

# Environmental Monitoring Report

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Project Number: 48424-002  
July 2020

## KAZ: CAREC Corridors 1 and 6 Connector Road (Aktobe–Makat) Reconstruction Project

Prepared by the Dongsung Engineering Co., Ltd in association with subconsultant Zhol-Sapa LLP for the Ministry of Investments and Development, Republic of Kazakhstan and the Asian Development Bank.

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# Semi-annual environmental monitoring report

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Project number: No.3416-KAZ  
Reporting period: January–June 2020

## **REPUBLIC OF KAZAKHSTAN: CAREC Corridors 1 and 6 Connector Road (Aktobe–Makat) Reconstruction Project (section km 330–504)**

Financed by the ASIAN DEVELOPMENT BANK

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July 2020

# Semi-annual environmental monitoring report

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Project number: No.3416-KAZ

Reporting period: January–June 2020

## **REPUBLIC OF KAZAKHSTAN: CAREC CORRIDORS 1 AND 6 CONNECTOR ROAD (AKTOBE–MAKAT) RECONSTRUCTION PROJECT (SECTION KM 330–504)**

Funded by the ASIAN DEVELOPMENT BANK

Prepared by the Construction Supervision Consultant DONGSUNG ENGINEERING CO., LTD/ “ZS ENGINEERING” LLP Seoul, Korea/Astana, Kazakhstan for the Committee for Roads of Ministry of Industry and Infrastructural Development of the Republic of Kazakhstan and the Asian Development Bank

Approved by: PMC “NC “KazAutoZhol” JSC – Zeinullina A.A.

# Semi-annual environmental monitoring report

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## CONTENT

1	Introduction	5
1.1	Preamble	5
1.2	Key information	5
<b>2</b>	<b>PROJECT DESCRIPTION AND CURRENT ACTIVITIES</b>	<b>6</b>
2.1	Project Description	6
2.2	Agreements for the project implementation and management	7
2.3	Project activities during the Current Reporting Period	9
2.4	Description of Any Design Changes	17
<b>3</b>	<b>THE ENVIRONMENTAL ACTIVITIES</b>	<b>18</b>
3.1	General Description of Environmental Activities (Environmental Safeguards)	18
3.2	Site inspections	20
3.3	Tracking of Issues (Based on Non-Conformance Notices)	22
3.4	Issues by priority of the reporting period January-June 2020	24
3.5	Trends (general directions)	24
3.6	Unforeseen environmental impacts or risks	24
<b>4</b>	<b>ENVIRONMENTAL MONITORING RESULTS</b>	<b>25</b>
4.1	General monitoring information conducted during the current period	25
<b>4.1.1</b>	<b><i>Environmental measurements on LOT 4 site</i></b>	<b>29</b>
4.1.1.1	Air quality	29
4.1.1.2	Water quality	32
4.1.1.3	Noise and vibration	33
4.1.1.4	Borrow pits	34
<b>4.1.2.</b>	<b><i>Environmental measurements on LOT 5 site</i></b>	<b>35</b>
4.1.2.1	Air quality	35
4.1.2.2	Water quality	37
4.1.2.3	Noise and vibration	38
4.1.2.4	Borrow pits	38
<b>4.1.3.</b>	<b><i>Environmental measurements on LOT 6 site</i></b>	<b>39</b>
4.1.3.1	Air quality	39
4.1.3.2	Noise and vibration	42
4.1.3.3	Borrow pits	43
<b>4.1.4.</b>	<b><i>Environmental measurements on LOT 7 site</i></b>	<b>44</b>
4.1.4.1	Air quality	44
4.1.4.2	Soil	45
4.2	Trends (general directions)	45
4.3	A summary of the monitoring results	45
4.4	Use of Material Resources	46
4.4.1	Current Period	46
4.4.2	Cumulative use of resources	46
4.5	Waste Management	46
4.5.1	Current Period	47
4.5.2	Cumulative waste generation	47
4.6	Health and Safety	48
4.6.1	Public Health and Safety	48
4.6.2	Workers Health and Safety	48
4.7	Study (training)	52
<b>5</b>	<b>SSEMP (Site-Specific Environmental Management Plan) progress</b>	<b>54</b>
5.1	SSEMP review	54

<b>6</b>	<b>GOOD PRACTICES</b>	<b>56</b>
6.1	Advanced methods (good practices)	56
6.2	Opportunities for improvement	56
<b>7</b>	<b>Conclusions and recommendations</b>	<b>57</b>
7.1	Conclusions	57
7.2	Recommendations	57

	<b>Appendices</b>	
1	Information on non-conformances on Lot 4, Lot 5, Lot 6 and Lot 7 sites	60
2	Exploration Licenses for Borrow pits of Lot 5	63
3	Extraction Licenses for Borrow pits	66
4	Air Measurement Report Details, Lot 4	67
5	Test Report Details of Water from the rivers Sagiz and Nogayty	70
6	Air Measurement Report Details, Lot 5	71
7	Noise and Vibration Measurement Report Details, Lot 5	73
8	Air Measurement Report Details, Lot 6	74
9	Noise and Vibration Measurement Report Details, Lot 6	78
10	Photo of Monitoring Process in June IEC of Air, Water, Noise and Vibration for the 2 quarter of 2020 (Lots 4, 5 and 6)	82
11	Environmental Monitoring Checklists Lot 4, 5, 6	90
12	PHOTO on activities to prevent the spread of COVID-19	114

## ABBREVIATIONS

a/c	asphalt concrete
ADB	Asian Development Bank
c/g	coarse-grained material
CAREC	Central Asian Regional Economic Cooperation
CFR	Committee for Roads
CSC	Construction Supervision Consultant
CSSGM	Crushed Stone-Sand-Gravel Mix
ECP	Environmental Control Plan
EMP	Environmental Management Plan
EP	Environmental Protection
FLM	Fuel and lubricant materials
HIV/AIDS	Human Immuno-Deficiency Virus / Acquired Immune Deficiency Syndrome
HS	Health and Safety
HSP	Health and Safety Plan
IE	Individual Entrepreneur
IEM	Industrial Environmental Monitoring
LLP	Limited Liability Partnership
MID	Ministry of Investments and Development
MIID	Ministry of Industry and Infrastructural Development
MPC	Maximum Permissible Concentration
MPL	Maximum Permissible Level
PMC	Project Management Consultant
PSE	Public State Enterprise
QAJ	“National Company “QazAvtoJol” JSC
RF	Russian Federation
RK	Republic of Kazakhstan
SAEMR	Semi-annual Environmental Monitoring Report
SGM	Sand-Gravel Mix
SI	State Institution
SMA	Crushed Stone and Mastic Asphalt
SPZ	Sanitary Protection Zone
SS	State Standard
SSEMP	Site Specific Environmental Management Plan
STI/STD	Sexually Transmitted Infections / Sexually Transmitted Diseases
SW	Solid Waste
TS	Traffic Safety

## **1. INTRODUCTION**

### **1.1 Preamble**

1. This report is a semi-annual environmental monitoring review for January-June 2020 period for the CAREC Corridors 1 & 6 Connector Road (Aktobe - Makat) Reconstruction Project (road section km 330-504, Lots 4-7). The report is the fifth semi-annual for this project.

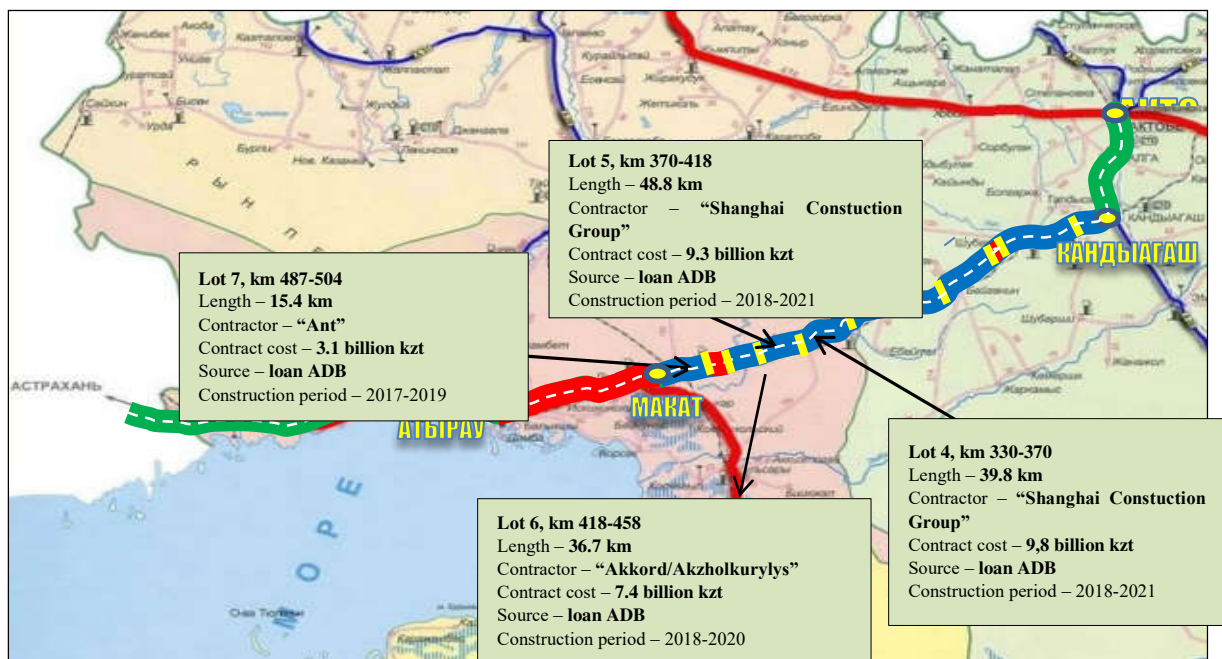
### **1.2 Key information**

2. In July 2018, three Contracts were awarded through re-tender process to “Shanghai Construction Group” (hereinafter “SCG”) and “Akkord” and “Ak Zhol Kurylys” Joint Venture (hereinafter “AA”). Contracts Lot-4 and Lot-5 were awarded to the SCG and Lot-6 to AA. These new Contractors have started works of mobilization and preparation on the site since August 2018.
3. The Contractor “Shanghai Construction Group Co.” which is the Contractor of Lot 4 Contract 004-ADB/CW-2018 and Lot 5 Contract 005-ADB/CW-2018 received advance payments in July 2018. The Contractor acquired “Shanghai Construction Group Co.” Branch Office Registration certificate on 30.10.2018. Also, the Contractor received license for road construction of relevant category on 24.12.2018. The Engineer officially issued “Notice to Commence Works” on 08.01.2019.
4. The Contractor “Akkord - Ak zhol kurylys” of Lot 6 Contract 006-ADB/CW-2018 received an advance payment on 27.07.2018. The Contractor received a permission (talon) for the construction and installation works from the Department of State Architectural and Construction Control. “Order to Proceed” have been acquired from Employer and approved by Traffic Police. The Engineer officially issued “Notice to Commence Works” on 01.10.2018. Land preparation for base camp construction has been completed on 3 ha area at km 435 of project road, near Zhamansor village on 25.03.2019. All facilities of base camp, constructed until to date, accommodated by the Contractor’s workers and engineers, also by the Construction Supervision Engineers, and all facilities are in operation since 01.03.2019.
5. In 2019 on Lot 5 the issue was considered to change material for Additional Base Layer of soil consolidated by cement (soil – 80%, SGM – 16%, stabilizing additive – 0,002%), H-20 cm to alternative variant of SGM (sand gravel mix) sub-base, H-20 cm.

## 2. PROJECT DESCRIPTION AND CURRENT ACTIVITIES

### 2.1 Project Description

6. "Aktobe - Atyrau - Border of the Russian Federation to Astrakhan" Road is a republic importance road. The project section is a road section, connecting the northern and western regions of Kazakhstan with each other, with access to the Russian Federation, which requires increased requirements for transport and operational characteristics of the road.



Picture 1. Location of the project road

7. The project road category is II, according to the traffic intensity. Road construction is carried out on 4 Contracts, as indicated below.
8. **Lot 4: km 330 – km 370 (Sagiz village):** This section includes the reconstruction of the road from category III to category II with a total length of 40 km. Other parts of this section, the direction of traffic flow coincide with the existing coverage with partial slopes from the embankment in the area of rectification and curve. On this site, the project provides for the construction of 2 bridges and 1 overpass. Overpass on km 336+900, the length is 42.2 meters. The bridge across the river Nogaity on km 338+900 has the length of 66,15 meters. The bridge across the river Sagiz at km 342+300 has the length of 105,3 meters. This site provides the construction of 14 culverts of different diameters, 6 cattle passes and 2 rest areas.
9. **Lot 5: km 370 – km 418 (v.Mukur - v. Zhanterek):** This section includes the reconstruction of the road from category III to category II with a total length of 48.2 km. Other parts of this section, the direction of traffic flow coincide with the existing cover with partial slopes from the embankment in the area of rectification and curve. On this site, the project provides for the construction of 1 bridge. The bridge across the river Mukur at km 379 +100 has the length of 48.55 meters. Also on this site, the construction of 12 culverts of different diameters, 8 cattle passes, 2 rest areas are provided.
10. **Lot 6: km 418 – km 458 (v. Zhamansor):** This section includes the reconstruction of the road from category III to category II with a total length of 36.73 km. Other parts of this section, the direction of traffic flow coincide with the existing coverage with partial slopes from the embankment in the



area of rectification and curve. On this site, the project provides for the construction of 1 bridge. The bridge across the river Sagiz at km 429+000 has the length of 84,25 meters. The project also provides the construction of 12 culverts of different diameters, 1 cattle pass and 2 rest areas.

11. **Lot 7: km 487 – km 504 (v. Dossor):** length of this road section is 15,392 km, type II, 2 lanes. This section includes the reconstruction of the road from category III to category II. Other parts of the site, the direction of traffic flow coincide with the existing coverage with partial slopes from the embankment in the area of rectification and curve. This section provides the construction of 12 culverts of different diameters and 2 cattle passes. All work activities shown in the main Contract have been completed and handed over to the Employer.

Additional work quantities are expected to be added to the main contract – “Construction of Dossor bypass way, Makat district of Atyrau region 5.5 km”. Design and estimate documentation, Working design are under consideration by the State Expertise of projects. The approximate date of receiving the state expertise conclusion is July-August 2020.

## 2.2 Agreements (contracts) for the project implementation and management

12. CFR MID RK signed the contract with "NC "QazAvtoJol" JSC (QAJ) for the project management consulting services in accordance with requirement specifications acceptable for ADB and applicable under the legislation of the Republic of Kazakhstan. QAJ is fully staffed during the Project implementation. The responsible specialist for environmental and social safeguard measures conducts site audits and inspections, cooperates with CSC safeguard specialist in order to effectively manage the project in part of environmental plans implementation.
13. By decree of President of the Republic of Kazakhstan dated 26.12.2018 No. 806 “On measures on further improvement of state administration system of the Republic of Kazakhstan”, in order to improve the efficiency of state administration system, the Ministry of Investment and Development of the Republic of Kazakhstan was reorganized by transforming it into the Ministry of Industry and Infrastructural Development of the Republic of Kazakhstan with handing over functions and powers: to National Economy Ministry of the Republic of Kazakhstan in the sphere of state policy formation on investment attraction and the Ministry of Foreign Affairs of the Republic of Kazakhstan in the sphere of state policy implementation on investment attraction.
14. The regional representative of the Employer is "NC "QazAvtoJol" JSC Atyrau branch. A list of main organizations included in the project and related to environmental protection measures (Environmental Safeguards), is given in the Table No.1 below. Contractors' Contract Information is shown in the Table 2. Organizational chart of the project coordination is described in Picture 2.

**Table 1. Organization list and specialists' contact information, related to the Project Environmental Safeguards**

Organization name	Representative	Contact information
ADB Project department / group (Head quarter Manila)	Armine Yedigaryan Environmental specialist	<a href="mailto:ayedigaryan@adb.org">ayedigaryan@adb.org</a>
ADB's Representative	Malika Babadzhanova Environmental safeguard consultant ADB RETA 9541	<a href="mailto:mbabadjanova1.consultant@adb.org">mbabadjanova1.consultant@adb.org</a>

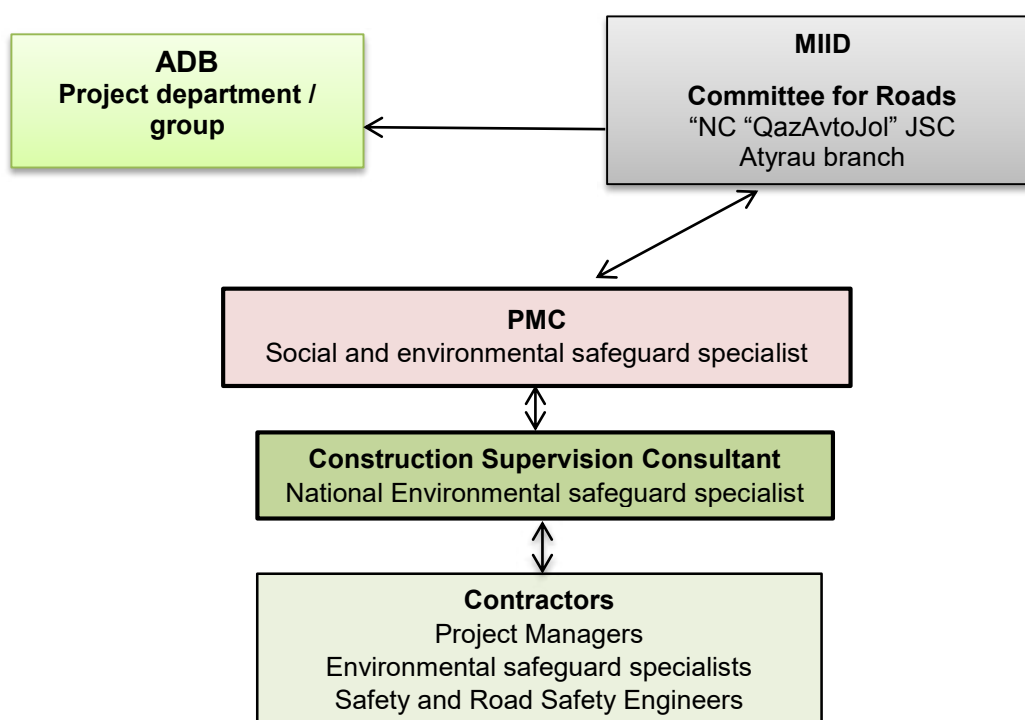
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Committee for Roads	Ruslan Kussainov	Astana city Kabanbay Batyr street 32/1 8 778 668 70 06 <a href="mailto:r.kusainov@miid.gov.kz">r.kusainov@miid.gov.kz</a>
"NC "QazAvtoJol" JSC Atyrau branch	Basharov Zhanabai Branch Director	<a href="mailto:atyrau.info@kazautozhol.kz">atyrau.info@kazautozhol.kz</a>
PMC "NC "QazAvtoJol" JSC	Zeinullina Aliya Social and environmental safeguard specialist	+ 7 701 982 66 57 <a href="mailto:a.zeinullina@kazautozhol.kz">a.zeinullina@kazautozhol.kz</a>
Construction Supervision Consultant DONGSUNG ENGINEERING CO. LTD/ "ZS ENGINEERING " LLP	Novossadova Natalya Environmental safeguard specialist	+7 702 268 98 08 <a href="mailto:atyrau_kns2@mail.ru">atyrau_kns2@mail.ru</a>
"Shanghai Construction Group Co." Lot 4	Satvaldinov A. Environmental specialist	+7 778 045 07 14 <a href="mailto:satvaldinov_azamat@mail.ru">satvaldinov_azamat@mail.ru</a>
"Shanghai Construction Group Co." Lot 5	Gulzhanat Zhantokova Environmental specialist	+7 777 298 88 44 <a href="mailto:g.zhk@bk.ru">g.zhk@bk.ru</a>
Lot 6 "Akkord / Ak zhol kurylys" Joint Venture		
Lot 7 "Ant Insaat Maden Sanayi A.S."		
"Shanghai Construction Group Co." Lot 4	Abdulkhasimov Saken Health and Safety, Road Safety Specialist	+7 771 260 2620 +7 701 191 5110
"Shanghai Construction Group Co." Lot 5	Zhurekov Gabit Road Safety Specialist	+7 701 756 9599
	Aimenov Ybyrai Health and Safety Specialist	+7 702 653 6376
"Akkord / Ak zhol kurylys" Joint Venture, Lot 6	Totenov Naizabek Health and Safety Specialist	+7 705 895 1244
	Sabyrbayev Marat Road Safety Specialist	+7 776 001 1175
	Sabikhov Ayan Health and Safety Specialist	+7 775 917 7074
	Zhamansariyev Arman Road Safety Specialist	+7 705 883 3334

**Table 2. Contractors' Contract Information**

Contractor	Contract No.	Site length (km)	Contract signing date	Project commencement
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				<b>and completion date</b>
Lot 4 "Shanghai Construction Group Co." (China)	004-ADB/CW-2018	39.80	20.07.2018	08.01.2019 07.03.2021
Lot 5 "Shanghai Construction Group Co." (China)	005-ADB/CW-2018	48.21	20.07.2018	08.01.2019 05.06.2021
Lot 6 JV "Akkord / Ak zhol kurylys" (Azerbaijan/Kazakhstan)	006-ADB/CW-2018	36.74	10.07.2018	01.10.2018 28.11.2020
Lot 7 "Ant Insaat Maden Sanayi A.S." (Turkey)	007-ADB/CW-2017	15.392	16.08.2017	20.12.2017 12.06.2019
<b>Total project length:</b>		<b>140.14</b>		



Picture 2. Organization chart of the project coordination

### 2.3 Project Activities during the Current Reporting Period (January-June 2020)

15. **Lot 4.** The Contractor «Shanghai Construction Group Co.» had been in serious progress delay, which led to a failure to reach 45% of work by February 6, 2020 for the following reasons:

- the Contractor failed to make good plans and consequent detail time programme.
- the Contractor failed to provide construction resources such as specialist engineers, construction equipment, equipment operators, skilled workers and major construction

materials.

- the Contractor engaged specialist subcontractors: "SHAM" LLP and "Kazkomservice" LLP. But after winter breakdown the subcontractor "Kazkomservice" LLP delayed its mobilization. Also the subcontractor "SHAM" LLP failed to meet its obligations and now the agreement is being terminated.
  - The COVID-19 coronavirus pandemic and the imposed quarantine caused some damage to the work progress and mobilization of some specialists and equipment.
16. For Lot 4 the Engineer issued a "Notice to Commence Works" on 08.01.2019. During the reporting period the following work activities have been carried out:
- Top soil removal - 5 km.
  - Roadbed construction - 390000 m<sup>3</sup>.
  - Construction of additional base layer of SGM - 6.6 km.
  - Construction of lower base course of crushed stone and sand mix - 8.6 km.
  - Construction of base course of crushed stone and sand mix reinforced by cement - 11.6 km.
  - Construction of binder course of coarse-grained asphalt concrete- 11 km.
  - Construction of culverts and cattle pass - 7 nos.



Picture 3. Road works on Lot 4: animal crossing construction and pavement works 14.06.2020

**Table 3. Number of employees on Lot 4 site by the Contract No.004-ADB/CW-2018**

<b>Total number of employees</b>	<b>as of 01.01.2020</b>			<b>as of 30.06.2020</b>		
	<b>195</b>			<b>219</b>		
Foreign personnel	15			25		
Total number of employees from other regions of Kazakhstan	-			165		
Total number of employees from Atyrau region	-			31		
Total number of employees from Atyrau region, Kyzylkoga district, Sagiz village	-			31		
Total number of men	189			184		
Total number of women	6	Service personnel	Technical Office Staff	7	Service personnel	Technical Office Staff
		5	-		5	2

17. The construction work progress on Lot 4 is presented in the Table 4 below.

**Table 4. The construction work progress status on Lot 4 for the reporting period of January-June 2020**

<b>Contractor's name and site</b>	<b>Work activity</b>	<b>Unit</b>	<b>Totally by the Contract</b>	<b>Completed for the II semi-annual 2019</b>	<b>Completed for the I semi-annual 2020</b>	<b>% progress</b>	<b>Balance</b>
Shanghai Construction Group Co.Ltd (section km 330-370) Lot 4 (Sagiz village)	Cost	KZT	8 828 754 266,7	1 822 959 385.6	1 269 866 777.07	23.7%	6 737 24 4 945.84
	Binder Coarse	km	44.8	-	11	25%	33.8
	Upper Base Coarse	km	41.8	3.3	11.7	36%	25.9
	Lower Base Coarse	km	36.8	9.5	8.6	49%	18.7
	Sub-base	km	36.8	14.8	6.6	58%	15.4
	Roadbed	thou m <sup>3</sup>	1.201	520.4	390	76%	290
	Culvert	no.	20	8	7	75%	5
<b>Total work progress</b>		<b>%</b>	<b>100</b>			<b>23.7</b>	<b>76.3%</b>

18. **Lot 5:** As this Contract has been under management of same Contractor on Lot 4, preparation works progress has been similar to the case of Lot-4 during initial months. However, differently from Lot-4, Contractor engaged a Subcontractor of local base in January 2019. Majority of preparation works including site mobilization has been entrusted to this Subcontractor. Comparing to the main Contractor, this Subcontractor has been able to mobilize construction resources faster by utilizing the advantage of local base in the region. The Subcontractor has performed work activities with higher productivity while the main Contractor

has delivered almost no product on the site. By this way, the Contractor Lot 5 with engagement of constructional resources provided by the Subcontractor has been able to achieve considerable progress.

19. In 2019 base camp construction of Lot 5 has been completed. As of 30.06.2020, there are necessary and sufficient places in base camp to accommodate workers. The Subcontractor has made effort to provide comfortable condition in the Engineer's office and accommodations. At the moment "Ak zhol kurylys" LLP pays for transport and house rentals for the Engineer for December. On January 9 environmental specialist Muszhanova A. has mobilized on Lot 5 and took the situation under control. Asphalt Plant is being mobilized. Railway dead-end has completed for 85%.
20. For Lot 5 the Engineer issued a "Notice to Commence Works" on 08.01.2019. During the reporting period the following work activities and quantities have been carried out: topsoil removal at bypass road from km 370 to 418,2 (48,2 km) and filling CSSM for bypass road from km 370 to 418,2 (48,2 km). At the main road have been done roadbed construction for 14 km and existing pavement removal for 39 km (from PK0+00 to PK390+00).

