CUMBERLAND COUNTY UTILITIES AUTHORITY

TECHNICAL SPECIFICATIONS

FOR

OUTSIDE LABORATORY SERVICES

The Cumberland County Utilities Authority (CCUA) is requesting bids from qualified environmental laboratories for outside laboratory analysis services. The selected Contractor will furnish all labor and materials as required to provide laboratory services in accordance with the terms of the contract in the manner and time therein prescribed and according to the specifications as herein set forth. Bid shall be for a two year period. Required analyses and frequency of sampling are intended to be representative of projected workload; actual number of samples may be more or less than presented herein.

Bid Opening Date: August 16, 2022 @ 10:00 pm

Effective September 1, 2022 – December 31, 2023

TECHNICAL SPECIFICATIONS

SECTION 1 - BIOLOGICAL OXYGEN DEMAND AND TOTAL SUSSPENED SOLIDS ANALYSIS OF WASTEWATER INFLUENT, FINAL EFFLUENT AND PRIMARY EFFLUENT

SECTION 2 - PRIORITY POLLUTANT SCAN OF WASTEWATER INFLUENT AND EFFLUENT

SECTION 3 - ANALYSIS OF WASTEWATER TREATMENT PLANT SLUDGE

SECTION 4 - LOW LEVEL PCB CONGENER ANALYSIS

SECTION 5 - OIL AND GREASE ANALYSIS

SECTION 6 - ANALYSIS OF PLANT EFFLUENT FOR ACUTE TOXICITY

SECTION 7 - ANALYSIS OF WASTEWATER FOR COPPER AND ZINC

SECTION 8 - BACTERIAL ANALYSIS OF WASTEWATER

SECTION 9 - ANALYSIS FOR RADIOACTIVE ISOTOPES

SECTION 10 – ANALYSIS FOR PERFLUOROINATED COMPOUNDS (PFAS).

SECTION 11 – CHEMICAL OXYGEN DEMAND ANALYSIS OF VARIOUS SAMPLES.

GENERAL CONDITIONS

BID PROPOSAL FORM

BID PRICING SUMMARY

SECTION 1 - BIOLOGICAL OXYGEN DEMAND AND TOTAL SUSSPENED SOLIDS ANALYSIS OF WASTEWATER INFLUENT, FINAL EFFLUENT AND PRIMARY EFFLUENT

SECTION 2 - PRIORITY POLLUTANT SCAN OF WASTEWATER INFLUENT AND EFFLUENT

SECTION 3 - ANALYSIS OF WASTEWATER TREATMENT PLANT SLUDGE

SECTION 4 - LOW LEVEL PCB CONGENER ANALYSIS

SECTION 5 - OIL AND GREASE ANALYSIS

SECTION 6 - ANALYSIS OF PLANT EFFLUENT FOR ACUTE TOXICITY

SECTION 7 - ANALYSIS OF WASTEWATER FOR COPPER AND ZINC

SECTION 8 - BACTERIAL ANALYSIS OF WASTEWATER

SECTION 9 - ANALYSIS FOR RADIOACTIVE ISOTOPES

SECTION 10 - ANALYSIS FOR PERFLUOROINATED COMPOUNDS (PFAS).

SECTION 11 – CHEMICAL OXYGEN DEMAND ANALYSIS OF VARIOUS SAMPLES.

QUALIFICATIONS STATEMENT SHEET

SECTION 1

BIOLOGICAL OXYGEN DEMAND AND TOTAL SUSSPENED SOLIDS ANALYSIS OF WASTEWATER INFLUENT, FINAL EFFLUENT AND PRIMARY EFFLUENT

I. SAMPLING

A) **Source:** Samples taken from the treatment plant influent, final effluent and primary effluent will be analyzed for Biological Oxygen Demand and Total Suspended Solids.

B) **Sample Collection:** The CCUA will collect samples twice per week from the treatment plant influent, final effluent and primary effluent will be analyzed for Biological Oxygen Demand and Total Suspended Solids.

C) **Sample Pick-up**: The Contractor will pick-up samples on dates and times agreed to by the CCUA and the Contractor that will ensure the analysis is performed within the appropriate holding times.

II. ANALYTICAL WORKLOAD

A) Biological demand analysis will be conducted on the treatment plant influent, final effluent and primary effluent twice per week (6 samples per week).

B) Total suspended solids analysis will be conducted on the treatment plant influent, final effluent and primary effluent twice per week (6 samples per week).

III. PREPORTING

Tabulated results will be reported to the CCUA within twenty (14) calendar days after picking up the sample.

IV. SUMMATION

BOD analysis for influent, final effluent and primary effluent twice per week: 6 samples

TSS analysis for influent, final effluent and primary effluent twice per week: 6 samples

SECTION 2

PRIORITY POLLUTANT SCAN OF WASTEWATER INFLUENT AND EFFLUENT

I. SAMPLING

A) Source: Wastewater influent and effluent from the CCUA treatment plant will be analyzed.

B) Sample Collection: The CCUA will conduct the sampling in containers provided by the Contractor. One-month prior notice will be provided to the Contractor for delivery of appropriate sample containers.

C) Sample Pickup: The Contractor will pick up samples at the Cohansey River Basin Wastewater Treatment Plant on Water Street in Bridgeton, New Jersey. Sample volume will be as required by the contractor, in containers provided by the contractor. The Contractor will allow sufficient time for sample pick up to facilitate laboratory analyses within the preservation period required by the NJDEP.

II. ANALYTIC WORKLOAD

A) Sampling will be conducted twice a year on plant effluent with analysis for the listed parameters in Table 2.1(attached).

B) Sampling will be conducted twice a year on plant Influent with analysis for the listed parameters in Table 2.2 (attached).

III. REPORTING

Tabulated results will be reported to the CCUA within thirty calendar (30) days after picking up the sample.

