

## DISCLAIMER STATEMENT

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1. Bathymetric Study;
2. Climatic Data;
3. Geotechnical Investigation Report;
4. Seawater Intake Drawings;
5. Geography & Topography Survey;
6. Water Sample Report; and
7. Environmental Impact Assessment Report

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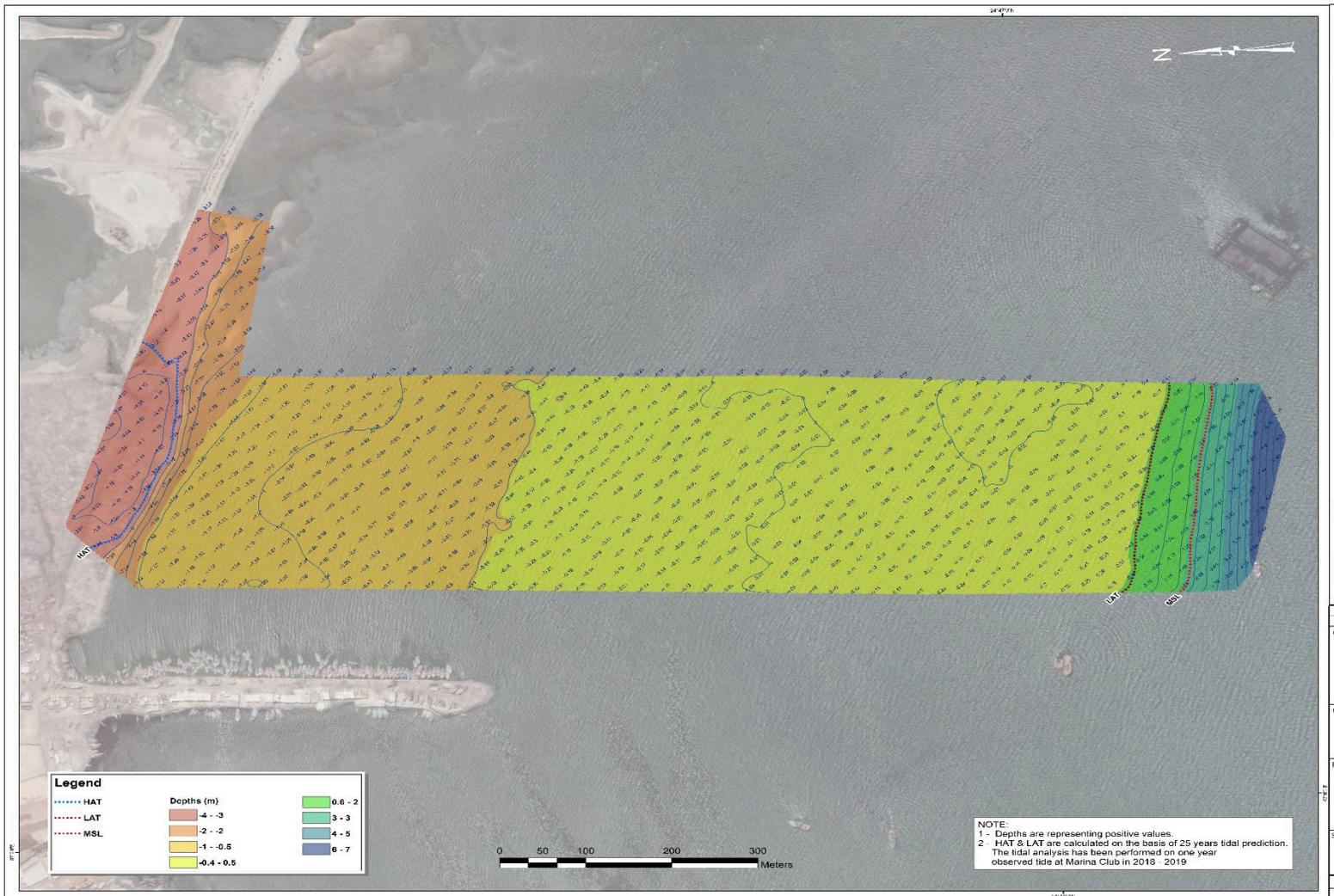
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By accessing the Technical Studies, the Interested Parties acknowledge and accept this Disclaimer Statement by the act of using and relying upon the Technical Studies.

This Disclaimer Statement is to be read in conjunction with, and forms part of, the RFP Documents.

# "5 MGD DESALINATION PLANT AT IBRAHIM HYDERI"



## WATER SAMPLE REPORT

Karachi Water & Sewerage Board (KW&SB).

WATER QUALITY TEST REPORT

|                       |   |                     |                 |
|-----------------------|---|---------------------|-----------------|
| Report No.            | 6007  | Total No. of Pages  | 01              |
| Client Name & Address | M/S Techno Consult International (Pvt) Ltd. |                     |                 |
| WQL Sample code       | PCRWR/KHI/6007/09/2022                      | Client Code         | Water Sample-01 |
| Temp of Sample @°C    | 28.1  | Sample Receipt Date | 13.09.2022      |
| Date (s) of analysis  | 13.09.2022 To 23.09.2022                    | Reporting Date      | 23.09.2022      |

MAJOR CHEMICAL PARAMETERS:

| Sr. # | Water Quality Parameter          | Units   | Det. Limit | Reference Method               | Results |
|-------|----------------------------------|---------|------------|--------------------------------|---------|
| 1     | E. Conductivity                  | µS/cm   | 0.11       | APHA, 22 <sup>nd</sup> Edition | 49510   |
| 2     | pH                               | --      | 0.03       | APHA, 22 <sup>nd</sup> Edition | 7.40    |
| 3     | Turbidity                        | NTU     | 0.01       | APHA, 22 <sup>nd</sup> Edition | 10.1    |
| 4     | Alkalinity as Ca CO <sub>3</sub> | m.mol/l | --         | APHA, 22 <sup>nd</sup> Edition | 4.2     |
| 5     | Bicarbonate                      | ppm     | 5.0        | APHA, 22 <sup>nd</sup> Edition | 210     |
| 6     | Calcium                          | ppm     | 2.0        | APHA, 22 <sup>nd</sup> Edition | 786     |
| 7     | Carbonate                        | ppm     | 5.0        | APHA, 22 <sup>nd</sup> Edition | Nil     |
| 8     | Chloride                         | ppm     | 2.0        | APHA, 22 <sup>nd</sup> Edition | 15655   |
| 9     | Hardness as Ca CO <sub>3</sub>   | ppm     | 5.0        | APHA, 22 <sup>nd</sup> Edition | 4940    |
| 10    | Magnesium                        | ppm     | 1.0        | APHA, 22 <sup>nd</sup> Edition | 723     |
| 11    | Potassium                        | ppm     | 0.02       | APHA, 22 <sup>nd</sup> Edition | 375     |
| 12    | Sodium                           | ppm     | 1.57       | APHA, 22 <sup>nd</sup> Edition | 8878    |
| 13    | Sulfate                          | ppm     | 0.24       | APHA, 22 <sup>nd</sup> Edition | 2342    |
| 14    | Nitrate -N                       | ppm     | 0.03       | APHA, 22 <sup>nd</sup> Edition | 0.198   |
| 15    | Fluoride                         | ppm     | 0.02       | APHA, 22 <sup>nd</sup> Edition | 1.96    |
| 16    | Iron                             | ppm     | 0.02       | APHA, 22 <sup>nd</sup> Edition | 0.14    |
| 17    | Phosphate                        | ppm     | 0.05       | USEPA, 2000                    | 0.63    |
| 18    | Silica                           | ppm     | 0.07       | APHA, 22 <sup>nd</sup> Edition | 3.2     |
| 19    | Residual Chlorine                | ppm     | 0.05       | APHA, 22 <sup>nd</sup> Edition | BDL     |
| 20    | Arsenic                          | ppb     | 0          | Merck 1.17927                  | 5       |
| 21    | TDS                              | ppm     | --         | APHA, 22 <sup>nd</sup> Edition | 28886   |

