

**BEFORE THE NATIONAL GREEN TRIBUNAL,**

**WESTERN BENCH, NEW DELHI**

**PUNE ZONAL BENCH**

**Original Application No. 7 of 2020.**

Aryavart Foundation Through its president ... Applicant

Versus

M/s. Naroda Enviro Project Limited (CETP) &ors. .... Respondents

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Filed by:



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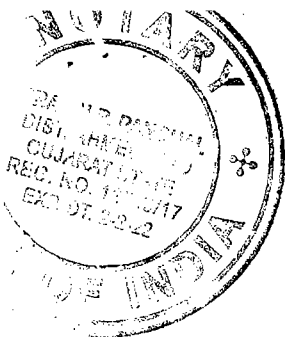
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New Delhi

Date:



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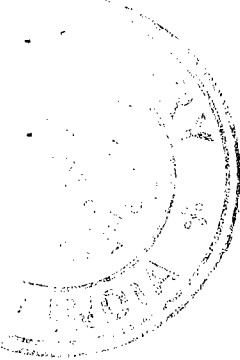
**AFFIDAVIT OF REPLY / OBJECTIONS ON BEHALF OF  
RESPONDENT NO. 1 - M/S. NARODA ENVIRO PROJECT  
LTD. TO THE REPORT OF COMMITTEE DATED AUGUST  
2020**

MOST RESPECTFULLY SHEWETH THAT :

I, Shailesh Patwari, S/o Indradaman, Aged about 66 years, having my office at 512-515, Phase 1 GIDC, Naroda, Admedabad 382330, do hereby solemnly affirm and declare as under:-

1. That I am Chairman and Director of the respondent No.1 in the present case and am authorized to file the present Reply

*Sham Patwari*



on behalf of the respondent No.1. I am well conversant with the facts and circumstances of the case based on the record available with my office and I am competent to affirm this affidavit

2. Respondent No.1 has filed its reply dated 27.08.2020 in this Original Application. The respondent reiterates what is stated in the reply refraining from reproducing statements, averments and contentions raised therein for the sake of brevity. The respondent submits that said reply filed earlier be treated as part of this reply.
3. I say that this Hon'ble Tribunal vide its order dated 05.02.2020 read with order dated 29.06.2020 had constituted a committee to inspect CETP in question as well as the member industries and verify on the factual allegations in OA and submit a report. The Committee has submitted its report of August 2020. This further reply is being filed by respondent No. 1 in the context of the

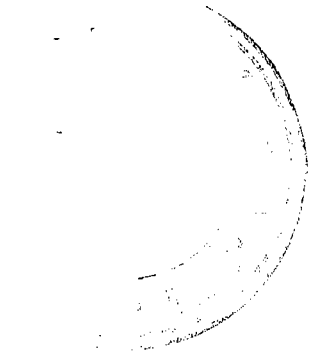
*Srinivas P. S.*



aforesaid report and as per the order of this Hon'ble Tribunal dated 11.09.2020 and 21.09.2020.

4. At the outset, it is submitted with respect that the report is based on certain incorrect premise, does not look at the issues in their entirety and overlooks statutory provisions. The respondent denies all adverse statements, remarks and observations made against respondent No. 1 except those which are specifically admitted to be true hereafter. Not dealing with any of the statements or remarks or observations may not be taken as admission of any such observations or directions.
5. The Committee, in Para - 2 of the report, has dealt with CETP at Naroda and various aspects related to that like Effluent Collection Arrangement from Member Industries of CETP, status of consents, treatment scheme at CETP, upgradation of CETP and Monitoring of CETP. In **Para - 2.1 of the**

*Sum P. J.*



**report,** the Committee has dealt with effluent collection arrangement from member industries of CETP. It is true that 25 industries are discharging their waste water to CETP through tankers and 119 member industries are sending their waste water to CETP through underground pipe line. It would not be accurate to say that 119 members send their effluents through drainage line. While referring to effluent treatment, the committee has failed to notice that CETP at Naroda is based on segregation at source of three different types of effluents which are treated separately. It is an established principle that effective pollution control depends on segregation of different types of effluents and treating them separately by adopting the best possible method for the concerned type of effluent. If different types of effluents generated from different industries are treated in a common pool by common technic , the results may not be effective. The CETP, Naroda collects effluent mainly from three types of industries namely food industries, textile industries and chemical industries. The food effluent was earlier treated

*Srin P. J.*

using digester, which generated methane gas which was converted to energy and used in boiler of CETP thereby mitigating usage on fossil fuels. Under the current upgradation the said stream is used to break recalcitrant COD. Separate collection of effluent, treating it separately depending upon the nature of industry and conversion of methane gas generated through effluent treatment process to energy are some of the important steps implemented by CETP which are overlooked by the Committee.

6. It is true that there are 30 sumps / drainage chambers at different location within Naroda GIDC for conveyance of waste water from CETP member units to CETP. There is staggered timing for discharge of effluent in sumps for each member unit connected with CETP. Each member unit is given a slot depending upon the quantity of effluent generated by the member unit. Each member unit has a dedicated pipe line of 2 inch diameter which conveys effluent from the member unit to the collection sump. CETP does not

*Sun P. J.*



accept any discharge from its members during the night time. Each member unit is required to install pump of 1440 rpm and of 5 hp. The combination of diameter of pipeline, capacity of pump at the industry, which releases collected effluent to the collection sump coupled with the time which is allotted to each member industry for which their designated valve is opened allowing effluent to enter the sump is enough to measure their hydraulic load. The samples from effluent which arrive in the sump are periodically taken and tested at the laboratory of the CETP. It is thus absolutely incorrect to say that there is no established mechanism to ensure the inlet quality non-compliance or hydraulic load compliance from member unit in the sumps / chambers. Since an established methodology of testing inlet quality as well as measuring hydraulic load is in place and is working efficiently, there is no need to install SCADA system. In any case, SCADA system also is not beyond its own faults and it does not even form a part of the CCA issued to the CETP. It is absolutely incorrect on part

*Srinivasan*

with the Committee to say that no regular monitoring of effluent quality in the 30 sumps is carried out. It is incorrect to state that waste water reaching CETP is by and large uncontrolled in terms of quality and quantity. A few photographs of some of 30 sumps are attached hereto and marked as **Annexure R-1**. As can be seen from the photographs, the sumps are closed, are kept locked, have a designated pipeline from each unit with valve that is sealed after each discharge. It is true that CETP collects sewage for treatment from residential area within and surrounding GIDC. Such collection is however to the tune of 1 MLD and not 0.7 MLD as claimed in the Report. The issue about sewage from residential area is dealt hereinafter in detail.

7. The report deals with status of consents to CETP in **Para 2.2**. I say that Rule 3 of the Environment (Protection) Rules, 1986 ("**the Rules**") provide for standards for emission or discharge of environmental pollutants. Rule 3 lays down that the standards for emission or discharge of environmental

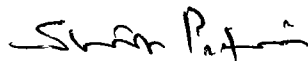
*Shri R. P. ...*



pollutants from industries, operations or processes shall be as specified in Schedule I to IV. Sub-Rule (2) of Rule 3 further states that the Central Board or State Board may specify more stringent standards from those provided in Schedule I to IV in respect of any specific industry, operation or process depending upon the quality of the recipient system and after recording the reasons, therefor in writing. Rule 3 further lays down that the standards for emission of discharge of environmental pollutants specified in sub-rule (1) of sub-rule (2) shall be complied with by an industry, operation or process within a period of one year of being so specified. So far as a CETP is concerned, the parameters and standards are laid down in Entry 55 of Schedule I of the Rules. It is pertinent to note that Inlet Quality Standards were prescribed for a CETP for the first time vide Notification dated 1st January, 2016, by stating that for each common effluent treatment plant, the State Board will prescribe Inlet Quality Standards for General Parameters, Ammonical Nitrogen and heavy metals as per design of the CETP and

*Srin P. A.*

local needs and conditions. So far as CETP, Naroda is concerned, inlet norms came to be prescribed for the first time by amendment of Consent dated 24.11.2017. It is obvious that Inlet Quality Standards for CETP cannot be at variance with effluent standards of a member unit. Many of the member units of CETP Naroda fall in Entry 8 i.e dye and dye intermediate industries. Entry 55, Note 2 categorically lays down that maximum permissible fixed dissolve solids contribution by constituent units of CETP shall be 1000 mg/l. In cases, where FDS concentration in raw water used by constituent units is already high i.e. it is more than 1100 mg/l than the maximum permissible value for FDS in treated effluent shall be accordingly modified by the State Board. An extract from the Rules bearing relevant provisions is annexed hereto and marked **Annexure R-2**. Apart from this, the mega pipeline was conceived as an effective method of bringing down TDS/FDS of industrial effluent by diluting it with sewage water of municipal area before its discharge into the river.





While specifically dealing with the status of consents to CETP, the committee has failed to take into account the following apparent errors in consent itself in teeth of statutory provisions.

- The inlet parameter of 100 units for colour is also misplaced considering that colour is neither a general parameter nor a specific parameter in Entry 55 and considering that the corresponding parameter for colour is 400 in Entry 8.
- As per entry 55, Inlet Quality Standards can be prescribed only in respect of General Parameters, Ammonical Nitrogen and Heavy metals. Prescribing of inlet quality standards in respect of Temperature, colour, suspended solids, Oil and grease, phenolic compounds, Sulphides, Total Chromium, Hexavalent Chromium is thus ex facie misplaced, uncalled for and amounts to overreaching the Rules.

*Shir Patani*

- 
- FDS once again does not find a corresponding parameter so far as dye and dye intermediate industry is concerned.
  - pH standard of 6.5 to 8.5 is contrary to the standard of 6-9 prescribed in entry 55.
  - The outlet norms for temperature is 40 degree centigrade as against the statutory requirement, which states that the temperature shall not exceed more than 5 degree above ambient water temperature.
  - So far as total chromium is concerned, there is no corresponding standard in entry 55.

Apart from the above, Rule 3(2) mandatorily requires that the State Board may specify more stringent standards from those provided in Schedule I to IV only in respect of any specific industry, operation or process depending upon the quality of recipient system and after recording reasons therefor in writing. In the instant case, GPCB has not recorded any reasons in writing for prescribing standards

*Srinivas P. Srinivas*

different than those prescribed in the Schedules. The Committee has erred in overlooking the aforesaid deviations and contradictions.

The bifurcation of waste water quantity received by CETP as mentioned in the report is again erroneous. The committee has mentioned that the CETP receives around 2 MLD waste water from Chemical Industries, 0.5 MLD from food industries other than Havmore Ice Cream Private Limited , 0.5 to 0.7 MLD domestic waste water from surrounding of GIDC and 0.8 to 1 MLD from Havmor/Prem Industries. As a matter of fact, CETP receives around 0.50 MLD from food industries including Havmor Ice cream Pvt. Ltd., 1.00 MLD from Prem Industries , 1.50 MLD from Chemical Industries and 1.00 MLD domestic waste water from surrounding areas of GIDC. The CETP treats 1.00 MLD of untreated sewage and domestic waste water from the residences situated within and around GIDC which was otherwise being discharged

*S. B. Amin*



untreated into Kharicut canal by the Ahmedabad Municipal Corporation.

8. Treatment Scheme in CETP, which is mentioned in **Para 2.3, 2.3.1 and 2.3.2** establish that a proper and effective system of treatment is in existence.
9. So far as the issue about discharge of treated effluent and quality of mega pipeline in Sabarmati river discussed in **para 2.3.3. of the report** is concerned, the committee has wrongly mentioned that the mega pipeline is 23 km long. The length of the mega pipeline is 33 kms. The Hydraulic load of CETP, Naroda in the mega pipeline, is roughly 10% to 12%, which cannot be considered to be significant. I say that the quality of effluent, which is discharged from the mega pipeline to Sabarmati river, has seen constant improvement as is clear from the data produced by the Committee. In fact the Committee has committed a grave error in looking at the average and not the trend, which

*Shri P. A.*

would reveal that the parameters are only improving. In any case, respondent No. 1 is only one of the constituents discharging treated effluents into mega pipeline, and the quality of final outfall from the megapipeline to the river is not attributable to Respondent no. 1 alone.

10. So far as the issue of sludge management discussed in **Para 2.3.4 of the Report** is concerned, it is stated that as per CPCB Criteria for Hazardous Landfills, all hazardous waste management sites are required to be kept capped with the final cover/intermediate cover and landfilling operations remain suspended during monsoon. GPCB also addresses letters to operators of landfill sites on monsoon planning of landfill sites requiring them to cap the phase with a cover. Copies of relevant extract from Criteria for Hazardous Landfills issued by CPCB in February 2001, letter dated 11.06.2020 addressed by GPCB to Eco Care Infrastructure Pvt. Ltd. and copy of the letter dated 02.10.2020 addressed by Eco Care informing the answering respondent that their TSDF site was closed from 26.05.2020 and that it will be

*Srin P. J.*



expected to re-open on 20.10.2020 are annexed hereto and marked **Annexure R-3 Collectively**. The committee itself has recorded that from November 2019 to July 2020 NEPL has disposed of 7492 MT sludge to Eco Care and 3542 MT to Detox India. The period during which the committee visited was the period of monsoon. It was on account of monsoon as well as prevailing COVID situation, which restricted transportation that the sludge was collected in a separate earmarked area. The committee has also recorded that the leachate was in a temporary storage area and that from such temporary storage area it was transferred to CETP inlet. The image purported to be of 2019 also appears to be of monsoon season. It was on account of such peculiar circumstances that the sludge was stored. The removal of sludge resumed from 27.09.2020. Since then, approximately 100 mt of sludge was disposed of to Detox India. In any case, the sludge was well protected from rain through tarpaulin cover and RCC flooring. As observed by the Committee, seepage, if any, is well managed by treating at

*S. P. A.*

CETP. Hence the apprehension of percolation in ground is baseless.

It is unfortunate, if not surprising, that the Report prepared by a committee consisting of officials of CPCB and GPCB has made such allegations in its report without reference to the existing operational framework for disposal of hazardous waste management.

11. **Para 2.4 of the Report** deals with upgradation of CETP in last year. As it explained in detail in the reply filed earlier as also on the basis of Annexures thereto, CETP has undertaken major upgradation to achieve optimum parameters. NEPL has appointed M/s Bio Petrochem INC from Israel for the upgradation since 2017. The work started in 2017 and after achieving the performance guarantee, NEPL has spent around nearly Rs.18 Crores for retrofitting and enhancement of treatment facilities. The GPCB official have been visiting and have taken inspection of upgradation work and progress of the project. The technology upgradation is so capable that it would successfully bring down COD value of 4000 to 5000

*Swarn Bhatia*

mgl to less than 250 mgl . Copy of second phase proposal presented by Bio Petrochem is attached hereto and marked as **Annexure - R-4**. The committee, however, is not right in saying that retrofitting work was done in last year. The work is going on since 2018, well within the knowledge of GPCB. During the retrofitting work, some of the equipments, tanks at CETP do remain out of operation which may lead to variation in parameter. It does not need elaboration to state that while retrofitting work is under implementation, the intake of effluent for treatment has to remain the same for the installed machinery to function efficiently and also to test the performance of new technology . The upgradation work has slowed down due to pandemic since March 2020. The work is expected to be completed by middle or end of 2021 depending upon global pandemic situation.

12. So far as **Para 2.5 of the Report** with respect to monitoring of CETP is concerned, the Committee has erred in mentioning TDS and colour in the chart of parameters as

*Sanjay P. J.*

none of them figure in the statutory parameters mentioned in Entry 55 of Schedule 1 of Rules. So far as the TDS is concerned, it is not part of even the consent. The location for collection of samples also is unusual. Sample 5 appears to have been taken from Inlet of ACT 1 and not from Outlet of ACT 1. Committee ought not to have drawn sample from ASP outlet (sample 9). Aerator cum Clarifier together constitutes ASP which is an intermediate stage of treatment. Sample of BOD or COD is not and should not be taken from such an intermediate stage as any such sample will give an unreal impression. In any case result of COD or BOD at such an intermediate stage is of no significance. Sample from ASE is usually taken only of MLSS (Mixed Liquor Suspended Solids) which shows biomass strength of the aerator. Reporting BOD, COD at a high value in sample 5 gives an unreal impression. The samples were drawn on 08.08.2020. The comparative analysis of online monitoring system on the said date shows result of BOD well within the parameter of 30 as against 60 as noted in the committee report at the

*S. V. P. S.*

outlet of CETP. The parameter of FDS is also unrealistic as it is fixed without taking into consideration the FDS of the raw water and there is no application of any prescribed or scientific formula for deriving FDS in case of Respondent No.1. The committee is wrong in saying that cumulatively the average daily quality of waste water intake from members may be higher than the recorded monitoring results in the holding tanks. Pertinently, in cases of none the member units, FDS is even tested as is clear from Annexure VIII.

13. In **Para 2.5.1.1**, the Committee has elaborated on inlet results of CETP. It is submitted that the entire analysis and the chart is misplaced. As is stated herein above, there were no inlet parameters for CETP till 27.11.2017. Rule - 3 of the Rules require that the standards of emission or discharge of environmental pollutants specified in sub rule (1) or sub-rule (2) shall be complied with by an industry within a period of one year of being so specified. In the circumstances, inlet

*Suman P. J.*

parameters of 2015, 2016, 2017 and 2018 cannot be looked at or highlighted as variations. So far as 2019 and 2020 are concerned, retrofitting work has been under progress within knowledge of GPCB, which would result in intermittent variations of prescribed norms. It is thus incorrect to say that discharge norm is not achieved for CETP in last five years. It would be incorrect to say that CETP inlet effluent quality is consistently exceeding the prescribed standards in CC and A except sporadic instances for a few parameters. In any case, such observations stand contradicted even by the data which is produced in Annexure - VIII. The said Annexure - VIII which contains various monitoring reports of 119 units during the period from 2019 and 2020 shows that except for some negligible variations in BOD and COD by few units, by and large, the parameters are met with by more than 95% members as per data mentioned in the Report itself. When 95% of the members are meeting their outlet parameters it is absurd to contend that inlet parameters of CETP are not

*Sun P. A.*



met with. So far as TDS is concerned, the respondent reiterates that the TDS is not a prescribed parameter.

14. The report mentions result of outlet parameters of CETP from 2015 to 2020 in Annexure – VII. The said table is based on samples taken and analyzed by GPCB. The respondent submits that the said samples have been taken in absolute violation of procedure for taking sample as laid down in the Rules. Rule - 6 lays down that the officer empowered to take sample under Section 11 shall collect the sample in sufficient quantity to be divided into two uniform parts and effectively seal and suitably mark the same and permits the person from whom the sample is taken to add his own seal and on all or on any of its part. It also requires that one portion is to be handed over to the person from whom the sample is taken under acknowledgement. Rule -8 prescribes the procedure for submission of samples for analysis and the form of laboratory report thereupon. So far as NEPL is concerned, it has been consistent experience that GPCB does

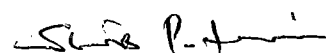
*Sunil P. J.*

not give second part of the sample sealed and marked by it to NEPL. Respondent No. 1 had protested to this fragrant violation of procedure on number of occasions in writing as well as orally. Copies of letter dated 29.05.2019 addressed by NEPL to law officer, GPCB as well as copy of email dated 14.08.2019 addressed to the member secretary of GPCB are annexed hereto and marked **Annexure R-5 Collectively**. It is an established principle of law that if a particular thing is required to be done in law in a particular manner it has to be done in that way or not at all. Violation of mandatory procedure in drawing samples, which allows the person from whom the samples is drawn to keep a part of the sample and get it analyzed, results in making the results of such test unreliable, robbing them of all evidentiary value. Parallel can be drawn from instances of violations in following mandatory procedure in respect of Food Adulteration Laws, Drugs and Cosmetics laws and the like. Additionally, in the case of respondent no. 1, GPCB has corrected his own declared result after protest by the Respondent, conceding to an error



in analysis with regard to protocol of testing regarding sample dated 08.07.2020 and has changed result of 740 mg/l COD to 450mg/l. Surprisingly, the committee has not mentioned this report in the data placed before this Hon'ble Tribunal.

CPCB has issued guidelines dated 07.11.2014 requiring industries/CETPs to install Online Continuous Effluent Monitoring System (OCEMS) and has also published a list of authorized vendors. The said guidelines require OCEMS to be linked to the website of CPCB. A copy of the Guidelines for Online Continuous Effluent Monitoring System for Effluents dated 07.11.2014 issued by CPCB is annexed hereto and marked **Annexure 6**. NEPL has installed OCEMS connected to CPCB server from a recognized vendor at the cost of Rs.15.75 lacs. A copy of tax invoice dated 05.05.2017 issued by Next Engineering to NEPL is annexed hereto and marked **Annexure R-7**. NEPL recently requested the said agency for a copy of entire data from installation till today. The said



agency shared such data with NEPL vide email dated 02.10.2020 copy whereof is annexed hereto and marked

**Annexure R- 8.** The data shared which records parameters of BOD, COD, TSS, temperature and pH for the period from 14.05.2017 to 02.10.2020 consist of approximately 3800 pages. Copies of available reports uploaded online corresponding to the dates which are mentioned in the report at Annexure-VIII and of 08.08.2020 i.e. the date of visit of committee are annexed hereto and marked

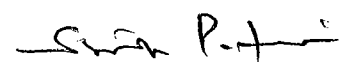
**Annexure R- 9.** Reports of OCEMS of some of the dates mentioned in the Report are not available on account of the system being non operative on those days. The aforesaid data shows stark difference between the results of final outlet of CETP as per reports of GPCB which are mentioned in Annexure-VII. Such stark difference is sufficient to discard veracity of the Report of GPCB. In any case such data of GPCB cannot be relied on for the purpose of assessing the performance of CETP. The results are also unreliable when



compared to results generated by automated on line monitoring system at the outlet CETP.

The results from OCEMS are uploaded every 15 minutes on the server of CBCB and CBCP also issues alerts to concerned industries on the basis of such updates. The committee consisted of officials of GPCB as well as CPCB. Yet such records of monitoring which are with CPCB have not been acknowledged in the report of the committee. Despite GPCB being represented in the committee through its nominated official, the fact of having conceded to error in its test reports has not been disclosed in the report of the committee.

15. **Para 3 of the report** deals with inspection of member units. The committee randomly selected three units. Results of none of the said three industries show violation of parameters. So far as Amishi Drugs is concerned, the parameters in the collection tank are all well within the norms. The insinuation that the COD reduction upto 90% in



addition tank is highly unlikely is without any basis, remains unsubstantiated and needs to be overlooked considering that COD in the collection tank is almost 1/4 of the CETP inlet norms. Committee has also reported that the unit has an in house MEE. In any case, the Committee itself has noted that last one year monitoring result of GPCB data base reflects that the units is compliant for CETP inlet norms.

So far as Arun Dye Stuff Industries is concerned, the committee has erred in referring to TDS as it is not an inlet norm in case of member industries which is in the category dye and dye intermediate. So far as FDS is concerned, it is not even tested and does not find mention in table 9. In any case, in this case also, the committee has observed that last one year monitoring results of GPCB data base reflects that the unit is compliant of CETP inlet norms.

So far as Chinmay Chemical is concerned, it is again compliant of CETP inlet norms as per last one year monitoring results. The variation of COD is very minor and in



any case, collection tank shows COD to be well within norms. The same applies to the parameters of Oil and Grease.

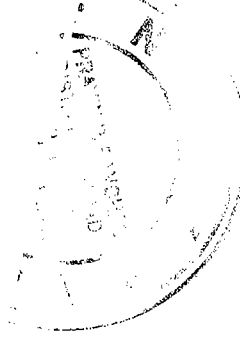
16. In **Para -3.4 of the report**, the committee has referred to analysis of results of past two year of CETP member industries. As stated herein above, the said analysis shows that the inlet norms are by and large consistently met by all the industries.
17. The Committee has given its conclusions in **para - 4**. The answering respondent denies that CETP receives higher wastewater quantity than permitted in consent. The said increase is because of 1 MLD of sewage intake under instruction of the Ahmedabad Municipal Corporation. The management of sludge within CETP is properly done. The collection of sludge during visit of the Committee is on account of monsoon and the pandemic and is explained herein above. It is incorrect to say that CETP and several



member units are none compliant in terms of wastewater discharge quality. While taking note of the fact that CETP has taken initiative for improvement, the committee has overlooked many other efforts which are being made by CETP for pollution control and for preservation of environment. It is denied that monitoring data of past 5 years shows that CETP is consistent in violation of the discharged norms. It is denied that there is no established mechanism to control the quality of waste water from member units. It is denied that the CETP and its member units are contributor for deterioration of river water quality due to failure in achieving the stipulated regulating norms.

18. So far as the steps which are recommended by the Committee is concerned, the answering respondent responds to the same as under.

*S. V. P. A.*



(a) The CETP and the member units are meeting discharge norms for waste water and is consistently augmenting waste water system.

(b) An action plan for improvement in waste water collection and treatment is already under implementation.

(c) An effective mechanism for monitoring of effluent quality of waste water tankers is in place, both in respect of what comes to MEE and spray dryer and the one that comes to the sumps. Hydraulic load of each of the member units and effluent quality is regularly assessed.

(d) and (e) The sludge collection observed by the committee was a monsoon phenomenon and as per guidelines issued by CPCB and direction issued by GPCB. NELP has started disposal of accumulated sludge from 27.09.2020.

(f) Colour is not a parameter that can be prescribed as per Entry 55 of Schedule I of the Rules. The parameter of 100 mg/l of colour in consent is without recording reasons and

*Srin P. A.*

hence needs to be discarded. In any case, said norm is contrary to the outlet norms of dye and dye intermediates industries which is for 400.

(g) An augmentation plan for overall operational effectiveness is already under implementation.

(h) CETP has a mechanism in place to ensure inlet quantity norms compliance and hydraulic load compliance for member units in sumps and chambers.

(i) FDS monitoring would be done strictly at the outlet of member units, inlet of CETP, outlet of CETP. It is not possible for NEPL to monitor at the end of outfall of mega pipe line. However, such an expectation is unwarranted considering that FDS is not a parameter for majority of the members of the respondent CETP.

What is stated hereinabove is true and correct and nothing material is concealed therefrom. I state that all the annexures to the present affidavit are true copies of their respective originals.

*Suman Patil*

Solemnly affirmed at Ahmedabad on this 8<sup>th</sup> day of October 2020

*Sun P. A.*  
DEPONENT

### VERIFICATION

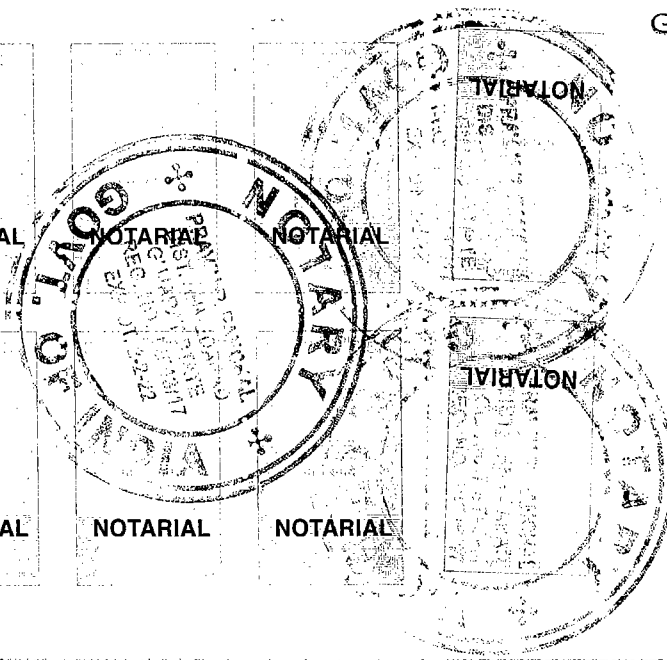
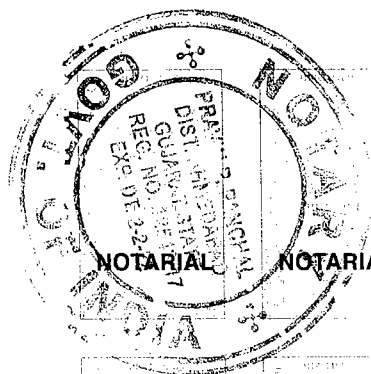
Verified at Ahmedabad on this 8th day of October 2020. I say that the contents of this affidavit are true and correct to the best of my knowledge and I believe the same to be true and that nothing material has been concealed there from.

*Sun P. A.*  
DEPONENT



RG. SERIAL No. *1086/2020*  
DATE... *08/10/2020*  
BOOK No. *97*  
PAGE No. *785*

*P. Panchal*  
PRAVIN P. PANCHAL  
NOTARY  
GOVT. OF INDIA  
08 OCT 2020



SOLEMNLY AFFIRMED  
BEFORE ME  
*P. Panchal*  
PRAVIN P. PANCHAL  
NOTARY  
GOVT. OF INDIA  
08 OCT 2020

# Opening Lock Of Sump No.1 Having 5 Industries.



# Opening Seal Of Valves For Accepting Discharge Of Effluent.



# Colsing Of Valve After Discharge With Our Seal



## **The Environment (Protection) Rules, 1986<sup>1</sup>** **(Environment (Protection) Rules, 1986)**

*[As amended up to G.S.R. 952(E), dt. 26-12-2019]*

*[19th November, 1986]*

In exercise of the powers conferred by Sections 6 and 25 of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government hereby makes the following rules, namely:—

**1. Short title and commencement.**—(i) These Rules may be called the Environment (Protection) Rules, 1986.

(ii) They shall come into force on the date of their publication in the Official Gazette.

**2. Definitions.**—In these rules, unless the context otherwise requires,—

(a) "Act" means the Environment (Protection) Act, 1986 (29 of 1986);

<sup>2</sup>[(aa) "areas" means all areas where the hazardous substances are handled;]

(b) "Central Board" means the Central Board for the Prevention and Control of Water Pollution constituted under Section 3 of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974);

(c) "Form" means a form set forth in Appendix A to these rules;

(d) "Government Analyst" means a person appointed or recognised as such under Section 13;

(e) "person" in relation to any factory or premises means a person or occupier or his agent who has control over the affairs of the factory or premises and includes in relation to any substance, the person in possession of the substance;

<sup>3</sup>[(ee) "prohibited substance" means the substance prohibited for handling;]

(f) "recipient system" means the part of the environment such as soil, water, air or other which receives the pollutants;

<sup>4</sup>[(ff) "restricted substance" means the substance restricted for handling;]

(g) "section" means a section of the Act;

(h) "Schedule" means a Schedule appended to these rules;

(i) "Standards" means standards prescribed under these rules;

(j) "State Board" means a State Board for the Prevention and Control of Water Pollution constituted under Section 4 of the Water (Prevention and Control of Water Pollution) Act, 1974 (6 of 1974) or a State Board for the Prevention and Control of Air Pollution constituted under Section 5 of the Air (Prevention and Control of Pollution) Act, 1981 (14 of 1981).

**3. Standards for emission or discharge of environmental pollutants.**—(1) For the purposes of protecting and improving the quality of the environment and preventing and abating environmental pollution, the standards for emission or discharge of environmental pollutants from the industries, operations or processes shall be as specified in <sup>5</sup>[Schedules I to IV].

<sup>6</sup>[\* \* \*]

(2) Notwithstanding anything contained in sub-rule (1), the Central Board or a State Board may specify more stringent standards from those provided in <sup>2</sup>[Schedules I to IV] in respect of any specific industry, operation or process depending upon the

quality of the recipient system and after recording reasons therefor in writing.

<sup>8</sup>[(3) The standards for emission or discharge of environmental pollutants specified under sub-rule (1) or sub-rule (2) shall be complied with by an industry, operation or process within a period of one year of being so specified.

<sup>9</sup>[(3-A) (i) Notwithstanding anything contained in sub-rules (1) and (2), on and from the 1st day of January, 1994, emission or discharge of environmental pollutants from the <sup>10</sup>[industries, operations or processes other than those industries, operations or processes for which standards have been specified in Schedule I shall] not exceed the relevant parameters and standards specified in Schedule VI:

Provided that the State Boards may specify more stringent standards for the relevant parameters with respect to specific industry or locations after recording reasons therefor in writing.

(ii) The State Board shall while enforcing the standards specified in Schedule VI follow the guidelines specified in Annexures I and II in that Schedule.]

<sup>11</sup>[(3-B) The combined effect of emission or discharge of environmental pollutants in an area, from industries, operations, processes, automobiles and domestic sources, shall not be permitted to exceed the relevant concentration in ambient air as specified against each pollutant <sup>12</sup>[in Columns (4) and (5) of Schedule VII].]

(4) Notwithstanding anything contained in sub-rule (3),—

(a) the Central Board or a State Board, depending on the local conditions or nature of discharge of environmental pollutants, may, by order, specify a lesser period than a period specified under sub-rule (3) within which the compliance of standards shall be made by an industry, operation or process;

(b) the Central Government in respect of any specific industry, operation or process, by order, may specify any period other than a period specified under sub-rule (3) within which the compliance of standards shall be made by such industry, operation or process.

(5) Notwithstanding anything contained in sub-rule (3), the standards for emission or discharge of environmental pollutants specified under sub-rule (1) or sub-rule (2) in respect of an industry, operation or process before the commencement of the Environment (Protection) (Amendment) Rules, 1991, shall be complied by such industry, operation or process by the 31st day of December, 1991.]

<sup>13</sup>[(6) Notwithstanding anything contained in sub-rule (3), an industry, operation or process which has commenced production on or before 16th May, 1981 and has shown adequate proof of at least commencement of physical work for establishment of facilities to meet the specified standards within a time-bound programme, to the satisfaction of the concerned State Pollution Control Board, shall comply with such standards latest by the 31st day of December, 1993.

(7) Notwithstanding anything contained in sub-rule (3) or sub-rule (6) an industry, operation or process which has commenced production after the 16th day of May, 1991 but before the 31st day of December, 1991 and has shown adequate proof of at least commencement of physical work for establishment of facilities to meet the specified standards within a time-bound programme, to the satisfaction of the concerned State Pollution Control Board, shall comply with such standards latest by the 31st day of December, 1992.]

<sup>14</sup>[(8) With effect from the date specified hereunder, the following coal based thermal power plants shall be supplied with, and shall use, raw or blended or beneficiated coal with ash content not exceeding thirty-four per cent, on quarterly average basis, namely—

(a) a stand-alone thermal power plant (of any capacity), or a captive thermal power plant of installed capacity of 100 MW or above, located beyond 1000

kilometres from the pit-head or, in an urban area or an ecologically sensitive area or a critically polluted industrial area, irrespective of its distance from the pit-head, except a pit-head power plant, with immediate effect;

- (b) a stand-alone thermal power plant (of any capacity), or a captive thermal power plant of installed capacity of 100 MW or above, located between 750-1000 kilometres from the pit-head, with effect from the 1st day of January, 2015;
- (c) a stand-alone thermal power plant (of any capacity), or a captive thermal power plant of installed capacity of 100 MW or above, located between 500-749 kilometres from the pit-head, with effect from the 5th day of June, 2016:

Provided that in respect of a thermal power plant using Circulating Fluidised Bed Combustion or Atmosphere Fluidised Bed Combustion or Pressurized Fluidised Bed Combustion or Integrated Gasification Combined Cycle technologies or any other clean technologies as may be notified by the Central Government in the Official Gazette, the provisions of clauses (a), (b) and (c) shall not be applicable.

**Explanation.**—For the purpose of this rule,—

- (i) 'beneficiated coal' means coal containing higher calorific value but lower ash than the original ash content in the raw coal obtained through physical separation or washing process;
- (ii) 'captive thermal power plant' means a power plant which is set up by an industry to generate electricity for its exclusive use;
- (iii) 'critically polluted industrial area' means an industrial cluster or area where pollution levels have reached or likely to reach critical level, and has been identified as such by the Central Government or the State Government or the Central Pollution Control Board or a State Pollution Control Board;
- (iv) 'ecologically sensitive area' means an area whose ecological balance is prone to be easily disturbed and has been identified and notified by the Central Government;
- (v) 'installed capacity' shall be calculated by adding, individual capacity of all units within a boundary;
- (vi) 'pit-head power plant' means any captive or stand-alone power station having captive transportation system for its exclusive use for transportation of coal from the loading point at the mining end, up to the uploading point at the power station without using the normal public transportation system;
- (vii) 'stand-alone thermal power plant' means a power plant which is set up to generate electricity for feeding to electricity grid or for locations that are not fitted with an electricity distribution system; and
- (viii) 'urban area' means an area limit of a city having a population of more than one million according to the last census.]

► **Standards for emission of pollutants.**—State Boards are permitted to prescribe higher standards than those mentioned in the 1986 Rules but are not permitted to lower standards, *Akhil Bharat Goseva Sangh (3) v. State of A.P.*, (2006) 4 SCC 162.

► **Factual issues.**—Maharashtra Pollution Control Board, a statutory authority, cannot be disbelieved on factual issue of installation of electro static precipitators (ESPs), *Tatyasaheb Kore Warana S.S.K. Ltd. v. Sharad Baburao Patil*, (2011) 12 SCC 543.

**4. Directions.**—(1) Any direction issued under Section 5 shall be in writing.

(2) The direction shall specify the nature of action to be taken and the time within which it shall be complied with by the person, officer or the authority to whom such direction is given.

<sup>15</sup>[(3-a)] The person, officer or authority to whom any direction is sought to be issued shall be served with a copy of the proposed direction and shall be given an

opportunity of not less than fifteen days from the date of service of a notice to file with an officer designated in this behalf the objections, if any, to the issue of the proposed direction.