IV. SUMMATION

Effluent Priority Pollutants and Additional Analysis (Table 2.1): 2 Samples

Influent Priority Pollutants and Additional Analysis (Table 2.2): 2 Samples

Effluent Priority Pollutant Scan - Table 2.1

Metals (mg/L)	Acid Extractables (ug/L)	PCB's (ppb)
Antimony	2,4 Dichlorophenol	PCB-1016 (Arochlor 1016)
Arsenic	2,4 Dimethylphenol	PCB-1221 (Arochlor 1221)
Barium	2,4,5 Trichlorophenol	PCB-1232 (Arochlor 1232)
Beryllium	2,4,6 Trichlorophenol	PCB-1242 (Arochlor 1242)
Cadmium	Para-chloro-m- cresol	PCB-1248 (Arochlor 1248)
Chromium (Total)	2-Chlorophenol	PCB-1254 (Arochlor 1254)
Molybdenum	2-Nitrophenol	PCB-1260 (Arochlor 1260)
Lead	4 Nitrophenol	Polychlorinated Biphenenyls (PCB's)
Manganese	4,6 Dinitro- o -cresol	
Mercury	Pentachlorophenol	**Dioxins**
Nickel	2,4 Dinitrophenol	2,3,7,8 terachlorodibenzo-p-dioxin
Selenium		**Additional Analysis Needed**
Silver	**Pesticides (ug/L)**	Asbestos (Fibrous)
Thallium	Alpha-BHC	Total Phosphate
Semi- Volatiles (ug/L)	Beta-BHC	Ammonia
1,2,4,5 tetrachlorobenzene	Chlordane	Cyanide, Free
1,2,4-trichlorobenzene	Delta-BHC	1,4 Dioxane
1,2-diphenylhydrazine	Dieldrin	Bis(Chloromethyl)Ether
2,4-dinitrotoluene	Alpha-endosulfan	Chlorophenoxy Herbicide (2,4-D)
2,6-dinitrotoluene	Beta-endosulfan	Chlorophenoxy Herbicide (2,4,5-TP)
2-chloronaphthalene	Endosulfan sulfate	Hexachlorocyclohexane - Technical
3,3-dichlorobenzidine	Endrin	
4-bromophenyl phenyl ether	Endrin aldehyde	
4- Chlorophenyl phenyl ether	Gamma-BHC (lindane)	
Acenapthene	Heptachlor	
Acenaphthylene	Heptachlor epoxide	
Anthracene	Methoxychlor	
Benzidine	Mirex	
benzo(a) anthracene	Toxaphene	
Bis(2-chloroethoxy) methane	Demeton	
Bis(2-chloroethyl) ether	Chlorpyrifos	
Bis(2-chloroisopropyl) ether	Parathion	
Bis(2-ethylhexyl) phthalate	Guthion	
Butyl benzyl phthalate	Malathion	
Chrysene	**Volitile Organics (ug/L)**	
Di-N-Butyl Phthalate	1,1,1-trichloreothane	
Diethyl Phthalate	1,1,2,2-tetrachloroethane	
Dimethyl phthalate	1,1,2-trichloroethane	
Fluoranthene	1,1-dichloroethane	
Fluorene	1,1-dichloroethylene	
Hexachlorobenzene	1,2-dichlorobenzene	
Hexachlorobutadiene	1,2 Dichloroethane	
Hexachloromyclopentadiene	1,2-dichloropropane	
Hexachloroethane	1,3 Dichloropropene	
Isophorone	1,3-dichlorobenzene	
N-nitroodi-n-butylamine	1,4-dichlorobenzene	
N-nitrosodi-n-propylamin	2-Chloroethyl vinyl ether	
N-nitrosodiethylamine	Acrolein	
N-nitrosodimethylamine	Acrylonitrile	
N-nitrosodiphenylamine	Benzene	
N-nitrosopyrrodine	Dichlorobromomethane	
Naphthalene	Bromoform	
Nitrobenzene	Methyl bromide	
Pentachlorobenzene	Carbon tetrachloride	
Phenanthrene	Chlorobenzene	
Phenol (single compound)	Chloroethane	
Pyrene	Chloroform	
Benzo(a)pyrene	Methyl chloride	
benzo(b) fluoranthene	Chlorodibromomethane	
benzo(g,h,i) perylene	Ethylbenzene	
benzo(k) fluoranthene	Methylene chloride	
Di-n-octyl phthalate	Tetrachloroethylene	
dibenzo(a,h) anthracene	Toluene	
Indeno	1,2-trans-dichloroethylene	
4,4-DDD (p,p-TDE)	Trichloroehylene	
4,4-DDE (p,p-DDX)	Trichlorofluormethane	
4,4-DDT	Vinyl chloride (chloroethylene)	
Aldrin	2,3,7,8 terachlorodibenzo-p-dioxin	