MICROBIOLOGICAL PARAMETERS

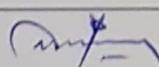
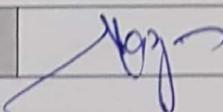
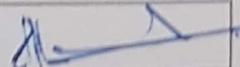
| Sr. # | Parameters     | Unit      | Det. Limit | Ref. Method                    | Results |
|-------|----------------|-----------|------------|--------------------------------|---------|
| 1     | Total Coliform | CFU/100ml | <1.0       | APHA, 22 <sup>nd</sup> Edition | TNTC    |
| 2     | Fecal Coliform | CFU/100ml | <1.0       | APHA, 22 <sup>nd</sup> Edition | TNTC    |
| 3     | E.Coli         | CFU/100ml | <1.0       | APHA, 22 <sup>nd</sup> Edition | TNTC    |

WASTE WATER QUALITY PARAMETERS

| Sr. # | Parameters | Unit | Reference Method               | Results |
|-------|------------|------|--------------------------------|---------|
| 1     | BOD        | ppm  | APHA, 22 <sup>nd</sup> Edition | 45.5    |
| 2     | COD        | ppm  | APHA, 22 <sup>nd</sup> Edition | 1314    |
| 3     | TSS        | ppm  | APHA, 22 <sup>nd</sup> Edition | 11.3    |

APHA = American Public Health Association, BDL = Below detection limit, NGV = No Guideline Value Set, TNTC = Too Numerous to Count, NSDWQ = National Standard for Drinking Water Quality

**Note:** The sample is provided by the client and this report is valid only for the sample provided.

|             |   |                        |   |                          |   |
|-------------|---|------------------------|---|--------------------------|---|
| Prepared by |  | Tech. Manager (Micro.) |  | Tech. Manager (Chem./QC) |  |
|-------------|---|------------------------|---|--------------------------|---|

## WATER QUALITY TEST REPORT

|                       |   |                     |                 |
|-----------------------|---|---------------------|-----------------|
| Report No.            | 6008  | Total No. of Pages  | 01              |
| Client Name & Address | M/S Techno Consult International (Pvt) Ltd. |                     |                 |
| WQL Sample code       | PCRWR/KHI/6008/09/2022                      | Client Code         | Water Sample-02 |
| Temp of Sample @°C    | 28.3  | Sample Receipt Date | 13.09.2022      |
| Date (s) of analysis  | 13.09.2022 To 23.09.2022                    | Reporting Date      | 23.09.2022      |

### MAJOR CHEMICAL PARAMETERS:

| Sr. # | Water Quality Parameter          | Units   | Det. Limit | Reference Method               | Results |
|-------|----------------------------------|---------|------------|--------------------------------|---------|
| 1     | E. Conductivity                  | µS/cm   | 0.11       | APHA, 22 <sup>nd</sup> Edition | 50020   |
| 2     | pH                               | --      | 0.03       | APHA, 22 <sup>nd</sup> Edition | 7.51    |
| 3     | Turbidity                        | NTU     | 0.01       | APHA, 22 <sup>nd</sup> Edition | 10.7    |
| 4     | Alkalinity as Ca CO <sub>3</sub> | m.mol/l | --         | APHA, 22 <sup>nd</sup> Edition | 4.2     |
| 5     | Bicarbonate                      | ppm     | 5.0        | APHA, 22 <sup>nd</sup> Edition | 210     |
| 6     | Calcium                          | ppm     | 2.0        | APHA, 22 <sup>nd</sup> Edition | 786     |
| 7     | Carbonate                        | ppm     | 5.0        | APHA, 22 <sup>nd</sup> Edition | Nil     |
| 8     | Chloride                         | ppm     | 2.0        | APHA, 22 <sup>nd</sup> Edition | 15848   |
| 9     | Hardness as Ca CO <sub>3</sub>   | ppm     | 5.0        | APHA, 22 <sup>nd</sup> Edition | 4940    |
| 10    | Magnesium                        | ppm     | 1.0        | APHA, 22 <sup>nd</sup> Edition | 723     |
| 11    | Potassium                        | ppm     | 0.02       | APHA, 22 <sup>nd</sup> Edition | 382     |
| 12    | Sodium                           | ppm     | 1.57       | APHA, 22 <sup>nd</sup> Edition | 8998    |
| 13    | Sulfate                          | ppm     | 0.24       | APHA, 22 <sup>nd</sup> Edition | 2342    |
| 14    | Nitrate -N                       | ppm     | 0.03       | APHA, 22 <sup>nd</sup> Edition | 0.293   |
| 15    | Fluoride                         | ppm     | 0.02       | APHA, 22 <sup>nd</sup> Edition | 1.93    |
| 16    | Iron                             | ppm     | 0.02       | APHA, 22 <sup>nd</sup> Edition | 0.11    |
| 17    | Phosphate                        | ppm     | 0.05       | USEPA, 2000                    | 0.60    |
| 18    | Silica                           | ppm     | 0.07       | APHA, 22 <sup>nd</sup> Edition | 3.2     |
| 19    | Residual Chlorine                | ppm     | 0.05       | APHA, 22 <sup>nd</sup> Edition | BDL     |
| 20    | Arsenic                          | ppb     | 0          | Merck 1.17927                  | 5       |
| 21    | TDS                              | ppm     | --         | APHA, 22 <sup>nd</sup> Edition | 29206   |

### MICROBIOLOCAL PARAMETERS

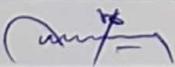
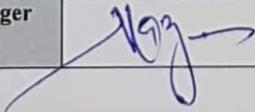
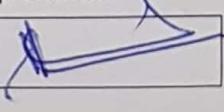
| Sr. # | Parameters     | Unit      | Det. Limit | Ref. Method                    | Results |
|-------|----------------|-----------|------------|--------------------------------|---------|
| 1     | Total Coliform | CFU/100ml | <1.0       | APHA, 22 <sup>nd</sup> Edition | TNTC    |
| 2     | Fecal Coliform | CFU/100ml | <1.0       | APHA, 22 <sup>nd</sup> Edition | TNTC    |
| 3     | E.Coli         | CFU/100ml | <1.0       | APHA, 22 <sup>nd</sup> Edition | TNTC    |

