**1. Name of the scientific laboratory Scientific Research Environmental Center “Monitoring”**

**2. Objectives of the scientific laboratory** Conducting scientific research in the area of environmental protection and natural resources; creation of scientific laboratories in the field of monitoring the environment and natural resources**.**

**3.List of laboratory equipment**

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| **№** | **Name of the equipment** | **Brief characteristics of the equipment** | **Tasks performed on the equipment** | **Year of manufacture** | **Certification (yes/no)** | **Date of equipment verification** | **Notes** |
| 1 | Electric distiller 10l/h (YAZDI) | Capacity 10 l/hour  Power consumption 7.5 kW  Mains voltage 380 V  Package size (LxWxH) 42cmx30cmx90cm  Gross weight 10 kg | To produce pure water using electric heating distillation method | 2011 | no |  |  |
| 2 | Apparatus for histological tissue embedding | Apparatus for histological tissue embedding with heating and cooling board. Paraffin dispenser: Integrated heating and cooling boards measuring 110x110 mm each; Electronic display; The capacity of the paraffin chamber is 3 liters. Temperature range from 50 to 80 degrees. C, independent thermoregulation of paraffin tank and heating and cooling boards; Weight 20 kg. | For making paraffin sections that are examined using a light microscope | 2014 | no |  |  |
| 3 | Binocular magnifier MBS-10 | Magnification, volume, within - 3.3 - 100.8  Linear field of view, mm, within - 39 - 2.4  Working distance of the microscope, mm, not less than - 95  Light source - lamp RN 8-20-1 (8V, 20 W)  Overall dimensions of the device in working position (without armrests and illuminator), mm, no more than 238x164x459  Device weight, kg, no more than - 8  Weight of the device in packaging, kg, no more than - 11 | For optical studies in various fields of biology and for research work | 2019 | no |  |  |
| 4 | Drying cabinet SESh - 3M | Mains voltage: 220 +22/-33 V, frequency 50 Hz; Electric drying cabinet power at rated mains voltage: no more than 1200 W; Table rotation speed: 5±2 rpm; The temperature of the drying cabinet can be adjusted: 105 and 130 °C with an accuracy of ±1 °C; Maximum permissible heating of the cabinet drying chamber: 150°C; Degree of protection: 1Р1Х GOST 14254-80; The average heating time of the cabinet at the rated mains voltage and room temperature +20°C is: when heated to 105°C - no more than 10 minutes, when heated to 130°C - no more than 15 minutes. The temperature drop in the drying chamber after a full load of ground grain samples at rated network voltage and room temperature of 20°C is about: 10% of the operating temperature; The temperature recovery time after a full load of ground grain samples at the nominal network voltage and room temperature of 20°C is: 10 minutes; The rotating table holds: mesh weighing bottle for drying whole raw grain - 5 pcs. or metal bottles for drying 5 ground products - 10 pcs.; Overall dimensions: drying cabinet taking into account TCM: height - 645 mm, diameter - 360 mm; on protruding parts - 412 mm; cooler: height - 150 mm; diameter - 292 mm; The weight of the drying cabinet with accessories is no more than 21 kg; Cooler weight - no more than 2.5 kg | For drying grain and grain products, as well as other moisture-containing substances when determining humidity | 2011 | no |  |  |
| 5 | Altami BIO 1 | Contrast methods: - bright field;  Magnification: 40X-1500X.  Nozzle: - binocular or trinocular nozzle type Gemel; - the angle of inclination of the eyepiece tubes is 30°; - luminous flux division 20/80; - interpupillary distance adjustment range 50-75 mm.  Eyepieces: Flat-field with increased visible field: - PL10X/22; - PL15X/16.  Lenses: plan achromatic "at infinity" (Plan ICCOS):  - PLAN 4X/0.10 ∞/0.17 working distance 13.5 mm;  - PLAN 10X/0.25 ∞/0.17 r.r. 12.1 mm;  - PLAN 20X/0.45 ∞/0.17 r.r. 1.5 mm;  - PLAN 40X/0.65 ∞/0.17 r.r. 0.36 mm (spring loaded);  - PLAN 100X/1.25 ∞/0.17 MI r.r. 0.18 mm (spring loaded).  