



NAIROBI CITY WATER & SEWERAGE COMPANY LTD.

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NCWSC/SCD/CONT/21/2022/VOL.III/8028/BKK

14th December, 2022

ALL BIDDERS

To _____

Dear Sir,

RE: ADDENDUM NO. 3 - NCWSC/21/2022 - SUPPLY & DELIVERY OF LABORATORY EQUIPMENT, SPARES, CHEMICALS AND GLASSWARE IN LOTS.

Bidders are advised to take note of the changes below;

Annex 1: Price Schedule

Annex 2: List of Goods and Delivery Schedule

Annex 3: Bid security for lot 7 is Kshs 50,000 (fifty thousand) valid for 240 days

The closing date has been extended from **Friday 16th December, 2022 at 12:00 noon to Wednesday 21st December 2022.**

Benedict Kiema

For Managing Director

Board of Directors:

B. L. Okumu (Chairman), T. Muriuki (Vice-Chair), A. Kahiya, N.C.C. C.E.C.M. Finance & Economic Planning, N.C.C. C.O. Water, Sanitation & Energy, M. Kuruga, E. Mukuhi, L. M. Kamba, M.A Abdullahi, Eng. N. M. Muguna (Managing Director)

Annex 1: Price Schedule

Lot 1: Laboratory Equipment, Spares and Other Consumables.

Item No.	Item Description	Specifications	Unit Of Measure	Quantity	Unit Price	Total Costs
1	Burettes Digital, Capacity 50mL	Refer to above	Each	3		
2	COD Digestion Block	Refer to above	Each	1		
3	Dissolved Oxygen Meter	Refer to above	Each	1		
4	Floc/Jar tester	Refer to above	Each	2		
5	Laboratory Oven, 250°C, 30L	Refer to above	Each	1		
6	Zero air generator	Refer to above	Each	1		
7	Swing Water Samplers	Refer to above	Each	4		
8	Thermostat Incubator Cabinet for 4 BOD OxiTop with Glass Door	Refer to above	Each	1		
9	Filtration apparatus with pump, 300ml, diameter 47mm	Refer to above	Each	1		
10	WTW OxiTop® IS 6 in Analytical Devices	Refer to above	Each	2		
	Sub total					
	Add 16% Vat					
	Grand total					

Lot 2: Laboratory Reagents and Other Consumables

No	Item Description	Specifications	Unit of Measure	Quantity	Unit Price	Total costs
1	Acetic Acid, Glacial	Grade: ACS reagent Purity: Assay ≥99.99% Packaging material: Amber glass or poly bottle Shelf-life: ≥24 months	2.5L	3		
2	Acetic Acid, for trace analysis	Purity: Assay ≥99.5% trace metals basis Packaging material: Amber glass or poly bottle Shelf-life: ≥24 months	500mL	1		
3	Acetone AR	Grade: ACS reagent Purity: Assay ≥99.5% Packaging material: Amber glass or poly bottle Shelf-life: ≥24 months	2.5L	10		

4	Ammonium Acetate	Grade: ACS reagent Assay: $\geq 99.98\%$ Packaging material: Poly bottle Shelf-life: ≥ 24 months	500g	11		
5	Ammonium Chloride	Grade: ACS Purity: Assay $\geq 99.5\%$ Packaging material: Poly bottle Pack Size: 500g	500g	11		
7	Ammonium hydroxide solution	Name: Ammonium hydroxide solution 28% NH ₃ in H ₂ O, Purity $\geq 99.99\%$ trace metals basis	1L	2		
8	Ammonia Solution	Quality: Extra pure NH ₃ : M.W 17.03 Assay: about 28 - 30% Density: min 0.89g/ Package: Amber glass bottle Pack Size: 2.5L	2.5L	8		
9	Brilliant Green broth	Merck or equivalent	500g	2		
10	Bromocresol Green Indicatot	Merck or equivalent	25g	5		
11	Bromothymol Blue Indicator	Merck or equivalent	25g	6		
12	Buffer Solution pH 10.01	Part Number: HI-7010L Accuracy: Standard ± 0.01 pH pH value @25°C: 4.01 Package: bottle Certificate of analysis: Yes Shelf-life: ≥ 24 months Manufacturer: Hanna	500mL	2		
13	Buffer Solution pH 4.01	Part Number: HI7004L/C Accuracy: Standard ± 0.01 pH pH value @25°C: 4.01 Package: bottle Certificate of analysis: Yes Shelf-life: ≥ 24 months Manufacturer: Hanna	500mL	2		
14	Buffer Solution pH 7.01	Part Number: HI7007L/C Accuracy: Standard ± 0.01 pH pH value @25°C: 7.01 Package: bottle Certificate of analysis: Yes Shelf-life: ≥ 24 months Manufacturer: Hanna	500mL	2		

15	Buffer Tablets PH 10.0 ± 0.05	Appearance: White uniform tablets Shelf-life: ≥24 months Package: Poly bottle Certificate of analysis: Yes	pkt/50Tab s	8		
16	Buffer Tablets PH 4.0 ± 0.05	Appearance: White tablet Shelf-life: ≥24 months Package: Poly bottle Certificate of analysis: Yes	pkt/50Tab s	8		
17	Buffer Tablets PH 7.0 ± 0.05	Appearance: White uniform tablets Shelf-life: ≥24 months Package: Poly bottle Certificate of analysis: Yes	pkt/50Tab s	8		
18	Cadmium Standard,1000p pm	Capacity: 500mL Substance concentration (Cd): 1000mg/L±0.2% Matrix: 2% HNO3 Traceability: NIST Standard Reference Material Shelf life: ≥2yrs	500mL	2		
19	Calcium Carbonate	Grade: ACS reagent Purity: Assay ≥99.0% Packaging material: Poly bottle Form: Solid	500g	1		
20	Calcium Hardness Tablets	Fischer scientific or equivalent	Pkt/100nT abs	5		
21	Chloroform AR	Grade: ACS Assay ≥99.8% Packaging material: HDPE bottles	2.5L	2		
22	Chromium Standard,1000p pm	Capacity: 500mL Substance concentration (Cr): 1000mg/L±0.2% Matrix: 2% HNO3 Traceability: NIST Standard Reference Material Shelf life: ≥2yrs	500mL	2		
23	Citric acid monohydrate	Grade: ACS reagent Assay: ≥99.0% Packaging material: Poly bottle Form: Solid	500g	1		
24	Conductivity Calibration Solution 500ML	Part Number: H8031L μS/cm @25°C: 1413 μS/cm Package: FDA bottle	500mL	4		

	(1413µS/cm)	Certificate of analysis: Yes Expiry: 5 years Manufacturer: Hanna				
25	Copper Standard,1000ppm	Substance concentration (Cu): 1000mg/L±0.2% Matrix: 2% HNO3 Traceability: NIST Standard Reference Material Shelf life: ≥2yrs	500mL	2		
26	Di-Sodium Tetraborate decahydrate	Grade: ACS reagent Purity: Assay ≥99.0% Packaging material: Poly bottle Shelf life: ≥2yrs	500g	1		
27	Eriochrome Black T-indicator	Grade: ACS reagent (Indicator grade) Form: Powder Packaging: Glass bottle Weight: 100g	100g	5		
28	Ethanol, Absolute	Grade: Absolute Form: Liquid (clear, colorless) Purity: Assay ≥99.8% Packaging material: HDPE or Glass bottles Shelf life: ≥2yrs	2.5L	22		
29	Ethylenediamine tetraacetic acid disodium salt dihydrate	Grade: AR Purity: Assay ≥99.0% Packaging material: Poly bottle Shelf life: ≥2yrs	500g	4		
30	Ethylene Diamine Tetra Acetic Acid (EDTA) 100% pure	Grade: AR Purity: Assay 100% Packaging material: Poly bottle Shelf life: ≥2yrs	500g	6		
31	Ethylene Diamine Tetra Acetic acid (EDTA)-ampoules (1N)	Concentration: 1N Appearance (Form): Liquid Traceability: NIST Expiry date: 3 years	pkt/6	15		
32	Ethylene Diamine Tetra Acetic acid (EDTA)-ampoules 0.1N	Concentration: 0.1N Appearance (Form): Liquid Traceability: NIST Expiry date: 3 years	pkt/6	3		
33	Electrolyte Solution	0.5M (NH)SO, Hanna HI7078	30 mL x 4	2		

