirements for organizing construction areas in accordance with the Site-Specific Environmental Management Plan (SSEMP) and national legal standards, and occupational health and safety measures such as the provision of personal protective equipment (PPE), hot meals, and drinking water at the construction site.

СПИСОК УЧАСТНИКОВ мероприятий по проекту АБР «Управление сточными водами Иссык-Куля»
Долбоор боюнча коомдук жолугушууларды/консультациялардын/ иш-чаралардын КАТЫШУУЧУЛАРЫНЫН ТИЗМЕСИ
Азия өнүктүрүү банкы тарабынан каржыланган «Ысык-Көл саркынды сууларын башкаруу» долбоору
LIST OF PARTICIPANTS of events within the framework of the ADB Issyk-Kul Wastewater Management Project

Тема/*Subj.*: Экологические и социальные защитные меры ПУСКО
Место проведения/*Venue*: г. Каракол, ОРП ПУСВИК, площадка
Дата проведения/*Date*: 17 окт. 2025 **Завершение**/*Completion date*: 17 окт. 2025
Количество участников/*Number of participants*: всего/*total* 3, включая /*including* — женщин/*women* и/*and* 3 мужчин/*men*
Повысили знания участников в % 40

№	Ф. И.О. Аты-жөнү *Full Name*	Пол *Gender*		Город/ Шаар/ /*City*	Место работы/Должность Иштеген жери/ Кызматы *Organization/Position*	Контакты Байланыштар **Contact Data**		Подпись Кол коюу *Signature*	Вы узнали о важности сохранения и очистки воды
		М/ Э/ *M* v	Ж/ А/ *F* v			Телефон/ телефон номуру/ *Tel.*	Эл. адрес/ электрондук дареги/ e-*mail*		
	Галиев Айдарбек А.	v		Каракол	Начальник участка, ОсОО «Инженерная Защита»	0705199019			
	Сатыбалдиев Нурлан Токтобаевич	v		Бишкек	Сотрудник по охране окружающей среды, ОсОО «Инженерная Защита»	0705341184	injen_z@mail.ru		
	Жундубаев Кылычбек Шералиевич	v		Бишкек	Специалист по ООС, ОУП ПУСВИК	0507220668	environmental@iwmp.kg		

C. Training For Balykchy WWTP staff and PIU

Training Program on Modernization of Water Supply and Wastewater Sector (18–30 October 2025)

The training was conducted from 18 to 30 October 2025 and aimed at developing the competencies required for modernization of the water supply and wastewater sector, as well as increasing women's participation in technical and managerial processes.

The program was implemented by the project with the support of the Contractor, the Joint Venture (JV) of CCCC Tianjin Dredging Co., Ltd., CRBC, and China Northeast Municipal Engineering Design and Research Institute Co., Ltd. The JV developed the training modules, organized logistics, coordinated with host organizations in the People's Republic of China (PRC), and provided training materials for Modules A and B.

A total of 19 participants attended, including 6 women, aligning with project objectives to promote women's involvement in technical and managerial processes and ensure gender balance.

a) Objectives of the Training

- Improve professional competencies of Vodokanals' specialists.
- Study advanced practices in the PRC for drinking water and wastewater treatment, operation, and management of infrastructure.
- Develop municipal management capacity in water supply and wastewater services.

- Strengthen women's participation in technical and managerial processes.
- Establish professional links with relevant organizations in the PRC.

b) Academic Component

The academic component was organized at Tianjin University of Urban Construction and consisted of two comprehensive modules:

Module A: Operation and Maintenance of Water Supply and Wastewater Treatment Enterprises

- Fundamentals of hydraulics, water chemistry, and pump station operations.
- Water quality standards and sanitary requirements.
- Modern drinking water treatment methods (coagulation, clarification, filtration, membrane processes, disinfection).
- Operation of treatment facilities and equipment.
- Automation of water supply systems.
- Water quality monitoring.

Module B: Management of Municipal Corporate Enterprises

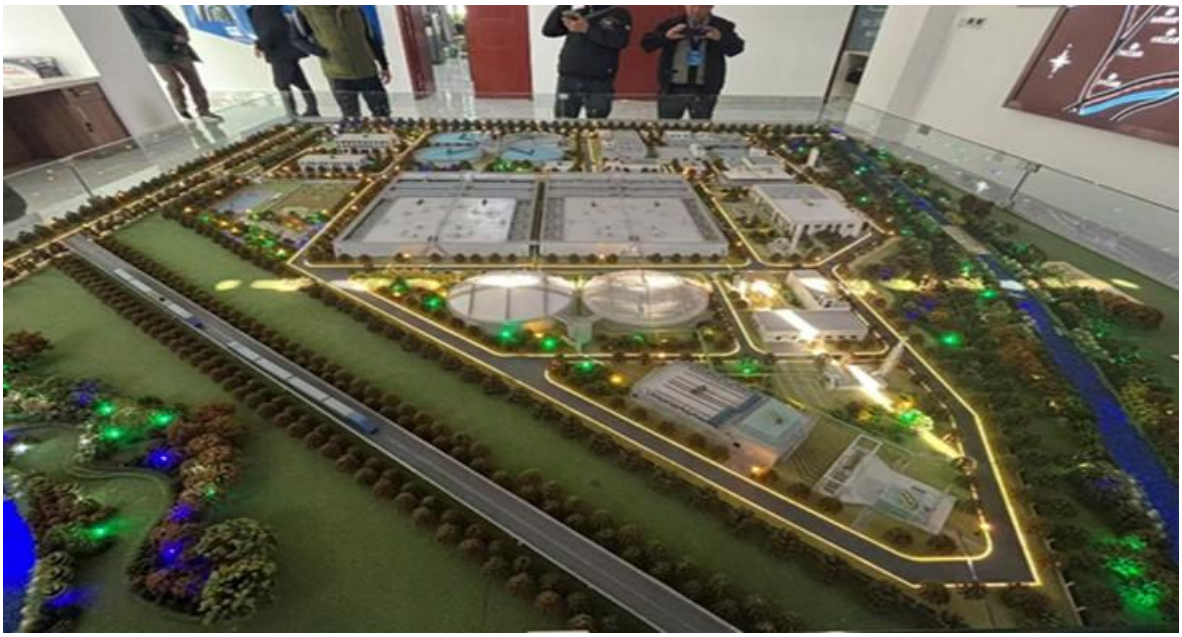
- Urban water management systems.
- Investment planning and tariff setting.
- Structure of operation costs in water supply and wastewater enterprises.
- Digital management technologies (CIM-water, BIM/GIS, online monitoring, SCADA).
- Case studies on "smart" water systems.

c) Practical Component

Participants visited key water and wastewater facilities and manufacturing enterprises in the PRC, including:

- Beichen Xin Wastewater Treatment Plant – review of process flow, mechanical and biological treatment, operator activities, and control systems.
- Shuangqing Wastewater Treatment Plant – introduction to operational practices, load management, and control center operations.
- Yangliuqing Water Treatment Plant – study of treatment technologies, distribution systems, reservoirs, and quality control facilities.
- Tianjin Motian Membrane Technology Co. – training on membrane technologies and visit to manufacturing workshop.
- Facilities in Zhezou City – decentralized wastewater treatment plant, environmental equipment manufacturing, and operational sites.

These site visits provided direct exposure to technologies, operational practices, and engineering solutions.



d) Outcomes

As a result of the study tour, participants:

- Gained in-depth knowledge of modern engineering and operational technologies.
- Enhanced practical skills in managing municipal water utility facilities.
- Studied integrated approaches to digitalization of the water sector in the PRC.
- Became familiar with modern industrial equipment and technologies.
- Received training materials for Modules A and B for application at their enterprises.
- Strengthened professional confidence and competencies of women specialists

e) Conclusion

The organized study tour was an important step toward enhancing the institutional and technical sustainability of municipal water supply and wastewater enterprises in Balykchy and Karakol,

Kyrgyz Republic. The knowledge and skills acquired provide a solid foundation for further sector modernization, increased participation of women in technical and managerial roles, and strengthened institutional capacity for effective implementation of international projects.

Annexure 2: Reports on Monitoring of the Contractors

Project Number:	50176-002
Project Name:	Issyk – Kul Wastewater Management Project
Package No. and/or Lot No.	Construction of Karakol Wastewater Treatment Plant (WWTP) (Contract No. W3)
Components/Scope of Work:	Design and build of Karakol WWTP
Progress (percentage):	71.56%
Location/Site inspected:	Karakol City
Date of inspection:	24.07.2025 15.08.2025 25.09.25 17.10.25 24.11.25 18.12.25
Contractor:	Consortium of "JV LLC Hayat Group and Bioworks Verfahrenstechnik Gmbh"
Supervision Company:	Temelsu International Engineering Services Inc.
SSEMP clearance date:	April 2024

	Monitoring/Inspection Questions	**Yes/ No/Not applicable (n/a)**	**Yes/ No/Not applicable (n/a)**	**Yes/ No/Not applicable (n/a)**	**Yes/ No/Not applicable (n/a)**	**Yes/ No/Not applicable (n/a)**	**Yes/ No/Not applicable (n/a)**	**Note**
1.	Documents	24.07.2025	15.08.2025	25.09.25	17.10.25	25.11.25	18.12.25	
a.	Is the EIA/IEE updated based on the contract's scope of work and/or detailed engineering design?	No	No	No	No	No	No	
b.	Any change in scope of work, design, location, and/or method of construction?	No	No	No	No	No	No	
c.	All permits/clearances on environment, health and safety (EHS) obtained?	Yes	Yes	Yes	Yes	Yes	Yes	
d.	Is the SSEMP informed to workers including subcontractors?	Yes	Yes	Yes	Yes	Yes	Yes	
2.	HSE of Contractor on Employer's site	24.07.2025	15.08.2025	25.09.25	17.10.25	25.11.25	18.12.25	
a.	Is an Environment Supervisor available?	Yes	Yes	Yes	Yes	Yes	Yes	
b.	Is an Environment Supervisor available?	Yes	Yes	Yes	Yes	Yes	Yes	

Monitoring/Inspection Questions		Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Note
c.	Is a copy of the SSEMP available on-site and in work sites?	Yes	Yes	Yes	Yes	Yes	Yes	
d.	Has Contractor established an operational system for HSE?	Yes	Yes	Yes	Yes	Yes	Yes	
e.	Has the Contractor established data management system for HSE?	Yes	Yes	Yes	Yes	Yes	Yes	
f.	Laborers hired from licensed manpower suppliers only?	Yes	Yes	Yes	Yes	Yes	Yes	
g.	All workers (including manpower supply laborers) are insured?	Yes	Yes	Yes	Yes	Yes	Yes	
h.	Number of workers provided with orientation on safeguards and HSE?	29	29	28	28	25	20	
i.	Medical screening carried out for all workers for communicable diseases such as HIV and COVID-19?	Yes	Yes	Yes	Yes	Yes	Yes	
j.	Company EHS policy available and displayed?	Yes	Yes	Yes	Yes	Yes	Yes	
k.	Site risk assessment carried out before start of work?	Yes	Yes	Yes	Yes	Yes	Yes	
l.	Permit to work system followed for critical works?	Yes	Yes	Yes	Yes	Yes	Yes	
m.	Incident reporting and investigation system in place?	Yes	Yes	Yes	Yes	Yes	Yes	
n.	Health and Safety committee established and OHS performance reviewed periodically?	N/A	N/A	N/A	N/A	N/A	N/A	

Monitoring/Inspection Questions		Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Note
3.	Facilities	24.07.2025	15.08.2025	25.09.25	17.10.25	25.11.25	18.12.25	
a.	Are there separate sanitary facilities/toilets for male and female workers?	yes	yes	yes	yes	yes	yes	
b.	Are the toilets in good conditions, clean, and provided with water all the time?	Yes	Yes	Yes	Yes	Yes	Yes	
c.	Is drinking water supply available for workers?	Yes	Yes	Yes	Yes	Yes	Yes	
d.	Is there a rest area for workers?	Yes	Yes	Yes	Yes	Yes	Yes	
e.	Are storage areas for chemicals available and with protection? İn safe locations?	N/A	N/A	N/A	N/A	N/A	N/A	
f.	Protection from extreme weather provided?	Yes	Yes	Yes	Yes	Yes	Yes	
g.	Are the workers camp kept in clean and safe conditions?	Yes	Yes	Yes	Yes	Yes	Yes	
3.	Health and Safety	24.07.2025	15.08.2025	25.09.25	17.10.25	25.11.25	18.12.25	
a.	Toolbox talk given to all workers on daily basis? **(check logbook)**	Yes	Yes	Yes	Yes	Yes	Yes	
b.	Has the Health and Safety Plan been reviewed and revised from the last inspection?	No	No	No	No	No	No	
c.	Is the Health and Safety Plan translated to local language understandable by foreign and local workers?	Yes	Yes	Yes	Yes	Yes	Yes	
d.	Is there a logbook for Health and Safety?	yes	yes	yes	yes	yes	yes	
e.	Are there first aiders and first aid kits on site? (1 kit	Yes	Yes	Yes	Yes	Yes	Yes	

Monitoring/Inspection Questions		Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Note
	and 1 first aider for every 25 workers)							
f.	Are emergency contact details available on-site?	Yes	Yes	Yes	Yes	Yes	Yes	
g.	Are there PPEs available? What are they?	Yes	Yes	Yes	Yes	Yes	Yes	
h.	Are the PPEs in good condition?	Yes	Yes	Yes	Yes	Yes	Yes	
i.	Are the PPEs being used by workers at all times?	Yes	Yes	Yes	Yes	Yes	Yes	
j.	Are there firefighting equipment on site?	yes	yes	yes	yes	yes	yes	
k.	Are excavation trenches provided with shores or protection from landslide?	n/a	n/a	no	no	no	no	
l.	Excavation and trenches deeper than 2 meters are done through permit to work system and following the safe system of work? *(check permit to work system – preparation of this is a fundamental task of the Health and Safety Officer)*	n/a	n/a	yes	n/a	n/a	n/a	
m.	Is break time for workers provided?	Yes	Yes	Yes	Yes	Yes	Yes	
n.	Adequate level of light is maintained for working during dark hours?	n/a	n/a	n/a	n/a	n/a	n/a	
o.	Buried and overhead utilities identified and controls taken; as appropriate?	no	no	no	no	no	no	
p.	Electrical tools being used are double insulated and damage free?	Yes	Yes	Yes	Yes	Yes	Yes	

Monitoring/Inspection Questions		Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Note
q.	Equipment and tools used safe and unbreakable?	Yes	Yes	Yes	Yes	Yes	Yes	
r.	All work above 2 meters at height is done with guard rails installed and wearing full body harness?	yes	yes	yes	n/a	n/a	n/a	
s.	Confined space entry is done through Permit to work system?	N/A	N/A	N/A	N/A	N/A	N/A	
t.	Are workers (contractors and sub-contractors) covered by accident insurance?	Yes	Yes	Yes	Yes	Yes	Yes	
u.	Are signages and warning signs installed on worksites? How many per xxx meters and locations?	4 signs at 50 meters	4 signs at 50 meters	4 signs at 50 meters	4 signs at 50 meters	4 signs at 50 meters	4 signs at 50 meters	
v.	Are signages and warning signs translated to local language?	Yes	Yes	Yes	Yes	Yes	Yes	
w.	Are signages and warning signs visible even at night time?	Yes	Yes	Yes	Yes	Yes	Yes	
x.	Are there any accidents since the last inspection? How many and what are these accidents?	No	No	No	No	No	No	
y.	Have accidents been reported to PIU, MP Vodokanal and PMO?	N/A	n/a	n/a	n/a	n/a	n/a	
4.	Community safety	24.07.2025	15.08.2025	25.09.25	17.10.25	25.11.25	18.12.25	
a.	Are excavation areas provided with solid guardrails around them to protect from accidental falls?	yes	yes	yes	yes	yes	yes	
b.	Are safety signages posted around the sites	Yes	Yes	Yes	Yes	Yes	Yes	

Monitoring/Inspection Questions		Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Note
	where there are houses, business, or communities?							
c.	Are temporary and safe walkways for pedestrians available near work sites?	N/A	N/A	N/A	N/A	N/A	N/A	
d.	Are there traffic officers or flagman/flagmen to manage traffic and speed limit?	N/A	N/A	N/A	N/A	N/A	N/A	
e.	Are there traffic officers or flagman/flagmen near sites where there are houses, business, or communities?	N/A	N/A	N/A	N/A	N/A	N/A	
f.	Is there a record of treated water quality testing/measurement?	N/A	N/A	N/A	N/A	N/A	N/A	
g.	Is there a logbook for community feedback and/or complaints?	Yes	Yes	Yes	Yes	Yes	Yes	
h.	How many stakeholders engagement, consultations, and information disclosure on EHS have been conducted?	N/A	N/A	N/A	N/A	N/A	N/A	
5.	Solid Waste Management	24.07.2025	15.08.2025	25.09.25	17.10.25	25.11.25	18.12.25	
a.	Are excavated materials placed sufficiently away from water courses (at least 20 meters)?	Yes	Yes	Yes	Yes	Yes	Yes	
b.	Is solid waste segregation and management in each work site?	Yes	Yes	Yes	Yes	Yes	Yes	
c.	Are hazardous wastes stored separately from non-hazardous wastes?	N/A	N/A	N/A	N/A	N/A	N/A	

Monitoring/Inspection Questions		Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Note
d.	Is there a daily collection of solid wastes from work sites?	Yes	Yes	Yes	Yes	Yes	Yes	
e.	Is there a temporary storage area for wastes at worker's camp?	Yes	Yes	Yes	Yes	Yes	Yes	
f.	Are reusable and recyclable materials segregated?	Yes	Yes	Yes	Yes	Yes	Yes	
g.	Is there a logbook for waste collection and disposal?	Yes	Yes	Yes	Yes	Yes	Yes	
6.	Water Pollution Control and Wastewater Management	24.07.2025	15.08.2025	25.09.25	17.10.25	25.11.25	18.12.25	
a.	Are instrumental water quality monitoring activities conducted per agreed SSEMP and monitoring program?	No	no	no	no	no	no	
b.	Are instrumental wastewater quality monitoring activities conducted per agreed SSEMP and monitoring program?	No	no	no	no	no	no	
c.	Does the Contractor test the water supplied to workers for drinking and other domestic use?	N/A	N/A	N/A	N/A	N/A	N/A	
d.	Are there separate sanitary facilities for various types of use (septic tanks, urination, washing, etc.)?	Yes	Yes	Yes	Yes	Yes	Yes	
e.	Is any wastewater discharged to storm drains?	No	No	No	No	No	No	

Monitoring/Inspection Questions		Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Note
f.	Is any wastewater being treated prior to discharge?	No	No	No	No	No	No	
g.	Are measures in place to avoid siltation of nearby drainage or receiving bodies of water?	N/A	N/A	N/A	N/A	N/A	N/A	
h.	Are silt traps or sedimentation ponds installed for surface runoff regularly cleaned and freed of silts or sediments?	N/A	N/A	N/A	N/A	N/A	N/A	
i.	Is there a logbook for water and wastewater quality monitoring?	No	No	No	No	No	No	
7.	Dust control	24.07.2025	15.08.2025	25.09.25	17.10.25	25.11.25	18.12.25	
a.	Are instrumental air quality monitoring activities conducted per agreed SSEMP and monitoring program?	Yes	Yes	Yes	Yes	Yes	Yes	
b.	Is the construction site watered on daily basis to minimize generation of dust?	Yes	Yes	Yes	Yes	Yes	Yes	
c.	Are roads within and around the construction sites sprayed with water on regular intervals?	Yes	Yes	Yes	Yes	Yes	Yes	
d.	Is there a speed control for vehicles at construction sites?	Yes	Yes	Yes	Yes	Yes	Yes	
e.	Are stockpiles of sand, cement and other construction materials	No	No	No	No	No	No	

Monitoring/Inspection Questions		Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Note
	covered to avoid being airborne?							
f.	Are construction vehicles carrying soils and other excavated materials/spoils covered?	No	No	No	No	No	No	
g.	Are power/diesel generators provided with air pollution control devices?	No	No	No	No	No	No	
h.	Are all vehicles regularly maintained to minimize emission of black smoke? Do they have valid emission permits?	Yes	Yes	Yes	Yes	Yes	Yes	
i.	Is there a logbook for air quality monitoring?	Yes	Yes	Yes	Yes	Yes	Yes	
8.	Noise Control	24.07.2025	15.08.2025	25.09.25	17.10.25	25.11.25	18.12.25	
a.	Are instrumental noise monitoring activities conducted per agreed SSEMP and monitoring program?	Yes	Yes	Yes	Yes	Yes	Yes	
b.	Are there any works near sensitive receptors during night time?	No	No	No	No	No	No	
c.	Do generators operate with doors closed or provided with sound barrier around them?	N/A	N/A	N/A	N/A	N/A	N/A	
d.	Is idle equipment turned off or throttled?	No	No	No	No	No	No	
e.	Are there noise mitigation measures adopted at construction sites?	Yes	Yes	Yes	Yes	Yes	Yes	
f.	Are neighbouring residents notified in advance of any anticipated	N/A	N/A	N/A	N/A	N/A	N/A	