### WASTE WATER QUALITY PARAMETERS

| Sr. # | Parameters | Unit | Reference Method               | Results |
|-------|------------|------|--------------------------------|---------|
| 1     | BOD        | ppm  | APHA, 22 <sup>nd</sup> Edition | 39.2    |
| 2     | COD        | ppm  | APHA, 22 <sup>nd</sup> Edition | 1234    |
| 3     | TSS        | ppm  | APHA, 22 <sup>nd</sup> Edition | 10.6    |

APHA American Public Health Association, BDL= Below detection limit NGVS No Guideline Value Set, TNTC Too Numerous to Count  
NSDWQ= National Standard for Drinking Water Quality

**Note:** The sample is provided by the client and this report is valid only for the sample provided.

|             |   |                           |   |                             |   |
|-------------|---|---------------------------|---|-----------------------------|---|
| Prepared by |  | Tech. Manager<br>(Micro.) |  | Tech. Manager<br>(Chem./QC) |  |
|-------------|---|---------------------------|---|-----------------------------|---|



# PAKISTAN COUNCIL OF RESEARCH IN WATER RESOURCES

Ministry of Water Resources  
Government of Pakistan

## WATER QUALITY TEST REPORT

|                       |   |                     |                 |
|-----------------------|---|---------------------|-----------------|
| Report No.            | 6009  | Total No. of Pages  | 01              |
| Client Name & Address | M/S Techno Consult International (Pvt) Ltd. |                     |                 |
| WQL Sample code       | PCRWR/KHI/6009/09/2022                      | Client Code         | Water Sample-03 |
| Temp of Sample @ °C   | 27.9  | Sample Receipt Date | 13.09.2022      |
| Date (s) of analysis  | 13.09.2022 To 23.09.2022                    | Reporting Date      | 23.09.2022      |

### MAJOR CHEMICAL PARAMETERS:

| Sr. # | Water Quality Parameter          | Units   | Det. Limit | Reference Method               | Results |
|-------|----------------------------------|---------|------------|--------------------------------|---------|
| 1     | E. Conductivity                  | µS/cm   | 0.11       | APHA, 22 <sup>nd</sup> Edition | 49530   |
| 2     | pH                               | —       | 0.03       | APHA, 22 <sup>nd</sup> Edition | 7.54    |
| 3     | Turbidity                        | NTU     | 0.01       | APHA, 22 <sup>nd</sup> Edition | 8.57    |
| 4     | Alkalinity as Ca CO <sub>3</sub> | m.mol/l | —          | APHA, 22 <sup>nd</sup> Edition | 4.2     |
| 5     | Bicarbonate                      | ppm     | 5.0        | APHA, 22 <sup>nd</sup> Edition | 210     |
| 6     | Calcium                          | ppm     | 2.0        | APHA, 22 <sup>nd</sup> Edition | 786     |
| 7     | Carbonate                        | ppm     | 5.0        | APHA, 22 <sup>nd</sup> Edition | Nil     |
| 8     | Chloride                         | ppm     | 2.0        | APHA, 22 <sup>nd</sup> Edition | 15653   |
| 9     | Hardness as Ca CO <sub>3</sub>   | ppm     | 5.0        | APHA, 22 <sup>nd</sup> Edition | 4940    |
| 10    | Magnesium                        | ppm     | 1.0        | APHA, 22 <sup>nd</sup> Edition | 723     |
| 11    | Potassium                        | ppm     | 0.02       | APHA, 22 <sup>nd</sup> Edition | 376     |
| 12    | Sodium                           | ppm     | 1.57       | APHA, 22 <sup>nd</sup> Edition | 8878    |
| 13    | Sulfate                          | ppm     | 0.24       | APHA, 22 <sup>nd</sup> Edition | 2342    |
| 14    | Nitrate -N                       | ppm     | 0.03       | APHA, 22 <sup>nd</sup> Edition | 0.274   |
| 15    | Fluoride                         | ppm     | 0.02       | APHA, 22 <sup>nd</sup> Edition | 1.94    |
| 16    | Iron                             | ppm     | 0.02       | APHA, 22 <sup>nd</sup> Edition | 0.12    |
| 17    | Phosphate                        | ppm     | 0.05       | USEPA, 2000                    | 0.61    |
| 18    | Silica                           | ppm     | 0.07       | APHA, 22 <sup>nd</sup> Edition | 1.6     |
| 19    | Residual Chlorine                | ppm     | 0.05       | APHA, 22 <sup>nd</sup> Edition | BDL     |
| 20    | Arsenic                          | ppb     | 0          | Merck 1.17927                  | 5       |
| 21    | TDS                              | ppm     | —          | APHA, 22 <sup>nd</sup> Edition | 28885   |

### MICROBIOLOGICAL PARAMETERS

| Sr. # | Parameters     | Unit      | Det. Limit | Ref. Method                    | Results |
|-------|----------------|-----------|------------|--------------------------------|---------|
| 1     | Total Coliform | CFU/100ml | <1.0       | APHA, 22 <sup>nd</sup> Edition | TNTC    |
| 2     | Fecal Coliform | CFU/100ml | <1.0       | APHA, 22 <sup>nd</sup> Edition | TNTC    |
| 3     | E.Coli         | CFU/100ml | <1.0       | APHA, 22 <sup>nd</sup> Edition | TNTC    |

### WASTE WATER QUALITY PARAMETERS

| Sr. # | Parameters | Unit | Reference Method               | Results |
|-------|------------|------|--------------------------------|---------|
| 1     | BOD        | ppm  | APHA, 22 <sup>nd</sup> Edition | 34.2    |
| 2     | COD        | ppm  | APHA, 22 <sup>nd</sup> Edition | 1154    |
| 3     | TSS        | ppm  | APHA, 22 <sup>nd</sup> Edition | 13.2    |

APHA = American Public Health Association, BDL = Below detection limit NGV = No Guideline Value Set, TNTC = Too Numerous to Count  
NSDWQ = National Standard for Drinking Water Quality

**Note:** The sample is provided by the client and this report is valid only for the sample provided.

|             |  |                           |  |                             |
|-------------|--|---------------------------|--|-----------------------------|
| Prepared by |  | Tech. Manager<br>(Micro.) |  | Tech. Manager<br>(Chem./QC) |
|-------------|--|---------------------------|--|-----------------------------|

Address: PCRWR Regional Office, Main University Road, Behind Naseer Tower, Near KW&SB  
Reservoir, Gullstan-e-Johar, Block-1, Karachi. Tel No.021-34028062, 021-34156668

WATER QUALITY TEST REPORT

|                       |   |                     |                 |
|-----------------------|---|---------------------|-----------------|
| Report No.            | 6010  | Total No. of Pages  | 01              |
| Client Name & Address | M/S Techno Consult International (Pvt) Ltd. |                     |                 |
| WQL Sample code       | PCRWR/KHI/6010/09/2022                      | Client Code         | Water Sample-04 |
| Temp of Sample @°C    | 28.6  | Sample Receipt Date | 13.09.2022      |
| Date (s) of analysis  | 13.09.2022 To 23.09.2022                    | Reporting Date      | 23.09.2022      |