34	Electrolyte Solution	1.7M KNO ₃ , 0.7M KCl, Hanna HI7075	30 mL x 4	2		
35	Ferriin Indicator	Concentration: 0.025M Grade: ACS reagent Package: Glass bottle or poly bottle Shelf life: ≥2yrs	100mL	3		
36	Glycerol	Grade: ACS reagent Purity: Assay ≥99.5% Packaging material: Poly bottle Shelf life: ≥2yrs	2.5L	2		
37	Hydrochloric acid	Grade: ACS/AR reagent Purity: Assay ≥ 36% Density: 1.19g/mL Packaging material: Glass Shelf life: ≥2yrs	2.5L	10		
38	Hydrochloric acid-Ampoules (0.1N)	Concentration: HCL 0.1m/L (0.1N) Appearance (Form): Liquid Titration: 0.950 – 1.050 Normal Traceability: NIST Expiry date: 3 years	pkt/6	4		
39	Hydrochloric acid-Ampoules (1N)	Concentration: HCL 1.0m/L (1.0N) Appearance (Form): Liquid Titration: 0.950 – 1.050 Normal Traceability: NIST Expiry date: 3 years	pkt/6	6		
40	Iron standard solution, 1,000 mg/l	Substance concentration (Fe): 1000mg/L±0.2% Matrix: 2% HNO ₃ Traceability: NIST Standard Reference Material Shelf life: ≥2yrs	500mL	3		
41	ISAB Reagent For Nitrates	EDT direct ion or equivalent	500mL	2		
42	ISAB Reagent For Chloride	EDT direct ion or equivalent	500mL	2		
43	ISO-Propyl-Alcohol	Grade: IC grade Assay: ≥99.9% Pack Size: 2.5L Packaging: Poly bottle	2.5L	9		
44	MacConkey Broth	Merck or equivalent	500g	8		
45	Membrane Filter paper	Material: Nylon membrane Packaging: Pack of 100 ea	Pkt/100 circles	10		

		Diam.: 47 mm Pore size: 0.45 µm				
46	Manganese (II) Sulphate tetrahydrate – Extra pure	Grade: ACS reagent Purity: Assay ≥98.0% Packaging material: Poly bottle Shelf life: ≥2yrs	500g	2		
47	Manganese standard solution, 1,000 mg/l	Substance concentration (Mn): 1000mg/L±0.2% Matrix: 2% HNO3 Traceability: NIST Standard Reference Material Shelf life: ≥2yrs	500mL	2		
48	Mercuric Sulphate AR	Assay: ≥98% Grade: ACS reagent Shelf life: ≥2yrs Packaging material: Glass bottle	250g	2		
49	Methanol	Grade: HPLC grade Assay: ≥99.9% Pack Size: 2.5L Packaging: Glass bottle	2.5L	7		
50	Methyl red indicator	Grade: ACS reagent Visual transition interval: 4.2 - 6.2, pink to yellow. Form: Crystalline Solubility: Ethanol: 1 mg/mL Pack Size: 25g Packaging material: Glass bottle	25g	2		
51	Methyl orange indicator	Grade: ACS reagent Appearance (Color): Orange Appearance (Form): Powder Pack Size: 100g Packaging material: Glass bottle	100g	1		
52	Nickel standard solution, 1,000 mg/l	Substance concentration (Ni): 1000mg/L±0.2% Matrix: 2% HNO3 Traceability: NIST Standard Reference Material Shelf life: ≥2yrs	500mL	2		
53	Nitric acid	Purity: Assay ≥ 69.5% Grade: ACS reagent Packaging material: Glass Shelf life: ≥2yrs	2.5L	8		
54	Nitrification Inhibitor	Formula 2533,TCMP Pack Size: 35g Packaging material: Poly bottle	35g	10		
55	Oxalic acid	Grade: ACS reagent	250g	2		

	dihydrate	Assay:> 99.5 % Pack Size: 500g Packaging material: Poly bottle				
56	Oxalic acid	Grade: AR Purity: Assay ≥ 99.8% Packaging material: Glass bottle Shelf-life:≥24 months	500ml	12		
57	Phenolphthalein indicator	Grade: ACS reagent Package: Glass bottle or poly bottle Shelf life: ≥2yrs	100g	2		
58	Phosphoric acid	Grade: ACS Concentration: ≥85 wt. % in H ₂ O Packaging material: Poly bottle Shelf life: ≥2yrs	2.5L	2		
59	Potassium Chloride AR	Grade: AR Assay: ≥99.0% Packaging material: Poly bottle Shelf life: ≥2yrs	500g	6		
60	Potassium dichromate AR	Grade: ACS Assay: ≥99.0% Package: Poly Bottle Shelf life: ≥2yrs	500g	2		
61	Potassium dichromate AR	Grade: ACS Assay: ≥99.0% Package: Poly Bottle Shelf life: ≥2yrs	500g	2		
62	Potassium Fluoride AR	Grade: ACS Assay: ≥99.9% trace metals basis Package: Poly Bottle Shelf life: ≥2yrs	500g	2		
63	Potassium Hydroxide pellets	Grade: ACS Assay: ≥85.0% Packaging material: Poly bottle Shelf life: ≥2yrs	500g	6		
64	Potassium Iodide AR	Grade: AR Assay: ≥99% Packaging material: Poly bottle Shelf life: ≥2yrs	500g	10		
65	Potassium Nitrate	Grade: ACS reagent Assay: ≥99% Packaging material: Poly bottle Shelf life: ≥2yrs	500g	2		
66	Potassium permanganate	Grade: ACS reagent Assay:>99%	500g	1		

		Pack Size: 500g Packaging material: Poly bottle				
67	Potassium Standard Solution, 1000ppm	Substance concentration (K): 1000mg/L Uncertainty: ± 5 mg/kg Matrix: HNO ₃ Traceability: NIST Standard Reference Material Shelf life: ≥ 2 yrs	500ml	1		
68	Silver Nitrate AR	Grade: ACS reagent Assay(dried basis): $>99.9\%$ Pack Size: 25g Packaging material: Poly bottle	25g	12		
69	Silver Sulphate AR	Grade: ACS reagent Assay(dried basis): $>99.5\%$ Pack Size: 25g Packaging material: Poly bottle	25g	12		
70	Sodium Acetate Trihydrate	Grade: ACS reagent Purity: Assay $\geq 99.0\%$ Packaging material: Poly bottle Form: Solid Shelf life: ≥ 2 yrs	500g	7		
71	Sodium hydrogen carbonate	Grade: ACS reagent Assay: $>99.5\%$ Pack Size: 500g Packaging material: Poly bottle	500g	3		
72	Sodium carbonate anhydrous	Grade: AR reagent Assay: $\geq 99.5\%$ Shelf life: ≥ 2 yrs Packaging material: Poly bottle	500g	3		
73	Sodium Chloride	Grade: ACS reagent Assay: $\geq 99.0\%$ Shelf life: ≥ 2 yrs Packaging material: Poly bottle	500g	2		
74	Sodium Hydroxide Solution for 1000mL	Concentration: 1M (1.0N) Traceability: NIST Standard Concentrate Shelf life: ≥ 2 yrs Packaging: Ampoules	pkt/6	7		
75	Sodium Hydroxide, for 1000mL solution	Concentration: 0.5M (0.5N), Traceability: NIST Standard Concentrate Shelf life: ≥ 2 yrs Packaging: Ampoules	Each	15		
76	Sodium Hydroxide,	Grade: ACS reagent Form: Pellets	Each	11		

	Pellets	Assay: ≥98% Packaging material: Poly bottles Pack Size: 500g				
77	Sodium Standard Solution, 1000mL	Capacity: 500ml Substance concentration (Na): 1000mg/L Matrix: HNO ₃ Traceability: NIST Standard Reference Material Shelf life: ≥2yrs	500mL	1		
78	Sodium Starch Glycolate	Type: A Assay: 2.8 – 4.2 pH: 5.5 -7.5 Shelf life: ≥2yrs Packaging material: Poly bottle	500g	4		
79	Sodium sulfate	Grade: IC grade Assay: ≥99.9% Shelf life: ≥2yrs Packaging material: Poly bottle	500g	3		
80	Sodium Sulphide AR	Grade: AR reagent Assay: >60.0% Shelf life: ≥2yrs Packaging material: Poly bottle	500g	1		
81	Sodium Tetraborate AR	Grade: AR reagent Assay: ≥99.5% Shelf life: ≥2yrs Packaging material: Poly bottle	500g	3		
82	Sodium Thiosulphate for 1000ml	Concentration: 1M(1N) Shelf life: ≥2yrs Packaging: Ampoules	Pkt/6	5		
83	Sodium Thiosulphate Pentahydrate	Grade: AR reagent Assay: ≥99.0% Shelf life: ≥2yrs Packaging material: Poly bottle	500g	15		
84	Sulfamic acid	Grade: AR reagent Assay: ≥99.50% Shelf life: ≥2yrs Packaging material: Poly bottle	100g	2		
85	Sulphuric Acid AR	Grade: AR Purity: Assay ≥ 98% Packaging material: Glass bottle Shelf-life: ≥24 months	2.5L	25		
86	Sulphuric Acid Solution for 1000mL	Grade: Certified N.I.S.T. traceable: Yes Concentration: 0.5M (1N) Shelf-life: ≥24 months	Each	24		