Monitoring/Inspection Questions		Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Note
	noisy construction activities?							
g.	Is there a logbook for noise level monitoring?	Yes	Yes	Yes	Yes	Yes	Yes	
9.	Soil Contamination Control	24.07.2025	15.08.2025	25.09.25	17.10.25	25.11.25	18.12.25	
a.	Are fuels, oils, lubricants, bitumen and other similar materials stored in a covered and concrete-lined storage area?	Yes	Yes	Yes	Yes	Yes	Yes	
b.	Are the fuel tanks/storage constructed with bund to prevent oil, fuels, or chemicals from escaping into the environment if the tank/storage leak or burst?	n/a	n/a	n/a	n/a	n/a	n/a	
c.	Are fuels, oils, lubricants, bitumen and other similar materials properly labelled?	n/a	n/a	n/a	n/a	n/a	n/a	
d.	Are storage areas inspected on daily basis?	Yes	Yes	Yes	Yes	Yes	Yes	
e.	Are there sufficient equipment and materials to manage spills?	Yes	Yes	Yes	Yes	Yes	Yes	
f.	There are no source of fire or spark near the storage areas (within 20 meters)?	No	No	No	No	No	No	
g.	Are material safety data sheet (MSDS) available on site?	Yes	Yes	Yes	yes	yes	yes	
h.	Are excess chemicals or materials disposed according the MSDS?	N/A	N/A	N/A	n/a	n/a	n/a	
10.	Traffic Control	24.07.2025	15.08.2025	25.09.25	17.10.25	25.11.25	18.12.25	
a.	Are reflective traffic signages available around	N/A	N/A	N/A	N/A	N/A	N/A	

Monitoring/Inspection Questions		Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Note
	the construction sites and nearby roads?							
b.	Are re-routing signages sufficient to guide motorists?	N/A	N/A	N/A	N/A	N/A	N/A	
c.	Are the excavation sites along roads provided with hard barricades with reflectors?	N/A	N/A	N/A	N/A	N/A	N/A	
d.	Are the excavation sites provided with sufficient lighting at night?	N/A	N/A	N/A	N/A	N/A	N/A	
e.	Are contractor's vehicles and heavy equipment parked properly and not causing additional traffic burden?	N/A	N/A	N/A	N/A	N/A	N/A	
f.	Are affected residents, business and local communities informed in advance of traffic rerouting, works, or road closure?	N/A	N/A	N/A	N/A	N/A	N/A	
10.	Grievance Redressal, Stakeholders Engagement, and Information Disclosure	24.07.2025	15.08.2025	25.09.25	17.10.25	25.11.25	18.12.25	
a.	Has the contractors provided contact details of focal persons in case of complaints using permanent signboards?	Yes	Yes	Yes	Yes	Yes	Yes	
b.	Are the contact details readable and understandable by target audience?	No	No	No	No	No	No	
c.	Are the workers (contractors and	Yes	Yes	Yes	Yes	Yes	Yes	

Monitoring/Inspection Questions		Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Yes/ No/Not applicable (n/a)	Note
	subcontractors) informed of the GRM?							
d.	Have the PIU, supervising consultants, and contractors provided EHS-related information to local communities, business, and sensitive receptors?	Yes	Yes	Yes	Yes	Yes	Yes	
e.	Are EHS records/documents readily available at the site, to the inspection team, and stakeholders?	Yes	Yes	Yes	Yes	Yes	Yes	
	Other Issues/Concerns							
	Red Flags:							

	Name of Inspector/s:	O.V. Zinina
	Position:	DSC national Environmental Specialist
	Contractor Site Manager:	
	National Environmental Specialist:	A. Bukarova
	Contractor Health and Safety Officer:	K. Kozhobaev

Environmental Monitoring Report

Project Number:	50176-002
Project Name:	Issyk – Kul Wastewater Management Project
Package No. and/or Lot No.	Pump Station and Rising Main 1.7km in Karakol (Contract No. W2)
Components/Scope of Work:	Construction of a receiving tank (50 m³) for Pump Station-4, a discharge pipeline (0.2 km), and rehabilitation of manholes on the main collector leading to the WWTP
Progress (percentage):	59.0%
Location/Site inspected:	Karakol City
Date of inspection:	24.07.2025 15.08.2025 25.09.25 17.10.25 24.11.25 18.12.25
Contractor:	Tunuk Kurulush Ltd.
Supervision Company:	Temelsu International Engineering Services Inc.
SSEMP clearance date:	April 2025

Monitoring/Inspection Questions		**Yes/No/Not applicable (n/a)**	**Yes/No/Not applicable (n/a)**	**Yes/No/Not applicable (n/a)**	**Yes/No/Not applicable (n/a)**	**Yes/No/Not applicable (n/a)**	**Yes/No/Not applicable (n/a)**	**Note**
1.	Documents	24.07.2025	15.08.2025	25.09.25	17.10.25	24.11.25	18.12.25	
a.	Is the EIA/IEE updated based on the contract's scope of work and/or detailed engineering design?	No	No	No	No	No	No	
b.	Any change in scope of work, design, location, and/or method of construction?	No	No	No	No	No	No	
c.	All permits/clearances on environment, health and safety (EHS) obtained?	Yes	Yes	Yes	Yes	Yes	Yes	
d.	Is the SSEMP informed to workers including subcontractors?	Yes	Yes	Yes	Yes	Yes	Yes	
2.	HSE of Contractor on Employer's site	24.07.2025	15.08.2025	25.09.25	17.10.25	24.11.25	18.12.25	
a.	Is an Environment Supervisor available?	Yes	Yes	Yes	Yes	Yes	Yes	
b.	Is an Environment Supervisor available?	Yes	Yes	Yes	Yes	Yes	Yes	
c.	Is a copy of the SSEMP available on-site and in work sites?	Yes	Yes	Yes	Yes	Yes	Yes	
d.	Has Contractor established an operational system for HSE?	Yes	Yes	Yes	Yes	Yes	Yes	

Monitoring/Inspection Questions		Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Note
e.	Has the Contractor established data management system for HSE?	Yes	Yes	Yes	Yes	Yes	Yes	
f.	Laborers hired from licensed manpower suppliers only?	Yes	Yes	Yes	Yes	Yes	Yes	
g.	All workers (including manpower supply laborers) are insured?	Yes	Yes	Yes	Yes	Yes	Yes	
h.	Number of workers provided with orientation on safeguards and HSE?	29	29	28	20	20	20	
i.	Medical screening carried out for all workers for communicable diseases such as HIV and COVID-19?	Yes	Yes	Yes	Yes	Yes	Yes	
j.	Company EHS policy available and displayed?	Yes	Yes	Yes	Yes	Yes	Yes	
k.	Site risk assessment carried out before start of work?	Yes	Yes	Yes	Yes	Yes	Yes	
l.	Permit to work system followed for critical works?	Yes	Yes	Yes	Yes	Yes	Yes	
m.	Incident reporting and investigation system in place?	Yes	Yes	Yes	Yes	Yes	Yes	
n.	Health and Safety committee established and OHS performance reviewed periodically?	N/A	N/A	N/A	N/A	N/A	N/A	
3.	Facilities	24.07.2025	15.08.2025	25.09.25	17.10.25	24.11.25	18.12.25	
a.	Are there separate sanitary facilities/toilets for male and female workers?	yes	yes	yes	yes	yes	yes	
b.	Are the toilets in good conditions, clean, and provided with water all the time?	Yes	Yes	Yes	Yes	Yes	Yes	
c.	Is drinking water supply available for workers?	Yes	Yes	Yes	Yes	Yes	Yes	

Monitoring/Inspection Questions		Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Note
d.	Is there a rest area for workers?	Yes	Yes	Yes	Yes	Yes	Yes	
e.	Are storage areas for chemicals available and with protection? İn safe locations?	N/A	N/A	N/A	N/A	N/A	N/A	
f.	Protection from extreme weather provided?	Yes	Yes	Yes	Yes	Yes	Yes	
g.	Are the workers camp kept in clean and safe conditions?	Yes	Yes	Yes	Yes	Yes	Yes	
3.	Health and Safety	24.07.2025	15.08.2025	25.09.25	17.10.25	24.11.25	18.12.25	
a.	Toolbox talk given to all workers on daily basis? **(check logbook)**	Yes	Yes	Yes	Yes	Yes	Yes	
b.	Has the Health and Safety Plan been reviewed and revised from the last inspection?	No	No	No	No	No	No	
c.	Is the Health and Safety Plan translated to local language understandable by foreign and local workers?	Yes	Yes	Yes	Yes	Yes	Yes	
d.	Is there a logbook for Health and Safety?	yes	yes	yes	yes	yes	yes	
e.	Are there first aiders and first aid kits on site? (1 kit and 1 first aider for every 25 workers)	Yes	Yes	Yes	Yes	Yes	Yes	
f.	Are emergency contact details available on-site?	Yes	Yes	Yes	Yes	Yes	Yes	
g.	Are there PPEs available? What are they?	Yes	Yes	Yes	Yes	Yes	Yes	
h.	Are the PPEs in good condition?	Yes	Yes	Yes	Yes	Yes	Yes	
i.	Are the PPEs being used by workers at all times?	Yes	Yes	Yes	Yes	Yes	Yes	
j.	Are there firefighting equipment on site?	yes	yes	yes	yes	yes	yes	

Monitoring/Inspection Questions		Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Note
k.	Are excavation trenches provided with shores or protection from landslide?	n/a	n/a	no	no	no	no	
l.	Excavation and trenches deeper than 2 meters are done through permit to work system and following the safe system of work? *(check permit to work system – preparation of this is a fundamental task of the Health and Safety Officer)*	n/a	n/a	yes	no	no	no	
m.	Is break time for workers provided?	Yes	Yes	Yes	Yes	Yes	Yes	
n.	Adequate level of light is maintained for working during dark hours?	n/a	n/a	n/a	n/a	n/a	n/a	
o.	Buried and overhead utilities identified and controls taken; as appropriate?	no	no	no	no	no	no	
p.	Electrical tools being used are double insulated and damage free?	Yes	Yes	Yes	Yes	Yes	Yes	
q.	Equipment and tools used safe and unbreakable?	Yes	Yes	Yes	Yes	Yes	Yes	
r.	All work above 2 meters at height is done with guard rails installed and wearing full body harness?	yes	yes	yes	n/a	n/a	n/a	
s.	Confined space entry is done through Permit to work system?	N/A	N/A	N/A	N/A	N/A	N/A	
t.	Are workers (contractors and sub-contractors) covered by accident insurance?	Yes	Yes	Yes	Yes	Yes	Yes	
u.	Are signages and warning signs installed on worksites? How many per xxx meters and locations?	4 signs at 50 meters	4 signs at 50 meters	4 signs at 50 meters	4 signs at 50 meters	4 signs at 50 meters	4 signs at 50 meters	

Monitoring/Inspection Questions		Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Note
v.	Are signages and warning signs translated to local language?	Yes	Yes	Yes	Yes	Yes	Yes	
w.	Are signages and warning signs visible even at night time?	Yes	Yes	Yes	Yes	Yes	Yes	
x.	Are there any accidents since the last inspection? How many and what are these accidents?	No	No	No	No	No	No	
y.	Have accidents been reported to PIU, MP Vodokanal and PMO?	N/A	n/a	n/a	n/a	n/a	n/a	
4.	Community safety	24.07.2025	15.08.2025	25.09.25	17.10.25	25.11.25	18.12.25	
a.	Are excavation areas provided with solid guardrails around them to protect from accidental falls?	yes	yes	yes	yes	no	no	
b.	Are safety signages posted around the sites where there are houses, business, or communities?	Yes	Yes	Yes	Yes	Yes	Yes	
c.	Are temporary and safe walkways for pedestrians available near work sites?	N/A	N/A	N/A	N/A	N/A	N/A	
d.	Are there traffic officers or flagman/flagmen to manage traffic and speed limit?	N/A	N/A	N/A	N/A	N/A	N/A	
e.	Are there traffic officers or flagman/flagmen near sites where there are houses, business, or communities?	N/A	N/A	N/A	N/A	N/A	N/A	
f.	Is there a record of treated water quality testing/measurement?	N/A	N/A	N/A	N/A	N/A	N/A	
g.	Is there a logbook for community feedback and/or complaints?	Yes	Yes	Yes	Yes	Yes	Yes	

Monitoring/Inspection Questions		Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Note
h.	How many stakeholders engagement, consultations, and information disclosure on EHS have been conducted?	N/A	N/A	N/A	N/A	N/A	N/A	
5.	Solid Waste Management	24.07.2025	15.08.2025	25.09.25	17.10.25	25.11.25	18.12.25	
a.	Are excavated materials placed sufficiently away from water courses (at least 20 meters)?	Yes	Yes	Yes	Yes	Yes	Yes	
b.	Is solid waste segregation and management in each work site?	Yes	Yes	Yes	Yes	Yes	Yes	
c.	Are hazardous wastes stored separately from non-hazardous wastes?	N/A	N/A	N/A	N/A	N/A	N/A	
d.	Is there a daily collection of solid wastes from work sites?	Yes	Yes	Yes	Yes	Yes	Yes	
e.	Is there a temporary storage area for wastes at worker's camp?	Yes	Yes	Yes	Yes	Yes	Yes	
f.	Are reusable and recyclable materials segregated?	Yes	Yes	Yes	Yes	Yes	Yes	
g.	Is there a logbook for waste collection and disposal?	Yes	Yes	Yes	Yes	Yes	Yes	
6.	Water Pollution Control and Wastewater Management	24.07.2025	15.08.2025	25.09.25	17.10.25	25.11.25	18.12.25	
a.	Are instrumental water quality monitoring activities conducted per agreed SSEMP and monitoring program?	No	no	no	no	no	no	
b.	Are instrumental wastewater quality monitoring activities conducted per agreed SSEMP and monitoring program?	No	no	no	no	no	no	
c.	Does the Contractor test the water supplied to workers for drinking and other domestic use?	N/A	N/A	N/A	N/A	N/A	N/A	

Monitoring/Inspection Questions		Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Note
d.	Are there separate sanitary facilities for various types of use (septic tanks, urination, washing, etc.)?	Yes	Yes	Yes	Yes	Yes	Yes	
e.	Is any wastewater discharged to storm drains?	No	No	No	No	No	No	
f.	Is any wastewater being treated prior to discharge?	No	No	No	No	No	No	
g.	Are measures in place to avoid siltation of nearby drainage or receiving bodies of water?	N/A	N/A	N/A	N/A	N/A	N/A	
h.	Are silt traps or sedimentation ponds installed for surface runoff regularly cleaned and freed of silts or sediments?	N/A	N/A	N/A	N/A	N/A	N/A	
i.	Is there a logbook for water and wastewater quality monitoring?	No	No	No	No	No	No	
7.	Dust control	24.07.2025	15.08.2025	25.09.25	17.10.25	25.11.25	18.12.25	
a.	Are instrumental air quality monitoring activities conducted per agreed SSEMP and monitoring program?	Yes	Yes	Yes	Yes	Yes	Yes	
b.	Is the construction site watered on daily basis to minimize generation of dust?	Yes	Yes	Yes	Yes	Yes	Yes	
c.	Are roads within and around the construction sites sprayed with water on regular intervals?	Yes	Yes	Yes	Yes	Yes	Yes	
d.	Is there a speed control for vehicles at construction sites?	Yes	Yes	Yes	Yes	Yes	Yes	
e.	Are stockpiles of sand, cement and other construction	No	No	No	No	No	No	

Monitoring/Inspection Questions		Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Note
	materials covered to avoid being airborne?							
f.	Are construction vehicles carrying soils and other excavated materials/spoils covered?	No	No	No	No	No	No	
g.	Are power/diesel generators provided with air pollution control devices?	No	No	No	No	No	No	
h.	Are all vehicles regularly maintained to minimize emission of black smoke? Do they have valid emission permits?	Yes	Yes	Yes	Yes	Yes	Yes	
i.	Is there a logbook for air quality monitoring?	Yes	Yes	Yes	Yes	Yes	Yes	
8.	Noise Control	24.07.2025	15.08.2025	25.09.25	17.10.25	25.11.25	18.12.25	
a.	Are instrumental noise monitoring activities conducted per agreed SSEMP and monitoring program?	Yes	Yes	Yes	Yes	Yes	Yes	
b.	Are there any works near sensitive receptors during night time?	No	No	No	No	No	No	
c.	Do generators operate with doors closed or provided with sound barrier around them?	N/A	N/A	N/A	N/A	N/A	N/A	
d.	Is idle equipment turned off or throttled?	No	No	No	No	No	No	
e.	Are there noise mitigation measures adopted at construction sites?	Yes	Yes	Yes	Yes	Yes	Yes	

Monitoring/Inspection Questions		Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Note
f.	Are neighbouring residents notified in advance of any anticipated noisy construction activities?	N/A	N/A	N/A	N/A	N/A	N/A	
g.	Is there a logbook for noise level monitoring?	Yes	Yes	Yes	Yes	Yes	Yes	
9.	Soil Contamination Control	24.07.2025	15.08.2025	25.09.25	17.10.25	25.11.25	18.12.25	
a.	Are fuels, oils, lubricants, bitumen and other similar materials stored in a covered and concrete-lined storage area?	Yes	Yes	Yes	Yes	Yes	Yes	
b.	Are the fuel tanks/storage constructed with bund to prevent oil, fuels, or chemicals from escaping into the environment if the tank/storage leak or burst?	n/a	n/a	n/a	n/a	n/a	n/a	
c.	Are fuels, oils, lubricants, bitumen and other similar materials properly labelled?	n/a	n/a	n/a	n/a	n/a	n/a	
d.	Are storage areas inspected on daily basis?	Yes	Yes	Yes	Yes	Yes	Yes	
e.	Are there sufficient equipment and materials to manage spills?	Yes	Yes	Yes	Yes	Yes	Yes	
f.	There are no source of fire or spark near the storage areas (within 20 meters)?	No	No	No	No	No	No	
g.	Are material safety data sheet (MSDS) available on site?	Yes	Yes	Yes	yes	yes	yes	
h.	Are excess chemicals or materials disposed according the MSDS?	N/A	N/A	N/A	n/a	n/a	n/a	
10.	Traffic Control	24.07.2025	15.08.2025	25.09.25	17.10.25	25.11.25	18.12.25	
a.	Are reflective traffic signages available around the	N/A	N/A	N/A	N/A	N/A	N/A	

Monitoring/Inspection Questions		Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Note
	construction sites and nearby roads?							
b.	Are re-routing signages sufficient to guide motorists?	N/A	N/A	N/A	N/A	N/A	N/A	
c.	Are the excavation sites along roads provided with hard barricades with reflectors?	N/A	N/A	N/A	N/A	N/A	N/A	
d.	Are the excavation sites provided with sufficient lighting at night?	N/A	N/A	N/A	N/A	N/A	N/A	
e.	Are contractor's vehicles and heavy equipment parked properly and not causing additional traffic burden?	N/A	N/A	N/A	N/A	N/A	N/A	
f.	Are affected residents, business and local communities informed in advance of traffic rerouting, works, or road closure?	N/A	N/A	N/A	N/A	N/A	N/A	
10.	Grievance Redressal, Stakeholders Engagement, and Information Disclosure	24.07.2025	15.08.2025	25.09.25	17.10.25	25.11.25	18.12.25	
a.	Has the contractors provided contact details of focal persons in case of complaints using permanent signboards?	Yes	Yes	Yes	Yes	Yes	Yes	
b.	Are the contact details readable and understandable by target audience?	No	No	No	No	No	No	
c.	Are the workers (contractors and subcontractors) informed of the GRM?	Yes	Yes	Yes	Yes	Yes	Yes	

Monitoring/Inspection Questions		Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)	Note
d.	Have the PIU, supervising consultants, and contractors provided EHS-related information to local communities, business, and sensitive receptors?	Yes	Yes	Yes	Yes	Yes	Yes	
e.	Are EHS records/documents readily available at the site, to the inspection team, and stakeholders?	Yes	Yes	Yes	Yes	Yes	Yes	
	Other Issues/Concerns							
	Red Flags:							

	Name of Inspector/s	O.V. Zinina
	Position	DSC National Environmental Specialist
	Contractor Site Manager	
	National Environmental Specialist	Bekkhozhoeva Asel
	Contractor Health and Safety Officer	

Project Number:	50176-002
Project Name:	Issyk – Kul Wastewater Management Project
Package No. and/or Lot No.	Contract No. W2.3 Lot 1 Contract No. W2.4 Lot 2
Components/Scope of Work:	Construction of additional sewer network in karakol
Progress (percentage):	26.65%
Location/Site inspected:	Karakol City
Date of inspection:	17.10.25; 25.11.25
Contractor:	Inzhenernaya Zashchita Ltd.
Supervision Company:	Temelsu International Engineering Services Inc.
SSEMP clearance date:	2 October 2025

	Monitoring/Inspection Questions	**Yes/No/Not applicable (n/a)**	**Yes/No/Not applicable (n/a)**			**Observation/Reason/ Rationale**	**Required Action**
1.	Documents	17.10.25	25.11.25				
a.	Is the EIA/IEE updated based on the contract's scope of work and/or detailed engineering design?	No	no				
b.	Any change in scope of work, design, location, and/or method of construction?	No	No				
c.	All permits/clearances on environment, health and safety (EHS) obtained?	Yes	Yes				
d.	Is the SSEMP informed to workers including subcontractors?	Yes	Yes				
2.	HSE of Contractor on Employer's site	17.10.25	25.11.25				
a.	Is an Environment Supervisor available?	Yes	Yes				
b.	Is an Environment Supervisor available?	Yes	Yes				
c.	Is a copy of the SSEMP available on-site and in work sites?	Yes	Yes				
d.	Has Contractor established an operational system for HSE?	Yes	Yes				
e.	Has the Contractor established data management system for HSE?	Yes	Yes				
f.	Laborers hired from licensed manpower suppliers only?	Yes	Yes				