MAJOR CHEMICAL PARAMETERS:

| Sr. # | Water Quality Parameter          | Units   | Det. Limit | Reference Method               | Results |
|-------|----------------------------------|---------|------------|--------------------------------|---------|
| 1     | E. Conductivity                  | µS/cm   | 0.11       | APHA, 22 <sup>nd</sup> Edition | 50740   |
| 2     | pH                               | --      | 0.03       | APHA, 22 <sup>nd</sup> Edition | 7.58    |
| 3     | Turbidity                        | NTU     | 0.01       | APHA, 22 <sup>nd</sup> Edition | 9.41    |
| 4     | Alkalinity as Ca CO <sub>3</sub> | m.mol/l | --         | APHA, 22 <sup>nd</sup> Edition | 4.2     |
| 5     | Bicarbonate                      | ppm     | 5.0        | APHA, 22 <sup>nd</sup> Edition | 210     |
| 6     | Calcium                          | ppm     | 2.0        | APHA, 22 <sup>nd</sup> Edition | 788     |
| 7     | Carbonate                        | ppm     | 5.0        | APHA, 22 <sup>nd</sup> Edition | Nil     |
| 8     | Chloride                         | ppm     | 2.0        | APHA, 22 <sup>nd</sup> Edition | 15959   |
| 9     | Hardness as Ca CO <sub>3</sub>   | ppm     | 5.0        | APHA, 22 <sup>nd</sup> Edition | 4960    |
| 10    | Magnesium                        | ppm     | 1.0        | APHA, 22 <sup>nd</sup> Edition | 728     |
| 11    | Potassium                        | ppm     | 0.02       | APHA, 22 <sup>nd</sup> Edition | 381     |
| 12    | Sodium                           | ppm     | 1.57       | APHA, 22 <sup>nd</sup> Edition | 9073    |
| 13    | Sulfate                          | ppm     | 0.24       | APHA, 22 <sup>nd</sup> Edition | 2348    |
| 14    | Nitrate -N                       | ppm     | 0.03       | APHA, 22 <sup>nd</sup> Edition | 0.224   |
| 15    | Fluoride                         | ppm     | 0.02       | APHA, 22 <sup>nd</sup> Edition | 1.95    |
| 16    | Iron                             | ppm     | 0.02       | APHA, 22 <sup>nd</sup> Edition | 0.14    |
| 17    | Phosphate                        | ppm     | 0.05       | USEPA, 2000                    | 0.59    |
| 18    | Silica                           | ppm     | 0.07       | APHA, 22 <sup>nd</sup> Edition | 1.2     |
| 19    | Residual Chlorine                | ppm     | 0.05       | APHA, 22 <sup>nd</sup> Edition | BDL     |
| 20    | Arsenic                          | ppb     | 0          | Merck 1.17927                  | 5       |
| 21    | TDS                              | ppm     | --         | APHA, 22 <sup>nd</sup> Edition | 29404   |

MICROBIOLOGICAL PARAMETERS

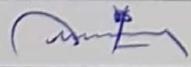
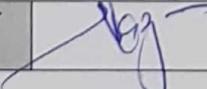
| Sr. # | Parameters     | Unit      | Det. Limit | Ref. Method                    | Results |
|-------|----------------|-----------|------------|--------------------------------|---------|
| 1     | Total Coliform | CFU/100ml | <1.0       | APHA, 22 <sup>nd</sup> Edition | TNTC    |
| 2     | Fecal Coliform | CFU/100ml | <1.0       | APHA, 22 <sup>nd</sup> Edition | TNTC    |
| 3     | E.Coli         | CFU/100ml | <1.0       | APHA, 22 <sup>nd</sup> Edition | TNTC    |

WASTE WATER QUALITY PARAMETERS

| Sr. # | Parameters | Unit | Reference Method               | Results |
|-------|------------|------|--------------------------------|---------|
| 1     | BOD        | ppm  | APHA, 22 <sup>nd</sup> Edition | 33.9    |
| 2     | COD        | ppm  | APHA, 22 <sup>nd</sup> Edition | 1598    |
| 3     | TSS        | ppm  | APHA, 22 <sup>nd</sup> Edition | 12.3    |

APHA = American Public Health Association, BDL= Below detection limit NGV=No Guideline Value Set, TNTC Too Numerous to Count  
NSDWQ= National Standard for Drinking Water Quality

**Note:** The sample is provided by the client and this report is valid only for the sample provided.

|             |   |                           |   |                             |   |
|-------------|---|---------------------------|---|-----------------------------|---|
| Prepared by |  | Tech. Manager<br>(Micro.) |  | Tech. Manager<br>(Chem./QC) |  |
|-------------|---|---------------------------|---|-----------------------------|---|

## WATER QUALITY TEST REPORT

|                       |   |                     |                 |
|-----------------------|---|---------------------|-----------------|
| Report No.            | 6011  | Total No. of Pages  | 01              |
| Client Name & Address | M/S Techno Consult International (Pvt) Ltd. |                     |                 |
| WQL Sample code       | PCRWR/KHI/6011/09/2022                      | Client Code         | Water Sample-05 |
| Temp of Sample @°C    | 28.7  | Sample Receipt Date | 13.09.2022      |
| Date (s) of analysis  | 13.09.2022 To 23.09.2022                    | Reporting Date      | 23.09.2022      |

### MAJOR CHEMICAL PARAMETERS:

| Sr. # | Water Quality Parameter          | Units   | Det. Limit | Reference Method               | Results |
|-------|----------------------------------|---------|------------|--------------------------------|---------|
| 1     | E. Conductivity                  | µS/cm   | 0.11       | APHA, 22 <sup>nd</sup> Edition | 49260   |
| 2     | pH                               | --      | 0.03       | APHA, 22 <sup>nd</sup> Edition | 7.62    |
| 3     | Turbidity                        | NTU     | 0.01       | APHA, 22 <sup>nd</sup> Edition | 7.92    |
| 4     | Alkalinity as Ca CO <sub>3</sub> | m.mol/l | --         | APHA, 22 <sup>nd</sup> Edition | 4.0     |
| 5     | Bicarbonate                      | ppm     | 5.0        | APHA, 22 <sup>nd</sup> Edition | 200     |
| 6     | Calcium                          | ppm     | 2.0        | APHA, 22 <sup>nd</sup> Edition | 768     |
| 7     | Carbonate                        | ppm     | 5.0        | APHA, 22 <sup>nd</sup> Edition | Nil     |
| 8     | Chloride                         | ppm     | 2.0        | APHA, 22 <sup>nd</sup> Edition | 15571   |
| 9     | Hardness as Ca CO <sub>3</sub>   | ppm     | 5.0        | APHA, 22 <sup>nd</sup> Edition | 4930    |
| 10    | Magnesium                        | ppm     | 1.0        | APHA, 22 <sup>nd</sup> Edition | 731     |
| 11    | Potassium                        | ppm     | 0.02       | APHA, 22 <sup>nd</sup> Edition | 373     |
| 12    | Sodium                           | ppm     | 1.57       | APHA, 22 <sup>nd</sup> Edition | 8830    |
| 13    | Sulfate                          | ppm     | 0.24       | APHA, 22 <sup>nd</sup> Edition | 2338    |
| 14    | Nitrate -N                       | ppm     | 0.03       | APHA, 22 <sup>nd</sup> Edition | 0.217   |
| 15    | Fluoride                         | ppm     | 0.02       | APHA, 22 <sup>nd</sup> Edition | 1.96    |
| 16    | Iron                             | ppm     | 0.02       | APHA, 22 <sup>nd</sup> Edition | 0.11    |
| 17    | Phosphate                        | ppm     | 0.05       | USEPA, 2000                    | 0.59    |
| 18    | Silica                           | ppm     | 0.07       | APHA, 22 <sup>nd</sup> Edition | 2.5     |
| 19    | Residual Chlorine                | ppm     | 0.05       | APHA, 22 <sup>nd</sup> Edition | BDL     |
| 20    | Arsenic                          | ppb     | 0          | Merck 1.17927                  | 5       |
| 21    | TDS                              | ppm     | --         | APHA, 22 <sup>nd</sup> Edition | 28732   |