		Packaging: Ampoules				
87	Sulphuric Acid Solution for 1000mL	Grade: Certified N.I.S.T. traceable: Yes Concentration: 0.01M (0.02N) Shelf-life: ≥24 months Packaging: Ampoules	Each	18		
88	Sulphuric Acid, GPR	Grade: GPR Purity: Assay ≥ 93%% Packaging material: Poly bottle or Glass bottle Shelf-life: ≥24 months	2.5L	8		
89	Detergent,	Description: Laboratory Grade, phosphorous free Certificate of analysis: Yes	20L	20		
90	Total Hardness Indicator Tablets	Fischer Scientific or equivalent	pkt/100	3		
91	Tryptone water dehydrated	Merck or equivalent	500g	2		
92	Turbidity Standard	HI-88713-11 Calibration set for HI-88713-02	Set	1		
93	Turbidity Standard	HI-98703-11 Turbidity Calibration Set for HI-98703	Set	1		
94	Xylenol orange tetrasodium salt.	Grade: ACS reagent Package: Glass bottle or poly bottle Shelf life: ≥2yrs	5g	4		
95	Zinc chloride	Grade: ACS Purity: Assay ≥ 98% Packaging material: Poly bottle Shelf-life: ≥24 months	500g	7		
96	Zinc	Product name: Zinc Grade: Puriss. p.a., ACS reagent, reagent, ISO, reagent, Ph. Eur. Purity: ≥99.9% Form: Granular	500g	2		
97	Zinc Standard Solution, 1000ppm	Substance concentration (Zn): 1000mg/L ± 0.2% Matrix: 2% HNO ₃ Traceability: NIST Standard Reference Material Shelf life: ≥2yrs	500mL	3		
98	Zinc Sulphate.7H₂O AR	Grade: AR Purity: Assay ≥ 99% Packaging material: Poly bottle Shelf-life: ≥24 months	500g	4		

99	Fluoride Module for Combination Electrode	Hanna HI 4110-51	Each	2		
100	Chloride Combination Ion Selective Electrode (ISE)	Hanna HI4107	Each	2		
101	Nitrate Module for Combination Electrode	Hanna HI 4113-53	Pcs/3	2		
102	Nitrate standard solution	Concentration: 1000ppm Technique: Ion chromatography Traceability: Traceable to SRM	500mL	2		
103	Filter paper	Complete packsize: 100 pieces Grade: 934-AH RTU Particle Retention in liquid: 1.5µm Typical Thickness: 435µm Basis Weight: 64g/m ² Material: Borosilicate glass Properties: Fast High loading Binder Type: Binder Free Dimension: Circle, 47 mm	Pack	30		
Sub Total						
Add 16% VAT						
Grand Total						

Lot 3: DPD Tablets

No.	Item Description	Specifications	Unit of Measure	Quantity	Unit Costs	Total cost
1	DPD Tablet 1	Tablet Code: 511051BT Range: 0.01 – 6.0mg/l	pK/500	500		
2	DPD Tablets 3	Tablet Code: 511081BT Range: 0.01 – 6.0mg/l	pK/500	500		
Sub Total						
Add 16% VAT						
Grand Total						

Lot 4: Colilert Reagents and Equipment

No.	Item Description	Specifications	Unit of Measure	Quantity	Unit Costs	Total Costs
1	Colilert 18hr	Manufacturer: IDEXX Quantity: set/100 Cat No.: WP100I-18	pK/100	60		
2	Quanti –Tray with 51 wells.	Manufacturer: IDEXX Quantity: Set/100 Cat No.: WQT100	pK/100	70		
3	120ml Shrink banded vessel with antifoam	Manufacturer: IDEXX Quantity: Set/200 Cat No.: WV120SBAF-200	pK/200	70		
4	Colilert-18 Quanti –Tray Comparator (51-well tray)	Manufacturer: IDEXX Cat No.: WQTC Shelf Life: 12 months	Each	1		
5.	Quanti-Tray Sealer Plus	Refer to above	Each	1		
Sub total						
Add 16% VAT						
Grand Total						

Lot 5: HACH Reagents and Equipment

No	Item Description	Specifications	Unit of Measure	Quantity	Unit costs	Total costs
1	Nitrite Reagent	HACH Product No.: 21071-69	Reagent set	5		
2	Phosphorous , reactive (orthophosphate) reagent	HACH Product No.: 22441-00	Reagent sets	5		
3	Phosphorus (Reactive and Total) TNTplus Vial Test, UHR	HACH Product No.: TNT845	25/pkg	5		
4	Silica Reagent Set	HACH Product No.: 24296-00	Reagent sets	5		
5	Sulphate Reagent	HACH Product No.: 2106769	Reagent sets	5		
6	Nitrogen, Ammonia Reagent	HACH Product No.: 2604545	Reagent sets	5		

7	Manganese Reagent	HACH Product No.: 26517-00	Reagent sets	16		
8	Iron Reagent	HACH Product No.: 1037-69	Reagent sets	16		
9	Aluminum Reagent	HACH Product No.: 22420-00	Reagent sets	21		
10	COD Digestion Reagent Vials, 200–1500 mg/L COD	HACH Product No.: 2125915	150/pkg	30		
11	Sulphide Reagent	HACH Product No.: LCW053	35/pkg	5		
12	Stabcal® Turbidity Standards Calibration Kit, 0 - 4000 NTU, Sealed Vials	HACH Product No.: 2662105	Each	1		
13	Pocket colorimeter, free and total residual chlorine	Refer to above	Each	4		
14	Turbidimeter	Refer to above	Each	1		
Sub Total						
Add 16% Vat						
Grand Total						

Lot 6: Glassware and Other Consumables

No	Item Description	Specifications	Unit of Measure	Quantity	Unit Costs	Total Costs
1	Beakers, with spout, low form	Capacity: 100m Material: Translucent polypropylene beakers printed with blue graduations. Feature: Graduation interval 20mL Diameter (OD): 50mm Height: 71mm Complies with: ISO 7056 Certificate of Analysis: Yes Autoclavable at 121°C for 20minutes.	Each	6		
2	Beakers, with spout, low form	Capacity: 250ml Material: Borosilicate Glass Feature: Graduation	Pack/12	3		

		Diameter (OD): 69mm Height: 95mm Complies with: ISO 3819 and DIN 12331 Markings: White graduations and marking spot				
3	Beakers, with spout, low form	Capacity: 600ml Material: Borosilicate Glass Feature: Graduation Diameter (OD): 9cm Height: 125mm Complies with: ISO 3819 and DIN 12331 Markings: White graduations and marking spot	Pack/12	3		
4	Ultrapure Catridge	Description: Compatible with Barnstead Lab Water System Cat No: CAT.09.2005	Each	1		
5	Measuring Cylinder	Capacity: 100 ml Class: B Material: borosilicate glass with hexagonal base Height: 260mm Graduation: 1.0mL Autoclavable: Yes Compliance: ISO 4788 Inscription: Inscribed with individual serial number for tracibility to National Standards. Graduations: White enamel. Conformity: 'H' certified Certification: Individually tested and supplied with certificate showing	Each	24		

		exact volume contained at 5 points on the scale.				
6	Measuring Cylinder	Capacity: 100 ml Class: B Material: Translucent Polypropylene (PP) with hexagonal base and a pouring spout. Molded graduations for improved accuracy and consistency Height: 250mm Graduation: 10mL Subdivision: 1mL Autoclavable: Yes Certifications: Products are Class "B" as per DIN 12681/ISO 6706. Resin meets US FDA 21 CFR requirements.	Each	24		
7	Glass Cell	Lovibond® DB 424/S Glass Cell With White Lid, 2-12 ml, Path Length 13.5 mm	pk/5	5		
8	Amber bottle	Capacity: 100 ml Material: borosilicate glass Cap color: White Bottle color: Amber Outside diameter: 43mm Neck inside diameter: 15mm Total Height: 11.6cm	Pk/10	8		
9	Amber bottle	Capacity: 500ml Material: borosilicate glass Cap color: White Bottle color: Amber Outside diameter: 43mm Neck inside diameter: 15mm	Pk/10	5		

		Total Height:11.6cm				
10	Durham tubes	Capacity: 0.5ml Length; 50mm Outer Diameter: 10mm Autoclavable: Yes Rim: Straight edges properly polished Bottom: Round Graduation: None Material: Pyrex borosilicate very clear, transparent glass	Each	200		
11	Pipette fillers	Version: Universal with elongated cone, 3 valve for air release, suction and delivery Material: Natural rubber, Color: Red Ideal for: Pipette up to 100ml	Each	24		
12	Universal bottle	Capacity: 28ml Material: Clear borosilicate glass Caps: Aluminum screw cap and rubber liner Autoclavable: Yes (140°C)	Dozen	30		
13	Bottles, media-lab, with cap and pouring ring	Capacity: 1000ml Material: Clear borosilicate glass, Pyrex Height: 225mm Thread size: GL 45mm Caps: Connection system screw caps for GL 45. Shall have linerless autoclavable (140°C max) polypropylene blue cap.	Pkt/2	3		