Influent Priority Pollutant Scan - Table 2.2

Semi- Volatiles (ug/L)	Acid Extractables (ug/L)	PCB's (ppb)
Aldrin	2,4 Dichlorophenol	PCB-1016 (Arochlor 1016)
1,2,4,5 tetrachlorobenzene	2,4 Dimethylphenol	PCB-1221 (Arochlor 1221)
1,2,4-trichlorobenzene	2,4,5 Trichlorophenol	PCB-1232 (Arochlor 1232)
1,2-diphenylhydrazine	2,4,6 Trichlorophenol	PCB-1242 (Arochlor 1242)
2,4-dinitrotoluene	Para-chloro-m- cresol	PCB-1248 (Arochlor 1248)
2,6-dinitrotoluene	2-Chlorophenol	PCB-1254 (Arochlor 1254)
2-chloronaphthalene	2-Nitrophenol	PCB-1260 (Arochlor 1260)
3,3-dichlorobenzidine	4 Nitrophenol	Polychlorinated Biphenenyls (PCB's)
4-bromophenyl phenyl ether	4,6 Dinitro- o -cresol	
4- Chlorophenyl phenyl ether	Pentachlorophenol	**Metals (mg/L)**
Acenapthene	2,4 Dinitrophenol	Antimony
Acenaphthylene		Arsenic
Anthracene	**Pesticides (ug/L)**	Barium
Benzidine	Alpha-BHC	Beryllium
benzo(a) anthracene	Beta-BHC	Cadmium
Bis(2-chloroethoxy) methane	Chlordane	Chromium (Total)
Bis(2-chloroethyl) ether	Delta-BHC	Molybdenum
Bis(2-chloroisopropyl) ether	Dieldrin	Lead
Bis(2-ethylhexyl) phthalate	Alpha-endosulfan	Manganese
Butyl benzyl phthalate	Beta-endosulfan	Mercury
Chrysene	Endosulfan sulfate	Nickel
Di-N-Butyl Phthalate	Endrin	Selenium
Diethyl Phthalate	Endrin aldehyde	Silver
Dimethyl phthalate	Gamma-BHC (lindane)	Thallium
Fluoranthene	Heptachlor	Chromium (Trivalent)
Fluorene	Heptachlor epoxide	Chromium (Hexavalent)
Hexachlorobenzene	Methoxychlor	Copper
Hexachlorobutadiene	Mirex	Zinc
Hexachloromyclopentadiene	Toxaphene	
Hexachloroethane	Demeton	**Dioxins**
Isophorone	Chlorpyrifos	2,3,7,8 terachlorodibenzo-p-dioxin
N-nitroodi-n-butylamine	Parathion	**Additional Analysis Needed**
N-nitrosodi-n-propylamin	Guthion	Total Phosphate
N-nitrosodiethylamine	Malathion	Ammonia
N-nitrosodimethylamine	**Volitile Organics (ug/L)**	Phenols
N-nitrosodiphenylamine	1,1,1-trichloreothane	Cyanide, Total
N-nitrosopyrrodine	1,1,2,2-tetrachloroethane	1,4 Dioxane
Naphthalene	1,1,2-trichloroethane	Bis(Chloromethyl)Ether
Nitrobenzene	1,1-dichloroethane	Chlorophenoxy Herbicide (2,4-D)
Pentachlorobenzene	1,1-dichloroethylene	Chlorophenoxy Herbicide (2,4,5-TP)
Phenanthrene	1,2-dichlorobenzene	Hexachlorocyclohexane - Technical
Phenol	1,2 Dichloroethane	
Pyrene	1,2-dichloropropane	
Benzo(a)pyrene	1,3 Dichloropropene	
benzo(b) fluoranthene	1,3-dichlorobenzene	
benzo(g,h,i) perylene	1,4-dichlorobenzene	
benzo(k) fluoranthene	2-Chloroethyl vinyl ether	
Di-n-octyl phthalate	Acrolein	
dibenzo(a,h) anthracene	Acrylonitrile	
Indeno	Benzene	
4,4-DDD (p,p-TDE)	Dichlorobromomethane	
4,4-DDE (p,p-DDX)	Bromoform	
4,4-DDT	Methyl bromide	
	Carbon tetrachloride	
	Chlorobenzene	
	Chloroethane	
	Chloroform	
	Methyl chloride	
	Chlorodibromomethane	
	Ethylbenzene	
	Methylene chloride	
	Tetrachloroethylene	
	Toluene	
	1,2-trans-dichloroethylene	
	Trichloroehylene	
	Trichlorofluormethane	
	Vinyl chloride (chloroethylene)	

SECTION 3

ANALYSIS OF WASTEWATER TREATMENT PLANT SLUDGE

I. MONTHLY ANALYSIS

A) **Source:** Samples of wastewater treatment plant sludge from two locations (storage tank, sludge cake) at the CCUA treatment plant in Bridgeton will be analyzed.

B) **Sample Collection:** CCUA will collect composite samples monthly. Appropriate containers for the analysis to be provided by the contract laboratory.

C) **Sample Pick-up:** The composite samples will be picked up by the contractor at the CCUA Cohansey River Basin Wastewater Treatment Plant at the end of each sampling period.

D) **Analytical Workload:** Samples will be analyzed monthly for all the parameters listed in Table 3.1. A total of 24 samples are estimated during the year (12 samples for the storage Tank and 12 samples for the dewater cake).

II. ANUAL ANALYSIS

A) **Source:** Samples of wastewater treatment plant sludge from the sludge storage tank at the CCUA treatment plant in Bridgeton will be analyzed.

B) **Sample Collection:** CCUA will collect composite samples once a year. Appropriate containers for the analysis to be performed will be provided by the contact laboratory.

C) **Sample pick-up:** The composite samples will be picked up by the contractor at the CCUA Cohansey River Basin Wastewater Treatment Plant at the end of each sampling period.

D) **Analytical Workload:** A sludge tank sample will be analyzed for all parameters listed in Table 3.2.

III. REPORTING

Tabulated results will be reported to the CCUA within thirty (30) calendar days after picking up the sample.