Monitoring/Inspection Questions		Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)			Observation/Reason/ Rationale	Required Action
g.	All workers (including manpower supply laborers) are insured?	Yes	Yes				
h.	Number of workers provided with orientation on safeguards and HSE?	25	25				
i.	Medical screening carried out for all workers for communicable diseases such as HIV and COVID-19?	Yes	Yes				
j.	Company EHS policy available and displayed?	Yes	Yes				
k.	Site risk assessment carried out before start of work?	Yes	Yes				
l.	Permit to work system followed for critical works?	Yes	Yes				
m.	Incident reporting and investigation system in place?	Yes	Yes				
n.	Health and Safety committee established and OHS performance reviewed periodically?	N/A	N/A				
3.	Facilities	17.10.25	25.11.25				
a.	Are there separate sanitary facilities/toilets for male and female workers?	yes	yes				
b.	Are the toilets in good conditions, clean, and provided with water all the time?	Yes	Yes				
c.	Is drinking water supply available for workers?	Yes	Yes				
d.	Is there a rest area for workers?	Yes	Yes				
e.	Are storage areas for chemicals available and with protection? İn safe locations?	N/A	N/A				
f.	Protection from extreme weather provided?	Yes	Yes				
g.	Are the workers camp kept in clean and safe conditions?	Yes	Yes				
3.	Health and Safety	17.10.25	25.11.25				
a.	Toolbox talk given to all workers on daily basis? **(check logbook)**	Yes	Yes				

Monitoring/Inspection Questions		Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)			Observation/Reason/ Rationale	Required Action
b.	Has the Health and Safety Plan been reviewed and revised from the last inspection?	No	No				
c.	Is the Health and Safety Plan translated to local language understandable by foreign and local workers?	Yes	Yes				
d.	Is there a logbook for Health and Safety?	yes	yes				
e.	Are there first aiders and first aid kits on site? (1 kit and 1 first aider for every 25 workers)	Yes	Yes				
f.	Are emergency contact details available on-site?	Yes	Yes				
g.	Are there PPEs available? What are they?	Yes	Yes				
h.	Are the PPEs in good condition?	Yes	Yes				
i.	Are the PPEs being used by workers at all times?	Yes	Yes				
j.	Are there firefighting equipment on site?	yes	yes				
k.	Are excavation trenches provided with shores or protection from landslide?	no	no				
l.	Excavation and trenches deeper than 2 meters are done through permit to work system and following the safe system of work? *(check permit to work system – preparation of this is a fundamental task of the Health and Safety Officer)*	n/a					
m.	Is break time for workers provided?	Yes	Yes				
n.	Adequate level of light is maintained for working during dark hours?	n/a	n/a			Works are not carried out at the nights	
o.	Buried and overhead utilities identified and controls taken; as appropriate?	no	no				
p.	Electrical tools being used are double insulated and damage free?	Yes	Yes				
q.	Equipment and tools used safe and unbreakable?	Yes	Yes				

Monitoring/Inspection Questions		Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)			Observation/Reason/ Rationale	Required Action
r.	All work above 2 meters at height is done with guard rails installed and wearing full body harness?	n/a	n/a				
s.	Confined space entry is done through Permit to work system?	N/A	N/A				
t.	Are workers (contractors and sub-contractors) covered by accident insurance?	Yes	Yes				
u.	Are signages and warning signs installed on worksites? How many per xxx meters and locations?	4 signs at 50 meters	2 signs at 50 meters				
v.	Are signages and warning signs translated to local language?	Yes	Yes				
w.	Are signages and warning signs visible even at night time?	Yes	Yes				
x.	Are there any accidents since the last inspection? How many and what are these accidents?	No	No				
y.	Have accidents been reported to PIU, MP Vodokanal and PMO?	n/a	n/a				
4.	Community safety	17.10.25	25.11.25				
a.	Are excavation areas provided with solid guardrails around them to protect from accidental falls?	yes				Plastic mesh with the height of 1.5 m	
b.	Are safety signages posted around the sites where there are houses, business, or communities?	Yes	Yes				
c.	Are temporary and safe walkways for pedestrians available near work sites?	N/A	N/A				
d.	Are there traffic officers or flagman/flagmen to manage traffic and speed limit?	N/A	N/A				
e.	Are there traffic officers or flagman/flagmen near sites where there are houses, business, or communities?	N/A	N/A				
f.	Is there a record of treated water quality testing/measurement?	N/A	N/A				
g.	Is there a logbook for community feedback and/or complaints?	Yes	Yes				

Monitoring/Inspection Questions		Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)			Observation/Reason/ Rationale	Required Action
h.	How many stakeholders engagement, consultations, and information disclosure on EHS have been conducted?	N/A	N/A				
5.	Solid Waste Management	17.10.25	25.11.25				
a.	Are excavated materials placed sufficiently away from water courses (at least 20 meters)?	Yes	Yes				
b.	Is solid waste segregation and management in each work site?	Yes	Yes				
c.	Are hazardous wastes stored separately from non-hazardous wastes?	N/A	N/A				
d.	Is there a daily collection of solid wastes from work sites?	Yes	Yes				
e.	Is there a temporary storage area for wastes at worker's camp?	Yes	Yes				
f.	Are reusable and recyclable materials segregated?	Yes	Yes				
g.	Is there a logbook for waste collection and disposal?	Yes	Yes				
6.	Water Pollution Control and Wastewater Management	17.10.25	25.11.25				
a.	Are instrumental water quality monitoring activities conducted per agreed SSEMP and monitoring program?	no	no				
b.	Are instrumental wastewater quality monitoring activities conducted per agreed SSEMP and monitoring program?	no	no				
c.	Does the Contractor test the water supplied to workers for drinking and other domestic use?	N/A	N/A			Bottled water	
d.	Are there separate sanitary facilities for various types of use (septic tanks, urination, washing, etc.)?	Yes	Yes				
e.	Is any wastewater discharged to storm drains?	No	No				
f.	Is any wastewater being treated prior to discharge?	No	No				

Monitoring/Inspection Questions		Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)			Observation/Reason/ Rationale	Required Action
g.	Are measures in place to avoid siltation of nearby drainage or receiving bodies of water?	N/A	N/A				
h.	Are silt traps or sedimentation ponds installed for surface runoff regularly cleaned and freed of silts or sediments?	N/A	N/A				
i.	Is there a logbook for water and wastewater quality monitoring?	No	No				
7.	Dust control	17.10.25	25.11.25				
a.	Are instrumental air quality monitoring activities conducted per agreed SSEMP and monitoring program?	Yes	Yes				
b.	Is the construction site watered on daily basis to minimize generation of dust?	Yes	Yes				
c.	Are roads within and around the construction sites sprayed with water on regular intervals?	Yes	Yes				
d.	Is there a speed control for vehicles at construction sites?	Yes	Yes				
e.	Are stockpiles of sand, cement and other construction materials covered to avoid being airborne?	No	No				
f.	Are construction vehicles carrying soils and other excavated materials/spoils covered?	No	No				
g.	Are power/diesel generators provided with air pollution control devices?	No	No				
h.	Are all vehicles regularly maintained to minimize emission of black smoke? Do they have valid emission permits?	Yes	Yes				
i.	Is there a logbook for air quality monitoring?	Yes	Yes				
8.	Noise Control	17.10.25	25.11.25				
a.	Are instrumental noise monitoring activities conducted per agreed SSEMP and monitoring program?	Yes	Yes				
b.	Are there any works near sensitive receptors during night time?	No	No				
c.	Do generators operate with doors closed or provided with sound barrier around them?	N/A	N/A				

Monitoring/Inspection Questions		Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)			Observation/Reason/ Rationale	Required Action
d.	Is idle equipment turned off or throttled?	No	No				
e.	Are there noise mitigation measures adopted at construction sites?	Yes	Yes				
f.	Are neighbouring residents notified in advance of any anticipated noisy construction activities?	N/A	N/A				
g.	Is there a logbook for noise level monitoring?	Yes	Yes				
9.	Soil Contamination Control	17.10.25	25.11.25				
a.	Are fuels, oils, lubricants, bitumen and other similar materials stored in a covered and concrete-lined storage area?	Yes	Yes				
b.	Are the fuel tanks/storage constructed with bund to prevent oil, fuels, or chemicals from escaping into the environment if the tank/storage leak or burst?	n/a	n/a				
c.	Are fuels, oils, lubricants, bitumen and other similar materials properly labelled?	n/a	n/a				
d.	Are storage areas inspected on daily basis?	Yes	Yes				
e.	Are there sufficient equipment and materials to manage spills?	Yes	Yes				
f.	There are no source of fire or spark near the storage areas (within 20 meters)?	No	No				
g.	Are material safety data sheet (MSDS) available on site?	yes	yes				
h.	Are excess chemicals or materials disposed according the MSDS?	n/a	n/a				
10.	Traffic Control	17.10.25	25.11.25				
a.	Are reflective traffic signages available around the construction sites and nearby roads?	yes	yes				
b.	Are re-routing signages sufficient to guide motorists?	yes	yes				
c.	Are the excavation sites along roads provided with hard barricades with reflectors?	no	no				
d.	Are the excavation sites provided with sufficient lighting at night?	no	no				

Monitoring/Inspection Questions		Yes/No/Not applicable (n/a)	Yes/No/Not applicable (n/a)			Observation/Reason/ Rationale	Required Action
e.	Are contractor's vehicles and heavy equipment parked properly and not causing additional traffic burden?	yes	yes				
f.	Are affected residents, business and local communities informed in advance of traffic rerouting, works, or road closure?	yes	yes				
10.	Grievance Redressal, Stakeholders Engagement, and Information Disclosure	17.10.25	25.11.25				
a.	Has the contractors provided contact details of focal persons in case of complaints using permanent signboards?	Yes	Yes				
b.	Are the contact details readable and understandable by target audience?	No	No				
c.	Are the workers (contractors and subcontractors) informed of the GRM?	Yes	Yes				
d.	Have the PIU, supervising consultants, and contractors provided EHS-related information to local communities, business, and sensitive receptors?	Yes	Yes				
e.	Are EHS records/documents readily available at the site, to the inspection team, and stakeholders?	Yes	Yes				
	Other Issues/Concerns						
	Red Flags:						

	Name of Inspector/s	O.V. Zinina				
	Position	DSC Environmental Specialist				
	Contractor Site Manager					
	National Environmental Specialist					
	Contractor Health and Safety Officer	N. Satybaldiev				

Annexure 3: Site Observations – Photographs

Balykchy WWTP

Karakol WWTP	
	
Transformer Building - Appropriate scaffolding arrangements are observed	Worker in safety vest (PPE's) and Organized material staging
	
Workers wearing helmets and high-visibility vests: Indicates strong adherence to basic PPE protocols	
	
Workers wearing helmets and winter gear and Presence of excavator and ladders (mechanized support and access provisions for vertical movement)	Multilingual hazard signage and Red mesh fencing installed

Karakol: Receiving Tank (50 M³) for Pump Station-4, Discharge Pipeline (0.2 KM), and Rehabilitation of Manholes	
	
Sewage receiving tank area Buried and Fenced	Site signage installed and Workers in high visibility jackets and helmets
Construction for Additional Expansion of Sewer Network in Karakol	
	
Multilingual hazard signage and - Barricading with red-and-white tape (Effective perimeter control around excavation restricts unauthorized access and reduces fall risk)	Barricading provided (Safety tape is provided, indicating perimeter control and hazard marking) - Tyupskaya Street

Annexure 4: Non-Conformity Tracking Report

temelsu uluslararası MÜHENDİSLİK HİZMETLERİ A.Ş.
international ENGINEERING SERVICES INC.

Issyk-Kul Wastewater Management Project

Non-Conformity Tracking Report

Country	Kyrgyzstan
Project Location	Issyk - Kul Province
Project Name	Issyk-Kul Wastewater Management Project
ADB Project No.	0628-KGZ (SF)
ADB Loan No	
Project Start Date	June / 2019
Anticpated Project End Date	31 December/ 2024
Project Implementation Unit Name	Issyk-Kul Wastewater Management Project Office (PMO)
Person Responsible for Tracking	Kylychbek Zhundubaev
Date of Closure	

Non-Conformity Tracking Report

No	Site/ Location	Date Recorded	Category	Description of Issue	Corrective Action/s	NCN No	NC Level	Due Date	Priority	Person Responsible	Status	Date Closed
1	Lot2 NW Balykchy (PROFIT EXPRESS)	30-03-22	Health	staff are not aware of the first aid kit	Inform the staff where the first aid kit is stored	N1	Minor	04-04-22	Low	Zhyldyz Moldosanova	Closed	02-04-22
2	Lot1 NW Balykchy (IMPULSE OSH)	30-03-22	Health	staff are not aware of the first aid kit	Inform the staff where the first aid kit is stored	N2	Minor	04-04-22	Low	Bekmamat Japiev	Closed	04-04-22
3	Lot1 NW Balykchy (IMPULSE OSH)	30-03-22	Safety	Trench excavation is not secured	Bring the bridges in compliance with safety requirements	N3	Minor	04-04-22	High	Bekmamat Japiev	Closed	04-04-22
4	Lot1 NW Karakol (PE Minur LLC)	27-04-22	Environment	Bio-toilet missing	Install a bio-toilet	N4	Minor	04-05-22	Low	Bekzat Shergazievich Dadybaev	Closed	02-05-22
5	WWTP Balykchy (CRBC)	20-06-22	Other	Some excavation, some lean concrete, some part of steel works etc. have been implemented without approval / permission / inspection of DSC. IEE and SSEMP has not been approved yet.	Design should be approved	N5	N/A	25-07-22	Medium	Contractor's Project Manager	Closed	27-07-22
6		20-06-22	Other		Excavation plan should be submitted		N/A	15-07-22	Medium	Contractor's Project Manager	Closed	01-07-22
7		20-06-22	Other		Lean concrete quality and thickness testes should be made		N/A	15-07-22	Medium	Site Manager	Closed	04-07-22
8		20-06-22	Other		Corroded steel bars should be removed		N/A	25-07-22	Low	Site Manager	Closed	05-09-22
9		20-06-22	Other		Steel tests should be made		N/A	15-07-22	Low	Site Manager	Closed	01-07-22

No	Site/ Location	Date Recorded	Category	Description of Issue	Corrective Action/s	NCN No	NC Level	Due Date	Priority	Person Responsible	Status	Date Closed
10		20-06-22	Other		All local authority permits should be taken		Major	15-07-22	High	Project Manager	Closed	10-07-22
11		20-06-22	Environment		IEE, EMP, and SSEMP should be approved		Major	15-07-22	High	Project Manager	Closed	02-09-22
12	Lot1 NW Karakol (PE Minur LLC)	05-08-22	Health	A first aid kit should always be on the construction site.	Ensure that the first aid kit is located.	N6	N/A	12-08-22	Low	Site Manager	Closed	06-08-22
13	Lot1 NW Balykchy (IMPULSE OSH)	04-08-22	Safety	There is no fencing of open hatches.	Protect or close all hatches and pits that pose a danger.		Major	11-08-22	High	Contractor's Project Manager	Closed	09-08-22
14	Lot1 NW Balykchy (IMPULSE OSH)	04-08-22	Other	Excess soil is located on the site.	Remove all excess soil	N7	N/A	11-08-22	Low	Contractor's Project Manager	Closed	10-08-22
15	Lot2 NW Balykchy (PROFIT EXPRESS)	04-08-22	Safety	Workers should always be in a PPE	Provide workers with PPE and monitor their use.	N8	Minor	05-08-22	Low	Site Manager	Closed	05-08-22
16	Lot2 NW Karakol (JV Inzhenernaya Zashchıta LLC)	05-08-22	Environment	Clogging of the soil with bitumen heating products	Clean up all places of contamination. To provide a platform for bitumen works, which will have a sand or soil cushion.	N9	N/A	12-08-22	Low	Site Manager	Closed	10-08-22
17		05-08-22	Health	A first aid kit should always be on the construction site.	Ensure that the first aid kit is located.		N/A	12-08-22	Low	Site Manager	Closed	06-08-22

No	Site/ Location	Date Recorded	Category	Description of Issue	Corrective Action/s	NCN No	NC Level	Due Date	Priority	Person Responsible	Status	Date Closed
18	Lot1 NW Karakol (PE Minur LLC)	05-08-22	Health	A first aid kit should always be on the construction site.	Ensure that the first aid kit is located.	N10	N/A	12-08-22	Low	Site Manager	Closed	06-08-22
19	WWTP Balykchy (CRBC)	15-09-22	Safety	Debris on the way to the shower and toilet.	Clear the way to the shower and toilet.	N11	Minor	16-09-22	Medium	Site Manager	Closed	29-09-22
20	Lot1 NW Balykchy (IMPULSE OSH)	15-09-22	Environment	There is no toilet	The toilet should always be on the construction site	N12	Minor	17-09-22	Low	Site Manager	Closed	19-09-22
21		15-09-22	Other	Remove excess soil	Excess soil is taken to a special site		N/A	17-09-22	Low	Site Manager	Closed	19-09-22
22	Lot1 NW Karakol (PE Minur LLC)	16-09-22	Environment	No trash cans	Garbage cans should always be on the construction site	N13	Minor	16-09-22	Low	Site Manager	Closed	19-09-22
23	Lot2 NW Karakol (JV Inzhenernaya Zashchıta LLC)	16-09-22	Environment	Workers work without PPE	Workers should always be in a PPE on the construction site	N14	Minor	16-09-22	Low	Site Manager	Closed	19-09-22
24		16-09-22	Health	A first aid kit should always be on the construction site.	Ensure that the first aid kit is located.		N/A	16-09-22	Low	Site Manager	Closed	19-09-22
25		16-09-22	Environment	there is no toilet	Install a bio toilet on a construction site		Minor	18-09-22	Low	Site Manager	Closed	22-09-22

No	Site/ Location	Date Recorded	Category	Description of Issue	Corrective Action/s	NCN No	NC Level	Due Date	Priority	Person Responsible	Status	Date Closed
26	WWTP Balykchy (CRBC)	28-09-22	Health	Dormitories are not in proper condition	To bring the rooms for workers in proper condition: make the floor, bring the beds into conformity (install beds of the right length), place the necessary shelves for belongings	N15	Major	21-10-22	High	Contractor's Project Manager	Closed	10-01-23
27	WWTP Balykchy (CRBC)	26-10-22	Environment	Site should be cleaned	remove garbage located on the site	N16	Minor	01-11-22	Low	Site Manager	Closed	29-10-22
28		26-10-22	Environment	Oil leaks	Fix oil leaks of machinery operated at WWTP, maintain construction machinery in the proper condition throughout construction works		Minor	01-11-22	Low	Site Manager	Closed	31-10-22
29		26-10-22	Health	Kitchen not in hygienic conditions	Arrange a canteen in the room next to the kitchen to meet the sanitary-hygienic requirements		Major	26-11-22	High	Contractor's Project Manager	Closed	31-10-22
30	Lot1 NW Balykchy (IMPULSE OSH)	26-10-22	Environment	A portable toilet is not available	Install a bio toilet on a construction site	N17	Minor	03-11-22	Low	Site Manager	Closed	27-10-22
31	Lot1 NW Karakol (PE Minur LLC)	27-10-22	Environment	Portable toilet was hit by a car and does not exist	Supply a new toilet	N17	Minor	04-11-22	Low	Site Manager	Closed	28-10-22

No	Site/ Location	Date Recorded	Category	Description of Issue	Corrective Action/s	NCN No	NC Level	Due Date	Priority	Person Responsible	Status	Date Closed
32	Lot2 NW Karakol (JV Inzhenernaya Zashchıta LLC)	27-10-22	Other	The information board was broken	Provide a new board	N18	N/A	03-11-22	Low	Site Manager	Closed	01-11-22
33	Lot1 NW Balykchy (IMPULSE OSH)	27-11-22	Environment	There is no toilet	The toilet must be permanently located on the construction site	N19	Minor	27-11-22	Low	Site Manager	Closed	30-11-22
34	Lot2 NW Balykchy (PROFIT EXPRESS)	24-11-22	Environment	There is no toilet	Install a bio toilet	N20	Minor	24-11-22	Low	Site Manager	Closed	28-11-22
35	Lot1 NW Karakol (PE Minur LLC)	27-11-22	Other	There is no information board	Information board should be installed	N21	N/A	27-11-22	Low	Site Manager	Closed	30-11-22
36	Lot2 NW Karakol (JV Inzhenernaya Zashchıta LLC)	27-11-22	Other	Safety log not proper	The logs must meet the requirements	N22	N/A	27-11-22	Low	Site Manager	Closed	28-11-22
37	WWTP Balykchy (CRBC)	26-11-22	Environment	Construction debris and household garbage	Garbage should be cleaned daily	N23	Minor	26-11-22	Low	Site Manager	Closed	27-11-22
38		26-11-22	Safety	There is no safety log on the construction site	The safety log must be at the construction site		N/A	26-11-22	Low	Site Manager	Closed	27-11-22
39	Lot1 NW Karakol (PE Minur LLC)	19-05-23	Environment	There is no contract with the laboratory for air analysis	Conclude a contract	N24	N/A	31-05-23	Low	Contractor's Project Manager	Closed	08-08-23
40	Lot2 NW Karakol (JV Inzhenernay	19-05-23	Environment	There is no contract with the laboratory for air analysis	Conclude a contract	N25	N/A	31-05-23	Low	Contractor's Project Manager	Closed	08-06-23

No	Site/ Location	Date Recorded	Category	Description of Issue	Corrective Action/s	NCN No	NC Level	Due Date	Priority	Person Responsible	Status	Date Closed
41	a Zashchıta LLC)	19-05-23	Environment	There is no dumpster	The dumpster must be permanently located on the construction site		N/A	22-05-23	Low	Site Manager	Closed	22-05-23
42	WWTP Balykchy (CRBC)	15-06-23	Safety	Fire extinguishing panel has to be equipped fully.	Procure new equipment.	N26	N/A	26-06-23	Low	Site Manager	Closed	22-06-23
43	Lot1 NW Karakol (PE Minur LLC)	16-06-23	Social	Information board does not have a telephone number of LFP	Add a telephone number	N26	N/A	23-06-23	Low	Contractor's Project Manager	Closed	15-08-23
44	Lot1 NW Karakol (PE Minur LLC)	27-06-23	Environment	Contract with a laboratory has to be signed	Conclude a contract	N27	N/A	04-07-23	Low	Site Manager	Closed	08-08-23
45	WWTP Balykchy (CRBC)	29-06-23	Safety	The fire extinguishers are not full.	Replace the equipment.	N28	Minor	04-07-23	Low	Site Manager	Closed	30-06-23
46	Lot1 NW Karakol (PE Minur LLC)	25-07-23	Environment	People complain about the dust	Strengthen the frequency of dust hydro suppression	N29	Major	26-07-23	Low	Site Manager	Closed	26-07-23
47	WWTP Balykchy (CRBC)	24-07-23	Safety	Not all workers use PPE	Conduct additional safety training	N30	Major	28-07-23	Medium	Health and Safety Engineer	Closed	30-07-23
48	WWTP Balykchy (CRBC)	08-08-23	Health	The first aid kit has no instructions and is not properly organized	Indicate the intended use of medication, label the first aid kit	N31	Minor	14-08-23	Low	HSE Engineer	Closed	15-08-23
49			Safety	The site shall be fenced	Stretch networks on stairs and bridges		Major	14-08-23	Medium	HSE Engineer	Closed	15-08-23
50			Safety	The temporary bridges are dangerous	Make the temporary bridges safer		Major	14-08-23	High	HSE Engineer	Closed	15-08-23