		<p>Autoclavable: Yes (140°C) Marking: The marking spot shall be permanent white enamel. Pour Ring: Bottle design includes a clear (natural) drip-free polypropylene pour ring which is replaceable.</p>				
14	Bottles, media-lab, with cap and pouring ring	<p>Capacity: 2000ml Material: Clear borosilicate glass, Pyrex Height: 260mm Thread size: GL 45mm Caps: Connection system screw caps for GL 45. Shall have linerless autoclavable (140°C max) polypropylene blue cap. Autoclavable: Yes (140°C). Marking: The marking spot shall be permanent white enamel. Pour Ring: Bottle design includes a clear (natural) drip-free polypropylene pour ring which is replaceable.</p>	Pkt/2	3		
15	Volumetric flask, Class A	<p>Capacity ml: 1000 Approx. height mm): 300 Stopper size: 24/29 Complies with: ISO 1042 and DIN 12664. Class: Calibrated to Class A tolerances.</p>	Pk/2	4		

		<p>Marking: Each flask must be laser etched with an individual serial number, batch code and date of manufacture.</p> <p>Material: Borosilicate, pyrex glass</p> <p>Conformity: 'H' certified</p> <p>Inscriptions: White enamel</p> <p>Stopper: Supplied with polyethylene stopper</p> <p>Batch certificate: Yes</p>				
16	Volumetric flask, Class A	<p>Capacity (mL): 2000</p> <p>Approx. height mm: 370</p> <p>Stopper size: 29/32</p> <p>Complies with: ISO 1042 and DIN 12664.</p> <p>Class: Calibrated to Class A tolerances.</p> <p>Marking: Each flask must be laser etched with an individual serial number, batch code and date of manufacture.</p> <p>Material: Borosilicate, pyrex glass</p> <p>Conformity: 'H' certified</p> <p>Inscriptions: White enamel</p> <p>Stopper: Supplied with polyethylene stopper</p> <p>Batch certificate: Yes</p>	Pk/1	2		
17	Flask, Erlenmeyer	<p>Capacity (mL): 500</p> <p>Diameter (d) (mm): 105</p> <p>Height (mm): 180</p>	Each	6		

		<p>d1 OD) (mm): 34 Diameter (mm): 105 Material: Clear borosilicate glass, Pyrex Complies with: DIN ISO 1773 Marking: The marking area shall be printed ceramic area on laboratory glassware for marking / identification. Also called marking field, white marking spot or marking square. Traceability: Yes Autoclavable: Yes</p>				
18	Burette	<p>Class: B Color coded stripes for quick volume identification. Glass key stop lock. Material: borosilicate Capacity:50 ml Division:0.1 Tolerance: +/- 0.1ml Accurate as per class B, DIN ISO 385</p>	Each	10		
19	Eppendorf Pipette Holder System	<p>Pipette Carousel 2, with holders for 6 Eppendorf Research®, Eppendorf Research® plus, Eppendorf Reference®, Eppendorf Reference® 2 or Biomaster® Catalog No. 3116000015</p>	Each	1		
20	Brushes- test tube	<p>For test tubes, bristle, with soft wool end, on iron wire, overall length 185 mm, for</p>	No.	36		

		use with 12.5 to 16mm bore tubes.				
21	Brushes - Burette	For burettes. Best bristle on copper wire; overall length 900mm and head size of 125x30mm	No.	36		
22	Brushes -bottle	White nylon on galvanized wire; overall length of 250mm and size head of 50x40mm	No.	100		
23	Brushes, Pipette	General description: Brush materials resistant to acids, aromatic and aliphatic hydrocarbons, ketones, ethyl acetate esters, trichloroethylene, and hot water. Length (in): 17 Material; White bristle Brush size diam: 3/16-3/4inch x 7 ½ in	Each	6		
24	Cooling boxes, 15Litres	Capacity: 15L Product Weight:: 2.5 kg Insulation Material: PU Outer Case/ Inner Liner Material: HDPE Ice Retention:v1 Day Features:vUp to one day's cooling performance. High performance injected Polyurethane foam insulated body. Shaped sides and base to ensure maximum cooling efficiency. Wipe-clean lid with recessed cup	Each	4		

		holders. Comfortable handle for easy carrying				
25	Weighing Boats	Accessory Type: Weighing Boats. Capacity (mL): 50 Color: White. Material: Polystyrene Height (in): ¼ Width (in): 3 ½ Length (in): 3 ½ Description: Square Polystyrene Weigh Boats, White, 50 mL, 500/Cs	Pk/500	2		
26	Pouring rings for laboratory bottles	GL 45 neck thread, blue polypropylene	Pk/10	10		
27	Comparators	Lovibond® Comparator System 2000+	Each	3		
28	Spatula	Product type: Laboratory spoon one end spatula Material: Stainless steel 304 spec18/8 alloy (18% chromium and 8% nickel) non magnetic Finish: Bright finish Length: 150mm long Spoon measurement: 20mm wide Spoon capacity (liquid): 2ml	Each	12		
29	Forceps	Description: The forceps have a straight shape with blunt ends that are fluted on the inside. Material: Stainless Steel Length: 160mm	Each	8		
30	Watch Glass	Watch Glasses, 3.5" (9cm) - Cover Lids for Beakers & Flasks -	Pkt/10	25		

		Evaporation Dish - Polished with Ground Edge				
31	Drop-In Sink, Laboratory	<p>Type: Drop-In sink</p> <p>Material: EPOXY RESIN to provide maximum physical and chemical properties. Sinks shall be non-glaring with coved corners, sides, and bottom. The bottom pitched to the drain outlet. Sinks shall be non-absorbent, resistant to chemicals (acids, solvents, and salts), mechanical and thermal shock.</p> <p>Color: One piece black sink.</p> <p>Measurement: Interior Length – 45cm; Interior Width – 37.5cm; Interior Depth – 20cm</p> <p>Sink Outlet: Corner</p> <p>Certification: Yes. This shall be from the manufacturer as proof of specifications for the Drop-in laboratory sink</p>	No	15		
32	Sink traps, Laboratory	<p>Type: Anti-Syphon Dilution Trap</p> <p>Material: Polypropylene (chemical resistant)</p> <p>Capacity: 2.3 Litre's trap.</p> <p>Inlet: 1½" BSP thread loose nut coupling for</p>	Each	10		

		<p>screwing to waste or drip-cup tails. The top inlet pipe shall be height adjustable for easy connection to the waste outlet of the sink. The bottom bowl unscrews for emptying and cleaning.</p> <p>Outlet: 1½" BSP is supplied with nut and olive to take 1½" pipe.</p> <p>Certification: Yes. This shall be from the manufacturer as proof of specifications for the Anti-Syphon Dilution Trap.</p>				
33	Swan Tap, Laboratory	<p>Description: Movable swan neck with fixed nozzle</p> <p>Construction: All brass body, plastic coated, black. Chemical resistant plastic ABS handwheel.</p> <ul style="list-style-type: none"> • Connection and mounting: ½" BSP male flat ended shank x 60mm long with back nut. Standard anti-rotation base with location pin. Two mounting holes 22mm and 5mm 	Each	10		

		diameter required template enclosed. Pressure and Flow: Maximum pressure 100PSI Flow Rate @ 20 psi = 12 Litre/min.				
34	Bags, Biohazard	Material: HDPE Capacity: (Gal)20 Color: Clear Length (in): 36 Width (in): 24 Length (cm): 91.44 Width (cm): 60.96 Thickness: (mil) 1.25 General Description: 20 gal HDPE Biohazard Bags w/ Sterilization Patch, 24 x 36"	Pkt/100	10		
Sub Total						
Add 16% Vat						
Grand Total						

Lot 7: TECTA Reagents

No	Item Description	Specifications	Unit of Measure	Quantity	Unit Cost	Total Costs
1.	Tecta EC/TC consumable test cartridges	TECTAlert CCA: Combined E. coli and Total Coliform test.	pkt/48	20		
Sub Total						
Add 16% Vat						
Grand Total						

ITEM	GRAND TOTAL TO THE FORM OF TENDER AMOUNT – Kes
Total B/Fwd from Lot 1	
Total B/Fwd from Lot 2	
Total B/Fwd from Lot 3	
Total B/Fwd from Lot 4	
Total B/Fwd from Lot 5	
Total B/Fwd from Lot 6	
Total B/Fwd from Lot 7	

Name of Bidder.....

Physical Address.....

Building.....

Town.....

Name of Authorised Representative of Bidder.....