**Table 5. Number of employees on Lot 5 site by the Contract No.005-ADB/CW-2018**

<b>Total number of employees</b>	<b>as of 01.01.2020</b>			<b>as of 30.06.2020</b>		
	<b>50</b>			<b>139</b>		
Foreign personnel	0			0		
Total number of employees from other regions of Kazakhstan	48			135		
Total number of employees from Atyrau region	2			4		
Total number of employees from Atyrau region, Kyzylkoga district, Mukur village	2			2		
Total number of men	45			132		
Total number of women	5	Service personnel	Technical Office Staff	7	Service personnel	Technical Office Staff
		5	0		7	0

21. The construction work progress of Lot 5 is presented in Table 6 below.

**Table 6. The construction work progress status on Lot 5 for the reporting period January-June 2020**

<b>Contractor's name and site</b>	<b>Work activity</b>	<b>Unit</b>	<b>Totally by the Contract</b>	<b>Completed for the II semi-annual 2019</b>	<b>Completed for the I semi-annual 2020</b>	<b>% progress</b>	<b>Balance</b>
Shanghai Construction Group Co.Ltd (section km 370-418)	Cost	KZT	8 446 782 180.62	1 289 270 540.26	626 643 647.18		6 427 472 279.9
	Binder Coarse	km	48.2	0	0	0	48.2
	Upper Base Coarse	km	48.2	0	0	0	48.2



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Lot 5	Lower Base Coarse	km	48.2	4.7	4.4	21.2	38.0
	Sub-base	km	48.2	11.2	5.6	39.2	29.3
	Roadbed	thou m <sup>3</sup>	1.132	745.5	314.4	65.1	361.2
	Culvert	no.	20	1	3	20	16
	<b>Total work progress</b>	<b>%</b>	<b>100</b>	<b>-</b>	<b>-</b>	<b>20.5%</b>	<b>79.5%</b>



Picture 4. Lot 5 road works: foundation and excavation works, 20.06.2020

22. The status of borrow pit operations is given in the Table 7.

**Table 7. Lot 5 borrow pit information as of 01.06.2020**

Name	KM/PK	Location	Reserve			Status
			Depth m	Thous. m <sup>3</sup>	m <sup>3</sup>	
Project borrow pit No.3	407++30/ 375+25	To the right from road axis 305m	3.0	986.9	986900	1 horizon 3.0 m
Project borrow pit No.4	367+400/ 369+04	To the right from road axis 300m	3.0	300	300000	1 horizon 3.0 m
Borrow pit No.23	381+00/ 86+00	To the right from road axis 300m				withdrew
Borrow pit No.7	382+00/ 98+00	To the right from road axis 400m			141530	proposed
Borrow pit No.8	386+00/ 138+00	To the right from road axis 400m				proposed

Borrow pit No.10	397+00/ 246+00	To the right from road axis 9000m			55000	proposed
Borrow pit No.11	405+00/ 330+00	To the right from road axis 1870m			63000	proposed
Borrow pit No.12	406+00/ 335+00	To the right from road axis 1800m	1.6		108200	proposed
Borrow pit No.13	406+00/ 335+00	To the right from road axis 1800m			134196	proposed

23. **Lot 6.** All Base Camp facilities built so far in Zhamansor have been fully occupied by workers and engineers of the Contractor and the Supervision Consultant Engineer and all facilities have been operational in full scale since 01.03.2019. The laboratory is in the prefab building located on the base camp. Its area is 120 m<sup>2</sup>. Certificate on evaluation of measurement state in the laboratory No.TL-ESM 19/05 dated 15.05.2019. All laboratory equipment is with factory calibration and new. It operates since 15.05.2019. Staffed for 100%.

**Table 8. Number of employees on Lot 6 site by the Contract No.006-ADB/CW-2018**

Total number of employees	as of 01.01.2020			as of 30.06.2020		
	110			145		
Foreign personnel	0			0		
Total number of employees from other regions of Kazakhstan	110			145		
Total number of employees from Atyrau region	37			52		
Total number of employees from Atyrau region, Makat district, Zhamansor village	12			25		
Hired to subcontractor	57			85		
Total number of men	96			128		
Total number of women	14	Service personnel	Technical Office Staff	17	Service personnel	Technical Office Staff
		11	3		14	3

24. The Permit to extract soil materials from the Borrow Pits has been obtained in March 2020. For Lot 6 the Engineer issued a "Notice to Commence Works" on 01.10.2018. During the reporting period the following work activities and quantities have been carried out: Roadbed filling on the main road – 34 640 m (PK0+00 to PK170+00, PK191+00 to PK367+36), Final finishing of the roadbed – 33 940 m (PK0+00 to PK164+00, PK191+00 to PK367+36), Sub-base of SGM – 30 800 m (PK0+00 to PK99+00 PK101+00 to PK164+00, PK191+00 to PK 337+00), Lower base course of CSSM – 24 400 m (PK0+00 to PK98+00, PK101+00 to PK155+00, PK201+00 to PK 293+00), Upper base course of CSSCM – 24 100 m (PK0+00 to PK98+00, PK101+00 to PK155+00, PK201+00 to PK 288+00), Binder course of c/g – 24 000 m (PK0+00 to PK98+00, PK101+00 to PK155+00, PK201+00 to PK 288+00).
25. Information on precast concrete pipes is presented below:
- Precast concrete pipe d-1 m has been installed under the main road on km 1 / PK12+18.
  - Precast concrete pipe d-1.5 m has been installed under the main road on km 4 / PK42+75.



1st Semi-Annual Environmental Monitoring Report for January-June 2020  
 CAREC Corridors 1 and 6 Connector Road (Aktobe-Makat) Reconstruction Project (section km 330-504) / Contract 02-ADB/CSC-2017 (CSC-2)

- Precast concrete pipe d-1.5 m has been installed under the main road on km 2 / PK28+78.
- Precast concrete pipe d-2.5-2.0 m has been installed under the main road on km 6 / PK62+03.
- Precast concrete pipe d-1.0 m has been installed under the main road on km 9 / PK90+78.
- Precast concrete pipe d-1.5 m has been installed under the main road on km 12 / PK120+71.
- Precast concrete pipe d-1.5 m has been installed under the main road on km 16 / PK163+81.
- Precast concrete pipe d-1 m has been installed under the main road on km 17 / PK173+70.
- Precast concrete pipe d-1 m has been installed under the main road on km 21 / PK212+74.
- Precast concrete pipe d-1.5 m has been installed under the main road on km 25 / PK252+60.5.



Picture 5. Lot 6 road works: asphalt laying, operation of Asphalt plant, 08.06.2020

26. The construction work progress on Lot 6 is presented in the Table 9 below. Lot 6 borrow pit information is shown in the Table 10 below.

**Table 9. The construction work progress status on Lot 6  
for the reporting period January-June 2020**

Contractor's name and site	Work activity	Unit	Totally by the Contract	Completed for the II semi-annual 2019	Completed for the I semi-annual 2020	% progress	Balance
Akkord / Ak zhol kurylys Lot 6	Cost	KZT	6 669 640 276.85	1 680 597 696.63	1 069 391 564.08		3 919 651 016.14
	Binder Coarse	km	36.7	5.0	19.0	65%	12.7
	Upper Base Coarse	km	36.7	5.1	19.0	66%	12,6
	Lower Base Coarse	km	36.7	15.0	9.4	66%	12.3
	Sub-base	km	36.7	15.8	15.0	84%	5.9
	Roadbed	thou m <sup>3</sup>	854	436.4	377.1	95%	40.5
	Culvert	no.	13	8	2	70%	3
<b>Total work progress</b>		%	<b>100</b>			<b>41.2%</b>	<b>58.8%</b>

**Table 10. Lot 6 borrow pit information as of 30.06.2020**

Name	KM/PK	Location	Depth			Extraction	Reclamation	Status
			m	Thou m <sup>3</sup>	m <sup>3</sup>			
<b>Project borrow pit No.1</b>	km 439+496 PK 202+78,33	to the right 439 m			1682600	1677643	0	1 horizon 3.0 m
<b>Project borrow pit No.2</b>	419+010 PK 11+77,46	to the right 225 m			3916600	stopped		1 horizon 3.0 m
<b>Borrow pit No.1</b>	PK40+00	from the right 1.9 km			145200	stopped		1 horizon 3.0 m
<b>Borrow pit No.2</b>	PK 57+00	from the right 0.450 km			140500	stopped		1 horizon 3.0 m
<b>Borrow pit No.3</b>	PK 119+00	to the right 0.45 km			139200	stopped		1 horizon 3.0 m
<b>Borrow pit No.4</b>	PK 214+00	to the right 0.37 km			194600	119000		1 horizon 3.0 m
<b>Borrow pit No.5</b>	PK 236+00	to the right 1.22 km			138600	not extracted		1 horizon 3.0 m
<b>Borrow pit No.6</b>	PK 295+00	to the right 0.334 km			190600	151000		1 horizon 3.0 m
<b>Borrow pit No.7</b>	PK 367+35	to the right 0.56 km			138900	not extracted		1 horizon 3.0 m
<b>Borrow pit No.8</b>	367+35	to the right 1.05 km			164700	not extracted		1 horizon 3.0 m

27. **Lot 7.** The Contractor proceeded the main work according to accepted Work program and Financial Plan, which were agreed by Engineer. All work activities shown in the main Contract have been completed and handed over to the Employer in 2019.
28. At the end of November and beginning of December 2018, recultivation was carried out at borrow pits No.2 and 3 in due course. The borrow pit No.1 had not been used in 2018 and 2019.
29. As far as possible, all protection measures are observed in the project area. The Contractor has constructed 2 cattle passes in the correct size at PK 34+61 and PK 110+40 for animals in the specified location by the design (precast concrete 2.5x4 m).

30. Base camp and the Asphalt Plant located on the territory are closed. According to the requirements of the Sanitary Rules and Regulations of the Republic of Kazakhstan, it is neat and tidy in base camp, taking into account the rights of local land users.
31. Additional work quantities are expected to be added to the main contract. Now design and estimate documentation is under consideration by the State Expertise of projects. The approximate date of receiving the state expertise conclusion is July-August 2020.
32. Permission for Environmental Emissions KZ83VDD00146033 has been received for the additional project "Construction of Dossor bypass way, Makat district of Atyrau region".

#### **2.4 Description of Any Design Changes (January-June 2020)**

33. Lot 7 Contract: Design Change - Upper Base Course. Original Design: Black Crushed Stone Base Course. Alternative Design: Hot Highly Porous Asphaltic Concrete Brand II. Design change from base course of black crushed stone with thickness H=10 cm to hot highly porous asphaltic concrete brand II with thickness H=10 cm was agreed by the Project Designer "Arnai".
34. Contract Lots 4, 5 and 6 Design Change - Additional Base Layer. Original Design: 20cm thick layer of Soil, Sand Gravel Mix, Cement + Roadzyme Stabilization and immediate upper 20cm thick layer of C10 Crushed Stone Base. Alternative Design: 20cm thick layer of Sand Gravel Mix and immediate upper 25cm thick layer of C10 Crushed Stone Base.
35. With regard to the Lot-4, Lot-5 and Lot-6 Contractors' granular pavement activity "construction of additional layer of soil consolidated by cement with a stabilizing additive" of the Contract, it is noticeable that records of similar application in the past projects implemented in other places in the Republic of Kazakhstan indicated serious road pavement structural failures, and consensus has since been established through several occasions among all parties concerned with the Project implementation.
36. All Contractors of Lot-4, Lot-5 and Lot-6 have agreed that the Alternative shall be constructed with no additional time and with no additional cost to the Contract based on following decision: delete "cement and additive or Roadzyme stabilization" from the additional base layer in order to eliminate risk of future potential pavement failures, replace it with SGM (Sand Gravel Mix) in its entire thickness of 0.20m.
37. The Project Designer "KustanaiDorProject" had no objection to the above change. These changes allow to the Contractor:
  - (i) to reduce time for completion,
  - (ii) to maintain the original Contract unit price of additional base layer without change,
  - (iii) to conduct trial construction and tests of the Alternative variant
  - (iv) to ensure the maintenance of the bearing capacity and elastic modulus as required by the present design and the Technical Specification
  - (v) the environmental mitigation measures provided in the EMP/SSEMP for Lots 4, 5, 6 and 7 are sufficient for the new conditions, since the layer replacement does not have a negative impact on the environment.

### **3. THE ENVIRONMENTAL ACTIVITIES**

#### **3.1 General Description of Environmental Activities (Environmental Safeguards)**

38. **Lot 4:** For the EMP preparation the Contractor involved specialists from separate organization. The EMP was agreed by the CSC and PMC on March 4, 2019. According to the instructions of ADB consultant RETA to improve the quality of SSEMP / local environmental management plans, it was adjusted and sent to the Engineer for review and approval on 26.03.2020. In March 2020 the updated EMP was reviewed and approved by the CSC's and PMC's environmental specialists.
39. On October 30, 2019, the project on specific requirements of water consumption and drainage for road "Aktobe - Makat" reconstruction site km 330-370 and republic importance road "Aktobe – Atyrau – border of the RF (to Astrakhan)" was approved in the Ministry of Environment, Geology and Natural resources of the Republic of Kazakhstan, Committee for water resources for further receiving from the Republic State Institution "Zhayyk-Caspian basin inspection on regulation of water resources consumption and protection of the Committee for water resources of the Ministry of Environment, Geology and Natural resources of the Republic of Kazakhstan", for obtaining a permit for special water use. The Permit for special water use for construction need (for dust control) was obtained on April 27, 2020 with validity by 31.12.2020.
40. Based on the service agreement with "Econormative" LLP No.1 dated 19.02.2019 the environmental laboratory specialists have measured air on the Asphalt plant, radioactive background on the Asphalt plant territory, storage of aggregate materials and road construction site km 330-370, also have conducted air and radioactive radiation measurements, general chemical analysis of water from the rivers Sagiz and Nogayty.
41. All waste is transported and removed to the landfill of "West Dala" LLP according to the service agreement No.377-2019 dated September 30, 2019.
42. Quarterly environmental monitoring (for the 2 and 3 quarters) is planned in the river under the agreement with "Econormative" LLP No.1 dated 19.02.2019.
43. The Contractor Lot 4 received a Conclusion of the state environmental expertise for the installation of asphalt plant and water-stable mixing station, located in Atyrau region, Kyzylkoga district, Sagiz village, and Permit for Environmental Emissions No.KZ96VCZ00569120 issued by the RSE "Atyrau regional Environmental Department" of the Committee for Environmental Regulation and Control of the Ministry of Environment, Geology and Natural Resources.
44. Lot 5: based on the audit results of the ADB consultant, the Contractor made adjustments to the EMP in terms of water resources monitoring, including indicators of suspended particles and measures to prevent FLM spills. On 08.06.2019 the CSC accepted the EMP and submitted to PMC for approval. In May 2020 PMC was informed that previously approved environmental specialist Muszhanova A. has left the project. The Contractor did not mobilize a new specialist.
45. According to the environmental impact mitigation plan, agreement was signed with "Econormative" LLP No.211/3/AZHK dated 04.07.2019. The technological work procedure is observed, loading and unloading of dusting materials is carried out by mechanized way, manual work with these materials is allowed as an exception when taking appropriate measures against spraying (protection from wind, losses, etc.), speed limit signs are installed, atmospheric air is monitored under an agreement with a certified laboratory.
46. Lot 6: an agreement was concluded with "Analytical laboratory for environmental protection" LLP agreement No.17/19 dated 17.01.2019 and "Econormative" LLP agreement No.211/3/AZHK dated 04.07.2019. The project borrow pit No.1 and borrow pits Nos.4 and 6 are operated during construction works, taking into account that the main reasons of air pollution are construction equipment and vehicles, most measures to reduce air pollution are related to their operation. Solid

waste disposal to landfill, construction waste disposal is carried out by the agreement with IE "Kabulov".

47. The agreements have been concluded with "Promecology" LLP agreement No.01/20 dated 05.01.2020 for solid waste, hazardous waste and effluents disposal and with "ZapKazService" LLP agreement No.23/3/AZhK dated 01.01.2020 for liquid household waste disposal service.
48. There are no breeding, feeding and settling areas of rare (red book) animals and their migration routes within the project territory. The Contractor will construct the cattle passes at the correct location. 10 precast concrete structures among 13 have been constructed, 8 of them are culverts and 2 are cattle passes (precast concrete 2,5x4m) PK 173+70/km17.3, (precast concrete 2x2.5m) PK 62+03.41/km 6.2.

### 3.2. Site inspections

49. During January-March 2020, monthly environmental monitoring was not carried out due to the suspension of construction and installation works on the project and base camp for the winter period.
50. From March to May 2020 due to the COVID-19 pandemic and announced quarantine, site inspections were not carried out by the CSC's environmental specialists. Monthly environmental monitoring was done virtually, via phone communications, internet tools.
51. During the reporting period site inspections were carried out in June 2020 by ES of Contractors and CSC in order to monitor the EMP implementation, also evaluate the construction works compliance with environmental safeguards requirements. Information on each inspection is listed in the Table 11 below.

**Table 11. Information on site inspection (January-June 2020)**

Date	Auditor's name	Audit purpose	Inspection conclusion summary
08.06.2020  LOT 6	CSC: Novossadova Natalya  Contractor: Health and Safety specialist and environmental specialist Lot 6 Zhantokova G.	Monitoring of the EMP measures progress  Survey of the implementation of environmental safeguards and safety measures on site	At Lot 6 the base camp arrangement has been adjusted by the installation of additional accommodations for the engineer, generally base camp meets sanitary requirements.  The site is provided with the necessary equipment for dust control. The contractor accumulates and uses water from the lowlands where rainfall accumulates and uses it for watering the construction site.  Remarks to eliminate during work process - failure to comply with SW segregation, untimely removal of waste.  Environmental specialist Lot 6, 7 provides monthly/quarterly reports on the EMP implementation.
09.06.2020  LOT 5	CSC:  Contractor: Project Manager Lot 5, Health and Safety	Monitoring of the EMP measures progress  Survey of the implementation of	Lot 5 base camp construction works have been completed. Recommendations on the arrangement of septic tanks, temporary storage of solid waste and places where fire boards are installed have been taken into account.

1st Semi-Annual Environmental Monitoring Report for January-June 2020  
 CAREC Corridors 1 and 6 Connector Road (Aktobe-Makat) Reconstruction Project (section km 330-504) / Contract 02-ADB/CSC-2017 (CSC-2)

	specialist and environmental specialist Lot 6	environmental safeguards and safety measures on site	<p>The audit of documentation showed that there are waste removal logbooks, waste passports on the site.</p> <p>The environmental specialist left the project in May due to personal reasons. The EMP is not fully implemented. The environmental specialist Lot 6 periodically visits this site, organizes IEM.</p> <p>The CSC recommended that for Lot 5 a qualified environmental specialist should be hired as soon as possible, who will have sufficient experience to monitor the implementation of environmental management plans.</p> <p>Lot 5: the schedule for dust control on base camp is not observed, there is not enough waste containers, there is no waste segregation, there is no temporary storage for used oil, tires and filters.</p>
10.06.2020 LOT 4	CSC: Novossadova Natalya Satvaldiyev Azamat environmental specialist Lot 4	<p>Monitoring of the EMP measures progress</p> <p>Survey of the implementation of environmental safeguards and safety measures on site</p>	<p>The audit of documentation showed that there are waste removal logbooks, waste passports, fire boards and offices of the Engineer and Contractor on the site.</p> <p>Greenery works are being carried out in the residential part of base camp.</p> <p>The environmental specialist provides quarterly reports. Site industrial monitoring is being carried out.</p> <p>Recommendations: to eliminate local spills of fuel and lubricants at the production base, to arrange environmental lectures on prevention of fuel and lubricants pollution, to clean up base camp territory and solid waste along the road.</p> <p>Dust control has been provided on the site.</p> <p>24.06.20 - taking into account the need to increase the area and frequency of watering in the summer period, without affecting the work process on the main road, it was decided to prepare a storage V=50m<sup>3</sup> to collect artesian water at night-time, for an uninterrupted supply of water to the vehicle, for dust control on the bypass road throughout the site.</p>

**52. The ADB Virtual Mission on 15-19.06.2020.** Due to the ongoing situation arising out of COVID-19, the Mission was done via video call in Teams format.

Objective of the Mission was to review and discuss the implementation status of the projects including:

- (i) Progress/issues/quality of construction relating to each contract.
- (ii) Safeguard and loan covenants compliance.
- (iii) Contract awards and disbursements for projects' remaining period.

(iv) Report submission.

The Construction Supervision and Project Management Consultants prepared (i) the project progress presentation, and (ii) monthly progress report for May 2020.

The Mission consisted of:

1. Jiangbo Ning, Mission Leader
2. Jose Tiburico Nicolas, Senior Social Development Specialist
3. Armine Yedigaryan, ADB Environment Specialist and Malika Babadzhanova, ADB RETA 9541 Environment Specialist
4. Asem Chakenova, Senior Project Officer
5. Glenda Jurado, Associate Project Analyst
6. Kanat Serdaliyev, ADB Consultant

During the virtual mission by the request of ADB consultant, photo and information were submitted about arranging a tank as temporary storage of fuel and lubricant materials within base camp territory according to the EMP requirements of Lot 4



Picture 6. Temporary storage of fuel and lubricant materials within base camp territory, Lot 4. May 2020

### 3.3. Tracking of issues (Based on Non-conformance Notices)

53. During the reporting period 2 major non-conformances have been found out on environmental safeguards compliance for Lot 4 and the following corrective actions have been proposed:

- to arrange a place for temporary storage of production waste on the workshop area according to the EMP, to clean up the territory, to clean fuel filling;
- to clean temporary storage area of used tires from other types of waste and to remove the accumulated waste according to the agreement in order to reduce the environmental impact;

54. During the reporting period 3 major non-conformances have been found out on Lot 5 and the following corrective actions have been proposed:

- to remove urgently waste water filling from the septic tank according to the SSEMP, to clean up the contaminated area, to control the fill level of the septic tank and to organize timely the removal of waste water;



- to arrange an additional place for temporary storage of production waste in accordance with the EMP, to remove and dispose the accumulated waste in accordance with the EMP;
- to organize a training for employees about waste placement and segregation, to conduct Saturday clean-up work, to clean up the territory, to store waste in accordance with its type and to dispose timely in accordance with the EMP and the service agreement.

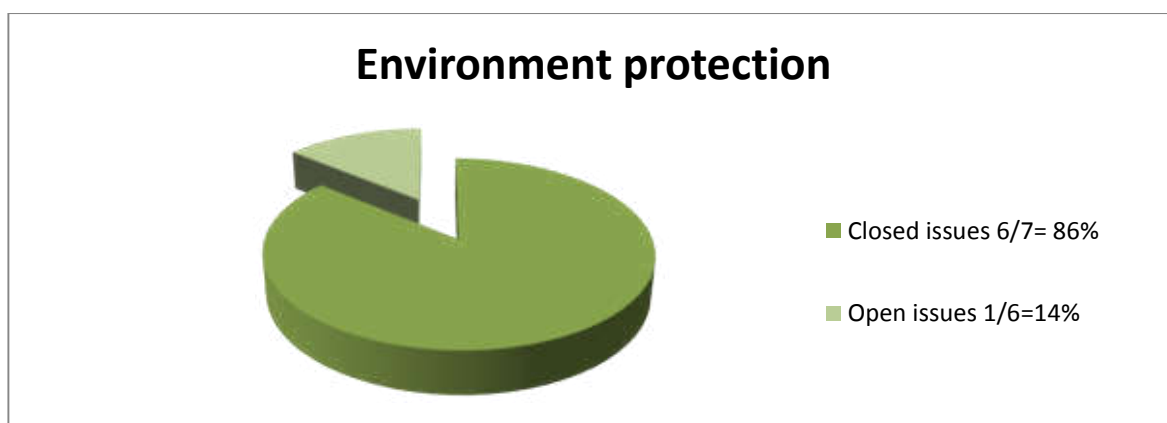
55. 2 minor non-conformances have been found out on Lot 6 and the following corrective actions have been proposed:

- to organize watering of road on the construction site in the required quantity, especially during construction works and transportation of road construction materials about Zhamansor village;
- to arrange a tank with volume 20-50 m<sup>3</sup> within base camp territory in accordance with the EC RK and to install a fence of the pit to accumulate rainwater to further use it for dust control.

56. Summary of issues tracking progress for the current period is presented in the Table 12 below.

<b>Table 12. Summary table</b>	
Total number of issues on the project	<b>7</b>
Number of open issues	<b>7</b>
Number of closed issues	<b>6</b>
Solving Percentage	<b>86%</b>
Open issues during the reporting period	<b>7</b>
Closed issues during the reporting period	<b>6</b>

**Picture 7. Summary of issues based on the non-conformances**



### 3.4. Issues by priority of the reporting period January-June 2020

57. Correspondences of CSC and Contractors for the reporting period regarding non-conformances and measures taken are shown below.

- SCG-KZAR-CS-045 dd 14.02.2020 "The Flood Control Action Plan for 2020"
- ATR-5-1788 dd 26.03.2020 "Approval of the Environmental Safeguard Specialist Contractor Lot 5"



- AA-077-2020 dd 15.04.2020 "The EMP report" Lot 4
- AA-101-2020 dd 18.05.2020 "The EMP report" Lot 5
- AA-116-2020 dd 05.06.2020 "The EMP report" Lot 6
- SCG-KZAR-080 dd 24.06.2020 «Regarding dust suppression measures»
- SCG-KZAR-CS-060 dd 09.06.2020 "Monthly EMP report for May 2020"
- ATR-QAJ-1963 dd 19.06.2020 "Submission for dust control of the project"
- SCG-KZAR-CS-060 dd 09.06.2020 "Monthly EMP report for May 2020"

### **3.5 Trends**

58. During the reporting period, site monitoring and audits of construction sites did not reveal complaints about environmental safeguards non-compliance. All EMP activities are executed on Lot 4, Lot 5 and Lot 6. Previously raised issues of concern regarding compliance with protective measures, such as ignoring the contractual obligations related to EP by the Contractor Lot 5 in terms of implementing the approved EMP, in terms of organizing and conducting IEM, have actually been eliminated as an approved environmental specialist was appointed to fulfill her obligations under the contract. But as the specialist left the project in May, the issue leaves open for the further period.
59. The Contractor is making efforts to hire and mobilize an environmental specialist, but the issue has not been solved yet, as in May-June 2020, in order to prevent the spread of the COVID-19 pandemic in Kazakhstan, restrictions on entry and exit from the country/region/city/village were imposed, quarantine or other restrictive measures were introduced in all regions.