<sup>16</sup>[(3-b) Where the proposed direction is for the stoppage or regulation of electricity or water or any other service affecting the carrying on of any industry, operation or process and is sought to be issued to an officer or an authority, a copy of the proposed direction shall also be endorsed to the occupier of the industry, operation or process, as the case may be, and objections, if any, filed by the occupier with an officer designated in this behalf, shall be dealt with in accordance with the procedures under sub-rules (3-a) and (4) of this rule:

Provided that no opportunity of being heard shall be given to the occupier if he had already been heard earlier and the proposed direction referred to in sub-rule (3-b) above for the stoppage or regulation of electricity or water or any other service was the resultant decision of the Central Government after such earlier hearing.]

(4) The Central Government shall within a period of 45 days from the date of receipt of the objections, if any, or from the date up to which an opportunity is given to the person, officer or authority to file objections whichever is earlier, after considering the objections, if any, received from the person, officer or authority sought to be directed and for reasons to be recorded in writing, confirm, modify or decide not to issue the proposed direction.

(5) In a case where the Central Government is of the opinion that in view of the likelihood of a grave injury to the environment it is not expedient to provide an opportunity to file objections against the proposed direction, it may, for reasons to be recorded in writing, issue directions without providing such an opportunity.

(6) Every notice or direction required to be issued under this rule shall be deemed to be duly served —

(a) where the person to be served is a company, if the document is addressed in the name of the company at its registered office or at its principal office or place of business and is either—

(i) sent by registered post, or

(ii) delivered at its registered office or at the principal office or place of business;

(b) where the person to be served is an officer serving Government, if the document is addressed to the person and a copy thereof is endorsed to the Head of the Department and also to the Secretary to the Government, as the case may be, in charge of the Department in which for the time being the business relating to the Department in which the officer is employed is transacted and is either—

(i) sent by registered post, or

(ii) is given or tendered to him;

(c) in any other case, if the document is addressed to the person to be served and—

(i) is given or tendered to him, or

(ii) if such person cannot be found, is affixed on some conspicuous part of his last known place of residence or business or is given or tendered to some adult member of his family or is affixed on some conspicuous part of the land or building, if any, to which it relates, or

(iii) is sent by registered post to that person.

*Explanation.*—For the purposes of this sub-rule,—

(a) “company” means any body corporate and includes a firm or other association of individuals;

(b) "a servant" is not a member of the family.

**5. Prohibition and restriction on the location of industries and the carrying on of processes and operations in different areas.—**(1) The Central Government may take into consideration the following factors while prohibiting or restricting the location of industries and carrying on of processes and operations in different areas:

- (i) Standards for quality of environment in its various aspects laid down for an area.
- (ii) The maximum allowable limits of concentration of various environmental pollutants (including noise) for an area.
- (iii) The likely emission or discharge of environmental pollutants from an industry, process or operation proposed to be prohibited or restricted.
- (iv) The topographic and climatic features of an area.
- (v) The biological diversity of the area which, in the opinion of the Central Government needs to be preserved.
- (vi) Environmentally compatible land use.
- (vii) Net adverse environmental impact likely to be caused by an industry, process or operation proposed to be prohibited or restricted.
- (viii) Proximity to a protected area under the Ancient Monuments and Archaeological Sites and Remains Act, 1958 or a sanctuary, National Park, game reserve or closed area notified as such under the Wild Life (Protection) Act, 1972 or places protected under any treaty, agreement or convention with any other country or countries or in pursuance of any decision made in any international conference, association or other body.
- (ix) Proximity to human settlements.
- (x) Any other factor as may be considered by the Central Government to be relevant to the protection of the environment in an area.

(2) While prohibiting or restricting the location of industries and carrying on of processes and operations in an area, the Central Government shall follow the procedure hereinafter laid down.

(3) (a) Whenever it appears to the Central Government that it is expedient to impose prohibition or restrictions on the location of an industry or the carrying on of processes and operations in an area, it may, by notification in the Official Gazette and in such other manner as the Central Government may deem necessary from time to time, give notice of its intention to do so.

(b) Every notification under clause (a) shall give a brief description of the area, the industries, operations, processes in that area about which such notification pertains and also specify the reasons for the imposition of prohibition or restrictions on the location of the industries and carrying on of processes or operations in that area.

(c) Any person interested in filing an objection against the imposition of prohibition or restrictions on carrying on of processes or operations as notified under clause (a) may do so in writing to the Central Government within sixty days from the date of publication in the notification in the Official Gazette.

(d) The Central Government shall within a period of one hundred and twenty days from the date of publication of the notification in the Official Gazette consider all the objections received against such notification and may <sup>17</sup>[within <sup>18</sup>five hundred and forty-five days <sup>19</sup>, and in respect of the States of Assam, Meghalaya, Arunachal Pradesh, Mizoram, Manipur, Nagaland, Tripura, Sikkim and Jammu and Kashmir in exceptional circumstance and for sufficient reasons within a further period of one hundred and eighty days,]] from such date of publication] impose prohibition or restrictions on location of such industries and the carrying on of any process or operation in an area.

<sup>20</sup>[(4) Notwithstanding anything contained in sub-rule (3), whenever it appears to the Central Government that it is in public interest to do so, it may dispense with the requirement of notice under clause (a) of sub-rule (3).]

► **Industrial development and environmental protection.**—While issuing notification under this section Govt. should endeavour to strike a balance between ecological interests and economic, social and cultural interests. Industrial development at the cost of environmental degradation or environmental protection at the cost of industrial and economic growth not warranted, *Indian Council for Enviro-Legal Action v. Union of India*, (1996) 5 SCC 281.

► **Noise pollution.**—Court may issue directions in respect of controlling noise pollution even if such noise is a direct result of and is connected with religious services and activities, *Church of God (Full Gospel) in India v. K.K.R. Majestic Colony Welfare Assn.*, (2000) 7 SCC 282 : 2000 SCC (Cri) 1350.

Interference by the court in respect of noise pollution is premised on the basis that a citizen has certain rights being “necessity of silence”, “necessity of sleep”, “process during sleep” and “rest”, which are biological necessities and essential for health. Silence is considered to be golden. It is considered to be one of the human rights as noise is injurious to human health which is required to be preserved at any cost, *Farhd K. Wadia v. Union of India*, (2009) 2 SCC 442.

► **Environment clearances.**—Environment clearances had to be obtained after, and not before, the contract was awarded. Violation of CRZ notification could be decided by the competent authority while considering the application for clearance but the ancillary activities to be undertaken under the said contract could not be estopped by merely naming the same as real estate business, *Villianur Iyarkkai Padukappu Maiyam v. Union of India*, (2009) 7 SCC 561.

Environmental Impact Assessment (EIA) done and environmental clearance granted by expert authorities can only be quashed on well-recognised principles of judicial review i.e. only if there is any illegality, irrationality or procedural impropriety in granting such permission. However, if after setting up of plant, the plant begins/continues to pollute environment fundamental right under Art. 21 of Constitution can always be invoked, *Sterlite Industries (India) Ltd. v. Union of India*, (2013) 4 SCC 575.

KKNPP had been granted environmental clearance by various authorities prior to 1991 EIA Notification. 1991 EIA Notification did not prohibit projects already in operation and prior to date of issue of notification. 1994 Notification requires fresh environmental clearance and public hearing for expansion and modernisation because NPPs are covered under Schedule I. But in view of Explanation Note 8 to 1994 EIA Notification, said requirement would not be necessary for KKNPP Units 1 and 2 because plant capacity and sea water consumption always remained the same as envisaged in 1988 or 1998 Indo-Russian agreements. Further desalination plant is not also covered under Schedule I to 1994 EIA Notification. Further though a Circular dated 23-7-1998 of MoEF clarified that environmental clearance issued prior to 1994 EIA Notification would not be valid for cases where work had not commenced before 1-8-1998, KKNPP Units 1 and 2 are not such projects as per the inspection of KKNPP done by MoEF on 31-8-2001. Thus 1994 EIA Notification would not be applicable for KKNPP Units 1 and 2, *G. Sundarrajan v. Union of India*, (2013) 6 SCC 620.

<sup>21</sup>[**6. Procedure for taking samples.**—The Central Government or the officer empowered to take samples under Section 11 shall collect the sample in sufficient quantity to be divided into two uniform parts and effectively seal and suitably mark the same and permit the person from whom the sample is taken to add his own seal or mark to all or any of the portions so sealed and marked. In case where the sample is made up in containers of small volumes and is likely to deteriorate or be otherwise damaged if exposed, the Central Government or the officer empowered shall take two of the said samples without opening the containers and suitably seal and mark the same. The Central Government or the officer empowered, shall dispose of the samples so collected as follows:—

- (i) One portion shall be handed over to the person from whom the sample is taken under acknowledgement; and

(ii) the other portion shall be sent forthwith to the environmental laboratory for analysis.]

**7. Service of notice.**—The Central Government or the officer empowered shall serve on the occupier or his agent or person in charge of the place a notice then and there in Form I of his intention to have the sample analysed.

**8. Procedure for submission of samples for analysis, and the form of laboratory report thereon.**—(1) Sample taken for analysis shall be sent by the Central Government or the officer empowered to the environmental laboratory by registered post or through special messenger along with Form II.

(2) Another copy of Form II, together with specimen impression of seals of the officer empowered to take samples along with the seals/marks, if any, of the person from whom the sample is taken, shall be sent separately in a sealed cover by registered post or through a special messenger to the environmental laboratory.

(3) The findings shall be recorded in Form III in triplicate and signed by the Government Analyst and sent to the officer from whom the sample is received for analysis.

(4) On receipt of the report of the findings of the Government Analyst, the officer shall send one copy of the report to the person from whom the sample was taken for analysis, the second copy shall be retained by him for his records and the third copy shall be kept by him to be produced in the Court before which proceedings, if any, are instituted.

**9. Functions of environmental laboratories.**—The following shall be the functions of environmental laboratories:—

- (i) to evolve standardised methods for sampling and analysis of various types of environmental pollutants;
- (ii) to analyse samples sent by the Central Government or the officers empowered under sub-section (1) of Section 11;
- (iii) to carry out such investigations as may be directed by the Central Government to lay down standards for the quality of environment and discharge of environmental pollutants, to monitor and to enforce the standards laid down;
- (iv) to send periodical reports regarding its activities to the Central Government;
- (v) to carry out such other functions as may be entrusted to it by the Central Government from time to time.

**10. Qualifications of Government Analyst.**—A person shall not be qualified for appointment or recognised as a Government Analyst unless he is a—

- (a) graduate in science from a recognised university with five years' experience in a laboratory engaged in environmental investigations, testing or analysis; or
- (b) post-graduate in science or a graduate in engineering or a graduate in medicine or equivalent with two years' experience in a laboratory engaged in environmental investigations, testing or analysis; or
- (c) post-graduate in environmental science from a recognised university with two years' experience in a laboratory engaged in environmental investigations, testing or analysis.

**11. Manner of giving notice.**—The manner of giving notice under clause (b) of Section 19 shall be as follows, namely:—

- (1) The notice shall be in writing in Form IV.
- (2) The person giving notice may send notice to,—
  - (a) if the alleged offence has taken place in a Union territory—

- (A) the Central Board; and
- (B) Ministry of Environment and Forests (represented by the Secretary to the Government of India);
- (b) if the alleged offence has taken place in a State;
  - (A) the State Board; and
  - (B) the Government of the State (represented by the Secretary to the State Government in charge of environment); and
  - (C) the Ministry of Environment and Forests (represented by the Secretary to the Government of India);
- (3) The notice shall be sent by registered post acknowledgement due; and
- (4) The period of sixty days mentioned in clause (b) of Section 19 of the Environment (Protection) Act, 1986 shall be reckoned from the date it is first received by one of the authorities mentioned above.

<sup>22</sup>[**12. Furnishing of information to authorities and agencies in certain cases.**—Where the discharge of environmental pollutant in excess of the prescribed standards occurs or is apprehended to occur due to any accident or other unforeseen act or event, the person in charge of the place at which such discharge occurs or is apprehended to occur shall forthwith intimate the fact of such occurrence or apprehension of such occurrence to all the following authorities or agencies, namely:—

- (i) The officer-in-charge of emergency or disaster relief operations in a district or other region of a State or Union territory specified by whatever designation, by the Government of the said State or Union territory, and in whose jurisdiction the industry, process or operation is located.
- (ii) Central Board or a State Board, as the case may be, and its regional officer having local jurisdiction who have been delegated powers under Sections 20, 21, 23 of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974) and Section 24 of the Air (Prevention and Control of Pollution) Act, 1981 (14 of 1981).
- (iii) The statutory authorities or agencies specified in Column 3 in relation to places mentioned in Column 2 against thereof of the <sup>23</sup>[Schedule V].

<sup>24</sup>[**13. Prohibition and restriction on the handling of hazardous substances in different areas.**—(1) The Central Government may take into consideration the following factors while prohibiting or restricting the handling of hazardous substances in different areas:

- (i) The hazardous nature of the substance (either in qualitative or quantitative terms) as far as may be in terms of its damage causing potential to the environment, human beings, other living creatures, plants and property;
- (ii) the substances that may be or are likely to be readily available as substitutes for the substances proposed to be prohibited or restricted;
- (iii) the indigenous availability of the substitute, or the state of technology available in the country for developing a safe substitute;
- (iv) the gestation period that may be necessary for gradual introduction of a new substitute with a view to bring about a total prohibition of the hazardous substance in question; and
- (v) any other factor as may be considered by the Central Government to be relevant to the protection of environment.

(2) While prohibiting or restricting the handling of hazardous substances in an area including their imports and exports the Central Government shall follow the procedure hereinafter laid down:—

- (i) Whenever it appears to the Central Government that it is expedient to impose prohibition or restriction on the handling of hazardous substances in an area,

it may, by notification in the Official Gazette and in such other manner as the Central Government may deem necessary from time to time, give notice of its intention to do so.

- (ii) Every notification under clause (i) shall give a brief description of the hazardous substances and the geographical region or the area to which such notification pertains and also specify the reasons for the imposition of prohibition or restriction on the handling of such hazardous substances in that region or area.
- (iii) Any person interested in filing an objection against the imposition of prohibition or restrictions on the handling of hazardous substances as notified under clause (i) may do so in writing to the Central Government within thirty days from the date of publication of the notification in the Official Gazette.
- (iv) The Central Government shall within a period of sixty days from the date of publication of the notification in the Official Gazette consider all the objections received against such notification and may impose prohibition or restrictions on the handling of hazardous substances in a region or an area.]

### **NOTIFICATIONS**

#### **(1)**

<sup>25</sup>[**S.O. 330(E), dt. 15-4-1997.**—In exercise of the powers conferred under sub-section (1) of Section 3 and clause (d) of sub-section (2) of Section 6 of the Environment (Protection) Act, 1986 (29 of 1986), read with Rule 13 of the Environment (Protection) Rules, 1986, the Central Government hereby prohibits from the date of publication of this notification the import of the hazardous wastes, listed in the Table below:—

#### **TABLE**

Wastes containing the following as constituents or the wastes bearing the following as contaminants:

Beryllium  
Selenium  
Chromium (Hexavalent)  
Thallium

Wastes containing:

Pesticides, herbicides and insecticides and their intermediates/residues thereof including outdated pesticides.]

#### **(2)**

<sup>26</sup>**S.O. 899(E), dt. 13-10-1998.**—In exercise of the powers conferred by sub-section (1) of Section 3 and clause (d) of sub-section (2) of Section 6 of the Environment (Protection) Act, 1986 (29 of 1986), read with Rule 13 of the Environment (Protection) Rules, 1986, the Central Government hereby prohibits import of hazardous wastes specified in the said Table from the date and publication of this notification in the Official Gazette.

#### **TABLE**

1. Wastes containing or contaminated with Polychlorinated biphenyls (PCB), Polychlorinated terphenyls (PCT), Polybrominated biphenyls (PBB) other than the waste oil; and

2. Waste asbestos (dust and fibre).

<sup>27</sup>[**14. Submission of environmental [statement]**<sup>28</sup>.—Every person carrying on an industry, operation or process requiring consent under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974) or under Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 (14 of 1981) or both or

authorisation under the Hazardous Wastes (Management and Handling) Rules, 1989 issued under the Environment (Protection) Act, 1986 (29 of 1986) shall submit an environmental [statement]<sup>29</sup> for the financial year ending the 31st March in Form V to the concerned State Pollution Control Board on or before the <sup>30</sup>[thirtieth day of September] every year, beginning 1993.]

<sup>31</sup>[**SCHEDULE I**]

(See Rule 3)

| Sl. No.   | Industry                     | Parameter                                                                                                                                                         | Standards                                                                       |
|-----------|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| 1         | 2                            | 3                                                                                                                                                                 | 4                                                                               |
| <b>1.</b> | <b>CAUSTIC SODA INDUSTRY</b> | Total concentration of mercury in the final effluent*                                                                                                             | Concentration not to exceed milligramme per litre (except for pH and flow) 0.01 |
|           |                              | Mercury bearing waste-water generation (flow) pH                                                                                                                  | 10 kilolitres/tonnes of caustic soda produced 5.5 to 9.0                        |
|           |                              | *Final effluent is the combined effluent from (a) cell house, (b) brine plant, (c) chlorine handling, (d) hydrogen handling, (e) hydrochloric acid plant          |                                                                                 |
|           |                              | <sup>32</sup> [Environmental Standards for Man-Made Fibre Industry                                                                                                |                                                                                 |
| <b>2.</b> | <b>MAN-MADE FIBRE</b>        | <b>A. Effluent Standards</b>                                                                                                                                      |                                                                                 |
|           |                              | Concentration not to exceed, (in mg/1 except for pH and recovery of Sodium Sulphate)                                                                              |                                                                                 |
|           |                              | Inland Surface Water                                                                                                                                              | Land for Irrigation Marine Discharge                                            |
|           |                              | pH                                                                                                                                                                | 6.0-8.5 6.0-8.5 6.0-8.5                                                         |
|           |                              | Suspended Solids (SS)                                                                                                                                             | 100 100 100                                                                     |
|           |                              | Biochemical Oxygen Demand (BOD - 3 days at 27°C)                                                                                                                  | 30 100 100                                                                      |
|           |                              | Zinc                                                                                                                                                              | 5 5 15                                                                          |
|           |                              | <b>Note:</b> The recovery of Sodium Sulphate shall not be less than 60% in Viscose Staple Fibre and Viscose Filament Yarn units.                                  |                                                                                 |
|           |                              | <b>B. Emission Standards</b>                                                                                                                                      |                                                                                 |
|           |                              | Concentration not to exceed, (in mg/Nm <sub>3</sub> )                                                                                                             |                                                                                 |
|           |                              | Volatile Organic Compounds including Dimethyl Formamide and Acrylonitrile (applicable for Acrylic fibre units only)                                               | 50                                                                              |
|           |                              | <b>Note:</b>                                                                                                                                                      |                                                                                 |
|           |                              | (a) The concentration of Carbon Disulphide (CS <sub>2</sub> ) and Hydrogen Sulphide (H <sub>2</sub> S) in work environment shall not exceed 10 ppm, individually. |                                                                                 |

7. The TDS value with respect to treated effluent shall be 2100 milligramme per litre; however, in case where TDS in intake water is above 1100 milligramme per litre, a maximum contribution up to 1000 milligramme per litre shall be permitted provided the maximum value of 3100 milligramme per litre is not exceeded in the treated effluent.]

7.  
[\*  
\*  
\*]

**40[8. DYE AND DYE  
INTERMEDIATE  
INDUSTRY**

**A. Emission Standards (Process)**

Limiting concentration in milligramme/Normal cubic metre (mg/Nm<sub>3</sub>), unless otherwise stated

|                                      |     |
|--------------------------------------|-----|
| Oxides of Sulphur (SO <sub>x</sub> ) | 200 |
| HCl (Acid Mist)                      | 35  |
| Ammonia (NH <sub>3</sub> )           | 30  |
| Chlorine (Cl <sub>2</sub> )          | 15  |

*Note.*—All process vents shall have chimney height of at least two metres above the shed or building where equipment is installed.

**B. Effluent Standards**

Limiting concentration not to exceed in milligramme/litre (mg/l), except for pH, Temperature, Colour and Bioassay.

|                                               | disposal in surface water                      | marine disposal | on land for irrigation |
|-----------------------------------------------|------------------------------------------------|-----------------|------------------------|
| pH                                            | 6.0 to 8.5                                     | 5.5-9.0         | 5.5-9.0                |
| Suspended Solids                              | 100                                            | —               | 200                    |
| Biochemical Oxygen Demand -BOD (3 days, 27°C) | 30                                             | 100             | 100                    |
| Chemical Oxygen Demand (COD)                  | 250                                            | 250             | —                      |
| Ammonical Nitrogen as N                       | 50                                             | 50              | —                      |
| Temperature                                   | shall not exceed 5°C above the receiving water |                 | —                      |
| Colour (Hazen unit)                           | 400                                            | —               | —                      |
| Mercury (Hg)                                  | 0.01                                           | 0.01            | —                      |
| Hexavalent Chromium (Cr <sub>+6</sub> )       | 0.1                                            | 1.0             | —                      |
| Total Chromium                                | 2.0                                            | 2.0             | —                      |

**54. SMALL PULP & PAPER EFFLUENTS  
PAPER PLANT OF  
CAPACITY UPTO 24000  
MT/ANNUM:**

*Category*

|                               |                             |                               |
|-------------------------------|-----------------------------|-------------------------------|
| <b>A.</b> *Agro-based         | Total waste-water discharge | 200 Cum/Ton of paper produced |
| <b>B.</b> **Waste-paper based | —do—                        | 75 Cum/Ton of paper produced  |

\*The agro-based mills to be established from January 1992 will meet the standards of 150 cum/ton of paper produced.

\*\*The waste-paper mills to be established from January 1992 will meet the standards of 50 Cum/Ton of paper produced.

[90](#) **[55. COMMON  
EFFLUENT  
TREATMENT  
PLANTS (CETP)]**

**A. Inlet Quality Standards** For each Common Effluent Treatment Plant (CETP), the State Board will prescribe Inlet Quality Standards for General Parameters, Ammonical-Nitrogen and Heavy metals as per design of the Common Effluent Treatment Plant (CETP) and local needs and conditions.

| <b>B. Treated Effluent Quality Standards</b>      | Max. permissible values (in milligram/litre except for pH and Temperature) |                        |                  |  |
|---------------------------------------------------|----------------------------------------------------------------------------|------------------------|------------------|--|
|                                                   | Into inland surface water                                                  | On land for irrigation | Into sea         |  |
| General Parameters                                |                                                                            |                        |                  |  |
| pH                                                | 6-9                                                                        | 6-9                    | 6-9              |  |
| Biological Oxygen Demand, BOD <sub>3</sub> , 27°C | 30                                                                         | 100                    | 100              |  |
| Chemical Oxygen Demand (COD)                      | 250                                                                        | 250                    | 250☆             |  |
| Total Suspended Solids (TSS)                      | 100                                                                        | 100                    | 100              |  |
| Fixed Dissolved Solids (FDS)                      | 2100☆                                                                      | 2100☆                  | NS*              |  |
| Specific parameters                               |                                                                            |                        |                  |  |
| Temperature, °C                                   | Shall not exceed                                                           | Shall not exceed       | Shall not exceed |  |

|                                                          | more than<br>5°C above<br>ambient<br>water<br>temperature | more than<br>5°C above<br>ambient<br>water<br>temperature | more than<br>5°C above<br>ambient<br>water<br>temperature |
|----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|
| Oil & Grease                                             | 10                                                        | 10                                                        | 10                                                        |
| Ammonical-Nitrogen                                       | 50                                                        | NS*                                                       | 50                                                        |
| Total Kjeldahl Nitrogen (TKN)                            | 50                                                        | NS*                                                       | 50                                                        |
| Nitrate-Nitrogen                                         | 10                                                        | NS*                                                       | 50                                                        |
| Phosphates, as P                                         | 5                                                         | NS*                                                       | NS*                                                       |
| Chlorides                                                | 1000                                                      | 1000                                                      | NS*                                                       |
| Sulphates, as SO <sub>4</sub>                            | 1000                                                      | 1000                                                      | NS*                                                       |
| Flouride                                                 | 2                                                         | 2                                                         | 15                                                        |
| Sulphides, as S                                          | 2                                                         | 2                                                         | 5                                                         |
| Phenolic compounds (as C <sub>6</sub> H <sub>5</sub> OH) | 1                                                         | 1                                                         | 5                                                         |
| Total Res. Chlorine                                      | 1                                                         | 1                                                         | 1                                                         |
| Zinc                                                     | 5                                                         | 15                                                        | 15                                                        |
| Iron                                                     | 3                                                         | 3                                                         | 3                                                         |
| Copper                                                   | 3                                                         | 3                                                         | 3                                                         |
| Trivalent Chromium                                       | 2                                                         | 2                                                         | 2                                                         |
| Manganese                                                | 2                                                         | NS*                                                       | 2                                                         |
| Nickel                                                   | 3                                                         | NS*                                                       | 3                                                         |
| Arsenic                                                  | 0.2                                                       | NS*                                                       | 0.2                                                       |
| Cyanide, as CN                                           | 0.2                                                       | NS*                                                       | 0.2                                                       |
| Vanadium                                                 | 0.2                                                       | NS*                                                       | 0.2                                                       |
| Lead                                                     | 0.1                                                       | NS*                                                       | 0.1                                                       |
| Hexavalent Chromium                                      | 0.1                                                       | NS*                                                       | 0.1                                                       |
| Selenium                                                 | 0.05                                                      | NS*                                                       | 0.05                                                      |
| Cadmium                                                  | 0.05                                                      | NS*                                                       | 0.05                                                      |
| Mercury                                                  | 0.01                                                      | NS*                                                       | 0.01                                                      |
| Bio-assay test                                           | As per industry specific standards                        | As per industry specific standards                        | As per industry specific standards                        |

\*NS-Not specified

Notes:

1. ☆Discharge of treated effluent into sea shall be through proper marine outfall. The existing shore discharges shall be converted to marine outfalls. In cases where the marine outfall provides a minimum initial dilution of 150 times at the point of discharge and a minimum dilution of 1500 times at a point 100 m away from discharge point, then, the State Board may relax the Chemical Oxygen Demand (COD) limit:

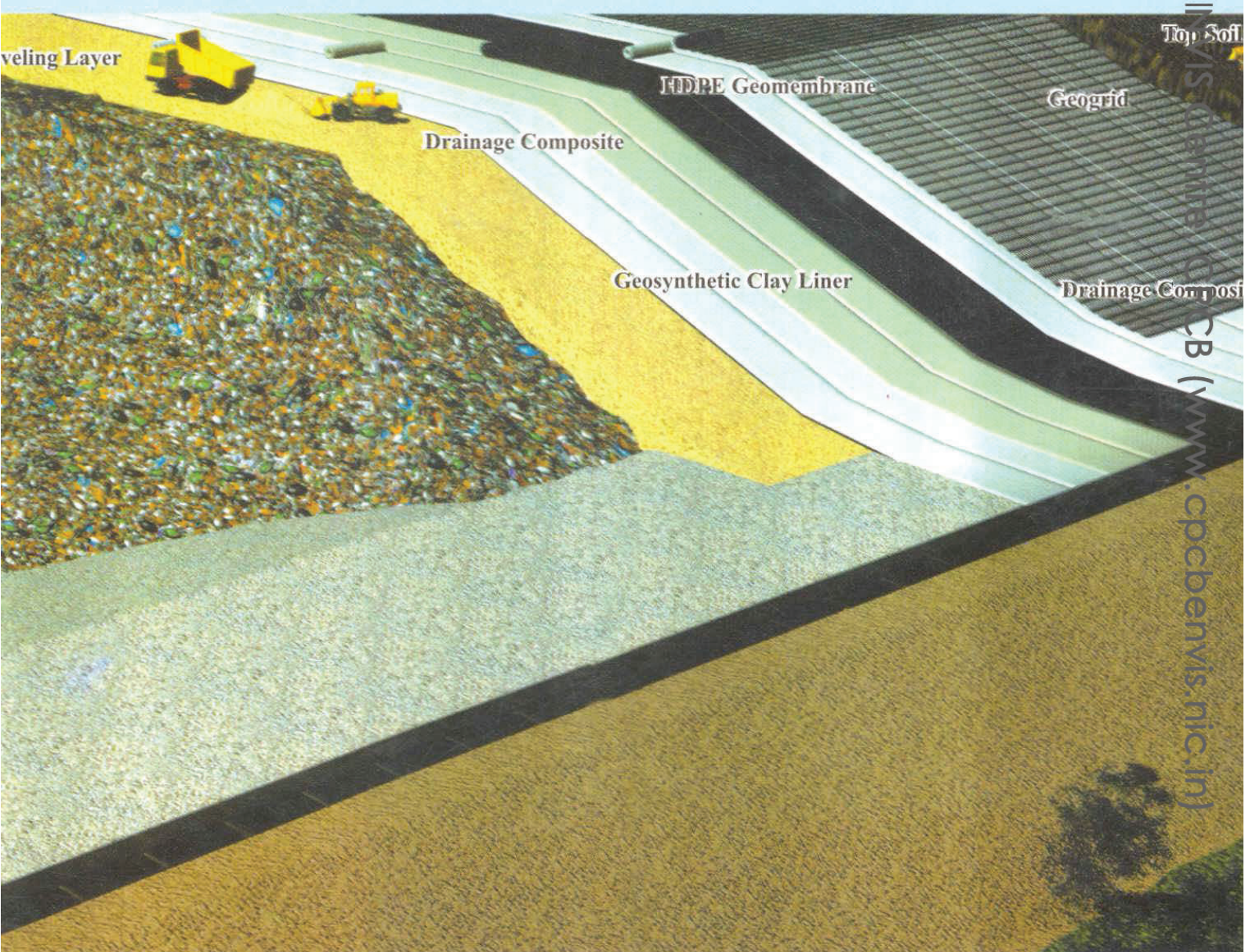
Provided that the maximum permissible value for Chemical Oxygen Demand (COD) in treated effluent shall be 500 milligram/litre.

2. ☆Maximum permissible Fixed Dissolved Solids (FDS) contribution by constituent units of a Common Effluent Treatment Plant (CETP) shall be 1000 milligram/litre. In cases where Fixed Dissolved Solids (FDS) concentration in raw water used by the constituent units is already high (i.e. it is more than 1100 milligram/litre) then the maximum permissible value for Fixed Dissolved Solids (FDS) in treated effluent shall be accordingly modified by the State Board.
3. In case of discharge of treated effluent on land for irrigation, the impact on soil and groundwater quality shall be monitored twice a year (pre- and post-monsoon) by Common Effluent Treatment Plants (CETP) management. For combined discharge of treated effluent and sewage on land for irrigation, the mixing ratio with sewage shall be prescribed by State Board.
4. Specific parameters for some important sectors, selected from sector-specific standards.

| Sector                                   | Specific Parametres                                                                                                                                                     |
|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Textile                                  | Bio-assay test, Total Chromium, Sulphide, Phenolic compounds                                                                                                            |
| Electroplating Industries                | Oil and Grease, Ammonia-Nitrogen, Nickel, Hexavalent Chromium, Total Chromium, Copper, Zinc, Lead, Iron, Cadmium, Cyanide, Fluorides, Sulphides, Phosphates, Sulphates, |
| Tanneries                                | Sulphides, Total Chromium, Oil and Grease, Chlorides                                                                                                                    |
| Dye and Dye Intermediate                 | Oil and Grease, Phenolic compounds, Cadmium, Copper, Manganese, Lead, Mercury, Nickel, Zinc, Hexavalent Chromium, Total Chromium, Bio-assay test, Chlorides, Sulphates, |
| Organic chemicals manufacturing industry | Oil and Grease, Bio-assay test, Nitrates, Arsenic, Hexavalent Chromium, Total Chromium, Lead, Cyanide, Zinc, Mercury, Copper, Nickel, Phenolic compounds, Sulphides     |
| Pharmaceutical industry                  | Oil and Grease, Bio-assay test, Mercury, Arsenic, Hexavalent Chromium, Lead, Cyanide, Phenolic compounds, Sulphides, Phosphates.]                                       |

| <sup>91</sup> [56. DAIRY Effluents    | Concentration in mg/l, except pH | Quantum per product processed |
|---------------------------------------|----------------------------------|-------------------------------|
| pH                                    | 6.5—8.5                          | —                             |
| <sup>92</sup> [BOD (3 days at 27°C)]* | 100                              | —                             |

# CRITERIA FOR HAZARDOUS WASTE LANDFILLS



**CENTRAL POLLUTION CONTROL BOARD  
MINISTRY OF ENVIRONMENT & FORESTS**

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**February, 2001**

ENVIS Centre, CPCB ([www.cpcbenvvis.nic.in](http://www.cpcbenvvis.nic.in))

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ENVIS Centre, CPCB ([www.cpcbenvvis.nic.in](http://www.cpcbenvvis.nic.in))



**CENTRAL POLLUTION CONTROL BOARD**  
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**केन्द्रीय प्रदूषण नियंत्रण बोर्ड**

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पर्यावरण और वन मंत्रालय

Central Pollution Control Board

(A Govt. of India Organisation)

Ministry of Environment & Forests

Phone : 2204948

## FOREWORD

The Ministry of Environment & Forests, Government of India, has notified the Hazardous Waste (Management & Handling) Rules, in July 1989 under the Environment (Protection) Act, 1986. On 6<sup>th</sup> of January, 2000, major amendments to these rules with re-defined categories of hazardous wastes and harmonising them with the international laws, were notified. In order to facilitate implementation it is felt necessary to provide a set of guidelines on the Criteria for Hazardous Waste Landfills for the use of industries, implementing agencies and the general public.

The task of preparation of the guidelines was entrusted to a group comprising Prof. Manoj Datta, Indian Institute of Technology, New Delhi, Dr. D.B. Boralkar, Assistant Secretary, Central Pollution Control Board, Delhi and Ms. Sanchita Jindal, Joint Director (HSMD), Ministry of Environment & Forests, New Delhi. Useful criticism and suggestions were provided by National Productivity Council, New Delhi. The draft document was discussed and finalised by an Expert Committee under the Chairmanship of the Chairman, CPCB. The Expert Committee opined that secured disposal facilities need to be properly designed, constructed, commissioned and operated and that such facilities may not serve for the disposal of high-volume low-toxic waste. The present document provides guidance in respect of criteria for location, site selection and investigation, planning and design, waste acceptance, landfill liner system and cover, construction and operation, inspection, monitoring & record keeping, post-closure, financial assurance and contingency plan for emergencies.

This document on criteria for hazardous waste landfills has been brought out for use by implementing agencies, operators of landfills and others concerned.



(Dilip Biswas)

February, 2001

ENVIS Centre, CPCB ([www.cpcbenvis.nic.in](http://www.cpcbenvis.nic.in))

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## CRITERIA FOR HAZARDOUS WASTE LANDFILLS

### 1.0. APPLICABILITY

The criteria stated hereafter apply to owners and operators of facilities that dispose hazardous waste in landfills. The term 'hazardous waste landfill' (HW Landfill) is used to designate a waste disposal unit, designed and constructed with the objective of minimum impact to the environment. This term encompasses other terms such as "secured landfill", "engineered landfill", "waste mounds", "waste piles" etc.

### 2.0. LOCATIONAL CRITERIA

HW Landfills shall not be located within a certain distance of the following : lakes, ponds, rivers, wetlands, flood plains, highways, habitation, critical habitat area, water supply wells, Airports, coastal zone. If it is absolutely essential to site a landfill within the restricted zone, then appropriate design measures are to be taken and prior permission from the SPCB/PCC should be obtained :

- (a) Lake or Pond : No landfill shall normally be constructed within 200 m of any lake or pond. Because of concerns regarding runoff of waste contaminated water, a surface water monitoring network with approval of SPCB/PCC shall be established.
- (b) River : No landfill shall be constructed within 100 m of a navigable river or stream.
- (c) Flood Plain : No landfill shall be constructed within a 100 year flood plain. A landfill may be built within the flood plains of secondary streams if an embankment is built along the stream side to avoid flooding of the area. However, landfills must not be built within the flood plains of major rivers unless properly designed protection embankments are constructed around the landfills.
- (d) Highway : No landfill shall be constructed within 500 m of the right of way of any state or national highway.
- (e) Habitation : A landfill site shall be atleast 500 m from a notified habitated area. A zone of 500 m around a landfill boundary should be declared a no-development buffer zone after the landfill location is finalised.
- (f) Public parks : No landfill shall be constructed within 500 m of a public park.

- (g) Critical Habitat Area : No landfill shall be constructed within critical habitat areas including reserved forest areas. A critical habitat area is defined as the area in which one or more endangered species live. It is sometimes difficult to identify a critical habitat area. If there is any doubt then the SPCB/PCC shall be consulted for clarification.
- (h) Wetlands : No landfill shall be constructed within wetlands. It is often difficult to identify a wetland area. Maps may be available for some wetlands, but in many cases such maps are absent or are incorrect. If there is any doubt, then the SPCB/PCC shall be consulted for clarification.
- (i) Airports : No landfill shall be constructed within a zone around Airports as notified by the regulatory authority or the aviation authority.
- (j) Water Supply Well : No landfill shall be constructed within 500 m of any water supply well.
- (k) Coastal Regulation Zone : No landfill shall be sited in a coastal regulation zone.
- (l) Ground water table level : No landfill shall be located in areas where the ground water table will be less than 2 m below the base of the landfill.
- (m) Other criteria may be decided by the planners in consultation with SPCB/PCC commensurate with specific local requirements such as presence of monuments, religious structures etc.

### 3.0. SITE SELECTION

Hazardous waste landfills should preferably be located in areas of low population density, low alternative land use value, low ground water contamination potential and at sites having high clay content in the subsoil.