No	Site/ Location	Date Recorded	Category	Description of Issue	Corrective Action/s	NCN No	NC Level	Due Date	Priority	Person Responsible	Status	Date Closed
51	Lot1 NW Karakol (PE Minur LLC)	09-08-23	Other	The operator did not have his license with him	Always carry a driver's license	N32	Minor	14-08-23	Low	Site Manager	Closed	10-08-23
52			Safety	No shores in the trenches	Install shores		Minor	14-08-23	Medium	Site Manager	Closed	14-08-23
53			Safety	The site is not fenced	Install fencing with signaling tape		Minor	14-08-23	Low	Site Manager	Closed	10-08-23
54	WWTP Balykchy (CRBC)	23-08-23	Safety	Not all places of work at height are secured by network.	Net all areas where work is to be carried out	N33	Minor	24-08-23	Medium	HSE Engineer	Closed	24-08-23
55			Environment	Dust generation due to machinery movement on site	Water the area before work	N34	Minor	24-08-23	Low	Environmental Engineer	Closed	24-08-23
56	WWTP Balykchy (CRBC)	18-09-23	Safety	There is no fire-extinguishing board at the welding area	Provide theboard	N35	Minor	19-09-23	Low	HSE Engineer	Closed	19-09-23
57			Environment	Heavy dusting at the construction site	Suppress dust regularly with water		Minor	19-09-23	Low	Environmental Engineer	Closed	19-09-23
58			Environment	Soil contaminated with oil	Cut off contaminated soil		Minor	19-09-23	Low	Environmental Engineer	Closed	19-09-23
59	WWTP Balykchy (CRBC)	19-10-24	Environment	Fuel leakage on site	Cut off contaminated soil	N36	Minor	23-09-23	Low	Environmental Engineer	Closed	19-09-23
60		19-10-23	Environment	Fuel leakage	Cut off contaminated soil		Minor	26-10-23	Low	Environmental Engineer	Closed	15-11-23

No	Site/ Location	Date Recorded	Category	Description of Issue	Corrective Action/s	NCN No	NC Level	Due Date	Priority	Person Responsible	Status	Date Closed
61		19-10-23		Garbage is observed on site	Removal of garbage to a sanitary landfill.		Minor	23-10-23	Low	Environmental Engineer	Closed	15-11-23
62	WWTP Balykchy (CRBC)	01-11-23	Environment	Garbage is observed on site	Clean the site	N37	Minor	06-11-23	Low	Environmental Engineer	Closed	15-11-23
63		01-11-23	Environment	Fuel leakage	Cut off the contaminated soil and fill clean soil		Minor	06-11-23	Low	Environmental Engineer	Closed	15-11-23
64		01-11-23	Safety	No protective fence	The site shall be fenced		Minor	06-11-23	Medium	HSE Engineer	Closed	15-11-23
65	WWTP Balykchy (CRBC)	30-11-23	Environment	Fuel leakage and debris	Cut the contaminated soil, remove debris	N38	Minor	30-11-23	Low	Environmental Engineer	Closed	30-12-23
66		30-11-23	Environment	Fuel leakage	Repair machinery		Minor	30-11-23	Low	Site Manager	Closed	28-12-23
67		26-12-23	Environment	Garbage is observed on site	Rubbish removal		Minor	26-12-23	Low	Environmental Engineer	Closed	30-12-23
68	WWTP Balykchy (CRBC)	26-02-24	Safety	open manholes;	Cover all manholes	N39	Minor	04-03-24	Medium	HSE Engineer	Closed	15-03-24
69		26-02-24	Other	debris on the site	Clean the entire construction site		Minor	04-03-24	Low	HSE Engineer	Closed	15-03-24
70		26-02-24	Other	There is no full-time Environmental Specialist on the site	Appoint an environmental specialist		Major	04-03-24	Medium	Project Manager	Closed	04-04-24
71	WWTP Balykchy (CRBC)	14-03-24	Safety	There is no railing on the scaffolding	Install a net	N40	Minor	18-03-24	Medium	HSE Engineer	Closed	05-04-24
72	WWTP Balykchy (CRBC)	29-03-24	Safety	Workers do not use PPE	Conduct training and constant monitoring by a safety and health engineer	N41	Minor	01-04-24	Medium	HSE Engineer	Closed	05-04-24

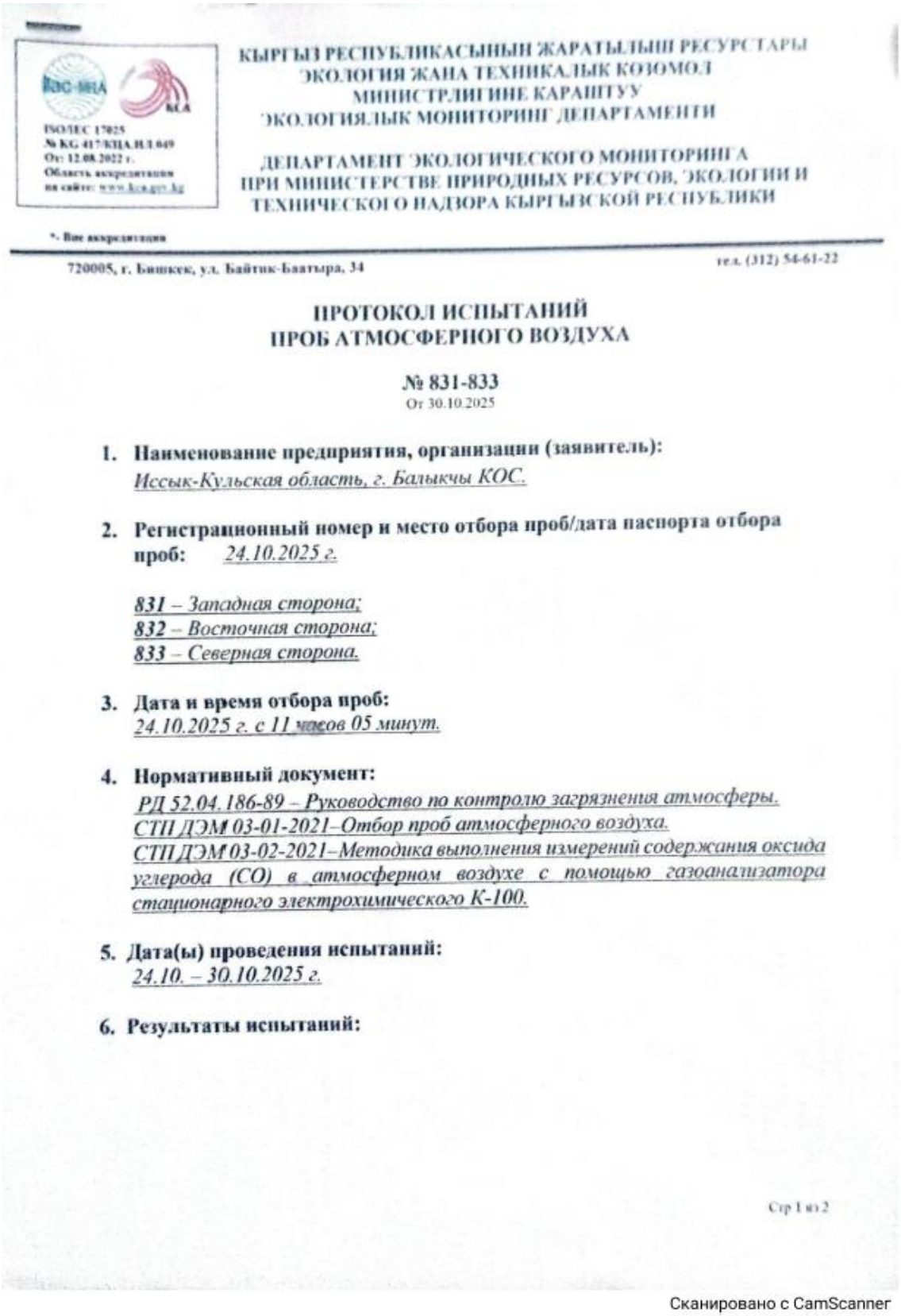
No	Site/ Location	Date Recorded	Category	Description of Issue	Corrective Action/s	NCN No	NC Level	Due Date	Priority	Person Responsible	Status	Date Closed
73		29-03-24	Environment	Incineration of waste on the site	Conduct additional training on EMP requirements		Minor	05-04-24	Medium	HSE Engineer	Closed	05-04-24
74		29-03-24	Safety	There is no firefighting equipment stand at the construction site	Install a stand		Major	05-04-24	Medium	HSE Engineer	Closed	14-04-24
75	WWTP Balykchy (CRBC)	18-04-24	Environment	Environmental monitoring is not carried out. Filling out forms	Environmental monitoring to be carried out by the new specialist	N42	Minor	25-04-24	Medium	Environmental Specialist	Closed	01-05-24
76	WWTP Balykchy (CRBC)	30-05-24	Safety	There is no protective fence during high-altitude work	All work at height must be carried out with a guardrail and/or safety belt.	N43	Minor	01-06-24	Medium	Environmental Specialist	Closed	03-06-24
77	Karakol WWTP	17-05-24	Safety	There is no foundation pit fencing	Install a fence	N44	Minor	25-05-24	Medium	HSE Engineer	Closed	24-05-24
78	Karakol WWTP	31-05-24	Other	There is no construction site billboard	Install a construction site billboard	N45	N/A	07-06-24	Low	Project Manager	Closed	14-06-24
79	Balykchy WWTP	13-06-24	Environment	Garbage on the site	Clean the site.	N46	Minor	18-06-24	Low	Environmental Specialist	Closed	19-06-24
80	Karakol WWTP	14-06-24	Safety	The foundation pit is not fenced.	Install the fence.	N47	Minor	19-06-24	Medium	Site Manager	Closed	15-07-24
81	Balykchy WWTP	18-07-24	Environment	Measure noise and vibration, test air, influents and effluents.	Sign a contract with laboratory.	N48	Minor	18-08-24	Low	Environmental Specialist	Closed	31-07-24

No	Site/ Location	Date Recorded	Category	Description of Issue	Corrective Action/s	NCN No	NC Level	Due Date	Priority	Person Responsible	Status	Date Closed
82		18-07-24	Environment	Perform a complete cleanup of the site, outside the construction area	Clean the site.	N49	Minor	18-08-24	Low	Environmental Specialist	Closed	31-08-24
83		18-07-24	Other	All temporary structures shall be dismantled if Vodokanal does not agree with the contrary	Remove temporary structures if agreed with Vodokanal	N50	Minor	15-09-24	Low	Site Manager	Closed	17-08-24
84	Karakol WWTP	19-07-24	Safety	A briefing on health and safety with involvement of representative s of relevant state authorities	Conduct a briefing on health and safety with involvement of representatives of relevant state authorities.	N51	Minor	29-07-24	Medium	Environmental Specialist	Closed	27-07-24
85		19-07-24	Environment	Instrumental monitoring of wastewater quality is not carried on.	Test air and wastewater quality (at inlet and outlet)	N52	Minor	29-07-24	Medium	Environmental Specialist	Closed	24-07-24
87	Balykchy WWTP	16-09-24	Environment	Debris on the site	Remove all construction waste.	N53	Minor	23-09-24	Medium	Site Manager	Closed	21-09-24
88	Pump Station and Rising Main 1.7km in Karakol	14.05.25	Other	Site passport is missing at SPS Site and Crossing the Karakol River	Establish the site's passport	N54	N/A	01.06.25	Low	Site Manager	Closed	04.10.25
89		14.05.25	Safety	The fence is broken	The safety log must be located at the construction site	N55	N/A	01.06.25	Low	Site Manager	Closed	04.10.25

No	Site/ Location	Date Recorded	Category	Description of Issue	Corrective Action/s	NCN No	NC Level	Due Date	Priority	Person Responsible	Status	Date Closed
90		14.05.25	Safety	no first aid kit	Purchasing a first aid kit	N55	N/A	01.06.25	Low	Site Manager	Closed	04.10.25
91	Karakol WWTP	25.09.25	Health	there are no shoring of trenches	Provide trench wall shoring ‘or make the trench edge gently sloping	N57	N/A	30.10.25	Medium	HSE Engineer	Closed	01.10.25
92	Inzhenernaya zashchita	17.10.25	Safety	Trenches are not safe.	Trenches are not barricaded. Provide shoring or make the trench edge gently sloping	N58	N/A	23.10.25	Medium	HSE Engineer	Closed	20.10.25
93	Inzhenernaya zashchita	17.10.25	Health	First aid kit is not available.	A first aid kit must be available on the site.	N59	N/A	20.10.25	Low	Site Manager	Closed	20.10.25

Annexure 5 – Environmental Monitoring Results (Balykchy WWTP)

(i) Ambient Air Quality Monitoring Results



ISO/IEC 17025
№ KG 417/КЦА.И.Л.049
От: 12.08.2022 г.
Область аккредитации на сайте: www.kca.gov.kg

КЫРГЫЗ РЕСПУБЛИКАСЫНЫН ЖАРАТЫЛЫШ РЕСУРСТАРЫ ЭКОЛОГИЯ ЖАНА ТЕХНИКАЛЫК КООМОЛ МИНИСТРЛИГИНИН КАРАШТУУ ЭКОЛОГИЯЛЫК МОНИТОРИНГ ДЕПАРТАМЕНТИ

ДЕПАРТАМЕНТ ЭКОЛОГИЧЕСКОГО МОНИТОРИНГА ПРИ МИНИСТЕРСТВЕ ПРИРОДНЫХ РЕСУРСОВ, ЭКОЛОГИИ И ТЕХНИЧЕСКОГО НАДЗОРА КЫРГЫЗСКОЙ РЕСПУБЛИКИ

*- Вне аккредитации

720005, г. Бишкек, ул. Байтик-Баатыра, 34 тел. (312) 54-61-22

ПРОТОКОЛ ИСПЫТАНИЙ
ПРОБ АТМОСФЕРНОГО ВОЗДУХА

№ 831-833
От 30.10.2025

1. **Наименование предприятия, организации (заявитель):**
   Иссык-Кульская область, г. Балыкчы КОС.

2. **Регистрационный номер и место отбора проб/дата паспорта отбора проб:** *24.10.2025 г.*

   ***831** – Западная сторона;*
   ***832** – Восточная сторона;*
   ***833** – Северная сторона.*

3. **Дата и время отбора проб:**
   24.10.2025 г. с 11 часов 05 минут.

4. **Нормативный документ:**
   РД 52.04.186-89 – Руководство по контролю загрязнения атмосферы.
   СТП ДЭМ 03-01-2021–Отбор проб атмосферного воздуха.
   СТП ДЭМ 03-02-2021–Методика выполнения измерений содержания оксида углерода (CO) в атмосферном воздухе с помощью газоанализатора стационарного электрохимического К-100.

5. **Дата(ы) проведения испытаний:**
   24.10. – 30.10.2025 г.

6. **Результаты испытаний:**

Стр 1 из 2

Сканировано с CamScanner

Наименование определяемого показателя	НД на метод испытаний	Данные анализа по точкам, мг/м³		ПДК макс.раз. мг/м³	Испытания провел
		03-831-25	03-832-25		
Диоксид серы	РД 52.04.186-89 Метод фотометрический	0,110 ±0,013	0,098 ±0,012	0,5	Жолдошбекова З.Ж. Бектурова М.Б.
Диоксид азота	РД 52.04.186-89 Метод фотометрический	0,185 ±0,033	0,145 ±0,026	0,085	
Оксид углерода	СТП ДЭМ 03-02-2021 Газоанализатор К-100	0,3 ±0,06	0,3 ±0,06	5,0	
Взвешенные вещества	РД 52.04.186-89 Метод гравиметрический	0,157 ±0,039	0,157 ±0,039	0,5	

Наименование определяемого показателя	НД на метод испытаний	Данные анализа по точкам, мг/м³	ПДК макс.раз. мг/м³	Испытания провел
		03-833-25		
Диоксид серы	РД 52.04.186-89 Метод фотометрический	0,102 ±0,012	0,5	Жолдошбекова З.Ж. Бектурова М.Б.
Диоксид азота	РД 52.04.186-89 Метод фотометрический	0,162 ±0,029	0,085	
Оксид углерода	СТП ДЭМ 03-02-2021 Газоанализатор К-100	0,2 ±0,04	5,0	
Взвешенные вещества	РД 52.04.186-89 Метод гравиметрический	0,313 ±0,078	0,5	

Сообщаемая расширенная неопределенность измерения указывается как суммарная стандартная неопределенность измерения, умноженная на коэффициент охвата k=2, который обеспечивает уровень доверия приблизительно 95%. Неопределенность измерений, возникающая в результате отбора проб, включена в расширенную неопределенность измерений.

Заключение*: *По результатам химических испытаний в отобранных пробах атмосферного воздуха наблюдается превышение по сравнению ПДК (предельно-допустимая концентрация) по диоксиду азота: в точке №831 – 2,2 раза; в точке №833 – 1,9 раз. Остальные показатели в пределах установленных норм. Установленная ГН «ПДК загрязняющих веществ в атмосферном воздухе населенных мест». утв. Постановлением Правительства КР №201(приложение 17) от 11 апреля 2016г.*

Заведующая СМАВиПВ Абдылдаева А. Н.

Заведующая ОКОПАИР Дарбакова А.С.

Исполнитель не несет ответственности, если проба отобрана самим заказчиком
Перепечатка протокола без разрешения ДЭМ запрещена.
СМАВиПВ – сектор мониторинга атмосферного воздуха и промышленных выбросов
ОКОПАИР - отдел координации отбора проб, аналитики и измерение радиации.

Конец протокола.

(ii) Noise Levels

ПРОФИЛАБ
орган контроля

ISO/IEC 17020
№KG 417/KIIA.OK.095
от: 21.08.2023 г.
область аккредитации
на сайте: www.kca.gov.kg

ОсОО «ПрофиЛаб» г. Бишкек,
ул. Тоголок-Молдо, 60[а] каб. 319.

тел. 0312 591461
e-mail: profilab.ltd@mail.ru

ПРОТОКОЛ ИЗМЕРЕНИЯ ШУМА

№ 36 от «29» сентября 2025г.

1. Юридическое лицо, индивидуальный предприниматель или физическое лицо, где производятся измерения, адрес: **Представительство China Road and Bridge Corporation в Кыргызстане г. Бишкек, ул.Манаса 155 Б/В**

2. Объект, где производятся измерения: **Очистное сооружение, Тонский район А/о Кок-Мойнок участок КОС Балыкчы**

(наименование, фактический адрес)

3.Основание для проведения измерения: **Договор № 24/8**

4. Наименование средств измерений и сведения о калибровке измеряемого прибора:

Наименование средства измерения	Номер	Сертификат о калибровке		Меж калибровочный интервал
		номер	Дата	
Экофизика - 110А	**№АВ 130044**	**№ К0046-0503/25**	**05.03.2025 г.**	**12 месяцев**

5. Нормативная документация, в соответствии с которой проводились измерения:
ГОСТ ISO 9612-2016 Акустика. Измерения шума для оценки его воздействия на человека. Метод измерений на рабочих местах

6. Нормативная документация на нормы:

7. Условие окружающей среды: Температура: 19°С
Влажность: 46%

8. Источники физических факторов и их характеристики: **оборудования компании**

9. Эскиз:
Места где были произведены замеры. Контрольная точка-☆

10. Дата произведение измерения: «26» сентября 2025 г

страница: 1 из 2

Результаты измерений:

№	Место измерений	Характер шума						Уровни звукового давления в дБ в октавных полосах со среднегеометрическими частотами в Гц									Уровень звука (дБА) $L_{Аэкв}$	Уровень звука (дБА) $L_{Амакс}$	Неопределенность измерений ±дБА
		По спектру		По временным															
		Широкополос.	Тональный	Постоянный	Колебл.	Прерывистый	импульсный	31,5	63	125	250	500	1000	2000	4000	8000			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
	Территория очистного сооружения, возле оборудования																		
	Широта: 42° 45′66″; Долгота: 76°11′50″.																		
1	насос Р-302							77	61	58	50	48	49	45	37	36	**53**	**68**	
	Территория очистного сооружения																		
	Широта: 42° 45′67″; Долгота: 76°11′80″.																		
2	здание решетки							69	60	56	58	59	57	52	45	39	**61**	**66**	
	Территория очистного сооружения																		
	Широта: 42° 45′67″; Долгота: 76°11′43″.																		
3	резервуар							78	72	60	64	63	64	57	47	40	**67**	**71**	
	биологической очистки																		
	Территория очистного сооружения, возле административного здания																		
	Широта: 42° 45′66″; Долгота: 76°11′28′.																		
4	возле административного							80	60	54	52	47	45	41	37	37	**50**	**67**	
	здания																		

Заключение по результатам замеров: **По результатам лабораторных замеров установлено, что на момент проведения замеров уровня шума при производственных работ на территории сооружения на участке КОС Балыкчы А/о Кок Мойнок, составил от 50 дБа до 67 дБа.**

Должность	ФИО	Подпись
Генеральный директор	Буланбеков И. А.	
Технический менеджер/Инженер	Нуриддин уулу Т.	