### **3.6 Unforeseen environmental impacts or risks**

60. During the reporting period, monitoring of construction sites did not reveal unforeseen impacts on Lot 7, Lot 6, Lot 5 and Lot 4 sites.

#### **4. ENVIRONMENTAL MONITORING RESULTS**

##### **61. Control and management focused on the following activities:**


- I. supervision on site: visit with Contractors' environmental specialists and joint work audit;
- II. work photo records: with photo taking date and time;
- III. interviewing people on site: questions about impacts to workers, to environment, health and safety issues, also safety during work process;
- IV. meeting and consultation about issues and identified non-conformances,
- V. checking documents: test reports of instrumental measures, reviewing environmental specialists' monthly and semi-annual reports;
- VI. checking legal documents: permissions and all legal documents, related to environmental aspects.

##### **4.1. General monitoring information conducted during the current period**







62. Lot 4 signed an agreement with "West Dala" LLP No.377-2019 dated September 30, 2019 for disposal and storage of production waste. The temporary storage of waste is defined on site and garbage containers for the different types of waste are marked, waste passports have been agreed by the Environment Department of Atyrau region and agreement was concluded for waste removal and disposal. Environmental monitoring will be carried out quarterly in the rivers Sagiz and Nogayty based on the agreement with "Econormative" LLP, agreement No.3 dated February 19, 2020 (water, air, soil). Also, based on this agreement, specialists of environment laboratory conducted measurements of emissions of air pollutants on the reconstructed road.
63. The Contractor will ensure that the temporary removal or relocation of communication lines is carried out in coordination with the relevant utilities and local population. Coordination with local population on such issues will be executed through monthly meetings of local population with the participation of the Contractor, Engineer and public members.
64. Lot 5 obtained the Permit for environmental emission No.KZ16VCZ00562024 for Asphalt Plant. Emission permits and Licenses to extract common mineral resources have been received for the proposed borrow pits No.7, No.8, No.10, No.11, No.12, No.23 and the project borrow pits No.1 and No.2. Agreements were concluded with IE "Kabulov" No.07/2019 dated 06.03.2019 for the removal of solid waste, hazardous waste and effluents and No.247/3/AZHK dated July 1, 2019 for removal services of liquid household waste. Boxes for appeals and recommendations were installed at the Contractor's site, in the offices of CSC. During the reporting period, an agreement have not been concluded with IE Sadykov for drinking water supply, it is planned for the 1st quarter of 2020, as a source of drinking water is used water tower in Mukur village. The environmental specialist submitted a semi-annual report on the EMP implementation.
65. Lot 6, the EMP was approved by the CSC and agreed by the PMC on 5.06.2019, taking into account the remarks of the ADB's national consultant. On 13.06.2019, the Contractor signed an agreement for conducting IEM. Based on the service agreement, specialists of environmental laboratory "Analytical laboratory for environmental protection" LLP monitor atmospheric air, for the 3rd quarter was conducted on 18.09.2019. Agreements were concluded with "Analytical laboratory for environmental protection" LLP agreement No.17/19 dated 17.01.2019 and with "Econormative" LLP agreement No.211/3/AZHK dated 04.07.2019. Production waste collects on each facility, stores and delivers, it is disposed in the landfills of "Promecology" LLP and "ZapKazService" LLP.

66. Soil cover control is not provided by the organization. The Contractor will ensure that the temporary removal or relocation of communication lines is carried out in coordination with the relevant utilities and local population. Coordination with local population on such issues will be executed through monthly meetings of local population with the participation of the Contractor, Engineer and public members.
67. The length of bypass road, ready and open for traffic, is km 0-36 /PK0+00 to PK367+00/. The bypass road width meets the requirements and it is 9 m. There is an increase of dust control activities on the bypass road, at the moment there are 14 (fourteen) water trucks. 1) ПК 376+60 по 366+00, 2) ПК 362+50 по 330+00, 3) ПК 320+50 по 295+00, 4) ПК 285+00 по 265+50, 5) ПК 235+50 по 200+00, 6) ПК 190+00 по 172+00, 7) ПК 170+00 по 160+50.
68. On these sections, the following work activities were carried out: levelling and compaction of the bypass road, also elimination of subsidence, potholes, bumps, blowup and other damages on the bypass road carriageway. There are some small bumps and blowup on the bypass road which have been eliminated at the moment. The site is cleared from garbage on time, and temporary road signs, including road delineators, have been cleaned.
69. *Traffic control.* During short-time activities on the bypass road, during work on a certain length of one lane of traffic and during entering to/exiting from borrow pit at an intersection, traffic controllers are involved here. The number of signalman and traffic controllers is 4.
70. During the reporting period, the CSC prepared and issued to proceed on Lots 4, 5 and 6 recommendations to eliminate identified issues. During the reporting period, monitoring of these sites showed that environmental specialists Lots 4, 5 and 6 took into account violations and eliminated them. Non-conformances elimination details for the first half of 2020 are shown in the Table 13 below.

**Table 13: Status of correction actions recommended for environmental non-conformances on Lots 4, 5 and 6 for January-June 2020**





No.	Issues of concern	Site / LOT/ PHOTO Responsible	Recommendations to take measures	Results of site EM with regard to identified non- conformances
1	The construction camp was polluted by waste and workshop area was contaminated by FLM	Project Manager Environmental specialist LOT 4		<b>EM has not been carried out</b>
			To arrange a place for temporary storage of production waste on the workshop area according to the EMP, to clean up the territory, to clean fuel filling	

1st Semi-Annual Environmental Monitoring Report for January-June 2020  
 CAREC Corridors 1 and 6 Connector Road (Aktobe-Makat) Reconstruction Project (section km 330-504) / Contract 02-ADB/CSC-2017 (CSC-2)

2	There were other types of waste on the temporary storage area of used tires on base camp	Project Manager Environmental specialist LOT 4	To clean temporary storage area of used tires from other types of waste and to remove the accumulated waste according to the agreement in order to reduce the environmental impact	<b>EM has not been carried out</b>
				
3	There was waste water filling from the septic tank on soil cover behind of base camp fencing, due to untimely removal of waste water	Project Manager Environmental specialist LOT 5	To eliminate urgently waste water filling from the septic tank according to the SSEMP. To clean up the contaminated area. To control the fill level of the septic tank and to organize timely the removal of waste water	
				Executed 
4	Base camp pollution by waste, tires. Equipment repair on the unorganized area	Project Manager Environmental specialist LOT 5	All types of waste are stored in designated areas in metal containers with marking. Containers are installed on special reinforced concrete platforms. To arrange a place for temporary storage of production waste according to the EMP. To remove and dispose the accumulated waste according to the EMP	
	 			Executed 



1st Semi-Annual Environmental Monitoring Report for January-June 2020  
 CAREC Corridors 1 and 6 Connector Road (Aktobe-Makat) Reconstruction Project (section km 330-504) / Contract 02-ADB/CSC-2017 (CSC-2)

5	Untimely waste removal, overfill of containers and waste segregation, waste placement in contradiction with its marking	Project Manager Environmental specialist LOT 5, 6	To organize a training for employees about waste placement and segregation.	
	<p>Lot 5</p>  <p>Lot 6</p> 		<p>To conduct Saturday clean-up work, to clean up the territory.</p> <p>To store waste and to dispose it timely in accordance with the EMP and the service agreement.</p>	<p>Executed</p> 
6	There is the accumulation of rainwater (pit) on base camp territory for the further use for dust control	Project Manager Environmental specialist LOT 6	To arrange in accordance with the EC RK and to install a tank with volume 20-50 m3, to install a fence	Measures are being taken
				
7	To increase frequency of dust control	Project Managers 4, 5, 6 Environmental specialist LOT 4, 5, 6	To reduce dust level during construction works by watering. The Contractor's environmental specialist Lot 6 is	Measures are being taken to increase the area and frequency of watering

			recommended to plan watering where necessary in order to prevent dust impact to local people of Zhamansor and etc.	through collecting artesian water into a tank at night-time on Lot 4 base camp
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#### 4.1.1 Environmental measurements on Lot 4 site

##### 4.1.1.1 Air quality - Lot 4

71. Monitoring was carried out at the points specified in the Contractor's SSEMP, see the picture 4.1.  
 Due to the absence of environmental specialist on the project until September 2019, the first monitoring was conducted on September 25, 2019, which will be the baseline monitoring. According to submitted sampling reports and their results, during sampling were recorded atmospheric air, climatic parameters: wind speed, direction, barometric pressure, humidity, temperature. Measurements on Lot 4 were made by the following indicators: inorganic dust (suspended particles), nitrogen oxide, nitrogen dioxide, sulfur dioxide, carbon monoxide, formaldehyde, hydrocarbons C12-C19 and hydrogen sulfide.
72. Based on the service agreement with "Econormative" LLP No.1 dated 19.02.2019 the environmental laboratory specialists have conducted air measurements and sampling on 05.06.2020 on the Asphalt plant SPZ, radioactive background on the Asphalt plant territory, aggregate materials storage and road construction site "Aktobe-Atyrau" km 330-370, also have measured air and radioactive radiation on the construction site of bridges across the rivers Sagiz and Nogayty.
73. From January to May 2020 due to the COVID-19 pandemic in the RK, quarterly environmental monitoring / instrumental measurement / has been carried out on the second quarter, in June 2020.
74. According to test reports Nos.121, 122, 123 dated 25.06.2020, the pollution level on Lot 4 site does not exceed the MPC for all monitored indicators. The environmental impact is temporary and it does not have a negative impact.

**Table 14: Air Measurement Results Lot 4**

Sampling point	Pollutants	MPC level, mg/m <sup>3</sup>	Actual concentration, mg/m <sup>3</sup> 25.06.2020
Asphalt Plant area	CO	5	1,321
Organization territory	NO	0,4	0,0121
	NO <sub>2</sub>	0,2	0,0134

1st Semi-Annual Environmental Monitoring Report for January-June 2020  
 CAREC Corridors 1 and 6 Connector Road (Aktobe-Makat) Reconstruction Project (section km 330-504) / Contract 02-ADB/CSC-2017 (CSC-2)

	SO <sub>2</sub>	0,5	0,0123
	Hydrocarbons C12-C19	1	0,086
	Hydrogen sulfide	0,008	0,0011
	Dust / Suspen. Particles	0,5	0,0086
Asphalt Plant area SPZ South-West part	CO	5	1,322
	NO	0,4	0,0125
	NO <sub>2</sub>	0,2	0,0137
	SO <sub>2</sub>	0,5	0,0125
	Hydrocarbons C12-C19	1	0,084
	Hydrogen sulfide	0,008	0,0011
	Dust / Suspen. Particles	0,15	0,0088
Asphalt Plant area SPZ West part	CO	5	1,324
	NO	0,4	0,0127
	NO <sub>2</sub>	0,2	0,0139
	SO <sub>2</sub>	0,5	0,0127
	Hydrocarbons C12-C19	1	0,086
	Hydrogen sulfide	0,008	0,0013
	Dust / Suspen. Particles	0,15	0,0089
Asphalt Plant area SPZ North-West part	CO	5	1,32
	NO	0,4	0,0123
	NO <sub>2</sub>	0,2	0,0135
	SO <sub>2</sub>	0,5	0,0124
	Hydrocarbons C12-C19	1	0,083
	Hydrogen sulfide	0,008	0,0012
	Dust / Suspen. Particles	0,15	0,0087
Asphalt Plant area SPZ East part	CO	5	1,317
	NO	0,4	0,0121
	NO <sub>2</sub>	0,2	0,0132
	SO <sub>2</sub>	0,5	0,0121
	Hydrocarbons C12-C19	1	0,081
	Hydrogen sulfide	0,008	0,0011
	Dust / Suspen. Particles	0,15	0,0082
Road reconstruction site	CO	5	0,951
	NO	0,4	0,0121
	NO <sub>2</sub>	0,2	0,0123

1st Semi-Annual Environmental Monitoring Report for January-June 2020  
 CAREC Corridors 1 and 6 Connector Road (Aktobe-Makat) Reconstruction Project (section km 330-504) / Contract 02-ADB/CSC-2017 (CSC-2)

	SO <sub>2</sub>	0,5	0,0124
	Hydrocarbons C12-C19	1	0,073
	Hydrogen sulfide	0,008	0,0011
	Dust / Suspen. Particles	0,15	0,0081
Road reconstruction site	CO	5	0,941
	NO	0,4	0,0123
	NO <sub>2</sub>	0,2	0,012
	SO <sub>2</sub>	0,5	0,0131
	Hydrocarbons C12-C19	1	0,084
	Hydrogen sulfide	0,008	0,001
	Dust / Suspen. Particles	0,15	0,0073
Sagiz bridge construction area	CO	5	0,844
	NO	0,4	0,0144
	NO <sub>2</sub>	0,2	0,0141
	SO <sub>2</sub>	0,5	0,0119
	Hydrocarbons C12-C19	1	0,063
	Hydrogen sulfide	0,008	0,0012
	Dust / Suspen. Particles	0,15	0,0075
Nogayty bridge construction area	CO	5	0,739
	NO	0,4	0,0119
	NO <sub>2</sub>	0,2	0,0113
	SO <sub>2</sub>	0,5	0,0126
	Hydrocarbons C12-C19	1	0,069
	Hydrogen sulfide	0,008	0,001
	Dust / Suspen. Particles	0,15	0,0077
Asphalt Plant installation	CO	7,0941	1,83627
	NO	0,1277	0,04625
	NO <sub>2</sub>	0,7858	0,42759
	SO <sub>2</sub>	23,44	0,06828



**Picture 4.1 – Location of air, noise and vibration sampling points LOT 4**



#### **4.1.1.2 Water quality - Lot 4**

75. As sources of construction and drinking water, water is used from water towers located in Dossor, Makat villages, which are serviced by “Temirzholzhylu-Atyrau” LLP. During construction works, water is used for household and industrial needs. Water control is not provided, because drinking and construction water supply is provided from culvert, which is located in Makat village and serviced by PSE “Atyrau Su Arnasy”. The drinking water quality meets sanitary and epidemiological requirements.
76. There are surface water sources like Sagiz and Nogaity rivers within the project works territory of Lot 4 and 6. Temporary watercourses occur only during heavy rain or heavy snow melt. The hydrographic network in the area is practically undeveloped. Surface water resources are only the flow of rivers Sagiz and Nogaity coming from Aktobe region, as well as local flow of small temporary watercourses and small rivers of the second and third type. Sagiz river enters its lower reaches, getting lost in Tenteksor. Its valley in this section is not clearly, its slopes are not very gentle and joins imperceptibly with the surrounding area. The riverbed is very winding. Sagiz river does not have a permanent flow for 11 months throughout the area (about 30 km).
77. Lot 4 road reconstruction site crosses two rivers Sagiz and Nogaity. Sagiz river throughout the district (about 30 km) has no permanent flow for 11 months. The distance from Lot 4 construction site (Asphalt plant) to Sagiz river is 1 km and to Nogaity river is 6 km. The Caspian Sea is more than 100 km away. The Contractor Lot 4 will carry out quarterly environmental monitoring in Sagiz river (if there is water in the river) based on the agreement with “EcoNormative” LLP agreement No.1 dated February 19, 2020, Lot 6 agreement with “EcoNormative” LLP No.211/3/AZHK dated 04.07.2019.

**Table 15. Results of physical and chemical analysis of Lot 4 surface water from the rivers Sagiz and Nogaiy for the 2 quarter of 2020**

No.	Indicators	MPC, mg/m <sup>3</sup>	Actual value mg/m <sup>3</sup>		Exceeding
			river Sagiz Test report No.1436 dd 11.06.2020	river Nogayty Test report No.1437 dd 11.06.2020	
1	pH	6,0-9,0	7,25	7,610	N/D
2	Hardness, mg/L	7.0(10)	14,1	12,3	
3	Muddiness		22,1	21,7	N/D
4	Oil products	no more than 0,1	0,044	0,035	N/D
5	Dry residue	1000	7723	4620	N/D
6	Chemical oxygen demand		56,7	60,8	N/D
7	Copper	1	0,001	0,001	N/D
8	Lead	0,03	0,002	0,002	N/D
9	Zinc	5	0,006	0,009	N/D
10	Nitrate nitrogen	no more than 45	5,9	6,900	N/D
11	Nitrite nitrogen	no more than 3,3	0,062	0,045	N/D

78. The Test report No.1209 in the 3 quarter of 2019 showed the exceedance of oil products in the water of river Sagiz. The Contractor's environmental specialist submitted explanatory information for this case: due to the dismantling works on this site, preparation and cleaning of pipes for the spring period, also the regular traffic of other vehicles. Monitoring on this site was under the special control of the Contractor's and CSC's environmental specialists in the 2 quarter of 2020. According to the sampling and analysis results, based on the test reports the exceedance is not detected.

#### 4.1.1.3 Noise and Vibration

79. Vibration and noise level measurements Lot 4 were carried out by specialists of Atyrau regional RSE "National Center of Expertise" of the Committee for Public Health Protection of the Ministry of Health of the Republic of Kazakhstan. The agreement for noise and vibration No.388 dated 24.02.2020.

80. According to monitoring reports No.10 dated 08.06.2020, measurements were taken at the Concrete laboratory.

81. All indicators on Noise and Vibration do not exceed MPL. It is necessary to take into account the recommendations (Environmental, Health and Safety Guidelines, 30.04.2007 IFC) about safeguards: personal protective equipment, time protection if noise level over 80 dBA.

**Table 16. Noise and Vibration Measurement**

Measurement points Lot 4	Actual noise measurement, dB	Actual vibration measurement, dB
	08.06.2020	
Permissible level, dB	60	112-127
No.1 Laboratory/ exhaust	45	63, 65, 60
No.2 Laboratory/ exhaust	42	59, 51, 51
No.4 thermostat	40	
No.5 thermostat	40	
No.7 laboratpry hood	41	
No.8 centrifuge	40	
No.9 kitchen	50/65	

#### 4.1.1.4 Borrow Pits Lot 4

82. During the reporting period January-June 2020 the Contractor obtained the Licenses to extract common mineral resources for Lot 4 borrow pits for “Aktobe-Makat” reconstruction site km 330-370 in Kyzylkoga district of Atyrau region.

83. Summary of permission documents for borrow pits is shown in the Table 17.

**Table 17. Permission documents received for borrow pits**

No.	Borrow Pits LOT 4 “Aktobe-Makat” road section km 330-370	Area, ha	Exploration License No.	Extraction License No.
1	BP No.1	S=8,77	No.273-EL dd 26.08.2019	No.50/2020 dd 02.06.2020
2	BP No.3	S=9,9	No.274-EL dd 26.08.2019	No.51/2020 dd 02.06.2020
3	BP No.4	S=5,07	No.143-EL dd 26.06.2019	No.52/2020 dd 02.06.2020
4	BP No.5	S=5,21	No.147-EL dd 26.06.2019	No.53/2020 dd 02.06.2020
5	BP No.6	S=4,94	No.147-EL dd 27.06.2019	No.54/2020 dd 02.06.2020
6	BP No.13	S=4,7927	No.146-EL dd 26.06.2019	No.58/2020 dd 02.06.2020
7	Project BP No.4	S=26,2	-	No.34/2020 dd 27.02.2020
8	Project BP No.5	S=26,0	-	No.35/2020 dd 27.02.2020
9	Project BP No.6	S=27,2	-	No.36/2020 dd 27.02.2020

#### 4.1.2 Environmental measurements on Lot 5 site

##### 4.1.2.1 Air quality - Lot 5

84. Monitoring was carried out at the points specified in the Contractor's SSEMP, see the picture 4.2. According to submitted sampling reports and their results, during sampling were recorded atmospheric air, climatic parameters: wind speed, direction, barometric pressure, humidity, temperature. Measurements on Lot 5 were made by the following indicators: CO, SO<sub>2</sub>, NO<sub>2</sub>, NO, CH<sub>2</sub>O, C12-19 and dust (suspended particles).
85. Due to a number of reasons, such as the contract termination with an unfair Contractor "Tasyapi Insaat Taahut ve Ticaret A.S." in 2018, the conclusion and signing of new contracts, long financing procedures of new Contractors, etc. the basic air monitoring on Lot 5 was conducted in June 2019, as evidenced by the test reports: Lot 5 – Nos. 325, 326, 327 dated 29.06.2019
86. Based on the service agreement with "Econormative" LLP No.211/3/AZHK dated July 04, 2019 the environmental laboratory specialists have conducted air measurements and sampling on 05.06.2020 on the SPZ at 4 points of Asphalt plant, aggregate materials storage and road construction site "Aktobe-Atyrau" km 370-418, also air has measured at the borrow pits.
87. According to test reports Nos.126, 127 dated 25.06.2020, the pollution level on Lot 5 site does not exceed the MPC for all monitored indicators. The environmental impact is temporary and it does not have a negative impact.

**Table 18: Air Measurement Results - Lot 5**

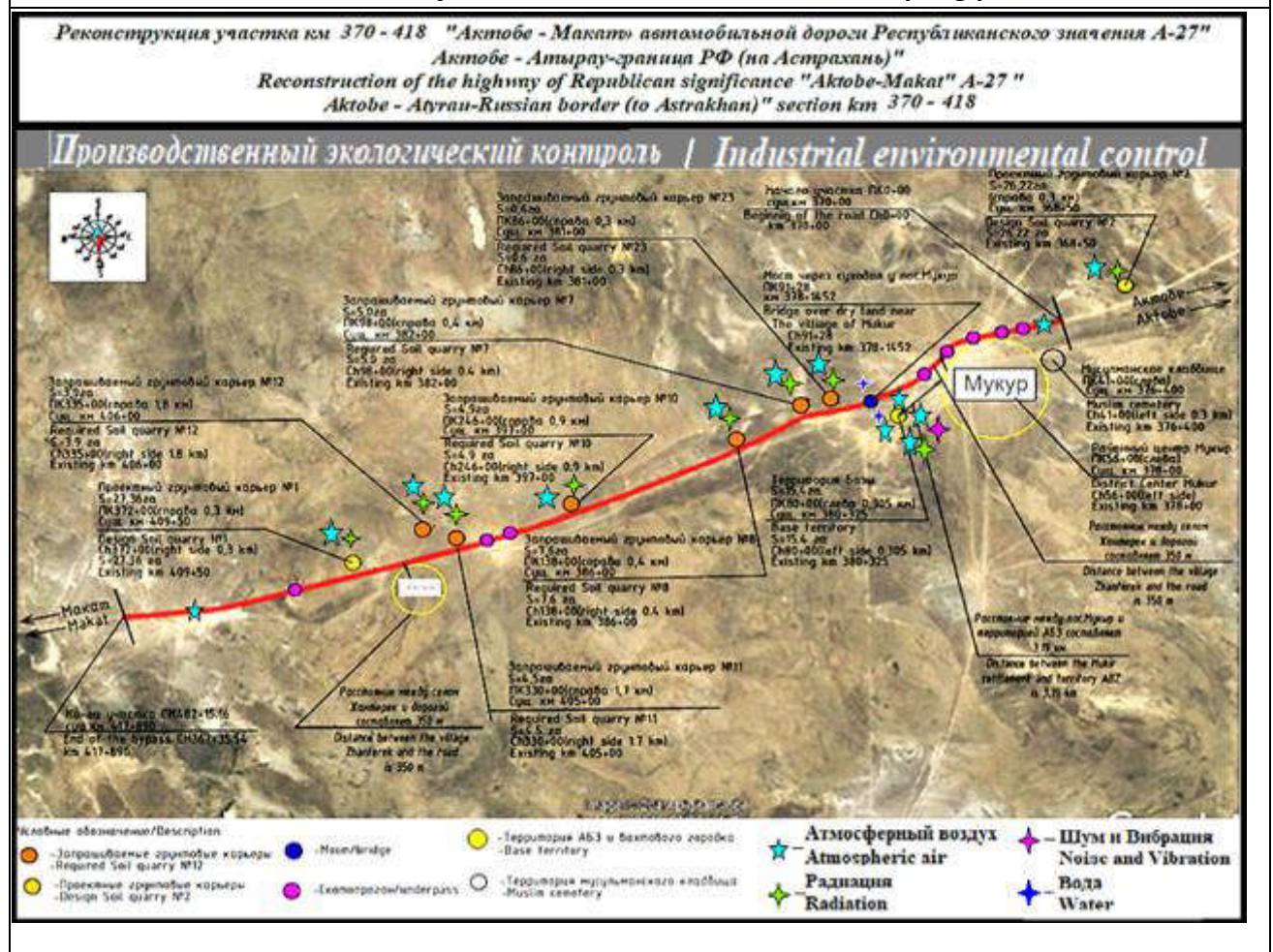
Sampling point	Pollutants	Background concentration, mg/m <sup>3</sup>	MPC level, mg/m <sup>3</sup>	Actual concentration, mg/m <sup>3</sup>
		30.09.2019		05.06.2020
Asphalt plant area Organization territory	CO	0,751±0,01	5	0,933
	NO	0,0122	0,4	0,0085
	NO <sub>2</sub>	0,0119	0,2	0,0079
	SO <sub>2</sub>	0,0142	0,5	0,0124
	Hydrocarbons C12-C19	0,036	1	0,075
	Hydrogen sulfide	0,0011	0,008	0,001
	Dust / Suspen. Particles	0,0084	0,5	0,0092
Asphalt plant area SPZ South-west part	CO	0,752±0,01	5	0,935
	NO	0,0124	0,4	0,0087
	NO <sub>2</sub>	0,0119	0,2	0,0082
	SO <sub>2</sub>	0,0146	0,5	0,0126
	Hydrocarbons C12-C19	0,038	1	0,077
	Hydrogen sulfide	0,0012	0,008	0,001
	Dust / Suspen. Particles	0,0088	0,5	0,0094
Asphalt plant area SPZ West part	CO	0,755±0,01	5	0,937
	NO	0,0127	0,4	0,0089
	NO <sub>2</sub>	0,0122	0,2	0,0084

1st Semi-Annual Environmental Monitoring Report for January-June 2020  
 CAREC Corridors 1 and 6 Connector Road (Aktobe-Makat) Reconstruction Project (section km 330-504) / Contract 02-ADB/CSC-2017 (CSC-2)

	SO <sub>2</sub>	0,0148	0,5	0,0128
	Hydrocarbons C12-C19	0,041	1	0,079
	Hydrogen sulfide	0,0013	0,008	0,0012
	Dust / Suspen. Particles	0,0091	0,5	0,0096
Asphalt plant area SPZ North-west part	CO	0,753±0,01	5	0,934
	NO	0,0122	0,4	0,0086
	NO <sub>2</sub>	0,012	0,2	0,008
	SO <sub>2</sub>	0,0145	0,5	0,0125
	Hydrocarbons C12-C19	0,037	1	0,076
	Hydrogen sulfide	0,0011	0,008	0,0011
	Dust / Suspen. Particles	0,0086	0,5	0,0093
Asphalt plant area SPZ East part	CO	0,750±0,01	5	0,931
	NO	0,0122	0,4	0,0082
	NO <sub>2</sub>	0,0117	0,2	0,0077
	SO <sub>2</sub>	0,0141	0,5	0,0121
	Hydrocarbons C12-C19	0,033	1	0,073
	Hydrogen sulfide	0,0011	0,008	0,001
	Dust / Suspen. Particles	0,0081	0,5	0,009
Borrow pit No.10 area	CO	0,794±0,01	5	0,881
	NO	0,0087	0,4	0,0088
	NO <sub>2</sub>	0,0088	0,2	0,0083
	SO <sub>2</sub>	0,0121	0,5	0,0119
	Hydrocarbons C12-C19	0,039	1	0,079
	Hydrogen sulfide	0,0012	0,008	0,0011
	Dust / Suspen. Particles	0,0084	0,5	0,0084
Aggregate materials storage	CO	0,834±0,01	5	0,849
	NO	0,0099	0,4	0,0091
	NO <sub>2</sub>	0,0087	0,2	0,0084
	SO <sub>2</sub>	0,0094	0,5	0,0119
	Hydrocarbons C12-C19	0,048	1	0,065
	Hydrogen sulfide	0,0011	0,008	0,001
	Dust / Suspen. Particles	0,0077	0,5	0,0097



**Picture 4.2 – Location of air, water, noise and vibration sampling points LOT 5**



#### 4.1.2.2 Water quality - Lot 5

88. Temporary watercourses occur only during heavy rain or heavy snow melt within the project works territory of Lot 5. Surface water resources are only the flow of river Mukur coming from Aktobe region, also local flow of small temporary watercourses and small rivers of the second and third type. Mukur river does not have a permanent flow for 11 months throughout the area (about 20 km). In summer the river dries up completely. An agreement No 211/3/AZHK dated 04.07.2019 was concluded with "EcoNormative" LLP for quarterly IEM.
89. According to EMP, Mukur river is monitored, but water monitoring/sampling for the second quarter of 2020 was not carried out due to the lack of water/flow in the river. The next monitoring is planned for the III-IV quarters of 2020.