A HW landfill will be selected following the guidelines published by MoEF. The step by step procedure will be as follows :

- (i) Earmarking a 'search area' taking into account the location of the waste generation units and a 'search radius' (typically 5 to 250 km). The search area will be so chosen that it minimises the number of HW landfills in any region or state.
- (ii) Identification of a list of potential sites on the basis of:
  - (a) availability of land
  - (b) collection of preliminary data
  - (c) restrictions listed in the locational criteria (section 2.0).

## (iii) Collection of preliminary data as follows :

- (a) **Topographic Maps** : A topographic map will help find sites that are not on natural surface water drains or flood plains. Topographical maps may be procured from Survey of India.
- (b) **Soil Maps** : These maps, primarily meant for agricultural use, will show the types of soil near the surface. They are of limited use as they do not show types of soil a few metre below the surface. They may be procured from Indian Agricultural Research Institute.
- (c) **Land Use Plans** : These plans are useful in delineating areas with definite zoning restrictions. There may be restrictions on the use of agricultural land or on the use of forest land for landfill purposes. Such maps are available with the Town Planning Authority or the Municipality.
- (d) **Transportation Maps** : These maps, which indicate roads and railways and locations of airports, are used to determine the transportation needs in developing a site.
- (e) **Water Use Plans** : Such maps are usually not readily available. A plan indicating the following items should be developed : private and public tubewells indicating the capacity of each well, major and minor drinking water supply line(s), water intake wells located on surface water bodies, and open wells.
- (f) **Flood Plain Maps** : These maps are used to delineate areas that are within a 100 year flood plain. Landfill siting must be avoided within the flood plains of major rivers.
- (g) **Geologic Maps** : These maps will indicate geologic features and bedrock levels. A general idea about soil type can be developed from a geological map. Such maps can be procured from Geological Survey of India.
- (h) **Aerial Photographs / Satellite Imagery** : Aerial photographs or satellite imageries may not exist for the entire search area. However such information may prove to be extremely helpful. Surface features such as small lakes, intermittent stream beds and current land use, which may not have been identified in earlier map searches, can be easily identified using aerial photographs.
- (i) **Ground Water Maps** : Ground water contour maps are available in various regions which indicate the depth to ground water below the land surface as well as regional

ground water flow patterns. Such maps should be collected from Ground water Boards or Minor Irrigation Tubewell Corporations.

- (j) Rainfall Data : The monthly rainfall data for the region should be collected from the Indian Meteorological Department.
  - (k) Wind Map : The predominant wind direction and velocities should be collected from the Indian Meteorological Department.
  - (l) Seismic Data : The seismic activity of a region is an important input in the design of landfills. Seismic coefficients are earmarked for various seismic zones and these can be obtained from the relevant BIS code or from the Indian Meteorological Department.
  - (m) Site Walk Over and Establishment of Ground Truths : A site reconnaissance will be conducted by a site walk-over as a part of the preliminary data collection. All features observed in various maps will be confirmed. Additional information pertaining to the following will be ascertained from nearby inhabitants : (a) flooding during monsoons; (b) soil type; (c) depth to G.W. table (as observed in open wells or tube wells); (d) quality of groundwater and (e) depth to bedrock.
  - (n) Preliminary Boreholes and Geophysical Investigation : At each site, as a part of preliminary data collection, one to two boreholes will be drilled and samples collected at every 1.5m interval to a depth of 20m below the ground surface. The following information will be obtained : (i) soil type and stratification; (ii) permeability of each strata; (iii) strength and compressibility parameters (optional); (iv) ground water level and quality and (v) depth to bedrock. In addition to preliminary boreholes, geophysical investigations (electrical resistivity/seismic refraction/others) may be undertaken to assess the quality of bedrock at different sites.
- (iv) Selection of two best ranked sites from amongst the list of potential sites on the basis of the ranking system stipulated by MoEF (1991).
  - (v) Environmental Impact Assessment for the two sites for the following parameters :
    - (a) ground water quality; (b) surface water quality; (c) air quality - gases, dust, litter, odour; (d) land use alteration; (e) drainage alteration; (f) soil erosion; (g) ecological

impacts (h) noise; (i) aesthetics - visual, vermin, flies; (j) traffic alteration; and (k) others.

- (vi) Assessment of public perception for the two sites.
- (vii) Selection of final site.
- (viii) The above site selection procedure shall not be applicable for location of facility within industrial areas of State Industrial Development Agencies. However EIA requirement will apply.

#### 4.0. SITE INVESTIGATION CRITERIA

The data collected during site selection is not sufficient for landfill design. To be able to undertake detailed design of a landfill at a selected site, it is essential to characterise the landfill site and evaluate the parameters required for design. It is necessary that all data listed in Section 3.0 (iii) on "preliminary data" be collected for site characterisation. If some data has not been collected, the same should be obtained before site investigations are undertaken for site characterisation. The following additional data will be collected through a detailed site investigation programme at the chosen site.

A detailed site investigation programme will comprise of subsoil investigation, ground water/hydrogeological investigation, hydrological investigation, topographical investigation and geological investigation. The output expected from each investigation is listed below :

- (a) Subsoil Investigation : A detailed investigation plan may be drawn up in consultation with a geotechnical engineer. The output from such an investigation should yield the following :
  - (i) Stratification of subsoil - type of soil and depth
  - (ii) Depth to ground water table and bedrock (if located within 15m of base of landfill)
  - (iii) Permeability of various strata beneath the landfill.
  - (iv) Strength and compressibility properties of subsoil
  - (v) Extent of availability of liner material, drainage material, top soil and protective soil in adjacent borrow areas.
  - (vi) Subsoil properties along approach road.

A minimum of 3 boreholes per hectare of landfill area upto 15m beneath the base of the landfill shall be drilled and insitu tests as well as laboratory tests shall be performed for permeability, strength, compressibility and classification of soils. In addition, test pits and boreholes should be drilled at borrow area for liner and cover materials as well as along approach road.

waste will undergo due to overburden stress and due to bio-degradation (if any) shall also be taken into account.

The total landfill area should be computed on the basis of the designed height of the landfill (usually between 5 to 20m). Approximately 15 to 20% area more than the area required for landfilling should be adopted to accommodate all infrastructure and support facilities as well as to allow the formation of a green belt around the landfill. This additional area shall be computed separately and may be as high as 30% of the total area in case of small to medium landfills. The total landfill area is computed on trial and error basis.

There is no standard method for classifying landfills by their capacity. However the following nomenclature is often observed in literature :

|                      |   |                               |
|----------------------|---|-------------------------------|
| Small size landfill  | : | less than 5 hectare area      |
| Medium size landfill | : | 5 to 20 hectare areas         |
| Large size landfill  | : | greater than 20 hectare area. |

#### 5.4. Landfill Layout

A landfill site will comprise of the area in which the waste will be filled as well as additional area for support facilities. The area in which waste is to be filled may comprise of separate landfill units with each unit, accommodating a group of compatible wastes. Within each unit work may proceed in phases with only a part of the area under active operation. A typical site layout is shown in Fig.1. Such a layout must be prepared for all landfills. The following facilities must be located in the layout: (a) access roads; (b) equipment shelters; (c) weighing scales; (d) office space; (e) location of waste inspection facility (if used); (f) temporary waste storage and/or disposal sites for special wastes; (g) demarcation of the landfill areas and areas for stockpiling cover material and liner material; (h) location of surface water drainage facilities; (i) location of landfill leachate management facilities; (j) location of gas management facilities (optional); (k) location of monitoring wells/environmental monitoring facilities, (l) fencing and green belt along the peripheral boundary and (m) emergency exit.

It is essential that for each landfill site, a layout be designed incorporating the above mentioned facilities.

#### 5.5. Landfill Section

Landfills may have different types of sections depending on the topography of the area. The landfills may take the following forms : (a) above ground landfills; (b) below ground landfill; (c) slope landfills; (d) valley landfills (canyon landfills); and (e) a combination of the above. Fig.2 shows some typical landfill sections.

It is recommended that the landfill section be arrived at keeping in view the topography, depth to water table and availability of liner and cover material. Above ground landfills shall be preferred to below ground landfills, as leachate collection in the former is by gravity flow and does not require the use of pumps.

Slope landfills and valley landfills are normally adopted in hilly areas; above-ground landfills in flat undulating ground and below-ground landfills in low-lying areas, depressions or pits.

## 5.6. Phased Operation

Before the main design of a landfill can be undertaken it is important to develop the operating methodology. A landfill is operated in phases because it allows the progressive use of the landfill area, such that at any given time a part of the site may have a final cover, a part being actively filled, a part being prepared to receive waste, and a part undisturbed.

For each landfill unit, a phased operation plan will be drawn up.

The term 'phase' describes a sub-area of the landfill. A 'phase' consists of cells, lifts, daily/weekly (optional) or intermediate cover, liner and leachate collection facility, gas control facility (optional) and final cover over the sub-area (Fig.3).

Each phase is typically designed for a period of 12 months. Phases are generally filled from the base to the final/intermediate cover and capped within this period leaving a temporary unrestored sloping face. Fig.4 shows a simplified sequence of phased operation.

A 'phase plan' shall be drawn up for the active life of the landfill as soon as the landfill layout and section are finalised. It must be ensured that each phase reaches the final cover/intermediate cover level at the end of its construction period and that it is capped before the onset of monsoons.

During the monsoon months the waste may stockpiled in a temporary holding areas (covered with roof). During this period and the landfill may be kept capped with the final cover/intermediate cover and landfilling operations suspended to reduce infiltration of rain water into the landfill. However, if the incoming waste quantity is too large for temporary stockpiling or the monsoon period lasts for a long period, special phases may have to be designed with high leachate handling capacity and special operating procedures adopted.

## 5.7. Estimation of Leachate Quantity

Leachate is generated on account of the infiltration of water into landfills and its percolation through waste as well as by the squeezing of the waste due to self weight. The quantity of leachate generated in a landfill

**(iii) Vehicle Inspection :**

Each vehicle carrying the waste shall be checked for :

- (a) Incoming weight (full)
- (b) Outgoing weight (empty)
- (c) Availability of relevant documents
- (d) Visual check at weigh-in (if feasible)
- (e) Visual inspection after discharge at tipping area (inspection report to be filed for each vehicle). A visual inspection checklist must be framed which should list visual features for identification of unacceptable material. This checklist shall be filled for every unloading by a vehicle in tipping area at the working phase in the landfill.

If there is reason to doubt the presence of unacceptable waste, the vehicle shall be taken to the waste inspection facility, the waste down-loaded, inspected visually and sampled (if necessary). Vehicles having non-conforming waste shall be held-up and matter reported to engineer or manager at site.

**8.3. Phase Development**

Development of each phase shall be done in stages. These stages are:

- (a) Clearing the area of all shrubs and vegetation
- (b) Excavation (if required),
- (c) Stockpiling of excavated material and material imported from borrow area,
- (d) Levelling of base and side slopes of landfill and achieving desirable grades at the base of the landfill,
- (e) Construction of embankment and temporary berms along the perimeter of the phase,
- (f) Construction of temporary surface water drains,
- (g) Installation of monitoring instruments,
- (h) Liner Construction
- (i) Leachate collection and removal system

**8.4. Phase operation**

At the design stage, the phases of a landfill are clearly demarcated. Operation of a phase requires planning and execution of daily activities – daily waste filling plan and demarcation, waste discharge and inspection, waste placement, waste compaction, daily covering of waste, prevention of pollution and fires.

- (a) **Daily waste filling plan and demarcation at site :** On the completion of a phase and before the start of a new phase, a waste filling plan for daily cells shall be evolved. A study of the landfill base contour maps

and the final cover levels of the phase allows such a plan to be developed. If a phase is to be operational for 365 days, all 365 cells must be marked in plan and in sectional drawings. These may require revision as a landfill is constructed because waste quantities may vary in an unforeseen manner. The area and height proposed to be filled every day should be demarcated at the site on a daily or weekly basis using temporary markers or bunds.

- (b) **Waste discharge and inspection** : Waste shall be discharged by tipping at the working area of a landfill, within the area demarcated for the cell. Every discharged load shall be visually inspected by a designated operator. Working area personnel shall be trained and competent at waste identification in order that they can recognise waste which may be non-conforming. In the event of reasonable doubt as to the waste acceptability, the operator shall inform the waste reception facility and/or the site manager immediately and the consignment shall be isolated pending further inspection.
- (c) **Waste placement (spreading) and compaction** : Once waste has been discharged it shall be spread in layers and compacted in a well defined manner to ensure that the completed slopes of a daily cell are at the designed gradients. Waste placement (spreading) can be done by the following methods :
  - (i) **Face tipping method** : Waste is deposited on top of existing surface and spread horizontally by tipping over an advancing face.
  - (ii) **Inclined layering method (onion skin tipping)** : Similar to (a) but inclined layering (gentle slope) done instead of advancing of face.
  - (iii) **Working upwards** : Waste is deposited on the lower surface and pushed upwards.

It is necessary to level and compact the waste as soon as it is discharged at the working area. Steel wheeled mobile landfill compactors (smooth / cleated / spiked / special wheels) are generally accepted as the best equipment for this purpose. They have largely replaced the small crawler-tracked machines which were previously in general use.

- (d) **Daily / Weekly Cover** : Daily / Weekly cover (optional) is primarily used for prevention windblown dust, litter and odours, deterrence to scavengers, birds, reduction of infiltration (during unseasonal rain) and in improving the site's visual appearance. Soil used as daily / weekly cover shall give a pleasing uniform appearance from the site boundary. To achieve this a thickness of about 150 mm is usually adequate and shall be adopted.
- (e) **Operation in Monsoons** : During the monsoon month, high rainfall results in excessive generation of leachate. Hence, before the onset of monsoons, the phase must be capped with a cover. Waste received

during monsoon months shall be stockpiled in temporary holding area (covered). Alternatively special “monsoon phases” may be designed with high leachate holding capacity and operated using daily covers / temporary covers.

### 8.5. Pollution Prevention and Safety During Operation

The following measures are needed to ensure that the landfill operation shall not adversely affect local environment within and outside the landfill.

- (i) **Traffic** : Heavy lorry traffic shall give rise to nuisance, damage to road surface and verges and routing problems. The following measures are helpful :
  - (a) routing to avoid residential area
  - (b) using one-way routes to avoid traffic conflict in narrow roads
  - (c) carrying out road improvements, for example strengthening or widening roads, improved provision of footpaths, improvement of sight lines, provision of passing places, provision of new roads,
  - (d) Limiting the number of vehicle movements
  - (e) Restrictions on traffic movement hours which are staggered with respect to peak traffic hours.
- (ii) **Noise** : Adverse impacts on the local community from noise may arise from a number of sources including : throughput of vehicles and fixed and mobile plant, for example compactors, generators at the site. Peripheral noise abatement site measures shall be adopted.
- (iii) **Odour** : Offensive odours at landfill sites may emanate from a number of sources, including waste material, which have decomposed significantly prior to landfilling, leachates and leachate treatment systems, and landfill gas. Good landfill practices shall greatly reduce general site smell and reduce impact from odours which could lead to complaints from the local community, site users and site staff. Good practice includes : (a) adequate compaction; (b) speedy disposal and burial of malodorous wastes; (c) effective use of appropriate types of daily cover; (d) progressive capping and restoration; (e) effective landfill gas management; (f) effective leachate management and (g) consideration of prevailing wind direction when planning leachate treatment plants, gas flares, and direction of tipping.
- (iv) **Litter** : Poor litter control both on and off site is particularly offensive to neighbours. Good operational practice shall be adhered to in terms of temporary fencing, waste discharge, placement, compaction and covering to minimise the occurrence of windblown litter.
- (v) **Bird Control** : Birds are attracted to landfill sites in large numbers where sites receive appreciable amounts of bio wastes. Measures which can be used to mitigate birds nuisance include the employment

owner/operator to the SPCB/PCC for verification and record keeping. The same will also be done upon the completion of cover system in each phase.

## 9.2. During Operation

- (a) The owner/operator shall monitor and keep a record of the following in the operation period :
  - (i) Functioning of the leachate management system (including levels in leachate holding tank) (weekly)
  - (ii) Functioning of the surface water run-off system (weekly)
  - (iii) Functioning of the gas management system (if any) (weekly)
  - (iv) Waste filling records shall be kept on daily basis as specified in Section 8.2 on site procedure
  - (v) Environmental monitoring shall be done, 1 to 2 times a month, and all parameters listed in Section 5.17 shall be recorded and compared with the permissible limits provided by the SPCB/PCC
  - (vi) After a major storm, the occurrence of the storm and functioning of various systems shall be recorded.
- (b) The SPCB/PCC (or its nominee) shall inspect all facilities atleast twice a year. The owner/operator shall provide a copy of the environmental monitoring record to the SPCB/PCC on a yearly basis.

## 9.3. During Closure and Post Closure Period

Period inspection and routine maintenance at a closed landfill site shall be carried out for a period of 30 years after closure. The SPCB/PCC shall inspect all facilities during the closure and post closure period atleast once a year. The owner/operator shall provide a copy of the environmental monitoring record to the SPCB/PCC once a year. The following components of a closed landfill shall be inspected visually after landfill closure to confirm that all functional elements are working satisfactorily and inspection report will be recorded. A maintenance schedule with specified reporting formats is drawn up after each inspection.

- (a) Cover System : The final cover is inspected 2 to 4 times a year
  - (a) to check that vegetation growth is occurring satisfactorily and that plants are not showing stunted growth,
  - (b) to detect if any erosion gullies have been formed thereby exposing the barrier

layers, (c) to earmark depressions that may have developed with time and (d) to identify ponding of water on the landfill cover. At least one inspection shall be carried out during or immediately after the peak of the monsoon season.

Closed landfills show significant settlement. Rectification measures shall not only re-establish the initial slope of the cover (for proper surface water run-off) but shall also ensure that all the components of the landfill cover system continue to perform as originally envisaged. Site managers shall have sufficient equipment and funds to periodically carry out maintenance work in the form of soil filling, re-grading the cover and revegetating the landfill cap.

In areas where extensive erosion gully formation is observed, filling of cover material, regrading of cover slopes and re-vegetation must be routinely undertaken.

- (b) **Surface Water Drainage System :** The surface water drainage system is also inspected 2 to 4 times a year (a) to identify cracks in drains due to settlements, (b) to delineate clogged drains requiring immediate clean-up and (c) to study the level of deposited soil in the storm water basin and initiate excavation measures. Broken pipes and extensively cracked drains may require replacement after filling soil beneath them to establish slopes for gravity flow. In extreme cases where long-term settlement shall be excessive, it shall become necessary to make sumps and operate storm water pumps for removal of accumulated water in the drainage system.
- (c) **Gas and Leachate Management Systems :** A weekly operating record of leachate and gas management systems shall be kept in the post-closure period. Periodic inspection of the leachate and gas collection systems (2 to 4 times a year) is undertaken to identify broken pipes, leaking gas (if any) and damaged or clogged wells/sumps. Repair work requires skilled manpower and shall be carried out by the agencies operating the gas treatment and leachate treatment facilities. One may often have to install new gas extraction wells and leachate collection wells if the damaged/clogged facilities are inaccessible and irreparable.

#### **9.4. Environmental Monitoring Systems**

Ground water monitoring wells, air quality monitoring systems and vadose zone monitoring instruments shall be periodically inspected 2-4 times a year to check that all systems are functioning satisfactorily and that well caps and sampling ports are not subjected to damage due to excessive settlement or vandalism.



# GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN

Sector-10-A, Gandhinagar 382 010

Phone : (079) 23222425

(079) 23232152

Fax : (079) 23232156

Website : www.gpcb.gov.in

By R.P.A.D

No. GPCB/HAZ-GEN-294(8)/561872

Date: 11 JUN 2020

To,

M/s Eco care Infrastructures Pvt. Ltd.

Plot no/ Sr. no: 127/1,127/2,128, 132/1,132/2,131,

132/2/2,125/6,125/3, Village: Ghaspur,

Tal: Dasada, Dist: Surendranagar.

**Sub: Monsoon Planning for Monitoring & Control of Pollution.**

Sir,

As you are aware Monsoon is about to set in, you are required to make yourselves fully equipped and ready to take all required mitigation steps with regards to prevent and control pollution from various sensitive points and to ascertain that pollution is fully controlled at source. At the outset, following points are required to ascertain in your industry / facility in addition to routine monitoring and controlling pollution activities at source.

1. Before the onset of monsoons, the phase must be capped with a cover.
2. The facility shall comply with all other conditions mentioned in operation and maintenance of TSDF in CPCB guidelines.
3. The run off/storm water at various significant points, which lead to vital stretches of River, Nalas, Natural Drain etc. should be constantly monitored for its water quality assurance.
4. Final outlet of industry / Facility is also required to be monitored during rainy days to ensure that there is no irregular discharge by any means.
5. Effluent treatment plant units & chemical storage tanks / Hazardous waste storage sites etc. should be monitored to prevent that there is no overflow/leakage to the surrounding environment.
6. The Hazardous waste and other solid waste accumulated in storage site should be provided with complete waterproof cover/roof in order to avoid mix up of rainwater / industrial effluent with the solid waste and so as to prevent the excess leachate generation. You are also requested to dispose off all the accumulated hazardous waste /sludge to TSDF site or incinerate it as the case may be.
7. You are also required to implement relevant guidelines for management plan for used/discarded packaging materials etc.
8. You are required to monitor & operate Air Pollution Control equipments / measures efficiently in such a manner that any flue gas/process emission from your industrial plant / facility should conform the GPCB norms. Further, you are required to ensure that accidental leakage, fugitive emissions etc. are prevented.

**Clean Gujarat Green Gujarat**

ISO-9001-2008 & ISO-14001 - 2004 Certified Organisation

9. You are also required to ensure good housekeeping practices to avoid any chemical contamination of rain water and to avoid any uncertainties.
10. Development of green belt with regards to protect environment. Pre-Monsoon is the ideal time for the planning of the plantation. It would be pleasure to see "Green Belt Plan" along with the compliance report.

You are requested to make implementations of above referred conditions immediately and submit the report of the same to G.P.C.B. Head Office, Gandhinagar as well as our Regional Office.

You are also requested to submit the onsite emergency management plan and Annual Return in Form – IV under Hazardous and Other Wastes (M&TM) Rules – 2016 to the undersigned within 7 days.

Thanking you,

For and on behalf of GPCB,

*D.M. Thaker*  
11/6/2020

(D. M. Thaker)

Environment Engineer

Unit Head, Hazardous Waste Cell



501, Fifth Floor, Mansarovar Avenue, Opp. Tulsishyam Flats, Bhimjipura, Nava Vadaj, Ahmedabad-380013. Gujarat. INDIA  
M. : 7283889988 Email : ecocare@ecocareinfra.com Website : www.ecocareinfra.com

Date : 02-10-2020

To,

Chariman

**Naroda Enviro Projects Limited**

Ahmedabad.

**Sub : Monsoon Closure**

Dear Sir,

As per the Monsoon Guidelines of GPCB, TSDF site was closed during the monsoon period.

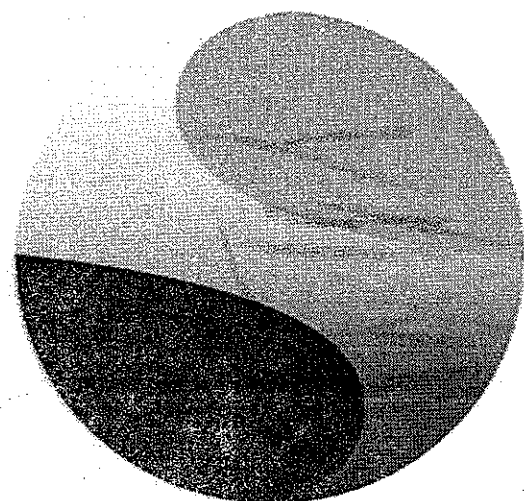
As per Monsoon guidelines, our TSDF Site was closed from 26-05-2020 and it's will be expected to re-open on 20-10-2020.

We will start the waste collection in our storage shed on 05-10-2020 for members which is required emergency situation.

Thanking You,

**FOR, ECO-CARE INFRASTRUCTURES PVT LTD**

*Manish P Patel*  
**(MANAGING DIRECTOR)**

**ANNEXURE R-44**

**BPC**  
**BioPetroClean**

**FENTON Add-on At NEPL CETP**  
**Two phase proposal**

## *Project Objective*

**FURTHER Improve quality output to COD < 250 PPM**

**Treat complete chemical stream of 100 – 150 m<sup>3</sup>/hour**

**Maintain OPEX within the Budget defined**

**Provide Consistent Process with 100% Compliance**

## Conceptual Proposal - Highlights

**BPC will perform a Turnkey project – All Included**

**Project delivered in two phases:**

- 1. Phase 1 – implement a system with 25-30 m<sup>3</sup>/hour**
- 2. Phase 2 – Complete full flow implementation**

**SOW:**

- Engineering design**
- Project management**
- All equipment delivery & installation**
- Subcontractor's for constructions, tanks, Piping & Electricity**
- Commissioning**

## **Phase 1 - details**

**In first phase BPC will deliver a solution for partial flow of 25-30 m<sup>3</sup>/hour**

**First phase deliverables will include:**

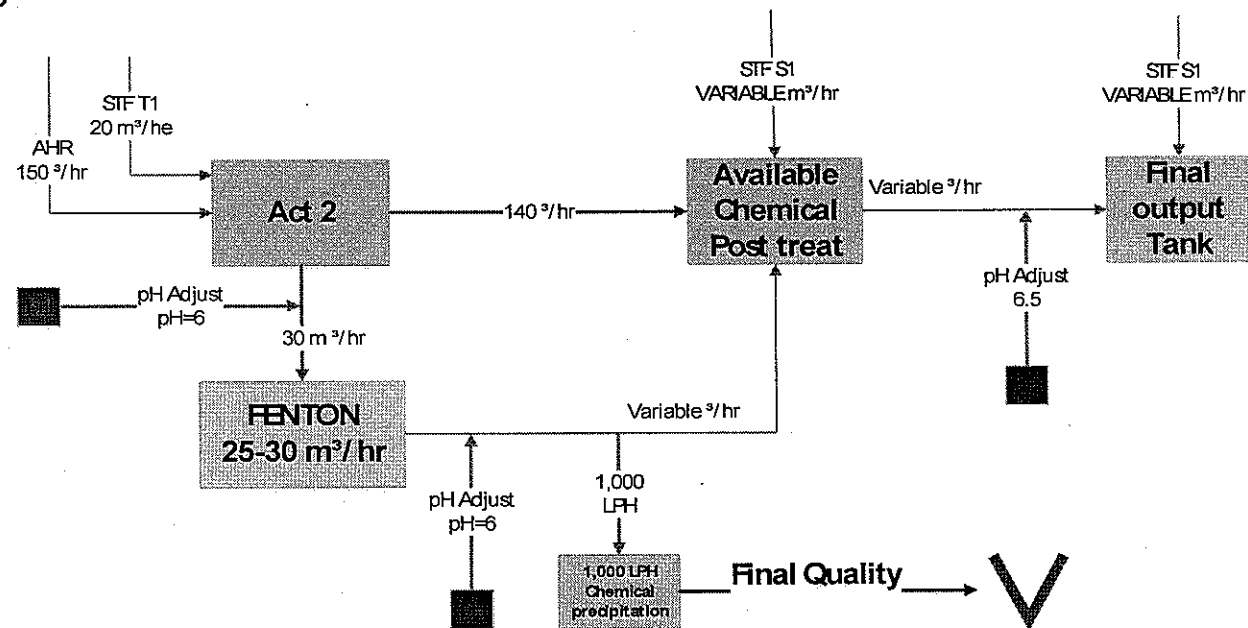
- **Complete engineering design & Project management**
- **Perform infrastructure construction - partial flow 25-30 m<sup>3</sup>/hour**
- **Deliver & Install all necessary equipment**
- **Perform commissioning and demonstrate the quality**
- **Run the system with partial flow for a month or two and during this time seek OPEX Optimizations**
- **Perform design modification as applicable (after first phase)**

# Phase 1 - details

## First phase flow process - Refer to the illustration below:

1. Feed Fenton with 25-30 m<sup>3</sup>/hour partial stream from ACT 2
2. Split Fenton output stream: 1000 LPH will go to a temporary Chemical Precipitation while the rest of the stream will go to existing Flesh mixer
3. Dilution with S1 & Chemical dosing - will be adjusted to optimize OPEX
4. Demo the quality
5. Demo all process
6. Fine-tune the design

### FENTOM Implementation - First Phase settings



## *Phase 2 – details*

**In second phase BPC will deliver a solution for full flow  
Including:**

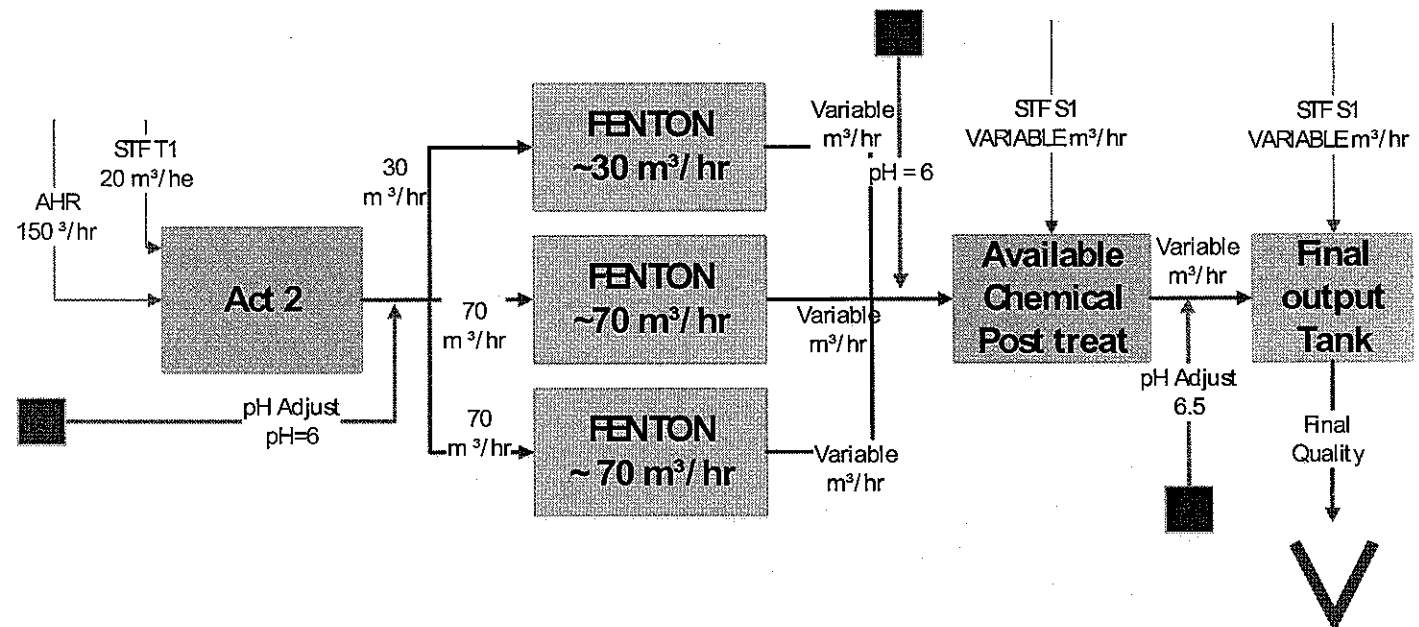
- **Complete Project management**
- **Perform infrastructure construction – for complete flow**
- **Deliver & Install all necessary equipment**
- **Perform commissioning and demonstrate the quality**
- **Commissioning**

## Phase 2 – details

### Second phase flow process - Refer to the illustration below:

1. All ACT 2 flow will split among three Fenton reactors (see illustration) – this setup allows processing flexible flow with complete automations
2. Fenton output go to Flesh mixer (we may need an extra clarifier parallel to S2)
3. Complete control automation
4. Demo full capacity performance (Sustainable Quality, productivity & OPEX)

### FENTOM Implementation - Second Phase settings



## *Project deliverables*

**This proposal is for a “Turnkey Project” including**

- **Project Engineering Design & Management**
- **All infrastructure delivery & constructions (Tanks, Piping & Elec)**
- **Equipment:**
  - ✓ Control panel with analytical instrumentation for complete automation
  - ✓ Piping & Piping equipment
  - ✓ Automatic Valves, Flow trxs, transfer Pumps, Dosing Pumps, Blowers, Chemical storage tanks etc.
  - ✓ Sludge dewatering (we expect sludge increase by 30%)

**NEPL shall provide the three phase power that shall be defined.**

# Price Proposal

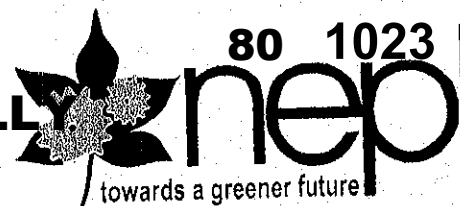
## TOTAL Project as turnkey – proposed at 8 CR

| First Part price for each phase INR |                     |                   |                   |
|-------------------------------------|---------------------|-------------------|-------------------|
| Cost Item                           | Total Project price | Phase 1 Price     | Phase 2 Price     |
| <b>TOTAL PRICE</b>                  | <b>78,000,000</b>   | <b>27,500,000</b> | <b>50,500,000</b> |
| Engineering Design                  | 8,000,000           | 5,000,000         | 3,000,000         |
| Project Management                  | 7,500,000           | 2,500,000         | 5,000,000         |
| Reactor Tanks + Clarifier           | 19,000,000          | 5,000,000         | 14,000,000        |
| Piping                              | 6,000,000           | 2,500,000         | 3,500,000         |
| Equipment + Installation            | 24,000,000          | 7,000,000         | 17,000,000        |
| Electrical Constructions            | 4,500,000           | 2,000,000         | 2,500,000         |
| Integrations & Commissioning        | 6,000,000           | 2,000,000         | 4,000,000         |
| miscellaneous / unexpected          | 3,000,000           | 1,500,000         | 1,500,000         |

## *Project Delivery Schedule*

- **Start Upon getting complete PO from NEPL**
- **First phase completion within 4 months**
- **One or two months Commissioning & Fine tuning**
- **Start Phase 2 – 5-6 months from PO**
- **Complete Phase 2 within 3 months**
- **Project complete delivery time 8 Months**

# ANNEXURE R-5 (COLLY)COLLY



CIN : U29199GJ1995NPL02791

29<sup>th</sup> May, 2019

To  
Shri R R Panchal  
Law Officer  
GPCB  
Gandhinagar.

*Handwritten signature*  
29/05/19  
General Pollution Control Board  
Sector No. 18 A,  
Gandhinagar - 382 010

Sir,

This has ref. to your notice No. GPCB/ABD/ND/CCA-68(9)/ID 12718/507035 dtd. 17.5.19, as downloaded from XGN site and, not received by this office by post, as on date and, served to all the Board of Directors of the Company.

In this connection, prima facie it seems that, the notice has been issued without considering our Upgradation Project undertaken with BPC, Israel with their proven technology, as accepted at US, Africa and Israel with performance guarantee at a cost of nearly Rs. 15 crores, from our own funds, without waiting for Govt. Subsidy. with the consent and approval of GPCB and time bound progress reports thereof alongwith photographs, submitted to GPCB office from time to time.

Inter alia, our other correspondence with GPCB and abreast to GPCB officials at the time of their visit to the CETP during Inspection, kindly refer latest communication dtd. 9<sup>th</sup> March, 2019 wherein; we have stated that, Retrofitting work of CETP has been completed and, the working will be stabilized by end of May, 2019.

As massive and complete Retrofitting of CETP is undertaken under the technical know-how as supplied by BPC, Israel including import of services, lots of civil work- piping- cabling- electrification- fabrication – collaboration with various agencies etc. etc. at national and international level, the actual implementation and its working is bound to vary than

**NARODA ENVIRO PROJECTS L**

committed. However, we are successful to complete the same by end of March, 2019 and, hopeful that, within 60-90 days thereof after stabilization, the results will be nearer to Norms and, on its full fledge commission we will invite GPCB to witness our efforts and commitment, which is possible due to kind sanction of Chairman Dr. Shri Rajivkumar Gupta.

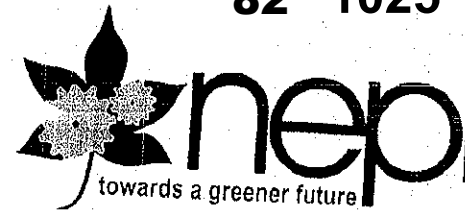
Further, and O & M Contract has also been awarded to BPC, Israel for a period of 5 years from stabilization of Retrofitting Project, to assure that, quality of performance is continued and maintained.

In preset of above, you are requested not to consider results of samples dtd. 25.2.19 and 28.3.19, as Retrofitting of CETP work was under progress during the relevant period of time and, as number of Units of CETP are under maintenance/ upgradation/ renovation, the treatability of effluent is bound to be affected.

Further, its our submission time and again that, at the time of drawing samples by GPCB, the parallel sample in sealed and signed manner should be given to CETP, too to confirm the same and, any ambiguity in testing results, duration of sample hold, or methods can be sorted out, if any, in interest of principles of natural justice as often it has been observed that, GPCB's results are contradicting with our in house Lab so in such cases, joint testing can be carried out.

Looking to our efforts and thrive to meet the Norms based on above submission, we request that, the requirement of Bank Guarantee should not be pressed. Further, we are a Section 8 Company under the Companies Act and, the Board is working on honaray basis.





CIN : L129199GJ1995NPL027917

We are very much committed to Environmental Laws, judicial authorities as well as our Corporate Social Responsibility since inception, which is evidenced by various local, national and international accolades as also we have never use potable water to achieve the Norms, which is the case for other law abidance showing CETPs.