### MICROBIOLOGICAL PARAMETERS

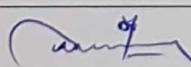
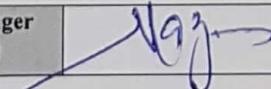
| Sr. # | Parameters     | Unit      | Det. Limit | Ref. Method                    | Permissible limits* | Results |
|-------|----------------|-----------|------------|--------------------------------|---------------------|---------|
| 1     | Total Coliform | CFU/100ml | <1.0       | APHA, 22 <sup>nd</sup> Edition | 0/100ml             | TNTC    |
| 2     | Fecal Coliform | CFU/100ml | <1.0       | APHA, 22 <sup>nd</sup> Edition | 0/100ml             | TNTC    |
| 3     | E.Coli         | CFU/100ml | <1.0       | APHA, 22 <sup>nd</sup> Edition | 0/100ml             | TNTC    |

### WASTE WATER QUALITY PARAMETERS

| Sr. # | Parameters | Unit | Reference Method               | Permissible Limits ** | Results |
|-------|------------|------|--------------------------------|-----------------------|---------|
| 1     | BOD        | ppm  | APHA, 22 <sup>nd</sup> Edition | 80                    | 33.9    |
| 2     | COD        | ppm  | APHA, 22 <sup>nd</sup> Edition | 150                   | 1291    |
| 3     | TSS        | ppm  | APHA, 22 <sup>nd</sup> Edition | 200                   | 6.4     |

APHA American Public Health Association, BDL= Below detection limit NGVSN No Guideline Value Set, TNTC Too Numerous to Count  
NSDWQ= National Standard for Drinking Water Quality.

**Note:** The sample is provided by the client and this report is valid only for the sample provided.

|             |   |                        |   |                          |   |
|-------------|---|------------------------|---|--------------------------|---|
| Prepared by |  | Tech. Manager (Micro.) |  | Tech. Manager (Chem./QC) |  |
|-------------|---|------------------------|---|--------------------------|---|

WATER QUALITY TEST REPORT

|                       |   |                     |                 |
|-----------------------|---|---------------------|-----------------|
| Report No.            | 6012  | Total No. of Pages  | 01              |
| Client Name & Address | M/S Techno Consult International (Pvt) Ltd. |                     |                 |
| WQL Sample code       | PCRWR/KHI/6012/09/2022                      | Client Code         | Water Sample-06 |
| Temp of Sample @°C    | 27.8  | Sample Receipt Date | 13.09.2022      |
| Date (s) of analysis  | 13.09.2022 To 23.09.2022                    | Reporting Date      | 23.09.2022      |

MAJOR CHEMICAL PARAMETERS:

| Sr. # | Water Quality Parameter          | Units   | Det. Limit | Reference Method               | Results |
|-------|----------------------------------|---------|------------|--------------------------------|---------|
| 1     | E. Conductivity                  | µS/cm   | 0.11       | APHA, 22 <sup>nd</sup> Edition | 49680   |
| 2     | pH                               | --      | 0.03       | APHA, 22 <sup>nd</sup> Edition | 7.64    |
| 3     | Turbidity                        | NTU     | 0.01       | APHA, 22 <sup>nd</sup> Edition | 9.88    |
| 4     | Alkalinity as Ca CO <sub>3</sub> | m.mol/l | --         | APHA, 22 <sup>nd</sup> Edition | 4.0     |
| 5     | Bicarbonate                      | ppm     | 5.0        | APHA, 22 <sup>nd</sup> Edition | 200     |
| 6     | Calcium                          | ppm     | 2.0        | APHA, 22 <sup>nd</sup> Edition | 768     |
| 7     | Carbonate                        | ppm     | 5.0        | APHA, 22 <sup>nd</sup> Edition | Nil     |
| 8     | Chloride                         | ppm     | 2.0        | APHA, 22 <sup>nd</sup> Edition | 15713   |
| 9     | Hardness as Ca CO <sub>3</sub>   | ppm     | 5.0        | APHA, 22 <sup>nd</sup> Edition | 4930    |
| 10    | Magnesium                        | ppm     | 1.0        | APHA, 22 <sup>nd</sup> Edition | 731     |
| 11    | Potassium                        | ppm     | 0.02       | APHA, 22 <sup>nd</sup> Edition | 361     |
| 12    | Sodium                           | ppm     | 1.57       | APHA, 22 <sup>nd</sup> Edition | 8927    |
| 13    | Sulfate                          | ppm     | 0.24       | APHA, 22 <sup>nd</sup> Edition | 2340    |
| 14    | Nitrate -N                       | ppm     | 0.03       | APHA, 22 <sup>nd</sup> Edition | 0.193   |
| 15    | Fluoride                         | ppm     | 0.02       | APHA, 22 <sup>nd</sup> Edition | 1.93    |
| 16    | Iron                             | ppm     | 0.02       | APHA, 22 <sup>nd</sup> Edition | 0.13    |
| 17    | Phosphate                        | ppm     | 0.05       | USEPA, 2000                    | 0.58    |
| 18    | Silica                           | ppm     | 0.07       | APHA, 22 <sup>nd</sup> Edition | 1.1     |
| 19    | Residual Chlorine                | ppm     | 0.05       | APHA, 22 <sup>nd</sup> Edition | BDL     |
| 20    | Arsenic                          | ppb     | 0          | Merck 1.17927                  | 5       |
| 21    | TDS                              | ppm     | --         | APHA, 22 <sup>nd</sup> Edition | 28961   |

MICROBIOLOGICAL PARAMETERS

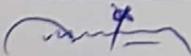
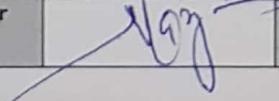
| Sr. # | Parameters     | Unit      | Det. Limit | Ref. Method                    | Results |
|-------|----------------|-----------|------------|--------------------------------|---------|
| 1     | Total Coliform | CFU/100ml | <1.0       | APHA, 22 <sup>nd</sup> Edition | TNTC    |
| 2     | Fecal Coliform | CFU/100ml | <1.0       | APHA, 22 <sup>nd</sup> Edition | TNTC    |
| 3     | E.Coli         | CFU/100ml | <1.0       | APHA, 22 <sup>nd</sup> Edition | TNTC    |