Signature.....

Date.....

Official Stamp/Company Seal

List of Goods and Delivery Schedule

Lot 1: Laboratory Equipment, Spares and Other Consumables.

Item No.	Item Description	Specifications	Unit Of Measure	Quantity	Delivery Time Required after issuance of LPO	Tenderers Delivery time offered
1	Burettes Digital, Capacity 50mL	Refer to above	Each	3	21 days	
2	COD Digestion Block	Refer to above	Each	1	21 days	
3	Dissolved Oxygen Meter	Refer to above	Each	1	21 days	
4	Floc/Jar tester	Refer to above	Each	2	21 days	
5	Laboratory Oven, 250°C, 30L	Refer to above	Each	1	21 days	
6	Zero air generator	Refer to above	Each	1	21 days	
7	Swing Water Samplers	Refer to above	Each	4	21 days	
8	Thermostat Incubator Cabinet for 4 BOD OxiTop with Glass Door	Refer to above	Each	1	21 days	
9	Filtration apparatus with pump, 300ml, diameter 47mm	Refer to above	Each	1	21 days	
10	WTW OxiTop® IS 6 in Analytical Devices	Refer to above	Each	2	21 days	

Lot 2: Laboratory Reagents and Other Consumables

No.	Item Description	Specifications	Unit of Measure	Quantity	Delivery Time Required after issuance of LPO	Tenderers Delivery time offered
1	Acetic Acid, Glacial	Grade: ACS reagent Purity: Assay ≥99.99% Packaging material: Amber glass or poly bottle Shelf-life: ≥24 months	2.5L	3	21 days	
2	Acetic Acid, for trace analysis	Purity: Assay ≥99.5% trace metals basis	500mL	1	21 days	

		Packaging material: Amber glass or poly bottle Shelf-life: ≥24 months				
3	Acetone AR	Grade: ACS reagent Purity: Assay ≥99.5% Packaging material: Amber glass or poly bottle Shelf-life: ≥24 months	2.5L	10	21 days	
4	Ammonium Acetate	Grade: ACS reagent Assay: ≥99.98% Packaging material: Poly bottle Shelf-life: ≥24 months	500g	11	21 days	
5	Ammonium Chloride	Grade: ACS Purity: Assay ≥99.5% Packaging material: Poly bottle Pack Size: 500g	500g	11	21 days	
7	Ammonium hydroxide solution	Name: Ammonium hydroxide solution 28% NH ₃ in H ₂ O, Purity ≥99.99% trace metals basis	1L	2	21 days	
8	Ammonia Solution	Quality: Extra pure NH ₃ : M.W 17.03 Assay: about 28 - 30% Density: min 0.89g/ Package: Amber glass bottle Pack Size: 2.5L	2.5L	8	21 days	
9	Brilliant Green broth	Merck or equivalent	500g	2	21 days	
10	Bromocresol Green Indicatot	Merck or equivalent	25g	5	21 days	
11	Bromothymol Blue Indicator	Merck or equivalent	25g	6	21 days	
12	Buffer Solution pH 10.01	Part Number: HI- 7010L Accuracy: Standard ±0.01pH pH value @25°C: 4.01 Package: bottle	500mL	2	21 days	

		Certificate of analysis: Yes Shelf-life: ≥24 months Manufacturer: Hanna				
13	Buffer Solution pH 4.01	Part Number: HI7004L/C Accuracy: Standard ±0.01pH pH value @25°C: 4.01 Package: bottle Certificate of analysis: Yes Shelf-life: ≥24 months Manufacturer: Hanna	500mL	2	21 days	
14	Buffer Solution pH 7.01	Part Number: HI7007L/C Accuracy: Standard ±0.01pH pH value @25°C: 7.01 Package: bottle Certificate of analysis: Yes Shelf-life: ≥24 months Manufacturer: Hanna	500mL	2	21 days	
15	Buffer Tablets PH 10.0 ± 0.05	Appearance: White uniform tablets Shelf-life: ≥24 months Package: Poly bottle Certificate of analysis: Yes	pkt/50Tablets	8	21 days	
16	Buffer Tablets PH 4.0 ± 0.05	Appearance: White tablet Shelf-life: ≥24 months Package: Poly bottle Certificate of analysis: Yes	pkt/50Tablets	8	21 days	
17	Buffer Tablets PH 7.0 ± 0.05	Appearance: White uniform tablets Shelf-life: ≥24 months Package: Poly bottle Certificate of analysis: Yes	pkt/50Tablets	8	21 days	
18	Cadmium Standard, 1000ppm	Capacity: 500mL Substance	500mL	2	21 days	

		concentration (Cd): 1000mg/L±0.2% Matrix: 2% HNO3 Traceability: NIST Standard Reference Material Shelf life: ≥2yrs				
19	Calcium Carbonate	Grade: ACS reagent Purity: Assay ≥99.0% Packaging material: Poly bottle Form: Solid	500g	1	21 days	
20	Calcium Hardness Tablets	Fischer scientific or equivalent	Pkt/100nT abs	5	21 days	
21	Chloroform AR	Grade: ACS Assay ≥99.8% Packaging material: HDPE bottles	2.5L	2	21 days	
22	Chromium Standard,1000ppm	Capacity: 500mL Substance concentration (Cr): 1000mg/L±0.2% Matrix: 2% HNO3 Traceability: NIST Standard Reference Material Shelf life: ≥2yrs	500mL	2	21 days	
23	Citric acid monohydrate	Grade: ACS reagent Assay: ≥99.0% Packaging material: Poly bottle Form: Solid	500g	1	21 days	
24	Conductivity Calibration Solution 500ML (1413µS/cm)	Part Number: H8031L µS/cm @25°C: 1413 µS/cm Package: FDA bottle Certificate of analysis: Yes Expiry: 5 years Manufacturer: Hanna	500mL	4	21 days	
25	Copper Standard,1000ppm	Substance concentration (Cu): 1000mg/L±0.2% Matrix: 2% HNO3 Traceability: NIST	500mL	2	21 days	

		Standard Reference Material Shelf life: ≥2yrs				
26	Di-Sodium Tetraborate decahydrate	Grade: ACS reagent Purity: Assay ≥99.0% Packaging material: Poly bottle Shelf life: ≥2yrs	500g	1	21 days	
27	Eriochrome Black T-indicator	Grade: ACS reagent (Indicator grade) Form: Powder Packaging: Glass bottle Weight: 100g	100g	5	21 days	
28	Ethanol, Absolute	Grade: Absolute Form: Liquid (clear, colorless) Purity: Assay ≥99.8% Packaging material: HDPE or Glass bottles Shelf life: ≥2yrs	2.5L	22	21 days	
29	Ethylenediamine tetraacetic acid disodium salt dihydrate	Grade: AR Purity: Assay ≥99.0% Packaging material: Poly bottle Shelf life: ≥2yrs	500g	4	21 days	
30	Ethylene Diamine Tetra Acetic Acid (EDTA) 100% pure	Grade: AR Purity: Assay 100% Packaging material: Poly bottle Shelf life: ≥2yrs	500g	6	21 days	
31	Ethylene Diamine Tetra Acetic acid (EDTA)-ampoules (1N)	Concentration: 1N Appearance (Form): Liquid Traceability: NIST Expiry date: 3 years	pkt/6	15	21 days	
32	Ethylene Diamine Tetra Acetic acid (EDTA)-ampoules 0.1N	Concentration: 0.1N Appearance (Form): Liquid Traceability: NIST Expiry date: 3 years	pkt/6	3	21 days	
33	Electrolyte Solution	0.5M (NH)SO, Hanna HI7078	30 mL x 4	2	21 days	
34	Electrolyte Solution	1.7M KNO, 0.7M KCl, Hanna HI7075	30 mL x 4	2	21 days	

35	Ferroin Indicator	Concentration: 0.025M Grade: ACS reagent Package: Glass bottle or poly bottle Shelf life: ≥2yrs	100mL	3	21 days	
36	Glycerol	Grade: ACS reagent Purity: Assay ≥99.5% Packaging material: Poly bottle Shelf life: ≥2yrs	2.5L	2	21 days	
37	Hydrochloric acid	Grade: ACS/AR reagent Purity: Assay ≥ 36% Density: 1.19g/mL Packaging material: Glass Shelf life: ≥2yrs	2.5L	10	21 days	
38	Hydrochloric acid- Ampoules (0.1N)	Concentration: HCL 0.1m/L (0.1N) Appearance (Form): Liquid Titration: 0.950 – 1.050 Normal Traceability: NIST Expiry date: 3 years	pkt/6	4	21 days	
39	Hydrochloric acid- Ampoules (1N)	Concentration: HCL 1.0m/L (1.0N) Appearance (Form): Liquid Titration: 0.950 – 1.050 Normal Traceability: NIST Expiry date: 3 years	pkt/6	6	21 days	
40	Iron standard solution, 1,000 mg/l	Substance concentration (Fe): 1000mg/L±0.2% Matrix: 2% HNO3 Traceability: NIST Standard Reference Material Shelf life: ≥2yrs	500mL	3	21 days	
41	ISAB Reagent For Nitrates	EDT direct ion or equivalent	500mL	2	21 days	
42	ISAB Reagent For Chloride	EDT direct ion or equivalent	500mL	2	21 days	