IV. SUMMATION:

Sludge Priority Pollutants (Storage Tank) Table 3.2: 1 Sample

Sludge (Storage Tank Monthly SQAR Testing) Table 3.1: 12 Samples

Sludge (Dewatered Cake Monthly SQAR Testing) Table 3.1: 12 Samples

Monthly SQAR Testing - Table 3.1

Metals (mg/L)
Arsenic
Beryllium
Cadmium
Calcium
Chromium (Total)
Copper
Pottassium
Molybdenum
Nickel
Lead
Selenium
Zinc

Additional Analysis
NO3-N Nitrate Nitrogen
NH3-N - Ammonia Nitrogen
TKN - Total Kjeldahl Nitrogen
Solids, Total
Phosphorous, Total
Mercury (Method EPA 7471B)

Sludge Priority Pollutant Scan - Table 3.2

Metals (mg/L)	Pesticides (ug/L)	PCB's (ppb)
Antimony		PCB-1016 (Arochlor 1016)
Silver	Alpha-BHC	PCB-1221 (Arochlor 1221)
Thallium	Beta-BHC	PCB-1232 (Arochlor 1232)
	Chlordane	PCB-1242 (Arochlor 1242)
Semi- Volatiles (ug/L)	Delta-BHC	PCB-1248 (Arochlor 1248)
1,2,4,5 tetrachlorobenzene	Dieldrin	PCB-1254 (Arochlor 1254)
1,2,4-trichlorobenzene	Alpha-endosulfan	PCB-1260 (Arochlor 1260)
1,2-diphenylhydrazine	Beta-endosulfan	Polychlorinated Biphenenyls (PCB's)
2,4-dinitrotoluene	Endosulfan sulfate	
2,6-dinitrotoluene	Endrin	**Acid Extractables (ug/L)**
2-chloronaphthalene	Endrin aldehyde	2,4 Dichlorophenol
3,3-dichlorobenzidine	Gamma-BHC (lindane)	2,4 Dimethylphenol
4-bromophenyl phenyl ether	Heptachlor	2,4,5 Trichlorophenol
4- Chlorophenyl phenyl ether	Heptachlor epoxide	2,4,6 Trichlorophenol
Acenapthene	Methoxychlor	Para-chloro-m- cresol
Acenaphthylene	Mirex	2-Chlorophenol
Anthracene	Toxaphene	2-Nitrophenol
Benzidine	Demeton	4 Nitrophenol
benzo(a) anthracene	Chlorpyrifos	4,6 Dinitro- o -cresol
Bis(2-chloroethoxy) methane	Parathion	Pentachlorophenol
Bis(2-chloroethyl) ether	Guthion	2,4 Dinitrophenol
Bis(2-chloroisopropyl) ether	Malathion	
Bis(2-ethylhexyl) phthalate	**Volitile Organics (ug/L)**	
Butyl benzyl phthalate	1,1,1-trichloreothane	**Additional Analysis Needed**
Chrysene	1,1,2,2-tetrachloroethane	Cyanide, Total
Di-N-Butyl Phthalate	1,1,2-trichloroethane	
Diethyl Phthalate	1,1-dichloroethane	
Dimethyl phthalate	1,1-dichloroethylene	
Fluoranthene	1,2-dichlorobenzene	
Fluorene	1,2 Dichloroethane	
Hexachlorobenzene	1,2-dichloropropane	
Hexachlorobutadiene	1,3 Dichloropropene	
Hexachloromyclopentadiene	1,3-dichlorobenzene	
Hexachloroethane	1,4-dichlorobenzene	
Isophorone	2-Chloroethyl vinyl ether	
N-nitroodi-n-butylamine	Acrolein	
N-nitrosodi-n-propylamin	Acrylonitrile	
N-nitrosodiethylamine	Benzene	
N-nitrosodimethylamine	Dichlorobromomethane	
N-nitrosodiphenylamine	Bromoform	
N-nitrosopyrrodine	Methyl bromide	
Naphthalene	Carbon tetrachloride	
Nitrobenzene	Chlorobenzene	
Pentachlorobenzene	Chloroethane	
Phenanthrene	Chloroform	
Phenol (single compound)	Methyl chloride	
Pyrene	Chlorodibromomethane	
Benzo(a)pyrene	Ethylbenzene	
benzo(b) fluoranthene	Methylene chloride	
benzo(g,h,i) perylene	Tetrachloroethylene	
benzo(k) fluoranthene	Toluene	
Di-n-octyl phthalate	1,2-trans-dichloroethylene	
dibenzo(a,h) anthracene	Trichloroehylene	
Indeno	Trichlorofluormethane	
4,4-DDD (p,p-TDE)	Vinyl chloride (chloroethylene)	
4,4-DDE (p,p-DDX)	2,3,7,8 terachlorodibenzo-p-dioxin	
4,4-DDT		
Aldrin		

SECTION 4

LOW LEVEL PCB CONGENER ANALYSIS

EPA METHOD 1668A

I. SAMPLING

A) **Source:** Samples will be collected from the Treatment Plant effluent once per year as well as a collection system sample.

B) **Sample Collection:** The CCUA will collect samples using the Delaware River and Bay Commission (DRBC) protocol, generally in the Spring. Equipment blanks will be analyzed in conjunction with the effluent sample.

C) **Sample Pick-up:** The Contractor will pick-up samples on dates and times agreed to by Contractor and the CCUA at the Cohansey River Basin Wastewater Treatment Plant. Containers and sample volumes will be as required by the DRBC protocol. Sample containers will be provided by the Contractor.

D) **Sample Labeling:** Sample labeling will be in accordance with DRBC protocol.

II. ANALYTICAL WORKLOAD

Samples will be analyzed for PCB congeners using the low-level EPA 1668A method required by the DRBC

III. REPORTING

Tabulated results will be reported to the CCUA within thirty (30) calendar days after picking up the sample.

IV. SUMMATION

Plant Effluent Sample: 1 Sample and 1 equipment blank

Collection System Sample: 1 Sample, no blank needed.

SECTION 5

OIL AND GREASE ANALYSIS

I. SAMPLING

A) **Source:** Wastewater samples taken from various sources to the treatment plant and plant effluent.

B) **Sample Collection:** The CCUA will collect an estimated two (2) samples monthly from the treatment plant and contributing industries.

C) **Sample Pick-up:** The Contractor will pick-up samples on dates and times agreed to by Contractor and the CCUA at the Cohansey River Basin Wastewater Treatment Plant. Containers and sample volumes will be as agreed by the CCUA and the Contractor. Sample containers will be provided by the Contractor.

II. ANALYTICAL WORKLOAD

Samples will be analyzed for total oil and grease using method 1664A HEM to a lower limit of 5 ppm.