WASTE WATER QUALITY PARAMETERS

| Sr. # | Parameters | Unit | Reference Method               | Results |
|-------|------------|------|--------------------------------|---------|
| 1     | BOD        | ppm  | APHA, 22 <sup>nd</sup> Edition | 38.3    |
| 2     | COD        | ppm  | APHA, 22 <sup>nd</sup> Edition | 1380    |
| 3     | TSS        | ppm  | APHA, 22 <sup>nd</sup> Edition | 12.5    |

APHA American Public Health Association, BDL= Below detection limit NGVSNational Guideline Value Set ,TNTC Too Numerous to CountNSDWQ= National Standard for Drinking Water Quality

Note: The sample is provided by the client and this report is valid only for the sample provided.

|             |   |                        |   |                          |   |
|-------------|---|------------------------|---|--------------------------|---|
| Prepared by |  | Tech. Manager (Micro.) |  | Tech. Manager (Chem./QC) |  |
|-------------|---|------------------------|---|--------------------------|---|



# SAGE TECH INTERNATIONAL (PVT.) LTD

|                                    |
|------------------------------------|
| EPA Certified Lab                  |
| EPA/LAB/Certification/Sage/25/2022 |
| QMS/II/024/WWW                     |
| Revision:00 Date:12.12.2021        |

Reference No.: STI/TCIPL/2022/011-A

Receipt Date: 13/09/2022

Customer Name: Techno Consult International Pvt. Ltd.

Reporting Date: 26/09/2022

Address: 37/K, Block-06, PECHS, Karachi, Pakistan.

| SAMPLE DESCRIPTION                                |  |   |
|---|--|---|
| Sample ID: <u>Sea Water</u><br>Sample # <u>01</u> | Sampling Method:<br><u>APHA 1060 B &amp; C</u> | Sample Collected By:<br><u>STI Representative</u>           |
| Sampling Location:<br><u>Near Ibrahim Hyderi</u>  | Sampling Type: <u>Grab</u>                     | Sampling Coordinates:<br><u>24°46'53.71"N 67° 9'11.95"E</u> |
|   | Sample Nature: <u>Liquid</u>                   | Sampling Date & Time:<br><u>13/09/2022 at 11:00AM</u>       |

### ANAAYTICAL TEST & RESULTS:

| S. NO. | PARAMETERS                             | STANDARDS | UNITS | RESULTS            | TEST METHOD               |
|--------|--|-----------|-------|--------------------|---------------------------|
|        |  | LDL       |       |                    |                           |
| 1      | Temperature                            | 0.1       | °C    | 35                 | Thermometer               |
| 2      | Barium (Ba)                            | 0.001     | mg/l  | 0.031              | ASTM D4382                |
| 3      | Boron (B)                              | 0.001     | mg/l  | 0.142              | ASTM D3082                |
| 4      | Iron, Dissolved (Fe)                   | 0.01      | mg/l  | 0.2894             | ASTM D1068                |
| 5      | Strontium (Sr)                         | 0.001     | mg/l  | 2.135              | APHA 3111B                |
| 6      | Carbon Dioxide (CO <sub>2</sub> )      | 0.01      | mg/L  | 2.19               | APHA 4500 CO <sub>2</sub> |
| 7      | Total Organic Carbon (TOC)             | 0.01      | mg/l  | 2.19               | ASTM D5902                |
| 8      | Oil and Grease (O&G)                   | 0.01      | mg/l  | 0.89               | APHA 5520D                |
| 9      | Silt Density Index (SDI 15 units)      | 0.01      | -     | 2.26               | ASTM D4189                |
| 10     | Total Viable Bacterial Count @ 20-22°C | 1         | CFU   | 390                | APHA 9215B                |
| 11     | Total Viable Bacterial Count @ 37°C    | 1         | CFU   | 27x10 <sup>3</sup> | APHA 9215B                |

#### Note:

- The instruments used were daily calibrated.
- The measurements were carried out on client's request.
- ND=Not Detected, WL=Within Limit, OL=Out of limit, LDL=Least Detectable Limit
- ASTM=American Society for Testing and Materials
- APHA= American Public Health Association Standard Method
- CFU: Colony Forming Unit

#### Terms & Condition:

- This report is not valid for any negotiations
- Report is valid for current batch(sample)
- This report is intended only for your guidance & not for legal purpose or for advertisement.



Nasiha Ilyas  
Sample Analyzed By

*Sadat*  
Sadat Ali  
Laboratory Supervisor

#### Head Office:

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Fax: +92(21) 32473197  
E-mail: info@stipvt.com  
Web: www.stipvt.com

#### LAB:

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North Nazimabad, Karachi-Pakistan.  
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E-mail: info@stipvt.com  
Web: www.stipvt.com



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# SAGE TECH INTERNATIONAL (PVT.) LTD

|                                    |                 |
|------------------------------------|-----------------|
| EPA Certified Lab                  |                 |
| EPA/LAB/Certification/Sage/25/2022 |                 |
| QMS/II/024/WWW                     |                 |
| Revision:00                        | Date:02.12.2021 |

Reference No.: STI/TCIPL/2022/011-B

Receipt Date: 13/09/2022

Customer Name: Techno Consult International Pvt. Ltd.

Reporting Date: 26/09/2022

Address: 37/K, Block-06, PECHS, Karachi, Pakistan.

| SAMPLE DESCRIPTION                                |  |   |
|---|--|---|
| Sample ID: <u>Sea Water</u><br>Sample # <u>02</u> | Sampling Method:<br><u>APHA 1060 B &amp; C</u> | Sample Collected By:<br><u>STI Representative</u>           |
| Sampling Location:<br><u>Near Ibrahim Hyderi</u>  | Sampling Type: <u>Grab</u>                     | Sampling Coordinates:<br><u>24°46'52.78"N 67° 9'15.94"E</u> |
|   | Sample Nature: <u>Liquid</u>                   | Sampling Date & Time:<br><u>13/09/2022 at 11:30AM</u>       |

## ANALYTICAL TEST & RESULTS:

| S. NO. | PARAMETERS                             | STANDARDS | UNITS | RESULTS            | TEST METHOD               |
|--------|--|-----------|-------|--------------------|---------------------------|
|        |  | LDL       |       |                    |                           |
| 1      | Temperature                            | 0.1       | °C    | 40                 | Thermometer               |
| 2      | Barium (Ba)                            | 0.001     | mg/l  | 0.027              | ASTM D4382                |
| 3      | Boron (B)                              | 0.001     | mg/l  | 0.191              | ASTM D3082                |
| 4      | Iron, Dissolved (Fe)                   | 0.01      | mg/l  | 0.2147             | ASTM D1068                |
| 5      | Strontium (Sr)                         | 0.001     | mg/l  | 2.581              | APHA 3111B                |
| 6      | Carbon Dioxide (CO <sub>2</sub> )      | 0.01      | mg/L  | 3.15               | APHA 4500 CO <sub>2</sub> |
| 7      | Total Organic Carbon (TOC)             | 0.01      | mg/l  | 2.28               | ASTM D5902                |
| 8      | Oil and Grease (O&G)                   | 0.01      | mg/l  | 1.06               | APHA 5520D                |
| 9      | Silt Density Index (SDI 15 units)      | 0.01      | -     | 1.99               | ASTM D4189                |
| 10     | Total Viable Bacterial Count @ 20-22°C | 1         | CFU   | 340                | APHA 9215B                |
| 11     | Total Viable Bacterial Count @ 37°C    | 1         | CFU   | 24x10 <sup>3</sup> | APHA 9215B                |