ОО "ПрофиЛаб"

Протокол составлен в двух экземплярах: 1-й экземпляр выдается по месту требования; 2-й экземпляр остается в лаборатории.
Общее количество страниц 2: страница 2
Срок хранения протокола: 4 года

Примечание: Результаты протокола соответствуют на момент проведённых измерений. Перепечатка протокола без разрешения начальника лаборатории запрещена. Результаты измерений относятся только к данным объектам.

Конец протокола

(iii) Vibration Levels

ПРОФИЛАБ
орган контроля

ISO/IEC 17020
№KG 417/KIIA.OK.095
от: 21.08.2023 г.
область аккредитации
на сайте: www.kca.gov.kg

ОсОО «ПрофиЛаб» г. Бишкек,
ул. Тоголок-Молдо, 60[а] каб. 319.

тел. 0312 591461
e-mail: profilab.ltd@mail.ru

ПРОТОКОЛ ИЗМЕРЕНИЯ ВИБРАЦИИ

№ 23 от «29» сентября 2025г.

1. Юридическое лицо, индивидуальный предприниматель или физическое лицо, где производятся измерения, адрес: **Представительство China Road and Bridge Corporation в Кыргызстане г. Бишкек, ул.Манаса 155 Б/В**

2. Объект, где производятся измерения: **Очистное сооружение, Тонский район А/о Кок Мойнок участок КОС Балыкчы**

(наименование, фактический адрес)

3.Основание для проведения измерения: **Договор №24/8**

4. Наименование средств измерений и сведения о калибровке измеряемого прибора:

Наименование средства измерения	Номер	Сертификат о калибровке		Меж калибровочный интервал
		номер	Дата	
Экофизика - 110А	**№АВ 130044**	**№ К0046-0503/25**	**05.03.2025 г.**	**12 месяцев**

5. Нормативная документация на методы измерений, в соответствии с которой проводились измерения: **ГОСТ 31319-2006 «Вибрация. Измерение общей вибрации и оценка ее воздействия на человека. Требования к проведению измерений на рабочих местах».**

6. Нормативная документация на нормы:

7. Условие окружающей среды: Температура: 19°С
Влажность: 46%

8. Источники физических факторов и их характеристики: **оборудования компании**

9. Эскиз:

Контрольная точка ☆

10. Дата произведение измерения: «26» сентября 2025 г

Общее количество страниц 2: страница 1

Результаты измерений:

№	Место измерений	Вид вибрации				Уровни звукового давления в дБ в октавных полосах со среднегеометрическими частотами в Гц						Корректированные и эквивалентные корректированные значения и их уровни		Неопределенность измерений ±дБ
		Общая			Локальная									
		Транспортная	Транспортно-технологическая	Технологическая		2	4	8	16	31,5	63	Частотная коррекция W_a (дБ) $L_{Aэкв}$	Частотная коррекция W_a (дБ) $L_{Amакс}$	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Территория очистного сооружения, возле оборудования													
	Широта: 42° 45′66″; Долгота: 76°11′50″.													
1	насос Р-302			+		80	71	65	60	59	59	90	99	
	Территория очистного сооружения													
	Широта: 42° 45′67″; Долгота: 76°11′80″.													
2	здание решетки			+		91	88	85	82	58	59	86	93	
	Территория очистного сооружения													
	Широта: 42° 45′67″; Долгота: 76°11′43″.													
3	резервуар биологической очистки			+		91	88	85	82	59	61	90	96	
	Территория очистного сооружения													
	Широта: 42° 45′66″; Долгота: 76°11′28′.													
4	возле административного здания			+		90	87	84	81	58	59	83	89	

Заключение по результатам замеров: По результатам инструментальных замеров установлено что уровень общей вибрации на прилегающей территории очистных сооружений участка КОС Балыкчы А/о Кок Мойнок, составило от 83 дБ до 90 дБ.

Должность	ФИО	Подпись
Генеральный директор	Буланбеков И. А.	
Технический менеджер/Инженер	Нуриддин уулу Т.	

МП "ПрофиЛаб"

Протокол составлен в двух экземплярах: 1-й экземпляр выдается по месту требования; 2-й экземпляр остается в лаборатории.
Общее количество страниц 2: страница 2
Срок хранения протокола: 4 года

Примечание: Результаты протокола соответствуют на момент проведённых измерений.
Перепечатка протокола без разрешения начальника лаборатории запрещена.
Результаты измерений относятся только данным объектам.

Конец протокола

(iv) Balykchy WWTP Water Quality

Balykchy WWTP water - 07.08.2025

ISO/IEC 17025
№ KG 417/КЦА.ИЛ.049
От: 12.08.2022 г.
Область аккредитации
на сайте: www.kca.gov.kg

* -Вне аккредитации

ДЕПАРТАМЕНТ ЭКОЛОГИЧЕСКОГО МОНИТОРИНГА ПРИ МИНИСТЕРСТВЕ ПРИРОДНЫХ РЕСУРСОВ, ЭКОЛОГИИ И ТЕХНИЧЕСКОГО НАДЗОРА КЫРГЫЗСКОЙ РЕСПУБЛИКИ

КЫРГЫЗ РЕСПУБЛИКАСЫНЫН ЖАРАТЫЛЫШ РЕСУРСТАРЫ, ЭКОЛОГИЯ ЖАНА ТЕХНИКАЛЫК КӨЗӨМӨЛ МИНИСТРЛИГИНЕ КАРАШТУУ ЭКОЛОГИЯЛЫК МОНИТОРИНГ ДЕПАРТАМЕНТИ

720005, г. Бишкек, ул. Байтик-Баатыра, 34 тел. (312) 54-61-22

ПРОТОКОЛ ИСПЫТАНИЙ
ПРОБ ВОДЫ

№ 441 – 442
от 07.08.2025 г.

1. **Наименование предприятия, организации (заявитель):**
   Иссык-Кульская область, КОС г. Балыкчы Водоканал.

2. **Регистрационный номер и место отбора проб/дата паспорта отбора проб:** *23.07.2025 г.*

   ***441** – Вода поступающая в очистное сооружение (вход);*
   ***442** – Вода после очистки (выход).*

3. **Дата и время отбора проб:**
   23.07.2025 г. с 10 часов 54 минут.

4. **Нормативный документ:**
   ПНД Ф 12.15.1-08 Методические указания по отбору проб для анализа сточных вод.

5. **Дата(ы) проведения испытаний:**
   28.07. – 07.08.2025 г.

6. **Результаты испытаний:**

Стр. 1 из 2

№	Наименование определяемого показателя	Ед. изм.	НД на метод испытаний	Данные анализа по точкам		Испытания провел
				01-**441**-25	01-**442**-25	
1	Азот аммонийный	мг/л	ГОСТ 33045-2014 (спектрофотометрический)	8,56±1,19	7,50±1,05	Жунусова А.А. Кутманбаева Г.К.
2	Азот нитритный	мг/л		0,008±0,004	0,021±0,011	
3	Азот нитратный	мг/л		0,68±0,34	1,54±0,77	
4	pH	-	РД 52.24.495-2005* (электрометрический)	7,77±0,10	7,38±0,10	
5	Хлориды	мг/л	СЭВ ч. 1 М. 1997 (титриметрический)	69,48	102,81	
6	Сульфаты	мг/л		77,60	52,00	
7	Взвешенные вещества	мг/л	ПНД Ф 14.1:2:3.110-97 (гравиметрический)	432,00±43,20	102,00±10,20	
8	Перм. окисляемость	мгО/л	СЭВ ч.1 М. 1977* (титриметрический)	76,72	31,12	
9	Биохимическое потребление кислорода ($БПК_5$)	мгО/л	ПНД Ф 14.1:2:3:4.123-97 (йодометрический)	386,00±34,74	94,00±12,22	
10	СПАВ	мг/л	СТП ДЭМ 01-01-2021 (спектрофотометрический)	1,87	0,56±0,14	
11	Железо	мг/л	ПНД Ф 14.1.:2.214-06 (пламенный ААС)	<0,02	<0,02	

Сообщаемая расширенная неопределенность измерения указывается как суммарная стандартная неопределенность измерения, умноженная на коэффициент охвата k=2, который обеспечивает уровень доверия приблизительно 95%. Неопределенность измерений, возникающая в результате отбора проб, включена в расширенную неопределенность измерений.

Примечание: Эффективность очистки устанавливается в зависимости от вида очистки, в соответствии с техническими документами очистных сооружений.*

Заведующая ОМВР Баялы кызы Б.
Заведующая ОКОПАИР Дарбакова А.С.

Исполнитель не несет ответственности, если проба отобрана самим заказчиком
Перепечатка протокола без разрешения ДЭМ запрещена.
ОМВР – отдел мониторинга водных ресурсов (поверхтностных и сточных вод)
ОКОПАИР - отдел координации отбора проб, аналитики и измерение радиации.

Конец протокола.

КЫРГЫЗ РЕСПУБЛИКАСЫНЫН ЖАРАТЫЛЫШ РЕСУРСТАРЫ, ЭКОЛОГИЯ ЖАНА ТЕХНИКАЛЫК КӨЗӨМӨЛ МИНИСТРЛИГИНЕ КАРАШТУУ ЭКОЛОГИЯЛЫК МОНИТОРИНГ ДЕПАРТАМЕНТИНИН ЫСЫК-КӨЛ-НАРЫН РЕГИОНАЛДЫК СЕКТОРУ

ИССЫК-КУЛЬСКО-НАРЫНСКИЙ РЕГИОНАЛЬНЫЙ СЕКТОР ДЕПАРТАМЕНТА ЭКОЛОГИЧЕСКОГО МОНИТОРИНГА ПРИ МИНИСТЕРСТВЕ ПРИРОДНЫХ РЕСУРСОВ, ЭКОЛОГИИ И ТЕХНИЧЕСКОГО НАДЗОРА КЫРГЫЗСКОЙ РЕСПУБЛИКИ

771900, г. Балыкчы Нарынское шоссе, 10 Тел. (0312) 546122

ПАСПОРТ НА ПРОБУ
(сточная вода)

1. **Наименование, адрес объекта:** КОС г. Балыкчы водоканал
2. **Основание для отбора:** по договору.
3. **Порядковый номер и место отбора проб:**
   1. Поступающая вода в очистное сооружение (вход)
   2. Вода после очистки (выход)
4. **Цель отбора:** Определение эффективности очистки
5. **Характер отобранных проб:** разовый
6. **Способ очистки:** механический, разовый, + биологический
7. **Условия окружающей среды** ясно
8. **Дата отбора проб** 23.07.25 г 10 ^{59} мин
9. **НД:** *ГОСТ 31861-2012 "Вода. Общие требования к отбору проб"; ПНД Ф 12.15.1-08 Методические указания по отбору проб для анализа сточных вод.*

Пробы отобрал:

Представитель ДЭМ специалист: Баратова М. [подпись]
(должность, фамилия)

Присутствовали:

Госинспектор ____________
(должность, фамилия)

Представитель предприятия КОС Балыкчы Зав лаб Жыргалов К.Т. [подпись]
(должность, фамилия)

Balykchy WWTP water - 16.09.2025

ISO/IEC 17025
№ KG 417/КЦА И.Л.049
От: 12.08.2022 г.
Область аккредитации на сайте: www.kca.gov.kg

* Вне аккредитации

ДЕПАРТАМЕНТ ЭКОЛОГИЧЕСКОГО МОНИТОРИНГА
ПРИ МИНИСТЕРСТВЕ ПРИРОДНЫХ РЕСУРСОВ, ЭКОЛОГИИ И
ТЕХНИЧЕСКОГО НАДЗОРА КЫРГЫЗСКОЙ РЕСПУБЛИКИ

КЫРГЫЗ РЕСПУБЛИКАСЫНЫН ЖАРАТЫЛЫШ РЕСУРСТАРЫ,
ЭКОЛОГИЯ ЖАНА ТЕХНИКАЛЫК КӨЗӨМӨЛ
МИНИСТРЛИГИНЕ КАРАШТУУ
ЭКОЛОГИЯЛЫК МОНИТОРИНГ ДЕПАРТАМЕНТИ

720005, г. Бишкек, ул. Байтик-Баатыра, 34 тел. (312) 54-61-22

ПРОТОКОЛ ИСПЫТАНИЙ
ПРОБ ВОДЫ

№ 595-596
от 16.09.2025 г.

1. **Наименование предприятия, организации (заявитель):**
   Иссык-Кульская область, г. Балыкчы КОС.

2. **Регистрационный номер и место отбора проб/дата паспорта отбора проб:** *28.08.2025 г.*

   595- вода поступающая в очистное сооружение (вход);
   596– вода после очистки (выход).

3. **Дата и время отбора проб:**
   28.08.2025 г. с 12 часов 29 минут

4. **Нормативный документ:**
   ГОСТ 31861-2012 Вода. Общие требования к отбору проб. ПНД Ф 12.15.1-08 Методические указания по отбору проб для анализа сточных вод.

5. **Дата(ы) проведения испытаний:**
   03.09 – 16.09.2025 г.

6. **Результаты испытаний.**

№	Наименование определяемого показателя	Ед. изм.	НД на метод испытаний	Данные анализа по точкам		Испытания провел
				01-595-25	01-596-25	
1	Азот аммонийный	мг/л	ГОСТ 33045-2014 (спектрофото-метрический, Метод А)	17,00±2,38	1,46±0,29	Жунусова А.А. Кутманбаева Г.К. Догдурбек к М.
2	Азот нитритный	мг/л		0,07±0,03	0,02±0,01	
3	Азот нитратный	мг/л		0,92±0,46	8,64±2,16	
4	Взвешенные вещества	мг/л	ПНД Ф 14.1:2:3.110-97 (гравиметрический)	198,00±19,80	24,40±4,88	
5	pH	-	РД 52.24.495-2005* (электрометрический)	6,76±0,10	7,22±0,10	
6	Хлориды	мг/л	СЭВ ч.1 М. 1977* (титриметрический)	67,90	104,93	
7	Сульфаты	мг/л		72,00	56,00	
8	Биохимическое потребление кислорода (БПК5)	мгО/л	ПНД Ф 14.1:2:3:4.123-97 (йодометрический)	365,00	45,00±5,85	
9	Железо	мг/л	ПНД Ф 14.1:2.214-06	<0,02	<0,02	Баялы к.Б. Жунусова А.А. Кутманбаева Г.К

Сообщаемая расширенная неопределенность измерения указывается как суммарная стандартная неопределенность измерения, умноженная на коэффициент охвата k=2, который обеспечивает уровень доверия приблизительно 95%. Неопределенность измерений возникающая в результате отбора проб, включена в расширенную неопределенность измерений.

Примечание: Эффективность очистки устанавливается в зависимости от вида очистки, в соответствии с техническими документами очистных сооружений.*

Заведующая ОМВР — Баялы кызы Б.
Главный специалист ОКОПАИР — Сагынбек уулу М.

Исполнитель не несет ответственности, если проба отобрана самим заказчиком
Перепечатка протокола без разрешения ЦЭМ запрещена.
ОМВР – отдел мониторинга водных ресурсов (поверхностных и сточных вод)
ОКОПАИР - отдел координации отбора проб, аналитики и измерения радиации.

Конец протокола.

КЫРГЫЗ РЕСПУБЛИКАСЫНЫН ЖАРАТЫЛЫШ РЕСУРСТАРЫ, ЭКОЛОГИЯ ЖАНА ТЕХНИКАЛЫК КӨЗӨМӨЛ МИНИСТРЛИГИНИН КАРАШТУУ ЭКОЛОГИЯЛЫК МОНИТОРИНГ ДЕПАРТАМЕНТИНИН ЫСЫК-КӨЛ-НАРЫН РЕГИОНАЛДЫК СЕКТОРУ

ИССЫК-КУЛЬСКО-НАРЫНСКИЙ РЕГИОНАЛЬНЫЙ СЕКТОР ДЕПАРТАМЕНТА ЭКОЛОГИЧЕСКОГО МОНИТОРИНГА ПРИ МИНИСТЕРСТВЕ ПРИРОДНЫХ РЕСУРСОВ, ЭКОЛОГИИ И ТЕХНИЧЕСКОГО НАДЗОРА КЫРГЫЗСКОЙ РЕСПУБЛИКИ

771900, г. Балыкчы Нарынское шоссе, 10 Тел. (0312) 546122

ПАСПОРТ НА ПРОБУ
(сточная вода)

1. **Наименование, адрес объекта:** КОС г. Балыкчы
2. **Основание для отбора:** по договору
3. **Порядковый номер и место отбора проб:** 1. Поступающая вода в очистное сооружение (вход) 2) вода после очистки (выход)
4. **Цель отбора:** Определение кач-ва воды

Характер отобранных проб: Разовый.
6. **Способ очистки:** Механический
Условия окружающей среды Ясно
Дата отбора проб 12:29 28.08.25г.
7. **НД:** *ГОСТ 31861-2012 "Вода. Общие требования к отбору проб"; ПНД Ф 12.15.1-08 Методические указания по отбору проб для анализа сточных вод.*

Пробы отобрал:
Представитель ДЭМ вед. спец. Бейшембиева Г. [подпись]
(должность, фамилия) спец. Баратова М. [подпись]
Присутствовали:
Госинспектор
(должность, фамилия)
Представитель предприятия [подпись] [подпись]
(должность, фамилия)

Balykchy WWTP water- 24.10.2025

ISO/IEC 17025
№ KG 417/КЦА.И.Л.049
От: 12.08.2022 г.
Область аккредитации
на сайте: www.kca.gov.kg

* -Вне аккредитации

ДЕПАРТАМЕНТ ЭКОЛОГИЧЕСКОГО МОНИТОРИНГА ПРИ МИНИСТЕРСТВЕ ПРИРОДНЫХ РЕСУРСОВ, ЭКОЛОГИИ И ТЕХНИЧЕСКОГО НАДЗОРА КЫРГЫЗСКОЙ РЕСПУБЛИКИ

КЫРГЫЗ РЕСПУБЛИКАСЫНЫН ЖАРАТЫЛЫШ РЕСУРСТАРЫ, ЭКОЛОГИЯ ЖАНА ТЕХНИКАЛЫК КОЗӨМӨЛ МИНИСТРЛИГИНЕ КАРАШТУУ ЭКОЛОГИЯЛЫК МОНИТОРИНГ ДЕПАРТАМЕНТИ

720005, г. Бишкек, ул. Байтик-Баатыра, 34 тел. (312) 54-61-26

ПРОТОКОЛ ИСПЫТАНИЙ ПРОБ ВОДЫ

№ 760 – 761
от 24.10.2025г.

1. **Наименование предприятия, организации (заявитель):**
   Иссык – Кульская область, г. Балыкчи, КОС. Водаканал Балыкчи.

2. **Регистрационный номер и место отбора проб/дата паспорта отбора проб:** *09.10.2025г.*

   760 – поступающая вода в очистные сооружения (вход);
   761 – вода после очистки (выход).

3. **Дата и время отбора проб:**
   09.10.2025 г. с 16:07 часов.

4. **Нормативный документ:**
   ГОСТ 31861-2012 Вода. Общие требования к отбору проб. ПНД Ф 12.15.1-08 Методические указания по отбору проб для анализа сточных вод.

5. **Дата(ы) проведения испытаний:**
   13.10 – 24.10.2025 г.

6. **Результаты испытаний:**

Стр. 1 из 2

№	Наименование определяемого показателя	Ед. изм.	НД на метод испытаний	Данные анализа по точкам		Испытания провел
				01-760-25	01-761-25	
1	Азот аммонийный	мг/л	ГОСТ 33045-2014	16,98±2,38	1,07±0,21	Жунусова А.А. Догдурбек к М.
2	Азот нитритный	мг/л	(спектрофото-метрический,	0,010±0,005	0,01±0,005	
3	Азот нитратный	мг/л	Метод А)	0,86±0,43	11,22±1,68	
4	Взвешенные вещества	мг/л	ПНД Ф 14.1:2:3.110-97 (гравиметрический)	186,00±18,60	12,00±2,40	
5	pH	-	РД 52.24.495-2005 (электрометрический)	6,71±0,10	6,94±0,10	
6	Хлориды	мг/л	СЭВ ч.1 М. 1977*	70,90	106,35	
7	Сульфаты	мг/л	(титриметрический)	60,00	64,00	
8	Биохимическое потребление кислорода ($БПК_5$)	мгО/л	ПНД Ф 14.1:2:3:4.123-97 (йодометрический)	490,00	30,00±3,90	
9	Железо	мг/л	ПНД Ф 14.1:2.214-06 (пламенный ААС)	<0,02	<0,02	Баялы к.Б. Жунусова А.А.

Сообщаемая расширенная неопределенность измерения указывается как суммарная стандартная неопределенность измерения, умноженная на коэффициент охвата k=2, который обеспечивает уровень доверия приблизительно 95%. Неопределенность измерений, возникающая в результате отбора проб, включена в расширенную неопределенность измерений.

Примечание: Эффективность очистки устанавливается в зависимости от вида очистки в соответствии с техническими документами очистных сооружений.

Заведующая ОМВР Баялы кызы Б.
Заведующая ОКОПАИР Дарбакова А.С.

Исполнитель не несет ответственности, если проба отобрана самим заказчиком
Перепечатка протокола без разрешения ДЭМ запрещена.
ОМВР – Отдел мониторинга водных ресурсов (поверхностных и сточных вод)
ОКОПАИР- Отдел координации отбора проб, аналитики и измерение радиации.

Конец протокола.