**Picture 4.3 River Mukur Lot 5 during April-June 2020**



#### 4.1.2.3. Noise and Vibration - Lot 5

90. According to the Guidelines of the International Finance Corporation “Environment, Health and Safety Guidelines” MPL of noise for construction areas is 85 dBA and a peak (instantaneous) noise is not higher 140dBa, and for residential areas is 70dBa. The national standard Order of the Ministry of Health of RK No.611 about approval of Sanitary rules “Sanitary and epidemiologic requirements for facilities”, Order of Ministry of National Economy (Hygienic Standard No.169 dated 28.02.2015) defines that MPL of noise at construction areas is 80 dBA and for operator’s work in laboratory, Asphalt plant is 90 dBA, and MPL at residential areas is 60 dBA. The national standard is used for this report because it is more demanding for the meaning of MPL.
91. Vibration and noise level measurements Lot 5 were carried out by specialists of Atyrau regional RSE “National Center of Expertise” of the Committee for Public Health Protection of the Ministry of Health of the Republic of Kazakhstan. The agreement for noise and vibration No.561 dated 22.05.2020. According to monitoring reports No.14 dated 30.06.2020, measurements were taken at the Asphalt plant (operator’s room).
92. All indicators on Noise and Vibration do not exceed MPL. It is necessary to take into account the recommendations (Environmental, Health and Safety Guidelines, 30.04.2007 IFC) about safeguards: personal protective equipment, time protection if noise level over 80 dBA.
93. According to noise and vibration measurements report, the measurements from these sites showed that MPL not exceeded at any measurement points.
94. Noise and vibration measurements are shown in the Table 19.

Measurement points Lot 5 <i>Asphalt Plant operator’s room</i>	Actual noise measurement, dB	Actual vibration measurement, dB
	<b>30.06.2020</b>	
<b>Permissible level, dB</b>	<b>65</b>	<b>108-123</b>
No. 1	55	65
No. 2	55	65
No. 3	55	69

#### 4.1.2.3 Borrow Pits Lot 5

95. During the reporting period January-June 2020 the Contractor obtained the Licenses to extract common mineral resources for Lot 5 borrow pits for “Aktobe-Makat” reconstruction site km 370-418 in Kyzylkoga district of Atyrau region.
96. Summary of permission documents for borrow pits is shown in the Table 20.

No.	Borrow Pits LOT 5 “Aktobe-Makat” road section km 370-418	Area, ha	Exploration License No.	Extraction License No.
<b>1</b>	BP No.7	S=5,05	No.368-EL dd 04.11.2019	No.62/2020 dd 04.06.2020
<b>2</b>	BP No.8	S= 7,64	<b>Applied on 06.2020 by new rules</b>	<i>Not received</i>

3	BP No.10	S=4,87	No.144-EL dd 26.06.2019	No.55/2020 dd 02.06.2020
4	BP No.11	S= 4,51	No.145-EL dd 26.06.2019	No.56/2020 dd 02.06.2020
5	BP No.12	S= 3,87	No.145-EL dd 26.06.2019	No.57/2020 dd 02.06.2020
6	BP No.23	S=0,61	<i>Not received</i>	<i>Not received</i>
7	Project BP No.3	S=27,3	-	No.33/2020 dd 27.02.2020

#### 4.1.3 Environmental measurements on Lot 6 site

##### 4.1.3.1. Air quality

97. Monitoring was carried out at the points specified in the Contractor's SSEMP, see the picture 4.3. According to submitted sampling reports and their results, during sampling were recorded atmospheric air, climatic parameters: wind speed, direction, barometric pressure, humidity, temperature. Measurements on Lot 6 were made by the following indicators: CO, SO<sub>2</sub>, NO<sub>2</sub>, NO, CH<sub>2</sub>O, C12-19 and dust (suspended particles).
98. Due to a number of reasons, such as the contract termination with an unfair Contractor "Tasyapi Insaat Taahut ve Ticaret A.S." in 2018, the conclusion and signing of new contracts, long financing procedures of new Contractors, etc. the basic air monitoring on Lot 6 was conducted in June 2019, as evidenced by the test reports: Lot 6 – Nos. 239, 240, 241 dated 13.06.2019
99. Based on the service agreement with "Econormative" LLP No.211/3/AZHK dated July 04, 2019 the environmental laboratory specialists have conducted air measurements and sampling on 05.06.2020 on the SPZ at 4 points of Asphalt plant, aggregate materials storage and road construction site "Aktobe-Atyrau" km 418-458, also air has measured at the borrow pits. According to test reports Nos.1286 1296 129-26 129-3 dated 25.06.2020, the pollution level on Lot 6 site does not exceed the MPC for all monitored indicators. The environmental impact is temporary and it does not have a negative impact.

**Table 21: Air Measurement Results Lot 6**

Sampling point	Pollutants	MPC level, mg/m <sup>3</sup>	Actual concentration, mg/m <sup>3</sup>
			06.06.2020
Asphalt plant area Organization territory	CO	5	0,921
	NO	0,4	0,0113
	NO <sub>2</sub>	0,2	0,0112
	SO <sub>2</sub>	0,5	0,0134
	Hydrocarbons C12-C19	1	0,081
	Hydrogen sulfide	0,008	0,0012
	Dust inorganic	0,5	0,0084

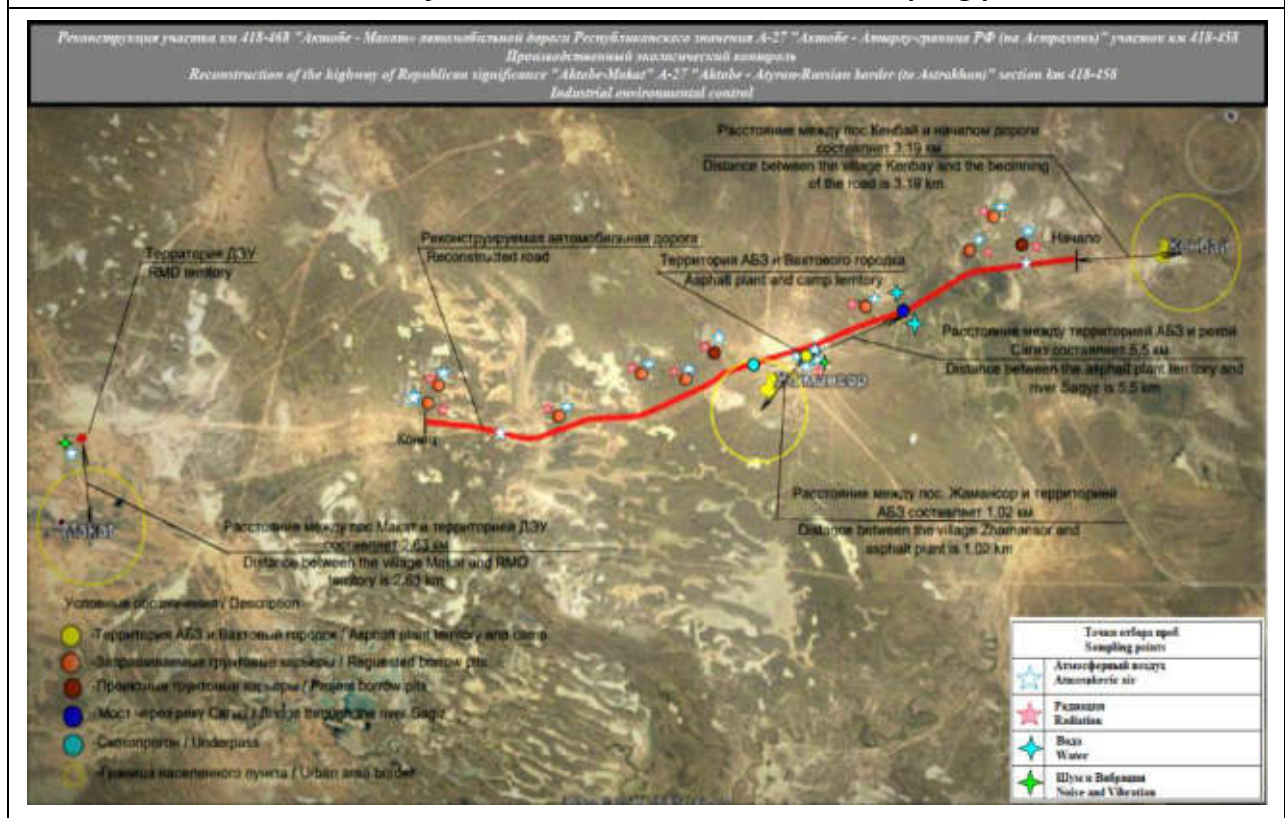


Asphalt plant area SPZ South part	CO	5	0,924
	NO	0,4	0,0114
	NO <sub>2</sub>	0,2	0,0014
	SO <sub>2</sub>	0,5	0,0137
	Hydrocarbons C12-C19	1	0,083
	Hydrogen sulfide	0,008	0,0013
	Dust inorganic	0,5	0,0085
Asphalt plant area SPZ South-west part	CO	5	0,926
	NO	0,4	0,0117
	NO <sub>2</sub>	0,2	0,0115
	SO <sub>2</sub>	0,5	0,0139
	Hydrocarbons C12-C19	1	0,084
	Hydrogen sulfide	0,008	0,0013
	Dust inorganic	0,5	0,0087
Asphalt plant area SPZ West part	CO	5	0,923
	NO	0,4	0,0115
	NO <sub>2</sub>	0,2	0,0113
	SO <sub>2</sub>	0,5	0,0136
	Hydrocarbons C12-C19	1	0,082
	Hydrogen sulfide	0,008	0,0012
	Dust inorganic	0,5	0,0086
Asphalt plant area SPZ North-east part	CO	5	0,921
	NO	0,4	0,0112
	NO <sub>2</sub>	0,2	0,0112
	SO <sub>2</sub>	0,5	0,0133
	Hydrocarbons C12-C19	1	0,081
	Hydrogen sulfide	0,008	0,0012
	Dust inorganic	0,5	0,0083
Aggregate materials storage	CO	5	0,933
	NO	0,4	0,0112
	NO <sub>2</sub>	0,2	0,0113
	SO <sub>2</sub>	0,5	0,0135
	Hydrocarbons C12-C19	1	0,083
	Hydrogen sulfide	0,008	0,0012

1st Semi-Annual Environmental Monitoring Report for January-June 2020  
 CAREC Corridors 1 and 6 Connector Road (Aktobe-Makat) Reconstruction Project (section km 330-504) / Contract 02-ADB/CSC-2017 (CSC-2)

	Dust inorganic	0,5	0,0085
Site PK -251	CO	5	0,884
	NO	0,4	0,0119
	NO <sub>2</sub>	0,2	0,011
	SO <sub>2</sub>	0,5	0,0157
	Hydrocarbons C12-C19	1	0,084
	Hydrogen sulfide	0,008	0,0012
	Dust inorganic	0,5	0,0073
	CO	5	0,736
Site PK -280	NO	0,4	0,0113
	NO <sub>2</sub>	0,2	0,0118
	SO <sub>2</sub>	0,5	0,0136
	Hydrocarbons C12-C19	1	0,071
	Hydrogen sulfide	0,008	0,0011
	Dust inorganic	0,5	0,0092
	CO	5	0,927
	NO	0,4	0,0115
Borrow Pit No.1 area	NO <sub>2</sub>	0,2	0,0114
	SO <sub>2</sub>	0,5	0,0139
	Hydrocarbons C12-C19	1	0,063
	Hydrogen sulfide	0,008	0,001
	Dust inorganic	0,5	0,0081
	CO	5	0,784
	NO	0,4	0,011
	NO <sub>2</sub>	0,2	0,0121
Borrow Pit No.6 area	SO <sub>2</sub>	0,5	0,0123
	Hydrocarbons C12-C19	1	0,068
	Hydrogen sulfide	0,008	0,001
	Dust inorganic	0,5	0,0089

**Picture 4.3 Location of air, water, noise and vibration sampling points LOT 6**



#### 4.1.3.2 Noise and Vibration - Lot 6

100. According to the Guidelines of the International Finance Corporation "Environment, Health and Safety Guidelines" MPL of noise for construction areas is 85 dBA and a peak (instantaneous) noise is not higher 140dBA, and for residential areas is 70dBA. The national standard Order of the Ministry of Health of RK No.611 about approval of Sanitary rules "Sanitary and epidemiologic requirements for facilities", Order of Ministry of National Economy (Hygienic Standard No.169 dated 28.02.2015) defines that MPL of noise at construction areas is 80 dBA and for operator's work in laboratory, Asphalt plant is 90 dBA, and MPL at residential areas is 60 dBA. The national standard is used for this report because it is more demanding for the meaning of MPL. Vibration and noise level measurements Lot 6 were carried out by specialists of Atyrau regional RSE "National Center of Expertise" of the Committee for Public Health Protection of the Ministry of Health of the Republic of Kazakhstan. The agreement for noise and vibration No.561 dated 22.05.2020.
101. According to monitoring reports No.15 dated 30.06.2020, measurements were taken at the Asphalt plant (operator's room).
102. Pursuant to noise and vibration measurements report, the measurements from these sites showed that MPL not exceeded at any measurement points. Based on the measurement report 65-69 dB was at operator's room against to permissible level for vibration 108-123 dB.
103. All indicators on Noise and Vibration do not exceed MPL. It is necessary to take into account the recommendations (Environmental, Health and Safety Guidelines, 30.04.2007 IFC) about safeguards: personal protective equipment, time protection if noise level over 80 dBA.
104. Noise and vibration measurements are shown in the Table 22.

Measurement points Lot 6 <i>Asphalt Plant operator's room</i>	Actual noise measurement, dB	Actual vibration measurement, dB
	30.06.2020	
Permissible level, dB	65	108-123
No. 1	60	65
No. 2	60	68
No. 3	60	61

#### 4.1.3.3 Borrow Pits Lot 6

105. During the reporting period January-June 2020 the Contractor obtained the Licenses to extract common mineral resources for Lot 6 borrow pits for "Aktobe-Makat" reconstruction site km 418-458 in Kyzylkoga district of Atyrau region.
106. Summary of permission documents for borrow pits is shown in the Table 23.

No.	Borrow Pits LOT 6 "Aktobe-Makat" road section km 418-458	Area, ha	Exploration License No.	Extraction License No.
1	BP No.1	S=5,18	No.77-EL dd 18.04.2019	No.37/2020 dd 27.02.2020
2	BP No.2	S=5,0	No.90-EL dd 04.05.2019	No.38/2020 dd 27.02.2020
3	BP No.3	S=4,9	No.90-EL dd 04.05.2019	No.39/2020 dd 27.02.2020
4	BP No.4	S=8,11	No.76-EL dd 18.04.2019	No.40/2020 dd 27.02.2020
5	BP No.5	S=4,95	No.76-EL dd 18.04.2019	No.41/2020 dd 27.02.2020
6	BP No.6	S=16,76	No.75-EL dd 18.04.2019	No.42/2020 dd 27.02.2020
7	BP No.7	S= 11,67	No.74-EL dd 18.04.2019	No.43/2020 dd 27.02.2020
8	BP No.8	S=14,77	No.74-EL dd 18.04.2019	No.44/2020 dd 27.02.2020
9	Project BP No.1	S=27,1	-	No.31/2020 dd 27.02.2020
10	Project BP No.2	S=28,0	-	No.32/2020 dd 27.02.2020



#### 4.1.4. Environmental measurements on Lot 7 site

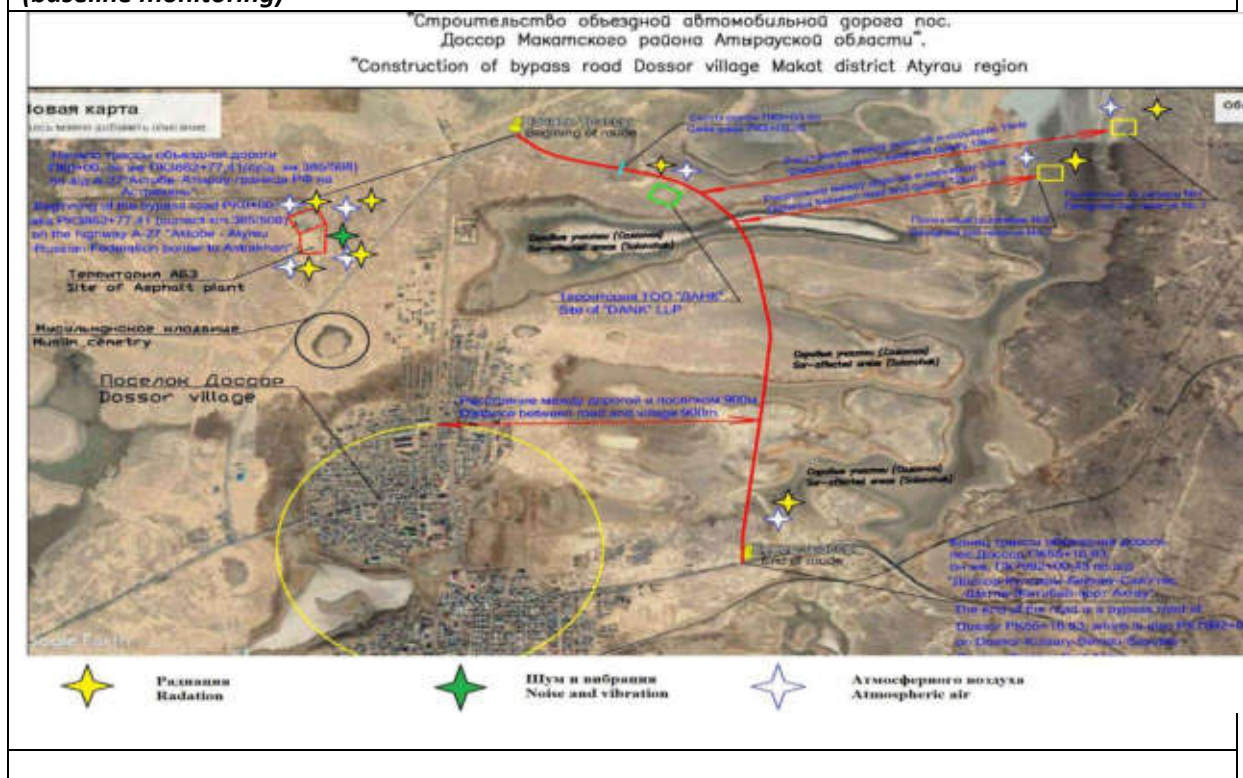
##### 4.1.4.1. Air quality Lot 7

107. At the moment Design and Estimate Document / Working Design of additional works to the Contract for Dossor bypass way is under review by the State Expertise. In addition, baseline air quality monitoring was carried out on the project area in June 2020, in order to assess the current condition within the project area. Based on the agreement the company "Econormative" LLP has received the scope of work for air quality monitoring at two points within the project corridor – at the beginning and ending of the road section, also borrow pits No.1 and 2 areas.
108. The results of measurement reports are shown in the Table 24.

**Table 24: The results of air quality baseline monitoring**

No.	Measurement place (sampling point)	Measurement results, mg/m <sup>3</sup>			
		SO <sub>2</sub>	NO <sub>2</sub>	Suspended particles	CO
1.	Beginning of the construction site	0,011	0,011	0,009	1,221
2.	Ending of the construction site	0,011	0,011	0,009	1,217
3.	Borrow pit No.1 area	0,013	0,015	0,011	1,348
4.	Borrow pit No.2 area	0,012	0,012	0,011	1,359
National standard *		0,5	0,2	0,5	5,0
IFC standard		0,5**	0,2***	-	-

**Picture 4.4 Location of air, noise and vibration sampling points LOT 7 (baseline monitoring)**



##### 4.1.4.2. Soil

109. Soil pollution measurement. There is no permanent placement of production waste on the enterprise territory; temporary storing of production and consumption wastes is conducted in compliance with necessary requirements that exclude impact on the soil cover. Traffic of construction machineries is carried out on existing roads. Due to it, soil monitoring is not included in environmental production control plan. But at the same time, in order to reduce impact on land resources, the Contractor included a number of activities in the Environmental Management Plan of this project:

- compliance with the technological work procedure;
- fuelling and replacement of FLM in designated areas;
- dust control at construction workplaces;
- traffic of construction machineries is carried out on existing roads.

## **4.2 Trends (general directions)**

110. Regarding Lot 7, additional construction works to the contract was planned to start in May-June 2020, due to the delay in obtaining the conclusion of the State Expertise, it is postponed until July-August 2020. The Contractor carried out the Baseline Monitoring, obtained the Permit for environmental emissions for the construction and other permits are being obtained. The Contractor submitted the EMP for Dossor bypass way on 27.07.2020 for approval by the CSC and PMC. The Engineer's Environmental Safeguard Specialist developed the IEE draft, it was coordinated with the PMC KazautoZhol and submitted to the ADB for approval.
111. The situation in Lot 4 regarding the EP and EMP implementation is not a matter of concern. The environmental specialist has mobilized on the site since September 2019. Reports are submitted timely, the Contractor is taking all measures to prevent negative impact on the environment.
112. On Lot 6 the Contractor "Ak zhol Kurylys" LLP, which has a positive experience on Lot 7, is managing the environmental situation on this site. The Contractor eliminates all non-conformances in a short time. The CSC considers that this Contractor will be able to carry out EP activities on a fairly good level, if environmental safeguard team is separately for each site.
113. The CSC recommended that for Lot 5 a qualified environmental specialist should be hired as soon as possible, who will have sufficient experience and information to monitor the implementation of environmental management plans. But this issue will be solved in the 3 quarter due to the restrictive measures related to the COVID-19.

## **4.3 A summary of the monitoring results**

114. In the current situation it is inadvisable for the CSC to conduct additional monitoring activities on Lot 4, Lot 5 and Lot 6 sites, because instrumental measurements were carried out within the specified time in their EMP.
115. Monitoring and audits of the CSC at all sites show that there is no negative impact on environment by construction activities. The measures taken by the Contractors Lots 4, 5, 6 and 7 to prevent a negative impact on environment are sufficient. Monitoring revealed that the Contractors try to follow the dust control schedule, plan for production waste removal and disposal, road safety plan, borrow pit management plan. The Contractors' activities have an permissible impact on the environment.

#### 4.4 Use of Material Resources

##### 4.4.1 Current period

116. **Lot 4.** In the first half of year as sources of drinking water totally 5 937 765 m<sup>3</sup> water was used from water towers serviced by “Temirzholzhylu-Atyrau” LLP. Water demand for the construction period is 300 m<sup>3</sup>/day. During the construction activities, water is used for domestic and construction needs.
117. On October 30, 2019, the Project on specific requirements of water consumption and drainage was approved by the Ministry of Environment for obtaining a permit for special water use. The permit was obtained.
118. **On Lot 5** power supply is provided based on the agreement No.804 dated 12.03.2019 with “AtyrauEnergosat”. During the reporting period, applications were submitted for taking technical specifications for water supply, an agreement is going to be concluded with IE “Sadykov” in Atyrau.
119. **On Lot 6** In the first half of year as sources of drinking water totally 1630 m<sup>3</sup> water was used from water towers serviced by IE “Sadykov” and “Makat-Su E” LLP and “Temirzholzhylu-Atyrau” LLP. Water demand for the construction period is 120 m<sup>3</sup>/day. During the construction activities, water is used for domestic and construction needs.

##### 4.4.2 Cumulative use of resources

**Table 25. Cumulative use of resources in the first half of 2020**

Sites/ Resources	Lot 6	Lot 5	Lot 4
Power supply, kW/h	922831	13490	9196465,25
Natural gas, thousand m <sup>3</sup>	200653,192	295	-
Drinking water, m <sup>3</sup>	1630	97	5 937 765,12
Construction water, m <sup>3</sup>			5825,0

#### 4.5 Waste Management

120. Waste management is organized by the Contractor according to the prepared EMP's attachment plans. The whole management process is carried out by two stages. The first stage consists the preparataion of places for temporary storage of SW and hazardous waste. The second stage includes the organization of waste disposal process with the involvement of specialized companies. There are places for temporary storage of SW and hazardous waste in the production base territory. Waste from the territory is stored on a special designated place for temporary storage with subsequent disposal through the involvement of specialized companies.
121. Contractor Lot 5 and Lot 6 concluded the agreements with specialized companies in 2020:
- “Promecology” LLP agreement No.01/20 dated 05.01.2020 for solid waste, hazardous waste and effluents disposal
  - “ZapKazService” LLP agreement No.23/3/AZhK dated 01.01.2020 for liquid household waste disposal



122. Regarding Lot 4, all types of waste are stored in designated areas in metal containers. Containers are installed on special reinforced concrete platforms and are closed with metal lids. The place for temporary waste storage has been determined on the territory and containers for different types of waste are marked. Production waste is collected, stored and transported as it fills, disposed to landfill of "West Dala" LLP according to the agreement No.377-2019 dated September 30, 2019.