III. REPORTING

Tabulated results will be reported to the CCUA within twenty (20) calendar days after picking up the sample.

IV. SUMMATION

Various effluent and collection system samples. 33 Samples

SECTION 6

ANALYSIS OF PLANT EFFLUENT FOR ACUTE TOXICITY

I. SAMPLING

A) **Source:** Samples will be taken from combined secondary effluent box before chlorination. Reference Fig. I – 4 for sample location.

B) **Sample Collection:** The contractor will perform sampling bi-annually, at dates and times agreed to by the CCUA and the Contractor.

C) **Sample Pick-up:** The Contractor will prepare the sample for shipment to the laboratory in the field at the time of collection.

II. ANALYTICAL WORKLOAD

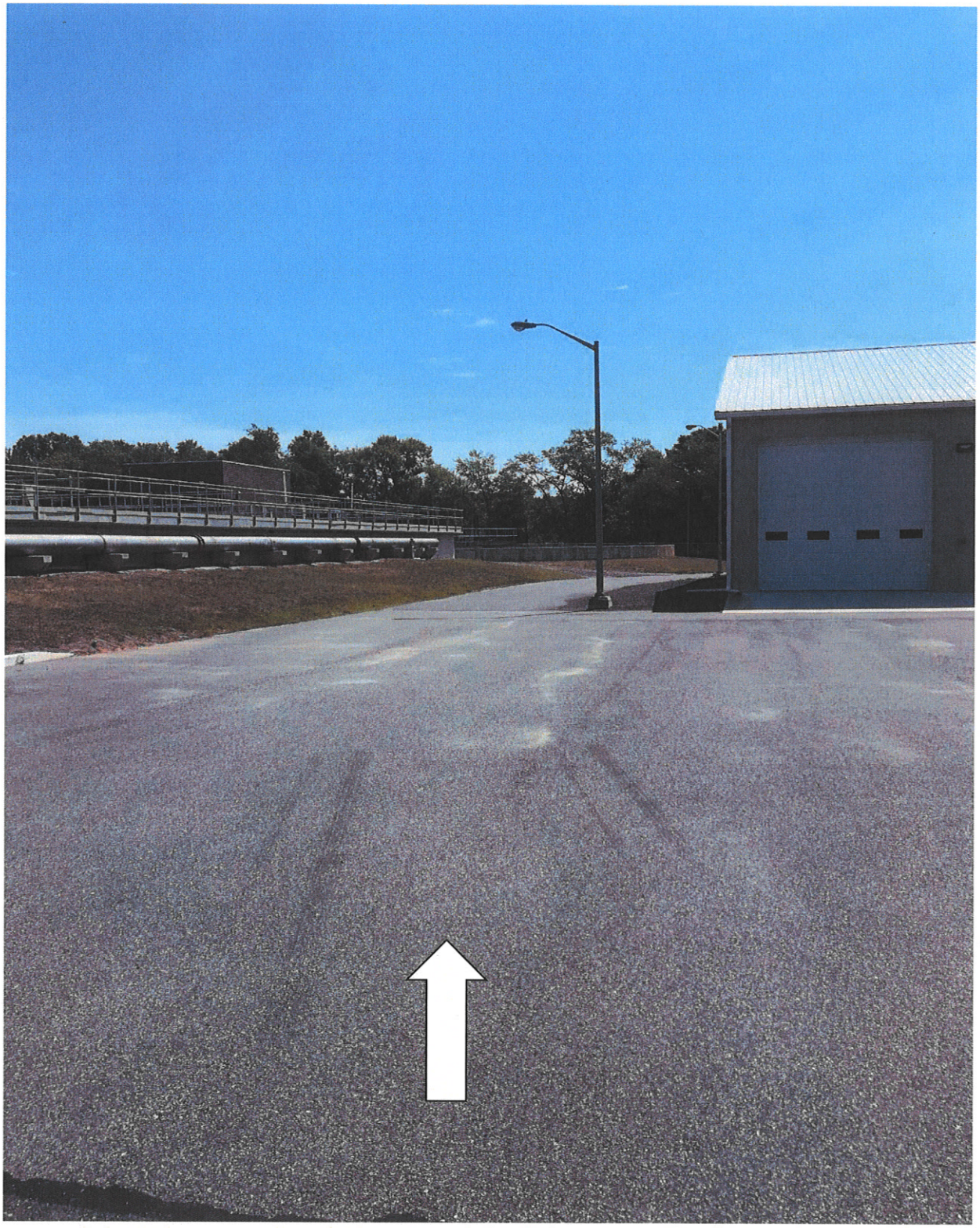
Samples will be analyzed for acute toxicity to an endpoint of LC50 using test organism Mysid Bahia.