43	ISO-Propyl-Alcohol	Grade: IC grade Assay: ≥99.9% Pack Size: 2.5L Packaging: Poly bottle	2.5L	9	21 days	
44	MacConkey Broth	Merck or equivalent	500g	8	21 days	
45	Membrane Filter paper	Material: Nylon membrane Packaging: Pack of 100 ea Diam.: 47 mm Pore size: 0.45 µm	Pkt/100 circles	10	21 days	
46	Manganese (II) Sulphate tetrahydrate – Extra pure	Grade: ACS reagent Purity: Assay ≥98.0% Packaging material: Poly bottle Shelf life: ≥2yrs	500g	2	21 days	
47	Manganese standard solution, 1,000 mg/l	Substance concentration (Mn): 1000mg/L±0.2% Matrix: 2% HNO3 Traceability: NIST Standard Reference Material Shelf life: ≥2yrs	500mL	2	21 days	
48	Mercuric Sulphate AR	Assay: ≥98% Grade: ACS reagent Shelf life: ≥2yrs Packaging material: Glass bottle	250g	2	21 days	
49	Methanol	Grade: HPLC grade Assay: ≥99.9% Pack Size: 2.5L Packaging: Glass bottle	2.5L	7	21 days	
50	Methyl red indicator	Grade: ACS reagent Visual transition interval: 4.2 - 6.2, pink to yellow. Form: Crystalline Solubility: Ethanol: 1 mg/mL Pack Size: 25g Packaging material: Glass bottle	25g	2	21 days	
51	Methyl orange	Grade: ACS reagent	100g	1	21 days	

	indicator	Appearance (Color): Orange Appearance (Form): Powder Pack Size: 100g Packaging material: Glass bottle				
52	Nickel standard solution, 1,000 mg/l	Substance concentration (Ni): 1000mg/L±0.2% Matrix: 2% HNO3 Traceability: NIST Standard Reference Material Shelf life: ≥2yrs	500mL	2	21 days	
53	Nitric acid	Purity: Assay ≥ 69.5% Grade: ACS reagent Packaging material: Glass Shelf life: ≥2yrs	2.5L	8	21 days	
54	Nitrification Inhibitor	Formula 2533,TCMP Pack Size: 35g Packaging material: Poly bottle	35g	10	21 days	
55	Oxalic acid dihydrate	Grade: ACS reagent Assay:> 99.5 % Pack Size: 500g Packaging material: Poly bottle	250g	2	21 days	
56	Oxalic acid	Grade: AR Purity: Assay ≥ 99.8% Packaging material: Glass bottle Shelf-life:≥24 months	500ml	12	21 days	
57	Phenolphthalein indicator	Grade: ACS reagent Package: Glass bottle or poly bottle Shelf life: ≥2yrs	100g	2	21 days	
58	Phosphoric acid	Grade: ACS Concentration: ≥85 wt. % in H ₂ O Packaging material: Poly bottle Shelf life: ≥2yrs	2.5L	2	21 days	

59	Potassium Chloride AR	Grade: AR Assay: ≥99.0% Packaging material: Poly bottle Shelf life: ≥2yrs	500g	6	21 days	
60	Potassium dichromate AR	Grade: ACS Assay: ≥99.0% Package: Poly Bottle Shelf life: ≥2yrs	500g	2	21 days	
61	Potassium dichromate AR	Grade: ACS Assay: ≥99.0% Package: Poly Bottle Shelf life: ≥2yrs	500g	2	21 days	
62	Potassium Fluoride AR	Grade: ACS Assay: ≥99.9% trace metals basis Package: Poly Bottle Shelf life: ≥2yrs	500g	2	21 days	
63	Potassium Hydroxide pellets	Grade: ACS Assay: ≥85.0% Packaging material: Poly bottle Shelf life: ≥2yrs	500g	6	21 days	
64	Potassium Iodide AR	Grade: AR Assay: ≥99% Packaging material: Poly bottle Shelf life: ≥2yrs	500g	10	21 days	
65	Potassium Nitrate	Grade: ACS reagent Assay: ≥99% Packaging material: Poly bottle Shelf life: ≥2yrs	500g	2	21 days	
66	Potassium permanganate	Grade: ACS reagent Assay: >99% Pack Size: 500g Packaging material: Poly bottle	500g	1	21 days	
67	Potassium Standard Solution, 1000ppm	Substance concentration (K): 1000mg/L Uncertainty: ± 5 mg/kg Matrix: HNO ₃ Traceability: NIST Standard Reference	500ml	1	21 days	

		Material Shelf life: ≥ 2 yrs				
68	Silver Nitrate AR	Grade: ACS reagent Assay(dried basis): $> 99.9\%$ Pack Size: 25g Packaging material: Poly bottle	25g	12	21 days	
69	Silver Sulphate AR	Grade: ACS reagent Assay(dried basis): $> 99.5\%$ Pack Size: 25g Packaging material: Poly bottle	25g	12	21 days	
70	Sodium Acetate Trihydrate	Grade: ACS reagent Purity: Assay $\geq 99.0\%$ Packaging material: Poly bottle Form: Solid Shelf life: ≥ 2 yrs	500g	7	21 days	
71	Sodium hydrogen carbonate	Grade: ACS reagent Assay: $> 99.5\%$ Pack Size: 500g Packaging material: Poly bottle	500g	3	21 days	
72	Sodium carbonate anhydrous	Grade: AR reagent Assay: $\geq 99.5\%$ Shelf life: ≥ 2 yrs Packaging material: Poly bottle	500g	3	21 days	
73	Sodium Chloride	Grade: ACS reagent Assay: $\geq 99.0\%$ Shelf life: ≥ 2 yrs Packaging material: Poly bottle	500g	2	21 days	
74	Sodium Hydroxide Solution for 1000mL	Concentration: 1M (1.0N) Traceability: NIST Standard Concentrate Shelf life: ≥ 2 yrs Packaging: Ampoules	pkt/6	7	21 days	
75	Sodium Hydroxide, for 1000mL solution	Concentration: 0.5M (0.5N), Traceability: NIST Standard	Each	15	21 days	

		Concentrate Shelf life: ≥2yrs Packaging: Ampoules				
76	Sodium Hydroxide, Pellets	Grade: ACS reagent Form: Pellets Assay: ≥98% Packaging material: Poly bottles Pack Size: 500g	Each	11	21 days	
77	Sodium Standard Solution, 1000mL	Capacity: 500mL Substance concentration (Na): 1000mg/L Matrix: HNO ₃ Traceability: NIST Standard Reference Material Shelf life: ≥2yrs	500mL	1	21 days	
78	Sodium Starch Glycolate	Type: A Assay: 2.8 – 4.2 pH: 5.5 -7.5 Shelf life: ≥2yrs Packaging material: Poly bottle	500g	4	21 days	
79	Sodium sulfate	Grade: IC grade Assay: ≥99.9% Shelf life: ≥2yrs Packaging material: Poly bottle	500g	3	21 days	
80	Sodium Sulphide AR	Grade: AR reagent Assay: >60.0% Shelf life: ≥2yrs Packaging material: Poly bottle	500g	1	21 days	
81	Sodium Tetraborate AR	Grade: AR reagent Assay: ≥99.5% Shelf life: ≥2yrs Packaging material: Poly bottle	500g	3	21 days	
82	Sodium Thiosulphate for 1000ml	Concentration: 1M(1N) Shelf life: ≥2yrs Packaging: Ampoules	Pkt/6	5	21 days	
83	Sodium Thiosulphate Pentahydrate	Grade: AR reagent Assay: ≥99.0% Shelf life: ≥2yrs	500g	15	21 days	