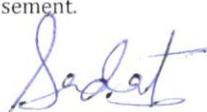
### Note:

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- The measurements were carried out on client's request.
- ND=Not Detected, WL=Within Limit, OL=Out of limit, LDL=Least Detectable Limit
- ASTM=American Society for Testing and Materials
- APHA= American Public Health Association Standard Method
- CFU: Colony Forming Unit

### Terms & Condition:

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Nasiha Ilyas  
Sample Analyzed By

  
Sadat Ali  
Laboratory Supervisor



### Head Office:

Suite No. 507, 5<sup>th</sup> Floor, Business & Finance Center  
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Karachi-74000- Pakistan  
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Fax: +92(21) 32473197  
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Web: www.stipvt.com

### LAB:

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E-mail: info@stipvt.com  
Web: www.stipvt.com



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# SAGE TECH INTERNATIONAL (PVT.) LTD

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|------------------------------------|-----------------|
| EPA Certified Lab                  |                 |
| EPA/LAB/Certification/Sage/25/2022 |                 |
| QMS/II/024/WW                      |                 |
| Revision:00                        | Date:02.12.2021 |

Reference No.: STI/TCIPL/2022/011-C

Receipt Date: 13/09/2022

Customer Name: Techno Consult International Pvt. Ltd.

Reporting Date: 26/09/2022

Address: 37/K, Block-06, PECHS, Karachi, Pakistan.

| SAMPLE DESCRIPTION                                |  |   |
|---|--|---|
| Sample ID: <u>Sea Water</u><br>Sample # <u>03</u> | Sampling Method:<br><u>APHA 1060 B &amp; C</u> | Sample Collected By:<br><u>STI Representative</u>           |
| Sampling Location:<br><u>Near Ibrahim Hyderi</u>  | Sampling Type: <u>Grab</u>                     | Sampling Coordinates:<br><u>24°46'52.49"N 67° 9'20.02"E</u> |
|   | Sample Nature: <u>Liquid</u>                   | Sampling Date & Time:<br><u>13/09/2022 at 12:00PM</u>       |

## ANALYTICAL TEST & RESULTS:

| S. NO. | PARAMETERS                             | STANDARDS | UNITS | RESULTS            | TEST METHOD               |
|--------|--|-----------|-------|--------------------|---------------------------|
|        |  | LDL       |       |                    |                           |
| 1      | Temperature                            | 0.1       | °C    | 38                 | Thermometer               |
| 2      | Barium (Ba)                            | 0.001     | mg/l  | 0.052              | ASTM D4382                |
| 3      | Boron (B)                              | 0.001     | mg/l  | 0.319              | ASTM D3082                |
| 4      | Iron, Dissolved (Fe)                   | 0.01      | mg/l  | 0.5722             | ASTM D1068                |
| 5      | Strontium (Sr)                         | 0.001     | mg/l  | 2.495              | APHA 3111B                |
| 6      | Carbon Dioxide (CO <sub>2</sub> )      | 0.01      | mg/L  | 1.58               | APHA 4500 CO <sub>2</sub> |
| 7      | Total Organic Carbon (TOC)             | 0.01      | mg/l  | 2.61               | ASTM D5902                |
| 8      | Oil and Grease (O&G)                   | 0.01      | mg/l  | 0.94               | APHA 5520D                |
| 9      | Silt Density Index (SDI 15 units)      | 0.01      | -     | 2.32               | ASTM D4189                |
| 10     | Total Viable Bacterial Count @ 20-22°C | 1         | CFU   | 440                | APHA 9215B                |
| 11     | Total Viable Bacterial Count @ 37°C    | 1         | CFU   | 29x10 <sup>3</sup> | APHA 9215B                |

### Note:

- The instruments used were daily calibrated.
- The measurements were carried out on client's request.
- ND=Not Detected, WL=Within Limit, OL=Out of limit, LDL=Least Detectable Limit
- ASTM=American Society for Testing and Materials
- APHA= American Public Health Association Standard Method
- CFU: Colony Forming Unit

### Terms & Condition:

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Nasiha Ilyas  
Sample Analyzed By

Sadat Ali  
Laboratory Supervisor



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# SAGE TECH INTERNATIONAL (PVT.) LTD

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|------------------------------------|-----------------|
| EPA Certified Lab                  |                 |
| EPA/LAB/Certification/Sage/25/2022 |                 |
| QMS/II/024/WW                      |                 |
| Revision:00                        | Date:02.12.2021 |

Reference No.: STI/TCIPL/2022/011-D

Receipt Date: 13/09/2022

Customer Name: Techno Consult International Pvt. Ltd.

Reporting Date: 26/09/2022

Address: 37/K, Block-06, PECHS, Karachi, Pakistan.

| SAMPLE DESCRIPTION                                |  |   |
|---|--|---|
| Sample ID: <u>Sea Water</u><br>Sample # <u>04</u> | Sampling Method:<br><u>APHA 1060 B &amp; C</u> | Sample Collected By:<br><u>STI Representative</u>           |
| Sampling Location:<br><u>Near Ibrahim Hyderi</u>  | Sampling Type: <u>Grab</u>                     | Sampling Coordinates:<br><u>24°46'51.14"N 67° 9'19.72"E</u> |
|   | Sample Nature: <u>Liquid</u>                   | Sampling Date & Time:<br><u>13/09/2022 at 12:30PM</u>       |

## ANALYTICAL TEST & RESULTS:

| S. NO. | PARAMETERS                                | STANDARDS | UNITS | RESULTS            | TEST METHOD               |
|--------|---|-----------|-------|--------------------|---------------------------|
|        |   | LDL       |       |                    |                           |
| 1      | Temperature                               | 0.1       | °C    | 39                 | Thermometer               |
| 2      | Barium (Ba)                               | 0.001     | mg/l  | 0.021              | ASTM D4382                |
| 3      | Boron (B)                                 | 0.001     | mg/l  | 0.129              | ASTM D3082                |
| 4      | Iron, Dissolved (Fe)                      | 0.01      | mg/l  | 0.5012             | ASTM D1068                |
| 5      | Strontium (Sr)                            | 0.001     | mg/l  | 2.095              | APHA 3111B                |
| 6      | Carbon Dioxide (CO <sub>2</sub> )         | 0.01      | mg/L  | 1.97               | APHA 4500 CO <sub>2</sub> |
| 7      | Total Organic Carbon (TOC)                | 0.01      | mg/l  | 2.18               | ASTM D5902                |
| 8      | Oil and Grease (O&G)                      | 0.01      | mg/l  | 0.64               | APHA 5520D                |
| 9      | Silt Density Index (SDI 15 units)         | 0.01      | -     | 2.59               | ASTM D4189                |
| 10     | Total Viable Bacterial Count @<br>20-22°C | 1         | CFU   | 510                | APHA 9215B                |
| 11     | Total Viable Bacterial Count @<br>37°C    | 1         | CFU   | 32x10 <sup>3</sup> | APHA 9215B                |

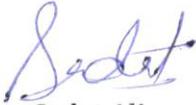
### Note:

- The instruments used were daily calibrated.
- The measurements were carried out on client's request.
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- ASTM=American Society for Testing and Materials
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- CFU: Colony Forming Unit

### Terms & Condition:

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Sample Analyzed By

  
Sadat Ali  
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# SAGE TECH INTERNATIONAL (PVT.) LTD

|                                    |                 |
|------------------------------------|-----------------|
| EPA Certified Lab                  |                 |
| EPA/LAB/Certification/Sage/25/2022 |                 |
| QMS/II/024/WW                      |                 |
| Revision:00                        | Date:02.12.2021 |

Reference No.: STI/TCIPL/2022/011-E

Receipt Date: 13/09/2022

Customer Name: Techno Consult International Pvt. Ltd.