III. REPORTING

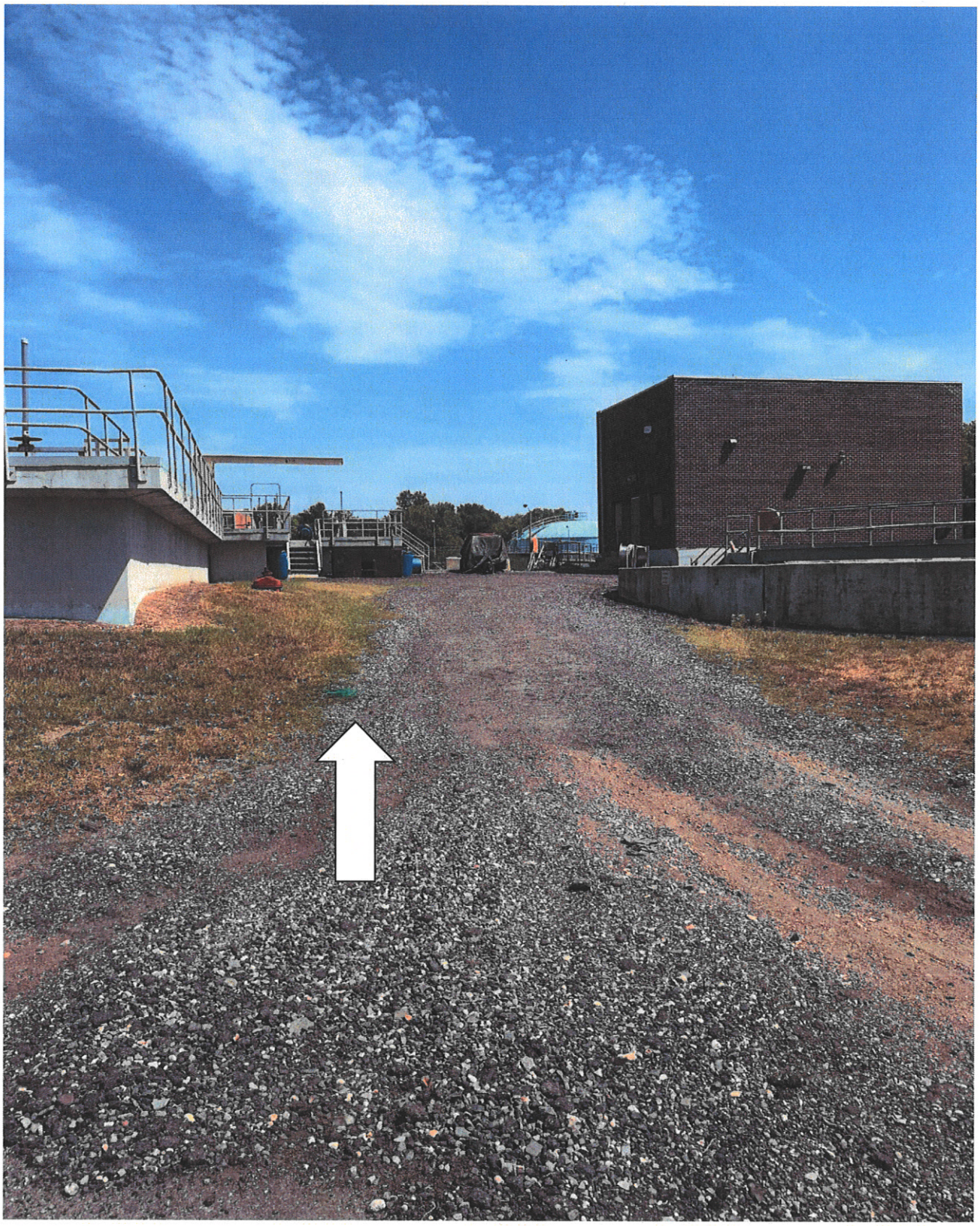
Tabulated results will be reported to the CCUA within twenty (30) calendar days after picking up the sample. Results will be reported in LC50 (% effluent).