КЫРГЫЗ РЕСПУБЛИКАСЫНЫН ЖАРАТЫЛЫШ РЕСУРСТАРЫ, ЭКОЛОГИЯ ЖАНА ТЕХНИКАЛЫК КОЗОМОЛ МИНИСТРЛИГИНЕ КАРАШТУУ ЭКОЛОГИЯЛЫК МОНИТОРИНГ ДЕПАРТАМЕНТИНИН ЫСЫК-КОЛ-НАРЫН РЕГИОНАЛДЫК СЕКТОРУ

ИССЫК-КУЛЬСКО-НАРЫНСКИЙ РЕГИОНАЛЬНЫЙ СЕКТОР ДЕПАРТАМЕНТА ЭКОЛОГИЧЕСКОГО МОНИТОРИНГА ПРИ МИНИСТЕРСТВЕ ПРИРОДНЫХ РЕСУРСОВ, ЭКОЛОГИИ И ТЕХНИЧЕСКОГО НАДЗОРА КЫРГЫЗСКОЙ РЕСПУБЛИКИ

771900, г. Балыкчы Нарынское шоссе, 10 Тел. (0312) 546122

ПАСПОРТ НА ПРОБУ
(сточная вода)

1. **Наименование, адрес объекта:** г. Балыкчы КОС (очистное сооружение).
2. **Основание для отбора:** по договору.
3. **Порядковый номер и место отбора проб:**
   1. Поступающая вода в очис сооружения (ВКОС)
   2. Вода после очистки (ВИХВ)
4. **Цель отбора:** Определение эффективности очистки.
5. **Характер отобранных проб:** разовой.
6. **Способ очистки:** биологическое.
7. **Условия окружающей среды** жаркая
8. **Дата отбора проб** 09.10.2025-г. 16 ^{07} мин
9. **НД:** *ГОСТ 31861-2012 "Вода. Общие требования к отбору проб"; ПНД Ф 12.15.1-08 Методические указания по отбору проб для анализа сточных вод.*

Пробы отобрал:
Представитель ДЭМ гл. специалист Т. Айдаров
(должность, фамилия) вед. специалист Г. Бейшенбиева
Присутствовали:
Госинспектор
(должность, фамилия)
Представитель предприятия Директор Бейшеналиев А.
(должность, фамилия)

1 стр из 1

Balykchy WWTP water - 20.11.2025

ISO/IEC 17025
№ KG 417/КЦА.ИЛ.049
От: 12.08.2022 г.
Область аккредитации
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* -Вне аккредитации

ДЕПАРТАМЕНТ ЭКОЛОГИЧЕСКОГО МОНИТОРИНГА ПРИ МИНИСТЕРСТВЕ ПРИРОДНЫХ РЕСУРСОВ, ЭКОЛОГИИ И ТЕХНИЧЕСКОГО НАДЗОРА КЫРГЫЗСКОЙ РЕСПУБЛИКИ

КЫРГЫЗ РЕСПУБЛИКАСЫНЫН ЖАРАТЫЛЫШ РЕСУРСТАРЫ, ЭКОЛОГИЯ ЖАНА ТЕХНИКАЛЫК КӨЗӨМӨЛ МИНИСТРЛИГИНЕ КАРАШТУУ ЭКОЛОГИЯЛЫК МОНИТОРИНГ ДЕПАРТАМЕНТИ

720005, г. Бишкек, ул. Байтик-Баатыра, 34 тел. (312) 54-61-26

ПРОТОКОЛ ИСПЫТАНИЙ ПРОБ ВОДЫ

№ 811-812
от 20.11.2025г.

1. **Наименование предприятия, организации (заявитель):**
   Иссык – Кульская область, г. Балыкчи, КОС. Водоканал Балыкчи.

2. **Регистрационный номер и место отбора проб/дата паспорта отбора проб:** *13.11.2025г.*

   ***811** – поступающая вода в очистные сооружения (вход);*
   ***812** – вода после очистки (выход).*

3. **Дата и время отбора проб:**
   13.11.2025 г. с 10:20 часов.

4. **Нормативный документ:**
   ГОСТ 31861-2012 Вода. Общие требования к отбору проб. ПНД Ф 12.15.1-08 Методические указания по отбору проб для анализа сточных вод.

5. **Дата(ы) проведения испытаний:**
   13.11-20.11.2025 г.
6. **Результаты испытаний:**

Стр. 1 из 2

№	Наименование определяемого показателя	Ед. изм.	НД на метод испытаний	Данные анализа по точкам		ПДК		Испытания провел
				01-811-25	01-812-25	+	++	
1	Азот аммонийный	мг/л	ГОСТ 33045-2014 (спектрофотометрический)	18,08±2,53	1,72±0,34	0,4	1,5	Жунусова А.А. Кутманбаева Г.К.
2	Азот нитритный	мг/л		0,007±0,003	0,02±0,01	0,02	1,0	
3	Азот нитратный	мг/л		0,94±0,47	10,24±2,56	9,0	10,2	
4	pH	-	РД 52.24.495-2005 (электрометрический)	6,72±0,10	6,94±0,10	6,5-8,5		
5	Взвешенные вещества	мг/л	ПНД Ф 14.1:2:3.110-97 (гравиметрический)	184,00±18,40	16,00±3,20	Увел. 0,25/0,75		
6	Хлориды	мг/л	СЭВ ч.1 М. 1977* (титриметрический)	70,90	113,44	300	350	
7	Сульфаты	мг/л		56,00	68,00	100	500	
8	Железо	мг/л	ПНД Ф 14.1:2.214-06 (ААС)	<0,02	<0,02	0,1	0,3	
9	Биохимическое потребление кислорода ($БПК_5$)	мгО/л	ПНД Ф 14.1:2:3:4.123-97 (йодометрический)	470,00	45,00±5,85	3,0	4,0	

Сообщаемая расширенная неопределенность измерения указывается как суммарная стандартная неопределенность измерения, умноженная на коэффициент охвата k=2, который обеспечивает уровень доверия приблизительно 95%. Неопределенность измерений, возникающая в результате отбора проб, включена в расширенную неопределенность измерений.

Примечание: Эффективность очистки устанавливается в зависимости от вида очистки, в соответствии с техническими документами очистных сооружений.

Заведующая ОМВР Баялы кызы Б.
Заведующая ОКОПАИР Дарбакова А.С.

Испытатель не несет ответственности, если проба отобрана самим заказчиком
Перепечатка протокола без разрешения ДЭМ запрещена.
ОМВР – Отдел мониторинга водных ресурсов (поверхностных и сточных вод)
ОКОПАИР- Отдел координации отбора проб, аналитики и измерение радиации.

Конец протокола.

КЫРГЫЗ РЕСПУБЛИКАСЫНЫН ЖАРАТЫЛЫШ РЕСУРСТАРЫ, ЭКОЛОГИЯ ЖАНА ТЕХНИКАЛЫК КӨЗӨМӨЛ МИНИСТРЛИГИНЕ КАРАШТУУ ЭКОЛОГИЯЛЫК МОНИТОРИНГ ДЕПАРТАМЕНТИНИН ЫСЫК-КӨЛ-НАРЫН РЕГИОНАЛДЫК СЕКТОРУ

ИССЫК-КУЛЬСКО-НАРЫНСКИЙ РЕГИОНАЛЬНЫЙ СЕКТОР ДЕПАРТАМЕНТА ЭКОЛОГИЧЕСКОГО МОНИТОРИНГА ПРИ МИНИСТЕРСТВЕ ПРИРОДНЫХ РЕСУРСОВ, ЭКОЛОГИИ И ТЕХНИЧЕСКОГО НАДЗОРА КЫРГЫЗСКОЙ РЕСПУБЛИКИ

771900, г. Балыкчы Нарынское шоссе, 10 Тел. (0312) 546122

ПАСПОРТ НА ПРОБУ
(сточная вода)

1. **Наименование, адрес объекта:** г. Балыкчы Иссык-Кульская обл. КОС. Водоканал Балыкчы.
2. **Основание для отбора:** по договору с ДЭМ.
3. **Порядковый номер и место отбора проб:**
   1. Вода поступающее в очист сооружения (ВХОД).
   2. Вода после очистки (ВЫХОД)
4. **Цель отбора:** Определение эффективности
5. **Характер отобранных проб:** разовый
6. **Способ очистки:** биологический.
7. **Условия окружающей среды** зимая
8. **Дата отбора проб** 12.11.2025 г. 10 10 мин
9. **НД:** *ГОСТ 31861-2012 "Вода. Общие требования к отбору проб"; ПНД Ф 12.15.1-08 Методические указания по отбору проб для анализа сточных вод.*

Пробы отобрал:
Представитель ДЭМ и.о. гл спец. Абдаров; вед. спец Г. Бейшенбиева.
(должность, фамилия)
Присутствовали:
Госинспектор
(должность, фамилия)
Представитель предприятия Зав лаб Жиргалов С
(должность, фамилия)

Annexure 6 – Environmental Monitoring Results (Karakol WWTP)

(i) Ambient Air Quality Monitoring Results

26 August 2025

ISO/IEC 17025
№ KG 417/КЦА.И.Л.049
От: 12.08.2022 г.
Область аккредитации
на сайте: www.kca.gov.kg

*- Вне аккредитации

КЫРГЫЗ РЕСПУБЛИКАСЫНЫН ЖАРАТЫЛЫШ РЕСУРСТАРЫ ЭКОЛОГИЯ ЖАНА ТЕХНИКАЛЫК КӨЗӨМӨЛ МИНИСТРЛИГИНЕ КАРАШТУУ ЭКОЛОГИЯЛЫК МОНИТОРИНГ ДЕПАРТАМЕНТИ

ДЕПАРТАМЕНТ ЭКОЛОГИЧЕСКОГО МОНИТОРИНГА ПРИ МИНИСТЕРСТВЕ ПРИРОДНЫХ РЕСУРСОВ, ЭКОЛОГИИ И ТЕХНИЧЕСКОГО НАДЗОРА КЫРГЫЗСКОЙ РЕСПУБЛИКИ

720005, г. Бишкек, ул. Байтик-Баатыра, 34 тел. (312) 54-61-22

ПРОТОКОЛ ИСПЫТАНИЙ
ПРОБ АТМОСФЕРНОГО ВОЗДУХА

№ 659-662
от 08.09.2025 г.

1. **Наименование предприятия, организации (заявитель):**
   Иссык-Кульская область, г. Каракол, ОсОО «Hayat Group».

2. **Регистрационный номер и место отбора проб/дата паспорта отбора проб:** *26.08.2025 г.*

   ***659**– Южная сторона стройплощадки О.С. 42.536437, 78.365043;*
   ***660**– Восточная сторона стройплощадки О.С. 42.539548, 78.366124;*
   ***661**– Поселок геологов, 42.541515, 78.367052;*
   ***662**– Северо-западная сторона стройплощадки О.С.42.538368, 78.3654675.*

3. **Дата и время отбора проб:**
   26.08.2025 г. с 09 часов 30 минут.

4. **Нормативный документ:**
   РД 52.04.186-89 – Руководство по контролю загрязнения атмосферы.
   СТП ДЭМ 03-01-2021–Отбор проб атмосферного воздуха.
   СТП ДЭМ 03-02-2021–Методика выполнения измерений содержания оксида углерода (СО) в атмосферном воздухе с помощью газоанализатора стационарного электрохимического К-100.

5. **Дата(ы) проведения испытаний:**
   27.08. – 01.09.2025 г.

6. **Результаты испытаний:**

Стр 1 из 2

Наименование определяемого показателя	НД на метод испытаний	Данные анализа по точкам, мг/м³		ПДК макс.раз. мг/м³	Испытания провел
		03-659-25	03-660-25		
Диоксид серы	Метод фотометрический РД 52.04.186-89	0,181±0,021	0,201 ±0,024	0,5	Бектурова М.Б.
Диоксид азота	Метод фотометрический РД 52.04.186-89	0,244 ±0,043	0,224 ±0,040	0,085	
Оксид углерода	Газоанализатор К-100 СТП ДЭМ 03-02-2021	0,3 ±0,06	0,4 ±0,08	5,0	
Взвешенные вещества	Метод гравиметрический РД 52.04.186-89	0,164 ±0,041	0,218 ±0,054	0,5	

Наименование определяемого показателя	НД на метод испытаний	Данные анализа по точкам, мг/м³		ПДК макс.раз. мг/м³	Испытания провел
		03-661-25	03-662-25		
Диоксид серы	Метод фотометрический РД 52.04.186-89	0,212 ±0,025	0,264 ±0,031	0,5	Бектурова М.Б.
Диоксид азота	Метод фотометрический РД 52.04.186-89	0,235 ±0,042	0,233 ±0,041	0,085	
Оксид углерода	Газоанализатор К-100 СТП ДЭМ 03-02-2021	0,3 ±0,06	0,4 ±0,08	5,0	
Взвешенные вещества	Метод гравиметрический РД 52.04.186-89	0,164 ±0,041	0,164 ±0,041	0,5	

Сообщаемая расширенная неопределенность измерения указывается как суммарная стандартная неопределенность измерения, умноженная на коэффициент охвата k=2, который обеспечивает уровень доверия приблизительно 95%. Неопределенность измерений, возникающая в результате отбора проб, включена в расширенную неопределенность измерений.

Заключение*: *По результатам химических испытаний в отобранных пробах атмосферного воздуха наблюдается превышение по сравнению ПДК (предельно-допустимая концентрация) максимально разовый по диоксиду азота: в точке №659- в 2,9 раз; в точке №660- в 2,9 раз; в точке №661- в 2,8 раз; в точке №662- в 2,7 раз. Остальные показатели в пределах установленных норм. Установленная ГН «ПДК загрязняющих веществ в атмосферном воздухе населенных мест». утв. Постановлением Правительства КР №201(приложение 17) от 11 апреля 2016 г.*

Главный специалист СМАВиПВ Жолдошбекова З.Ж.
Главный специалист ОКОПАИР Сагынбек уулу М.

Исполнитель не несет ответственности, если проба отобрана самим заказчиком
Перепечатка протокола без разрешения ДЭМ запрещена.
СМАВиПВ – сектор мониторинга атмосферного воздуха и промышленных выбросов
ОКОПАИР - отдел координации отбора проб, аналитики и измерение радиации.

Конец протокола.

КЫРГЫЗ РЕСПУБЛИКАСЫНЫН ЖАРАТЫЛЫШ РЕСУРСТАРЫ, ЭКОЛОГИЯ ЖАНА ТЕХНИКАЛЫК КӨЗӨМӨЛ МИНИСТРЛИГИНЕ КАРАШТУУ ЭКОЛОГИЯЛЫК МОНИТОРИНГ ДЕПАРТАМЕНТИ

ДЕПАРТАМЕНТ ЭКОЛОГИЧЕСКОГО МОНИТОРИНГА ПРИ МИНИСТЕРСТВЕ ПРИРОДНЫХ РЕСУРСОВ, ЭКОЛОГИИ И ТЕХНИЧЕСКОГО НАДЗОРА КЫРГЫЗСКОЙ РЕСПУБЛИКИ

0005, г. Бишкек, ул. Байтик Баатыра, 34 тел. (312) 54-61-22

ПАСПОРТ НА ПРОБУ
(атмосферный воздух)

1. **Наименование, адрес объекта:** Иссык-Кульская область, г. Каракол, ОсОО «Hayat Group»

2. **Основание для отбора:**

3. **Порядковый номер и место отбора проб:**
1. Южная сторона стройплощадки О.С. 42.536437, 78.365043;
2. Восточная сторона стройплощадки О.С 42.539548, 78.366124;
3. Поселок Геологов, 42.541515, 78.367052;
4. Северо-западная сторона стройплощадки О.С. 42.538368, 78.364675.

4. **Цель отбора:** Опред-ие CO, NO_2, SO_2, взвеш. вещ.
5. **Характер отобранных проб:** разовые
6. **Условия окружающей среды** ясно
7. **Температура перед аспиратором:** 20°
8. **Атмосферное давление:** 622 мм рт. ст.
9. **Дата и время отбора проб:** 26.08.2025 г с 9:30 ч
10. **НД на отбор проб:** РД 52.04.186-89 Руководство по контролю загрязнения атмосферы СТП ДЭМ 03-01-2021 Отбор проб атмосферного воздуха

Пробы отобрал: вед. специалист Мелисбек у Т [подпись]
Представитель ДЭМ
(должность, фамилия)

Присутствовали:
Госинспектор
(должность, фамилия)

Представитель предприятия Инженер-Эколог ОсОО «Хайат Групп» А. Букарова [подпись]
(должность, фамилия)

1 стр из 1

3 December 2025

ISO/IEC 17025
№ KG 417/КЦА.ИЛ.049
От: 12.08.2022 г.
Область аккредитации
на сайте: www.kca.gov.kg

КЫРГЫЗ РЕСПУБЛИКАСЫНЫН ЖАРАТЫЛЫШ РЕСУРСТАРЫ ЭКОЛОГИЯ ЖАНА ТЕХНИКАЛЫК КӨЗӨМӨЛ МИНИСТРЛИГИНЕ КАРАШТУУ ЭКОЛОГИЯЛЫК МОНИТОРИНГ ДЕПАРТАМЕНТИ

ДЕПАРТАМЕНТ ЭКОЛОГИЧЕСКОГО МОНИТОРИНГА ПРИ МИНИСТЕРСТВЕ ПРИРОДНЫХ РЕСУРСОВ, ЭКОЛОГИИ И ТЕХНИЧЕСКОГО НАДЗОРА КЫРГЫЗСКОЙ РЕСПУБЛИКИ

*- Вне аккредитации

720005, г. Бишкек, ул. Байтик-Баатыра, 34 тел. (312) 54-61-22

ПРОТОКОЛ ИСПЫТАНИЙ ПРОБ АТМОСФЕРНОГО ВОЗДУХА

№ 1000 – 1003
От: 10.12.2025г.

1. **Наименование предприятия, организации (заявитель):**
   Иссык-Кульская область, г. Каракол, ОсОО «Hayat Group».

2. **Регистрационный номер и место отбора проб/дата паспорта отбора проб:** *03.12.2025 г.*

   1000 *– Поселок геологов, 42.541515, 78.367052;*
   1001 *– Восточная сторона стройплощадки очистного сооружения 42.539548, 78.366124;*
   1002 *– Южная сторона стройплощадки очистного сооружения 42.536437, 78.365043;*
   1003 *– Северо-западная сторона стройплощадки очистного сооружения 42.538368, 78.364675.*

3. **Дата и время отбора проб:**
   03.12.2025 г. с 10 часов 45 минут.

4. **Нормативный документ:**
   РД 52.04.186-89 – Руководство по контролю загрязнения атмосферы.
   СТП ДЭМ 03-01-2021–Отбор проб атмосферного воздуха.
   СТП ДЭМ 03-02-2021–Методика выполнения измерений содержания оксида углерода (CO) в атмосферном воздухе с помощью газоанализатора стационарного электрохимического К-100.

5. **Дата(ы) проведения испытаний:**
   04.12. – 10.12.2025 г.

6. **Результаты испытаний:**

№ п/п	Наименование определяемого показателя	Ед. изм.	НД на метод испытаний	Данные анализа по точкам			ПДК	Испытания провел
				03-**1000**-24	03-**1001**-24	03-**1002**-24		
1	Диоксид серы	мг/м^3	фотометрический РД 52.04.186-89	0,319±0,038	0,311±0,037	0,308±0,037	**0,5**	Бектурова М.Б.
2	Диоксид азота	мг/м^3	фотометрический РД 52.04.186-89	0,110 ±0,020	0,098±0,018	0,119±0,021	**0,085**	
3	Оксид углерода	мг/м^3	Газоанализатор К-100 СТП ДЭМ 03-02-2021	0,3 ±0,06	0,3 ±0,06	0,4 ±0,08	**5,0**	
4	Взвешенные вещества	мг/м^3	гравиметрический РД 52.04.186-89	0,151±0,038	0,151±0,038	0,151±0,038	**0,5**	

№ п/п	Наименование определяемого показателя	Ед. изм.	НД на метод испытаний	Данные анализа по точкам	ПДК	Испытания провел
				03-**1003**-24		
1	Диоксид серы	мг/м^3	фотометрический РД 52.04.186-89	0,302±0,036	**0,5**	Бектурова М.Б.
2	Диоксид азота	мг/м^3	фотометрический РД 52.04.186-89	0,133±0,024	**0,085**	
3	Оксид углерода	мг/м^3	Газоанализатор К-100 СТП ДЭМ 03-02-2021	0,3 ±0,06	**5,0**	
4	Взвешенные вещества	мг/м^3	гравиметрический РД 52.04.186-89	0,151±0,038	**0,5**	

Сообщаемая расширенная неопределенность измерения указывается как суммарная стандартная неопределенность измерения, умноженная на коэффициент охвата k=2, который обеспечивает уровень доверия приблизительно 95%. Неопределенность измерений, возникающая в результате отбора проб, включена в расширенную неопределенность измерений.

Заключение*: *По результатам химических испытаний в отобранных пробах атмосферного воздуха не наблюдается превышение по сравнению ПДК (предельно-допустимая концентрация) максимально разовый. Установленная ГН «ПДК загрязняющих веществ в атмосферном воздухе населенных мест». утв. Постановлением Правительства КР №201(приложение 17) от 11 апреля 2016г.*

Заведующая СМАВиПВ Абдылдаева А. Н.

Заведующая ОКОПАИР Дарбакова А.С.

Исполнитель не несет ответственности, если проба отобрана самим заказчиком
Перепечатка протокола без разрешения ДЭМ запрещена.
СМАВиПВ – сектор мониторинга атмосферного воздуха и промышленных выбросов
ОКОПАИР - отдел координации отбора проб, аналитики и измерение радиации.

Конец протокола.