Sincerely,

For and on behalf of the Company and Board of Directors

*Shailesh Patwari*

Shailesh Patwari  
Chairman

c.c. : Shri Mistry, MS, GPCB  
Shri T B Shah, RO, GPCB

*(M)*  
30/05/19  
GUJARAT POLLUTION CONTROL BOARD  
Ahmedabad (East)

*M*  
29/05/19  
Gujarat Pollution Control Board  
Sector No. 10 A,  
Bambhaya - 382 010

Naroda Enviro Projects Ltd. NEPL <nep10@hotmail.com>

Wed 8/14/2019 13:41

To: Nareshkumar3 M Tabhani(GoG-GPCB Dept.) <uh-gpcb-sura@gujarat.gov.in>

Cc: Rajesh Parmar <rajeshgpcb@gmail.com>

Dear Shri Tabhani,

This has ref. to sample results of samples drawn on 30.7.19 of final outlet of our CETP showing COD values : 723 mg/l and, BOD : 99 mg/l.

In this connection, we would like to state that, the COD values of the counter sample taken by us is having : 449 mg/l.

Under the case, we request you to give instructions to your field staff, to give us parallel sample, so that, same can be verified and, any probable issues can be avoided.

Your field staff urging for instructions from your office to give parallel sample, so pl. do the needful.

Further, when BoD is : 99 mg/l, COD normally should be average 4-5 times high, which matches with our inhouse lab result of COD 449 mg/l.

So pl. look into as, since last about 3 months our results have not exceeded : 500 mg/l as, retrofitting has been undertaken by BPC, Israel and we are trying for COD : 300 mg/l, and, in such case, this reports affect our sincere and dedicate efforts to meet the Norms and, it may be catching for NGT/NGOs.

Sincerely,

Shailesh Patwari  
Chairman  
Naroda Enviro Projects Ltd.  
GIDC, Naroda

# **Guidelines for Online continuous monitoring system for Effluents**



**CENTRAL POLLUTION CONTROL BOARD  
PARIVESH BHAWAN, EAST ARJUN NAGAR  
DELHI – 110 032**

07.11.2014

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## 1.0 BACKGROUND

Central Pollution Control Board vide its letter No. B-29016/04/06PCI-1/5401 dated 05.02.2014 issued directions under section 18(1)b of the Water and Air Acts to the State Pollution Control Boards and Pollution Control Committees for directing the 17 categories of highly polluting industries such as Pulp & Paper, Distillery, Sugar, Tanneries, Power Plants, Cement, Oil Refineries, Fertilizer, Chloral Alkali Plants, Dye & Dye Intermediate Units, Pesticides and Pharma Sector, Common Effluent Treatment Plants (CETP) and STPs, Common Bio Medical Waste and Common Hazardous Waste Incinerators for installation of online effluent quality and common emission monitoring systems to help track the discharges of pollutants from these units.

Directions were also issued to 11 Ganga Basin State Pollution Control Boards/Pollution Control Committees vide letter No.B-190019/NGRBA/CPCB/2011-12 dated 05.02.2014 for directing the industries discharging effluents directly into River Ganga or its tributaries for installation of real time water quality monitoring systems to monitor parameters such as pH, TSS, COD, BOD, Chromium, Arsenic, AOX, Ammonia. The directions envisage:

- Installation of online effluent quality monitoring system at the outlet of the identified units for the measurement of the parameters, pH, COD, BOD and other sector specific parameters (Annexure-I) as per the guidelines provided, not later than by March 31, 2015 and transmission of online data so generated to SPCB/PCC and CPCB as well.
- Installation of surveillance system with industrial grade IP (Internet Protocol) cameras having PAN, Tilt Zoom (PTZ) with leased line real time connection for data streaming and transmission of the same.
- Ensure regular maintenance and operation of the online system with tamper proof mechanism having facilities for online calibration.

## 2.0 GENESIS OF PROBLEM :

Chemicals (Pharmaceuticals, Organic/Inorganic, Fertilizers, Oil Refineries and Pesticides), Distilleries, Sugar, Pulp & Paper, Textile, Dying, Bleaching, Slaughter Houses, Tannery, Food & Dairy and other categories of industries located in states of Uttarakhand, Uttar Pradesh, Bihar and West Bengal have been discharging effluent directly or indirectly into the river Ganga and its tributaries (Ramganga & Kali-East) through drains, thereby causing deterioration of water quality of river Ganga and its tributaries.

The SPCBs and PCCs have prescribed standards for various pollutants emitted/ discharged by the industries as notified under the Environment(Protection) Act,1986. The compliance monitoring needs to be strengthened to ensure that treated industrial effluent complying with the stipulated norms is only discharged by the industries.

With rapid industrialisation, it is becoming a need and necessity to regulate and minimise inspection of industries on routine basis. Therefore, efforts need to be made to bring self-discipline in the industries to exercise self-monitoring & compliance and transmit data of effluent and emission to SPCBs/PCCs and to CPCB on continuous basis.

For strengthening the monitoring and compliance through self-regulatory mechanism, online emission and effluent monitoring systems need to be installed and operated by the developers and the industries on, 'Polluter Pays Principle'.

The ground truthing of the values indicated by the online devices need to be done. For proper interpretation of data measures need to be taken at the level of SPCBs/PCCs. For regulatory purposes and for purpose of actions to be taken against non-complying industries/facilities, the existing method of sampling, analysis and related procedures under the existing statutes need to be continued.

Various technologies are available for monitoring the effluent quality in terms of the parameters specified in the directions issued by CPCB. However, no guidelines on selection of the Real Time Monitoring Systems are available.

### **3.0 REAL TIME MONITORING**

In recent years online water quality monitoring technology has received attention and interest in context of providing accurate and continuous water/waste water quality information. There are already commercially available systems for monitoring parameters such as Turbidity, Colour, Fluoride, Sodium, Ammonia, Chlorides, Nitrates etc.

#### **3.1 Merits of on-line Monitoring Techniques**

The major advantages of on-line monitoring systems over traditional laboratory based and portable field methods are:

- a. Online monitoring systems provide continuous measurement of data for long periods of time, at the monitoring site of interest, without skilled staff being required to perform the analysis.
- b. All the major steps in traditional analysis like sample collection, preservation, transportation, sample pre-treatment, calibration, reagent addition and sample analysis procedures are usually automated in on-line analysers.
- c. In case of sudden disturbance in the system, compared to conventional methods the on-line analysers provide timely information for taking immediate corrective/preventive steps.

#### **3.2 Basic requirement of an efficient on line analyser**

The major prerequisites of efficient online analysers are:

- Should be capable of operating unattended over prolonged period of time.
- Should produce analytically valid results with precision and repeatability
- The instrument/analyser should be robust and rugged, for optimal operation under extreme environmental conditions, while maintaining its calibrated status.
- The analyser should have inbuilt features for automatic water matrix change adaption.
- The instrument / analyser should have onboard library of calibration spectras for different industrial matrices with provision of accumulating further calibration matrices
- Should have data validation facility with features to transmit raw and validated data to central server.
- Should have Remote system access from central server provisioning log file access.
- Should have provision for Multi-server data transmission from each station without intermediate PC or plant server.
- Should have provision to send system alarm to central server in case any changes made in configuration or calibration.
- Should have provision to record all operation information in log file.
- For each parameter there should be provision for independent analysis, validation, calibration & data transmission.
- Must have provision of a system memory (non-volatile) to record data for at-least one

year of continuous operation.

- Should have provision of Plant level data viewing and retrieval with selection of ethernet, wireless, Modbus & USB.
- In case of TOC analyser, the empirical relationship between TOC to COD or BOD must be authenticated for all industrial applications and the correlation calculation (for factor) provided.
- The correlation/interpretation factor for estimating COD and BOD using UV-Visible Absorption Technique shall be regularly authenticated/ validated and details provided.
- Record of calibration and validation should be available on real time basis on central server from each location/parameter.
- Record of online diagnostic features including sensor status should be available in database for user friendly maintenance.
- Expandable program to calculate parameter load daily, weekly or monthly basis for future evaluation with flow rate signal input.
- Must have low operation and maintenance requirements with low chemical consumption and recurring cost of consumables and spares.

### 3.3 Techniques/ Instrumentation for online measurement

Real time continuous measurements can be made by two methods:

- Online
- Inline or In situ

#### 3.3.1 Online Analysers

In most cases online measurements are based on automated laboratory based measurement techniques. The sample is usually injected using rotation valves or peristaltic pumps to the instrument using flow injection analyses (FIA) or sequential flow injection techniques (SFI), via a separate analytical line which is connected to the main process stream. The sample is then extracted, pre-treated if required and presented to the analytical instruments for the analysis required. This system can be either calibrated online automatically, or offline by skilled operator. Online analysers usually require a suitable temperature and pressure, fixed background measurement conditions and frequent calibration to obtain analytically valid results.

#### 3.3.2 In line Analysers

Inline analysers are simpler in design and can measure directly in the process line, using a probe that is chemically insensitive. However they are more susceptible to physical and chemical interference from the sample matrix as measurement backgrounds are more changeable and they usually require ex-situ calibration.

Despite their ability to acquire continuous real time data, their widespread application has been limited due to the inability to reliably obtain accurate, cost effective water quality data.

### 3.4 Photometric optical sensor

Photometric optical sensors are among the most commonly used measurement principles for online analysers. These methods are based on measuring the interaction of light with the sample and the measurement principle is usually based on Beer – Lambert Law which states about a linear relationship between absorbance and concentration of absorbing species. According to the law:

$$\text{Absorbance } A = -\log(I/I_0) = \epsilon * C * L$$

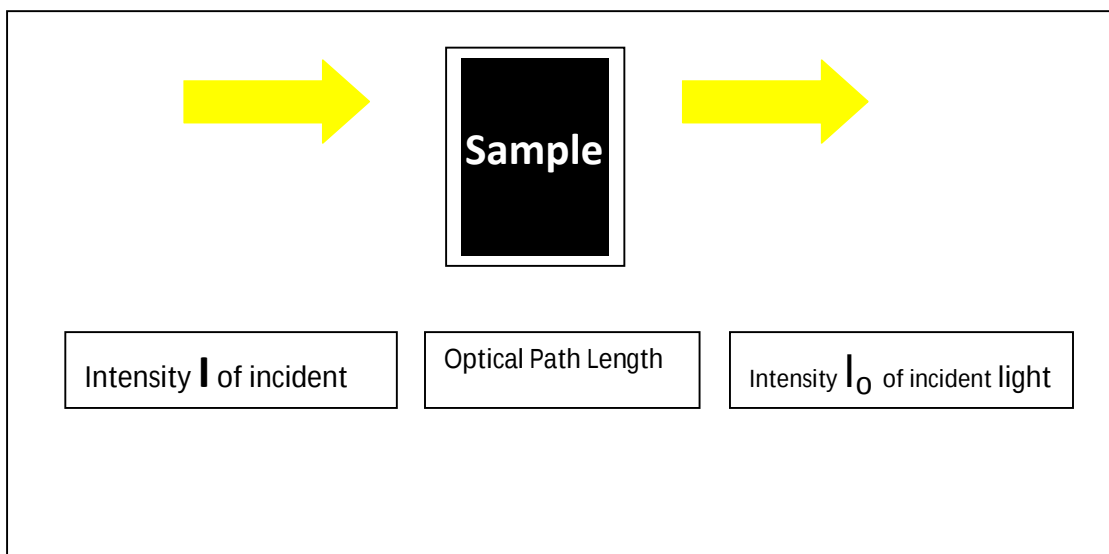
$I$  = Intensity of incident light

$I_0$  = Intensity of transmitted light

$\epsilon$  = Molar absorptivity (L/mol/cm)

$C$  = Concentration of solution (mol/l)

$L$  = Optical path length (cm)



They are often employed for their simplicity and rapid response. The majority of commercially available photometric sensors fall into main three categories.

1. Colorimetric
2. UV Absorption and
3. UV Visible absorption

Optical sensors, such as non-destructive sensors arrays, have advantage over ISE (ion selective electrodes) for water quality monitoring as in these analysers gross fouling and potential problems or contamination can be detected by colour changes in the sample.

### **3.5 Ion Selective Electrodes (ISE)**

ISEs are commonly employed as online sensors due to their speed and simplicity as well as low maintenance and purchase cost. With careful use, frequent calibration ideal measurement conditions being maintained, they can achieve higher accuracy and precision. Hence, in theory the configuration and embodiment of an ISE makes it an ideal sensing probe for on-site, real time monitoring applications.

Data obtained from online ISE measurements, although continuous, is usually semi-quantitative in nature. This is because the analytical signal of the ISE is known to be affected by matrix interferences, drift, contamination (e.g. by organic molecules), non-linear responses at the lower end of the detection, temperature in the non ideal measurement conditions. These factors in turn cause measurements errors. To improve its reliability, especially in the field, an ISE must be regularly calibrated with standards and samples should be analysed according to prescribed measurement conditions. However, the economic costs associated with calibration especially for instruments that require ex-situ calibration with skilled personnel, have greatly limited its adoption.

### **3.6 Colorimetric**

These are largely based on direct adaptation of APHA standard methods, which use reagents to obtain desired complex ion formation to quantify the concentration at a specific wavelength. They require regular calibration with standard reagents using Beer's Law to maintain their calibrated online status.

### **3.7 UV Absorption**

The measurement principle is based on specific absorption at a specified wavelength in the UV range. They require conventional calibration according to Beer's Law and standard reagents. The major application includes determination of parameters like DO and Turbidity.

#### **3.7.1 UV Vis Absorption Spectroscopy**

This spectrophotometer records light attenuation in the wavelength region between 200 and 750 nm. The measurement is performed in-situ, without sampling or sample pre-treatment, thus preventing errors due to sampling, sample transport and storage etc. A measurement cycle takes between 20 and 60 seconds, making possible a high measuring frequency and detection of rapid changes. In order to combine this high measurement frequency with high accuracy and sensitivity, the instrument is equipped with a Xenon flash lamp as a light source and a concave holographic grating matched with a 256 pixel diode array as detector. For long-term stability of the signal produced, a split light-beam design is used; one beam passes through the sample while the other travels along a parallel pathway inside the instrument and thus acts as an internal reference beam. This second beam is used to cancel

out fluctuations and interferences. These instruments are available for wide range of applications, from ultra pure water (dissolved organics in the  $\mu\text{g/l}$  range) up to concentrated wastewaters (organics and non-dissolved materials in tens of grams /lt range).

The spectra, referred to as fingerprints obtained with such on-line spectrometers are used for the characterization of the sampled water. The fingerprints are used to monitor changes in the water composition through analysis of the general shape of the spectrum or absorption at a specific wavelength. Furthermore, they are also used to derive more specific parameters, such as turbidity, TSS, Color, nitrate, concentration and sum parameters such as COD (chemical oxygen demand), BOD (biochemical oxygen demand) & TOC (total organic carbon) and (dissolved organic carbon) DOC in water analysis.

Turbidity, due to suspended substances, causes light scattering and shading, thus influencing the absorption over the entire fingerprint. This is an important factor that influences in situ measurements and requires compensation in order to obtain reliable and reproducible readings. Furthermore, it is also used to estimate the concentration of single (groups of) substances, such as benzene, phenol, xylene and toluene. The wavelengths used for determining all these parameters have been selected using various analysis. The use of such multi-wavelength algorithms allows higher specificity than can be achieved with conventional single, dual wavelength, Eight wavelengths etc. in UV range photometry.

The methods usually employ patterns recognition techniques (PRT) to quantify the absorption profile and convert it to an equivalent concentration for the particular water quality parameter of interest. Usually these methods do not require sample pre treatment or daily calibration at the monitoring site of interest. They are employed mainly because samples can be analysed with very little or no sample preparation, no chemicals are required, and they have low operational costs. Such methods have been developed for monitoring Chemical Oxygen Demand (COD), Total Organic Carbons (TOC), Biochemical Oxygen Demand (BOD) and Nitrate.

### **3.8 Total Organic Carbon (TOC) Methodology**

The organic carbon in water and wastewater is composed of a variety of organic compounds in various oxidation states. Some of these carbon compounds can be oxidized further by biological or chemical processes, and the biochemical oxygen demand (BOD) and chemical oxygen demand (COD) may be used to characterise these fractions. The presence of organic carbon that does not respond to either the BOD or COD test makes them unsuitable for the measurement of total organic carbon. Total organic carbon (TOC) is a more convenient and direct expression of total organic content than either BOD or COD, but does not provide the same kind of information. If a repeatable empirical relationship is established between TOC and BOD or COD, then TOC can be used to estimate the accompanying BOD or COD. This relationship must be established independently for each set of matrix conditions, such as various points in a treatment process. Unlike BOD or COD, TOC is independent of the oxidation state of the organic matter and does not measure other organically bound elements, such as nitrogen and hydrogen, and inorganics that can contribute to the oxygen demand measured by BOD and COD. TOC measurement does not replace BOD and COD testing.

#### **3.8.1 TOC Analyser Configuration**

Conductivity and Non dispersive infrared (NDIR) are the two common detection methods used in modern TOC analysers.

### 3.8.2 Conductivity based TOC analysers

Direct conductivity provides an all encompassing approach of measuring CO<sub>2</sub>. This detection method uses no carrier gas, is good at the parts per billion (ppb) ranges, but has a very limited analytical range.

Membrane conductivity relies upon the filtering of the CO<sub>2</sub> prior to measuring it with a conductivity cell. Both methods analyse sample conductivity before and after oxidization, attributing this differential measurement to the TOC of the sample.

Conductivity analysis assumes that only CO<sub>2</sub> is present within the solution. As long as this holds true, then the TOC calculation by this differential measurement is valid.

### 3.8.3 Non Dispersive Infrared (NDIR) TOC Analysers

The principal advantage of using NDIR is that it directly and specifically measures the CO<sub>2</sub> generated by oxidation of the organic carbon in the oxidation reactor, rather than relying on a measurement of a secondary, corrected effect, such as used in conductivity measurements.

#### Merits

- The low temperature techniques have the advantage of allowing a large volume of sample to be analysed thereby improving the low limit of detection.
- Also the blank value is very low as long as the reagents are pure, which makes the analysis more accurate

#### Limitations

- Usually the particulates are more difficult to oxidise by nature or organics escape exposure to the reagents by being within the interstitial spaces of the particles.
- High molecular weight compounds such as proteins may be slow to oxidise with the low temperature techniques.

### 3.8.4 Combustion Technique

The combustion technique uses heat at 680°C or higher temperature in a stream of air, oxygen or nitrogen and usually in presence of a catalyst. Dissolved organics and particulate organics are expected to oxidise fully to carbon dioxide under these conditions. The catalysts vary from cupric oxide, cobalt oxide or platinum on an alumina support.

#### Analysis range

The range of TOC measurement varies with oxidation method and detection technique. A combustion/TOD method may measure upto 100% carbon in a sample, whereas the NDIR and conductivity detectors vary in range from as low as 0.5ppb to 25,000 ppm.

### 3.9 Limitations of On-Line Analysers

In spite of the inherent advantages of on-line sensors/monitors, their wide application is still limited due to the following reasons :

- On-line monitoring suffers from more problems than laboratory-based methods because to date, the majority of on-line monitoring technologies developed are direct adaptations of traditional, laboratory-based analytical methods which were not originally designed for field applications. Instead they are required to operate in extreme and variable measurement environments. Consequently, these methods require frequent calibration and maintenance.
  - In addition the analysers are often influenced from cross responses due to matrix variations between the standards and samples analysed, as the measurement conditions are not controlled.
  - Changes in sample matrix affect on-line analysers making it difficult to obtain continuous, reliable measurement in the field.
  - There are also significant economic and logistic costs associated with maintaining remote equipment, as it is difficult for operators to detect problems such as sensor fouling.
  - The problems associated with conventional on-line analysers are due to the fact that univariate linear calibration models derived from Gauss's theory of least squares are employed to determine unknown concentrations. Therefore, the samples and standards must be measured with equal care, under the same measurement conditions, to obtain reproducible and accurate results. Since such consistent measurement conditions are rarely present in the field this affects the operating conditions required for reliable performance and causes a high degree of unreliability in the results from online instrumentation.
  - Due to this reason the users/regulatory authorities need to frequently validate their online results with laboratory based methods.
  - The cost associated with maintenance of these conventional instruments has also greatly limited their wide spread application.
- NOTE : The industry must take full preview of available technologies while product selection and above referred limitations have to be curtailed.

### 3.10 System available

The pH is monitored using electrochemical sensors. High Turbidity interferes in pH measurements besides the values are also impacted by variation in temperature.

The total suspended solids in the effluent are measured using various techniques including scattered light method, UV visible absorption, comparative techniques like Nephelometric, etc.

The standards for industrial discharges as notified in the EP(Act) 1986 and the water Act 1974 specify BOD and COD as the controlling parameter besides other specific parameters. Limited instrumentation for direct monitoring of these parameters i.e. BOD & COD on real time basis is available. The methods available require intensive infrastructure, besides using chemicals in the process which are released/discharged and can be a likely source of pollution. Besides the measurement is in batches, as it may take upto 02 hours to analyze one sample depending upon the concentration.

These are indirect methods available for estimating BOD & COD. The 02 methods most commonly used for estimating BOD & COD in water and waste water samples are:

- 1) Deriving from TOC values and
- 2) Using UV Absorption spectrophotometry

In India TOC is not specified as a control parameter to industries or CETPs/STPs, therefore the values of BOD & COD has to be interpolated from TOC values.

In the first method TOC is measured and based on the laboratory validation as regards to the observed ratio of TOC:BOD & TOC:COD a correlation factor is established. The method of TOC measurement is approved. In the field TOC is monitored online using any of the approved principles i.e. persulfate or heated persulfate oxidation method, high temperature combustion method and assessment made through NDIR technique. Based on repeatable empirical relationship established between TOC, BOD or COD for a specific waste water source accompanying BOD or COD can be estimated from the recorded TOC values. This relationship between TOC:BOD & TOC:COD must be established for each set of matrix condition. Any change in waste water matrix impacts correlation between these pollutants and hence necessitates regular validation of the relationship between these pollutants.

Considering the need of skilled manpower, the requirement of gases and other peripheral requirements beside high O&M cost for operating TOC Analysers, need of an alternative method was felt.

The other method developed and deployed as a surrogate method is based on UV-Visible Spectrophotometry. This UV-Vis spectral absorbance technology has been found to be less labour intensive in comparison. The trade offs in the ability to compensate for the various interferences should be taken into consideration. Some Instrument Suppliers have incorporated features in their system to compensate for the interferences to improve their data quality.

Some of the systems based on UV-Vis spectrophotometry use a single wavelength (i.e 254nm) or few wavelength bands to estimate COD/BOD values. These system have measurement limitations.. The method is suitable for fairly stable water matrix. Turbidity interferes in the measurements of COD and BOD. The measure is an indirect method as absorbance at specified wavelength is measured and correlated with COD & BOD.

Some other systems based on UV Visible Spectrometry use the full spectrum involving measurement of organics over the entire spectrum starting from 200 nm to 750 nm with adaptive ranging capabilities. The system takes care of single bond organics also. Any change in matrix needs recalibration of the system to assess the factor for determination of COD & BOD. Preferred tools such as multi-wavelength dual beam scanning in UV-Visible range with library of industrial matrices in analyser with multi-point local adaptive calibrations help to have matrix change adaption seems better for analyser. The measured values are determined from the spectral data. The calculation is based on methods and characteristics that were achieved from a multitude of measurement and long time analysis and the observation from UV spectra. Thus, correlations vary with the change in waste matrix and these characteristics need to be frequently established in the beginning for better data quality vis-à-vis the actual values monitoring using laboratory technique. Any change in the waste matrix requires revalidation of the characteristics.

Some manufacturers have developed COD Analyser working on the same principle as the Laboratory technique for monitoring of COD. Many other technologies using direct/indirect methods have been introduced for monitoring of BOD & COD.

Based on the discussion held with the instrument manufacturers/their Indian counterparts and the information available in CPCB, list of various technologies available for monitoring of the pollutants as specified in the directions given by CPCB under Section 18(1) (b) of the Water & Air Acts has been compiled and detailed in the table below:

TABLE-1: TECHNOLOGIES AVAILABLE

| Available Technologies                                                            | Parameters Measured              | Applications                                                                                     |
|-----------------------------------------------------------------------------------|----------------------------------|--------------------------------------------------------------------------------------------------|
| UV Spectrophotometry (Single/two/four wavelengths)                                | COD, BOD                         | Fresh Water & Waste Water analysis with constant matrix in water source                          |
| UV-Vis Spectrophotometry 40 wavelength                                            | COD, BOD, TSS                    | Fresh Water & Waste Water analysis with Constant matrix in water source                          |
| UV-Visible Spectrophotometry (Single Beam)                                        | COD, BOD, TSS                    | Fresh Water & Waste Water analysis without interference check and compensation                   |
| UV-Vis Spectrophotometry (Double beam with entire spectrum scanning)              | COD, BOD, TSS                    | Fresh water to Waste water analysis Interference check for color and turbidity and compensation. |
| Combines Combustion Catalytic Oxidation at 680°C and NDIR Method                  | TOC (Co-relation with BOD & COD) | Fresh Water and Waste Water analysis                                                             |
| UV Persulfate NDIR Detector                                                       | TOC (Co-relation with BOD & COD) | Fresh Water & Waste Water analysis                                                               |
| Persulfate Oxidation at 116-130degC NDIR Detector                                 | TOC (Co-relation with BOD & COD) | Fresh Water & Waste Water analysis                                                               |
| Measuring COD using Potassium dichromate( $K_2Cr_2O_7$ ) + Calorimetric           | COD                              | Fresh Water & Waste Water analysis                                                               |
| Electrode /Electrochemical method                                                 | pH                               | Fresh water & Waste Water analysis                                                               |
| Scattered Light Method (IR)                                                       | TSS                              | Fresh water & Waste Water analysis                                                               |
| Nephelometry Method                                                               | TSS                              | Fresh Water & Less turbid water analysis                                                         |
| Colorimetric (645-655nm)                                                          | NH <sub>3</sub>                  | Process stream & Waste Water analysis. Turbidity interference is there which can be overcome     |
| Ion Selective Electrode method With temp correction                               | NH <sub>3</sub>                  | Process stream & Waste Water analysis. Turbidity interference is there which can be overcome.    |
| UV Absorbance or Multiple Wavelength UV Absorbance Spectrophotometers (200-450nm) | NH <sub>3</sub>                  | Process stream & Waste Water analysis. Turbidity interference is there which can be overcome.    |
| Colorimetric method Reaction of Cr-VI with diphenyl carbazide in acid solution    | Chromium                         | Fresh Water & Waste Water analysis.                                                              |

|                                                   |                                          |                                                |
|---------------------------------------------------|------------------------------------------|------------------------------------------------|
| <b>Voltammetry (Anodic Stripping Voltammetry)</b> | <b>Chromium</b>                          | <b>Fresh Water analysis.</b>                   |
| <b>Dual Beam UV-Visible Spectrophotometry</b>     | <b>Chromium Hexavalent and Trivalent</b> | <b>Fresh water &amp; waste water analysis.</b> |
| <b>Voltammetry (Anodic Stripping Voltammetry)</b> | <b>Arsenic</b>                           | <b>Fresh Water analysis.</b>                   |

### 3.11 Assessment of technology

The various Monitoring Technologies presented or informed by the Instrument Manufacturers/their Indian counterpart were recorded and based on the information available efforts made to assess the suitability of the technologies/instrumentations for monitoring the effluent quality in different matrices, keeping into considerations the limitations of the technologies, the varying Indian environmental conditions and also the chemical attributes in the effluent channels of the industries or the water bodies. Issues related to the use of reagents, maintenance required, operating costs, etc., wherever available were also considered. Table 2 compiled based on the information provided by vendors/ Indian counterpart, indicates the suitability of the available technologies/ instrumentation for monitoring different pollutants in varying matrices.

**TABLE 2: SUITABILITY OF TECHNOLOGIES FOR DIFFERENT MATRICES**

| <b>Available Technologies</b>                               | <b>Parameters Measured</b> | <b>Applications</b>                                                | <b>Limitations</b>                                                                                                                                                                                          |
|-------------------------------------------------------------|----------------------------|--------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>UV Spectrophotometry (Single /two /four wavelengths)</b> | <b>COD, BOD</b>            | <b>Fresh Water analysis with constant matrix</b>                   | <b>Suitable for fresh water and not for waste water analysis. Interference of colour &amp; high turbidity. Suitable for stable matrix. Single bond organic compounds are not measured.</b>                  |
| <b>UV-Vis Spectrophotometry 40 wavelength</b>               | <b>COD, BOD, TSS</b>       | <b>Fresh Water &amp; Waste Water analysis with constant matrix</b> | <b>Many organic compounds are unattended due to lesser scanning of UV spectra. Suitable for stable matrix. Any matrix change would require revalidation of factor. Sample pumping limitation.</b>           |
| <b>UV-Visible Spectrophotometry (Single Beam)</b>           | <b>COD, BOD, TSS</b>       | <b>Fresh Water &amp; Waste Water analysis.</b>                     | <b>Interference due to colour &amp; high turbidity affects the analysis. Reference beam compensation not available. Suitable for stable matrix. Any matrix change would require revalidation of factor.</b> |

|                                                                         |                                  |                                       |                                                                                                                                                                                                                                                        |
|-------------------------------------------------------------------------|----------------------------------|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UV-Vis Spectrophotometry (Double beam with entire spectrum scanning)    | COD, BOD, TSS                    | Fresh water to Waste water analysis.  | Interference of colour & turbidity is compensated in visible spectrum.<br>Any matrix change would require revalidation of factor.                                                                                                                      |
| Combines Combustion Catalytic Oxidation at 680°C and NDIR Method        | TOC (Co-relation with BOD & COD) | Fresh Water and Waste Water analysis. | -Carrier gases required<br>-Continuous High power requirement<br>-For Analyser: Infrastructure is required<br>-More than 10-15 minutes sampling frequency.<br>-Only TOC can be measured.<br>-Any matrix change requires fresh correlation to COD & BOD |
| UV Persulfate NDIR Detector                                             | TOC (Co-relation with BOD & COD) | Fresh Water & Waste Water analysis.   | - Carrier gases required<br>- Continuous High power requirement<br>-Analyser: Infrastructure required.<br>-More than 10-15 minutes sampling frequency.<br>-Only TOC can be measured.<br>Any matrix change requires fresh correlation to COD & BOD.     |
| Persulfate Oxidation at 116-130degC NDIR Detector                       | TOC (Co-relation with BOD & COD) | Fresh Water & Waste Water analysis.   | Applicable for moderate polluted effluent.<br>-Carrier gases required<br>-Analyser: Infrastructure required<br>Any matrix change requires fresh correlation to COD & BOD                                                                               |
| Measuring COD using Potassium dichromate( $K_2Cr_2O_7$ ) + Calorimetric | COD                              | Fresh Water & Waste Water analysis.   | Discharge of hazardous chemicals.                                                                                                                                                                                                                      |
| Electrode /Electrochemical method                                       | pH                               | Fresh water & Waste Water analysis.   | --Electrode life                                                                                                                                                                                                                                       |
| Scattered Light Method (IR)                                             | TSS                              | Fresh water & Waste Water analysis.   | ---                                                                                                                                                                                                                                                    |
| Nephelometry Method                                                     | TSS                              | Fresh Water & Less turbid water       | Fresh Water analysis with Low turbidity                                                                                                                                                                                                                |
| Colorimetric (645-655nm)                                                | NH3                              | Fresh Water & Waste Water analysis.   | Turbidity interference is there which can be overcome.                                                                                                                                                                                                 |

|                                                                                   |                                                    |                                     |                                                                                             |
|-----------------------------------------------------------------------------------|----------------------------------------------------|-------------------------------------|---------------------------------------------------------------------------------------------|
|                                                                                   |                                                    |                                     | 3-15 min cycle time                                                                         |
| Ion Selective Electrode method With temp correction                               | NH <sub>3</sub>                                    | Fresh Water & Waste Water analysis. | Interference from Potassium. Requires additional measurement of potassium for compensation. |
| UV Absorbance or Multiple Wavelength UV Absorbance Spectrophotometers (200-450nm) | NH <sub>3</sub>                                    | Fresh Water & Waste Water analysis. | Turbidity interference is there which can be overcome.                                      |
| Colorimetric method Reaction of Cr-VI with diphenyl carbazide in acid solution    | Chromium                                           | Fresh Water & Waste Water analysis. | Experience in Indian condition is not available.                                            |
| Voltammetry (Anodic Stripping Voltammetry)                                        | Chromium                                           | Fresh Water analysis.               | Experience in Indian condition is not available                                             |
| Dual Beam UV-Visible Spectrophotometry                                            | Chromium Hexavalent and Trivalent in full spectrum | Fresh water & waste water analysis. | Experience in Indian condition is not available                                             |
| Voltammetry (Anodic Stripping Voltammetry)                                        | Arsenic                                            | Fresh Water analysis.               | Experience in Indian condition is not available                                             |

### 3.12 Issues with real time monitoring systems

The initial Indian experience of real time monitoring systems has not been very satisfactory. In most of the cases the data obtained is either not reliable or is non-existent, since the systems are neither operated nor maintained properly. The operation of real time system needs dedication and initiation, both from both the Industry as well as the instrument supplier. It has been observed that due priority is not given by the industry to operation of real time monitoring system and at the same time the necessary support from the vendors is also not forthcoming. Effective operation of the real time systems requires appointment of a dedicated person by the industry with responsibility to maintain and operate the system by the Industry and the instrument supplier also considers its responsibility to ensure trouble free operation of the system. It is therefore essential that the responsibility of both the industry as well as the vendor needs to be clearly specified.

## 4.0 Site selection

For online RT EQMS, the location of the sensors is important and submersible In-situ sensors as preferred option. If site does not permit then system with flow cell or extraction may be opted, even though this would have been expected given the issues with sample conditioning which may affect the measurement accuracy sometimes with a significant degree of variability.

The discharge point from ETP has to be selected to fix the insitu sensors or pump to extract the sample for cabinet system. The insitu installation are preferred where sensor can be fixed directly in the treated effluent channel.

#### 4.1 Quantification

Instrument Calibration: The following frequency has to be used for calibration of analyser

- pH – once every week or as specified by manufacturer whichever is earlier
- COD – once every week or as specified by manufacturer whichever is earlier
- BOD – once every week or as specified by manufacturer whichever is earlier
- TSS – once every week or as specified by manufacturer whichever is earlier
- TOC – once every week or as specified by manufacturer whichever is earlier
- Temperature – once every month or as specified by manufacturer whichever is earlier

The software must keep all calibration data points in memory for interpretation of matrix change adaption.

#### 4.2 System Validation

Online instrument operation will be evaluated using the known buffers, traceable standards and laboratory techniques. By validating sensors and probes with known standards such as KHP (potassium hydrogen phthalate) for COD & TOC, Formazin equivalent standard for TSS & pH buffers have to be used to calculate a running variance of the measurements. When the variance is outside of the set points, this can be an indication the monitor requires calibration and service.

#### 4.3 Parameter validation

Each parameter is validated with reference to standard laboratory analysis and known standards.

##### Parameter Accuracy: Allowed Variability

The relative difference between online and laboratory measurements has to be between

- COD Accuracy  $\pm 10\%$
- BOD Accuracy  $\pm 10\%$ .
- pH Accuracy  $\pm 0.2$  pH
- TSS Accuracy  $\pm 10\%$

#### 4.4 Operation & maintenance

- Daily Check – GPS Transmission, System Diagnostic alarms.
- Monthly Check – Sensors & system cleaning, data backup, Parameter Calibration as specified in calibration schedule.
- Periodic Check – System validation with known standards, Laboratory & Online parameters Comparative.

#### 5.0 Reporting

The RT EQMS suppliers have to provide central server at CPCB and SPCB with latest software to view the data in graphical/ tabular format and also to compare the data features. One minute data average must be transmitted/retrieved to servers every 30 minutes. In the

event of transmission loss the time stamped data in the datalogger memory must be transmitted to fill from the last transmission break with a stamp of time delay. The software should have two way communication, so that data from the system can be seen whenever desired and remote of controller/data logger can be taken to visualize the immediate status of the system.

## 5.1 Data Management

Considering the heterogeneity of real time monitoring systems industries are required to submit real time data through their respective instrument suppliers. This mechanism has helped in consolidating the data avoiding the complexity of different technologies and availability of monitored data in different data formats and at the same time involving the instrument suppliers in data transferring mechanism. The system enables two way communication required to manage such real time systems.

The basic functional capabilities of such software systems shall include:-

- The system should be capable of collecting data on real time basis without any human intervention.
- The data generation, data pick up, data transmission; data integration at server end should be automatic.
- The submitted data shall be available to the Boards, SPCBs/PCCs and CPCB for immediate corrective action.
- Raw data should be transmitted simultaneously to SPCBs /PCCs and CPCB.
- In case of delay in collection of data due to any reason, the data transmission should be marked delayed data and reports of delayed data should be displayed on the portal
- At no point of time, manual data handling should be permitted. Data validation should be permitted only through the administrator and data changes recorded with date and time stampings.
- Configurations of the systems once set up (through remote procedure) and verified, should not be changed. In case any setting change is required it should be notified and recorded through the authorized representatives only.
- The data submitted electronically shall be available to the data generator through internet, so that corrective action if any required due to submission of erroneous data can be initiated by the industry.
- The software should be capable to verify the data correctness which means at any given point of time the regulatory authorities/data generator should be able to visualize the current data of any location's specific parameter.