IV. SUMMATION

Effluent (Perchlorinated): 2 Samples

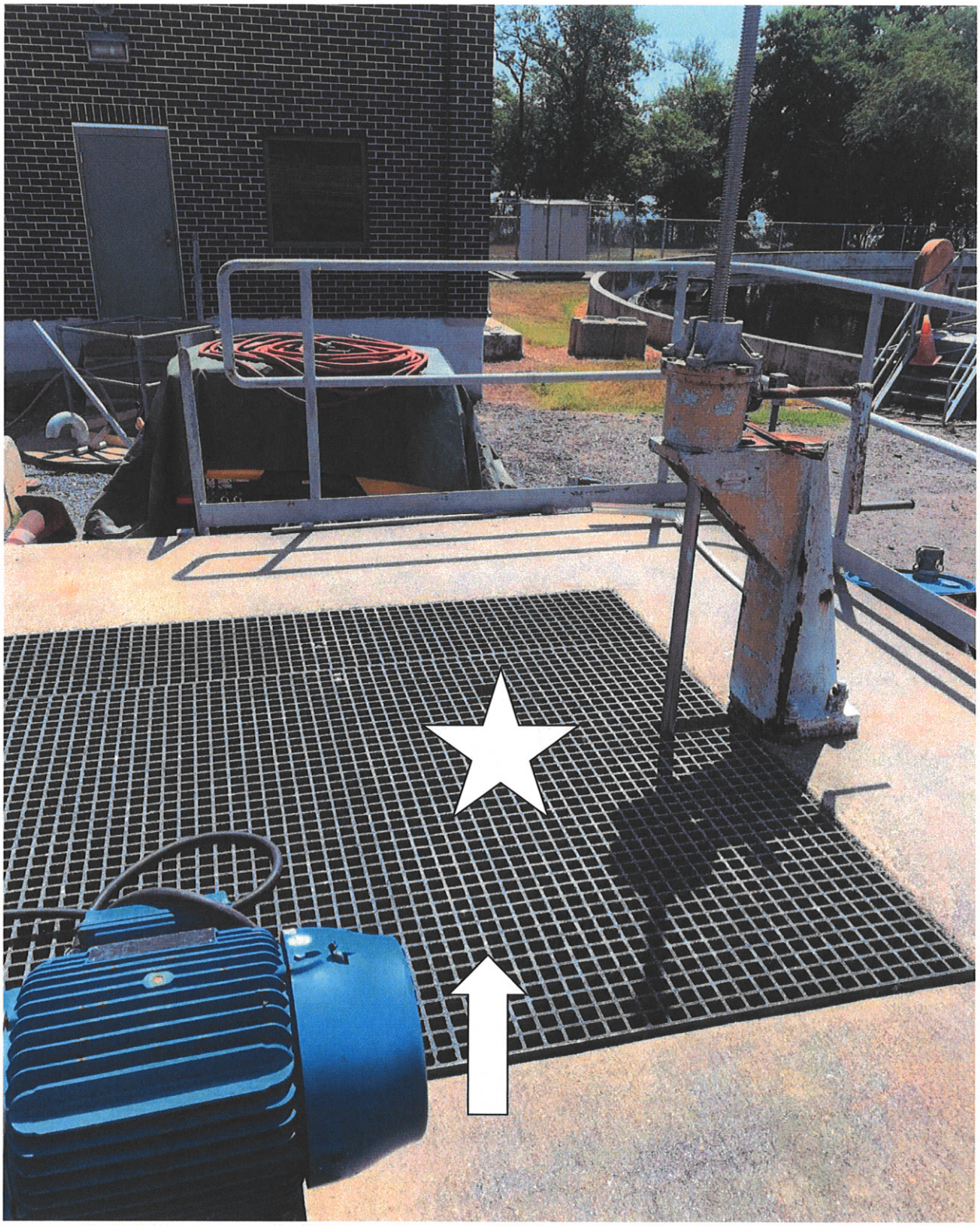


Bioassay sampling location – Figure #1



Bioassay sampling location – Figure #2

Bioassay sampling location – Figure #3



Bioassay sampling location – Figure #4

SECTION 7

ANALYSIS OF WASTEWATER FOR COPPER AND ZINC.

I. SAMPLING

A) **Source:** Samples will be taken from the treatment plant final effluent

B) **Sample Collection:** The CCUA will collect samples quarterly.

C) **Sample Pick-Up**: The Contractor will pick-up samples on dates and times agreed to by the CCUA and the Contractor.

II. ANALYTICAL WORKLOAD

Four (4) samples each for copper and zinc will be collected quarterly throughout the year.

III. REPORTING

Tabulated results will be reported to the CCUA within twenty (30) calendar days after picking up the sample.

IV. SUMMATION

Copper testing of the effluent: 4 Samples
Zinc testing of the effluent: 4 Samples

SECTION 8

BACTERIAL ANALYSIS OF WASTEWATER

V. SAMPLING

D) **Source:** Samples taken from the treatment plant final effluent will be analyzed for Fecal Coliform.

E) **Sample Collection:** The CCUA will collect samples twice per week from the treatment plant for Fecal Coliform analysis.

F) **Sample Pick-up**: The Contractor will pick-up samples on dates and times agreed to by the CCUA and the Contractor that will ensure the analysis is performed within the appropriate holding times.

VI. ANALYTICAL WORKLOAD

Fecal Coliform samples will be analyzed using method SM9222D twice per week (minimum of 104 samples per year).

VII. PREPORTING

Tabulated results will be reported to the CCUA within twenty (14) calendar days after picking up the sample.

VIII. SUMMATION

Fecal Coliform: 104 samples

SECTION 9

ANALYSIS FOR RADIOACTIVE ISOTOPES

I. SAMPLING

A) **Source:** Samples taken from the treatment plant sludge will be analyzed.

B) **Sample Collection:** CCUA will collect samples on an as needed basis. The Contractor will provide necessary sample containers.

C) **Sample Pick-up:** The contractor will pick-up samples on dates and times agreed to by the CCUA and the Contractor.

II. ANALYICAL WORKLOAD

Samples will be taken at 6-month intervals (twice per year) and analyzed for radium 226 in accordance with EPA method 903.0 or 903.1 and radium 228 in accordance with EPA method 904.0.

III. REPORTING

Tabulated results will be reported to the CCUA within twenty (60) calendar days after picking up the sample.

IV. SUMMATION

Radium 226 testing: 2 samples
Radium 228 testing: 2 samples

SECTION 10

ANALYSIS FOR PERFLUORINATED COMPOUNDS (PFAS)

I. SAMPLING

A) **Source:** Samples taken from the treatment plant influent and final effluent will be analyzed.

B) **Sample Collection:** CCUA will collect samples on an as needed basis. The Contractor will provide necessary sample containers.

C) **Sample Pick-up:** The contractor will pick-up samples on dates and times agreed to by the CCUA and the Contractor.

II. ANALYICAL WORKLOAD

Samples will be taken at 6-month intervals (twice per year) and analyzed for Perfluorononoic Acid (PFNA), Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonic Acid (PFOS) in accordance with EPA method 537.

III. REPORTING

Tabulated results will be reported to the CCUA within twenty (60) calendar days after picking up the sample.

IV. SUMMATION

Influent PFAS sampling (PFNA, PFOA, PFOS): 2 sample minimum.
Effluent PFAS sampling (PFNA, PFOA, PFOS): 2 sample minimum.

SECTION 11

ANALYSIS FOR CHEMICAL OXYGEN DEMAND

I. SAMPLING

A) **Source:** Samples taken from various locations within the treatment plant and collection system will be analyzed.

B) **Sample Collection:** CCUA will collect samples on an as needed basis. The Contractor will provide necessary sample containers.

C) **Sample Pick-up:** The contractor will pick-up samples on dates and times agreed to by the CCUA and the Contractor.

II. ANALYICAL WORKLOAD

Chemical oxygen demand samples will be analyzed using method SM5220D. Approximately one sample per day will be collected. (Minimum of 365 samples per year).

III. REPORTING

Tabulated results will be reported to the CCUA within twenty (20) calendar days after picking up the sample.

IV. SUMMATION

Various treatment plant and collection system samples: 365 samples (estimated).

GENERAL CONDITIONS

I. CERTIFICATION

To qualify as a service provider, the laboratory or subcontractor must be certified by the New Jersey Department of Environmental Protection Central Collection and Licensing Unit. Certification must include limited chemistry, microbiology, atomic absorption spectrophotometry, gas chromatography, bioassay toxicity and include all individual parameters required. Proof of certification must be submitted at the time of bid submittal for any proposed sub-contract lab(s).

II. ANALYTICAL REQUIREMENTS

Unless otherwise noted, analytical procedures will be carried out in accordance with the most recent NJDEP approved edition of the Standard Methods for the Examination of Water and Wastewater or the EPA Manual of Methods for Chemical Analysis of Water and Wastes.