Департамент экологического мониторинга	**ҮЛГҮ АЛУУ ПАСПОРТУ/ ПАСПОРТ НА ПРОБУ (атмосфералык аба/атмосферный воздух)**	**ФЗСМ7.3-7.4**

1. Объектин аталышы, дареги/Наименование, адрес объекта: Иссык-Кульская область, г. Каракол, ОсОО „Hayat Group"

2. Үлгүнү алуу үчүн негиз/Основание для отбора: Договор

3. Үлгүнүн жайгашкан жери жана катар номери/Порядковый номер и место отбора проб:

1. Фоновое значение
2. Восточная сторона стройплощадки О.С. 42,538545, 78,366126
3. Южная сторона стройплощадки О.С. 42,536434, 78,365413
4. Северо-западная сторона стройплощадки О.С. 42,538368, 78,3656[illegible]

4. Үлгү алуунун максаты/Цель отбора: определение качества воздуха

5. Алынган үлгүлөрдүн мүнөздөмөсү/Характер отобранных проб: разовый

6. Айлана-чөйрөнүн шарттары/Условия окружающей среды: ясно

7. Үлгү алуу күнү/Дата отбора проб: 03.12.25 10[45]

8. Үлгү алуу үчүн ченемдик документ/НД на отбор проб:

№	Аныктала турган индикатордун аталышы/Наименование определяемого показателя	Сыноо ыкмалары боюнча ченемдик документ/ НД на методы испытаний	Кардар менен макулдашуу/ Согласование с заказчиком Белги/Отметка "√"
1	Диоксид азота (NO_2)	РД 52.04.186-89 (фотометрический)	
2	Диоксид серы (SO_2)	РД 52.04.186-89 (фотометрический)	
3	Взвешенные вещества	РД 52.04.186-89 (гравиметрический)	
4	Оксид углерода (CO)	СТП ДЭМ 03-02-2021 (газоанализатором)	

	Кызмат орду/ Должность	Аты жөнү/ ФИО	Кол коюу/ Подпись
Үлгү алгандар/ЭМДнин өкүлү: Пробы отобрал/Представитель ДЭМ	вед. спец.	Мурзаканова Б.Б.	[illegible]
	вед. спец.	[illegible] Г. Ш.	[illegible]
Катышкандар/Присутствовали: Мамлекеттик инспектор/Госинспектор			
Ишкананын өкүлү/Представитель:	Эколог ОсОО „Хайят групп"	Ю. Букарева	[illegible]

№ издания	3	Дата введения	01.09.2025г.	Стр. 1 из 1	

(ii) Noise Levels

Санитарно-гигиеническая лаборатория
Отдел лабораторных исследований

КАРАКОЛЬСКИЙ МЕЖРАЙОННЫЙ ЦЕНТР ПРОФИЛАКТИКИ ЗАБОЛЕВАНИЙ И ГОССАНЭПИДНАДЗОРА при МЗ КР

722060 г. Каракол, ул. Мичурина, 4 тел. 4-09-85; 4-09-70

ISO/IEC 17020
№ KG 417/КЦА.ОК.111
От: 04.11.2024 г.
Область аккредитации
на сайте: www.kca.gov.kg
Примечание(*) указанный метод вне области аккредитации

ПРОТОКОЛ
ЛАБОРАТОРНЫХ ИЗМЕРЕНИЙ ШУМА
НА РАБОЧИХ МЕСТАХ, ЖИЛЫХ И ОБЩЕСТВЕННЫХ ЗДАНИЯХ
№ 121-124
от «1» сентября 2025года

1. Наименование объекта: ОсОО "Хаят групп" КОС г.Каракол
2. Дата и время проведенмя измерения: 29.08.2025г 13^{50}
3. Адрес и место проведения измерения: г Каракол, КОС
4. Около склада, около администрации, около администрации (отстойника) поселок геологов около дома б/н
5. Характеристика помещения, в котором проводились измерения: (размеры,обьем,оборудование,этаж,)
6. Цель проведения измерения: санитарно – гигиеническая оценка .
7. Особые условия, влияющие на результаты измерений: Т-22,5.°С

(температура,относительная влажность, скорость движения воздуха)

8. Измерение проводились в присутствии: Эколога Букоровой А
представителя обследуемого объекта должность Ф.И.О

8. Нормативный документ на метод выполнения испытания :ГОСТ 23337-2014 «Шум. Методы измерения шума на селитебной территории и в помещениях жилых и общественных зданий».
9. Наименование действующего нормативного документа: Постановление Правительство САНИТАРНО-ЭПИДЕМИОЛОГИЧЕСКИЕ ПРАВИЛА И НОРМАТИВЫ. «Шум на рабочих местах, в помещениях жилых, общественных зданий и на территории жилой застройки №201 от 11.04.2016г приложение №14.
10. Средства измерений, применяемые при отборе, тип, марка, заводской номер, сведение о поверке: Шумомер Октава 110А , зав.№ БА190708 свидетельство о калибровке ВА-06-05-3077 от 29.11.2024г.

Стр 1из 2

Результаты измерения шума:

№ п/п	Описание Место измерения(ситуационный план территории с указанием расположения зданий, транспортных дорог, источников шума точек измерения).	Характер шума						Уровни звукового давления в ДБ в октавных полосах со среднегеометрическими частотами в Гц									Уровень звука дБА фактический	Предельно Допустим уровень звук дБА (ПДУ
		По спектру		По временным														
		широкопол	тональный	постоянный	колеба	прерывистый	импульсный	31,5	63	125	250	500	1000	2000	4000	8000		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	**Рег№121** Около склада							107	95	87	82	78	75	73	71	69		80
								71,9	66,4	64,4	59,2	60 7	8,26	55 5	45,0	41,3	75,8±2,7	
2	**Рег№122** Строй площадка около администрации							107	95	87	82	78	75	73	71	69		80
								71,0	63,5	55,4	50,3	55,5	53,9	54,7	47,2	39,5	75,4±2,6	
3	**Рег№123** Строй площадка около администрации (отстойника)							107	95	87	50	78	75	73	71	69		80
								54,7	47,2	39,5	35,1	36,7	35,1	53,9	33,8	39,7	76,1±2,6	
4	**Рег№124** Поселок геологов около дома б/н							107	95	87	82	78	75	73	71	69		80
								25,9	45,0	45,9	30,9	28,9	28,3	30,1	31,1	33,5	69,,8±2,5	

Расширенная неопределенность измерения указывается 54 суммарная стандартная неопределенность измерения, умноженная на коэффициент охвата $k=2$, что вероятность охвата соответствует приблизительно 95%.Неопределенность измерений, возникающая в результате отбора проб, не включена в расширенную неопределенность измерений.

Измерение проводили:

Техник: ____________ Асангазиев А.У

Заведующая СГЛ: ____________ Табалдиева Ж.У

Конец протокола!

Примечание: Результаты измерения относятся только на момент обследования.

Перепечатка протокола без разрешения санитарно-гигиенической лаборатории ЗАПРЕЩЕНА !

Заключения по результатам измерения: Произведённые замеры шума отвечают требованиям ПТ КР №201 от 11.04.16г прил. 14

должность Сан. врач подпись ____________

Sanitary and Hygiene Laboratory Laboratory
Research Department

KARAKOL INTERREGIONAL CENTER FOR DISEASE PREVENTION AND GOSSANEPIDZOR under the Ministry of Health of the Kyrgyz Republic

722060 Kadakol, Michurinar St. 4 tel. 4-09-85: 4-09-70

ISO/IEC 17020
No. KG 417ИЛА.OK. 111
Scope of accreditation
on the website: www.kca.gov.kg

PROTOCOL FOR LABORATORY NOISE MEASUREMENTS IN WORKPLACES, RESIDENTIAL AND PUBLIC BUILDINGS

No. 204

dated November 29, 2025

1 Name of facility: LLC "Hayat-Group" WWTP, Karakol
2 Date and time of measurement: 27.11.2025. 10:32
3 Address and location of measurement: Karakol
4 Characteristics of the premises where the measurements were taken:
(dimensions, volume, equipment, floor)
5 Purpose of measurement: sanitary and hygienic assessment. According to the statement
6 Special conditions affecting the measurement results:
(temperature, relative humidity, air velocity)

7 The measurements were taken in the presence of: Ecologist Bukarova A
representative of the facility under investigation Position Full name
8 Regulatory document for the test method: GOST 23337-2014 "Noise. Methods for measuring noise in residential areas and in residential and public buildings."
9 Name of the applicable regulatory document: Government Resolution SANITARY AND EPIDEMIOLOGICAL RULES AND REGULATIONS. "Noise in workplaces, in residential and public buildings and in residential areas No. 201 dated 11.04.2016 - Appendix No. 14.
10 Measuring instruments used in sampling, type, brand, serial number, calibration information: Octava 110A speedometer, serial number BA190708, calibration certificate BA-06-05-3077 dated 29.11.2024.

Results of noise measurement

№ п/п	Description of Measurement Location (site plan, area with indication of building locations, roads, noise sources, measurement points)	Noise Characteristics: By spectrum		Noise Characteristics: By time				Sound Pressure Levels in dB in Octave Bands with Geometric Mean Frequencies (Hz)									Actual Sound Level dBA	Permissible Sound Level dBA (PSL)
		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	31,5	63	125	250	500	1000	2000	4000	8000		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	Near camp, Point No. 1	+		+				107	95	87	82	78	75	79	71	69		80
								65,1	61,2	60,8	51,1	46,3	43,1	43,0	41,1	33,5	73,2±2,6	
2	Near camp, Point No. 2							107	95	87	82	78	75	79	71	69		80
								62,1	60,9	59,5	48,7	46,5	43,2	41,1	39,5	31,6	74,5±2,6	
3	Settlement near house No.							107	95	87	82	78	75	79	71	69		80
								53,8	54,6	46,6	38,2	32,8	25,8	19,7	20,7	20,1	69,3±2,4	

Expanded measurement uncertainty is indicated as the combined standard uncertainty multiplied by a coverage factor $k = 2$, corresponding to approximately **95% confidence probability**. The uncertainty of measurements arising from sampling is not included in the expanded uncertainty of measurements.

Measurements were conducted by:

Laboratory doctor ________ Сагынбаева Э С

Technician ________ Асангазиев А

Head of SGL ________ Табалдиева Ж.У

End of protocol!

Note: The measurement results apply only to the time of examination. Reproduction of the protocol without the permission of the sanitary and hygienic laboratory is PROHIBITED.

Проведённые замеры шума на рабочих местах отвечает требованиям ПП КР №201 от 11.04.16 г. прил 14.

Сан. врач.

The noise levels measured at workplaces comply with the requirements of government decree of KR No. 201 dated 11 April 2016, Appendix 14.

Sanitary officer

(iii) Water Quality Monitoring – River water

26 August 2025

ISO/IEC 17025
№ KG 417/КЦА.ИЛ.049
От: 12.08.2022 г.
Область аккредитации
на сайте: www.kca.gov.kg

* -Вне аккредитации

ДЕПАРТАМЕНТ ЭКОЛОГИЧЕСКОГО МОНИТОРИНГА ПРИ МИНИСТЕРСТВЕ ПРИРОДНЫХ РЕСУРСОВ, ЭКОЛОГИИ И ТЕХНИЧЕСКОГО НАДЗОРА КЫРГЫЗСКОЙ РЕСПУБЛИКИ

КЫРГЫЗ РЕСПУБЛИКАСЫНЫН ЖАРАТЫЛЫШ РЕСУРСТАРЫ, ЭКОЛОГИЯ ЖАНА ТЕХНИКАЛЫК КӨЗӨМӨЛ МИНИСТРЛИГИНЕ КАРАШТУУ ЭКОЛОГИЯЛЫК МОНИТОРИНГ ДЕПАРТАМЕНТИ

720005, г. Бишкек, ул. Байтик-Баатыра, 34 тел. (312) 54-61-22

ПРОТОКОЛ ИСПЫТАНИЙ ПРОБ ВОДЫ

№ 573 – 576
от 08.09.2025 г.

1. **Наименование предприятия, организации (заявитель):**
   Иссык-Кульская область, г. Каракол ОсОО "Hayat Group".

2. **Регистрационный номер и место отбора проб/дата паспорта отбора проб:** *26.08.2025 г.*

   573 – река Каракол, выше 500м. от строй площадки О.С.;
   574 – река Каракол, ниже 500м. от строй площадки О.С.;
   575 – ручей Кара-Суу, выше 500м. от строй площадки О.С.;
   576 – ручей Кара-Суу, выше 500м. от строй площадки О.С..

3. **Дата и время отбора проб:**
   26.08.2025 г. с 09 часов 40 минут.

4. **Нормативный документ:**
   ГОСТ 31861-2012 Вода. Общие требования к отбору проб. Правила охраны поверхностных вод КР от 14 марта 2016-год №128.

5. **Дата(ы) проведения испытаний:**
   27.08. – 08.09.2025 г.

6. **Результаты испытаний:**

Стр. 1 из 2

№	Наименование определяемого показателя	Ед. изм.	НД на метод испытаний	Данные анализа по точкам		ПДК		Испытания провел
				01-573-25	01-574-25	+	++	
1	Нефтепродукты	мг/л	ПНД Ф 14.1:2:4.128-98 (флуориметрический)	<0,005	<0,005	0,05	0,3	Жунусова А.А. Кутманбаева Г.К. Догдурбек к М.
2	Взвешенные вещества	мг/л	ПНД Ф 14.1:2:3.110-97 (гравиметрический)	6,40±1,92	8,00±2,40	Увел. 0,25/0,75		

№	Наименование определяемого показателя	Ед. изм.	НД на метод испытаний	Данные анализа по точкам		ПДК		Испытания провел
				01-575-25	01-576-25	+	++	
1	Нефтепродукты	мг/л	ПНД Ф 14.1:2:4.128-98 (флуориметрический)	<0,005	<0,005	0,05	0,3	Жунусова А.А. Кутманбаева Г.К. Догдурбек к М.
2	Взвешенные вещества	мг/л	ПНД Ф 14.1:2:3.110-97 (гравиметрический)	8,40±2,52	12,40±2,48	Увел. 0,25/0,75		

Сообщаемая расширенная неопределенность измерения указывается как суммарная стандартная неопределенность измерения, умноженная на коэффициент охвата k=2, который обеспечивает уровень доверия приблизительно 95%. Неопределенность измерений, возникающая в результате отбора проб, включена в расширенную неопределенность измерений.

Заключение: По результатам химических испытаний в отобранных пробах воды не наблюдается превышение по сравнению ПДК (предельно-допустимая концентрация) для рыбо-хозяйственной и культурно-бытовой категории по всем определяемым показателям. Предельно допустимые концентрации химических веществ в воде водных объектов хозяйственно-питьевого и культурно бытового водопользовании, утв. Постановлением Правительства КР №201 от 11 апреля 2016г.*

Заведующая ОМВР — Баялы кызы Б.
Главный специалист ОКОПАИР — Сагынбек улуу М.

Исполнитель не несет ответственности, если проба отобрана самим заказчиком
Перепечатка протокола без разрешения ДЭМ запрещена.
ОМВР – отдел мониторинга водных ресурсов (поверхностных и сточных вод)
ОКОПАИР - отдел координации отбора проб, аналитики и измерение радиации.

Конец протокола.

КЫРГЫЗ РЕСПУБЛИКАСЫНЫН ЖАРАТЫЛЫШ РЕСУРСТАРЫ, ЭКОЛОГИЯ ЖАНА ТЕХНИКАЛЫК КӨЗӨМӨЛ МИНИСТРЛИГИНЕ КАРАШТУУ ЭКОЛОГИЯЛЫК МОНИТОРИНГ ДЕПАРТАМЕНТИ

ДЕПАРТАМЕНТ ЭКОЛОГИЧЕСКОГО МОНИТОРИНГА ПРИ МИНИСТЕРСТВЕ ПРИРОДНЫХ РЕСУРСОВ, ЭКОЛОГИИ И ТЕХНИЧЕСКОГО НАДЗОРА КЫРГЫЗСКОЙ РЕСПУБЛИКИ

20005, г. Бишкек, ул. Байтик Баатыра, 34 тел. (312) 54-61-22

ПАСПОРТ НА ПРОБУ
(вода)

1. **Наименование, адрес объекта:** Иссык-Кульская область, г. Каракол, ОсОО «Hayat Group»
2. **Основание для отбора:**
3. **Порядковый номер и место отбора проб:**
   1 река Каракол, выше 500 м от стройплощадки О.С
   2 река Каракол, ниже 500 м от стройплощадки О.С
   3 ручей Кара-Суу, выше 500 м от стройплощадки О.С
   4 ручей Кара-Суу, ниже 500 м от стройплощадки О.С
4. **Цель отбора:** Опред-ие кол-ва воды
5. **Характер отобранных проб:** разовый
6. **Условия окружающей среды:** ясно
7. **Дата отбора проб:** 26.08.2025г с 9:40ч
8. **НД:** *ГОСТ 31861-2012 "Вода. Общие требования к отбору проб"; Правила охраны поверхностных вод КР от 14 марта 2016-год №128.*

Пробы отобрал: вед. специалист. Мамбетов У.Р.

Представитель ДЭМ
(должность, фамилия)

Присутствовали:

Госинспектор
(должность, фамилия)

Представитель предприятия Инженер-эколог ОсОО «Хайят Груп» А. Бухаров
(должность, фамилия)

1 стр из 1

3 December 2025

ISO/IEC 17025
№ KG 417/КЦА.И.Л.049
От: 12.08.2022 г.
Область аккредитации
на сайте: www.kca.gov.kg

* -Вне аккредитации

ДЕПАРТАМЕНТ ЭКОЛОГИЧЕСКОГО МОНИТОРИНГА ПРИ МИНИСТЕРСТВЕ ПРИРОДНЫХ РЕСУРСОВ, ЭКОЛОГИИ И ТЕХНИЧЕСКОГО НАДЗОРА КЫРГЫЗСКОЙ РЕСПУБЛИКИ

КЫРГЫЗ РЕСПУБЛИКАСЫНЫН ЖАРАТЫЛЫШ РЕСУРСТАРЫ, ЭКОЛОГИЯ ЖАНА ТЕХНИКАЛЫК КӨЗӨМӨЛ МИНИСТРЛИГИНЕ КАРАШТУУ ЭКОЛОГИЯЛЫК МОНИТОРИНГ ДЕПАРТАМЕНТИ

720005, г. Бишкек, ул. Байтик-Баатыра, 34 тел. (312) 54-61-22

ПРОТОКОЛ ИСПЫТАНИЙ ПРОБ ВОДЫ

№ 884 – 887
от 17.12.2025 г.

1. **Наименование предприятия, организации (заявитель):**
   Иссык-Кульская область, г. Каракол ОсОО "Hayat Group".

2. **Регистрационный номер и место отбора проб/дата паспорта отбора проб:** *03.12.2025 г.*

   884 – река Каракол, выше 500м. от строй площадки О.С.;
   885 – река Каракол, ниже 500м. от строй площадки О.С.;
   886 – ручей Кара-Суу, выше 500м. от строй площадки О.С.;
   887 – ручей Кара-Суу, выше 500м. от строй площадки О.С.

3. **Дата и время отбора проб:**
   03.12.2025 г. с 10 часов 10 минут.

4. **Нормативный документ:**
   ГОСТ 31861-2012 Вода. Общие требования к отбору проб. Правила охраны поверхностных вод КР от 14 марта 2016-год №128.

5. **Дата(ы) проведения испытаний:**
   04.12. – 17.12.2025 г.

6. **Результаты испытаний:**

Стр. 1 из 2

№	Наименование определяемого показателя	Ед. изм.	НД на метод испытаний	Данные анализа по точкам		ПДК		Испытания провел
				01-884-25	01-885-25	+	++	
1	Нефтепродукты	мг/л	ПНД Ф 14.1:2:4.128-98 (флуориметрический)	<0,005	<0,005	0,05	0,3	Жунусова А.А. Кутманбаева Г.К. Догдурбек к М.
2	Взвешенные вещества	мг/л	ПНД Ф 14.1:2:3.110-97 (гравиметрический)	1,20	1,00	Увел. 0,25/0,75		

№	Наименование определяемого показателя	Ед. изм.	НД на метод испытаний	Данные анализа по точкам		ПДК		Испытания провел
				01-886-25	01-887-25	+	++	
1	Нефтепродукты	мг/л	ПНД Ф 14.1:2:4.128-98 (флуориметрический)	<0,005	<0,005	0,05	0,3	Жунусова А.А. Кутманбаева Г.К. Догдурбек к М.
2	Взвешенные вещества	мг/л	ПНД Ф 14.1:2:3.110-97 (гравиметрический)	1,40	1,00	Увел. 0,25/0,75		

Сообщаемая расширенная неопределенность измерения указывается как суммарная стандартная неопределенность измерения, умноженная на коэффициент охвата k=2, который обеспечивает уровень доверия приблизительно 95%. Неопределенность измерений, возникающая в результате отбора проб, включена в расширенную неопределенность измерений.

Заключение: По результатам химических испытаний в отобранных пробах воды не наблюдается превышение по сравнению ПДК (предельно-допустимая концентрация) для рыбо-хозяйственной и культурно-бытовой категории. Предельно допустимые концентрации химических веществ в воде водных объектов хозяйственно-питьевого и культурно бытового водопользовании, утв. Постановлением Правительства КР №201 от 11 апреля 2016г.*

Заведующая ОМВР Баялы кызы Б.
Заведующая ОКОПАИР Дарбакова А.С.

Испонитель не несет ответственности, если проба отобрана самим заказчиком
Перепечатка протокола без разрешения ДЭМ запрещена.
ОМВР – отдел мониторинга водных ресурсов (поверхтностных и сточных вод)
ОКОПАИР - отдел координации отбора проб, аналитики и измерение радиации.

Конец протокола.