#### 4.5.1 Current period

**Table 26: Solid and liquid waste disposal detail for the first half of 2020**

Site	Waste type	Unit of measurement	Waste classification	Quantity	Waste disposal method / way
Lot 7	SW	m <sup>3</sup>	not hazardous	-	Removal and disposal to the landfill
	LW	m <sup>3</sup>	not classified	-	Removal and disposal to the landfill
Lot 6	SW	m <sup>3</sup>	not hazardous	8	Removal and disposal to the landfill
	LW	m <sup>3</sup>	not classified	20	Removal and disposal to the landfill
Lot 5	SW	m <sup>3</sup>	not hazardous	2	Removal and disposal to the landfill
	LW	m <sup>3</sup>	not classified	10	Removal and disposal to the landfill
Lot 4	SW	m <sup>3</sup>	not hazardous	-	Removal and disposal to the landfill
	LW	m <sup>3</sup>	not classified	23	Removal and disposal to the landfill

#### 4.5.2 Cumulative waste generation

123. For the period of January-June 2020, in total, 10.0 m<sup>3</sup> SW were removed from construction sites of Lots 4-7. Cumulatively liquid waste volume was 53 m<sup>3</sup>.
124. Based on the monitoring results of waste management activities, recommendations were given to the Contractors to include corrective actions in waste management plans. Environmental specialist of Lot 6 and Lot 7 should do the following:
- To organize explanatory works for the Contractor's workers regarding issues of environmental safety on accommodations, construction sites and close areas to the villages.

#### **4.6. Health and Safety**

##### **4.6.1. Public Health and Safety**

125. During the reporting period, the Contractors conducted activities in accordance with the approved traffic safety management plans. Timely supervision and consultation of the Road Safety Engineer of CSC helped to ensure safety for traffic users and Contractor's personnel. During the audit periods, it was found out that relevant work were conducted by all Contractors. The site audit on Lot 4 and Lot 5 showed that there were not safety signs on the bypass roads.

##### **4.6.2. Workers Health and Safety**

126. In order to ensure health safety, medical facilities are arranged on Lot 4, Lot 5, Lot 6 and Lot 7 sites. They are located on base camp territory. There are two certified medical workers in medical facilities. Every day in the morning before work all employees undergo a medical check-up for general health condition, then it is recorded in a logbook. This procedure is carried out by all employees of the Contractor, without exception. Since it is necessary to take a permit to work from the medical worker. The employees can also visit the medical facility at any time if they feel bad. The medical facilities of Lot 4, Lot 5, Lot 6 and Lot 7 are equipped with all necessary medicines, according to the list for such facilities, and with medical supplies for the organization and provision of first aid.
127. All Contractors prepared Health and Safety Programmes on sites. It includes health measures and preventive measures for non-proliferation of STI, STD, HIV / AIDS among employees and local public. During the reporting period this plan has been implemented by all Lots.
128. On Lot 6, accommodations, eating places (canteen), lavatory (toilet) are equipped with bactericidal irradiators – air disinfection equipment. Deratization and disinfection of accommodations and offices of base camp are carried out once a quarter. There are free contraceptives in medical facility.
129. On Lots 4, 5 and 6 it is noted that all employees when involve to work, they undergo introductory safety training. All records are written in logbooks of Road Safety, Health and Safety specialists, and checked by the Supervision Consultant. Trainings are organized every day at work places, which are also recorded in logbook.
130. The list of logbooks, which the Contractor's specialists have:
- Registration book for introductory training;
  - Registration book for trainings at work places;
  - Logbook for fire safety trainings;
  - Incident registration book;
  - Logbook for Personal Protective Equipment provision;
  - Logbook for testing and recharging of fire extinguishers;
  - Registration book for medical check-up of drivers going to start work;
  - Logbook for medical check-up of hired drivers;
  - Registration book for employees, who seek medical attention;
  - Logbook for introductory road safety trainings;
  - Registration book for road accidents;

- Logbook for traffic offense;

Toolbox meetings about Safety and Road safety compliance are an important part of work and daily practice.

131. During the reporting period, on Lot 5 a driver of vehicle MAZ plate No.902 KCA 06 without keeping proper distance collided with vehicle FOTON plate No.163 DK 02. The driver was hospitalized in Mukur. Road Safety Engineer reviewed road accident and traffic offences made by drivers.

**Table 27: Statistics of accidents and incidents on the project**

Name	Lot 4	Lot 5	Lot 6	Lot 7
Road accident	0	3	0	0
Incident	0	0	0	0
Loss of labour capacity	0	0	0	0
Downtime due to incident	0	0	0	0
<b>Total:</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>

**Table 28: Accident and Road Accident Lot 5 details for the first half of 2020**

No	Time	Place	Description	Result / Analyze
1	24.03.2020 6.50 p.m.	Aktobe-Makat road km 413	Road accident between the cars VAZ-2114 plate No. T 233 TH/163 and VAZ-2114 plate No. P 125 TB/16. As a result of road accident, passengers with different injuries applied to Makat central hospital.	No injuries <i>not related to the project activity</i>
2	15.06.2020 1:00 p.m.	Aktobe-Makat road km 372	A driver of car Renault Sandero plate no. 175 ESA 12 without taking safety measures was overturned on the right side at PK18 of bypass road. As a result of road accident, 2 passengers were injured.	2 passengers injured <i>not related to the project activity</i>
3	20.06.2020 4:30 p.m.	Aktobe-Makat road km 400	On borrow pit road near to Zhanterek village a vehicle MAZ plate No.902 KCA 06 without keeping proper distance collided with in front of moving car FOTON plate No.163 DK 02. As a result of road accident, a driver of vehicle MAZ was injured.	1 passenger injured <i>not related to the project activity</i>

132. For the preventive purpose after accidents, road accidents described above, Health and Safety, Road Safety Engineer conducted unscheduled trainings with making appropriate records in the logbook for trainings.

133. There are posters for the prevention of STD and STI, HIV/AIDS in the medical facility. Newly involved employees are gotten information on the above subjects. All employees are provided with personal protective equipment. The canteen and dormitories are checked every day jointly with medical worker.
134. Additional safety measures on Lot 4, 5, 6 and 7 sites:
- In order to ensure the continuous traffic of vehicles and safety of company and public transport, road signs are detailed checked for availability, cleanliness and damage. Safety and Road Safety Department, Site managers and Supervision Consultant work closely, and coordinate each other;
  - Health and Safety, Road Safety Engineers prepared a program for “Health and Safety at night time”, and also regularly inspect site during day and night time. If find out any violation of safety measures, a warning is issued also for the worker and for Road Safety, Health and Safety specialists of the Contractor, and in case of repeated violation, instructions and letters are prepared to eliminate found violations;

Contractor’s specialists assist to civilians to eliminate technical failures of their vehicles. In general, the current state of compliance with safety measures and provision of road safety can be considered significantly improved as evidenced by accident statistics.

#### **COVID-19 pandemic issues.**

135. Since March 16 pandemic of Coronavirus infection COVID-19 was declared in the RK.
136. In order to prevent the spread of the disease, a state of emergency was imposed from March 16 May 11, 2020: restrictions were imposed on entry and exit from the country, quarantine or other restrictive measures were imposed in all regions, and the operation of large non-food facilities, cinemas and other crowded places was suspended.
137. Since March 2020, the following measures have been taken on the project by the Contractors of Lots 4, 5 and 6, based on the Engineer’s letters, the development of a Plan to inform the Contractor’s employees, as well as employees of subcontractors, about prevention measures related to the Coronavirus infection:
- I. Conducting a conversation on the theme Coronavirus infection, its transmission route, preventive measures
  - II. Conducting lectures, talks with all newly hired employees. Explaining this program to newly arrived employee and issuing a memo
  - III. If a patient is identified, to ensure timely hospitalization
  - IV. Wet cleaning of all facilities of base camp by using detergents and cleaners
  - V. Provision of hygienic disinfectants
138. The Contractors Lots 4, 5 and 6 organized activities on the project according to the Appendix 21 and 23 of the Resolution of the Chief Sanitary Doctor of the Republic of Kazakhstan No.43-PGVR “On further strengthening of measures to prevent coronavirus infection among the population of Kazakhstan” dated June 26, 2020.
139. The Action plan is developed for prevention and in case of suspicion of especially dangerous infection of the Company’s employees and its contractors. The scheme of emergency notification on suspicion or disease of the Company’s employees was drawn up and approved with the territorial public health department.
140. The Contractor, Engineer control on the sites the spread of pandemic and by the requirement on a regular basis “**Daily summary on COVID-19**” is provided to QazautoZhol with the

following information: Total number of employees, Number of employees passed medical check (temperature measurement, blood pressure), Identified employees with signs of disease, Employees sent to quarantine (specify the type of quarantine in the note: home, hospital).

**Table 29. Information on the readiness of sites for COVID-19 Prevention Activities**  
**CSC 2: Data status 30.06.2020**

No	Site audit indicators	Lot 4	Lot 5	Lot 6
1	Availability of Health and Safety Plan (HSP), including of corrective actions: measures for non-proliferation and prevention of Corona virus pandemic COVID-19.	Has	Submitted according to the corrective action plan and was agreed by the Engineer on 05.04.2020	available
1.1	Submission of monthly report on the implementation of HSP measures	The report is submitted during the reporting period, there is no information on land allocation related to reconstruction of power line	The report is submitted, photos are attached, by the implementation status of measures under the Corrective Action Plan.	The report is submitted, the information is complete, all attachments are attached, the activities under the Action Plan have been carried out and documented.
2	Availability of Emergency plans and including of corrective actions	There is an emergency plan, COVID-19 measures are included.	There is an emergency plan, COVID-19 measures are included. A social safeguard specialist has been mobilized on the site since April 2020.	There is an emergency plan, COVID-19 measures are not included. A social safeguard specialist has been mobilized on the site since November 2019.
<b>3</b>	<b>Readiness and resource availability of medical facilities:</b>			
3.1	temperature diagnostic tools;	There are 3 thermal imagers. Thermometer – 3 nos.	There is 1 thermal imager. Thermometer – 3 nos.	Thermometer – 10 nos. There is 1 thermal imager.
3.2	masks;	single-use masks – 700 nos.	There are 200 nos. reusable masks.	Single-use masks – 150 nos.
3.3	disinfection agents and equipment	<ul style="list-style-type: none"> <li>Ethyl alcohol 90 ml – 18 packages (10 bottles in 1 package);</li> <li>Dichloro – 5 bottles (1500 nos. tablets);</li> <li>Disinfecting wipes – 1 box (100 nos.)</li> </ul>	<ul style="list-style-type: none"> <li>Disinfection solution – 6 nos;</li> <li>Antiseptic for hands 3 nos. by 500 ml</li> <li>Dichloro 2 bottles in the canteen</li> <li>Chloro contained solution (Belizna) 18 nos by 1 litre</li> </ul>	<ul style="list-style-type: none"> <li>Ethyl alcohol – 10 bottles;</li> <li>Dichloro – 2 bottles in the canteen, 1 bottle in laundry and 2 bottles in medical facility;</li> <li>Hand sanitizer – 40 tubes</li> </ul>
3.4	isolation room	has	has	According to the regulations, medical worker isolates the employee with

				symptoms in accommodation and taking into account the contact persons.
3.5	isolation suits	25 nos	no	no
3.6	provision of soap and detergents	For 3 months for 500 people	For 2 months for 92 people	There is a stock for 2 months for 170 employees
<b>4</b>	<b>Sanitary and hygienic conditions</b>			
4.1	Construction camp	good	satisfactory	Good
4.2	Canteen	good	satisfactory	good
4.3	Accommodation	good	satisfactory	good
4.4	Common areas	satisfactory	satisfactory	good
4.5	Sanitary and hygienic units	satisfactory	satisfactory	satisfactory
4.6	Medical worker on site	1 person	1 person	1 person
5	Medical worker's knowledge about algorithm of actions when detecting symptoms of coronavirus COVID-19	excellent	satisfactory	excellent
6	Implementation of Health and Safety Plan	yes	yes	Yes
7	Negative manifestations by the local population	no	no	No

#### 4.7. Study (training)

141. During the reporting period, regarding studies on issues related to the EMP implementation, monitoring of work on the site and etc., the CSC's environmental safeguard specialist because of the emergency state, quarantine and other restrictive measures due to the COVID-19 gave consultation through the phone, e-mail and during environmental audits in June since January to June inclusively. During audit process, the CSC instructed environmental specialists to pay the attention to the fixation of indicators of environmental measures implementation, and studied at work places to identify potential risks of negative environmental impact.
142. Health and Safety, Road Safety Engineers of the Contractor constantly control on site the compliance of safety measures and safe conduct of work, use of personal protective equipment. Information boards which show the main threats and risks at work places, and prevention measures for Coronavirus infection are installed in accommodations and rest rooms of base camp.
143. In September 2019, a lecture was held by the Prevention Department Head of Atyrau AIDS Centre on the subject "Prevention of HIV/AIDS among the population" with the participation of the company's employees. During the reporting period, meetings were held that included issues related to the preparation of analytical safeguards reports, the identification and formulation of risks, and the preparation of corrective measures to eliminate negative impacts and non-conformances. A session on social and environmental standards is also included additionally.

## 5. SEMP (SITE SPECIFIC ENVIRONMENTAL MANAGEMENT PLAN) PROGRESS

### 5.1. SEMP Review

144. The status of SEMP's approval is presented below:

1. Letter No. DSE-AM-2-1157 dated 08.06.2019 "SEMP" Lot 5
2. Letter No. DSE-AM-2-1160 dated 08.06.2019 "SEMP" Lot 6
3. Letter No. DSE-AM-2-1199 dated 25.06.2019 "SEMP" Lot 4, updated version, taking into account the recommendations of the ADB consultant, was reviewed and approved by the CSC and QazAutoZhol in March 2020

145. Possible environmental impacts are identified for the construction phase in the EIA of this project, which are given in the Table 30 as verification indicators for proper tracking of the assigned tasks:

**Table 30: Information about the EMP activities with the project EIA**

Types of possible impacts according to the EIA	Objects and subjects of impact	Including activities to the EMP			
		Lot 4	Lot 5	Lot 6	Lot 7
Wrong location of facilities (construction camps, excavation areas, borrow pits, storage places for materials and SW / production wastes and etc.)	Water quality, soil pollution, local communities	+	+	+	+
Dust condition and emissions	Local communities	+	+	+	+
Uncontrolled operation of water resources	Local communities	+	+	+	+
Poaching, extermination of birds and animals, rare and endangered plants	Regional flora and fauna	+	+	+	+
Violation of technical regulations during communication relocation	Local communities	+	+	+	+
Law violation if find out previously not identified archaeological and cultural values	Cultural and historical heritage, Local communities	+	+	+	+
Violation of safety and health issues of the PAP	Local communities Employees, involved in project construction works	+	+	+	+
EMP approval status	EMP and its attachment plans	26.03.20	26.05.19	20.05.19	23.05.18



146. As per the results of the second semi-annual report for 2019, the CSC prepared and issued a corrective action plan to eliminate non-conformances. There is information on the implementation status of corrective actions at all sites in the Table 31 below.

**Table 31. Implementation status**

Activity	Deadline	Responsible	Expected result	Implementation status
To improve the quality of SSEMP / local environmental management plans / as instructed by the ADB Consultant RETA	January – March 2020	Manager “Shanghai Construction Group” Environmental specialist Lot 4	Compliance with the requirements of Safeguard Policy Statement ADB	Done, approved by the CSC, KazAutoZhol in March 2020
Mobilization of key personnel for environmental safeguards on Lot 5	1 quarter 2020	Manager “Shanghai Construction Group” Contractor Lot 5	Agreed and approved candidate on Lot 5 site with a permanent timetable	Done, Since January to May environmental specialist has mobilized on the site
To improve fuel storage by arranging a containment zone and to increase the number of warning signs and instructions in the construction site	January – March 2020	Manager “Shanghai Construction Group” Environmental specialist Lot 4	Compliance with the EMP and Environmental Code of the RK	done
To submit IEM reports/test reports to the CSC on time	January – June 2020	Environmental specialists Lot 4, Lot 5, Lot 6	IEM reports should be submitted by the 30 <sup>th</sup> day of the IEM implementation month	Done, small delays due to the COVID-19 related situation
During the inspection the Contractor’s environmental specialist fills out Checklists and includes in the monthly reports	January – June 2020	Environmental specialists Lot 4, Lot 5, Lot 6 Site managers	Monthly report should be submitted by the 5 <sup>th</sup> day of the following month after the reporting period	
Regarding the Health and Safety Plan, and	January –	Environmental specialists	Activity reports, photo reports	Done

improving of sanitary and living conditions, to carry out activities and submit a report	February 2020	Lot 4, Lot 5, Lot 6		
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## 6. GOOD PRACTICES

### 6.1 Advanced methods (good practices)

147. Interaction with external environment, which noted earlier in the forth semi-annual report for 2020 as a good practice on Lot 7, has been used continuously by Lots 5 and 6 during the first half of year. The Contractor has continued to be in good communication with local population, which allows to solve any problems in a short time. This practice is also used on Lot 4.
148. This practice has allowed the GRM to be proceed effectively on these sites. There are boxes for appeals on Lots 4-7. All issues are solved on the site as work proceeds. During the reporting period no complaints and appeals were registered on Lot 4, 5, 6 and 7.

### 6.2 Opportunities for improvement

149. At the moment, such cases have not been identified for this construction project.

## 7. CONCLUSIONS AND RECOMMENDATIONS

150. 7.1 Conclusions There is a same environmental specialist on Lot 5 and Lot 6, that is not an effective approach, it is only saving financial resources for staff salary. This combination has affected to submission time of IEM report.
151. The COVID-19 pandemic and the quarantine imposed within the Republic of Kazakhstan and other countries have caused some damage to the work progress, due to the lack of some specialists and their untimely mobilization, including illness, or imposed restrictive measures, as well as due to the closure of entry to / exit from countries / cities / villages, it was difficult to mobilize equipment and road construction materials. The Contractors of Lots 4-6 send Claim Letters to extend the time for construction activities to the Engineer and the Employer since July 2020. Based on the results of the decisions made by the Engineer/QAJ, the information will be presented in the next report.
152. Less site inspections were carried within this reporting period due to quarantine in the country due to COVID-19.
153. Mitigation measures in regards to COVID-19 pandemic were applied by all parties.
154. Environmental monitoring of water and air quality, noise and vibration measurements were conducted, no exceeding were observed.
155. GRM is functioning. No complaints were registered from January to June 2020.

### 7.2. Recommendations

156. Effective safeguard measures on the project should include the following:
- the best planning of construction works on Lot 7, which allowed the Contractor not to collect more numbers of equipment in small areas, especially at sensitive areas. Constant adjustment of water trucks timetable taking into account all factors affecting to dusting;
  - the organization chart of Lot 7 that allows the environment management system to work effectively. As a result, all work activities have been completed successfully.
  - trainings for staff conducted by the Contractor's environmental specialist on Lot 6 and Lot 5. On the subjects: waste segregation, response to environmental incidents like spills, crushing of septic tanks, pollution of water reservoirs and etc.
157. Based on the monitoring of EMP implementation on the sites, the CSC prepared a corrective action plan. The plan is shown in the Table 32 below.

**Table 32. Corrective action plan for July-December 2020**

Activity	Deadline	Responsible	Expected result
To mobilize a key specialist for environmental safeguards on Lot 5	the third quarter of 2020	Manager of "Shanghai Construction Group" Contractor Lot 5	Agreed and approved candidate on Lot 5 site with a permanent timetable
To improve fuel storage by arranging a containment	the third quarter of 2020	Manager of "Shanghai	Compliance with the EMP and

zone and to increase the number of warning signs and instructions in Lot 5 construction camp		Construction Group” Environmental specialist Lot 5	Environmental Code of the RK
To install a tank with volume 20-50 m <sup>3</sup> for accumulation of rain water and to install a fence	the third quarter of 2020	Manager of “Akkord / Ak zhol kurylys” JV Environmental specialist Lot 6	Compliance with the EMP and Environmental Code of the RK, Sanitary Rules of the RK
To submit IEM reports/test reports to the CSC on time	July-December 2020	Environmental Specialists Lot 4, Lot 5 and Lot 6	IEM reports should be submitted by the 30 <sup>th</sup> day of the IEM implementation month
During the inspection the Contractor’s environmental specialist fills out checklists and includes in the monthly reports	July-December 2020	Environmental Specialists Lot 4, Lot 5 and Lot 6 Site managers	Monthly report should be submitted by the 5 <sup>th</sup> day of the following month after the reporting period

## **Appendices**

**Appendix 1**  
**Information on non-conformances on Lot 4, Lot 5 and Lot 6 sites**

No	Site/ Location	Regis- ter date	Category	Question description	Corrective action	No of non- conforman- ce notice	Non- conforman- ce level	Implement ation date	Prio- rity	Respon- sible	Status	Comm ents
1	Lot 4	10.06. 2020	Environm ent protection	The construction camp was polluted by waste and workshop area was contaminated by FLM	To arrange a place for temporary storage of production waste on the workshop area according to the EMP, to clean up the territory, to clean fuel filling	No.1	Substantial	20.06.2020	High	Environm ental and Safety specialist	closed	
2	Lot 4	10.06. 2020	Environm ent protection	There were other types of waste on the temporary storage area of used tires on base camp	To clean the territory, to remove the accumulated waste according to the agree- ment in order to reduce the environmental impact	No.2	Substantial	June 2020	High	Environm ental specialist Lot 4	closed	
3	Lot 5	09.06. 2020	Environm ent protection	There was waste water filling from the septic tank on soil cover behind of base camp fencing	To eliminate filling from the septic tank according to the SSEMP. To control and to organize timely	No.3	Substantial	June 2020	High	Environm ental specialist Lot 5	closed	

1st Semi-Annual Environmental Monitoring Report for January-June 2020  
 CAREC Corridors 1 and 6 Connector Road (Aktobe-Makat) Reconstruction Project (section km 330-504) / Contract 02-ADB/CSC-2017  
 (CSC-2)

					the removal of waste water							
4	Lot 5	09.06.2020	Environment protection	Base camp pollution by waste, tires. Equipment repair on the unorganized area	To arrange a place for temporary storage of tires. To remove and dispose the accumulated waste according to the EMP	No.4	Substantial	20.06.2020	High	Environmental and Safety specialist Lot 5	closed	Waste is being disposed
5	Lot 4, 5 and 6	09.06.2020	Environment protection	Insufficient watering the construction sites	To arrange watering the construction sites in the required quantity	No.5	Substantial	June-October 2020	High	Project managers and Environmental specialists Lot 4,5 and 6	closed	Measures are being taken to increase the area and frequency of watering
6	Lot 5 and 6	08.06.2020	Environment protection	Overfill of containers and waste segregation, waste placement in contradiction with its marking	To organize a training for employees about waste placement and segregation. To conduct Saturday clean-up work, to clean up the territory. To dispose waste timely in	No.6	Substantial	June 2020		Environmental specialist Lot 5, 6	closed	Waste was disposed in July



1st Semi-Annual Environmental Monitoring Report for January-June 2020  
 CAREC Corridors 1 and 6 Connector Road (Aktobe-Makat) Reconstruction Project (section km 330-504) / Contract 02-ADB/CSC-2017  
 (CSC-2)

					accordance with the EMP							
7	Lot 6	08.06. 2020		There is the accumulation of rainwater (pit) on base camp territory for the further use for dust control	To arrange a tank with volume 20-50 in accordance with the Sanitary Rules RK, to install a fence	No.7	Substantial	June-July 2020		Environm ental specialist Lot 6	open	Measur es are being taken

## Appendix 2

### Exploration Licenses for Lot 5









### Appendix 3. Extraction Licenses for common mineral resources



## ЛИЦЕНЗИЯ

на добычу общераспространённых полезных ископаемых

№50/2020 от «02» июня 2020 года

1. Выдана Товариществу с ограниченной ответственностью «Ак жол құрылыс» расположенному по адресу Республика Казахстан, Мангистауская область, Тупкараганский район, село Таучик, улица Ардагерлер, 16 (далее - Недропользователь) и предоставляет право на пользование участком недр в целях проведения операций по добыче общераспространённых полезных ископаемых в соответствии с Кодексом Республики Казахстан от 27 декабря 2017 года «О недрах и недропользовании» (далее - Кодекс).

Размер доли в праве недропользования: 100% (сто процентов)

2. Условия лицензии:

- 1) срок лицензии: 1 (один) год со дня ее выдачи;
- 2) границы территории участка недр площадью 8,77 га, географическими координатами:

№ угловых точек	Координаты угловых точек месторождения Участок-1					
	Северная широта			Восточная долгота		
1	48	14	49,547	54	51	46,018
2	48	14	43,872	54	51	58,403
3	48	14	35,178	54	51	48,120
4	48	14	39,041	54	51	39,961

Площадь - 8,77 га

3) иные условия недропользования: нет.

Наименование, местонахождение месторождения недр: месторождение «Грунтовый резерв №1» для реконструкции автомобильной дороги «Актобе-Макат», соединяющей Коридоры ЦАРЭС 1 и 6 (участки км 330-370, км 370-418) в Кызылжонинском районе Атырауской области.

Наименование полезного ископаемого: осадочные горные породы: глинистые породы.

Схематическое расположение территории участка прилагается к настоящей лицензии.

3. Обязательства Недропользователя:

- 1) уплата подписного бонуса в размере: 50 МРП;
- 2) уплата в течение срока лицензии платежей за пользование земельными участками (арендных платежей) в размере и порядке, установленном налоговым законодательством Республики Казахстан;
- 3) ежегодное осуществление минимальных расходов на операции по добыче общераспространённых полезных ископаемых: 239,24 МРП.