- A system for data validation shall be incorporated in the software with two stage/three stage validation and fixed responsibilities of stakeholders as below;
  - a. **Data Generator:**
  - b. **SPCBs/PCCs:**
  - c. **CPCB:**

CPCB will help in data validation till such time, adequate expertise for data validation is developed in the SPCBs/PCCs,)

- Change Request Management: window for requesting data changes due to actual field conditions shall be provided to the industry in line to SPCB to consider the request or not.
- The site surrounding environmental conditions shall also be recorded along with other environmental parameters, as these have the potential to affect the system adversely and corrupt the data generated.
- System should have capability to depict data at the actual location of industry over the map. CPCB and or SPCBs shall develop a map based system for data integration at a single location.
- The software should be capable of analyzing the data with statistical tools and shall have the following capabilities:
  - i) Statistical data analysis (customizable) for average, min., max., diurnal variation.
  - ii) Comparison of parameters of different locations in user selectable time formats i.e. in graphical and tabular formats compatible to MS Excel, MS Word, \*.txt etc.
  - iii) Capability of comparison of data with respect to standards/threshold values.
  - iv) Auto report and , auto mail generation etc.
  - v) Providing calibration database for further validation/correction of data.
  - vi) Transmitting data to different locations as per EC,CTE/CTO, and other directives in force.
  - vii) Channel configuration for range, units etc.
  - viii) Providing data in export format on continuous basis through central/station computer system to other system.
- Data transmission through different media like GPS, CDMA, Normal phone line, Datacards, Broadband, 3G etc. (at least any two media supported).
- Data Storage for next five years.
- System should be connected to a backup power source with adequate capacity to avoid any power disruption

Considering the large volume of data required to be collated, compiled, processed and interpreted a software system will be developed in future at CPCB in consultation with all SPCBs/PCCs exploring common data format to collect data from different servers to a common server.

#### **6.0 Available monitoring matrices Sector specific**

Considering the technological limitations and issues related to installation, data management and operation of real time systems efforts have been made to prepare a compilation of technologies (Table-3) that can be considered by industries for installation. Table 3.0 also provides approximate cost of installing such systems and communicating data to SPCBs/PCCs & CPCB on real time basis.

**TABLE-3: DETAILS OF PARAMETERS AND FEASIBLE TECHNOLOGIES REQUIRED TO BE INSTALLED FOR REAL TIME CONTINUOUS EFFLUENT MONITORING SYSTEMS IN DIFFERENT CATEGORIES OF INDUSTRIES IN INDIA.**

| Category No. | Category Name | Parameter to be monitored | Available Technologies                                                    | Number of Vendors | Approx. Cost in Rs. Lakhs                                    | Remarks                                        |
|--------------|---------------|---------------------------|---------------------------------------------------------------------------|-------------------|--------------------------------------------------------------|------------------------------------------------|
| 1            | Aluminium     | 1. pH                     | 1. Electrode Method                                                       | >10               | 0.75                                                         |                                                |
|              |               | 2. BOD                    | 1. UV-Vis Spectro-photometry (Entire spectrum scanning)                   | >4                | 16.00 (BOD+COD+TSS)<br>+Controller & DAS & Data Transmission |                                                |
|              |               |                           | 2. Combined Combustion Catalytic Oxidation at 680°C and NDIR Method (TOC) | >4                | 28.00<br>(BOD+COD)<br>+Controller & DAS & Data Transmission  |                                                |
|              |               | 3. COD                    | 1. UV-Vis Spectro-photometry (Entire spectrum scanning)                   | >4                | Combined with BOD                                            |                                                |
|              |               |                           | 2. Combined Combustion Catalytic Oxidation at 680°C and NDIR Method (TOC) | >4                | Combined with BOD                                            |                                                |
|              |               | 4. TSS                    | 1. Scattered light IR Method                                              | >4                | 3.00                                                         |                                                |
|              |               |                           | 2. UV-Vis Spectro-photometry (Single wavelength)                          | >4                | 3.00                                                         |                                                |
|              |               | 5. Flow                   | 1. Magnetic /Ultrasonic                                                   | >4                | 0.75                                                         |                                                |
| 2            | Cement        | Nil                       | --                                                                        | --                | --                                                           | No real time monitoring required for Effluent. |
| 3            | Distillery    | 1. pH                     | 1. Electrode Method                                                       | >10               | 0.75                                                         | In case of unit has                            |

|  |   |                          |                                                                           |                                                                           |                                                              |                                                                                      |
|--|---|--------------------------|---------------------------------------------------------------------------|---------------------------------------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------------------------------|
|  |   | 2. BOD                   | 1. UV-Vis Spectro-photometry (Entire spectrum scanning)                   | >4                                                                        | 16.00 (BOD+COD+TSS)<br>+Controller & DAS & Data Transmission | achieved ZLD condition 1 & 2 of the notes after the table shall have to be complied. |
|  |   |                          | 2. Combined Combustion Catalytic Oxidation at 680°C and NDIR Method (TOC) | >4                                                                        | 28.00<br>(BOD+COD)<br>+Controller & DAS & Data Transmission  |                                                                                      |
|  |   | 3. COD                   | 1. UV-Vis Spectro-photometry (Entire spectrum scanning)                   | >4                                                                        | Combined with BOD                                            |                                                                                      |
|  |   |                          | 2. Combined Combustion Catalytic Oxidation at 680°C and NDIR Method (TOC) | >4                                                                        | Combined with BOD                                            |                                                                                      |
|  |   | 4. TSS                   | 1. Scattered light IR Method                                              | >4                                                                        | 3.00                                                         |                                                                                      |
|  |   |                          | 2. UV-Vis Spectro-photometry (Single wavelength)                          | >4                                                                        | 3.00                                                         |                                                                                      |
|  |   | 5. Flow                  | 1. Magnetic /Ultrasonic                                                   | >4                                                                        | 0.75                                                         |                                                                                      |
|  | 4 | Dye and dye intermediate | 1. pH                                                                     | 1. Electrode Method                                                       | >10                                                          | 0.75                                                                                 |
|  |   |                          | 2. BOD                                                                    | 1. UV-Vis Spectro-photometry (Entire spectrum scanning)                   | 16.00 (BOD+COD+TSS)<br>+Controller & DAS & Data Transmission |                                                                                      |
|  |   |                          |                                                                           | 2. Combined Combustion Catalytic Oxidation at 680°C and NDIR Method(TOC)  | 28.00<br>(BOD+COD)<br>+Controller & DAS & Data Transmission  |                                                                                      |
|  |   |                          | 3. COD                                                                    | 1. UV-Vis Spectro-photometry (Entire spectrum scanning)                   | Combined with BOD                                            |                                                                                      |
|  |   |                          |                                                                           | 2. Combined Combustion Catalytic Oxidation at 680°C and NDIR Method (TOC) | Combined with BOD                                            |                                                                                      |
|  |   |                          | 4. TSS                                                                    | 1. Scattered light IR Method                                              | 3.00                                                         |                                                                                      |

|   |                        |                       |                                                        |     |       |                                                                         |
|---|------------------------|-----------------------|--------------------------------------------------------|-----|-------|-------------------------------------------------------------------------|
|   |                        |                       | 3. UV-Vis Spectro-photometry (Single wavelength)       | >4  | 3.00  | Cr – Process Specific Experience in Indian conditions is not available. |
|   |                        | 5. Cr                 | 1. Colorimetric method                                 | >3  | 12.00 |                                                                         |
|   |                        |                       | 2. UV-Vis Spectroscopy (Entire spectrum scanning)      | >4  | 10.00 |                                                                         |
|   |                        | 3. Flow               | 1. Magnetic /Ultrasonic                                | >4  | 0.75  |                                                                         |
|   |                        | 1. pH                 | 1. Electrode method                                    | >10 | 0.75  |                                                                         |
| 5 | Chlor Alkali           | 2. TSS                | 1. Scattered light IR Method                           | >4  | 3.00  |                                                                         |
|   |                        |                       | 2. UV-Vis Spectrophotometry (Single Wavelength)        | >4  | 3.00  |                                                                         |
|   |                        |                       |                                                        |     |       |                                                                         |
|   |                        |                       |                                                        |     |       |                                                                         |
|   |                        |                       |                                                        |     |       |                                                                         |
| 6 | Fertilizers Urea Plant | 1. pH                 | 1. Electrode Method                                    | >10 | 0.75  |                                                                         |
|   |                        | 2. Ammonical Nitrogen | 1. Ion Selective Electrode method With temp correction | >   | 3.00  |                                                                         |
|   |                        |                       | UV Vis Spectrophotometers (Entire spectrum scanning)   | >4  | 3.00  |                                                                         |
|   |                        | 3. Flow               | 1. Magnetic /Ultrasonic                                | >4  | 0.75  |                                                                         |
|   | Fertilizers (DAP)      | 1. pH                 | 1. Electrode Method                                    | >10 | 0.75  |                                                                         |
|   |                        | 2. Flow               | 1. Magnetic /Ultrasonic                                | >4  | 0.75  |                                                                         |
|   | Fertilizers            | 1. pH                 | 1. Electrode Method                                    | >10 | 0.75  |                                                                         |
|   |                        |                       |                                                        |     |       |                                                                         |

|   |                         |             |                                                                           |     |                                                              |                                                                                                                                          |
|---|-------------------------|-------------|---------------------------------------------------------------------------|-----|--------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
|   | (Phosphoric acid & SSP) | 2. Fluoride | -                                                                         | -   | -                                                            | Fluoride -Since reliable real time monitoring systems are not available, manual monitoring system as practised shall be continued        |
|   |                         | 3. Flow     |                                                                           |     | 0.75                                                         |                                                                                                                                          |
| 7 | Iron Et steel           | 1. pH       | Electrode method                                                          | >10 | 0.75                                                         | Cynide & Phenol -Since reliable real time monitoring systems are not available, manual monitoring system as practised shall be continued |
|   |                         | 2. Phenol   | -                                                                         | -   | -                                                            |                                                                                                                                          |
|   |                         | 3. Cynide   | -                                                                         | -   | -                                                            |                                                                                                                                          |
|   |                         | 4. Flow     | 1. Magnetic /Ultrasonic                                                   | >4  | 0.75                                                         |                                                                                                                                          |
| 8 | Oil refinery            | 1. pH       | 1. Electrode Method                                                       | >10 | 0.75                                                         |                                                                                                                                          |
|   |                         | 2. BOD      | 1. UV-Vis Spectro-photometry (Entire spectrum scanning)                   | >4  | 16.00 (BOD+COD+TSS)<br>+Controller & DAS & Data Transmission |                                                                                                                                          |
|   |                         |             | 2. Combined Combustion Catalytic Oxidation at 680°C and NDIR Method (TOC) | >4  | 28.00<br>(BOD+COD)<br>+Controller & DAS & Data Transmission  |                                                                                                                                          |
|   |                         | 3. COD      | 1. UV-Vis Spectro-photometry (Entire spectrum scanning)                   | >4  | Combined with BOD                                            |                                                                                                                                          |
|   |                         |             | 2. Combined Combustion Catalytic Oxidation at 680°C and NDIR Method (TOC) | >4  | Combined with BOD                                            |                                                                                                                                          |
|   |                         | 4. TSS      | 1. Scattered light IR Method                                              | >4  | 3.00                                                         |                                                                                                                                          |
|   |                         |             | 2. UV-Vis Spectro-photometry (Single                                      | >4  | 3.00                                                         |                                                                                                                                          |

|    |                 |         |                                                                           |     |                                                              |  |
|----|-----------------|---------|---------------------------------------------------------------------------|-----|--------------------------------------------------------------|--|
|    |                 |         | wavelength)                                                               |     |                                                              |  |
|    |                 | 5. Flow | 1. Magnetic /Ultrasonic                                                   | >4  | 0.75                                                         |  |
| 9  | Petro-chemicals | 1. pH   | 1. Electrode Method                                                       | >10 | 0.75                                                         |  |
|    |                 | 2. BOD  | 1. UV-Vis Spectro-photometry (Entire spectrum scanning)                   | >4  | 16.00 (BOD+COD+TSS)<br>+Controller & DAS & Data Transmission |  |
|    |                 |         | 2. Combined Combustion Catalytic Oxidation at 680°C and NDIR Method (TOC) | >4  | 28.00<br>(BOD+COD)<br>+Controller & DAS & Data Transmission  |  |
|    |                 | 3. COD  | 1. UV-Vis Spectro-photometry (Entire spectrum scanning)                   | >4  | Combined with BOD                                            |  |
|    |                 |         | 2. Combined Combustion Catalytic Oxidation at 680°C and NDIR Method (TOC) | >4  | Combined with BOD                                            |  |
|    |                 | 4. TSS  | 1. Scattered light IR Method                                              | >4  | 3.00                                                         |  |
|    |                 |         | 2. UV-Vis Spectro-photometry (Single wavelength)                          | >4  | 3.00                                                         |  |
|    |                 | 5. Flow | 1. Magnetic /Ultrasonic                                                   | >4  | 0.75                                                         |  |
| 10 | Pesticides      | 1. pH   | 1. Electrode Method                                                       | >10 | 0.75                                                         |  |
|    |                 | 2. BOD  | 1. UV-Vis Spectro-photometry (Entire spectrum scanning)                   | >4  | 16.00 (BOD+COD+TSS)<br>+Controller & DAS & Data Transmission |  |
|    |                 |         | 2. Combined Combustion Catalytic Oxidation at 680°C and NDIR Method (TOC) | >4  | 28.00<br>(BOD+COD)<br>+Controller & DAS & Data Transmission  |  |
|    |                 | 3. COD  | 1. UV-Vis Spectro-photometry (Entire spectrum scanning)                   | >4  | Combined with BOD                                            |  |
|    |                 |         | 2. Combined Combustion Catalytic Oxidation at 680°C and NDIR Method       | >4  | Combined with BOD                                            |  |

|    |                     |             |                                                                           |     |                                                              |                                                                              |
|----|---------------------|-------------|---------------------------------------------------------------------------|-----|--------------------------------------------------------------|------------------------------------------------------------------------------|
|    |                     |             | (TOC)                                                                     |     |                                                              |                                                                              |
|    |                     | 4. TSS      | 1. Scattered light IR Method                                              | >4  | 3.00                                                         |                                                                              |
|    |                     |             | 2. UV-Vis Spectro-photometry (Single wavelength)                          | >4  | 3.00                                                         |                                                                              |
|    |                     | 6. Chromium | 1. Colorimetric method                                                    | >3  | 12.00                                                        | Chromium&Arsenic–<br>Experience in Indian<br>conditions is not<br>available. |
|    |                     |             | 2. UV-Vis Spectroscopy (Entire spectrum scanning)                         | >4  | 10.00                                                        |                                                                              |
|    |                     | 5. Arsenic  | 1. Voltammetry                                                            | >2  | 20.00                                                        |                                                                              |
|    |                     | 6. Flow     | 1. Magnetic /Ultrasonic                                                   | >4  | 0.75                                                         |                                                                              |
| 11 | Pharmaceu<br>ticals | 1. pH       | 1. Electrode Method                                                       | >10 | 0.75                                                         |                                                                              |
|    |                     | 2. BOD      | 1. UV-Vis Spectro-photometry (Entire spectrum scanning)                   | >4  | 16.00 (BOD+COD+TSS)<br>+Controller & DAS & Data Transmission |                                                                              |
|    |                     |             | 2. Combined Combustion Catalytic Oxidation at 680°C and NDIR Method (TOC) | >4  | 28.00<br>(BOD+COD)<br>+Controller & DAS & Data Transmission  |                                                                              |
|    |                     | 3. COD      | 1. UV-Vis Spectro-photometry (Entire spectrum scanning)                   | >4  | Combined with BOD                                            |                                                                              |
|    |                     |             | 2. Combined Combustion Catalytic Oxidation at 680°C and NDIR Method (TOC) | >4  | Combined with BOD                                            |                                                                              |
|    |                     | 4. TSS      | 1. Scattered light IR Method                                              | >4  | 3.00                                                         |                                                                              |
|    |                     |             | 2. UV-Vis Spectro-photometry (Single wavelength)                          | >4  | 3.00                                                         |                                                                              |
|    |                     | 5. Chromium | 2. Colorimetric method                                                    | >3  | 12.00                                                        | Chromium&Arsenic–<br>Experience in Indian<br>Conditions is not               |
|    |                     |             | 2. UV-Vis Spectroscopy (Entire                                            | >4  | 10.00                                                        |                                                                              |

|    |              |                |                                                                           |     |                                                              |                                                                                                                                           |
|----|--------------|----------------|---------------------------------------------------------------------------|-----|--------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
|    |              |                | spectrum scanning)                                                        |     |                                                              | available.                                                                                                                                |
|    |              | 6. Arsenic     | 1. Voltammetry                                                            | >2  | 20.00                                                        |                                                                                                                                           |
|    |              | 7.             | 1. Magnetic /Ultrasonic                                                   | >4  | 0.75                                                         |                                                                                                                                           |
| 12 | Power Plants | 1. pH          | 1. Electrode Method                                                       | >10 | 0.75                                                         |                                                                                                                                           |
|    |              | 2. TSS         | 1. Scattered light IR Method                                              | >4  | 3.00                                                         |                                                                                                                                           |
|    |              |                | 2. UV-Vis Spectro-photometry (Single wavelength)                          | >4  | 3.00                                                         |                                                                                                                                           |
|    |              | 3. Temperature | 1. Electrode Methods                                                      | >10 | 0.75                                                         |                                                                                                                                           |
| 13 | Pulp & Paper | 1. pH          | 1. Electrode Method                                                       | >10 | 0.75                                                         |                                                                                                                                           |
|    |              | 2. BOD         | 1. UV-Vis Spectro-photometry (Entire spectrum scanning)                   | >4  | 16.00 (BOD+COD+TSS)<br>+Controller & DAS & Data Transmission |                                                                                                                                           |
|    |              |                | 2. Combined Combustion Catalytic Oxidation at 680°C and NDIR Method (TOC) | >4  | 28.00<br>(BOD+COD)<br>+Controller & DAS & Data Transmission  |                                                                                                                                           |
|    |              | 3. COD         | 1. UV-Vis Spectro-photometry (Entire spectrum scanning)                   | >4  | Combined with BOD                                            |                                                                                                                                           |
|    |              |                | 2. Combined Combustion Catalytic Oxidation at 680°C and NDIR Method (TOC) | >4  | Combined with BOD                                            |                                                                                                                                           |
|    |              | 4. AOx         | 1. UV-Vis Spectrophotometry                                               | >1  | 20.00                                                        | AOx – Process Specific. Some vendors claim that AOx can be monitored on real time basis. But there is no experience in Indian conditions. |

|    |         |         |                                                                           |     |                                                              |  |
|----|---------|---------|---------------------------------------------------------------------------|-----|--------------------------------------------------------------|--|
| 14 | Sugar   | 5. TSS  | 1. Scattered light IR Method                                              | >4  | 3.00                                                         |  |
|    |         |         | 2. UV-Vis Spectro-photometry (Single wavelength)                          | >4  | 3.00                                                         |  |
|    |         | 6. Flow | 1. Magnetic /Ultrasonic                                                   | >4  | 0.75                                                         |  |
|    |         | 1. pH   | 1. Electrode Method                                                       | >10 | 0.75                                                         |  |
|    |         | 2. BOD  | 1. UV-Vis Spectro-photometry (Entire spectrum scanning)                   | >4  | 16.00 (BOD+COD+TSS)<br>+Controller & DAS & Data Transmission |  |
|    |         |         | 2. Combined Combustion Catalytic Oxidation at 680°C and NDIR Method (TOC) | >4  | 28.00<br>(BOD+COD)<br>+Controller & DAS & Data Transmission  |  |
|    |         | 3. COD  | 1. UV-Vis Spectro-photometry (Entire spectrum scanning)                   | >4  | Combined with BOD                                            |  |
|    |         |         | 2. Combined Combustion Catalytic Oxidation at 680°C and NDIR Method (TOC) | >4  | Combined with BOD                                            |  |
|    |         | 4. TSS  | 1. Scattered light IR Method                                              | >4  | 3.00                                                         |  |
|    |         |         | 2. UV-Vis Spectro-photometry (Single wavelength)                          | >4  | 3.00                                                         |  |
| 15 | Tannery | 5. Flow | 1. Magnetic /Ultrasonic                                                   | >4  | 0.75                                                         |  |
|    |         | 1. pH   | 1. Electrode Method                                                       | >10 | 0.75                                                         |  |
|    |         | 2. BOD  | 1. UV-Vis Spectro-photometry (Entire spectrum scanning)                   | >4  | 16.00 (BOD+COD+TSS)<br>+Controller & DAS & Data Transmission |  |
|    |         |         | 2. Combined Combustion Catalytic Oxidation at 680°C and NDIR Method (TOC) | >4  | 28.00<br>(BOD+COD)<br>+Controller & DAS & Data Transmission  |  |
|    |         | 3. COD  | 1. UV-Vis Spectro-photometry (Entire spectrum scanning)                   | >4  | Combined with BOD                                            |  |

|    |                             |         |                                                                           |     |                                                          |                                                                         |
|----|-----------------------------|---------|---------------------------------------------------------------------------|-----|----------------------------------------------------------|-------------------------------------------------------------------------|
|    |                             |         | 2. Combined Combustion Catalytic Oxidation at 680°C and NDIR Method (TOC) | >4  | Combined with BOD                                        |                                                                         |
|    |                             | 4. TSS  | 1. Scattered light IR Method                                              | >4  | 3.00                                                     |                                                                         |
|    |                             |         | 2. UV-Vis Spectro-photometry (Single wavelength)                          | >4  | 3.00                                                     |                                                                         |
|    |                             | 5. Cr   | 1. Colorimetric method                                                    | >3  | 12.00                                                    | Cr – Process Specific Experience in Indian conditions is not available. |
|    |                             |         | 2. UV-Vis Spectroscopy (Entire spectrum scanning)                         | >4  | 10.00                                                    |                                                                         |
|    |                             | 6. Flow | 1. Magnetic /Ultrasonic                                                   | >4  | 0.75                                                     |                                                                         |
| 16 | Zinc                        | 1. pH   | 1. Electrode Method                                                       | >10 | 0.75                                                     |                                                                         |
|    |                             | 2. TSS  | 1. Scattered light IR Method                                              | >4  | 3.00                                                     |                                                                         |
|    |                             |         | 2. UV-Vis Spectro-photometry (Single wavelength)                          | >4  | 3.00                                                     |                                                                         |
|    |                             | 3. Flow |                                                                           |     | 0.75                                                     |                                                                         |
| 17 | Copper                      | 1. pH   | 1. Electrode Method                                                       | >10 | 0.75                                                     |                                                                         |
|    |                             | 2. TSS  | 1. Scattered light IR Method                                              | >4  | 3.00                                                     |                                                                         |
|    |                             |         | 2. UV-Vis Spectro-photometry (Single wavelength)                          | >4  | 3.00                                                     |                                                                         |
|    |                             | 3. Flow | 1. Magnetic /Ultrasonic                                                   | >4  | 0.75                                                     |                                                                         |
| 18 | Textile and Bleaching (GPI) | 1. pH   | 1. Electrode Method                                                       | >10 | 0.75                                                     |                                                                         |
|    |                             | 2. COD  | 1. UV-Vis Spectro-photometry (Entire spectrum scanning)                   | >4  | 12.00 (COD+TSS)<br>+Controller & DAS & Data Transmission |                                                                         |
|    |                             |         | 2. Combined Combustion Catalytic Oxidation at 680°C and NDIR Method       | >4  | 24.00 (COD)                                              |                                                                         |

|    |                       |         |                                                                           |     |                                                              |  |
|----|-----------------------|---------|---------------------------------------------------------------------------|-----|--------------------------------------------------------------|--|
|    |                       |         | (TOC)                                                                     |     | +Controller & DAS & Data Transmission                        |  |
|    |                       | 3. TSS  | 1. Scattered light IR Method                                              | >4  | 3.00                                                         |  |
|    |                       |         | 2. UV-Vis Spectro-photometry (Single wavelength)                          | >4  | 3.00                                                         |  |
|    |                       | 4. Flow | 1. Magnetic /Ultrasonic                                                   | >4  | 0.75                                                         |  |
| 19 | Dairy (GPI)           | 1. pH   | 1. Electrode Method                                                       | >10 | 0.75                                                         |  |
|    |                       | 2. BOD  | 1. UV-Vis Spectro-photometry (Entire spectrum scanning)                   | >4  | 16.00 (BOD+COD+TSS)<br>+Controller & DAS & Data Transmission |  |
|    |                       |         | 2. Combined Combustion Catalytic Oxidation at 680°C and NDIR Method (TOC) | >4  | 28.00 (BOD+COD)<br>+Controller & DAS & Data Transmission     |  |
|    |                       | 3. COD  | 1. UV-Vis Spectro-photometry (Entire spectrum scanning)                   | >4  | Combined with BOD                                            |  |
|    |                       |         | 2. Combined Combustion Catalytic Oxidation at 680°C and NDIR Method (TOC) | >4  | Combined with BOD                                            |  |
|    |                       | 4. TSS  | 1. Scattered light IR Method                                              | >4  | 3.00                                                         |  |
|    |                       |         | 2. UV-Vis Spectro-photometry (Single wavelength)                          | >4  | 3.00                                                         |  |
|    |                       | 5. Flow | 1. Magnetic /Ultrasonic                                                   | >4  | 0.75                                                         |  |
| 20 | Slaughter House (GPI) | 1. pH   | 1. Electrode Method                                                       | >10 | 0.75                                                         |  |
|    |                       | 2. BOD  | 1. UV-Vis Spectro-photometry (Entire spectrum scanning)                   | >4  | 16.00 (BOD+COD+TSS)<br>+Controller & DAS & Data Transmission |  |
|    |                       |         | 2. Combined Combustion Catalytic Oxidation at 680°C and NDIR Method (TOC) | >4  | 28.00 (BOD+COD)<br>+Controller & DAS & Data Transmission     |  |

|    |                                             |         |                                                                           |     |                                                              |                                                                             |
|----|---------------------------------------------|---------|---------------------------------------------------------------------------|-----|--------------------------------------------------------------|-----------------------------------------------------------------------------|
| 21 | Other Engineering units like Electroplating | 3. COD  | 1. UV-Vis Spectro-photometry (Entire spectrum scanning)                   | >4  | Combined with BOD                                            |                                                                             |
|    |                                             |         | 2. Combined Combustion Catalytic Oxidation at 680°C and NDIR Method (TOC) | >4  | Combined with BOD                                            |                                                                             |
|    |                                             | 4. TSS  | 1. Scattered light IR Method                                              | >4  | 3.00                                                         |                                                                             |
|    |                                             |         | 2. UV-Vis Spectro-photometry (Single wavelength)                          | >4  | 3.00                                                         |                                                                             |
|    |                                             | 5. Flow | 1. Magnetic /Ultrasonic                                                   | >4  | 0.75                                                         |                                                                             |
|    |                                             | 1. pH   | 1. Electrode Method                                                       | >10 | 0.75                                                         |                                                                             |
|    |                                             | 2. COD  | 1. UV-Vis Spectro-photometry (Entire spectrum scanning)                   | >4  | 12.00 (COD+TSS)<br>+Controller & DAS & Data Transmission     |                                                                             |
|    |                                             |         | 2. Combined Combustion Catalytic Oxidation at 680°C and NDIR Method (TOC) | >4  | 24.00 (COD)<br>+Controller & DAS & Data Transmission         |                                                                             |
|    |                                             | 3. TSS  | 1. Scattered light IR Method                                              | >4  | 3.00                                                         |                                                                             |
|    |                                             |         | 2. UV-Vis Spectro-photometry (Single wavelength)                          | >4  | 3.00                                                         |                                                                             |
|    |                                             | Ni      | 1. Voltametry                                                             | >1  | 20.00                                                        | Ni, Cr – Process Specific Experience in Indian conditions is not available. |
|    |                                             | Cr      | 1. Colorimetric method                                                    | >3  | 12.00                                                        |                                                                             |
|    |                                             |         | 2. UV-Vis Spectroscopy (Entire spectrum scanning)                         | >4  | 10.00                                                        |                                                                             |
| 22 | Other units of Soft Drinks and              | 3. Flow | 1. Magnetic /Ultrasonic                                                   | >4  | 0.75                                                         |                                                                             |
|    |                                             | 1. pH   | 1. Electrode Method                                                       | >10 | 0.75                                                         |                                                                             |
|    |                                             | 2. BOD  | 1. UV-Vis Spectro-photometry (Entire spectrum scanning)                   | >4  | 16.00 (BOD+COD+TSS)<br>+Controller & DAS & Data Transmission |                                                                             |

|  |      |         |                                                                           |    |                                                             |  |
|--|------|---------|---------------------------------------------------------------------------|----|-------------------------------------------------------------|--|
|  | Food |         | 2. Combined Combustion Catalytic Oxidation at 680°C and NDIR Method (TOC) | >4 | 28.00<br>(BOD+COD)<br>+Controller & DAS & Data Transmission |  |
|  |      | 3. COD  | 1. UV-Vis Spectro-photometry (Entire spectrum scanning)                   | >4 | Combined with BOD                                           |  |
|  |      |         | 2. Combined Combustion Catalytic Oxidation at 680°C and NDIR Method (TOC) | >4 | Combined with BOD                                           |  |
|  |      | 4. TSS  | 1. Scattered light IR Method                                              | >4 | 3.00                                                        |  |
|  |      |         | 2. UV-Vis Spectro-photometry (Single wavelength)                          | >4 | 3.00                                                        |  |
|  |      | 5. Flow | 1. Magnetic /Ultrasonic                                                   | >4 | 0.75                                                        |  |

## Notes:-

1. Industries claiming Zero discharge and not discharging effluent outside the premises will have to install Camera and flow meter in the channel / drain provided for carrying the effluent from within the industry premises.
2. For industries achieving Zero Liquid Discharge by utilizing effluent for irrigation/gardening will have to install Real time monitoring systems.
3. In case of parameters specified in Consent to Operate/Environmental Clearance and where real time monitoring technology is not well established, the parameters will be analysed using established laboratory methods atleast once in three months or as per the frequency specified in Consent to Operate/EC whichever is more.
4. The table/matrix will be updated in April, 2015, incorporating any new technology/instrumentation.

## 7.0 Observations

Online analyzers are a better tool to extend in-time information on compliance of ETP and CETP to the prescribed norms to regulator. The real time measurement for important parameters will give detail information continuously which laboratory instruments fail to give as random once in a month or quarter information is too less to understand discharge compliance.

## 8.0 Conclusions

1. The industries falling in 17 category of highly polluting industries, the grossly polluting industries discharging directly/indirectly into river Ganga or its tributaries, Common Effluent Treatment Plants (CETP) and Sewage Treatment Plants (STPs), Common Bio Medical waste and Common Hazardous waste incinerators have to install real time effluent quality monitoring system. The installation of the system should be completed by March 31,2015.
2. The parameter i.e. Flow, pH, TSS, COD, BOD, and Ammonia will be monitored by installing Real Time Monitoring Systems. Other parameters specified in the consent to operate/Environmental Clearance will be monitored on quarterly basis using the established laboratory methods.
3. In case of industries having adopted Zero Liquid Discharge (ZLD) the units shall install IP camera with PAN, TILT Zoom, 5x or above focal length, with night vision capability and flow meters in the channel/drain provided for carrying the effluent from within the premises of the unit.
4. The industries meeting ZLD norms by utilizing the treated effluent for irrigation shall install real time monitoring system at the outlet of ETP, to monitor the quality of treated effluent.
5. As the data from real time systems is monitored at very short duration, regular fluctuation will be observed 10% exceedence of values over the prescribed norm shall not be considered for action presently. In case of regular noncompliance by the units the existing method of sampling, analysis and related procedure under the existing norms need to be continued for regulatory purpose and for purpose of actions against the unit.
6. The software will give alarm, in case of the concentration of parameter exceeds the prescribed norms by 10% continuously.
7. The responsibility of data submission lies with the Individual units. The instrument supplier will facilitate data transmission on behalf of industries. Industry will ensure at least 85% data availability from the system installed.
8. The vendors/instrument supplier shall install their server in SPCB/PCCs and CPCB for transferring data from the real time system.
9. CPCB in consultation with SPCBs/PCCs shall explore the possibility to identify a common protocol, so that the data from the real time systems can be transferred directly to the server installed by SPCBs/PCCs and CPCB in a compatible form.
10. The vendor/instrument supplier shall make provisions to provide data continuously at least 04 locations in SPCBs/PCCs, RO/DO of CPCB, and industry directly from the analyzers.
11. In case of system requiring pumping of samples, the instrument supplier/vendors has to ensure that dilution of sample is not possible and in case of any dilution, the system gives alarm.
12. The SPCBs/PCCs will identify a team of officials for plausibility control of data received. The team members will be responsible for validating, interpreting and interpolation of data on daily basis.

13. The vendor /instrument supplier will regularly cross check the data obtained from real time system with that of the samples collected manually and analyzed using approved laboratory techniques and revalidate the factor for interpolation/extrapolation of COD/BOD values essential for generating better quality data. The industry will take responsibility of establishing co-relation factor.
14. The industries shall ensure that the monitoring systems are covered under Comprehensive Maintenance Contract with the vendors/ authorized Indian service partners of the instrument manufacturer for atleast during the next 05 years after the installation.
15. The authorized Indian service partner/instrument manufacturer shall ensure that any problem in monitoring system/data acquisition and transfer system does not persist beyond 72 hours.
16. The vendors/instrument manufacturers shall ensure availability of spare parts for at least 07 years after installation of the system.
17. The industry should take Bank Guaranty (BG) equivalent to 25% of the cost of the Real Time Monitoring Systems from the manufacturer of the system or its authorised Indian counterpart. The BG is taken to ensure optimal performance of the system including 85% data captive rates, providing reliable & accurate data.
18. As nearly all the RTEQMS are manufactured abroad, the Indian Bidder has to provide copy of the authorization from the original instrument manufacturer for bidding on his behalf
19. Role of manufacturers/supplier authorised Indian Service Partner:
  - o Supply and install equipment suitable to monitor the effluent quality in the available matrix
  - o Supply all the supporting equipment, analysers and software
  - o Supply equipment/instruments capable of monitoring/measuring the parameters identified in the range of occurrence in the industrial unit
  - o Supplied software should establish two way communication sending diagnostics of instruments on demand, with central servers at SPCBs/PCCs and CPCB
  - o The software should be capable of transmitting the data along with diagnostics of the instrument

Note : Efforts have been made to include all available monitoring technologies /instrumentation in the document. In case any technology /instrumentation is not covered or is introduced subsequently the details be forwarded to CPCB, so that the same can be incorporated while reviewing this document after a few months.

## Tax Invoice

## Next Engineering

211, Satayam Complex,  
Opp. JBR Arcade, Science City Road,  
Ahmedabad - 380060  
E-Mail : info@nextengineering.in

Invoice No.  
**2017-18/0017**  
Delivery Note  
**28**  
Supplier's Ref.

Dated  
**5-May-2017**  
Mode/Terms of Payment  
**100% Advance Against Material**  
Other Reference(s)

## Buyer

## Naroda Enviro Projects Ltd

Plot No-512-515,, Phase-1, Opp-GIDC Post Office,,  
GIDC Naroda,, Ahmedabad-382330., Co.Person :  
Mr.Vijaybhai, Co.No.9543571777  
PAN/IT No

Buyer's Order No.  
**Verbal**  
Despatch Document No.  
Despatched through  
**By Hand**  
Terms of Delivery  
**2 Weeks**

Dated  
**5-May-2017**  
Delivery Note Date  
**5-May-2017**  
Destination  
**Naroda**

| Sl No. | Description of Goods                                                                                                                                                                                                                                                                                                                                                                                              | Quantity | Rate         | per  | Amount       |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------|------|--------------|
| 1      | <b>Online COD, BOD, TSS &amp; PH Analyzer</b><br>Data Transfer to CPCB and GPCB<br>1) DIQ/S 284-CR6 (Multi Controller)<br>2) Sensolyte® 700 IQ/SET (Online PH Sensor)<br>3) CarboVis 701 IQ TS (Online COD BOD TSS TOC Sensor)<br>4) ST-2 (Validation Standard)<br>5) VIS/CS (Cleaning Kit)<br>6) SASIQ-15,0 (15m Sensor Cable for Carbovis and Sensolyte)<br>7) Cleaning Air Box-230 VAC (External Air Cleaning) | 1 Unit   | 15,00,000.00 | Unit | 15,00,000.00 |
|        | <b>Output Vat 4%</b>                                                                                                                                                                                                                                                                                                                                                                                              |          | 4 %          |      | 60,000.00    |

continued ...

This is a Computer Generated Invoice

## Tax Invoice(Page 2)

## Next Engineering

211, Satayam Complex,  
Opp. JBR Arcade, Science City Road,  
Ahmedabad - 380060  
E-Mail : info@nextengineering.in

Invoice No.

2017-18/0017

Delivery Note

28

Supplier's Ref.

Dated

5-May-2017

Mode/Terms of Payment

100% Advance Against Material

Other Reference(s)

Buyer

Naroda Enviro Projects Ltd

Plot No-512-515,, Phase-1, Opp-GIDC Post Office,,  
GIDC Naroda,, Ahmedabad-382330., Co.Person :  
Mr. Vijaybhai, Co.No.9543571777  
PAN/IT No

Buyer's Order No.

Verbal

Despatch Document No.

Dated

5-May-2017

Delivery Note Date

5-May-2017

Despatched through

By Hand

Terms of Delivery

2 Weeks

Destination

Naroda

| SI<br>No. | Description of Goods | Quantity | Rate | per | Amount    |
|-----------|----------------------|----------|------|-----|-----------|
|           | Add Output Vat 1%    |          |      | 1 % | 15,000.00 |

Total 1 Unit

₹ 15,75,000.00

E &amp; O.E

Amount Chargeable (in words)

INR Fifteen Lakh Seventy Five Thousand Only

Company's PAN : AAJFN5991N

Declaration

We declare that this invoice shows the actual price of the  
goods described and that all particulars are true and  
correct.