Департамент экологического мониторинга	ҮЛГҮ АЛУУ ПАСПОРТУ/ ПАСПОРТ НА ПРОБУ (суу/вода)	Ф5СМ7.3-7.4

1. Объектин аталышы, дареги/Наименование, адрес объекта: Иссык-Кульская область, г. Каракол, ОсОО „Нагат Агар"

2. Үлгүнү алуу үчүн негиз/Основание для отбора: Договор

3. Үлгүнүн жайгашкан жери жана катар номери/Порядковый номер и место отбора проб:

1. ручей Кара-Суу выше 500 м от стрельбища О.С.
2. ручей Кара-Суу ниже 300 м от стрельбища О.С.
3. река Каракол ниже 500м от стрельбища О.С.
4. река Каракол выше 500м от стрельбища О.С

4. Үлгү алуунун максаты/Цель отбора: Определение качества воды

5. Алынган үлгүлөрдүн мүнөздөмөсү/Характер отобранных проб: разовые

6. Айлана-чөйрөнүн шарттары/Условия окружающей среды: ясно 17 °С

7. Үлгү алуу күнү/Дата отбора проб: 03.12.25г

8. Үлгү алуу үчүн ченемдик документ/НД на отбор проб: ГОСТ 31861-2012

№	Аныктала турган индикатордун аталышы/Наименование определяемого показателя	Сыноо ыкмалары боюнча ченемдик документ/НД на методы испытаний	Консервация	Кардар менен макулдашуу/ Согласование с заказчиком Белги/Отметка "√"
1.	pH	РД 52.24.495-2005 (ионометрический)		
2.	Взвешенные вещества	ПНДФ 14.1:2:3.110-97 (гравиметрический)		
3.	Азот нитритный	ГОСТ 33045-2014 (фотоколориметрический)		
4.	Азот аммонийный	ГОСТ 33045-2014 (фотоколориметрический)		
5.	Азот нитратный	ГОСТ 33045-2014 (фотоколориметрический)		
6.	Биохимическое потребление кислорода (БПК)	ПНД Ф 14.1:2:3:4.123.97 (йодометрический)		
7.	Растворенный кислород	ПНД Ф 14.1:2.101-97 (йодометрический)		
8.	Нефтепродукты	ПНД Ф 14.1:2:4.128-98 (флуориметрический)		
9.	Цианиды	ПНД Ф 14.1:2.56-96 (спектрофотометрический)		
10.	СПАВ	ГОСТ 31857-2012 СТП ДЭМ 01-01-2021		

Департамент экологического мониторинга	ҮЛГҮ АЛУУ ПАСПОРТУ/ ПАСПОРТ НА ПРОБУ (суу/вода)	Ф5СМ 7.3-7.4

№	Аныктала турган индикатордун аталышы/Наименование определяемого показателя	Сыноо ыкмалары боюнча ченемдик документ/НД на методы испытаний	Консервация	Кардар менен макулдашуу/ Согласование с заказчиком Белги/Отметка "√"
		(спектрофотометрический)		
11.	Сульфаты	СЭВ ч. 1 М. 1977(титриметрический)*		
12.	Хлориды	СЭВ ч. 1 М. 1977(титриметрический)*		
13.	Фосфаты	ПНД Ф 14.1:2:4.132-98 (ионная хроматография)*		
14.	Перманганатная окисляемость	СЭВ ч. 1 М. 1977(титриметриеский)*		
15.	Прозрачность	СЭВ ч. 1 М. 1977(титриметрический)*		
16.	Металлы:	ПНДФ 14.1:2.214-06 (ААС)		
17.	Металлы:	ЦВ 3.18.05-2005 (масс спектрометрия)*		

*-Аккредитациядан тышкары/вне аккредитации

	Кызмат орду/ Должность	Аты жөнү/ ФИО	Кол коюу/ Подпись
Үлгү алгандар/ЭМДнин өкүлү: Пробы отобрал/Представитель ДЭМ	Вед. спец	Мурсатанова Б.О	[signature]
	Вед. спец	Бетшембиева Г.Ш	[signature]
Катышкандар/Присутствовали: Мамлекеттик инспектор/ Госинспектор			
Ишкананын өкүлү/Представитель:	Эколог ОсОО «Хайлей Групп»	Бухарова А.К	[signature]

(iv) Water Quality Monitoring – Wastewater

26 August 2025

ISO/IEC 17025
№ KG 417/КЦА.ИЛ.049
От: 12.08.2022 г.
Область аккредитации
на сайте: www.kca.gov.kg

* -Вне аккредитации

ДЕПАРТАМЕНТ ЭКОЛОГИЧЕСКОГО МОНИТОРИНГА ПРИ МИНИСТЕРСТВЕ ПРИРОДНЫХ РЕСУРСОВ, ЭКОЛОГИИ И ТЕХНИЧЕСКОГО НАДЗОРА КЫРГЫЗСКОЙ РЕСПУБЛИКИ

КЫРГЫЗ РЕСПУБЛИКАСЫНЫН ЖАРАТЫЛЫШ РЕСУРСТАРЫ, ЭКОЛОГИЯ ЖАНА ТЕХНИКАЛЫК КӨЗӨМӨЛ МИНИСТРЛИГИНЕ КАРАШТУУ ЭКОЛОГИЯЛЫК МОНИТОРИНГ ДЕПАРТАМЕНТИ

720005, г. Бишкек, ул. Байтик-Баатыра, 34 тел. (312) 54-61-22

ПРОТОКОЛ ИСПЫТАНИЙ ПРОБ ВОДЫ

№ 577 – 578
от 08.09.2025 г.

1. **Наименование предприятия, организации (заявитель):**
   Иссык-Кульская область, г. Каракол ОсОО "Hayat Group".

2. **Регистрационный номер и место отбора проб/дата паспорта отбора проб:** *26.08.2025 г.*

   ***577** – Вода поступающая в очистное сооружение (вход);*
   ***578** – Вода после очистки (выход).*

3. **Дата и время отбора проб:**
   26.08.2025 г. с 10 часов 20 минут.

4. **Нормативный документ:**
   ПНД Ф 12.15.1-08 Методические указания по отбору проб для анализа сточных вод.

5. **Дата(ы) проведения испытаний:**
   27.08. – 08.09.2025 г.

6. **Результаты испытаний:**

Стр. 1 из 2

№	Наименование определяемого показателя	Ед. изм.	НД на метод испытаний	Данные анализа по точкам		Испытания провел
				01-577-25	01-578-25	
1	Азот аммонийный	мг/л	ГОСТ 33045-2014 (спектрофотометрический)	10,23±1,43	14,11±1,97	Жунусова А.А. Кутманбаева Г.К. Догдурбек к М.
2	Азот нитритный	мг/л		0,008±0,004	0,01±0,005	
3	Азот нитратный	мг/л		3,21±0,80	6,23±1,56	
4	Взвешенные вещества	мг/л	ПНД Ф 14.1:2:3.110-97 (гравиметрический)	236,00±23,60	524,00±52,40	
5	Перм. окисляемость	мгО/л	СЭВ ч.1 М. 1977* (титриметрический)	168,72	216,72	
6	Биохимическое потребление кислорода ($БПК_5$)	мгО/л	ПНД Ф 14.1:2:3:4.123-97 (йодометрический)	530,00	685,00	
7	СПАВ	мг/л	СТП ДЭМ 01-01-2021 (спектрофотометрический)	2,44	2,67	

Сообщаемая расширенная неопределенность измерения указывается как суммарная стандартная неопределенность измерения, умноженная на коэффициент охвата k=2, который обеспечивает уровень доверия приблизительно 95%. Неопределенность измерений, возникающая в результате отбора проб, включена в расширенную неопределенность измерений.

Примечание: Эффективность очистки устанавливается в зависимости от вида очистки, в соответствии с техническими документами очистных сооружений.*

Заведующая ОМВР Баялы кызы Б.
Главный специалист ОКОПАИР Сагынбек улуу М.

Исполнитель не несет ответственности, если проба отобрана самим заказчиком
Перепечатка протокола без разрешения ДЭМ запрещена.
ОМВР – отдел мониторинга водных ресурсов (поверхностных и сточных вод)
ОКОПАИР - отдел координации отбора проб, аналитики и измерение радиации.

Конец протокола.

КЫРГЫЗ РЕСПУБЛИКАСЫНЫН ЖАРАТЫЛЫШ РЕСУРСТАРЫ, ЭКОЛОГИЯ ЖАНА ТЕХНИКАЛЫК КӨЗӨМӨЛ МИНИСТРЛИГИНЕ КАРАШТУУ ЭКОЛОГИЯЛЫК МОНИТОРИНГ ДЕПАРТАМЕНТИ

ДЕПАРТАМЕНТ ЭКОЛОГИЧЕСКОГО МОНИТОРИНГА ПРИ МИНИСТЕРСТВЕ ПРИРОДНЫХ РЕСУРСОВ, ЭКОЛОГИИ И ТЕХНИЧЕСКОГО НАДЗОРА КЫРГЫЗСКОЙ РЕСПУБЛИКИ

[7]20005, г. Бишкек, ул. Байтик Баатыра, 34 — тел. (312) 54-61-22

ПАСПОРТ НА ПРОБУ
(сточная вода)

1. **Наименование, адрес объекта:** Иссык-Кульской области, г. Каракол, ОсОО «Hayat Group»
2. **Основание для отбора:**
3. **Порядковый номер и место отбора проб:**
   1. Вода поступающая в очистное сооружение (вход)
   2. Вода после очистки (выход)
4. **Цель отбора:** Опред-ие эффект-ти очистки
5. **Характер отобранных проб:** разовый
6. **Способ очистки:** механический
7. **Условия окружающей среды:** ясно
8. **Дата и время отбора проб:** 26.08.2025 г. С 10:20 ч
9. **НД:** ГОСТ 31861-2012 "Вода. Общие требования к отбору проб"; ПНД Ф 12.15.1-08 Методические указания по отбору проб для анализа сточных вод.

Пробы отобрал: вед. специалист. Мелисбек у Р [signature]
Представитель ДЭМ
(должность, фамилия)

Присутствовали:
Госинспектор
(должность, фамилия)

Представитель предприятия Инженер-эколог ОсОО «Хайат Груп» [signature] Л. Букарова
(должность, фамилия)

1 стр из 1

3 December 2025

ISO/IEC 17025
№ KG 417/КЦА.ИЛ.049
От: 12.08.2022 г.
Область аккредитации
на сайте: www.kca.gov.kg

* -Вне аккредитации

ДЕПАРТАМЕНТ ЭКОЛОГИЧЕСКОГО МОНИТОРИНГА ПРИ МИНИСТЕРСТВЕ ПРИРОДНЫХ РЕСУРСОВ, ЭКОЛОГИИ И ТЕХНИЧЕСКОГО НАДЗОРА КЫРГЫЗСКОЙ РЕСПУБЛИКИ

КЫРГЫЗ РЕСПУБЛИКАСЫНЫН ЖАРАТЫЛЫШ РЕСУРСТАРЫ, ЭКОЛОГИЯ ЖАНА ТЕХНИКАЛЫК КӨЗӨМӨЛ МИНИСТРЛИГИНЕ КАРАШТУУ ЭКОЛОГИЯЛЫК МОНИТОРИНГ ДЕПАРТАМЕНТИ

720005, г. Бишкек, ул. Байтик-Баатыра, 34 тел. (312) 54-61-22

ПРОТОКОЛ ИСПЫТАНИЙ ПРОБ ВОДЫ

№ 888 – 889
от 17.12.2025 г.

1. **Наименование предприятия, организации (заявитель):**
   Иссык-Кульская область, г. Каракол ОсОО "Hayat Group".

2. **Регистрационный номер и место отбора проб/дата паспорта отбора проб:** *03.12.2025 г.*

   ***888** – Вода поступающая на очистные сооружения (вход);*
   ***889** – Вода после очистки (выход).*

3. **Дата и время отбора проб:**
   03.12.2025 г. с 11 часов 30 минут.

4. **Нормативный документ:**
   ГОСТ 31861-2012 Вода. Общие требования к отбору проб. ПНД Ф 12.15.1-08 Методические указания по отбору проб для анализа сточных вод.

5. **Дата(ы) проведения испытаний:**
   04.12. – 17.12.2025 г.

6. **Результаты испытаний:**

c

№	Наименование определяемого показателя	Ед. изм.	НД на метод испытаний	Данные анализа по точкам		Испытания провел
				01-888-25	01-889-25	
1	Азот аммонийный	мг/л	ГОСТ 33045-2014 (спектрофотометрический)	18,94±2,65	19,19±2,69	Жунусова А.А. Кутманбаева Г.К. Догдурбек к. М.
2	Азот нитритный	мг/л		0,06±0,03	0,06±0,03	
3	Азот нитратный	мг/л		0,69±0,34	0,77±0,38	
4	Взвешенные вещества	мг/л	ПНД Ф 14.1:2:3.110-97 (гравиметрический)	180,00±18,00	228,00±22,80	
5	СПАВ	мг/л	СТП ДЭМ 01-01-2021 (спектрофотометрический)	1,21	1,74	
6	Перм. окисляемость	мгО/л	СЭВ ч.1 М. 1977* (титриметрический)	77,36	124,56	
7	Биохимическое потребление кислорода ($БПК_5$)	мгО/л	ПНД Ф 14.1:2:3:4.123-97 (йодометрический)	342,00	557,00	

Сообщаемая расширенная неопределенность измерения указывается как суммарная стандартная неопределенность измерения, умноженная на коэффициент охвата k=2, который обеспечивает уровень доверия приблизительно 95%. Неопределенность измерений, возникающая в результате отбора проб, включена в расширенную неопределенность измерений.

Примечание: Эффективность очистки устанавливается в зависимости от вида очистки, в соответствии с техническими документами очистных сооружений.*

Заведующая ОМВР Баялы кызы Б.
Заведующая ОКОПАИР Дарбакова А.С.

Исполнитель не несет ответственности, если проба отобрана самим заказчиком
Перепечатка протокола без разрешения ДЭМ запрещена.
ОМВР – отдел мониторинга водных ресурсов (поверхностных и сточных вод)
ОКОПАИР - отдел координации отбора проб, аналитики и измерение радиации.

Конец протокола.

Департамент экологического мониторинга	ҮЛГҮ АЛУУ ПАСПОРТУ/ ПАСПОРТ НА ПРОБУ (саркынды суу/сточная вода)	Ф6СМ7.3-7.4

1. Объектин аталышы, дареги/Наименование, адрес объекта: Иссык-Кульская область, город Каракол, осОО „Ayaz Group"
2. Үлгүнү алуу үчүн негиз/Основание для отбора: Договор.
3. Үлгүнүн жайгашкан жери жана катар номери/Порядковый номер и место отбора проб:
1. Вход
2. Выход.

4. Үлгү алуунун максаты/Цель отбора: Определение качество воды
5. Алынган үлгүлөрдүн мүнөздөмөсү/Характер отобранных проб: Разовый
6. Тазалоо ыкмасы/Способ очистки:
7. Айлана-чөйрөнүн шарттары/Условия окружающей среды: ясно.
8. Үлгү алуу күнү/Дата отбора проб: 03.12.2025-г. 11³⁰
9. Үлгү алуу үчүн ченемдик документ/НД на отбор проб: ГОСТ 31861-2012 "Вода. Общие требования к отбору проб"; ПНД Ф 12.15.1-08 Методические указания по отбору проб для анализа сточных вод.

№	Аныктала турган индикатордун аталышы/Наименование определяемого показателя	Сыноо ыкмалары боюнча ченемдик документ/НД на методы испытаний	Консервация	Кардар менен макулдашуу/ Согласование с заказчиком Белги/Отметка "✓"
1.	pH	РД 52.24.495-2005 (ионометрический)		
2.	Взвешенные вещества	ПНДФ 14.1:2:3.110-97 (гравиметрический)		
3.	Азот нитритный	ГОСТ 33045-2014 (спектрофотометрический)		
4.	Азот аммонийный	ГОСТ 33045-2014 (спектрофотометрический)		
5.	Азот нитратный	ГОСТ 33045-2014 (спектрофотометрический)		
6.	Биохимическое потребление кислорода (БПК)	ПНД Ф 14.1:2:3:4.123.97 (йодометрический)		
7.	Растворенный кислород	ПНД Ф 14.1:2.101-97 (йодометрический)		
8.	Нефтепродукты	ПНД Ф 14.1:2:4.128-98 (флуориметрический)		
9.	Цианиды	ПНД Ф 14.1:2.56-96 (спектрофотометрический)		

Департамент экологического мониторинга	ҮЛГҮ АЛУУ ПАСПОРТУ/ ПАСПОРТ НА ПРОБУ (саркынды суу/сточная вода)	Ф6СМ 7.3-7.4

№	Аныктала турган индикатордун аталышы/Наименование определяемого показателя	Сыноо ыкмалары боюнча ченемдик документ/НД на методы испытаний	Консервация	Кардар менен макулдашуу/ Согласование с заказчиком Белги/Отметка "√"
10.	СПАВ	ГОСТ 31857-2012 СТП ДЭМ 01-01-2021 (спектрофотометрический)		
11.	Сульфаты	СЭВ ч. 1 М. 1977(титриметрический)*		
12.	Хлориды	СЭВ ч. 1 М. 1977(титриметрический)*		
13.	Перманганатная окисляемость	СЭВ ч. 1 М. 1977(титримeтриеский)*		
14.	Прозрачность	СЭВ ч. 1 М. 1977(титриметрический)*		
15.	Металлы:	ПНДФ 14.1:2.214-06 (ААС)		

*-Аккредитациядан тышкары/вне аккредитации

	Кызмат орду/ Должность	Аты жөнү/ ФИО	Кол коюу/ Подпись
Үлгү алгандар/ЭМДнин өкүлү: Пробы отобрал/Представитель ДЭМ	вед. специалист	Мурсаканова Б.Э.	[signature]
	вед. специалист	Бабаев... Г.И.	[signature]
Катышкандар/Присутствовали: Мамлекеттик инспектор/ Госинспектор			
Ишкананын өкүлү/Представитель:	Эколог ОсОО «Хайер Групп»	Бурнаробва А.Р.	[signature]

№ издания	3	Дата введения	01.09.2025г.	Стр. 2 из 2

Annexure 7 – Workplace Incident Notification

Hayat Group

BIOWORKS®
Verfahrenstechnik GmbH

Mr. Mete Cilek
Yildızevler 721. Sokak No:6
Çankaya 06550 Ankara Türkiye

Your ref, your message	Our ref., our message	Phone, Name	Date
	IWMP-LTR-281		01.10.2025

To: **Mete Çilek**, Team Leader
Temelsu International Engineering Services Inc.

Cc: **S.A. Omurkanov**, PMO Manager
Issyk Kul Wastewater Management Project

Subject: Workplace Incident Notification

Dear Mr. Çilek,

During the execution of works related to piping works, installation of Ø800mm bypass pipeline, an unforeseen incident occurred due to ground movement on trench walls after heavy rainfall, which resulted in minor injury to one registered worker (Isanov Bairzhan Sabyrbekovich, Survey assistant) at 24.09.2025. Immediate medical attention was provided, and we confirm that the worker's health condition is stable and without life-threatening risk.

Please be assured that all statutory obligations, insurance requirements, and health and safety regulations have been fully complied with. The injured worker is duly registered, and all official documentation and medical coverage are in order.

Following the incident, we have taken immediate corrective and preventive measures to ensure the safety of personnel and the integrity of the works, including:

- Securing and stabilizing the excavation area,
- Conducting an additional safety inspection,
- Briefing site personnel on enhanced safety protocols.

We kindly request you to acknowledge receipt of this notification in compliance with the contract.

Yours sincerely
JV Hayat GROUP LLC and Bioworks Verfahrenstechnik GmbH

Hürcan Canatan
Contractor's Representative

Annexure 8 – Copy of the letter sent to the Industry in Balykchy by the PIU

АКТ № 6

о временном прекращении приёма сточных вод от ОсОО «Агро Куш»

г. Балыкчы

от «11» августа 2025 года
с 14:00 до 15:00 часов дня

Я, юрист БМП «Водоканал» Нуржанова Т., и нижеподписавшиеся члены комиссии в составе:

-Председатель комиссии — заместитель мэра Турсунбеков Н.
-Главный специалист по муниципальной собственности, контролю за земельными вопросами, транспорту и коммунальным услугам — Маратов М.
-Специалист по экологической экспертизе — Сагынбеков Р.
-Руководитель Центра по профилактике заболеваний и государственному санитарно-эпидемиологическому контролю — Мамбетова Ж.
-Директор БМП «Водоканал» — Бактыбеков С.
-Заместитель директора — Шактыбеков Э.
-Начальник канализационной линии — Кубанычбек уулу А.
-Специалист химической лаборатории КОС – Жыргалов К.
-Инженер — Качкынбек к. А.
-Слесарь канализационных сетей — Орозбек уулу Касиет
составили настоящий акт о нижеследующем:

На основании нарушения ОсОО «Агро Куш» условий договора от 01.04.2022 г., а также в соответствии с распоряжением мэрии г. Балыкчы «О прекращении подключения к системе канализации» № 443 от 11.08.2025 г., в связи с систематическим превышением допустимого уровня ХПК и отсутствием надлежащих мер по устранению выявленных нарушений, было произведено перекрытие подключения к городской канализационной системе.
Время перекрытия: с 15:00-16:00
Дата: 11 августа 2025 года
Место выполнения работ: г. Балыкчы Северная Промзона 34.

Настоящий акт составлен в двух экземплярах, один из которых передан представителю ОсОО «Агро Куш».

Подписи членов комиссии:

__________ Турсунбеков Н.
__________ Маратов М.
__________ Сагынбеков Р.
__________ Мамбетова Ж.
__________ Бактыбеков С.
__________ Шактыбеков Э.
__________ Кубанычбек уулу А.
__________ Жыргалов К.
__________ Качкынбек к. А.
__________ Орозбек уулу Касиет
__________ Нуржанова Т.

Присутствовали:
[illegible] ОсОО «Агро-Куш» [illegible]
[illegible]