		Packaging material: Poly bottle				
84	Sulfamic acid	Grade: AR reagent Assay: ≥99.50% Shelf life: ≥2yrs Packaging material: Poly bottle	100g	2	21 days	
85	Sulphuric Acid AR	Grade: AR Purity: Assay ≥ 98% Packaging material: Glass bottle Shelf-life:≥24 months	2.5L	25	21 days	
86	Sulphuric Acid Solution for 1000mL	Grade: Certified N.I.S.T. traceable: Yes Concentration: 0.5M (1N) Shelf-life:≥24 months Packaging: Ampoules	Each	24	21 days	
87	Sulphuric Acid Solution for 1000mL	Grade: Certified N.I.S.T. traceable: Yes Concentration: 0.01M (0.02N) Shelf-life:≥24 months Packaging: Ampoules	Each	18	21 days	
88	Sulphuric Acid, GPR	Grade: GPR Purity: Assay ≥ 93%% Packaging material: Poly bottle or Glass bottle Shelf-life:≥24 months	2.5L	8	21 days	
89	Detergent,	Description: Laboratory Grade, phosphorous free Certificate of analysis: Yes	20L	20	21 days	
90	Total Hardness Indicator Tablets	Fischer Scientific or equivalent	pkt/100	3	21 days	
91	Tryptone water dehydrated	Merck or equivalent	500g	2	21 days	
92	Turbidity Standard	HI-88713-11 Calibration set for HI-88713-02	Set	1	21 days	
93	Turbidity Standard	HI-98703-11 Turbidity	Set	1	21 days	

		Calibration Set for HI-98703				
94	Xylenol orange tetrasodium salt.	Grade: ACS reagent Package: Glass bottle or poly bottle Shelf life: ≥2yrs	5g	4	21 days	
95	Zinc chloride	Grade: ACS Purity: Assay ≥ 98% Packaging material: Poly bottle Shelf-life: ≥24 months	500g	7	21 days	
96	Zinc	Product name: Zinc Grade: Puriss. p.a., ACS reagent, reag. ISO, reag. Ph. Eur. Purity: ≥99.9% Form: Granular	500g	2	21 days	
97	Zinc Standard Solution, 1000ppm	Substance concentration (Zn): 1000mg/L±0.2% Matrix: 2% HNO3 Traceability: NIST Standard Reference Material Shelf life: ≥2yrs	500mL	3	21 days	
98	Zinc Sulphate.7H₂O AR	Grade: AR Purity: Assay ≥ 99% Packaging material: Poly bottle Shelf-life: ≥24 months	500g	4	21 days	
99	Fluoride Module for Combination Electrode	Hanna HI 4110-51	Each	2	21 days	
100	Chloride Combination Ion Selective Electrode (ISE)	Hanna HI4107	Each	2	21 days	
101	Nitrate Module for Combination Electrode	Hanna HI 4113-53	Pcs/3	2	21 days	
102	Nitrate standard solution	Concentration: 1000ppm Technique: Ion chromatography Traceability: Traceable to SRM	500mL	2	21 days	

103	Filter paper	Complete packsize: 100 pieces Grade: 934-AH RTU Particle Retention in liquid: 1.5µm Typical Thickness: 435µm Basis Weight: 64g/m ² Material: Borosilicate glass Properties: Fast High loading Binder Type: Binder Free Dimension: Circle, 47 mm	Pack	30	21 days	
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Lot 3: DPD Tablets

No.	Item Description	Specifications	Unit of Measure	Quantity	Delivery Time Required after issuance of LPO	Tenderers Delivery time offered
1	DPD Tablet 1	Tablet Code: 511051BT Range: 0.01 – 6.0mg/l	pK/500	500	21 days	
2	DPD Tablets 3	Tablet Code: 511081BT Range: 0.01 – 6.0mg/l	pK/500	500	21 days	

Lot 4: Colilert Reagents and Equipment

No.	Item Description	Specifications	Unit of Measure	Quantity	Delivery Time Required after issuance of LPO	Tenderers Delivery time offered
1	Colilert 18hr	Manufacturer: IDEXX Quantity: set/100 Cat No.: WP100I-18	pK/100	60	21 days	
2	Quanti –Tray with 51 wells.	Manufacturer: IDEXX Quantity: Set/100 Cat No.: WQT100	pK/100	70	21 days	

3	120ml Shrink banded vessel with antifoam	Manufacturer: IDEXX Quantity: Set/200 Cat No.: WV120SBAF-200	pK/200	70	21 days	
4	Colilert-18 Quanti – Tray Comparator (51-well tray)	Manufacturer: IDEXX Cat No.: WQTC Shelf Life: 12 months	Each	1	21 days	
5.	Quanti-Tray Sealer Plus	Refer to above	Each	1	21 days	

Lot 5: HACH Reagents and Equipment

No	Item Description	Specifications	Unit of Measure	Quantity	Delivery Time Required after issuance of LPO	Tenderers Delivery time offered
1	Nitrite Reagent	HACH Product No.: 21071-69	Reagent set	5	21 days	
2	Phosphorous , reactive (orthophosphate) reagent	HACH Product No.: 22441-00	Reagent sets	5	21 days	
3	Phosphorus (Reactive and Total) TNTplus Vial Test, UHR	HACH Product No.: TNT845	25/pkg	5	21 days	
4	Silica Reagent Set	HACH Product No.: 24296-00	Reagent sets	5	21 days	
5	Sulphate Reagent	HACH Product No.: 2106769	Reagent sets	5	21 days	
6	Nitrogen, Ammonia Reagent	HACH Product No.: 2604545	Reagent sets	5	21 days	
7	Manganese Reagent	HACH Product No.: 26517-00	Reagent sets	16	21 days	
8	Iron Reagent	HACH Product No.: 1037-69	Reagent sets	16	21 days	
9	Aluminum Reagent	HACH Product No.: 22420-00	Reagent sets	21	21 days	
10	COD Digestion Reagent Vials, 200–1500 mg/L COD	HACH Product No.: 2125915	150/pkg	30	21 days	
11	Sulphide Reagent	HACH Product No.: LCW053	35/pkg	5	21 days	
12	Stablcal® Turbidity Standards Calibration	HACH Product No.: 2662105	Each	1	21 days	

	Kit, 0 - 4000 NTU, Sealed Vials					
13	Pocket colorimeter, free and total residual chlorine	Refer to above	Each	4	21 days	
14	Turbidimeter	Refer to above	Each	1	21 days	

Lot 6: Glassware and Other Consumables

No	Item Description	Specifications	Unit of Measure	Quantity	Delivery Time Required after issuance of LPO	Tenderers Delivery time offered
1	Beakers, with spout, low form	Capacity: 100ml Material: Translucent polypropylene beakers printed with blue graduations. Feature: Graduation interval 20mL Diameter (OD): 50mm Height: 71mm Complies with: ISO 7056 Certificate of Analysis: Yes Autoclavable at 121°C for 20minutes.	Each	6	21 days	
2	Beakers, with spout, low form	Capacity: 250ml Material: Borosilicate Glass Feature: Graduation Diameter (OD): 69mm Height: 95mm Complies with: ISO 3819 and DIN 12331 Markings: White graduations and marking spot	Pack/12	3	21 days	
3	Beakers, with spout, low form	Capacity: 600ml Material: Borosilicate Glass Feature: Graduation Diameter (OD): 9cm Height: 125mm Complies with: ISO 3819 and DIN 12331	Pack/12	3	21 days	

		Markings: White graduations and marking spot				
4	Ultrapure Catridge	Description: Compatible with Barnstead Lab Water System Cat No: CAT.09.2005	Each	1	21 days	
5	Measuring Cylinder	Capacity: 100 ml Class: B Material: borosilicate glass with hexagonal base Height: 260mm Graduation: 1.0mL Autoclavable: Yes Compliance: ISO 4788 Inscription: Inscribed with individual serial number for tracibility to National Standards. Graduations: White enamel. Conformity: 'H' certified Certification: Individually tested and supplied with certificate showing exact volume contained at 5 points on the scale.	Each	24	21 days	
6	Measuring Cylinder	Capacity: 100 ml Class: B Material: Transluscent Polypropylene (PP) with hexagonal base and a pouring spout. Molded graduations for improved accuracy and consistency Height: 250mm Graduation: 10mL Subdivision: 1mL Autoclavable: Yes	Each	24	21 days	

		Certifications: Products are Class "B" as per DIN 12681/ISO 6706. Resin meets US FDA 21 CFR requirements.				
7	Glass Cell	Lovibond® DB 424/S Glass Cell With White Lid, 2-12 ml, Path Length 13.5 mm	pk/5	5	21 days	
8	Amber bottle	Capacity: 100 ml Material: borosilicate glass Cap color: White Bottle color: Amber Outside diameter:43mm Neck inside diameter:15mm Total Height:11.6cm	Pk/10	8	21 days	
9	Amber bottle	Capacity: 500ml Material: borosilicate glass Cap color: White Bottle color: Amber Outside diameter:43mm Neck inside diameter:15mm Total Height:11.6cm	Pk/10	5	21 days	
10	Durham tubes	Capacity: 0.5ml Length; 50mm Outer Diameter: 10mm Autoclavable: Yes Rim: Straight edges properly polished Bottom: Round Graduation: None Material: Pyrex borosilicate very clear, transparent glass	Each	200	21 days	
11	Pipette fillers	Version: Universal with elongated cone, 3 valve for air release, suction and delivery	Each	24	21 days	