Customer's Seal and Signature

for Next Engineering

Authorised Signatory

This is a Computer Generated Invoice



Megha Jani &lt;adv.megha.jani@gmail.com&gt;

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**Fwd: Online Monitoring Reports**

---

**Naroda Enviro** <narodaenviro@gmail.com>

Tue, Oct 6, 2020 at 3:01 PM

To: adv.megha.jani@gmail.com

Cc: \* &lt;spatwari.18@gmail.com&gt;

----- Forwarded message -----

From: **Jaydeep Gohil** <jaydeep@nextengineering.in>

Date: Fri, Oct 2, 2020 at 4:03 PM

Subject: Online Monitoring Reports

To: &lt;spatwari.18@gmail.com&gt;

Cc: &lt;narodaenviro@gmail.com&gt;, Varun Patel &lt;varun@nextengineering.in&gt;

Dear Sir,

As required from your side , please refer to the attached online COD BOD TSS 7 pH data Report till date.

--

If you have any query please feel free to contact us.

Regards,

**Jaydeep Gohil**

Sr. Manager - Tech

**Nexteng Enviro Private Limited**

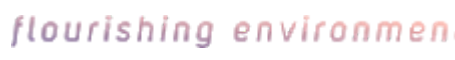
"Formally known as a Next Engineering"

1203 I Square Corporate Park, At Sukan Mall Cross Road, Science City, Ahmedabad - 380060

Mobile : +91-9033731196 | Office : +91-9998974240.

Mail : [jaydeep@nextengineering.in](mailto:jaydeep@nextengineering.in) | Web : [www.nextengineering.in](http://www.nextengineering.in)

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**3 attachments** **image001.png**  
9K **image002.png**  
8K **Parameter Report\_02 Oct 2020 09\_56.pdf**  
13477K

**ANNEXURE R-9****121 1064**

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 5217  | 2017-07-09 21:30:00:000 | 75.99                 | 490.17                | 73.31                 | 35.85                       | 7.39               |
| 5218  | 2017-07-09 21:45:00:000 | 70.57                 | 458.92                | 68.25                 | 35.84                       | 7.31               |
| 5219  | 2017-07-09 22:00:00:000 | 61.64                 | 424.25                | 58.78                 | 35.83                       | 7.26               |
| 5220  | 2017-07-09 22:15:00:000 | 59.45                 | 384.88                | 57.94                 | 35.83                       | 7.22               |
| 5221  | 2017-07-09 22:30:00:000 | 57.5                  | 372.83                | 57.0                  | 35.84                       | 7.2                |
| 5222  | 2017-07-09 22:45:00:000 | 56.02                 | 363.75                | 55.13                 | 35.97                       | 7.42               |
| 5223  | 2017-07-09 23:00:00:000 | 56.02                 | 359.75                | 54.28                 | 36.06                       | 7.68               |
| 5224  | 2017-07-09 23:15:00:000 | 57.34                 | 367.75                | 56.53                 | 36.02                       | 7.68               |
| 5225  | 2017-07-09 23:30:00:000 | 63.75                 | 403.25                | 62.44                 | 35.94                       | 7.69               |
| 5226  | 2017-07-09 23:45:00:000 | 66.04                 | 419.92                | 65.72                 | 35.9                        | 7.69               |
| 5227  | 2017-07-10 00:00:00:000 | 65.99                 | 429.5                 | 64.13                 | 35.88                       | 7.69               |
| 5228  | 2017-07-10 00:15:00:000 | 71.09                 | 452.17                | 69.75                 | 35.87                       | 7.7                |
| 5229  | 2017-07-10 00:30:00:000 | 73.12                 | 468.38                | 72.0                  | 35.85                       | 7.7                |
| 5230  | 2017-07-10 00:45:00:000 | 74.06                 | 472.58                | 72.47                 | 35.85                       | 7.71               |
| 5231  | 2017-07-10 01:00:00:000 | 69.3                  | 462.37                | 66.52                 | 35.86                       | 7.71               |
| 5232  | 2017-07-10 01:15:00:000 | 74.01                 | 471.25                | 72.94                 | 35.85                       | 7.71               |
| 5233  | 2017-07-10 01:30:00:000 | 74.84                 | 479.83                | 73.41                 | 35.84                       | 7.72               |
| 5234  | 2017-07-10 01:45:00:000 | 74.84                 | 481.58                | 73.41                 | 35.84                       | 7.72               |
| 5235  | 2017-07-10 02:00:00:000 | 72.6                  | 472.08                | 70.88                 | 35.86                       | 7.71               |
| 5236  | 2017-07-10 02:15:00:    | 74.06                 | 474.83                | 73.41                 | 35.86                       | 7.7                |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 5237  | 2017-07-10 02:30:00:000 | 74.06                 | 476.5                 | 73.41                 | 35.86                       | 7.7                |
| 5238  | 2017-07-10 02:45:00:000 | 74.32                 | 477.17                | 73.41                 | 35.85                       | 7.7                |
| 5239  | 2017-07-10 03:00:00:000 | 70.36                 | 463.58                | 67.78                 | 35.86                       | 7.71               |
| 5240  | 2017-07-10 03:15:00:000 | 73.75                 | 472.08                | 72.94                 | 35.87                       | 7.71               |
| 5241  | 2017-07-10 03:30:00:000 | 74.84                 | 478.92                | 73.41                 | 35.86                       | 7.71               |
| 5242  | 2017-07-10 03:45:00:000 | 74.84                 | 480.75                | 73.41                 | 35.86                       | 7.72               |
| 5243  | 2017-07-10 04:00:00:000 | 70.89                 | 467.17                | 69.37                 | 35.85                       | 7.72               |
| 5244  | 2017-07-10 04:15:00:000 | 74.9                  | 477.58                | 73.97                 | 35.82                       | 7.72               |
| 5245  | 2017-07-10 04:30:00:000 | 77.45                 | 493.42                | 75.94                 | 35.73                       | 7.73               |
| 5246  | 2017-07-10 04:45:00:000 | 82.03                 | 520.33                | 80.16                 | 35.6                        | 7.75               |
| 5247  | 2017-07-10 05:00:00:000 | 80.89                 | 526.58                | 78.66                 | 35.49                       | 7.77               |
| 5248  | 2017-07-10 05:15:00:000 | 88.28                 | 558.33                | 85.78                 | 35.43                       | 7.78               |
| 5249  | 2017-07-10 05:30:00:000 | 90.31                 | 574.67                | 87.75                 | 35.39                       | 7.78               |
| 5250  | 2017-07-10 05:45:00:000 | 91.09                 | 581.92                | 88.87                 | 35.39                       | 7.76               |
| 5251  | 2017-07-10 06:00:00:000 | 84.9                  | 557.92                | 82.22                 | 35.4                        | 7.75               |
| 5252  | 2017-07-10 06:15:00:000 | 87.66                 | 560.58                | 85.78                 | 35.42                       | 7.73               |
| 5253  | 2017-07-10 06:30:00:000 | 85.73                 | 550.25                | 84.84                 | 35.44                       | 7.71               |
| 5254  | 2017-07-10 06:45:00:000 | 82.92                 | 533.5                 | 81.66                 | 35.44                       | 7.7                |
| 5255  | 2017-07-10 07:00:00:000 | 78.91                 | 514.42                | 78.19                 | 35.42                       | 7.69               |
| 5256  | 2017-07-10 07:15:00:    | 79.11                 | 507.08                | 78.19                 | 35.42                       | 7.68               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 5257  | 2017-07-10 07:30:00:000 | 78.28                 | 502.42                | 78.09                 | 35.43                       | 7.67               |
| 5258  | 2017-07-10 07:45:00:000 | 78.28                 | 499.33                | 77.91                 | 35.44                       | 7.68               |
| 5259  | 2017-07-10 08:00:00:000 | 76.67                 | 494.33                | 75.28                 | 35.45                       | 7.69               |
| 5260  | 2017-07-10 08:15:00:000 | 78.07                 | 501.83                | 77.63                 | 35.47                       | 7.69               |
| 5261  | 2017-07-10 08:30:00:000 | 77.14                 | 496.33                | 75.66                 | 35.51                       | 7.68               |
| 5262  | 2017-07-10 08:45:00:000 | 74.79                 | 484.0                 | 74.06                 | 35.58                       | 7.67               |
| 5263  | 2017-07-10 09:00:00:000 | 70.31                 | 461.83                | 68.44                 | 35.65                       | 7.67               |
| 5264  | 2017-07-10 09:15:00:000 | 69.11                 | 446.42                | 68.44                 | 35.7                        | 7.66               |
| 5265  | 2017-07-10 09:30:00:000 | 66.82                 | 431.42                | 66.47                 | 35.75                       | 7.65               |
| 5266  | 2017-07-10 09:45:00:000 | 64.53                 | 418.75                | 64.41                 | 35.75                       | 7.64               |
| 5267  | 2017-07-10 10:00:00:000 | 61.72                 | 398.75                | 60.05                 | 35.72                       | 7.63               |
| 5268  | 2017-07-10 10:15:00:000 | 60.89                 | 395.17                | 60.75                 | 35.76                       | 7.63               |
| 5269  | 2017-07-10 10:30:00:000 | 58.54                 | 380.67                | 58.78                 | 35.87                       | 7.61               |
| 5270  | 2017-07-10 10:45:00:000 | 57.14                 | 371.5                 | 57.66                 | 36.01                       | 7.62               |
| 5271  | 2017-07-10 11:00:00:000 | 53.44                 | 355.25                | 52.59                 | 36.11                       | 7.62               |
| 5272  | 2017-07-10 11:15:00:000 | 53.7                  | 348.92                | 54.09                 | 36.2                        | 7.61               |
| 5273  | 2017-07-10 11:30:00:000 | 52.29                 | 339.83                | 52.59                 | 36.3                        | 7.61               |
| 5274  | 2017-07-10 11:45:00:000 | 50.57                 | 328.5                 | 50.34                 | 36.42                       | 7.61               |
| 5275  | 2017-07-10 12:00:00:000 | 48.13                 | 315.42                | 46.97                 | 36.5                        | 7.62               |
| 5276  | 2017-07-10 12:15:00:    | 46.88                 | 305.33                | 46.97                 | 36.58                       | 7.62               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 5277  | 2017-07-10 12:30:00:000 | 45.21                 | 295.42                | 45.37                 | 36.57                       | 7.62               |
| 5278  | 2017-07-10 12:45:00:000 | 44.43                 | 290.08                | 44.44                 | 36.57                       | 7.61               |
| 5279  | 2017-07-10 13:00:00:000 | 43.07                 | 282.42                | 41.81                 | 36.6                        | 7.61               |
| 5280  | 2017-07-10 13:15:00:000 | 43.13                 | 278.75                | 42.28                 | 36.62                       | 7.61               |
| 5281  | 2017-07-10 13:30:00:000 | 42.45                 | 276.92                | 42.19                 | 36.66                       | 7.61               |
| 5282  | 2017-07-10 13:45:00:000 | 42.03                 | 274.58                | 42.19                 | 36.74                       | 7.61               |
| 5283  | 2017-07-10 14:00:00:000 | 41.25                 | 271.42                | 40.31                 | 36.76                       | 7.61               |
| 5284  | 2017-07-10 14:15:00:000 | 41.25                 | 270.0                 | 40.78                 | 36.81                       | 7.61               |
| 5285  | 2017-07-10 14:30:00:000 | 40.94                 | 267.25                | 40.78                 | 36.85                       | 7.6                |
| 5286  | 2017-07-10 14:45:00:000 | 40.31                 | 264.5                 | 40.59                 | 36.9                        | 7.6                |
| 5287  | 2017-07-10 15:00:00:000 | 40.31                 | 262.17                | 39.09                 | 36.92                       | 7.6                |
| 5288  | 2017-07-10 15:15:00:000 | 40.0                  | 260.25                | 40.5                  | 36.96                       | 7.59               |
| 5289  | 2017-07-10 15:30:00:000 | 39.37                 | 257.17                | 39.09                 | 36.97                       | 7.59               |
| 5290  | 2017-07-10 15:45:00:000 | 38.44                 | 254.75                | 39.09                 | 36.97                       | 7.59               |
| 5291  | 2017-07-10 16:00:00:000 | 38.44                 | 253.63                | 39.09                 | 36.96                       | 7.58               |
| 5292  | 2017-07-10 16:15:00:000 | 38.59                 | 253.0                 | 39.09                 | 36.93                       | 7.59               |
| 5293  | 2017-07-10 16:30:00:000 | 38.59                 | 251.75                | 39.09                 | 36.92                       | 7.58               |
| 5294  | 2017-07-10 16:45:00:000 | 37.66                 | 248.38                | 37.69                 | 36.93                       | 7.57               |
| 5295  | 2017-07-10 17:00:00:000 | 36.88                 | 241.83                | 37.69                 | 36.92                       | 7.57               |
| 5296  | 2017-07-10 17:15:00:    | 35.99                 | 237.58                | 36.0                  | 36.91                       | 7.57               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 5297  | 2017-07-10 17:30:00:000 | 36.35                 | 236.42                | 36.56                 | 36.88                       | 7.56               |
| 5298  | 2017-07-10 17:45:00:000 | 39.53                 | 254.67                | 40.22                 | 36.81                       | 7.57               |
| 5299  | 2017-07-10 18:00:00:000 | 45.83                 | 286.33                | 45.38                 | 36.72                       | 7.59               |
| 5300  | 2017-07-10 18:15:00:000 | 50.99                 | 324.58                | 51.56                 | 36.63                       | 7.6                |
| 5301  | 2017-07-10 18:30:00:000 | 56.41                 | 357.17                | 56.16                 | 36.54                       | 7.61               |
| 5302  | 2017-07-10 18:45:00:000 | 59.22                 | 378.08                | 58.87                 | 36.48                       | 7.64               |
| 5303  | 2017-07-10 19:00:00:000 | 59.58                 | 384.0                 | 58.31                 | 36.45                       | 7.65               |
| 5304  | 2017-07-10 19:15:00:000 | 62.5                  | 399.42                | 61.88                 | 36.43                       | 7.66               |
| 5305  | 2017-07-10 19:30:00:000 | 63.91                 | 408.5                 | 64.13                 | 36.41                       | 7.67               |
| 5306  | 2017-07-10 19:45:00:000 | 64.53                 | 414.92                | 64.59                 | 36.4                        | 7.68               |
| 5307  | 2017-07-10 20:00:00:000 | 62.81                 | 409.08                | 61.5                  | 36.39                       | 7.69               |
| 5308  | 2017-07-10 20:15:00:000 | 66.64                 | 423.5                 | 66.37                 | 36.33                       | 7.7                |
| 5309  | 2017-07-10 20:30:00:000 | 70.26                 | 447.08                | 69.75                 | 36.25                       | 7.72               |
| 5310  | 2017-07-10 20:45:00:000 | 70.57                 | 453.92                | 70.22                 | 36.24                       | 7.73               |
| 5311  | 2017-07-10 21:00:00:000 | 66.82                 | 440.42                | 65.16                 | 36.25                       | 7.74               |
| 5312  | 2017-07-10 21:15:00:000 | 69.43                 | 444.42                | 68.62                 | 36.24                       | 7.74               |
| 5313  | 2017-07-10 21:30:00:000 | 70.63                 | 450.33                | 69.19                 | 36.25                       | 7.75               |
| 5314  | 2017-07-10 21:45:00:000 | 70.31                 | 454.0                 | 69.75                 | 36.24                       | 7.75               |
| 5315  | 2017-07-10 22:00:00:000 | 70.16                 | 454.12                | 68.77                 | 36.25                       | 7.75               |
| 5316  | 2017-07-10 22:15:00:    | 71.67                 | 459.0                 | 70.78                 | 36.26                       | 7.75               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 7377  | 2017-08-01 19:30:00:000 | 53.85                 | 345.67                | 54.0                  | 33.55                       | 7.09               |
| 7378  | 2017-08-01 19:45:00:000 | 58.39                 | 382.92                | 58.12                 | 33.55                       | 7.09               |
| 7379  | 2017-08-01 20:00:00:000 | 61.3                  | 399.25                | 60.09                 | 33.54                       | 7.12               |
| 7380  | 2017-08-01 20:15:00:000 | 66.67                 | 427.83                | 66.28                 | 33.54                       | 7.19               |
| 7381  | 2017-08-01 20:30:00:000 | 68.91                 | 442.67                | 68.34                 | 33.53                       | 7.2                |
| 7382  | 2017-08-01 20:45:00:000 | 68.13                 | 447.17                | 66.84                 | 33.53                       | 7.26               |
| 7383  | 2017-08-01 21:00:00:000 | 69.53                 | 454.92                | 67.88                 | 33.52                       | 7.3                |
| 7384  | 2017-08-01 21:15:00:000 | 75.78                 | 483.5                 | 74.53                 | 33.51                       | 7.33               |
| 7385  | 2017-08-01 21:30:00:000 | 78.33                 | 501.25                | 77.16                 | 33.48                       | 7.34               |
| 7386  | 2017-08-01 21:45:00:000 | 77.24                 | 508.42                | 76.12                 | 33.45                       | 7.28               |
| 7387  | 2017-08-01 22:00:00:000 | 74.95                 | 494.42                | 74.06                 | 33.43                       | 7.24               |
| 7388  | 2017-08-01 22:15:00:000 | 77.76                 | 497.67                | 78.19                 | 33.42                       | 7.21               |
| 7389  | 2017-08-01 22:30:00:000 | 77.5                  | 496.5                 | 78.19                 | 33.41                       | 7.19               |
| 7390  | 2017-08-01 22:45:00:000 | 75.52                 | 495.33                | 75.56                 | 33.4                        | 7.18               |
| 7391  | 2017-08-01 23:00:00:000 | 71.56                 | 480.75                | 70.45                 | 33.39                       | 7.17               |
| 7392  | 2017-08-01 23:15:00:000 | 74.9                  | 481.75                | 75.56                 | 33.39                       | 7.17               |
| 7393  | 2017-08-01 23:30:00:000 | 76.41                 | 487.17                | 76.12                 | 33.38                       | 7.16               |
| 7394  | 2017-08-01 23:45:00:000 | 76.72                 | 488.5                 | 76.69                 | 33.37                       | 7.15               |
| 7395  | 2017-08-02 00:00:00:000 | 70.68                 | 481.42                | 69.94                 | 33.37                       | 7.14               |
| 7396  | 2017-08-02 00:15:00:    | 76.04                 | 484.83                | 75.56                 | 33.36                       | 7.14               |

| S.No. | Time                          | 127 1070              |                       |                       |                    |
|-------|-------------------------------|-----------------------|-----------------------|-----------------------|--------------------|
|       |                               | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 pH (pH)(avg) |
|       | 000                           |                       |                       |                       |                    |
| 7397  | 2017-08-02 00:30:00:000 75.78 | 485.0                 | 75.09                 | 33.36                 | 7.13               |
| 7398  | 2017-08-02 00:45:00:000 77.24 | 493.08                | 76.59                 | 33.36                 | 7.13               |
| 7399  | 2017-08-02 01:00:00:000 70.36 | 483.5                 | 68.91                 | 33.35                 | 7.12               |
| 7400  | 2017-08-02 01:15:00:000 76.35 | 488.5                 | 75.56                 | 33.35                 | 7.11               |
| 7401  | 2017-08-02 01:30:00:000 77.76 | 496.83                | 77.16                 | 33.35                 | 7.11               |
| 7402  | 2017-08-02 01:45:00:000 78.07 | 500.33                | 77.72                 | 33.35                 | 7.11               |
| 7403  | 2017-08-02 02:00:00:000 73.59 | 499.42                | 72.0                  | 33.34                 | 7.1                |
| 7404  | 2017-08-02 02:15:00:000 78.96 | 505.75                | 77.62                 | 33.34                 | 7.09               |
| 7405  | 2017-08-02 02:30:00:000 80.16 | 511.33                | 78.19                 | 33.34                 | 7.09               |
| 7406  | 2017-08-02 02:45:00:000 81.56 | 522.08                | 80.25                 | 33.33                 | 7.08               |
| 7407  | 2017-08-02 03:00:00:000 75.57 | 498.08                | 73.5                  | 33.33                 | 7.08               |
| 7408  | 2017-08-02 03:15:00:000 79.9  | 512.58                | 79.12                 | 33.34                 | 7.08               |
| 7409  | 2017-08-02 03:30:00:000 79.9  | 512.67                | 79.12                 | 33.34                 | 7.07               |
| 7410  | 2017-08-02 03:45:00:000 78.75 | 504                   | 78.19                 | 33.33                 | 7.07               |
| 7411  | 2017-08-02 04:00:00:000 73.07 | 480                   | 71.62                 | 33.33                 | 7.06               |
| 7412  | 2017-08-02 04:15:00:000 77.55 | 495.0                 | 76.22                 | 33.33                 | 7.05               |
| 7413  | 2017-08-02 04:30:00:000 78.44 | 502.17                | 77.25                 | 33.33                 | 7.05               |
| 7414  | 2017-08-02 04:45:00:000 78.44 | 501.83                | 76.78                 | 33.33                 | 7.05               |
| 7415  | 2017-08-02 05:00:00:000 74.69 | 491.92                | 72.56                 | 33.33                 | 7.04               |
| 7416  | 2017-08-02 05:15:00: 81.82    | 524.0                 | 80.16                 | 33.33                 | 7.04               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 7417  | 2017-08-02 05:30:00:000 | 82.4                  | 526.75                | 80.81                 | 33.33                       | 7.04               |
| 7418  | 2017-08-02 05:45:00:000 | 81.88                 | 522.58                | 79.78                 | 33.33                       | 7.03               |
| 7419  | 2017-08-02 06:00:00:000 | 75.05                 | 496.75                | 72.56                 | 33.33                       | 7.03               |
| 7420  | 2017-08-02 06:15:00:000 | 82.97                 | 532.58                | 81.38                 | 33.32                       | 7.03               |
| 7421  | 2017-08-02 06:30:00:000 | 85.83                 | 548.08                | 84.38                 | 33.32                       | 7.03               |
| 7422  | 2017-08-02 06:45:00:000 | 83.49                 | 534.83                | 82.41                 | 33.32                       | 7.02               |
| 7423  | 2017-08-02 07:00:00:000 | 75.0                  | 495.42                | 74.16                 | 33.32                       | 7.02               |
| 7424  | 2017-08-02 07:15:00:000 | 79.58                 | 508.08                | 79.12                 | 33.32                       | 7.02               |
| 7425  | 2017-08-02 07:30:00:000 | 80.42                 | 514.92                | 80.25                 | 33.32                       | 7.01               |
| 7426  | 2017-08-02 07:45:00:000 | 80.16                 | 511.25                | 79.59                 | 33.32                       | 7.02               |
| 7427  | 2017-08-02 08:00:00:000 | 74.69                 | 487.67                | 73.5                  | 33.32                       | 7.01               |
| 7428  | 2017-08-02 08:15:00:000 | 78.18                 | 499.5                 | 78.19                 | 33.32                       | 7.01               |
| 7429  | 2017-08-02 08:30:00:000 | 78.28                 | 498.17                | 78.19                 | 33.32                       | 7.01               |
| 7430  | 2017-08-02 08:45:00:000 | 77.08                 | 492.25                | 77.72                 | 33.32                       | 7.01               |
| 7431  | 2017-08-02 09:00:00:000 | 68.75                 | 453.42                | 67.88                 | 33.32                       | 7.01               |
| 7432  | 2017-08-02 09:15:00:000 | 69.32                 | 444.17                | 69.0                  | 33.32                       | 7                  |
| 7433  | 2017-08-02 09:30:00:000 | 67.29                 | 431.92                | 67.78                 | 33.31                       | 7.0                |
| 7434  | 2017-08-02 09:45:00:000 | 64.74                 | 414.17                | 65.34                 | 33.3                        | 6.99               |
| 7435  | 2017-08-02 10:00:00:000 | 60.73                 | 393.33                | 60.09                 | 33.3                        | 6.99               |
| 7436  | 2017-08-02 10:15:00:    | 58.12                 | 373.92                | 58.59                 | 33.29                       | 6.98               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 7437  | 2017-08-02 10:30:00:000 | 53.49                 | 345.17                | 54.47                 | 33.28                       | 6.97               |
| 7438  | 2017-08-02 10:45:00:000 | 48.33                 | 310.67                | 48.75                 | 33.28                       | 6.97               |
| 7439  | 2017-08-02 11:00:00:000 | 41.2                  | 273.92                | 41.62                 | 33.27                       | 6.97               |
| 7440  | 2017-08-02 11:15:00:000 | 41.2                  | 265.83                | 41.44                 | 33.26                       | 6.96               |
| 7441  | 2017-08-02 11:30:00:000 | 44.84                 | 288.83                | 45.09                 | 33.26                       | 6.96               |
| 7442  | 2017-08-02 11:45:00:000 | 46.56                 | 299.75                | 47.06                 | 33.26                       | 6.96               |
| 7443  | 2017-08-02 12:00:00:000 | 46.56                 | 302                   | 47.53                 | 33.26                       | 6.96               |
| 7444  | 2017-08-02 12:15:00:000 | 47.34                 | 305                   | 48.66                 | 33.26                       | 6.96               |
| 7445  | 2017-08-02 12:30:00:000 | 47.34                 | 306.0                 | 48.66                 | 33.26                       | 6.96               |
| 7446  | 2017-08-02 12:45:00:000 | 48.12                 | 308.42                | 48.94                 | 33.27                       | 6.97               |
| 7447  | 2017-08-02 13:00:00:000 | 42.14                 | 283.08                | 41.72                 | 33.28                       | 6.97               |
| 7448  | 2017-08-02 13:15:00:000 | 43.96                 | 283.67                | 44.25                 | 33.29                       | 6.97               |
| 7449  | 2017-08-02 13:30:00:000 | 45.63                 | 293.58                | 46.31                 | 33.3                        | 6.98               |
| 7450  | 2017-08-02 13:45:00:000 | 47.92                 | 308.08                | 48.37                 | 33.29                       | 6.97               |
| 7451  | 2017-08-02 14:00:00:000 | 46.04                 | 303.92                | 45.66                 | 33.28                       | 6.97               |
| 7452  | 2017-08-02 14:15:00:000 | 48.28                 | 312.5                 | 49.22                 | 33.27                       | 6.96               |
| 7453  | 2017-08-02 14:30:00:000 | 49.38                 | 319.67                | 50.81                 | 33.27                       | 6.97               |
| 7454  | 2017-08-02 14:45:00:000 | 51.41                 | 331.92                | 52.31                 | 33.27                       | 6.97               |
| 7455  | 2017-08-02 15:00:00:000 | 48.59                 | 321.08                | 49.22                 | 33.27                       | 6.97               |
| 7456  | 2017-08-02 15:15:00:    | 50.83                 | 328.33                | 51.28                 | 33.27                       | 6.98               |

| S.No. | Time                    |                       |                       |                       |                             | 130 1073           |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       |                         | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|       | 000                     |                       |                       |                       |                             |                    |
| 7457  | 2017-08-02 15:30:00:000 | 51.72                 | 332.25                | 51.75                 | 33.27                       | 6.97               |
| 7458  | 2017-08-02 15:45:00:000 | 51.72                 | 331.42                | 51.75                 | 33.28                       | 6.98               |
| 7459  | 2017-08-02 16:00:00:000 | 48.54                 | 323.33                | 48.66                 | 33.28                       | 6.98               |
| 7460  | 2017-08-02 16:15:00:000 | 50.83                 | 328.75                | 51.75                 | 33.28                       | 6.98               |
| 7461  | 2017-08-02 16:30:00:000 | 50.31                 | 326.58                | 51.28                 | 33.29                       | 6.99               |
| 7462  | 2017-08-02 16:45:00:000 | 50.63                 | 325.67                | 51.28                 | 33.29                       | 6.99               |
| 7463  | 2017-08-02 17:00:00:000 | 48.39                 | 318.42                | 47.81                 | 33.3                        | 6.99               |
| 7464  | 2017-08-02 17:15:00:000 | 49.74                 | 322.58                | 50.34                 | 33.3                        | 6.99               |
| 7465  | 2017-08-02 17:30:00:000 | 49.79                 | 320.25                | 50.34                 | 33.31                       | 6.99               |
| 7466  | 2017-08-02 17:45:00:000 | 49.22                 | 318.0                 | 50.34                 | 33.31                       | 6.99               |
| 7467  | 2017-08-02 18:00:00:000 | 44.22                 | 295.33                | 43.69                 | 33.32                       | 6.98               |
| 7468  | 2017-08-02 18:15:00:000 | 43.02                 | 278.08                | 43.69                 | 33.32                       | 6.98               |
| 7469  | 2017-08-02 18:30:00:000 | 40.52                 | 262.25                | 41.16                 | 33.33                       | 6.98               |
| 7470  | 2017-08-02 18:45:00:000 | 43.65                 | 281.83                | 44.34                 | 33.33                       | 6.98               |
| 7471  | 2017-08-02 19:00:00:000 | 50.99                 | 329.92                | 51.0                  | 33.34                       | 6.98               |
| 7472  | 2017-08-02 19:15:00:000 | 59.27                 | 380.58                | 59.06                 | 33.34                       | 6.98               |
| 7473  | 2017-08-02 19:30:00:000 | 63.23                 | 407.0                 | 63.84                 | 33.34                       | 6.98               |
| 7474  | 2017-08-02 19:45:00:000 | 64.95                 | 417.25                | 65.81                 | 33.35                       | 6.98               |
| 7475  | 2017-08-02 20:00:00:000 | 62.76                 | 414.58                | 62.16                 | 33.35                       | 6.98               |
| 7476  | 2017-08-02 20:15:00:    | 68.39                 | 437.75                | 68.91                 | 33.36                       | 6.98               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 7477  | 2017-08-02 20:30:00:000 | 70.1                  | 448.67                | 70.59                 | 33.36                       | 6.98               |
| 7478  | 2017-08-02 20:45:00:000 | 72.03                 | 459.12                | 72.0                  | 33.38                       | 6.98               |
| 7479  | 2017-08-02 21:00:00:000 | 64.74                 | 432.42                | 63.84                 | 33.37                       | 6.98               |
| 7480  | 2017-08-02 21:15:00:000 | 67.29                 | 430.17                | 66.75                 | 33.37                       | 6.98               |
| 7481  | 2017-08-02 21:30:00:000 | 65.31                 | 419.25                | 64.31                 | 33.37                       | 6.98               |
| 7482  | 2017-08-02 21:45:00:000 | 70.7                  | 442.88                | 68.2                  | 33.37                       | 6.98               |
| 7483  | 2017-08-02 22:00:00:000 | 77.29                 | 495.75                | 73.59                 | 33.37                       | 6.99               |
| 7484  | 2017-08-02 22:15:00:000 | 85.78                 | 543.0                 | 82.41                 | 33.38                       | 6.99               |
| 7485  | 2017-08-02 22:30:00:000 | 84.58                 | 543.08                | 82.41                 | 33.38                       | 6.99               |
| 7486  | 2017-08-02 22:45:00:000 | 82.4                  | 528.92                | 80.72                 | 33.38                       | 6.99               |
| 7487  | 2017-08-02 23:00:00:000 | 75.0                  | 510.75                | 73.03                 | 33.38                       | 6.99               |
| 7488  | 2017-08-02 23:15:00:000 | 80.99                 | 514.0                 | 79.69                 | 33.39                       | 6.99               |
| 7489  | 2017-08-02 23:30:00:000 | 85.7                  | 543.5                 | 83.67                 | 33.39                       | 6.99               |
| 7490  | 2017-08-02 23:45:00:000 | 87.4                  | 557.92                | 85.78                 | 33.39                       | 6.99               |
| 7491  | 2017-08-03 00:00:00:000 | 84.58                 | 556.58                | 82.31                 | 33.39                       | 6.99               |
| 7492  | 2017-08-03 00:15:00:000 | 89.74                 | 569.17                | 88.41                 | 33.39                       | 6.99               |
| 7493  | 2017-08-03 00:30:00:000 | 89.48                 | 573.42                | 88.87                 | 33.39                       | 6.99               |
| 7494  | 2017-08-03 00:45:00:000 | 88.59                 | 566.17                | 87.47                 | 33.4                        | 6.99               |
| 7495  | 2017-08-03 01:00:00:000 | 88.39                 | 563.33                | 87.47                 | 33.4                        | 6.99               |
| 7496  | 2017-08-03 01:15:00:    | 87.5                  | 559.25                | 87.47                 | 33.4                        | 6.99               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 9857  | 2017-08-27 20:15:00:000 | 78.44                 | 494.17                | 78.28                 | 36.45                       | 7.76               |
| 9858  | 2017-08-27 20:30:00:000 | 80.99                 | 515.42                | 80.16                 | 36.38                       | 7.77               |
| 9859  | 2017-08-27 20:45:00:000 | 82.66                 | 527.67                | 81.84                 | 36.29                       | 7.77               |
| 9860  | 2017-08-27 22:30:00:000 | 85.16                 | 546.88                | 84.38                 | 36.14                       | 7.79               |
| 9861  | 2017-08-27 22:45:00:000 | 86.93                 | 552.92                | 85.78                 | 36.05                       | 7.8                |
| 9862  | 2017-08-27 23:00:00:000 | 70.42                 | 483.58                | 69.0                  | 35.85                       | 7.82               |
| 9863  | 2017-08-27 23:15:00:000 | 20.94                 | 179.08                | 19.31                 | 35.61                       | 7.82               |
| 9864  | 2017-08-27 23:30:00:000 | 69.58                 | 394.42                | 67.97                 | 35.57                       | 7.81               |
| 9865  | 2017-08-27 23:45:00:000 | 86.88                 | 542.5                 | 85.78                 | 35.79                       | 7.79               |
| 9866  | 2017-08-28 00:00:00:000 | 78.12                 | 520.33                | 76.03                 | 35.95                       | 7.81               |
| 9867  | 2017-08-28 00:15:00:000 | 80.94                 | 517.25                | 79.59                 | 36.03                       | 7.81               |
| 9868  | 2017-08-28 00:30:00:000 | 80.42                 | 513.5                 | 79.12                 | 36.07                       | 7.82               |
| 9869  | 2017-08-28 00:45:00:000 | 78.7                  | 504.0                 | 78.19                 | 36.13                       | 7.82               |
| 9870  | 2017-08-28 01:00:00:000 | 70.99                 | 474.17                | 69.47                 | 36.19                       | 7.82               |
| 9871  | 2017-08-28 01:15:00:000 | 74.06                 | 474.5                 | 73.41                 | 36.22                       | 7.82               |
| 9872  | 2017-08-28 01:30:00:000 | 74.06                 | 474.5                 | 73.41                 | 36.24                       | 7.82               |
| 9873  | 2017-08-28 01:45:00:000 | 73.28                 | 469.08                | 72.56                 | 36.25                       | 7.82               |
| 9874  | 2017-08-28 02:00:00:000 | 68.44                 | 450.5                 | 66.38                 | 36.25                       | 7.81               |
| 9875  | 2017-08-28 02:15:00:000 | 71.56                 | 456.5                 | 71.53                 | 36.25                       | 7.81               |
| 9876  | 2017-08-28 02:30:00:    | 71.56                 | 457.33                | 71.53                 | 36.26                       | 7.79               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 9877  | 2017-08-28 02:45:00:000 | 63.91                 | 424.75                | 63.94                 | 36.23                       | 7.77               |
| 9878  | 2017-08-28 03:00:00:000 | 17.86                 | 208.92                | 17.25                 | 36.15                       | 7.79               |
| 9879  | 2017-08-28 03:15:00:000 | 9.64                  | 73.83                 | 9.09                  | 36.22                       | 7.81               |
| 9880  | 2017-08-28 03:30:00:000 | 12.5                  | 77.5                  | 11.72                 | 36.11                       | 7.82               |
| 9881  | 2017-08-28 03:45:00:000 | 57.45                 | 323.25                | 56.72                 | 36.11                       | 7.81               |
| 9882  | 2017-08-28 04:00:00:000 | 65.63                 | 403.5                 | 62.72                 | 36.1                        | 7.8                |
| 9883  | 2017-08-28 04:15:00:000 | 75                    | 471.5                 | 73.69                 | 36.09                       | 7.83               |
| 9884  | 2017-08-28 04:30:00:000 | 75.0                  | 482.25                | 75.09                 | 36.09                       | 7.86               |
| 9885  | 2017-08-28 05:15:00:000 | 74.06                 | 470.0                 | 73.41                 | 36.11                       | 7.84               |
| 9886  | 2017-08-28 06:30:00:000 | 74.22                 | 475.5                 | 73.69                 | 36.09                       | 7.79               |
| 9887  | 2017-08-28 07:00:00:000 | 71.64                 | 455.12                | 70.45                 | 36.07                       | 7.76               |
| 9888  | 2017-08-28 07:15:00:000 | 75.0                  | 476.75                | 75.09                 | 36.04                       | 7.75               |
| 9889  | 2017-08-28 07:30:00:000 | 76.72                 | 489                   | 76.78                 | 35.97                       | 7.74               |
| 9890  | 2017-08-28 08:30:00:000 | 82.5                  | 527.0                 | 82.41                 | 35.72                       | 7.75               |
| 9891  | 2017-08-28 09:45:00:000 | 55.78                 | 360.75                | 56.25                 | 36.73                       | 7.73               |
| 9892  | 2017-08-28 10:45:00:000 | 59.53                 | 382.5                 | 60.05                 | 36.74                       | 7.69               |
| 9893  | 2017-08-28 11:15:00:000 | 63.28                 | 409.75                | 63.84                 | 36.81                       | 7.71               |
| 9894  | 2017-08-28 11:45:00:000 | 59.84                 | 387.75                | 59.34                 | 37.09                       | 7.69               |
| 9895  | 2017-08-28 12:00:00:000 | 55.62                 | 362                   | 54.56                 | 37.19                       | 7.7                |
| 9896  | 2017-08-28 13:00:00:    | 58.13                 | 370.0                 | 57.38                 | 37.21                       | 7.66               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 9897  | 2017-08-28 13:15:00:000 | 57.34                 | 372.75                | 57.66                 | 37.29                       | 7.66               |
| 9898  | 2017-08-28 14:00:00:000 | 52.97                 | 375.5                 | 51.47                 | 37.37                       | 7.66               |
| 9899  | 2017-08-28 14:30:00:000 | 56.09                 | 362.5                 | 56.53                 | 37.07                       | 7.67               |
| 9900  | 2017-08-28 15:00:00:000 | 57.5                  | 372.0                 | 55.97                 | 37.0                        | 7.68               |
| 9901  | 2017-08-28 15:15:00:000 | 59.69                 | 382.25                | 59.62                 | 37.05                       | 7.67               |
| 9902  | 2017-08-28 15:30:00:000 | 58.44                 | 376.67                | 58.69                 | 37.07                       | 7.67               |
| 9903  | 2017-08-28 15:45:00:000 | 57.03                 | 367.58                | 57.09                 | 37.09                       | 7.65               |
| 9904  | 2017-08-28 16:00:00:000 | 53.59                 | 352.58                | 53.16                 | 37.06                       | 7.65               |
| 9905  | 2017-08-28 16:15:00:000 | 53.59                 | 344.92                | 53.72                 | 37.07                       | 7.65               |
| 9906  | 2017-08-28 16:30:00:000 | 53.59                 | 343.58                | 53.72                 | 37.06                       | 7.64               |
| 9907  | 2017-08-28 16:45:00:000 | 53.91                 | 346.33                | 54.66                 | 37.03                       | 7.63               |
| 9908  | 2017-08-28 17:00:00:000 | 55.1                  | 352.67                | 55.13                 | 37.01                       | 7.62               |
| 9909  | 2017-08-28 17:15:00:000 | 55.16                 | 354.42                | 55.13                 | 37.02                       | 7.62               |
| 9910  | 2017-08-28 17:30:00:000 | 54.53                 | 351.75                | 55.13                 | 37.01                       | 7.62               |
| 9911  | 2017-08-28 17:45:00:000 | 54.22                 | 352.17                | 54.66                 | 37.0                        | 7.62               |
| 9912  | 2017-08-28 18:00:00:000 | 54.84                 | 352.67                | 54.66                 | 36.97                       | 7.61               |
| 9913  | 2017-08-28 18:15:00:000 | 56.82                 | 362.58                | 57.28                 | 36.92                       | 7.59               |
| 9914  | 2017-08-28 18:30:00:000 | 62.24                 | 392.92                | 62.25                 | 36.72                       | 7.58               |
| 9915  | 2017-08-28 18:45:00:000 | 68.8                  | 442.0                 | 67.97                 | 36.5                        | 7.58               |
| 9916  | 2017-08-28 19:00:00:    | 72.76                 | 464.17                | 71.06                 | 36.31                       | 7.57               |