4. Основания отзыва лицензии:

- 1) нарушение требований пункта 1 статьи 44 Кодекса, подлечшее угрозу национальной безопасности;
- 2) нарушение условий лицензии, предусмотренных подпунктами 2) и 3) пункта 3 настоящей лицензии;
- 3) дополнительные основания отзыва лицензии: невыполнение иных требований предусмотренных законодательством Республики Казахстан.

5. Государственный орган, выдавший лицензию: Государственное учреждение «Управление природных ресурсов и регулирования природопользования Атырауской области».

 подпись

Руководитель Управления  
природных ресурсов и  
регулирования природопользования  
Атырауской области  
К. Арыстан

Место печати

Место выдачи: город Атырау, Республика Казахстан.

#### Appendix 4. Air Measurement Report Details, Lot 4



KZ.T.06.1234  
TESTING

Испытательная лаборатория ТОО «ЭкоНорматив»  
 адрес: г.Атырау, ул.Қ.Сәтбаев, д.5, и.п.5, тел.: 8(7122) 21-06-28  
 Аттестат аккредитации № КЗ.Т.06.1234 от 28.11.2016г.

ПРОТОКОЛ ИСПЫТАНИЙ № 121 от "25" 06 2020 г.

всего листов 1  
 лист 1

Наименование продукции:  
 Место отбора:

Атмосферный воздух  
 Площадки объекта «Реконструкция автомобильной дороги Республиканского значения А-27  
 «Актобе-Атырау-граница РФ (на Астрахань)» участок км 330-370» ЛОТ-4  
 Филиал Шанхай Констракшн Груп Ко.,Лтд в Казахстане г.Нур-Султан, ул.Достык 18, офис 216  
 № 150 от 05.06.2020 г. газоанализатор ГАНК-4  
 05.06.2020 г.  
 05.06.2020 г.  
 ГИ №168 от 28.02.2015г.  
 Периодические

Заявитель: (наименование, адрес)  
 Акт отбора (измерения): (№ акта, дата, тип прибора)  
 Дата поступления образцов:  
 Дата проведения испытаний:  
 Обозначение НД на продукцию:  
 Виды испытаний:

№ п.п	Наименование точек отбора проб	НД на метод испытаний	Метеорологические характеристики атмосферы					Содержание загрязняющих веществ													
			Температура воздуха, °С	Атмосферное давление, мм рт.ст.	Направление ветра	Скорость ветра, м/с	Влажность, %	СО		NO		NO <sub>2</sub>		SO <sub>2</sub>		Углек. C <sub>12</sub> -C <sub>13</sub>		Сероводорода		Пыль (н.в.вещ.)	
								Факт, мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>	Факт, мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>	Факт, мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>	Факт, мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>	Факт, мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>	Факт, мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>	Факт, мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>
1	Территория участка реконструкции дороги	ГОСТ 12.1.005-88, СТ РК 2.302-2014, МН-4215-013-56591409-2010	36	767	В	2	41	0,951±0,01	5,0	0,0121	0,4	0,0123	0,2	0,0124	0,5	0,073	1	0,0011	0,008	0,0081	0,5
2	Территория участка реконструкции дороги		36	767	В	2	41	0,941±0,01	5,0	0,0123	0,4	0,0120	0,2	0,0131	0,5	0,084	1	0,0010	0,008	0,0073	0,5
3	Территория строительства моста р.Сагыз		36	767	В	2	41	0,844±0,01	5,0	0,0144	0,4	0,0141	0,2	0,0119	0,5	0,063	1	0,0012	0,008	0,0075	0,5
4	Территория строительства моста р.Ногайты		36	765	В	2	41	0,739±0,01	5,0	0,0119	0,4	0,0113	0,2	0,0126	0,5	0,069	1	0,0010	0,008	0,0077	0,5

Протокол распространяется только на образцы, подвергнутые испытаниям



Исполнитель: Сарсеналиев М.  
 Руководитель: Соболев Д.  
 МП

Подпись: [Подпись]

Частичная переписка протокола испытаний без разрешения ТОО «ЭкоНорматив» запрещена







1st Semi-Annual Environmental Monitoring Report for January-June 2020  
 CAREC Corridors 1 and 6 Connector Road (Aktobe-Makat) Reconstruction Project (section km 330-504) / Contract 02-ADB/CSC-2017  
 (CSC-2)



Испытательная лаборатория ТОО «ЭкоНорматив»  
 адрес: г.Атырау, ул.Қ.Сәтбаев, д.5, н.п.5, тел.: 8(7122) 21-06-28  
 Аттестат аккредитации № KZ.T.06.1234 от 28.11.2016г.

ПРОТОКОЛ ИСПЫТАНИЙ № 123 от "25" 06 2020 г.

всего листов 1  
 лист 1

Наименование продукции:  
 Место отбора:

Атмосферный воздух  
 Площадка АБЗ объекта «Реконструкция  
 автомобильной дороги Республиканского значения  
 А-27«Актобе-Атырау-граница РФ (на Астрахань)»  
 участок км 330-370» ЛОТ-4

Заявитель: (наименование, адрес)

Филиал Шанхай Констракшн Груп Ко.,Лтд в  
 Казахстане г.Нур-Султан, ул.Достык 18, офис 216

Акт отбора (измерения): (№ акта, дата, тип прибора)

№ 152 от 05.06.2020г.газоанализатор Полар-Т

Дата проведения испытаний:

05.06.2020г.

Обозначение НД на продукцию:

ГН №168 от 28.02.2015г.

Виды испытаний:

Периодические

№ п/п	Определяемые параметры	Единица измерения	Нормы по НД	Фактическое значение	НД на метод испытаний
1	Атмосферное давление	мм.рт.ст.		768	ГОСТ 12.1.005-88 СТ РК 2036-2010
2	Температура воздуха	°C		36	
3	Влажность воздуха	%		39	
4	Скорость воздушного потока	м/с		2	
Установка АБЗ					
1	Оксид углерода	г/с	7,0941	1,83627	ГОСТ 17.2.3.02-2014
2	Оксид азота	г/с	0,1277	0,04625	СТ РК ГОСТ Р ИСО 10849-2010
3	Диоксид азота	г/с	0,7858	0,42759	СТ РК ГОСТ Р ИСО 10849-2010
4	Сернистый ангидрид	г/с	23,244	0,06828	СТ РК ГОСТ Р ИСО 7935-2010



Протокол распространяется только на образцы, подвергнутые испытаниям.


Исполнители: Сарсенгалиев М.  
 Ф.И.О.  
 Руководитель ИЛ: Соболев Д.  
 Ф.И.О.  
 МП

С  
 подпись  
С  
 подпись

<b>Appendix 5. Test Report Details of Water from the rivers Sagiz and Nogayty, Lot 4</b>
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1st Semi-Annual Environmental Monitoring Report for January-June 2020  
CAREC Corridors 1 and 6 Connector Road (Aktobe-Makat) Reconstruction Project (section km 330-504) / Contract 02-ADB/CSC-2017 (CSC-2)

 Фирма РП П «Казгидромет» по Атырауской области Адрес: Республика Казахстан, г. Атырау, Т. Бегалинова 10А Тел/факс 87122262768 Аттестат аккредитации № КЗ.Т.06.1003 от 27.02.2019 г.		КЗ.Т.06.1003 Тел/факс 87122262768 Аттестат аккредитации № КЗ.Т.06.1003 от 27.02.2019 г.		
ПРОТОКОЛ ИСПЫТАНИЙ № 1436				
от «11» июня 2020г.				
Наименование продукции: место отбора (лист отбора образцов, заявление, договор)	Фирма «Шанхай Констракшн Груп Ко Лтд» участок строительства автодорожных мостов через реки на участке дороги А-27 «Актобе-Атырау» (330-370км) ЛОТ 4 Река Сагыз			
Заявитель (наименование, адрес) (Ф.И.О., адрес)	ООО «ЭкоНорматив», согласно договора №01 от 06.01.2020 г.			
Страна (предприятие) изготовитель:	Республика Казахстан			
Дата поступления образцов	05.06.2020 г.			
Дата проведения испытаний	05.06.2020 – 11.06.2020 гг.			
Количество образцов, шт.	1			
Виды испытаний	Физико-химический анализ воды			
Параметры окружающей среды:	температура 23,0 – 26,5 С, атмосферное давление-763-765 мм.рт.столба.64-84% влажность			
РЕЗУЛЬТАТ ИСПЫТАНИЙ:				
№	Наименование показателей	Дата отбора	Обозначение ИД на методы испытаний	Результаты мг/дм³
1	2	3	4	5
1	РН	05.06.2020 г.	ГОСТ 26449.1-85, п.4	7,25
2	Жесткость, мг/дм³	05.06.2020 г.	РД 52.24.395-2007	14,1
3	Мутность	05.06.2020 г.	ГОСТ 3351-74	22,1
4	Нефтепродукты, мг/дм³	05.06.2020 г.	ПНДФ 14.1.2.4.128-98	0,044
5	Сухой остаток, мг/дм³	05.06.2020 г.	ГОСТ 26449.1-85, п.3	2723
6	ХПК, мг/дм³	05.06.2020 г.	ПНДФ 14.1.2.4.190-03	56,7
7	Медь, мг/дм³	05.06.2020 г.	СТ РК ИСО 8288-2005	0,001
8	Свинец, мг/дм³	05.06.2020 г.	СТ РК ИСО 8288-2005	0,002
9	Цинк, мг/дм³	05.06.2020 г.	СТ РК ИСО 8288-2005	0,006
10	Азот нитратный, мг/дм³	05.06.2020 г.	РД 52.24.380-2006	5,9
11	Азот нитритный, мг/дм³	05.06.2020 г.	РД 52.24.381-2006	0,062
Инженеры:		 подпись		Айжанова С.Е. Ф.И.О.

КЗ.Т.06.1003 Тел/факс 87122262768 Аттестат аккредитации № КЗ.Т.06.1003 от 27.02.2019 г.		ПРОТОКОЛ ИСПЫТАНИЙ № 1437		
от «11» июня 2020г.				
Наименование продукции: место отбора (лист отбора образцов, заявление, договор)	Фирма «Шанхай Констракшн Груп Ко Лтд» участок строительства автодорожных мостов через реки на участке дороги А-27 «Актобе-Атырау» (330-370км) ЛОТ 4 Река Ногайты			
Заявитель (наименование, адрес) (Ф.И.О., адрес)	ООО «ЭкоНорматив», согласно договора №01 от 06.01.2020 г.			
Страна (предприятие) изготовитель:	Республика Казахстан			
Дата поступления образцов	05.06.2020 г.			
Дата проведения испытаний	05.06.2020 – 11.06.2020 гг.			
Количество образцов, шт.	1			
Виды испытаний	Физико-химический анализ воды			
Параметры окружающей среды:	температура 23,0 – 26,5 С, атмосферное давление-763-765 мм.рт.столба.64-84% влажность			
РЕЗУЛЬТАТ ИСПЫТАНИЙ:				
№	Наименование показателей	Дата отбора	Обозначение ИД на методы испытаний	Результаты мг/дм³
1	2	3	4	5
1	РН	05.06.2020 г.	ГОСТ 26449.1-85, п.4	7,61
2	Жесткость, мг/дм³	05.06.2020 г.	РД 52.24.395-2007	12,3
3	Мутность	05.06.2020 г.	ГОСТ 3351-74	21,7
4	Нефтепродукты, мг/дм³	05.06.2020 г.	ПНДФ 14.1.2.4.128-98	0,035
5	Сухой остаток, мг/дм³	05.06.2020 г.	ГОСТ 26449.1-85, п.3	4620
6	ХПК, мг/дм³	05.06.2020 г.	ПНДФ 14.1.2.4.190-03	60,8
7	Медь, мг/дм³	05.06.2020 г.	СТ РК ИСО 8288-2005	0,001
8	Свинец, мг/дм³	05.06.2020 г.	СТ РК ИСО 8288-2005	0,002
9	Цинк, мг/дм³	05.06.2020 г.	СТ РК ИСО 8288-2005	0,009
10	Азот нитратный, мг/дм³	05.06.2020 г.	РД 52.24.380-2006	6,75
11	Азот нитритный, мг/дм³	05.06.2020 г.	РД 52.24.381-2006	0,045
Инженеры:		 подпись		Айжанова С.Е. Ф.И.О.

## Appendix 6. Air Measurement Report Details, Lot 5



Испытательная лаборатория ТОО «ЭкоНорматив»  
 адрес: г. Атырау, ул. Қ. Сәтбаев, д. 5, н.п. 5, тел.: 8(7122) 21-06-28  
 Аттестат аккредитации № KZ.T.06.1234 от 28.11.2016г.

ПРОТОКОЛ ИСПЫТАНИЙ № 126 от "25" 06 2020 г.

всего листов 1  
 лист 1

Наименование продукции:

Атмосферный воздух

Место отбора:

Площадки объекта «Реконструкция автомобильной дороги Республиканского значения А-27 «Актобе-Атырау-граница РФ (на Астрахань)» участок км 370-418» ЛОТ-5

Заявитель: (наименование, адрес)

ТОО «Ақ жол кұрылыс» г. Актау, Промзона №9, зд. 43

Акт отбора (измерения): (№ акта, дата, тип прибора)

№ 159 от 05.06.2020 г. газоанализатор ГАНК-4

Дата поступления образцов:

05.06.2020 г.

Дата проведения испытаний:

05.06.2020 г.

Обозначение НД на продукцию:

ГН №168 от 28.02.2015г.

Виды испытаний:

Периодические

№ п.п			Наименование точек отбора проб	НД на метод испытаний	Метеорологические характеристики атмосферы								Содержание загрязняющих веществ											
					Температура воздуха, °C	Атмосферное давление, мм рт.ст.	Направление ветра	Скорость ветра, м/с	Влажность, %	CO		NO		NO <sub>2</sub>		SO <sub>2</sub>		Углев. C <sub>12</sub> -C <sub>18</sub>		Сероводород		Пыль (взв.вещ.)		
										Факт, мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>	Факт, мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>	Факт, мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>	Факт, мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>	Факт, мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>	Факт, мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>	Факт, мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>	Факт, мг/м <sup>3</sup>
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22			
1	Территория АбЗ	ГОСТ 12.1.005-88,	36	765	В	3	41	0,933±0,01	5,0	0,0085	0,4	0,0079	0,2	0,0124	0,5	0,075	1	0,0010	0,008	0,0092	0,5			
2	СЗЗ – Юго-Западная часть	СТ РК 2.302-2014,	36	765	В	3	41	0,935±0,01	5,0	0,0087	0,4	0,0082	0,2	0,0126	0,5	0,077	1	0,0010	0,008	0,0094	0,5			
3	СЗЗ – Западная часть	МВИ-4215-004А,	36	765	В	3	41	0,937±0,01	5,0	0,0089	0,4	0,0084	0,2	0,0128	0,5	0,079	1	0,0012	0,008	0,0096	0,5			
4	СЗЗ – Северо-Западная часть	56591409-2012	36	765	В	3	41	0,934±0,01	5,0	0,0086	0,4	0,0080	0,2	0,0125	0,5	0,076	1	0,0011	0,008	0,0093	0,5			
5	СЗЗ – Восточная часть	МВ-4215-013-	36	765	В	3	41	0,931±0,01	5,0	0,0082	0,4	0,0077	0,2	0,0121	0,5	0,073	1	0,0010	0,008	0,0090	0,5			
6	Склад инерт. материалов	56591409-2010	36	765	В	3	41	0,849±0,01	5,0	0,0091	0,4	0,0084	0,2	0,0119	0,5	0,065	1	0,0010	0,008	0,0097	0,5			

Протокол распространяется только на образцы, подвергнутые испытаниям



Сарсеналиев М.  
 Ф.И.О.  
 Соболев Д.  
 Ф.И.О.

подпись  
 подпись

Частичная перепечатка протокола испытаний без разрешения ТОО «ЭкоНорматив» запрещена

1st Semi-Annual Environmental Monitoring Report for January-June 2020  
 CAREC Corridors 1 and 6 Connector Road (Aktobe-Makat) Reconstruction Project (section km 330-504) / Contract 02-ADB/CSC-2017 (CSC-2)



Испытательная лаборатория ТОО «ЭкоНорматив»  
 адрес: г.Атырау, ул.Қ.Сәтбаев, д.5, н.п.5, тел.: 8(7122) 21-06-28  
 Аттестат аккредитации № KZ.T.06.1234 от 28.11.2016г.

ПРОТОКОЛ ИСПЫТАНИЙ № 127 от "25" 06 2020 г.

всего листов 1  
 лист 1

Наименование продукции:

Атмосферный воздух

Место отбора:

Площадки объекта «Реконструкция автомобильной дороги Республиканского значения А-27 «Актобе-Атырау-граница РФ (на Астрахань)» участок км 370-418» ЛОТ-5

Заявитель: (наименование, адрес)

ТОО «Ақ жол құрылыс» г.Ақтау, Промзона №9, зд.43

Акт отбора (измерения): (№ акта, дата, тип прибора)

№ 160 от 05.06.2020 г. газоанализатор ГАНК-4

Дата поступления образцов:

05.06.2020 г.

Дата проведения испытаний:

05.06.2020 г.

Обозначение НД на продукцию:

ГН №168 от 28.02.2015г.

Виды испытаний:

Периодические

№ п.п	Наименование точек отбора проб	НД на метод испытаний	Метеорологические характеристики атмосферы					Содержание загрязняющих веществ													
			Температура воздуха, °C	Атмосферное давление, мм.рт.ст.	Направление ветра	Скорость ветра, м/с	Влажность, %	CO		NO		NO <sub>2</sub>		SO <sub>2</sub>		Углев. C <sub>12</sub> -C <sub>18</sub>		Сероводород		Пыль (взв.вещ.)	
								Факт, мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>	Факт, мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>	Факт, мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>	Факт, мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>	Факт, мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>	Факт, мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>	Факт, мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	Карьер грунта №10	ГОСТ 12.1.005-88, СТ РК 2.302-2014, МВН-4215-004А-56591409-2012, МН-4215-013-56591409-2010	37	765	В	3	45	0,881±0,01	5,0	0,0088	0,4	0,0083	0,2	0,0119	0,5	0,079	1	0,0011	0,008	0,0084	0,5

Протокол распространяется только на образцы, подвергнутые испытаниям



Исполнитель:

Сарсенгалиев М.  
 Ф.И.О.

Руководитель ИЛ:

Соболев Д.  
 Ф.И.О.

МП

*С.С.*  
 Подпись  
 Подпись

Частичная перепечатка протокола испытаний без разрешения ТОО «ЭкоНорматив» запрещена



<b>Appendix 7. Noise and Vibration Measurement Report Details, Lot 5</b>
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<p>Исполнитель: <u>БКСЖ бойынша коды</u></p> <p>Код формы по ОКРУД: <u>                    </u></p> <p>КЭУБЖ бойынша ұйым коды: <u>                    </u></p> <p>Код организации по ОКТО: <u>                    </u></p>	<p>ИП ДСМ ТКОСЖБ «Ултық сервиста орталығы» ЦДЖК, ІПМ бас директорының</p> <p>2020 жылы « <u>20</u> » сәуір № 243/бұйрығымен берілген № 186-н шығарды мақаланың құжаттама</p>
<p>ҚР Денсаулық сақтау министрлігі</p> <p>Министерства здравоохранения РК</p>	<p>Мәжілісқада документация Форма № 186/у</p> <p>Усырылған протокол Генерального директора РТН по ПХВ «Национальный центр экспертизы» КККБТУ МЭ РК от « <u>20</u> » апреля 2020 года № 243</p>
<p>Түрлер мен көрсеткіштің қысқартылған саны мен көрсеткіштің бөлімдері: «Ултық сервиста орталығы» ЦДЖК РМЖ-ның Атырау облысы бойынша филиалына Қызылқоға ауданына қоныс № 46, Қызылқоғаныс районның оқаласы филиал РТН по ПХВ «Национальный центр экспертизы» Комитета контроля качества и безопасности товаров и услуг Министерства здравоохранения РК по Атырауской области</p> <p>Индикация адрес: 060500 уо А Сайбаров №46</p> <p>Телефон: 7123832-13-71, email: Kzylqoga_zatgerama@mail.ru</p>	<p>Мәжілісқада документация Форма № 186/у</p> <p>Усырылған протокол Генерального директора РТН по ПХВ «Национальный центр экспертизы» КККБТУ МЭ РК от « <u>20</u> » апреля 2020 года № 243</p>

**Діріс дегтейлерін өлшеудің ХАТТАМАСЫ**

**ПРОТОКОЛ**

измерения урнелің вибрании

№ 14

(от) « 30 » « 06 » 2020 ж. (г.)

- Нысаннан толық атауы, мекенжайы (Полное наименование хозяйствующего объекта, адрес) ЖШС(ТОО) «Ақ жол құрылыс» «Республикалық маңысы бар Ақтөбе-Атырау-Астаналық шекаралық қозғалыс жолы қайта құру жобасы» 370-418 км учаскесі Атырау облысы, Қызылқоға ауданы, Мұрғар көнісіПроекта реконструкция автомобильной дороги Республиканского значения «Ақтөбе-Атырау-граница РФ» (Астана) «Участок км 370-418 Мұрғар Қызылқоғанский район Атырауская область»
- Өлшеу мақсаты (Цель измерения) Келісім шарт бойынша (по договору) №561 22-05-2020ж(г)
- Өлшеулер ұйым өкілінің қатысуымен жүргізілді (Замеры проводились в присутствии представителя объекта) директоры Түлеген А.Б
- Өлшеу құралдары (Средства измерений) Шуммер октава-110
- Тексеру туралы мәліметтер (Сведения о измерениях) 1 сә.№. ЕБ-15 -000601146 (2.09.2019ж) берілген күні мен құралдың нөмірі (дата и номер свидетельства)
- Өлшеулер мерзімі (Дата выполнения)
- Жүргізілген өлшеулер мен берілген санитарлық-эпидемиологиялық қорытынды мына НК-ға сай жүргізілді (НД, в соответствии с которой проводилось измерение) Бірінші санитарлық-эпидемиологиялық және гигиеналық талаптар ЕО анықтамасы бекітілген санитарлық-эпидемиологиялық қауіпсіздік шарттары (Базисные санитарные эпидемиологические и гигиенические требования к воздуху (контролю) Утв. Решением Комиссии Таможенного союза 18 июля 2010 года №299
- Нәтиже діріс көздері мен олар туғызатын дірілінің сипаты (Основные источники вибрании и характер создаваемой вибрании)
- Жұмыс істейтін адамдардың саны (Количество работающих человек) 1
- Діріс көзі көрсетілген ұй-жайдың ескіні (жұмыстың, жұмыс орнының, жол машинасының) және микрофондардың (датчиктер) орналасқан орындары мен олардың бағыты тікелей көрсетілген. Өлшем нүктелерінің реттік нөмірлері. (Экзот помещения (территория, рабочего места, ручной машины) с указанием источника вибрании с указанием стрелками мест установки и ориентации микрофонов (датчиков). Порядковые номера точек замеров)

Бет (стр.) 1  
Барлығы (всего) 4

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1st Semi-Annual Environmental Monitoring Report for January-June 2020  
 CAREC Corridors 1 and 6 Connector Road (Aktobe-Makat) Reconstruction Project (section km 330-504) / Contract 02-ADB/CSC-2017 (CSC-2)



Испытательная лаборатория ТОО «ЭкоНорматив»  
 адрес: г. Атырау, ул. Қ.Сәтбаев, д.5, н.п.5, тел.: 8(7122) 21-06-28  
 Аттестат аккредитации № KZ.T.06.1234 от 28.11.2016г.

ПРОТОКОЛ ИСПЫТАНИЙ № 128 от "25" 06 2020 г.

всего листов 1  
 лист 1

Наименование продукции: Атмосферный воздух  
 Место отбора: Площадки объекта «Реконструкция автомобильной дороги Республиканского значения А-27 «Актобе-Атырау-граница РФ (на Астрахань)» участок км 418-458» ЛОТ-6  
 Заявитель: (наименование, адрес) ТОО «Ақ жол құрылыс» г.Ақтау, Промзона №9, зд.43  
 Акт отбора (измерения): (№ акта, дата, тип прибора) № 162 от 06.06.2020 г. газоанализатор ГАНК-4  
 Дата поступления образцов: 06.06.2020 г.  
 Дата проведения испытаний: 06.06.2020 г.  
 Обозначение НД на продукцию: ГН №168 от 28.02.2015г.  
 Виды испытаний: Периодические

№ п.п	Наименование точек отбора проб	НД на метод испытаний	Метеорологические характеристики атмосферы					Содержание загрязняющих веществ													
			Температура воздуха, °C	Атмосферное давление, мм рт.ст.	Направление ветра	Скорость ветра, м/с	Влажность, %	CO		NO		NO <sub>2</sub>		SO <sub>2</sub>		Углев.С <sub>12</sub> -С <sub>18</sub>		Сероводород		Пыль (взв.вещ.)	
								Факт., мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>	Факт., мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>	Факт., мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>	Факт., мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>	Факт., мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>	Факт., мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>	Факт., мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	Территория АБЗ	ГОСТ 12.1.005-88,	34	767	СВ	3	47	0,921±0,01	5,0	0,0113	0,4	0,0112	0,2	0,0134	0,5	0,081	1	0,0012	0,008	0,0084	0,5
2	СЗЗ – Южная часть	СТ РК 2.302-2014,	34	767	СВ	3	47	0,924±0,01	5,0	0,0114	0,4	0,0114	0,2	0,0137	0,5	0,083	1	0,0013	0,008	0,0085	0,5
3	СЗЗ – Юго-Западная часть	МВН-4215-004А-	34	767	СВ	3	47	0,926±0,01	5,0	0,0117	0,4	0,0115	0,2	0,0139	0,5	0,084	1	0,0013	0,008	0,0087	0,5
4	СЗЗ – Западная часть	36591409-2012,	34	767	СВ	3	47	0,923±0,01	5,0	0,0115	0,4	0,0113	0,2	0,0136	0,5	0,082	1	0,0012	0,008	0,0086	0,5
5	СЗЗ – Северо-Восточная часть	МВН-4215-013-	34	767	СВ	3	47	0,921±0,01	5,0	0,0112	0,4	0,0112	0,2	0,0133	0,5	0,081	1	0,0012	0,008	0,0083	0,5
6	Склад инерт. материалов	36591409-2010	34	767	СВ	3	47	0,933±0,01	5,0	0,0112	0,4	0,0113	0,2	0,0135	0,5	0,083	1	0,0012	0,008	0,0085	0,5

Протокол распространяется только на образцы, подвергнутые испытаниям



Исполнитель: Сарсенгалев М.  
 Ф.И.О.  
 Руководитель ИЛ: Соболев Л.  
 Ф.И.О.