Lighting: - according to the classical Köhler system; - adjustable iris and field diaphragms; - smooth brightness adjustment; - halogen lamp 6 V/30 W.  Subject stage: - 175x145 mm with two-coordinate movement in the range of 76x50 mm with an accuracy of 0.1 mm; - coaxially located table movement control handles; - limit of table rotation clockwise 90°; - limit of table rotation counterclockwise is 20°.  Revolving device: 5-slot, with precise fixation of lenses relative to the optical axis.  Condenser: - achromatic two-position NA 1.25/0.22 with adjustable iris diaphragm; - the condenser holder allows for centering and vertical movement with conveniently located adjustment knobs.  Focusing: - coarse and fine focusing (located coaxially); - precise focusing step 0.002 mm; - coarse focusing stroke 32 mm per revolution; - a mechanism for adjusting the ride stiffness; - mechanism for limiting vertical movement of the table.  Light filters: LBD d=45 m. | For optical studies in various fields of biology and for research work | 2020 | no |  |  |
| 6 | Binocular microscope ALTAMI BIO2 (2t) | Magnification: 40X-1600X; Eyepieces: - wide-field WF10X/20 mm with diopter adjustment, - mounting diameter 30 mm - wide-field WF16X/15 mm, - mounting diameter 30 mm; Attachment: - binocular attachment, - interpupillary distance 55~75 mm, - eyepiece tilt angle 30°; Lighting: Halogen lamp 12 V/20 W, Continuously adjustable lighting brightness; Table: - rectangular 160x142 mm, - slide for two microslides, - range of movement 80x50 mm; Revolving device: 4-position, with precise fixation of lenses relative to the optical axis; Condenser: - Abbe design, - numerical aperture 1.25, - adjustable iris diaphragm, - folding filter holder | For optical studies in various fields of biology and for research work | 2017 | no |  |  |
| 7 | Biological microscope "Mісros" | Attachment - LCD, USB, binocular; Min magnification - 40, Max magnification - 1,600, Eyepieces, magnification - 10x; Eyepiece diameter, mm - 23.20; Lenses, multiples - 4x, 10x, 40x, 100x; Lens type - planapochromat; Resolution, Mpx - 3; Backlight - bottom (transmitted light); Focusing mechanism - stage; Design features: trinocular, fine focusing, coordinate vernier, movable stage, diopter correction, rotating nozzle, turret, LED backlight; Power supply -220 V, 50 Hz, Operating temperature - 18-35 ° C, Humidity less than - 85%, Dimensions, weight - 27 x 30 x 38 cm, 10 kg | For optical studies in various fields of biology and for research work | 2014 | no |  |  |
| 8 | Electronic scales PA 213C | Weighing range, 0.02 - 210 g. Discreteness, 0.001 g. Linearity in operation, ±0.01 - 0.03 g. Weighing cup diameter, 120 mm. Power supply parameters: AC mains, 220/50 V/Hz. Overall dimensions, 320x196x287 mm. Weight, 4.5 kg. Overall dimensions (with packaging), 495x395x522 mm. Weight (with packaging), 6.9 kg. | For basic weighing operations | 2011 | no |  |  |
| 9 | Electric thermostat TS-1/20 | Working chamber volume, l. - 20; Adjustable temperature range, °C: lower value - t ambient. Wednesday, upper value - +60; Temperature setting resolution, °C - 0.1; Maximum temperature deviation at any point in the working chamber, °C - ±0.4; Maximum deviation of the average temperature of any point of the working volume from the set one under steady-state thermal conditions, °C, no more: from +25° to +45° inclusive - from -1 to +1, from +45° to + 60° - from -2 up to +1; Mains voltage, V - 220±10%; Frequency, Hz - 50±1; Maximum power consumption, W, no more - 250; Dimensions of the working chamber, mm: length - 243, width (to the door) - 246; height - 323; Overall dimensions, mm: length - 375; width - 368; height - 550; Weight, kg: without accessories - 21; with accessories and spare parts - 24; Ambient temperature during operation, °C - +10…+35. | For carrying out bacteriological and serological studies | 2020 | no |  |  |

4. Responsible person Kanat Kambarovich Akhmetov

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