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| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 9917  | 2017-08-28 19:15:00:000 | 79.77                 | 502.0                 | 79.03                 | 36.19                       | 7.58               |
| 9918  | 2017-08-28 19:30:00:000 | 82.14                 | 521.25                | 81.28                 | 36.11                       | 7.59               |
| 9919  | 2017-08-28 19:45:00:000 | 84.11                 | 535.33                | 83.44                 | 36.06                       | 7.61               |
| 9920  | 2017-08-28 20:00:00:000 | 78.49                 | 531.33                | 77.16                 | 36.03                       | 7.65               |
| 9921  | 2017-08-28 20:15:00:000 | 84.43                 | 534.92                | 83.91                 | 36.01                       | 7.68               |
| 9922  | 2017-08-28 20:30:00:000 | 85.83                 | 546.67                | 84.84                 | 35.99                       | 7.7                |
| 9923  | 2017-08-28 20:45:00:000 | 86.09                 | 549.83                | 85.87                 | 35.96                       | 7.72               |
| 9924  | 2017-08-28 21:00:00:000 | 80.16                 | 542.17                | 78.75                 | 35.96                       | 7.72               |
| 9925  | 2017-08-28 21:15:00:000 | 85.26                 | 540.33                | 83.91                 | 35.95                       | 7.73               |
| 9926  | 2017-08-28 21:30:00:000 | 86.09                 | 548.0                 | 84.38                 | 35.96                       | 7.72               |
| 9927  | 2017-08-28 21:45:00:000 | 85.31                 | 546.67                | 84.38                 | 35.95                       | 7.71               |
| 9928  | 2017-08-28 22:00:00:000 | 78.7                  | 521.75                | 76.69                 | 35.89                       | 7.7                |
| 9929  | 2017-08-28 22:15:00:000 | 84.06                 | 533.58                | 83.44                 | 35.87                       | 7.67               |
| 9930  | 2017-08-28 22:30:00:000 | 85.0                  | 540.33                | 84.38                 | 35.84                       | 7.66               |
| 9931  | 2017-08-28 22:45:00:000 | 83.75                 | 536.17                | 83.44                 | 35.84                       | 7.63               |
| 9932  | 2017-08-28 23:00:00:000 | 78.12                 | 512.67                | 76.13                 | 35.9                        | 7.62               |
| 9933  | 2017-08-28 23:15:00:000 | 82.4                  | 523.58                | 81.28                 | 35.95                       | 7.6                |
| 9934  | 2017-08-28 23:30:00:000 | 82.66                 | 528.92                | 81.84                 | 35.95                       | 7.59               |
| 9935  | 2017-08-28 23:45:00:000 | 83.18                 | 530.75                | 82.97                 | 35.93                       | 7.58               |
| 9936  | 2017-08-29 00:00:00:    | 78.12                 | 511.75                | 76.22                 | 35.91                       | 7.58               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 10657 | 2017-09-06 00:30:00:000 | 97.19                 | 620.5                 | 96.47                 | 34.47                       | 7.63               |
| 10658 | 2017-09-06 00:45:00:000 | 97.19                 | 622.25                | 96.47                 | 34.46                       | 7.62               |
| 10659 | 2017-09-06 01:00:00:000 | 90.57                 | 597.33                | 89.44                 | 34.46                       | 7.62               |
| 10660 | 2017-09-06 01:15:00:000 | 96.61                 | 612.25                | 96.0                  | 34.46                       | 7.61               |
| 10661 | 2017-09-06 01:30:00:000 | 97.97                 | 622.83                | 97.59                 | 34.46                       | 7.61               |
| 10662 | 2017-09-06 01:45:00:000 | 97.97                 | 625.42                | 98.16                 | 34.43                       | 7.6                |
| 10663 | 2017-09-06 02:00:00:000 | 91.46                 | 601.42                | 89.91                 | 34.43                       | 7.59               |
| 10664 | 2017-09-06 02:15:00:000 | 97.71                 | 618.25                | 97.03                 | 34.42                       | 7.59               |
| 10665 | 2017-09-06 02:30:00:000 | 98.91                 | 627.83                | 98.16                 | 34.41                       | 7.58               |
| 10666 | 2017-09-06 02:45:00:000 | 98.91                 | 629.67                | 98.16                 | 34.4                        | 7.58               |
| 10667 | 2017-09-06 03:00:00:000 | 92.4                  | 606.5                 | 91.41                 | 34.39                       | 7.57               |
| 10668 | 2017-09-06 03:15:00:000 | 98.07                 | 621.58                | 97.59                 | 34.39                       | 7.56               |
| 10669 | 2017-09-06 03:30:00:000 | 98.91                 | 632.0                 | 98.16                 | 34.39                       | 7.56               |
| 10670 | 2017-09-06 03:45:00:000 | 99.69                 | 634.25                | 99.28                 | 34.37                       | 7.56               |
| 10671 | 2017-09-06 04:00:00:000 | 92.14                 | 606.08                | 90.47                 | 34.37                       | 7.55               |
| 10672 | 2017-09-06 04:15:00:000 | 98.33                 | 622.33                | 97.78                 | 34.37                       | 7.55               |
| 10673 | 2017-09-06 04:30:00:000 | 99.74                 | 634.33                | 99.84                 | 34.36                       | 7.55               |
| 10674 | 2017-09-06 04:45:00:000 | 99.79                 | 636.0                 | 99.84                 | 34.36                       | 7.54               |
| 10675 | 2017-09-06 05:00:00:000 | 91.3                  | 604.75                | 90.0                  | 34.35                       | 7.54               |
| 10676 | 2017-09-06 05:15:00:    | 98.65                 | 622.83                | 97.78                 | 34.35                       | 7.54               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 10677 | 2017-09-06 05:30:00:000 | 99.69                 | 635.17                | 99.84                 | 34.34                       | 7.53               |
| 10678 | 2017-09-06 05:45:00:000 | 99.79                 | 636.0                 | 99.84                 | 34.34                       | 7.53               |
| 10679 | 2017-09-06 06:00:00:000 | 92.45                 | 611.08                | 91.03                 | 34.34                       | 7.52               |
| 10680 | 2017-09-06 06:15:00:000 | 98.91                 | 626.5                 | 98.91                 | 34.33                       | 7.53               |
| 10681 | 2017-09-06 06:30:00:000 | 99.74                 | 635.58                | 99.84                 | 34.32                       | 7.52               |
| 10682 | 2017-09-06 06:45:00:000 | 99.79                 | 636.0                 | 99.84                 | 34.32                       | 7.52               |
| 10683 | 2017-09-06 07:00:00:000 | 92.4                  | 608.42                | 91.59                 | 34.32                       | 7.51               |
| 10684 | 2017-09-06 07:15:00:000 | 97.81                 | 621.5                 | 97.59                 | 34.33                       | 7.52               |
| 10685 | 2017-09-06 07:30:00:000 | 97.97                 | 626.33                | 98.16                 | 34.36                       | 7.51               |
| 10686 | 2017-09-06 07:45:00:000 | 97.4                  | 623.08                | 97.03                 | 34.38                       | 7.51               |
| 10687 | 2017-09-06 08:00:00:000 | 89.58                 | 593.08                | 88.22                 | 34.39                       | 7.5                |
| 10688 | 2017-09-06 08:15:00:000 | 94.58                 | 602.58                | 94.31                 | 34.4                        | 7.49               |
| 10689 | 2017-09-06 08:30:00:000 | 94.9                  | 607.0                 | 94.78                 | 34.43                       | 7.48               |
| 10690 | 2017-09-06 08:45:00:000 | 94.32                 | 605.75                | 94.78                 | 34.47                       | 7.47               |
| 10691 | 2017-09-06 09:00:00:000 | 87.24                 | 579.0                 | 86.06                 | 34.63                       | 7.51               |
| 10692 | 2017-09-06 09:15:00:000 | 90.89                 | 580.83                | 90.28                 | 34.88                       | 7.56               |
| 10693 | 2017-09-06 09:30:00:000 | 90.31                 | 579.5                 | 89.72                 | 35.14                       | 7.62               |
| 10694 | 2017-09-06 09:45:00:000 | 88.33                 | 567.5                 | 87.09                 | 35.5                        | 7.71               |
| 10695 | 2017-09-06 10:00:00:000 | 78.91                 | 527.67                | 76.31                 | 35.83                       | 7.77               |
| 10696 | 2017-09-06 10:15:00:    | 79.22                 | 509.58                | 77.81                 | 35.98                       | 7.78               |

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| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 10697 | 2017-09-06 10:30:00:000 | 73.8                  | 480.08                | 73.31                 | 36.14                       | 7.8                |
| 10698 | 2017-09-06 10:45:00:000 | 69.9                  | 453.33                | 69.09                 | 36.24                       | 7.78               |
| 10699 | 2017-09-06 11:00:00:000 | 64.48                 | 427.58                | 63.0                  | 36.3                        | 7.74               |
| 10700 | 2017-09-06 11:15:00:000 | 69.01                 | 440.75                | 68.16                 | 36.44                       | 7.74               |
| 10701 | 2017-09-06 11:30:00:000 | 69.79                 | 447.83                | 68.62                 | 36.6                        | 7.74               |
| 10702 | 2017-09-06 11:45:00:000 | 70.36                 | 450.5                 | 70.03                 | 36.68                       | 7.74               |
| 10703 | 2017-09-06 12:00:00:000 | 66.56                 | 436.42                | 65.06                 | 36.74                       | 7.74               |
| 10704 | 2017-09-06 12:15:00:000 | 69.37                 | 444.67                | 68.62                 | 36.74                       | 7.73               |
| 10705 | 2017-09-06 12:30:00:000 | 69.11                 | 446.5                 | 68.62                 | 36.75                       | 7.72               |
| 10706 | 2017-09-06 12:45:00:000 | 68.59                 | 442.75                | 68.53                 | 36.71                       | 7.71               |
| 10707 | 2017-09-06 13:00:00:000 | 64.27                 | 425.58                | 63.47                 | 36.71                       | 7.7                |
| 10708 | 2017-09-06 13:15:00:000 | 67.5                  | 431.08                | 66.94                 | 36.8                        | 7.68               |
| 10709 | 2017-09-06 13:30:00:000 | 66.67                 | 429.75                | 66.0                  | 36.81                       | 7.66               |
| 10710 | 2017-09-06 13:45:00:000 | 65.78                 | 425.17                | 65.53                 | 36.82                       | 7.64               |
| 10711 | 2017-09-06 14:00:00:000 | 61.46                 | 406.5                 | 59.81                 | 36.86                       | 7.62               |
| 10712 | 2017-09-06 14:15:00:000 | 63.7                  | 408.25                | 63.38                 | 36.86                       | 7.61               |
| 10713 | 2017-09-06 14:30:00:000 | 64.74                 | 417.83                | 64.97                 | 36.81                       | 7.62               |
| 10714 | 2017-09-06 14:45:00:000 | 66.2                  | 425.42                | 65.44                 | 36.8                        | 7.65               |
| 10715 | 2017-09-06 15:00:00:000 | 66.72                 | 428.17                | 66.94                 | 36.77                       | 7.66               |
| 10716 | 2017-09-06 15:15:00:    | 66.72                 | 430.0                 | 66.94                 | 36.76                       | 7.66               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 10717 | 2017-09-06 15:30:00:000 | 67.24                 | 433.67                | 66.94                 | 36.69                       | 7.67               |
| 10718 | 2017-09-06 15:45:00:000 | 67.5                  | 436.75                | 67.87                 | 36.65                       | 7.68               |
| 10719 | 2017-09-06 16:00:00:000 | 67.86                 | 439.5                 | 65.81                 | 36.44                       | 7.66               |
| 10720 | 2017-09-06 16:15:00:000 | 74.06                 | 473.0                 | 73.97                 | 36.2                        | 7.65               |
| 10721 | 2017-09-06 16:30:00:000 | 78.12                 | 499.75                | 78.09                 | 35.99                       | 7.64               |
| 10722 | 2017-09-06 16:45:00:000 | 81.51                 | 522.0                 | 80.53                 | 35.79                       | 7.64               |
| 10723 | 2017-09-06 17:00:00:000 | 79.79                 | 525.25                | 78.56                 | 35.57                       | 7.62               |
| 10724 | 2017-09-06 17:15:00:000 | 85.83                 | 546.5                 | 84.75                 | 35.5                        | 7.6                |
| 10725 | 2017-09-06 17:30:00:000 | 85.89                 | 552.08                | 85.31                 | 35.42                       | 7.6                |
| 10726 | 2017-09-06 17:45:00:000 | 85.62                 | 549.42                | 85.31                 | 35.38                       | 7.59               |
| 10727 | 2017-09-06 18:00:00:000 | 79.38                 | 525.75                | 78.84                 | 35.31                       | 7.59               |
| 10728 | 2017-09-06 18:15:00:000 | 86.3                  | 548.58                | 86.06                 | 35.2                        | 7.58               |
| 10729 | 2017-09-06 18:30:00:000 | 87.5                  | 560.75                | 87.19                 | 35.19                       | 7.58               |
| 10730 | 2017-09-06 18:45:00:000 | 87.5                  | 558.58                | 87.19                 | 35.12                       | 7.58               |
| 10731 | 2017-09-06 19:00:00:000 | 81.25                 | 539.17                | 80.53                 | 35.09                       | 7.58               |
| 10732 | 2017-09-06 19:15:00:000 | 86.46                 | 548.67                | 85.78                 | 35.11                       | 7.58               |
| 10733 | 2017-09-06 19:30:00:000 | 86.46                 | 553.25                | 86.25                 | 35.13                       | 7.58               |
| 10734 | 2017-09-06 19:45:00:000 | 87.29                 | 557.42                | 86.72                 | 35.16                       | 7.65               |
| 10735 | 2017-09-06 20:00:00:000 | 82.5                  | 544.25                | 80.63                 | 35.21                       | 7.7                |
| 10736 | 2017-09-06 20:15:00:    | 88.18                 | 560.58                | 86.72                 | 35.29                       | 7.74               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 10737 | 2017-09-06 20:30:00:000 | 88.18                 | 565.08                | 87.19                 | 35.37                       | 7.76               |
| 10738 | 2017-09-06 20:45:00:000 | 87.92                 | 563.33                | 87.19                 | 35.26                       | 7.74               |
| 10739 | 2017-09-06 21:00:00:000 | 84.01                 | 550.58                | 82.12                 | 35.25                       | 7.73               |
| 10740 | 2017-09-06 21:15:00:000 | 87.92                 | 560.17                | 86.72                 | 35.33                       | 7.75               |
| 10741 | 2017-09-06 21:30:00:000 | 87.66                 | 563.33                | 87.19                 | 35.36                       | 7.75               |
| 10742 | 2017-09-06 21:45:00:000 | 87.66                 | 561.0                 | 86.25                 | 35.38                       | 7.76               |
| 10743 | 2017-09-06 22:00:00:000 | 81.41                 | 539.83                | 79.59                 | 35.38                       | 7.75               |
| 10744 | 2017-09-06 22:15:00:000 | 86.56                 | 550.67                | 85.31                 | 35.37                       | 7.75               |
| 10745 | 2017-09-06 22:30:00:000 | 86.88                 | 555.67                | 85.78                 | 35.37                       | 7.75               |
| 10746 | 2017-09-06 22:45:00:000 | 86.88                 | 554.67                | 85.78                 | 35.38                       | 7.75               |
| 10747 | 2017-09-06 23:00:00:000 | 80.36                 | 532.5                 | 78.19                 | 35.35                       | 7.75               |
| 10748 | 2017-09-06 23:15:00:000 | 85.99                 | 545.25                | 85.31                 | 35.34                       | 7.74               |
| 10749 | 2017-09-06 23:30:00:000 | 86.88                 | 555.58                | 85.78                 | 35.31                       | 7.73               |
| 10750 | 2017-09-06 23:45:00:000 | 87.66                 | 557.83                | 85.78                 | 35.29                       | 7.73               |
| 10751 | 2017-09-07 00:00:00:000 | 82.34                 | 541.58                | 80.72                 | 35.27                       | 7.73               |
| 10752 | 2017-09-07 00:15:00:000 | 87.4                  | 553.83                | 85.78                 | 35.26                       | 7.73               |
| 10753 | 2017-09-07 00:30:00:000 | 87.71                 | 561.17                | 86.91                 | 35.28                       | 7.73               |
| 10754 | 2017-09-07 00:45:00:000 | 87.81                 | 560.75                | 85.78                 | 35.3                        | 7.74               |
| 10755 | 2017-09-07 01:00:00:000 | 82.14                 | 541.67                | 79.78                 | 35.31                       | 7.73               |
| 10756 | 2017-09-07 01:15:00:    | 86.61                 | 551.67                | 85.78                 | 35.32                       | 7.74               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 11377 | 2017-09-13 22:15:00:000 | 81.3                  | 515.83                | 78.66                 | 36.21                       | 7.68               |
| 11378 | 2017-09-13 22:30:00:000 | 81.88                 | 522.17                | 78.66                 | 36.21                       | 7.68               |
| 11379 | 2017-09-13 22:45:00:000 | 81.56                 | 520.83                | 78.19                 | 36.15                       | 7.68               |
| 11380 | 2017-09-13 23:00:00:000 | 76.51                 | 502.67                | 73.03                 | 36.24                       | 7.69               |
| 11381 | 2017-09-13 23:15:00:000 | 80.99                 | 513.17                | 77.72                 | 36.23                       | 7.68               |
| 11382 | 2017-09-13 23:30:00:000 | 81.88                 | 521.25                | 79.31                 | 36.08                       | 7.66               |
| 11383 | 2017-09-13 23:45:00:000 | 81.56                 | 521.75                | 78.75                 | 36.11                       | 7.64               |
| 11384 | 2017-09-14 00:00:00:000 | 79.9                  | 513.67                | 77.25                 | 36.1                        | 7.63               |
| 11385 | 2017-09-14 00:15:00:000 | 79.32                 | 507.67                | 77.25                 | 36.27                       | 7.64               |
| 11386 | 2017-09-14 00:30:00:000 | 77.11                 | 495.25                | 75.23                 | 36.39                       | 7.66               |
| 11387 | 2017-09-14 00:45:00:000 | 76.98                 | 491.0                 | 74.53                 | 36.28                       | 7.67               |
| 11388 | 2017-09-14 01:00:00:000 | 73.33                 | 491.33                | 70.59                 | 36.18                       | 7.66               |
| 11389 | 2017-09-14 01:15:00:000 | 78.96                 | 500.42                | 76.69                 | 36.11                       | 7.65               |
| 11390 | 2017-09-14 01:30:00:000 | 80.16                 | 512.25                | 78.19                 | 36.1                        | 7.65               |
| 11391 | 2017-09-14 01:45:00:000 | 81.25                 | 519.5                 | 78.66                 | 36.06                       | 7.65               |
| 11392 | 2017-09-14 02:00:00:000 | 77.08                 | 505.0                 | 73.59                 | 36.03                       | 7.66               |
| 11393 | 2017-09-14 02:15:00:000 | 66.77                 | 445.58                | 63.84                 | 35.92                       | 7.66               |
| 11394 | 2017-09-14 02:30:00:000 | 23.83                 | 177.0                 | 20.53                 | 35.74                       | 7.68               |
| 11395 | 2017-09-14 02:45:00:000 | 22.19                 | 148.08                | 18.28                 | 35.59                       | 7.65               |
| 11396 | 2017-09-14 03:00:00:    | 23.85                 | 151.83                | 19.87                 | 35.66                       | 7.66               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 11397 | 2017-09-14 03:15:00:000 | 53.39                 | 309.58                | 46.97                 | 35.98                       | 7.67               |
| 11398 | 2017-09-14 03:30:00:000 | 80.68                 | 492.25                | 76.59                 | 35.91                       | 7.68               |
| 11399 | 2017-09-14 03:45:00:000 | 85.23                 | 536.25                | 82.41                 | 35.87                       | 7.67               |
| 11400 | 2017-09-14 04:00:00:000 | 80.99                 | 529.42                | 77.72                 | 35.7                        | 7.64               |
| 11401 | 2017-09-14 04:15:00:000 | 85.83                 | 544.42                | 83.34                 | 35.63                       | 7.6                |
| 11402 | 2017-09-14 04:30:00:000 | 85.57                 | 546.25                | 83.44                 | 35.63                       | 7.57               |
| 11403 | 2017-09-14 04:45:00:000 | 83.8                  | 536.75                | 82.41                 | 35.63                       | 7.55               |
| 11404 | 2017-09-14 05:00:00:000 | 76.72                 | 509.08                | 74.16                 | 35.64                       | 7.53               |
| 11405 | 2017-09-14 05:15:00:000 | 81.3                  | 515.92                | 79.31                 | 35.64                       | 7.51               |
| 11406 | 2017-09-14 05:30:00:000 | 81.88                 | 522.17                | 79.87                 | 35.62                       | 7.49               |
| 11407 | 2017-09-14 05:45:00:000 | 81.88                 | 522.58                | 79.78                 | 35.61                       | 7.48               |
| 11408 | 2017-09-14 06:00:00:000 | 76.46                 | 501.33                | 74.16                 | 35.62                       | 7.48               |
| 11409 | 2017-09-14 06:15:00:000 | 80.21                 | 510.92                | 79.31                 | 35.65                       | 7.48               |
| 11410 | 2017-09-14 06:30:00:000 | 80.94                 | 518.17                | 79.78                 | 35.61                       | 7.48               |
| 11411 | 2017-09-14 06:45:00:000 | 81.88                 | 520.83                | 79.59                 | 35.58                       | 7.48               |
| 11412 | 2017-09-14 07:00:00:000 | 75.83                 | 500.42                | 74.16                 | 35.56                       | 7.47               |
| 11413 | 2017-09-14 07:15:00:000 | 80.94                 | 512.5                 | 79.12                 | 35.55                       | 7.46               |
| 11414 | 2017-09-14 07:30:00:000 | 81.72                 | 520.67                | 79.59                 | 35.54                       | 7.46               |
| 11415 | 2017-09-14 07:45:00:000 | 82.5                  | 526.58                | 81.0                  | 35.5                        | 7.47               |
| 11416 | 2017-09-14 08:00:00:    | 83.54                 | 536.42                | 82.41                 | 35.43                       | 7.47               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 11417 | 2017-09-14 08:15:00:000 | 84.06                 | 538.58                | 82.41                 | 35.48                       | 7.48               |
| 11418 | 2017-09-14 08:30:00:000 | 84.01                 | 539.0                 | 82.41                 | 35.55                       | 7.5                |
| 11419 | 2017-09-14 08:45:00:000 | 83.44                 | 537.08                | 81.47                 | 35.79                       | 7.53               |
| 11420 | 2017-09-14 09:00:00:000 | 76.82                 | 511.25                | 74.16                 | 36.07                       | 7.57               |
| 11421 | 2017-09-14 09:15:00:000 | 78.23                 | 503.58                | 76.22                 | 36.12                       | 7.57               |
| 11422 | 2017-09-14 09:30:00:000 | 75.99                 | 489.92                | 73.03                 | 36.31                       | 7.57               |
| 11423 | 2017-09-14 09:45:00:000 | 72.81                 | 470.42                | 70.5                  | 36.48                       | 7.57               |
| 11424 | 2017-09-14 10:00:00:000 | 63.44                 | 441                   | 61.59                 | 36.64                       | 7.57               |
| 11425 | 2017-09-14 10:30:00:000 | 65.23                 | 420.0                 | 64.13                 | 36.72                       | 7.57               |
| 11426 | 2017-09-14 10:45:00:000 | 65.16                 | 418.83                | 63.84                 | 36.84                       | 7.57               |
| 11427 | 2017-09-14 11:00:00:000 | 60.89                 | 402.92                | 58.22                 | 36.89                       | 7.57               |
| 11428 | 2017-09-14 11:15:00:000 | 65.1                  | 415.92                | 63.38                 | 36.79                       | 7.56               |
| 11429 | 2017-09-14 11:30:00:000 | 67.08                 | 430.5                 | 64.97                 | 36.8                        | 7.54               |
| 11430 | 2017-09-14 11:45:00:000 | 64.69                 | 419.12                | 63.0                  | 37.09                       | 7.57               |
| 11431 | 2017-09-14 12:00:00:000 | 59.06                 | 393.75                | 56.53                 | 37.24                       | 7.6                |
| 11432 | 2017-09-14 12:15:00:000 | 60.78                 | 392.42                | 59.06                 | 37.37                       | 7.61               |
| 11433 | 2017-09-14 12:30:00:000 | 59.9                  | 389.17                | 57.94                 | 37.56                       | 7.64               |
| 11434 | 2017-09-14 12:45:00:000 | 57.03                 | 373.33                | 55.03                 | 37.75                       | 7.69               |
| 11435 | 2017-09-14 13:00:00:000 | 52.14                 | 348.42                | 49.31                 | 37.81                       | 7.71               |
| 11436 | 2017-09-14 13:15:00:    | 52.19                 | 338.92                | 49.78                 | 37.84                       | 7.71               |