III. PRICES

Prices are to be submitted per parameter, per sample, per section, as well as lump sum on proposal sheets provided. Any variation to sheets or substitutes will render proposal invalid.

IV. REPORTING

Tabulated results will be made available to the CCUA within the time specified in each section. Delivery may be electronic, but it shall be the Contractor's obligation to ensure compatibility of any means of electronic delivery with CCUA hardware and/or software. Failure to do so can result in forfeit of proposal and/or disqualification the following year

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V. TERMINATION

The CCUA reserves the right to terminate the Contractors service at any time during the contact term, as well as add or delete specific analysis during the contractual period at the proposal price for additional coasts or credit.

VI. QUALIFICATIONS

The Contractor is required to state in detail, what work of a character similar to that in the proposed Contract he has done, to give references and such other detailed information that will enable the CCUA to judge responsibility, experience, skill and financial standing, on the Qualifications Statement sheet provided.

CUMBERLAND COUNTY UTILITIES AUTHORITY
BID PROPOSAL FORM

This proposal is submitted in accordance with the bid proposal for the following project.

Providing Outside Laboratory Analysis

After having carefully examined and reviewed the Bid Advertisement, General Instructions and Conditions, Technical Specifications, and all addenda, bulletins etc.,

The undersigned hereby proposes to furnish all equipment, labor and materials, to deliver and perform all work for providing **Outside Laboratory Analysis** to the Cumberland County Utilities Authority, all in strict accordance with the specifications, at the quoted prices stated on the **SUMMARY SHEET FOR OUTSIDE LABORATORY SERVICES PER SECTION.**

Name of Firm Submitting Bid_____

Address_____

Federal I.D. Number_____

Telephone Number _____ Fax Number _____

Name of Person Signing Bid _____

Signature _____

Title_____ Date_____

BID PRICING SUMMARY

SECTION #1 – BOD and TSS Analysis.

Parameter	Sample Location	# Samples	Price/Sample	Total
BOD	Influent, Effluent, Primary Eff.	312		
TSS	Influent, Effluent, Primary Eff.	312		

Total	

SECTION #2 – Priority Pollutant Scan of Wastewater Influent and Effluent

Parameter	Sample Location	# Samples	Price/Sample	Total
Priority Pollutant	Influent (table 2.1)	2		
Priority Pollutant	Effluent (table 2.2)	2		

Total	

SECTION #3 – Analysis of Wastewater Treatment Plant Sludge

Parameter	Sample Location	# Samples	Price/Sample	Total
Priority Pollutant	Storage Tank (table 3.2)	1		
SQAR Testing	Storage Tank (table 3.1)	12		
SQAR Testing	Dewatered Cake (table 3.1)	12		

Total	

SECTION #4 – Low Level PCB Congener Analysis (Method 1668A)

Parameter	Sample Location	# Samples	Price/Sample	Total
PCB	Effluent	1		
PCB	Reagent Blank	1		
PCB	Collection System	1		

Total	

SECTION #5 – Oil and Grease Analysis

Parameter	Sample Location	# Samples	Price/ Sample	Total
Oil & Grease	Various Samples	33		

Total	

SECTION #6 – Analysis of Plant Effluent for Acute Toxicity

Parameter	Sample Location	# Samples	Price/Sample	Total
Acute Toxicity	Effluent	2		

Total	

SECTION #7 – Analysis of Wastewater for Copper and Zinc

Parameter	Sample Location	# Samples	Price/Sample	Total
Copper	Effluent	4		
Zinc	Effluent	4		

Total	

SECTION #8 – Fecal Coliform Analysis

Parameter	Sample Location	# Samples	Price/Sample	Total
Fecal Coliform	Effluent	104		

Total	

SECTION #9 – Analysis for Radioactive Isotopes

Parameter	Sample Location	# Samples	Price/Sample	Total
Radium 226	Storage Tank	2		
Radium 228	Storage Tank	2		

Total	

SECTION #10 _ PFAS Analysis for Wastewater Influent and Effluent

Parameter	Sample Location	# Samples	Price/Sample	Total
PFNA	Influent, Effluent	2		
PFOA	Influent, Effluent	2		
PFOS	Influent, Effluent	2		

Total	

SECTION #11 – COD Analysis for Wastewater Samples

Parameter	Sample Location	# Samples	Price/Sample	Total
COD	Various Locations	365		

Total	

OUTSIDE LABORATORY SERVICES SUMMARY SHEET
PER SECTION

SECTION 1 -	BOD AND TSS ANALYSIS	$_____
SECTION 2 -	PRIORITY POLLUTANT SCANS	$_____
SECTION 3 -	ANALYSIS OF TREATMENT PLANT SLUDGE	$_____
SECTION 4 -	LOW LEVEL PCB CONGENER ANALYSIS	$_____
SECTION 5 -	OIL AND GREASE ANALYSIS	$_____
SECTION 6 -	ANALYSIS FOR ACUTE TOXICITY	$_____
SECTION 7 -	ANALYSIS OF COPPER AND ZINC	$_____
SECTION 8 -	BACTERIAL ANALYSIS	$_____
SECTION 9 -	ANALYSIS FOR RADIOACTIVE ISOTOPES	$_____
SECTION 10 -	ANALYSIS FOR PERFLUOROINATED COMPOUNDS (PFAS).	$_____
SECTION 11 –	COD ANALYSIS OF VARIOUS SAMPLES.	$_____

TOTAL $_____

QUALIFICATION STATEMENT SHEET

This statement shall include the following: evidence that the Contractor maintains a permanent place of business; list of equipment available for the work under the proposed Contract, together with statement as to the Contractor having suitable financial status to meet obligations incidental to the work; evidence that the Contractor has appropriate technical experience. Appropriate pages may be attached.

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