Reporting Date: 26/09/2022

Address: 37/K, Block-06, PECHS, Karachi, Pakistan.

| SAMPLE DESCRIPTION                                |  |   |
|---|--|---|
| Sample ID: <u>Sea Water</u><br>Sample # <u>05</u> | Sampling Method:<br><u>APHA 1060 B &amp; C</u> | Sample Collected By:<br><u>STI Representative</u>           |
| Sampling Location:<br><u>Near Ibrahim Hyderi</u>  | Sampling Type: <u>Grab</u>                     | Sampling Coordinates:<br><u>24°46'51.63"N 67° 9'15.85"E</u> |
|   | Sample Nature: <u>Liquid</u>                   | Sampling Date & Time:<br><u>13/09/2022 at 1:00PM</u>        |

## ANALYTICAL TEST & RESULTS:

| S. NO. | PARAMETERS                                | STANDARDS | UNITS | RESULTS            | TEST METHOD               |
|--------|---|-----------|-------|--------------------|---------------------------|
|        |   | LDL       |       |                    |                           |
| 1      | Temperature                               | 0.1       | °C    | 36                 | Thermometer               |
| 2      | Barium (Ba)                               | 0.001     | mg/l  | 0.028              | ASTM D4382                |
| 3      | Boron (B)                                 | 0.001     | mg/l  | 0.133              | ASTM D3082                |
| 4      | Iron, Dissolved (Fe)                      | 0.01      | mg/l  | 0.4119             | ASTM D1068                |
| 5      | Strontium (Sr)                            | 0.001     | mg/l  | 1.947              | APHA 3111B                |
| 6      | Carbon Dioxide (CO <sub>2</sub> )         | 0.01      | mg/L  | 1.72               | APHA 4500 CO <sub>2</sub> |
| 7      | Total Organic Carbon (TOC)                | 0.01      | mg/l  | 2.50               | ASTM D5902                |
| 8      | Oil and Grease (O&G)                      | 0.01      | mg/l  | 0.92               | APHA 5520D                |
| 9      | Silt Density Index (SDI 15 units)         | 0.01      | -     | 2.16               | ASTM D4189                |
| 10     | Total Viable Bacterial Count @<br>20-22°C | 1         | CFU   | 481                | APHA 9215B                |
| 11     | Total Viable Bacterial Count @<br>37°C    | 1         | CFU*  | 36x10 <sup>3</sup> | APHA 9215B                |

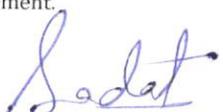
### Note:

- The instruments used were daily calibrated.
- The measurements were carried out on client's request.
- ND=Not Detected, WL=Within Limit, OL=Out of limit, LDL=Least Detectable Limit
- ASTM=American Society for Testing and Materials
- APHA= American Public Health Association Standard Method
- CFU: Colony Forming Unit

### Terms & Condition:

- This report is not valid for any negotiations
- Report is valid for current batch(sample)
- This report is intended only for your guidance & not for legal purpose or for advertisement.

Nasiha Ilyas  
Sample Analyzed By

  
Sadat Ali  
Laboratory Supervisor



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Web: www.stipvt.com



STP-10012022-CCV1



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# SAGE TECH INTERNATIONAL (PVT.) LTD

|                                    |                 |
|------------------------------------|-----------------|
| EPA Certified Lab                  |                 |
| EPA/LAB/Certification/Sage/25/2022 |                 |
| QMS/II/024/WW                      |                 |
| Revision:00                        | Date:02.12.2021 |

Reference No.: STI/TCIPL/2022/011-F

Receipt Date: 13/09/2022

Customer Name: Techno Consult International Pvt. Ltd.

Reporting Date: 26/09/2022

Address: 37/K, Block-06, PECHS, Karachi, Pakistan.

| SAMPLE DESCRIPTION                                |  |   |
|---|--|---|
| Sample ID: <u>Sea Water</u><br>Sample # <u>06</u> | Sampling Method:<br><u>APHA 1060 B &amp; C</u> | Sample Collected By:<br><u>STI Representative</u>           |
| Sampling Location:<br><u>Near Ibrahim Hyderi</u>  | Sampling Type: <u>Grab</u>                     | Sampling Coordinates:<br><u>24°46'52.30"N 67° 9'10.89"E</u> |
|   | Sample Nature: <u>Liquid</u>                   | Sampling Date & Time:<br><u>13/09/2022 at 1:30PM</u>        |

## ANALYTICAL TEST & RESULTS:

| S. NO. | PARAMETERS                                | STANDARDS | UNITS | RESULTS            | TEST METHOD               |
|--------|---|-----------|-------|--------------------|---------------------------|
|        |   | LDL       |       |                    |                           |
| 1      | Temperature                               | 0.1       | °C    | 31                 | Thermometer               |
| 2      | Barium (Ba)                               | 0.001     | mg/l  | 0.039              | ASTM D4382                |
| 3      | Boron (B)                                 | 0.001     | mg/l  | 0.124              | ASTM D3082                |
| 4      | Iron, Dissolved (Fe)                      | 0.01      | mg/l  | 0.6197             | ASTM D1068                |
| 5      | Strontium (Sr)                            | 0.001     | mg/l  | 2.183              | APHA 3111B                |
| 6      | Carbon Dioxide (CO <sub>2</sub> )         | 0.01      | mg/L  | 2.06               | APHA 4500 CO <sub>2</sub> |
| 7      | Total Organic Carbon (TOC)                | 0.01      | mg/l  | 2.89               | ASTM D5902                |
| 8      | Oil and Grease (O&G)                      | 0.01      | mg/l  | 0.71               | APHA 5520D                |
| 9      | Silt Density Index (SDI 15 units)         | 0.01      | -     | 2.38               | ASTM D4189                |
| 10     | Total Viable Bacterial Count @<br>20-22°C | 1         | CFU   | 625                | APHA 9215B                |
| 11     | Total Viable Bacterial Count @<br>37°C    | 1         | CFU   | 43x10 <sup>3</sup> | APHA 9215B                |

### Note:

- The instruments used were daily calibrated.
- The measurements were carried out on client's request.
- ND=Not Detected, WL=Within Limit, OL=Out of limit, LDL=Least Detectable Limit
- ASTM=American Society for Testing and Materials
- APHA= American Public Health Association Standard Method
- CFU: Colony Forming Unit

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