		<p>Material: Natural rubber, Color: Red Ideal for: Pipette up to 100ml</p>				
12	Universal bottle	<p>Capacity: 28ml Material: Clear borosilicate glass Caps: Aluminum screw cap and rubber liner Autoclavable: Yes (140°C)</p>	Dozen	30	21 days	
13	Bottles, media-lab, with cap and pouring ring	<p>Capacity: 1000ml Material: Clear borosilicate glass, Pyrex Height: 225mm Thread size: GL 45mm Caps: Connection system screw caps for GL 45. Shall have linerless autoclavable (140°C max) polypropylene blue cap. Autoclavable: Yes (140°C) Marking: The marking spot shall be permanent white enamel. Pour Ring: Bottle design includes a clear (natural) drip-free polypropylene pour ring which is replaceable.</p>	Pkt/2	3	21 days	
14	Bottles, media-lab, with cap and pouring ring	<p>Capacity: 2000ml Material: Clear borosilicate glass, Pyrex Height: 260mm Thread size: GL 45mm Caps: Connection system screw caps for</p>	Pkt/2	3	21 days	

		<p>GL 45. Shall have linerless autoclavable (140°C max) polypropylene blue cap.</p> <p>Autoclavable: Yes (140°C).</p> <p>Marking: The marking spot shall be permanent white enamel.</p> <p>Pour Ring: Bottle design includes a clear (natural) drip-free polypropylene pour ring which is replaceable.</p>				
15	Volumetric flask, Class A	<p>Capacity ml: 1000</p> <p>Approx. height mm): 300</p> <p>Stopper size: 24/29</p> <p>Complies with: ISO 1042 and DIN 12664.</p> <p>Class: Calibrated to Class A tolerances.</p> <p>Marking: Each flask must be laser etched with an individual serial number, batch code and date of manufacture.</p> <p>Material: Borosilicate, pyrex glass</p> <p>Conformity: 'H' certified</p> <p>Inscriptions: White enamel</p> <p>Stopper: Supplied with polyethylene stopper</p> <p>Batch certificate: Yes</p>	Pk/2	4	21 days	
16	Volumetric flask, Class A	<p>Capacity (mL): 2000</p> <p>Approx. height mm: 370</p> <p>Stopper size: 29/32</p> <p>Complies with: ISO 1042 and DIN 12664.</p>	Pk/1	2	21 days	

		<p>Class: Calibrated to Class A tolerances.</p> <p>Marking: Each flask must be laser etched with an individual serial number, batch code and date of manufacture.</p> <p>Material: Borosilicate, pyrex glass</p> <p>Conformity: 'H' certified</p> <p>Inscriptions: White enamel</p> <p>Stopper: Supplied with polyethylene stopper</p> <p>Batch certificate: Yes</p>				
17	Flask, Erlenmeyer	<p>Capacity (mL): 500</p> <p>Diameter (d) (mm): 105</p> <p>Height (mm): 180</p> <p>d1 OD) (mm): 34</p> <p>Diameter (mm): 105</p> <p>Material: Clear borosilicate glass, Pyrex</p> <p>Complies with: DIN ISO 1773</p> <p>Marking: The marking area shall be printed ceramic area on laboratory glassware for marking / identification. Also called marking field, white marking spot or marking square.</p> <p>Traceability: Yes</p> <p>Autoclavable: Yes</p>	Each	6	21 days	
18	Burette	<p>Class: B</p> <p>Color coded stripes for quick volume identification.</p> <p>Glass key stop lock.</p> <p>Material: borosilicate</p> <p>Capacity: 50 ml</p>	Each	10	21 days	

		Division:0.1 Tolerance: +/- 0.1ml Accurate as per class B, DIN ISO 385				
19	Eppendorf Pipette Holder System	Pipette Carousel 2 , with holders for 6 Eppendorf Research®, Eppendorf Research® plus, Eppendorf Reference®, Eppendorf Reference® 2 or Biomaster® Catalog No. 3116000015	Each	1	21 days	
20	Brushes- test tube	For test tubes, bristle, with soft wool end, on iron wire, overall length 185 mm, for use with 12.5 to 16mm bore tubes.	No.	36	21 days	
21	Brushes - Burette	For burettes. Best bristle on copper wire; overall length 900mm and head size of 125x 30mm	No.	36	21 days	
22	Brushes -bottle	White nylon on galvanized wire; overall length of 250mm and size head of 50x40mm	No.	100	21 days	
23	Brushes, Pipette	General description: Brush materials resistant to acids, aromatic and aliphatic hydrocarbons, ketones, ethyl acetate esters, trichloroethylene, and hot water. Length (in): 17 Material; White bristle Brush size diam: 3/16-3/4inch x 7 ½ in	Each	6	21 days	
24	Cooling boxes, 15Litres	Capacity: 15L Product Weight:: 2.5 kg Insulation Material: PU	Each	4	21 days	

		Outer Case/ Inner Liner Material: HDPE Ice Retention:v1 Day Features:vUp to one day's cooling performance. High performance injected Polyurethane foam insulated body. Shaped sides and base to ensure maximum cooling efficiency. Wipe-clean lid with recessed cup holders. Comfortable handle for easy carrying				
25	Weighing Boats	Accessory Type: Weighing Boats. Capacity (mL): 50 Color: White. Material: Polystyrene Height (in): ¼ Width (in): 3 ½ Length (in): 3 ½ Description: Square Polystyrene Weigh Boats, White, 50 mL, 500/Cs	Pk/500	2	21 days	
26	Pouring rings for laboratory bottles	GL 45 neck thread, blue polypropylene	Pk/10	10	21 days	
27	Comparators	Lovibond® Comparator System 2000+	Each	3	21 days	
28	Spatula	Product type: Laboratory spoon one end spatula Material: Stainless steel 304 spec18/8 alloy (18% chromium and 8% nickel) non magnetic Finish: Bright finish Length: 150mm long Spoon measurement: 20mm wide	Each	12	21 days	

		Spoon capacity (liquid): 2ml				
29	Forceps	Description: The forceps have a straight shape with blunt ends that are fluted on the inside. Material: Stainless Steel Length: 160mm	Each	8	21 days	
30	Watch Glass	Watch Glasses, 3.5" (9cm) - Cover Lids for Beakers & Flasks - Evaporation Dish - Polished with Ground Edge	Pkt/10	25	21 days	
31	Drop-In Sink, Laboratory	Type: Drop-In sink Material: EPOXY RESIN to provide maximum physical and chemical properties. Sinks shall be non-glaring with coved corners, sides, and bottom. The bottom pitched to the drain outlet. Sinks shall be non-absorbent, resistant to chemicals (acids, solvents, and salts), mechanical and thermal shock. Color: One piece black sink. Measurement: Interior Length – 45cm; Interior Width – 37.5cm; Interior Depth – 20cm Sink Outlet: Corner Certification: Yes. This shall be from the manufacturer as proof of specifications for the Drop-in laboratory sink	No	15	21 days	

32	Sink traps, Laboratory	<p>Type: Anti-Syphon Dilution Trap</p> <p>Material: Polypropylene (chemical resistant)</p> <p>Capacity: 2.3 Litre's trap.</p> <p>Inlet: 1½" BSP thread loose nut coupling for screwing to waste or drip-cup tails. The top inlet pipe shall be height adjustable for easy connection to the waste outlet of the sink. The bottom bowl unscrews for emptying and cleaning.</p> <p>Outlet: 1½" BSP is supplied with nut and olive to take 1½" pipe.</p> <p>Certification: Yes. This shall be from the manufacturer as proof of specifications for the Anti-Syphon Dilution Trap.</p>	Each	10	21 days	
33	Swan Tap, Laboratory	<p>Description: Movable swan neck with fixed nozzle</p> <p>Construction: All brass body, plastic coated, black. Chemical resistant plastic ABS handwheel.</p> <p>Connection and mounting: ½" BSP male flat ended shank x 60mm long with back</p>	Each	10	21 days	

		nut. Standard anti-rotation base with location pin. Two mounting holes 22mm and 5mm diameter required template enclosed. Pressure and Flow: Maximum pressure 100PSI Flow Rate @ 20 psi = 12 Litre/min.				
34	Bags, Biohazard	Material: HDPE Capacity: (Gal)20 Color: Clear Length (in): 36 Width (in): 24 Length (cm): 91.44 Width (cm): 60.96 Thickness: (mil) 1.25 General Description: 20 gal HDPE Biohazard Bags w/ Sterilization Patch, 24 x 36"	Pkt/100	10	21 days	

Lot 7: TECTA Reagents

No	Item Description	Specifications	Unit of Measure	Quantity	Delivery Time Required after issuance of LPO	Tenderers Delivery time offered
1.	Tecta EC/TC consumable test cartridges	TECTAlert CCA: Combined E. coli and Total Coliform test.	pkt/48	20	21 days	