подпись  
 подпись

Частичная переписка протокола испытаний без разрешения ТОО «ЭкоНорматив» запрещена



KZ.T.06.1234  
TESTING

Испытательная лаборатория ТОО «ЭкоНорматив»  
 адрес: г.Атырау, ул.Қ.Сәтбаев, д.5, н.п.5, тел.: 8(7122) 21-06-28  
 Аттестат аккредитации № KZ.T.06.1234 от 28.11.2016г.

ПРОТОКОЛ ИСПЫТАНИЙ № 129-3 от "25" 06 2020 г.

всего листов 1  
 лист 1

Наименование продукции: Атмосферный воздух  
 Место отбора: Площадки объекта «Реконструкция автомобильной дороги Республиканского значения А-27 «Актобе-Атырау-граница РФ (на Астрахань)» участок км 418-458» ЛОТ-6  
 Заявитель: (наименование, адрес) ТОО «Ак жол құрылыс» г.Ақтау, Промзона №9, зд.43  
 Акт отбора (измерения): (№ акта, дата, тип прибора) № 163 от 06.06.2020 г. газоанализатор ГАНК-4  
 Дата поступления образцов: 06.06.2020 г.  
 Дата проведения испытаний: 06.06.2020 г.  
 Обозначение НД на продукцию: ГН №168 от 28.02.2015г.  
 Виды испытаний: Периодические

№ п.п.	Наименование точек отбора проб	НД на метод испытаний	Метеорологические характеристики атмосферы					Содержание загрязняющих веществ													
			Температура воздуха, °С	Атмосферное давление, мм рт.ст.	Направление ветра	Скорость ветра, м/с	Влажность, %	СО		NO		NO <sub>2</sub>		SO <sub>2</sub>		Углек. С <sub>12</sub> -С <sub>18</sub>		Сероводород		Пыль (вз.вещ.)	
								Факт., мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>	Факт., мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>	Факт., мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>	Факт., мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>	Факт., мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>	Факт., мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>	Факт., мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	Участок дороги ПК 251	ГОСТ 12.1.005-88, СТ РК 2.302-2014, МВИ-4215-004А-56591409-2012, МВИ-4215-013-56591409-2010	34	765	СВ	3	46	0,884±0,01	5,0	0,0119	0,4	0,0110	0,2	0,0157	0,5	0,084	1	0,0012	0,008	0,0073	0,5
2	Участок дороги ПК 280		34	766	СВ	3	47	0,736±0,01	5,0	0,0113	0,4	0,0118	0,2	0,0136	0,5	0,071	1	0,0011	0,008	0,0092	0,5

Протокол распространяется только на образцы, подвергнутые испытаниям



Сарсенгалиев М.  
Ф.И.О.  
Соболев Д.  
Ф.И.О.

подпись  
подпись

Частичная перепечатка протокола испытаний без разрешения ТОО «ЭкоНорматив» запрещена



1st Semi-Annual Environmental Monitoring Report for January-June 2020  
 CAREC Corridors 1 and 6 Connector Road (Aktobe-Makat) Reconstruction Project (section km 330-504) / Contract 02-ADB/CSC-2017 (CSC-2)



Испытательная лаборатория ТОО «ЭкоНорматив»  
 адрес: г.Атырау, ул.К.Сәтбаев, д.5, н.п.5, тел.: 8(7122) 21-06-28  
 Аттестат аккредитации № KZ.T.06.1234 от 28.11.2016г.

ПРОТОКОЛ ИСПЫТАНИЙ № 129 от "25" 06 2020 г.

всего листов 1  
 лист 1

Наименование продукции: Атмосферный воздух  
 Место отбора: Площадки объекта «Реконструкция автомобильной дороги Республиканского значения А-27 «Актобе-Атырау-граница РФ (на Астрахань)» участок км 418-458» ЛОТ-6  
 Заявитель: (наименование, адрес) ТОО «Ак жол құрылыс» г.Актау, Промзона №9, зд.43  
 Акт отбора (измерения): (№ акта, дата, тип прибора) № 163 от 06.06.2020 г. газонализатор ГАНК-4  
 Дата поступления образцов: 06.06.2020 г.  
 Дата проведения испытаний: 06.06.2020 г.  
 Обозначение НД на продукцию: ГН №168 от 28.02.2015г.  
 Виды испытаний: Периодические

№ п.п	Наименование точек отбора проб	НД на метод испытаний	Метеорологические характеристики атмосферы					Содержание загрязняющих веществ													
			Температура воздуха, °C	Атмосферное давление, мм рт.ст.	Направление ветра	Скорость ветра, м/с	Влажность, %	CO		NO		NO <sub>2</sub>		SO <sub>2</sub>		Углев. C <sub>12</sub> -C <sub>18</sub>		Сероводород		Пыль (взв.вещ.)	
								Факт, мг/м³	Норма по НД, мг/м³	Факт, мг/м³	Норма по НД, мг/м³	Факт, мг/м³	Норма по НД, мг/м³	Факт, мг/м³	Норма по НД, мг/м³	Факт, мг/м³	Норма по НД, мг/м³	Факт, мг/м³	Норма по НД, мг/м³	Факт, мг/м³	Норма по НД, мг/м³
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	Карьер грунта проект №1	ГОСТ 12.1.005-88, СТ РК 2.302-2014, МВИ-4215-004А-56591409-2012, МН-4215-013-56591409-2010	34	767	СВ	3	47	0,927±0,01	5,0	0,0115	0,4	0,0114	0,2	0,0139	0,5	0,063	1	0,0010	0,008	0,0081	0,5

Протокол распространяется только на образцы, подвергнутые испытаниям



Сарсенгалев М.  
 Ф.И.О.  
 Соболев Д.  
 Ф.И.О.

*(Signature)*

Частичная перепечатка протокола испытаний без разрешения ТОО «ЭкоНорматив» запрещена







KZ.T.06.1234  
TESTING

Испытательная лаборатория ТОО «ЭкоНорматив»  
 адрес: г.Атырау, ул.Қ.Сәтбаев, д.5, н.п.5, тел.: 8(7122) 21-06-28  
 Аттестат аккредитации № KZ.T.06.1234 от 28.11.2016г.

ПРОТОКОЛ ИСПЫТАНИЙ № 129-2 от "25" 06 2020 г.

всего листов 1  
 лист 1

Наименование продукции:

Место отбора:

Заявитель: (наименование, адрес)

Акт отбора (измерения): (№ акта, дата, тип прибора)

Дата поступления образцов:

Дата проведения испытаний:

Обозначение НД на продукцию:

Виды испытаний:

Атмосферный воздух

Площадки объекта «Реконструкция автомобильной дороги Республиканского значения А-27

«Актобе-Атырау-граница РФ (на Астрахань)» участок км 418-458» ЛОТ-6

ТОО «Ак жол құрылыс» г.Ақтау, Промзона №9, зд.43

№ 163 от 06.06.2020 г. газоанализатор ГАНК-4

06.06.2020 г.

06.06.2020 г.

ГН №168 от 28.02.2015г.

Периодические

№ п.п.	Наименование точек отбора проб	НД на метод испытаний	Метеорологические характеристики атмосферы					Содержание загрязняющих веществ													
			Температура воздуха, °С	Атмосферное давление, мм рт.ст.	Направление ветра	Скорость ветра, м/с	Влажность, %	СО		NO		NO <sub>2</sub>		SO <sub>2</sub>		Углек. C <sub>12</sub> -C <sub>18</sub>		Сероводород		Пыль (взв.вещ.)	
								Факт., мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>	Факт., мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>	Факт., мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>	Факт., мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>	Факт., мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>	Факт., мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>	Факт., мг/м <sup>3</sup>	Норма по НД, мг/м <sup>3</sup>
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	Карьер грунта № 6	ГОСТ 12.1.005-88, СТ РК 2.302-2014, МВН-4215-004А-56591409-2012, МН-4215-013-56591409-2010	34	766	СВ	3	47	0,784±0,01	5,0	0,0110	0,4	0,0121	0,2	0,0123	0,5	0,068	1	0,0010	0,008	0,0089	0,5

Протокол распространяется только на образцы, подвергнутые испытаниям



Исполнитель:

Руководитель ИЛ:

МП

Сарсенгалиев М.  
Ф.И.О.

Соболев Д.  
Ф.И.О.

*(Signature)*  
подпись

Частичная перепечатка протокола испытаний без разрешения ТОО «ЭкоНорматив» запрещена

## Appendix 9. Noise and Vibration Measurement Report Details, Lot 6

Нысаннинг БҚСЖ бойынша коды _____ Код формы по ОКУД _____ КУЖЖ бойынша ұйым коды _____ Код организации по ОКПО _____	
ҚР Денсаулық сақтау министрлігі Министерства здравоохранения РК	ҚР ДСМ ТҚКСЖБ «Ұлттық сараптама орталығы» ШЖҚ РМК Бас директорының 2020 жылғы « 20 » сәуір № 243 бұйрығымен бекітілген № 187/с нысанды медициналық құжаттама
Тауарлар мен көрсетілетін қызметтердің сапасы мен қауіпсіздігін бақылау комитетінің «Ұлттық сараптама орталығы» ШЖҚ РМК-ның Атырау облысы бойынша филиалының Қызылқоға аудандық бөлімшесі Индекс: мекен-жайы 060500 А. Сабыров көшесі, № 46 Қызылқоғандық райондық филиалы РГП на ПХВ «Национальный центр экспертизы» Комитета контроля качества и безопасности товаров и услуг Министерства здравоохранения РК по Атырауской области Индекс адрес 060500 ул. А. Сабыров №46 Тел: 71238(2-13-71, email: Kzylkoga.saraptama@mail.ru	Медицинская документация Форма № 187/у Утверждена приказом Генерального директора РГП на ПХВ «Национальный центр экспертизы» ККСЖТУ МЗ РК от « 20 » апреля 2020 года № 243

Шу, дыбыс деңгейлерінің өлшеу  
 ХАТТАМАСЫ  
 ПРОТОКОЛ  
 измерения уровней шума, звукоизоляции  
 №15 (от) «30» 06 2020 ж. (г.)

1. Шаруашылық жүргізуші нысанның толық атауы, мекенжайы (Полное наименование хозяйствующего объекта, адрес) ЖПС (ТОО) «Ақ жол құрылыс» «Республикалық маңызы бар  
 Ақтөбе-Атырау- Астана шекарасы көлік жолын қайта құру жобасы 418-458 км учаскесі Атырау облысы, Қызылқоға ауданы, Жамансор (Проекта реконструкция автомобильной дороги  
 Республиканского значения «Ақтөбе-Атырау-граница РФ на Астану») Участок км 418-458 Жамансор Кызылқоғандық району, Атырауская область)

2. Өлшеу мақсаты (Цель измерения) Келісім шарт бойынша ( по договору) №561 22.05.2020ж(г)  
 3. Өлшеулер нысан өкілінің қатысуымен жүргізілді (Замеры проводились в присутствии представителя объекта) директоры Түлегенов А.Б.  
 4. Өлшеу құралдары (Средства измерений) Шумомер Октава -110 атауы, түрі, инвентарлық нөмірі (наименование, тип, инвентарный номер)

5. Тексеру туралы мәліметтер (Сведения о поверке) са.№. ES-15-000001146 10.09.2019ж(г)  
 Берілген күні мен куәліктің нөмірі (дата и номер свидетельства) са.№. ES-15-000001146 10.09.2019ж(г)

6. Жүргізілген өлшеулер мен берілген санитарлық-эпидемиологиялық қорытынды мына НҚ-ға сай жүргізілді (НД, в соответствии с которой проводились измерения) ҚР Ұлттық экономика  
 министрінің 2015 жылғы 28 ақпандағы № 169 бұйрығымен бекітілген «Адамға әсер ететін физикалық факторлардың гигиеналық нормативтерін бекіту туралы»  
 (Приказ МЗ РК 16.08.2017г. №611.06 утвержденных Санитарных правил «Санитарно- эпидемиологические требования к объектам образования», Приказ МНЭ РК 28.02.2015г. №169. 06  
 утвержденных Гигиенических нормативов к физическим факторам, оказывающим воздействие на человека)

7. Негізгі шу (дiрiл) көздері мен олар тудыратын шудың (дiрiлдiң) сипаты (Основные источники шума (вибрации) и характер создаваемого ими шума (вибрации))

8. Жұмыс істейтін адамдардың саны (Количество работающих человек) 10

9. Шу (дiрiл) кезі және микрофондардың (датчиктер) орынталған орындары мен олардың бағыты тілдермен көрсетілген үй-жайдың кескіні (аумақтың, жұмыс орынының, көл машинасының).  
 10. Өлшеу нүктелерінің реттік нөмірлері. (Эскиз помещения (территория, рабочего места, ручной машины) с нанесением источника шума (вибрации) и указанием стрелками мест установки  
 и ориентации микрофонов (датчиков). Порядковые номера точек замеров).

Бет (стр.) 1  
 Барлығы (всего) 4

1st Semi-Annual Environmental Monitoring Report for January-June 2020  
 CAREC Corridors 1 and 6 Connector Road (Aktobe-Makat) Reconstruction Project (section km 330-504) / Contract 02-ADB/CSC-2017  
 (CSC-2)

Өлшеулер нәтижелері (Результаты измерений)																									
Түпкү номері. Регистранттың номері		Характеристика пункта измерения. Номер точки по шуму		Описание источника шума. Вид деятельности (транспорт, промышленность, строительство, сельское хозяйство, торговля, бытовые источники шума и др.)		Скорость движения транспорта. Вид движения		Скорость движения транспорта. Вид движения		Скорость движения транспорта. Вид движения		Скорость движения транспорта. Вид движения		Скорость движения транспорта. Вид движения		Скорость движения транспорта. Вид движения		Скорость движения транспорта. Вид движения		Скорость движения транспорта. Вид движения		Скорость движения транспорта. Вид движения		Скорость движения транспорта. Вид движения	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Операторский АБЗ																									
X №1	басы (начало)			+		+									85	78	55	55	65	62	51	51	51	60	65
X №2	ортасы(середина)			+		+									82	71	55	58	62	68	50	50	53	60	65
X №3	соңы(конец)			+		+									80	72	55	59	61	62	53	50	54	60	65

Бет (стр) 2  
 Барлығы (всего) 4



1st Semi-Annual Environmental Monitoring Report for January-June 2020  
 CAREC Corridors 1 and 6 Connector Road (Aktobe-Makat) Reconstruction Project (section km 330-504) / Contract 02-ADB/CSC-2017  
 (CSC-2)

ҚР Денсаулық сақтау министрлігі Министерства здравоохранения РК		Нысанның БКСЖ бойынша коды _____ Код формы по ОКУД _____ ҚҰЖОЖ бойынша ұйым коды _____ Код организации по ОКПО _____
Тауарлар мен көрсетілетін қызметтердің сапасы мен қауіпсіздігін бақылау комитетінің «Ұлттық сараптама орталығы» ШЖҚ РМК-ның Атырау облысы бойынша филиалының Қызылқоға аудандық бөлімшесі индекс, мекен-жайы 060500 А Сабыров көшесі № 46 Қызылқоғинское районное отделение филиала РГП на ПХВ «Национальный центр экспертизы» Комитета контроля качества и безопасности товаров и услуг Министерства здравоохранения РК по Атырауской области Индекс адрес 060500 ул А Сабыров №46 Тел:(71238)2-13-71, email: Kzylykoga.saraptama@mail.ru		ҚР ДСМ ТҚҚСКБҚ «Ұлттық сараптама орталығы» ШЖҚ РМІ Бас директорының 2020 жылғы « 20 » сәуір № 243бұйрығымен бекітілген № 186/с нысанды медициналық құжаттама  Медицинская документация Форма № 186/у Утверждена приказом Генерального директора РГП на ПХВ «Национальный центр экспертизы» КККБТУ МЗ РК от « 20 » апреля 2020 года № 243

Діріл деңгейлерін өлшеудің  
 ХАТТАМАСЫ  
 ПРОТОКОЛ  
 измерения уровня вибрации  
 № 15  
 (от « 30 » 06 2020 ж. (г.))

- Нысанның толық атауы, мекенжайы (Полное наименование хозяйствующего объекта, адрес) ЖШС(ТОО) «Ақ жол құрылыс» «Республикалық маңызы бар Ақтөбе-Атырау- Астарахь шекарасы көлік жолын қайта құру жобасы 418-458 км учаскесі Атырау облысы, Қызылқоға ауданы, Жамансор (Проекта реконструкция автомобильной дороги Республиканского значения «Ақтөбе-Атырау- граница РФ(на Астарахь) «Участок км 418-458 Жамансор Кызылқогинский района, Атырауская область»
- Өлшеу мақсаты (Цель измерения) цех, учаске (цех, участок)
- Өлшеулер нысан өкілінің қатысуымен жүргізілді (Замеры проводились в присутствии представителя объекта) директоры Тулегенов А.Б
- Өлшеу құралдары (Средства измерений) Шумомер октава-110  
 (атауы, түрі, инвентарлық нөмірі (наименование, тип, инвентарный номер))
- Тексеру туралы мәліметтер (Сведения о поверке) св.№. ES-15 -000001146 12.09.2019ж(г)
- Өндірілген мерзімі (Дата выработки) -
- Жүргізілген өлшеулер мен берілген санитарлық-эпидемиологиялық қорытынды мына НК-ға сай жүргізілді (НД, в соответствии с которой проводились измерения) Бірінгі санитариялық-эпидемиологиялық және гигиеналық талаптар. ҚО шешімімен бекітілген санитариялық-эпидемиологиялық қадағалауға(бақылауға) (Единые санитарно-эпидемиологические и гигиенические требования надзору (контролю) Утв. Решением Комиссии Таможенного союза 18 июня 2010года №299
- Негізгі діріл көздері мен олар тудыратын дірілдің сипаты (Основные источники вибрации и характер создаваемой вибрации) -
- Жұмыс істейтін адамдардың саны (Количество работающих человек) 1
- Діріл көзі көрсетілген үй-жайдың кескіні (аумақтың, жұмыс орнының, қол машинасының) және микрофондардың (датчиктер) орнатылған орындары мен олардың бағыты тілдермен көрсетілуімен. Өлшеу нүктелерінің реттік нөмірлері. (Эскиз помещения (территории, рабочего места, ручной машины) с нанесением источника вибрации с указанием стрелками мест установки и ориентации микрофонов (датчиков). Порядковые номера точек замеров)

Бет (стр) 1  
 Барлығы (всего) 4

1st Semi-Annual Environmental Monitoring Report for January-June 2020  
 CAREC Corridors 1 and 6 Connector Road (Aktobe-Makat) Reconstruction Project (section km 330-504) / Contract 02-ADB/CSC-2017  
 (CSC-2)

№ п/п	Октавальный диапазон дБ-мен ортагеометрлік жиілігі Гц-діріл Удвоения децибел Уровни виброускорения, дБ, в третьоктавных полосах со среднегеометрическими частотами, Гц											Осье діріл үдеткіштің түзетілген деңгейі, дБ Корректиро- ванный уровень виброус- корения для осн. дБ	Цисла, операцияға діріл үдеткіштің түзетілген деңгейі, дБ Корректиро- ванный уровень виброус- корения для цикла операции, дБ	Діріл үдеткіштің эквивалент- ті түзетілген деңгейі, дБ Эквивалент- ный корректир- ованный уровень виброус- корения дБ	Діріл үдеткіштің эквивалент- ті түзетілген деңгейі, дБ Допустимый эквивалент- ный корректир- ованный уровень виброус- корения дБ
	1	2	4	8	16	31,5	63	125	250	500	100				
6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
		48	52	52	57	62	65					X			
		41	51	55	56	68	68					Y			108-123
		48	50	55	55	60	61					Z			

Бет (стр) 3  
 Барлығы (всего) 4



**Appendix 10. Photo of Monitoring Process. IEC of Air, Water, Noise and Vibration for the 2 quarter of 2020 (Lot 4)**





**Appendix 10. Photo of Monitoring Process. IEC of Air, Water, Noise and Vibration for the 2 quarter of 2020 (Lot 5)**

5. Фоновой мониторинг на атмосферном воздухе и радиаций по ПЭК провели  
ТОО «ЭкоНорматив» 06.06.2020 года.  
Запрашиваемое грунтовые резерва №10 и Фоновый замер на С33 АБЗ



**Appendix 10. Photo of Water Monitoring Process for the 2 quarter of 2020 (Lot 6) / Overview from the Bridge across the river Sagiz**



**Appendix 10. Photo of Water Monitoring Process for the 2 quarter of 2020 (Lot 6)**

3.



Реконструкция участка км-418-455 "Актобе - Мидан" автомобильной дороги Республиканского назначения А-27  
 "Актобе - Ашгабат-франс Р4 (по Ашгабату)" участок км-418-455





**Appendix for Health and Safety part. PHOTO: Fire safety board. Protective things within the construction camp, Lot 6**



1st Semi-Annual Environmental Monitoring Report for January-June 2020  
CAREC Corridors 1 and 6 Connector Road (Aktobe-Makat) Reconstruction Project (section km 330-504) / Contract 02-ADB/CSC-2017 (CSC-2)

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**Waste containers within the construction camp, Lot 5**





## Appendix

*Lot 4 Construction of Storage Tank for Artesian Water, collecting at night time, for water trucks, dust control*





## Appendix 11

### Environmental Monitoring Checklist

Lot 6 site inspection checklist		
<b>Site visiting date:</b> 08.06.2020  <b>Time:</b> 11:00	<b>Engineer's Representative:</b> Environmental specialist Novossadova N.  <b>Contractor's Representative:</b> Zhantokova G.– Environmental specialist Safety and Road Safety specialists	Engineer's ref. No.   Contractor's ref. No.
Weather condition: clear, +35 C°, south-west wind with speed 7 m/s		
Work is in progress:	Construction of binder course of coarse-grained asphalt concrete on km 22 (PK 221-228) Lot 6	
Issues related to environment	Possible reasons	Proposed mitigation measures
Too much dust on the road	Hot weather condition and soil characteristics, also insufficient watering	To increase number of water trucks and to intensify the watering near to villages

No	Environmental safeguard measures	Executed		In process		Comments
		Yes	No	Yes	No	
Contractor's base camp						
1	Septic tanks are installed and cleaned according to approved procedures	✓				
2	All effluents flow to septic tanks or to reservoirs for construction water	✓				
3	All hazardous liquids are collected on non-permeable facilities at designated area	✓		✓		Places were defined
4	Solid hazardous materials are stored on designated safe places at work areas	✓				

No	Environmental safeguard measures	Executed		In process		Comments
		Yes	No	Yes	No	
5	Effluents are collected in drain system and disposed by the Contractor					
6	All vehicle drive in and out the base camp are controlled	✓		✓		Safety specialist and mechanic are controlling this work
7	Local communities and organizations are informed about construction schedule and any noisy activities on a regular basis through workers and by other activities	✓		✓		
8	Open containers for material storage are covered with canvas	✓		✓		Place was chosen for storage with the further disposal
9	Open fire is prohibited	✓		✓		No open fire neither on site nor base camp
10	Fire-fighting equipment <ul style="list-style-type: none"> <li>▪ Sand bucket and shovel</li> <li>▪ Foam fire extinguisher</li> <li>▪ Fire blanket in the canteen</li> </ul>	✓		✓		
11	Entering of strangers to base camp is prohibited by installing fencing and security	✓		✓		There is a security man and checkpoint at the base camp entrance
12	All employees provided with personal protective equipment (PPE)	✓		✓		Not all employees provided
13	Smoking is prohibited except smoking places	✓		✓		There are smoking places on base camp territory
14	Relevant road signs and warning signs are installed on site and at unsafe areas	✓		✓		Road Safety Plan have been preparing
15	Drinking water is provided by commercial and licensed sources for all employees	✓		✓		

No	Environmental safeguard measures	Executed		In process		Comments
		Yes	No	Yes	No	
16	Safety clothes of all employees are washed every day	✓				Safety clothes of employees are washed as necessary
17	All employees are provided with three time meal per day	✓				Local residents have lunch only as they do not work on rotation. It does not breach the Labor Code of the RK.
18	Canteen with sanitary and hygienic conditions on camp	✓				
19	Medical facility and first aid kit on camp and on work areas	✓		✓		First aid kits are replenished as necessary. Logbook for medical facility visit is maintained
20	All employees health is under control of base camp doctor, and appropriate services are provided, also a monthly health checks	✓		✓		Daily pre-work check-up of employees are arranged in medical facility and logbooks for daily health check-up, and also for COVID-19 (body temperature, sobriety test, blood pressure etc.) are maintained.
21	All territory are clean, there is no any waste, except special places for waste disposal		✓	✓		
22	Provision of rest area on camp	✓				
23	Child labour (younger than 15 year)	✓				Not observed
<b>Production site</b>						
1	Liquid wastes from Asphalt Plant are stored in a tank and disposed by vacuum vehicle Liman ≤MTTSTH≥		✓	✓		

No	Environmental safeguard measures	Executed		In process		Comments
		Yes	No	Yes	No	
2	Solid wastes from Asphalt Plant are stored at designated area and disposed per approved procedures	✓				Plants are installed
3	The plant area is covered by gravel in order to reduce a dusting	✓		✓		
4	The plant area is watered in order to reduce a dusting	✓		✓		Documents have been preparing in order to receive permits
5	Plant can not discharge effluents to any area; non-permeable concrete basins will be constructed for such purpose	✓		✓		Permanent control by the Contractor's environmental specialist
6	All employees of Asphalt concrete and Crusher Plants are supplied with dust masks	✓		✓		In the Health and Safety Plan
7	All employees at Asphalt Plants are wearing dust masks		✓	✓		For purchase order
8	Sand and crushed stone for concrete and asphalt are stored on wet and covered place		✓			
9	There is a fire fighting equipment in Asphalt Plant			✓		It is included in the EMP and Fire Safety
10	Plant or equipment with high vibration are installed properly, maintained and operated correctly	✓		✓		
<b>Fuel station</b>						
1	Oil filling will be strictly controlled and is permitted only at the fuel filling station and on workshop area	✓		✓		
2	Fuel tank storage area is fenced and it is a non-permeable, tank's roof is closed	✓		✓		

No	Environmental safeguard measures	Executed		In process		Comments
		Yes	No	Yes	No	
3	Fuel station, which provided with fire fighting equipment, is checked every week	✓		✓		
4	There is the warning signs at fuel station	✓			✓	
5	Fuel station is provided with wastebasket	✓				
<b>Contractor's Workshop and Car Wash</b>						
1	Liquid hazardous materials are stored in designated area at the workshop		✓	✓		Arranged a special concreted areas to keep a hazardous materials and installed a fence
2	Solid hazardous materials are stored in designated area at the workshop		✓	✓		
3	There are containers for used oils and hydraulic liquids	✓		✓		
4	Used oil products are collected in concrete tank with a volume up to 110% and tank is cleaned according to approved procedures		✓	✓		
5	Workshop is provided with drainage system		✓	✓		
6	Every vehicle is inspected and maintained on a regular basis	✓		✓		To strengthen daily control of special equipment
7	All construction vehicles meet Euro standards and are equipped with modern noise control equipment		✓	✓		
8	Noise control equipment of all vehicles is maintained and checked as per the approved procedures	✓		✓		

No	Environmental safeguard measures	Executed		In process		Comments
		Yes	No	Yes	No	
9	All workshop workers are provided with welding equipment and personal protective equipment	✓		✓		
10	All construction water is collected in concrete tank and cleaned as per the approved procedures		✓	✓		
<b>Project Road</b>						
1	All roads, where planned construction works, are watered by water trucks	✓		✓		To increase watering time and water truck number during rain-free period and to take special control the sites near to villages
2	There are structures for passage of cattle, sheep and other animals on appropriate places of the project road		✓		✓	
3	Culvert and bridge construction areas are provided with safety ribbons and warning signs	✓				
4	Fencing and checkpoint are installed at all work areas where necessary		✓		✓	
5	Waste storage for any kind as well as machinery or vehicles parking is not permitted within a distance of 100m from any facility (including drainage or irrigation facilities)	✓		✓		
6	All appropriate road signs and warning signs are provided on work sites and unsafe areas	✓		✓		
7	Construction vehicle and plants are maintained properly to reduce gas emissions	✓		✓		To strengthen control over special equipment
8	Noise control measures at special areas	✓		✓		

No	Environmental safeguard measures	Executed		In process		Comments
		Yes	No	Yes	No	
Borrow pits						
1	Temporary drainage is provided at borrow pits and quarries			✓		
2	Construction work is stopped between 10.00 p.m. and 6.00 a.m. at 200m from the nearest habitation			✓		There is no any close village
3	Stockpiles do not exceed 3m in height			✓		
4	All vehicles with an open body are used for transportation of materials with possible dusting, designed for these purposes with a well-chosen convertible body	✓		✓		
5	During construction works all noise volume is reduced according to the national standards	✓		✓		
6	Materials with possible dusting are not loaded higher than convertible body level and covered with clean canvas	✓		✓		Operators and recorders monitor the level of soil loading
7	All vehicles, equipment and plant meet Euro standards for exhaust gas emissions		✓	✓		
8	All temporary acquired land is rehabilitated		✓			After completion of construction works
9	All material residues and contaminated sites are collected and disposed accordance with approved procedures	✓		✓		
10	Watering is provided during material delivery and processing		✓	✓		As necessary



No	Environmental safeguard measures	Executed		In process		Comments
		Yes	No	Yes	No	
11	Any adjacent areas are damaged due to spoil ground, restored to its original state		✓	✓		
12	River banks are protected from materials or temporary stockpiles of the contractor	✓		✓		
13	Negative effects or violations due to construction works are controlled with permissible level according to standards		✓			
14	Access roads to borrow pits, and also borrow pits, quarries and traffic operations are maintained by approved standards	✓		✓		
15	Water discharge and removal, avoiding flooding or damaging to other works or service causing erosion		✓			
<b>Flora and Fauna</b>						
1	Trees and shrubs outside of construction site, but on road reserve are generally preserved from damages					There are no trees on construction site territory
2	Ancient trees have not cut during construction works					There are no ancient trees on construction site territory
3	Cutting off has not taken place without the prior permission of relevant local authorities					No trees
4	Trees or shrubs cut or removed only if they interfere for necessary temporary or permanent works					No trees
5	Construction works are stopped on bridge sites during harvest period (indicate yes or no to construction activities, indicate date)		✓			Bridge construction does not affect to cultivation and harvesting, because they are located on far places

### Environmental Monitoring Checklist

Lot 5 site inspection checklist		
<b>Site visiting date:</b> 09.06.2020  <b>Time:</b> 13:00	<b>Engineer's Representative:</b> Environmental specialist Novossadova N.  <b>Contractor's Representative:</b> Zhantokova G.– Environmental specialist	Engineer's ref. No.   Contractor's ref. No.
Weather condition: clear, +35 C°, south-east wind with speed 7 m/s		
Work is in progress:	Cattle pass foundation construction Roadbed construction	
Issues related to environment	Possible reasons	Proposed mitigation measures
Too much dust on the road	Hot weather condition and soil characteristics, also insufficient watering	To increase number of water trucks and to intensify the watering near to villages

No	Environmental safeguard measures	Executed		In process		Comments
		Yes	No	Yes	No	
Contractor's base camp						
1	Septic tanks are installed and cleaned according to approved procedures	✓				
2	All effluents flow to septic tanks or to reservoirs for construction water	✓				
3	All hazardous liquids are collected on non-permeable facilities at designated area	✓		✓		
4	Solid hazardous materials are stored on designated safe places at work areas	✓		✓		Places were defined

No	Environmental safeguard measures	Executed		In process		Comments
		Yes	No	Yes	No	
5	Effluents are collected in drain system and disposed by the Contractor	✓		✓		
6	All vehicle drive in and out the base camp are controlled	✓		✓		Safety specialist and mechanic are controlling this work
7	Local communities and organizations are informed about construction schedule and any noisy activities on a regular basis through workers and by other activities	✓		✓		
8	Open containers for material storage are covered with canvas	✓		✓		Place was chosen for storage with the further disposal
9	Open fire is prohibited	✓		✓		No open fire neither on site nor base camp
10	Fire-fighting equipment <ul style="list-style-type: none"> <li>▪ Sand bucket and shovel</li> <li>▪ Foam fire extinguisher</li> <li>▪ Fire blanket in the canteen</li> </ul>	✓		✓		
11	Entering of strangers to base camp is prohibited by installing fencing and security	✓		✓		There is a security man and checkpoint at the base camp entrance
12	All employees provided with personal protective equipment (PPE)	✓		✓		Not all employees provided
13	Smoking is prohibited except smoking places	✓		✓		There are smoking places on base camp territory
14	Relevant road signs and warning signs are installed on site and at unsafe areas	✓		✓		Road Safety Plan have been preparing
15	Drinking water is provided by commercial and licensed sources for all employees	✓		✓		

No	Environmental safeguard measures	Executed		In process		Comments
		Yes	No	Yes	No	
16	Safety clothes of all employees are washed every day	✓				Safety clothes of employees are washed as necessary
17	All employees are provided with three time meal per day	✓				Local residents have lunch only as they do not work on rotation. It does not breach the Labor Code of the RK.
18	Canteen with sanitary and hygienic conditions on camp	✓				
19	Medical facility and first aid kit on camp and on work areas	✓		✓		First aid kits are replenished as necessary. Logbook for medical facility visit is maintained
20	All employees health is under control of base camp doctor, and appropriate services are provided, also a monthly health checks	✓		✓		Daily pre-work check-up of employees are arranged in medical facility and logbooks for daily health check-up, and also for COVID-19 (body temperature, sobriety test, blood pressure etc.) are maintained.
21	All territory are clean, there is no any waste, except special places for waste disposal		✓	✓		Territory is polluted by production waste due to untimely disposal
22	Provision of rest area on camp		✓	✓		
23	Child labour (younger than 15 year)	✓				Not observed
<b>Production site</b>						
1	Liquid wastes from Asphalt Plant are stored in a tank and disposed by vacuum vehicle Liman		✓	✓		

No	Environmental safeguard measures	Executed		In process		Comments
		Yes	No	Yes	No	
2	Solid wastes from Asphalt Plant are stored at designated area and disposed per approved procedures	✓		✓		Plants are installed
3	The plant area is covered by gravel in order to reduce a dusting	✓		✓		
4	The plant area is watered in order to reduce a dusting	✓		✓		Documents have been preparing in order to receive permits
5	Plant can not discharge effluents to any area; non-permeable concrete basins will be constructed for such purpose	✓		✓		Permanent control by the Contractor's environmental specialist
6	All employees of Asphalt concrete and Crusher Plants are supplied with dust masks	✓		✓		In the Health and Safety Plan
7	All employees at Asphalt Plants are wearing dust masks	✓	✓	✓		Not always because of hot
8	Sand and crushed stone for concrete and asphalt are stored on wet and covered place			✓		
9	There is a fire fighting equipment in Asphalt Plant	✓		✓		It is included in the EMP and Fire Safety
10	Plant or equipment with high vibration are installed properly, maintained and operated correctly	✓		✓		
<b>Fuel station</b>						
1	Oil filling will be strictly controlled and is permitted only at the fuel filling station and on workshop area	✓		✓		
2	Fuel tank storage area is fenced and it is a non-permeable, tank's roof is closed	✓		✓		It is constructing

No	Environmental safeguard measures	Executed		In process		Comments
		Yes	No	Yes	No	
3	Fuel station, which provided with fire fighting equipment, is checked every week	✓		✓		
4	There is the warning signs at fuel station	✓			✓	
5	Fuel station is provided with wastebasket		✓			
<b>Contractor's Workshop and Car Wash</b>						
1	Liquid hazardous materials are stored in designated area at the workshop		✓	✓		Arranged a special concreted areas to keep a hazardous materials and installed a fence
2	Solid hazardous materials are stored in designated area at the workshop		✓	✓		
3	There are containers for used oils and hydraulic liquids	✓		✓		
4	Used oil products are collected in concrete tank with a volume up to 110% and tank is cleaned according to approved procedures		✓	✓		
5	Workshop is provided with drainage system		✓	✓		
6	Every vehicle is inspected and maintained on a regular basis	✓		✓		To strengthen daily control of special equipment
7	All construction vehicles meet Euro standards and are equipped with modern noise control equipment		✓	✓		
8	Noise control equipment of all vehicles is maintained and checked as per the approved procedures	✓		✓		

No	Environmental safeguard measures	Executed		In process		Comments
		Yes	No	Yes	No	
9	All workshop workers are provided with welding equipment and personal protective equipment	✓		✓		
10	All construction water is collected in concrete tank and cleaned as per the approved procedures		✓	✓		
<b>Project Road</b>						
1	All roads, where planned construction works, are watered by water trucks	✓		✓		To increase watering time and water truck number during rain-free period and to take special control the sites near to villages
2	There are structures for passage of cattle, sheep and other animals on appropriate places of the project road		✓		✓	
3	Culvert and bridge construction areas are provided with safety ribbons and warning signs	✓				
4	Fencing and checkpoint are installed at all work areas where necessary	✓			✓	
5	Waste storage for any kind as well as machinery or vehicles parking is not permitted within a distance of 100m from any facility (including drainage or irrigation facilities)	✓		✓		
6	All appropriate road signs and warning signs are provided on work sites and unsafe areas	✓		✓		
7	Construction vehicle and plants are maintained properly to reduce gas emissions	✓		✓		To strengthen control over special equipment
8	Noise control measures at special areas	✓		✓		



No	Environmental safeguard measures	Executed		In process		Comments
		Yes	No	Yes	No	
Borrow pits						
1	Temporary drainage is provided at borrow pits and quarries			✓		
2	Construction work is stopped between 10.00 p.m. and 6.00 a.m. at 200m from the nearest habitation			✓		There is no any close village
3	Stockpiles do not exceed 3m in height			✓		
4	All vehicles with an open body are used for transportation of materials with possible dusting, designed for these purposes with a well-chosen convertible body	✓		✓		
5	During construction works all noise volume is reduced according to the national standards	✓		✓		
6	Materials with possible dusting are not loaded higher than convertible body level and covered with clean canvas	✓		✓		Operators and recorders monitor the level of soil loading
7	All vehicles, equipment and plant meet Euro standards for exhaust gas emissions		✓	✓		
8	All temporary acquired land is rehabilitated		✓			After completion of construction works
9	All material residues and contaminated sites are collected and disposed accordance with approved procedures	✓		✓		
10	Watering is provided during material delivery and processing		✓	✓		

No	Environmental safeguard measures	Executed		In process		Comments
		Yes	No	Yes	No	
11	Any adjacent areas are damaged due to spoil ground, restored to its original state		✓	✓		After completion of construction works
12	River banks are protected from materials or temporary stockpiles of the contractor		✓			
13	Negative effects or violations due to construction works are controlled with permissible level according to standards	✓	✓			
14	Access roads to borrow pits, and also borrow pits, quarries and traffic operations are maintained by approved standards	✓		✓		
15	Water discharge and removal, avoiding flooding or damaging to other works or service causing erosion		✓			
<b>Flora and Fauna</b>						
1	Trees and shrubs outside of construction site, but on road reserve are generally preserved from damages					There are no trees on construction site territory
2	Ancient trees have not cut during construction works					There are no ancient trees on construction site territory
3	Cutting off has not taken place without the prior permission of relevant local authorities					No trees
4	Trees or shrubs cut or removed only if they interfere for necessary temporary or permanent works					No trees
5	Construction works are stopped on bridge sites during harvest period (indicate yes or no to construction activities, indicate date)		✓			Bridge construction does not affect to cultivation and harvesting, because they are located on far places

### Environmental Monitoring Checklist

Lot 4 site inspection checklist		
<b>Site visiting date:</b> 10.06.2020  <b>Time:</b> 9:00	<b>Engineer's Representative:</b> Environmental specialist Novossadova N.  <b>Contractor's Representative:</b> Safety specialist Base camp administrator	Engineer's ref. No.   Contractor's ref. No.
Weather condition: clear, +35 C°, south-east wind with speed 7 m/s		
Work is in progress:	Construction of binder course of coarse-grained asphalt concrete on km 0.6 (PK6-49)	
Issues related to environment	Possible reasons	Proposed mitigation measures
Too much dust on the road	Hot weather condition and soil characteristics, also insufficient watering	To increase number of water trucks and to intensify the watering near to villages

No	Environmental safeguard measures	Executed		In process		Comments
		Yes	No	Yes	No	
Contractor's base camp						
1	Septic tanks are installed and cleaned according to approved procedures	✓				
2	All effluents flow to septic tanks or to reservoirs for construction water	✓		✓		
3	All hazardous liquids are collected on non-permeable facilities at designated area	✓		✓		Places were defined
4	Solid hazardous materials are stored on designated safe places at work areas		✓	✓		Places were defined

No	Environmental safeguard measures	Executed		In process		Comments
		Yes	No	Yes	No	
5	Effluents are collected in drain system and disposed by the Contractor	✓		✓		
6	All vehicle drive in and out the base camp are controlled	✓		✓		Safety specialist and mechanic are controlling this work
7	Local communities and organizations are informed about construction schedule and any noisy activities on a regular basis through workers and by other activities	✓		✓		
8	Open containers for material storage are covered with canvas	✓		✓		Place was chosen for storage with the further disposal
9	Open fire is prohibited	✓		✓		No open fire neither on site nor base camp
10	Fire-fighting equipment <ul style="list-style-type: none"> <li>▪ Sand bucket and shovel</li> <li>▪ Foam fire extinguisher</li> <li>▪ Fire blanket in the canteen</li> </ul>	✓		✓		
11	Entering of strangers to base camp is prohibited by installing fencing and security	✓		✓		There is a security man and checkpoint at the base camp entrance
12	All employees provided with personal protective equipment (PPE)	✓		✓		Not all employees provided
13	Smoking is prohibited except smoking places	✓		✓		There are smoking places on base camp territory
14	Relevant road signs and warning signs are installed on site and at unsafe areas	✓		✓		
15	Drinking water is provided by commercial and licensed sources for all employees	✓		✓		

No	Environmental safeguard measures	Executed		In process		Comments
		Yes	No	Yes	No	
16	Safety clothes of all employees are washed every day	✓				Safety clothes of employees are washed as necessary
17	All employees are provided with three time meal per day	✓				Local residents have lunch only as they do not work on rotation. It does not breach the Labor Code of the RK.
18	Canteen with sanitary and hygienic conditions on camp	✓				
19	Medical facility and first aid kit on camp and on work areas	✓		✓		First aid kits are replenished as necessary. Logbook for medical facility visit is maintained
20	All employees health is under control of base camp doctor, and appropriate services are provided, also a monthly health checks	✓		✓		Daily pre-work check-up of employees are arranged in medical facility and logbooks for daily health check-up, and also for COVID-19 (body temperature, sobriety test, blood pressure etc.) are maintained.
21	All territory are clean, there is no any waste, except special places for waste disposal	✓	✓	✓		Territory is polluted by waste
22	Provision of rest area on camp		✓			
23	Child labour (younger than 15 year)	✓				Not observed
<b>Production site</b>						
1	Liquid wastes from Asphalt Plant are stored in a tank and disposed by vacuum vehicle Liman ≤MTTSTH≥	✓		✓		

No	Environmental safeguard measures	Executed		In process		Comments
		Yes	No	Yes	No	
2	Solid wastes from Asphalt Plant are stored at designated area and disposed per approved procedures	✓	✓			Plants are installed
3	The plant area is covered by gravel in order to reduce a dusting	✓		✓		
4	The plant area is watered in order to reduce a dusting	✓		✓		Permits have been obtained
5	Plant can not discharge effluents to any area; non-permeable concrete basins will be constructed for such purpose	✓		✓		Permanent control by the Contractor's environmental specialist
6	All employees of Asphalt concrete and Crusher Plants are supplied with dust masks	✓		✓		In the Health and Safety Plan
7	All employees at Asphalt Plants are wearing dust masks	✓		✓		Not always
8	Sand and crushed stone for concrete and asphalt are stored on wet and covered place	✓				
9	There is a fire fighting equipment in Asphalt Plant	✓		✓		It is included in the EMP and Fire Safety
10	Plant or equipment with high vibration are installed properly, maintained and operated correctly	✓		✓		
<b>Fuel station</b>						
1	Oil filling will be strictly controlled and is permitted only at the fuel filling station and on workshop area	✓		✓		
2	Fuel tank storage area is fenced and it is a non-permeable, tank's roof is closed	✓		✓		

No	Environmental safeguard measures	Executed		In process		Comments
		Yes	No	Yes	No	
3	Fuel station, which provided with fire fighting equipment, is checked every week	✓		✓		
4	There is the warning signs at fuel station	✓			✓	
5	Fuel station is provided with wastebasket	✓	✓			
<b>Contractor's Workshop and Car Wash</b>						
1	Liquid hazardous materials are stored in designated area at the workshop	✓		✓		Arranged a special concreted areas to keep a hazardous materials and installed a fence
2	Solid hazardous materials are stored in designated area at the workshop		✓	✓		
3	There are containers for used oils and hydraulic liquids	✓		✓		
4	Used oil products are collected in concrete tank with a volume up to 110% and tank is cleaned according to approved procedures		✓	✓		
5	Workshop is provided with drainage system		✓	✓		
6	Every vehicle is inspected and maintained on a regular basis	✓		✓		To strengthen daily control of special equipment
7	All construction vehicles meet Euro standards and are equipped with modern noise control equipment		✓	✓		
8	Noise control equipment of all vehicles is maintained and checked as per the approved procedures		✓	✓		



No	Environmental safeguard measures	Executed		In process		Comments
		Yes	No	Yes	No	
9	All workshop workers are provided with welding equipment and personal protective equipment	✓		✓		
10	All construction water is collected in concrete tank and cleaned as per the approved procedures	✓		✓		
<b>Project Road</b>						
1	All roads, where planned construction works, are watered by water trucks	✓		✓		To increase watering time and water truck number during rain-free period and to take special control the sites near to villages
2	There are structures for passage of cattle, sheep and other animals on appropriate places of the project road		✓		✓	
3	Culvert and bridge construction areas are provided with safety ribbons and warning signs	✓				
4	Fencing and checkpoint are installed at all work areas where necessary	✓			✓	
5	Waste storage for any kind as well as machinery or vehicles parking is not permitted within a distance of 100m from any facility (including drainage or irrigation facilities)	✓		✓		
6	All appropriate road signs and warning signs are provided on work sites and unsafe areas	✓		✓		
7	Construction vehicle and plants are maintained properly to reduce gas emissions	✓		✓		To strengthen control over special equipment
8	Noise control measures at special areas	✓		✓		

No	Environmental safeguard measures	Executed		In process		Comments
		Yes	No	Yes	No	
Borrow pits						
1	Temporary drainage is provided at borrow pits and quarries			✓		
2	Construction work is stopped between 10.00 p.m. and 6.00 a.m. at 200m from the nearest habitation			✓		There is no any close village
3	Stockpiles do not exceed 3m in height			✓		
4	All vehicles with an open body are used for transportation of materials with possible dusting, designed for these purposes with a well-chosen convertible body	✓		✓		
5	During construction works all noise volume is reduced according to the national standards	✓		✓		If necessary
6	Materials with possible dusting are not loaded higher than convertible body level and covered with clean canvas	✓		✓		Operators and recorders monitor the level of soil loading
7	All vehicles, equipment and plant meet Euro standards for exhaust gas emissions		✓	✓		
8	All temporary acquired land is rehabilitated		✓			After completion of construction works
9	All material residues and contaminated sites are collected and disposed accordance with approved procedures	✓		✓		
10	Watering is provided during material delivery and processing		✓	✓		

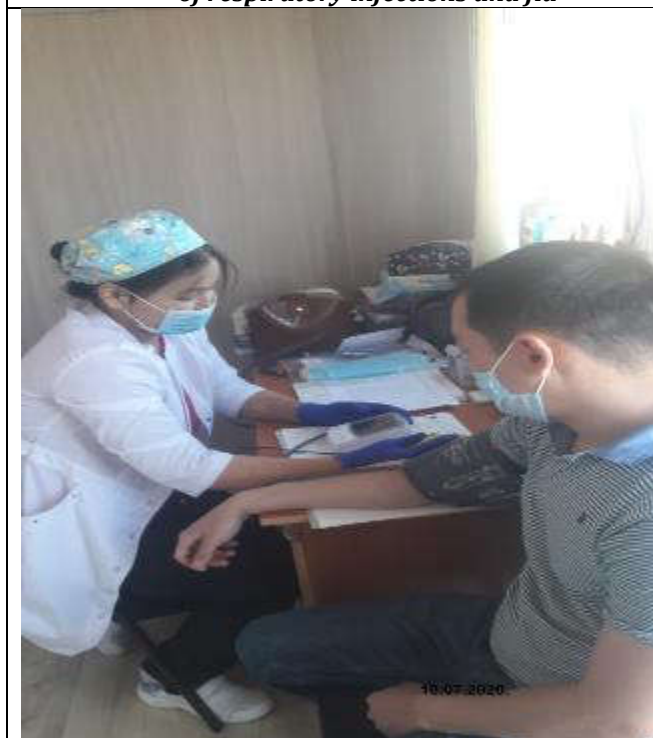
No	Environmental safeguard measures	Executed		In process		Comments
		Yes	No	Yes	No	
11	Any adjacent areas are damaged due to spoil ground, restored to its original state		✓	✓		
12	River banks are protected from materials or temporary stockpiles of the contractor		✓			
13	Negative effects or violations due to construction works are controlled with permissible level according to standards		✓			
14	Access roads to borrow pits, and also borrow pits, quarries and traffic operations are maintained by approved standards	✓		✓		
15	Water discharge and removal, avoiding flooding or damaging to other works or service causing erosion	✓				
<b>Flora and Fauna</b>						
1	Trees and shrubs outside of construction site, but on road reserve are generally preserved from damages					There are no trees on construction site territory
2	Ancient trees have not cut during construction works					There are no ancient trees on construction site territory
3	Cutting off has not taken place without the prior permission of relevant local authorities					No trees
4	Trees or shrubs cut or removed only if they interfere for necessary temporary or permanent works					No trees
5	Construction works are stopped on bridge sites during harvest period (indicate yes or no to construction activities, indicate date)		✓			Bridge construction does not affect to cultivation and harvesting, because they are located on far places

## Appendix 12. PHOTO on activities to prevent the spread of coronavirus

### *Disinfection of offices, workplaces and accommodations of employees Lot 4*



### *Lot 4 Checking of employees for symptoms of respiratory diseases, i.e. Covid-19 to exclude the permit to work for people with symptoms of respiratory infections and flu*



### *Lot 4 Information sheet for the prevention of coronavirus infection*



***Daily disinfection of company vehicles (equipment)***





**Lot 5 On 21.06.2020 the lecture was held in connection with the announcement of a new type of coronavirus infection in the Republic of Kazakhstan and to prevent the spread of infection**



**Lot 5 Checking of employees for symptoms of respiratory diseases, i.e. Covid-19 to exclude the permit to work for people with symptoms of ARVI and flu**



**Lot 5 Information sheet for the prevention of coronavirus infection**

## КОРОНАВИРУС COVID-19

Это возбудитель вирусной инфекции, который вызывает выраженную интоксикацию организма и проблемы с дыхательной и пищеварительной системами.

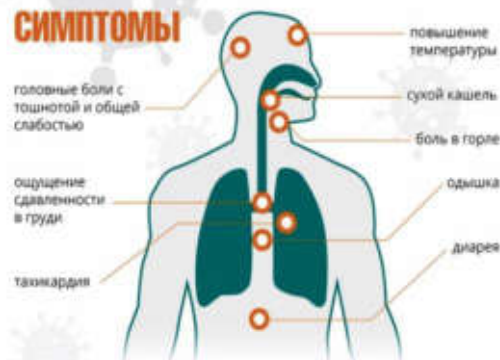
### Отличия коронавируса COVID-19 от остальных вирусов

восприимчивость к COVID-19 не такая высокая, как к вирусу гриппа или ОРВИ

COVID-19 вызывает более тяжелые последствия

в отличие от COVID-19, сезонный грипп сдерживать невозможно

### СИМПТОМЫ



### Рекомендации в связи со вспышкой коронавирусной инфекции COVID-19

- избегать тесных контактов с людьми с симптомами ОРВИ
- мыть руки с жидким мылом и водой не менее 20 секунд
- использовать антисептические средства на спиртовой основе
- проводить гигиену рук, особенно перед касанием рта, носа или глаз, а также после контакта с поручнями, дверными ручками
- при чихании или кашле прикрывать рот и нос бумажной салфеткой
- использовать маску при посещении людных мест, менять ее каждые 2 часа
- пить больше жидкости
- регулярно проветривать и увлажнять воздух в помещении, в котором находитесь



**Explanatory work on COVID-19, Lot 6 base camp, Zhamansor**