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| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 11437 | 2017-09-14 13:30:00:000 | 50.99                 | 332.42                | 48.84                 | 37.86                       | 7.7                |
| 11438 | 2017-09-14 13:45:00:000 | 54.22                 | 347.63                | 52.73                 | 37.7                        | 7.64               |
| 11439 | 2017-09-14 14:00:00:000 | 59.17                 | 379.08                | 56.44                 | 37.48                       | 7.6                |
| 11440 | 2017-09-14 14:15:00:000 | 66.3                  | 422.08                | 65.06                 | 37.3                        | 7.59               |
| 11441 | 2017-09-14 14:30:00:000 | 69.43                 | 445.25                | 67.78                 | 37.15                       | 7.57               |
| 11442 | 2017-09-14 14:45:00:000 | 71.72                 | 460.17                | 70.22                 | 37.04                       | 7.57               |
| 11443 | 2017-09-14 15:00:00:000 | 70.0                  | 458.83                | 68.25                 | 36.92                       | 7.56               |
| 11444 | 2017-09-14 15:15:00:000 | 75.68                 | 482.42                | 73.78                 | 36.76                       | 7.57               |
| 11445 | 2017-09-14 15:30:00:000 | 76.88                 | 493.75                | 75.09                 | 36.63                       | 7.57               |
| 11446 | 2017-09-14 15:45:00:000 | 78.12                 | 503.37                | 75.94                 | 36.63                       | 7.6                |
| 11447 | 2017-09-14 16:00:00:000 | 76.56                 | 499.75                | 73.87                 | 36.55                       | 7.62               |
| 11448 | 2017-09-14 16:15:00:000 | 80.31                 | 515.5                 | 77.34                 | 36.52                       | 7.65               |
| 11449 | 2017-09-14 16:30:00:000 | 81.09                 | 521.5                 | 79.03                 | 36.47                       | 7.66               |
| 11450 | 2017-09-14 16:45:00:000 | 81.61                 | 525.17                | 79.03                 | 36.42                       | 7.68               |
| 11451 | 2017-09-14 17:00:00:000 | 75.21                 | 501.08                | 72.38                 | 36.46                       | 7.7                |
| 11452 | 2017-09-14 17:15:00:000 | 78.33                 | 503.0                 | 75.94                 | 36.58                       | 7.7                |
| 11453 | 2017-09-14 17:30:00:000 | 75.83                 | 490.67                | 72.94                 | 36.71                       | 7.7                |
| 11454 | 2017-09-14 17:45:00:000 | 73.59                 | 476.25                | 71.44                 | 36.72                       | 7.69               |
| 11455 | 2017-09-14 18:00:00:000 | 70.7                  | 453.12                | 66.94                 | 36.61                       | 7.67               |
| 11456 | 2017-09-14 18:15:00:    | 74.06                 | 473                   | 72.28                 | 36.62                       | 7.64               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 11457 | 2017-09-14 18:30:00:000 | 74.53                 | 479.0                 | 73.13                 | 36.62                       | 7.63           |
| 11458 | 2017-09-14 18:45:00:000 | 73.75                 | 474.38                | 71.72                 | 36.63                       | 7.62           |
| 11459 | 2017-09-14 19:00:00:000 | 69.14                 | 464.25                | 67.08                 | 36.59                       | 7.6            |
| 11460 | 2017-09-14 19:15:00:000 | 72.66                 | 465.67                | 71.16                 | 36.55                       | 7.6            |
| 11461 | 2017-09-14 19:30:00:000 | 73.75                 | 474.5                 | 73.41                 | 36.41                       | 7.59           |
| 11462 | 2017-09-14 19:45:00:000 | 74.69                 | 479.25                | 73.41                 | 36.33                       | 7.6            |
| 11463 | 2017-09-14 20:00:00:000 | 70.08                 | 469.87                | 67.92                 | 36.3                        | 7.6            |
| 11464 | 2017-09-14 20:15:00:000 | 74.77                 | 476.0                 | 73.41                 | 36.24                       | 7.61           |
| 11465 | 2017-09-14 20:30:00:000 | 76.41                 | 488.87                | 74.81                 | 36.21                       | 7.61           |
| 11466 | 2017-09-14 20:45:00:000 | 76.87                 | 492.88                | 74.81                 | 36.19                       | 7.62           |
| 11467 | 2017-09-14 21:00:00:000 | 74.3                  | 475.75                | 71.86                 | 36.17                       | 7.63           |
| 11468 | 2017-09-14 21:15:00:000 | 78.7                  | 500.67                | 76.5                  | 36.15                       | 7.64           |
| 11469 | 2017-09-14 21:30:00:000 | 80.47                 | 513.33                | 78.09                 | 36.12                       | 7.65           |
| 11470 | 2017-09-14 21:45:00:000 | 79.06                 | 522.12                | 76.5                  | 36.08                       | 7.66           |
| 11471 | 2017-09-14 22:00:00:000 | 79.06                 | 503.87                | 75.8                  | 36.06                       | 7.67           |
| 11472 | 2017-09-14 22:15:00:000 | 82.89                 | 528.37                | 80.3                  | 36.04                       | 7.67           |
| 11473 | 2017-09-14 22:30:00:000 | 83.39                 | 532.33                | 81.0                  | 36.03                       | 7.66           |
| 11474 | 2017-09-14 22:45:00:000 | 83.02                 | 532.33                | 80.53                 | 36.08                       | 7.66           |
| 11475 | 2017-09-14 23:00:00:000 | 76.77                 | 508.83                | 73.97                 | 36.1                        | 7.66           |
| 11476 | 2017-09-14 23:15:00:    | 81.46                 | 518.33                | 79.12                 | 36.11                       | 7.66           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 11477 | 2017-09-14 23:30:00:000 | 81.72                 | 522.42                | 79.59                 | 36.11                       | 7.65           |
| 11478 | 2017-09-14 23:45:00:000 | 80.47                 | 516.88                | 78.19                 | 36.23                       | 7.66           |
| 11479 | 2017-09-15 00:00:00:000 | 75.73                 | 495.75                | 72.94                 | 36.16                       | 7.66           |
| 11480 | 2017-09-15 00:15:00:000 | 80.0                  | 508.42                | 77.62                 | 36.12                       | 7.65           |
| 11481 | 2017-09-15 00:30:00:000 | 80.94                 | 516.25                | 78.19                 | 36.1                        | 7.65           |
| 11482 | 2017-09-15 00:45:00:000 | 80.94                 | 517.58                | 78.19                 | 36.09                       | 7.64           |
| 11483 | 2017-09-15 01:00:00:000 | 80.05                 | 514.42                | 77.25                 | 36.06                       | 7.64           |
| 11484 | 2017-09-15 01:15:00:000 | 81.72                 | 521.17                | 79.12                 | 35.96                       | 7.64           |
| 11485 | 2017-09-15 01:30:00:000 | 83.12                 | 530.67                | 80.63                 | 35.91                       | 7.64           |
| 11486 | 2017-09-15 01:45:00:000 | 83.7                  | 536.08                | 81.0                  | 35.93                       | 7.65           |
| 11487 | 2017-09-15 02:00:00:000 | 77.76                 | 515.75                | 74.53                 | 35.93                       | 7.65           |
| 11488 | 2017-09-15 02:15:00:000 | 83.18                 | 527.0                 | 80.53                 | 35.91                       | 7.65           |
| 11489 | 2017-09-15 02:30:00:000 | 83.44                 | 533.42                | 81.0                  | 35.92                       | 7.65           |
| 11490 | 2017-09-15 02:45:00:000 | 82.81                 | 531.08                | 80.53                 | 35.9                        | 7.64           |
| 11491 | 2017-09-15 03:00:00:000 | 77.45                 | 509.83                | 74.44                 | 35.86                       | 7.63           |
| 11492 | 2017-09-15 03:15:00:000 | 82.24                 | 522.08                | 80.06                 | 35.75                       | 7.62           |
| 11493 | 2017-09-15 03:30:00:000 | 83.44                 | 531.08                | 81.19                 | 35.65                       | 7.61           |
| 11494 | 2017-09-15 03:45:00:000 | 83.44                 | 533.33                | 81.28                 | 35.58                       | 7.61           |
| 11495 | 2017-09-15 04:00:00:000 | 78.65                 | 515.75                | 76.13                 | 35.6                        | 7.62           |
| 11496 | 2017-09-15 04:15:00:    | 82.6                  | 525.67                | 80.72                 | 35.66                       | 7.62           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 14457 | 2017-10-16 20:45:00:000 | 85.94                 | 548.33                | 84.38                 | 35.78                       | 7.87           |
| 14458 | 2017-10-16 21:00:00:000 | 82.03                 | 533.5                 | 78.66                 | 35.79                       | 7.87           |
| 14459 | 2017-10-16 21:15:00:000 | 83.44                 | 534.33                | 81.28                 | 35.8                        | 7.87           |
| 14460 | 2017-10-16 21:30:00:000 | 83.44                 | 535.25                | 81.28                 | 35.79                       | 7.87           |
| 14461 | 2017-10-16 21:45:00:000 | 84.06                 | 537.08                | 81.28                 | 35.78                       | 7.88           |
| 14462 | 2017-10-16 22:00:00:000 | 82.03                 | 531.25                | 79.22                 | 35.77                       | 7.89           |
| 14463 | 2017-10-16 22:15:00:000 | 84.58                 | 538.92                | 82.31                 | 35.76                       | 7.9            |
| 14464 | 2017-10-16 22:30:00:000 | 85.78                 | 547.08                | 83.44                 | 35.72                       | 7.91           |
| 14465 | 2017-10-16 22:45:00:000 | 87.14                 | 555.25                | 84.38                 | 35.7                        | 7.92           |
| 14466 | 2017-10-16 23:00:00:000 | 84.64                 | 549.83                | 80.25                 | 35.66                       | 7.93           |
| 14467 | 2017-10-16 23:15:00:000 | 88.44                 | 561.67                | 85.41                 | 35.59                       | 7.93           |
| 14468 | 2017-10-16 23:30:00:000 | 89.53                 | 569.83                | 87.0                  | 35.5                        | 7.92           |
| 14469 | 2017-10-16 23:45:00:000 | 89.53                 | 573.08                | 87.47                 | 35.4                        | 7.9            |
| 14470 | 2017-10-17 00:00:00:000 | 87.81                 | 566.67                | 84.38                 | 35.28                       | 7.87           |
| 14471 | 2017-10-17 00:15:00:000 | 91.88                 | 582.58                | 89.44                 | 35.23                       | 7.84           |
| 14472 | 2017-10-17 00:30:00:000 | 92.45                 | 589.33                | 90.56                 | 35.18                       | 7.84           |
| 14473 | 2017-10-17 00:45:00:000 | 92.19                 | 589.33                | 90.56                 | 35.15                       | 7.84           |
| 14474 | 2017-10-17 01:00:00:000 | 92.19                 | 589.33                | 90.56                 | 35.2                        | 7.85           |
| 14475 | 2017-10-17 01:15:00:000 | 92.97                 | 593.0                 | 90.56                 | 35.12                       | 7.85           |
| 14476 | 2017-10-17 01:30:00:    | 94.48                 | 602.17                | 92.06                 | 35.05                       | 7.83           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 14477 | 2017-10-17 01:45:00:000 | 94.69                 | 604.5                 | 92.16                 | 35.04                       | 7.82           |
| 14478 | 2017-10-17 02:00:00:000 | 90.73                 | 590.33                | 86.53                 | 35.0                        | 7.82           |
| 14479 | 2017-10-17 02:15:00:000 | 93.59                 | 596.25                | 91.69                 | 34.98                       | 7.8            |
| 14480 | 2017-10-17 02:30:00:000 | 94.17                 | 600.75                | 92.25                 | 34.97                       | 7.81           |
| 14481 | 2017-10-17 02:45:00:000 | 94.69                 | 604.5                 | 92.25                 | 34.96                       | 7.81           |
| 14482 | 2017-10-17 03:00:00:000 | 91.61                 | 592.5                 | 87.56                 | 34.96                       | 7.81           |
| 14483 | 2017-10-17 03:15:00:000 | 94.53                 | 601.67                | 92.25                 | 34.94                       | 7.81           |
| 14484 | 2017-10-17 03:30:00:000 | 95.36                 | 606.25                | 92.72                 | 34.94                       | 7.81           |
| 14485 | 2017-10-17 03:45:00:000 | 95.1                  | 608.0                 | 92.72                 | 34.93                       | 7.8            |
| 14486 | 2017-10-17 04:00:00:000 | 93.02                 | 599.33                | 89.53                 | 34.93                       | 7.8            |
| 14487 | 2017-10-17 04:15:00:000 | 95.36                 | 606.25                | 92.72                 | 34.93                       | 7.81           |
| 14488 | 2017-10-17 04:30:00:000 | 95.62                 | 610.75                | 93.66                 | 34.93                       | 7.82           |
| 14489 | 2017-10-17 04:45:00:000 | 96.51                 | 613.5                 | 93.66                 | 34.92                       | 7.82           |
| 14490 | 2017-10-17 05:00:00:000 | 92.81                 | 601.75                | 88.59                 | 34.92                       | 7.83           |
| 14491 | 2017-10-17 05:15:00:000 | 95.62                 | 609.62                | 93.66                 | 34.95                       | 7.85           |
| 14492 | 2017-10-17 05:30:00:000 | 96.56                 | 612.67                | 93.66                 | 34.98                       | 7.87           |
| 14493 | 2017-10-17 05:45:00:000 | 96.82                 | 615.83                | 93.66                 | 34.94                       | 7.86           |
| 14494 | 2017-10-17 06:00:00:000 | 93.65                 | 606.75                | 89.62                 | 34.91                       | 7.84           |
| 14495 | 2017-10-17 06:15:00:000 | 97.4                  | 617.17                | 94.78                 | 34.91                       | 7.84           |
| 14496 | 2017-10-17 06:30:00:    | 97.34                 | 622.17                | 95.34                 | 34.9                        | 7.84           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 14497 | 2017-10-17 06:45:00:000 | 97.34                 | 622.17                | 95.34                 | 34.91                       | 7.84           |
| 14498 | 2017-10-17 07:00:00:000 | 93.13                 | 606.75                | 89.62                 | 34.89                       | 7.83           |
| 14499 | 2017-10-17 07:15:00:000 | 97.08                 | 616.67                | 94.13                 | 34.88                       | 7.82           |
| 14500 | 2017-10-17 07:30:00:000 | 97.19                 | 620.58                | 95.06                 | 34.87                       | 7.81           |
| 14501 | 2017-10-17 07:45:00:000 | 96.98                 | 620.83                | 94.97                 | 34.84                       | 7.79           |
| 14502 | 2017-10-17 08:00:00:000 | 93.44                 | 596.88                | 89.3                  | 34.82                       | 7.79           |
| 14503 | 2017-10-17 08:15:00:000 | 95.94                 | 612.92                | 93.28                 | 34.9                        | 7.81           |
| 14504 | 2017-10-17 08:30:00:000 | 96.82                 | 619.25                | 94.31                 | 34.97                       | 7.83           |
| 14505 | 2017-10-17 08:45:00:000 | 96.87                 | 621.58                | 93.84                 | 35.06                       | 7.86           |
| 14506 | 2017-10-17 09:00:00:000 | 92.86                 | 606.25                | 87.66                 | 35.17                       | 7.88           |
| 14507 | 2017-10-17 09:15:00:000 | 95.68                 | 610.83                | 91.69                 | 35.31                       | 7.88           |
| 14508 | 2017-10-17 09:30:00:000 | 93.39                 | 600.67                | 90.19                 | 35.46                       | 7.9            |
| 14509 | 2017-10-17 09:45:00:000 | 89.95                 | 580.67                | 86.62                 | 35.57                       | 7.9            |
| 14510 | 2017-10-17 10:00:00:000 | 82.86                 | 549.5                 | 78.19                 | 35.67                       | 7.91           |
| 14511 | 2017-10-17 10:15:00:000 | 84.84                 | 544.0                 | 81.47                 | 35.74                       | 7.92           |
| 14512 | 2017-10-17 10:30:00:000 | 84.84                 | 545.33                | 81.94                 | 35.79                       | 7.93           |
| 14513 | 2017-10-17 10:45:00:000 | 84.22                 | 540.25                | 81.0                  | 35.85                       | 7.93           |
| 14514 | 2017-10-17 11:00:00:000 | 80.16                 | 526.25                | 76.12                 | 35.9                        | 7.91           |
| 14515 | 2017-10-17 11:15:00:000 | 82.19                 | 526.17                | 79.13                 | 35.96                       | 7.89           |
| 14516 | 2017-10-17 11:30:00:    | 81.2                  | 523.42                | 79.03                 | 35.98                       | 7.87           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 14517 | 2017-10-17 11:45:00:000 | 80.31                 | 517.5                 | 78.09                 | 36.04                       | 7.85           |
| 14518 | 2017-10-17 12:00:00:000 | 74.95                 | 495.75                | 71.91                 | 36.12                       | 7.84           |
| 14519 | 2017-10-17 12:15:00:000 | 76.98                 | 493.0                 | 74.91                 | 36.09                       | 7.81           |
| 14520 | 2017-10-17 12:30:00:000 | 78.59                 | 505.17                | 77.06                 | 36.04                       | 7.79           |
| 14521 | 2017-10-17 12:45:00:000 | 80.0                  | 515.0                 | 78.47                 | 36.02                       | 7.79           |
| 14522 | 2017-10-17 13:00:00:000 | 77.66                 | 508.67                | 74.34                 | 36.0                        | 7.78           |
| 14523 | 2017-10-17 13:15:00:000 | 81.04                 | 518.67                | 78.47                 | 35.99                       | 7.78           |
| 14524 | 2017-10-17 13:30:00:000 | 82.4                  | 529.08                | 80.44                 | 35.94                       | 7.75           |
| 14525 | 2017-10-17 13:45:00:000 | 83.49                 | 536.83                | 81.37                 | 35.9                        | 7.74           |
| 14526 | 2017-10-17 14:00:00:000 | 81.51                 | 534.08                | 78.37                 | 35.86                       | 7.73           |
| 14527 | 2017-10-17 14:15:00:000 | 85.78                 | 547.67                | 82.97                 | 35.84                       | 7.73           |
| 14528 | 2017-10-17 14:30:00:000 | 86.09                 | 553                   | 83.53                 | 35.81                       | 7.72           |
| 14529 | 2017-10-17 14:45:00:000 | 86.09                 | 554.0                 | 83.53                 | 35.81                       | 7.73           |
| 14530 | 2017-10-17 15:00:00:000 | 82.66                 | 543.17                | 79.41                 | 35.81                       | 7.75           |
| 14531 | 2017-10-17 15:15:00:000 | 85.78                 | 549.83                | 83.34                 | 35.79                       | 7.75           |
| 14532 | 2017-10-17 15:30:00:000 | 86.09                 | 554.42                | 83.53                 | 35.77                       | 7.76           |
| 14533 | 2017-10-17 15:45:00:000 | 86.09                 | 554.83                | 83.34                 | 35.75                       | 7.78           |
| 14534 | 2017-10-17 16:00:00:000 | 82.6                  | 544.42                | 78.84                 | 35.71                       | 7.78           |
| 14535 | 2017-10-17 16:15:00:000 | 86.35                 | 553.08                | 84.0                  | 35.67                       | 7.77           |
| 14536 | 2017-10-17 16:30:00:    | 86.88                 | 560.0                 | 85.03                 | 35.59                       | 7.76           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 14537 | 2017-10-17 16:45:00:000 | 87.19                 | 562.25                | 85.22                 | 35.59                       | 7.77           |
| 14538 | 2017-10-17 17:00:00:000 | 84.37                 | 553.58                | 81.56                 | 35.56                       | 7.77           |
| 14539 | 2017-10-17 17:15:00:000 | 88.23                 | 564.08                | 85.69                 | 35.55                       | 7.78           |
| 14540 | 2017-10-17 17:30:00:000 | 88.75                 | 570.42                | 86.63                 | 35.54                       | 7.79           |
| 14541 | 2017-10-17 17:45:00:000 | 89.11                 | 573.25                | 86.63                 | 35.53                       | 7.81           |
| 14542 | 2017-10-17 18:00:00:000 | 86.3                  | 562.92                | 82.78                 | 35.54                       | 7.81           |
| 14543 | 2017-10-17 18:15:00:000 | 89.01                 | 569.25                | 86.34                 | 35.55                       | 7.82           |
| 14544 | 2017-10-17 18:30:00:000 | 89.06                 | 571.25                | 87.09                 | 35.57                       | 7.81           |
| 14545 | 2017-10-17 18:45:00:000 | 89.06                 | 569.83                | 87.19                 | 35.59                       | 7.81           |
| 14546 | 2017-10-17 19:00:00:000 | 85.16                 | 557.17                | 81.47                 | 35.61                       | 7.82           |
| 14547 | 2017-10-17 19:15:00:000 | 88.02                 | 561.33                | 85.69                 | 35.6                        | 7.83           |
| 14548 | 2017-10-17 19:30:00:000 | 88.33                 | 564.58                | 85.78                 | 35.6                        | 7.84           |
| 14549 | 2017-10-17 19:45:00:000 | 87.81                 | 563.75                | 85.78                 | 35.59                       | 7.83           |
| 14550 | 2017-10-17 20:00:00:000 | 85.0                  | 554.17                | 81.56                 | 35.56                       | 7.8            |
| 14551 | 2017-10-17 20:15:00:000 | 87.81                 | 560.58                | 85.78                 | 35.59                       | 7.79           |
| 14552 | 2017-10-17 20:30:00:000 | 87.6                  | 561.83                | 85.78                 | 35.57                       | 7.79           |
| 14553 | 2017-10-17 20:45:00:000 | 87.03                 | 557.75                | 84.75                 | 35.6                        | 7.79           |
| 14554 | 2017-10-17 21:00:00:000 | 82.55                 | 540.58                | 79.59                 | 35.61                       | 7.79           |
| 14555 | 2017-10-17 21:15:00:000 | 84.22                 | 538.75                | 81                    | 35.62                       | 7.8            |
| 14556 | 2017-10-17 21:30:00:    | 83.7                  | 536.58                | 81.0                  | 35.64                       | 7.8            |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 14557 | 2017-10-17 21:45:00:000 | 83.07                 | 531.92                | 81.19                 | 35.62                       | 7.81           |
| 14558 | 2017-10-17 22:00:00:000 | 79.74                 | 519.33                | 76.03                 | 35.61                       | 7.81           |
| 14559 | 2017-10-17 22:15:00:000 | 82.24                 | 524.83                | 79.59                 | 35.6                        | 7.82           |
| 14560 | 2017-10-17 22:30:00:000 | 82.5                  | 527.58                | 80.72                 | 35.58                       | 7.82           |
| 14561 | 2017-10-17 22:45:00:000 | 83.44                 | 533                   | 81.19                 | 35.53                       | 7.81           |
| 14562 | 2017-10-17 23:00:00:000 | 82.55                 | 533.0                 | 79.69                 | 35.47                       | 7.8            |
| 14563 | 2017-10-17 23:15:00:000 | 84.84                 | 540.75                | 82.41                 | 35.4                        | 7.79           |
| 14564 | 2017-10-17 23:30:00:000 | 86.3                  | 549.83                | 84.38                 | 35.36                       | 7.8            |
| 14565 | 2017-10-17 23:45:00:000 | 87.14                 | 556                   | 85.78                 | 35.3                        | 7.8            |
| 14566 | 2017-10-18 00:00:00:000 | 86.51                 | 557.0                 | 83.25                 | 35.24                       | 7.8            |
| 14567 | 2017-10-18 00:15:00:000 | 90.26                 | 573.42                | 87.94                 | 35.17                       | 7.8            |
| 14568 | 2017-10-18 00:30:00:000 | 92.24                 | 588.33                | 89.91                 | 35.07                       | 7.8            |
| 14569 | 2017-10-18 00:45:00:000 | 93.75                 | 598.83                | 91.97                 | 35.01                       | 7.8            |
| 14570 | 2017-10-18 01:00:00:000 | 91.41                 | 592.08                | 88.31                 | 34.95                       | 7.8            |
| 14571 | 2017-10-18 01:15:00:000 | 95.1                  | 605.67                | 93.09                 | 34.93                       | 7.8            |
| 14572 | 2017-10-18 01:30:00:000 | 95.36                 | 611.08                | 93.66                 | 34.91                       | 7.8            |
| 14573 | 2017-10-18 01:45:00:000 | 95.47                 | 610.17                | 93.47                 | 34.92                       | 7.8            |
| 14574 | 2017-10-18 02:00:00:000 | 95.73                 | 611.08                | 93.56                 | 34.91                       | 7.8            |
| 14575 | 2017-10-18 02:15:00:000 | 95.47                 | 610.17                | 93.66                 | 34.9                        | 7.8            |
| 14576 | 2017-10-18 02:30:00:    | 95.0                  | 607.5                 | 93.66                 | 34.93                       | 7.79           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 17717 | 2017-11-20 22:30:00:000 | 99.43                 | 633.17                | 96.56                 | 32.69                       | 7.4            |
| 17718 | 2017-11-20 22:45:00:000 | 102.81                | 649.0                 | 99.09                 | 32.65                       | 7.4            |
| 17719 | 2017-11-20 23:00:00:000 | 100.63                | 651.25                | 95.44                 | 32.62                       | 7.4            |
| 17720 | 2017-11-20 23:15:00:000 | 104.32                | 661.25                | 99.56                 | 32.58                       | 7.4            |
| 17721 | 2017-11-20 23:30:00:000 | 99.74                 | 639.42                | 97.03                 | 32.56                       | 7.4            |
| 17722 | 2017-11-20 23:45:00:000 | 98.65                 | 628.67                | 96.09                 | 32.53                       | 7.4            |
| 17723 | 2017-11-21 00:00:00:000 | 94.06                 | 611.42                | 90.94                 | 32.51                       | 7.4            |
| 17724 | 2017-11-21 00:15:00:000 | 98.65                 | 623.75                | 96.09                 | 32.49                       | 7.4            |
| 17725 | 2017-11-21 00:30:00:000 | 99.22                 | 631.5                 | 97.03                 | 32.46                       | 7.4            |
| 17726 | 2017-11-21 00:45:00:000 | 99.22                 | 632.33                | 97.03                 | 32.44                       | 7.4            |
| 17727 | 2017-11-21 01:00:00:000 | 93.8                  | 613.42                | 90.47                 | 32.42                       | 7.4            |
| 17728 | 2017-11-21 01:15:00:000 | 98.13                 | 622.42                | 95.63                 | 32.39                       | 7.39           |
| 17729 | 2017-11-21 01:30:00:000 | 98.96                 | 627.83                | 97.03                 | 32.38                       | 7.39           |
| 17730 | 2017-11-21 01:45:00:000 | 98.44                 | 627.83                | 96.56                 | 32.36                       | 7.39           |
| 17731 | 2017-11-21 02:00:00:000 | 93.28                 | 608.0                 | 89.91                 | 32.34                       | 7.39           |
| 17732 | 2017-11-21 02:15:00:000 | 97.6                  | 617.42                | 95.63                 | 32.31                       | 7.39           |
| 17733 | 2017-11-21 02:30:00:000 | 97.66                 | 621.58                | 95.63                 | 32.29                       | 7.39           |
| 17734 | 2017-11-21 02:45:00:000 | 97.66                 | 620.67                | 95.63                 | 32.26                       | 7.39           |
| 17735 | 2017-11-21 03:00:00:000 | 92.5                  | 603.42                | 89.44                 | 32.24                       | 7.39           |
| 17736 | 2017-11-21 03:15:00:    | 97.34                 | 614.33                | 95.16                 | 32.21                       | 7.39           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 17737 | 2017-11-21 03:30:00:000 | 97.66                 | 619.75                | 95.63                 | 32.19                       | 7.39           |
| 17738 | 2017-11-21 03:45:00:000 | 97.66                 | 620.25                | 95.63                 | 32.16                       | 7.39           |
| 17739 | 2017-11-21 04:00:00:000 | 91.35                 | 599.42                | 88.97                 | 32.14                       | 7.39           |
| 17740 | 2017-11-21 04:15:00:000 | 97.08                 | 612.5                 | 95.16                 | 32.11                       | 7.39           |
| 17741 | 2017-11-21 04:30:00:000 | 97.66                 | 619.83                | 95.63                 | 32.09                       | 7.39           |
| 17742 | 2017-11-21 04:45:00:000 | 97.66                 | 621.75                | 95.63                 | 32.06                       | 7.39           |
| 17743 | 2017-11-21 05:00:00:000 | 96.82                 | 619.0                 | 95.16                 | 32.04                       | 7.39           |
| 17744 | 2017-11-21 05:15:00:000 | 97.92                 | 622.58                | 95.63                 | 32.02                       | 7.39           |
| 17745 | 2017-11-21 05:30:00:000 | 98.44                 | 624.25                | 95.63                 | 31.99                       | 7.39           |
| 17746 | 2017-11-21 05:45:00:000 | 97.92                 | 623.42                | 95.63                 | 31.96                       | 7.39           |
| 17747 | 2017-11-21 06:00:00:000 | 93.13                 | 605.25                | 90.66                 | 31.94                       | 7.39           |
| 17748 | 2017-11-21 06:15:00:000 | 97.4                  | 615.75                | 95.72                 | 31.91                       | 7.39           |
| 17749 | 2017-11-21 06:30:00:000 | 97.66                 | 619.0                 | 95.63                 | 31.89                       | 7.39           |
| 17750 | 2017-11-21 06:45:00:000 | 97.66                 | 618.92                | 95.63                 | 31.87                       | 7.39           |
| 17751 | 2017-11-21 07:00:00:000 | 92.6                  | 602.17                | 89.62                 | 31.85                       | 7.39           |
| 17752 | 2017-11-21 07:15:00:000 | 96.41                 | 610.0                 | 94.92                 | 31.83                       | 7.39           |
| 17753 | 2017-11-21 07:30:00:000 | 96.87                 | 616.67                | 95.63                 | 31.81                       | 7.39           |
| 17754 | 2017-11-21 07:45:00:000 | 96.82                 | 617.5                 | 95.63                 | 31.78                       | 7.39           |
| 17755 | 2017-11-21 08:00:00:000 | 93.59                 | 605.25                | 90.94                 | 31.75                       | 7.39           |
| 17756 | 2017-11-21 08:15:00:    | 96.93                 | 614.17                | 95.16                 | 31.72                       | 7.39           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 17757 | 2017-11-21 08:30:00:000 | 96.56                 | 616.42                | 95.06                 | 31.69                       | 7.38           |
| 17758 | 2017-11-21 08:45:00:000 | 93.13                 | 599.5                 | 92.34                 | 31.67                       | 7.38           |
| 17759 | 2017-11-21 09:00:00:000 | 84.01                 | 557.83                | 82.03                 | 31.65                       | 7.38           |
| 17760 | 2017-11-21 09:15:00:000 | 82.55                 | 529.67                | 81.09                 | 31.64                       | 7.37           |
| 17761 | 2017-11-21 09:30:00:000 | 78.23                 | 503.33                | 76.87                 | 31.64                       | 7.37           |
| 17762 | 2017-11-21 09:45:00:000 | 73.7                  | 476.58                | 72.84                 | 31.63                       | 7.37           |
| 17763 | 2017-11-21 10:00:00:000 | 70.26                 | 458.42                | 68.16                 | 31.65                       | 7.37           |
| 17764 | 2017-11-21 10:15:00:000 | 74.79                 | 474.25                | 73.78                 | 31.67                       | 7.37           |
| 17765 | 2017-11-21 10:30:00:000 | 77.34                 | 492.83                | 76.31                 | 31.69                       | 7.37           |
| 17766 | 2017-11-21 10:45:00:000 | 78.8                  | 500.5                 | 77.72                 | 31.72                       | 7.37           |
| 17767 | 2017-11-21 11:00:00:000 | 75.57                 | 493.25                | 73.69                 | 31.76                       | 7.37           |
| 17768 | 2017-11-21 11:15:00:000 | 79.58                 | 505.42                | 78.75                 | 31.78                       | 7.36           |
| 17769 | 2017-11-21 11:30:00:000 | 80.42                 | 514.0                 | 79.69                 | 31.81                       | 7.36           |
| 17770 | 2017-11-21 11:45:00:000 | 81.2                  | 518.58                | 80.25                 | 31.84                       | 7.36           |
| 17771 | 2017-11-21 12:00:00:000 | 77.45                 | 506.67                | 75.66                 | 31.87                       | 7.36           |
| 17772 | 2017-11-21 12:15:00:000 | 79.69                 | 508.42                | 78.19                 | 31.89                       | 7.36           |
| 17773 | 2017-11-21 12:30:00:000 | 80.83                 | 518.58                | 80.16                 | 31.91                       | 7.36           |
| 17774 | 2017-11-21 12:45:00:000 | 84.84                 | 539.33                | 84.28                 | 31.93                       | 7.36           |
| 17775 | 2017-11-21 13:00:00:000 | 83.65                 | 542.5                 | 81.28                 | 31.94                       | 7.36           |
| 17776 | 2017-11-21 13:15:00:    | 91.51                 | 584.5                 | 88.87                 | 31.97                       | 7.36           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 17777 | 2017-11-21 13:30:00:000 | 92.4                  | 590.92                | 88.87                 | 31.98                       | 7.36           |
| 17778 | 2017-11-21 13:45:00:000 | 91.82                 | 597.25                | 87.84                 | 32.0                        | 7.35           |
| 17779 | 2017-11-21 14:00:00:000 | 101.09                | 629.0                 | 93.37                 | 32.02                       | 7.35           |
| 17780 | 2017-11-21 14:15:00:000 | 113.59                | 708.75                | 103.59                | 32.03                       | 7.35           |
| 17781 | 2017-11-21 14:30:00:000 | 122.03                | 769.62                | 110.25                | 32.05                       | 7.35           |
| 17782 | 2017-11-21 14:45:00:000 | 121.82                | 777.58                | 109.78                | 32.07                       | 7.35           |
| 17783 | 2017-11-21 15:00:00:000 | 118.44                | 772.17                | 105.66                | 32.11                       | 7.35           |
| 17784 | 2017-11-21 15:15:00:000 | 134.64                | 842.42                | 119.44                | 32.14                       | 7.35           |
| 17785 | 2017-11-21 15:30:00:000 | 149.3                 | 941.75                | 131.06                | 32.2                        | 7.35           |
| 17786 | 2017-11-21 15:45:00:000 | 148.02                | 944.92                | 129.66                | 32.22                       | 7.35           |
| 17787 | 2017-11-21 16:00:00:000 | 139.01                | 915.0                 | 120.56                | 32.27                       | 7.35           |
| 17788 | 2017-11-21 16:15:00:000 | 145.83                | 927.42                | 128.25                | 32.31                       | 7.35           |
| 17789 | 2017-11-21 16:30:00:000 | 130.21                | 847.58                | 116.44                | 32.35                       | 7.35           |
| 17790 | 2017-11-21 16:45:00:000 | 111.2                 | 729.25                | 101.63                | 32.39                       | 7.35           |
| 17791 | 2017-11-21 17:00:00:000 | 101.82                | 673.08                | 92.91                 | 32.42                       | 7.35           |
| 17792 | 2017-11-21 17:15:00:000 | 111.56                | 703.92                | 101.81                | 32.46                       | 7.35           |
| 17793 | 2017-11-21 17:30:00:000 | 126.35                | 789.58                | 113.06                | 32.5                        | 7.35           |
| 17794 | 2017-11-21 17:45:00:000 | 131.2                 | 854.0                 | 116.06                | 32.54                       | 7.35           |
| 17795 | 2017-11-21 18:00:00:000 | 114.48                | 777.08                | 102.84                | 32.57                       | 7.35           |
| 17796 | 2017-11-21 18:15:00:    | 108.59                | 701.33                | 100.41                | 32.61                       | 7.35           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 17797 | 2017-11-21 18:30:00:000 | 104.38                | 669.75                | 97.87                 | 32.65                       | 7.35           |
| 17798 | 2017-11-21 18:45:00:000 | 98.7                  | 635.42                | 93.75                 | 32.68                       | 7.35           |
| 17799 | 2017-11-21 19:00:00:000 | 93.07                 | 606.83                | 88.22                 | 32.71                       | 7.36           |
| 17800 | 2017-11-21 19:15:00:000 | 98.18                 | 622.67                | 94.97                 | 32.74                       | 7.36           |
| 17801 | 2017-11-21 19:30:00:000 | 100.78                | 639.0                 | 97.73                 | 32.77                       | 7.36           |
| 17802 | 2017-11-21 19:45:00:000 | 102.5                 | 652.25                | 100.12                | 32.78                       | 7.36           |
| 17803 | 2017-11-21 20:00:00:000 | 98.28                 | 635.92                | 95.06                 | 32.79                       | 7.36           |
| 17804 | 2017-11-21 20:15:00:000 | 100.83                | 641.33                | 97.97                 | 32.79                       | 7.36           |
| 17805 | 2017-11-21 20:30:00:000 | 102.29                | 649.5                 | 100.12                | 32.8                        | 7.35           |
| 17806 | 2017-11-21 20:45:00:000 | 104.01                | 660.42                | 101.25                | 32.78                       | 7.35           |
| 17807 | 2017-11-21 21:00:00:000 | 99.74                 | 648.17                | 95.53                 | 32.76                       | 7.36           |
| 17808 | 2017-11-21 21:15:00:000 | 103.96                | 659.92                | 101.25                | 32.75                       | 7.35           |
| 17809 | 2017-11-21 21:30:00:000 | 103.18                | 658.67                | 101.25                | 32.72                       | 7.36           |
| 17810 | 2017-11-21 21:45:00:000 | 102.29                | 652.75                | 100.12                | 32.7                        | 7.35           |
| 17811 | 2017-11-21 22:00:00:000 | 100.52                | 643.25                | 98.06                 | 32.67                       | 7.35           |
| 17812 | 2017-11-21 22:15:00:000 | 100.94                | 641.75                | 98.62                 | 32.65                       | 7.35           |
| 17813 | 2017-11-21 22:30:00:000 | 100.36                | 639.67                | 98.72                 | 32.62                       | 7.35           |
| 17814 | 2017-11-21 22:45:00:000 | 100.1                 | 636.92                | 98.72                 | 32.59                       | 7.35           |
| 17815 | 2017-11-21 23:00:00:000 | 93.54                 | 613.75                | 90.47                 | 32.56                       | 7.35           |
| 17816 | 2017-11-21 23:15:00:    | 98.7                  | 625.0                 | 96.66                 | 32.53                       | 7.35           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 17817 | 2017-11-21 23:30:00:000 | 99.22                 | 631.67                | 97.22                 | 32.5                        | 7.35           |
| 17818 | 2017-11-21 23:45:00:000 | 99.27                 | 632.92                | 97.03                 | 32.48                       | 7.35           |
| 17819 | 2017-11-22 00:00:00:000 | 94.17                 | 613.33                | 90.47                 | 32.44                       | 7.35           |
| 17820 | 2017-11-22 00:15:00:000 | 98.44                 | 623.33                | 96.56                 | 32.42                       | 7.35           |
| 17821 | 2017-11-22 00:30:00:000 | 99.22                 | 628.25                | 97.12                 | 32.4                        | 7.35           |
| 17822 | 2017-11-22 00:45:00:000 | 98.44                 | 628.25                | 97.12                 | 32.37                       | 7.35           |
| 17823 | 2017-11-22 01:00:00:000 | 92.45                 | 604.33                | 90.0                  | 32.35                       | 7.35           |
| 17824 | 2017-11-22 01:15:00:000 | 97.34                 | 615.67                | 95.16                 | 32.33                       | 7.35           |
| 17825 | 2017-11-22 01:30:00:000 | 97.66                 | 619.75                | 95.63                 | 32.31                       | 7.35           |
| 17826 | 2017-11-22 01:45:00:000 | 96.77                 | 616.67                | 95.63                 | 32.29                       | 7.35           |
| 17827 | 2017-11-22 02:00:00:000 | 91.35                 | 595.67                | 89.16                 | 32.27                       | 7.36           |
| 17828 | 2017-11-22 02:15:00:000 | 95.62                 | 605.25                | 94.22                 | 32.26                       | 7.36           |
| 17829 | 2017-11-22 02:30:00:000 | 95.94                 | 610.75                | 94.22                 | 32.24                       | 7.36           |
| 17830 | 2017-11-22 02:45:00:000 | 95.99                 | 610.75                | 94.22                 | 32.23                       | 7.36           |
| 17831 | 2017-11-22 03:00:00:000 | 89.48                 | 587.25                | 87.0                  | 32.22                       | 7.36           |
| 17832 | 2017-11-22 03:15:00:000 | 94.84                 | 599.42                | 93.75                 | 32.2                        | 7.36           |
| 17833 | 2017-11-22 03:30:00:000 | 95.16                 | 605.25                | 94.22                 | 32.19                       | 7.36           |
| 17834 | 2017-11-22 03:45:00:000 | 95.16                 | 605.25                | 94.22                 | 32.17                       | 7.36           |
| 17835 | 2017-11-22 04:00:00:000 | 90.05                 | 585.0                 | 87.66                 | 32.15                       | 7.36           |
| 17836 | 2017-11-22 04:15:00:    | 94.06                 | 596.33                | 93.28                 | 32.14                       | 7.36           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 19197 | 2017-12-06 20:15:00:000 | 80.23                 | 504.0                 | 78.19                 | 30.81                       | 8.02           |
| 19198 | 2017-12-06 20:30:00:000 | 82.4                  | 520.08                | 79.97                 | 30.76                       | 8.03           |
| 19199 | 2017-12-06 20:45:00:000 | 85.52                 | 541.42                | 83.53                 | 30.66                       | 8.05           |
| 19200 | 2017-12-06 21:00:00:000 | 83.28                 | 538.75                | 80.44                 | 30.61                       | 8.06           |
| 19201 | 2017-12-06 21:15:00:000 | 88.7                  | 559.25                | 86.16                 | 30.58                       | 8.06           |
| 19202 | 2017-12-06 21:30:00:000 | 90.1                  | 569.58                | 87.56                 | 30.57                       | 8.07           |
| 19203 | 2017-12-06 21:45:00:000 | 88.49                 | 572.83                | 85.59                 | 30.57                       | 8.07           |
| 19204 | 2017-12-06 22:00:00:000 | 87.86                 | 568.25                | 84.66                 | 30.48                       | 8.07           |
| 19205 | 2017-12-06 22:15:00:000 | 94.17                 | 594.08                | 91.41                 | 30.44                       | 8.08           |
| 19206 | 2017-12-06 22:30:00:000 | 94.48                 | 600.83                | 91.41                 | 30.48                       | 8.09           |
| 19207 | 2017-12-06 22:45:00:000 | 92.14                 | 598.08                | 88.78                 | 30.5                        | 8.09           |
| 19208 | 2017-12-06 23:00:00:000 | 89.27                 | 581.42                | 85.59                 | 30.5                        | 8.09           |
| 19209 | 2017-12-06 23:15:00:000 | 93.23                 | 589.58                | 90.28                 | 30.51                       | 8.09           |
| 19210 | 2017-12-06 23:30:00:000 | 93.49                 | 594.08                | 91.41                 | 30.51                       | 8.09           |
| 19211 | 2017-12-06 23:45:00:000 | 91.46                 | 594.5                 | 88.78                 | 30.51                       | 8.09           |
| 19212 | 2017-12-07 00:00:00:000 | 90.36                 | 573.25                | 86.53                 | 30.39                       | 8.08           |
| 19213 | 2017-12-07 00:15:00:000 | 96.61                 | 608.58                | 93.28                 | 30.32                       | 8.07           |
| 19214 | 2017-12-07 00:30:00:000 | 96.04                 | 611.67                | 93.28                 | 30.4                        | 8.07           |
| 19215 | 2017-12-07 00:45:00:000 | 94.53                 | 604.0                 | 91.69                 | 30.45                       | 8.08           |
| 19216 | 2017-12-07 01:00:00:    | 89.22                 | 568.67                | 84.94                 | 30.45                       | 8.08           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 19217 | 2017-12-07 01:15:00:000 | 93.18                 | 588.5                 | 89.72                 | 30.44                       | 8.07           |
| 19218 | 2017-12-07 01:30:00:000 | 93.44                 | 592.75                | 91.12                 | 30.43                       | 8.07           |
| 19219 | 2017-12-07 01:45:00:000 | 90.94                 | 590.75                | 87.0                  | 30.43                       | 8.07           |
| 19220 | 2017-12-07 02:00:00:000 | 88.28                 | 561.75                | 85.5                  | 30.42                       | 8.06           |
| 19221 | 2017-12-07 02:15:00:000 | 91.72                 | 582.12                | 89.58                 | 30.42                       | 8.06           |
| 19222 | 2017-12-07 02:30:00:000 | 92.03                 | 585.25                | 89.72                 | 30.43                       | 8.05           |
| 19223 | 2017-12-07 02:45:00:000 | 91.72                 | 584.0                 | 89.72                 | 30.46                       | 8.05           |
| 19224 | 2017-12-07 03:00:00:000 | 90.26                 | 578.08                | 87.09                 | 30.4                        | 8.05           |
| 19225 | 2017-12-07 03:15:00:000 | 93.49                 | 591.75                | 90.66                 | 30.26                       | 8.05           |
| 19226 | 2017-12-07 03:30:00:000 | 96.04                 | 609.0                 | 93.28                 | 30.12                       | 8.04           |
| 19227 | 2017-12-07 03:45:00:000 | 98.02                 | 621.67                | 94.78                 | 29.97                       | 8.03           |
| 19228 | 2017-12-07 04:00:00:000 | 94.32                 | 610.33                | 90.19                 | 29.78                       | 8.02           |
| 19229 | 2017-12-07 04:15:00:000 | 100.57                | 632.58                | 96.84                 | 29.75                       | 8.01           |
| 19230 | 2017-12-07 04:30:00:000 | 101.09                | 643.5                 | 97.31                 | 29.62                       | 7.99           |
| 19231 | 2017-12-07 04:45:00:000 | 100.31                | 638.92                | 96.84                 | 29.59                       | 7.98           |
| 19232 | 2017-12-07 05:00:00:000 | 97.76                 | 623.92                | 94.78                 | 29.64                       | 7.96           |
| 19233 | 2017-12-07 05:15:00:000 | 95.83                 | 610.33                | 92.81                 | 29.63                       | 7.94           |
| 19234 | 2017-12-07 05:30:00:000 | 94.69                 | 603.08                | 91.78                 | 29.69                       | 7.93           |
| 19235 | 2017-12-07 05:45:00:000 | 93.75                 | 597.67                | 91.22                 | 29.74                       | 7.92           |
| 19236 | 2017-12-07 06:00:00:    | 88.33                 | 574.92                | 84.56                 | 29.9                        | 7.92           |

| S.No. | Time                          | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                           |                       |                       |                       |                             |                |
| 19237 | 2017-12-07 06:15:00:000 92.4  | 584.5                 | 89.06                 | 29.93                 | 7.92                        |                |
| 19238 | 2017-12-07 06:30:00:000 93.18 | 590.33                | 89.72                 | 29.95                 | 7.93                        |                |
| 19239 | 2017-12-07 06:45:00:000 92.66 | 590.42                | 89.53                 | 29.95                 | 7.92                        |                |
| 19240 | 2017-12-07 07:00:00:000 88.96 | 575.83                | 85.59                 | 29.93                 | 7.92                        |                |
| 19241 | 2017-12-07 07:15:00:000 92.08 | 583.58                | 89.06                 | 29.79                 | 7.91                        |                |
| 19242 | 2017-12-07 07:30:00:000 94.32 | 596.75                | 91.69                 | 29.57                 | 7.88                        |                |
| 19243 | 2017-12-07 07:45:00:000 96.04 | 608.5                 | 93.28                 | 29.45                 | 7.86                        |                |
| 19244 | 2017-12-07 08:00:00:000 92.34 | 597.58                | 88.59                 | 29.5                  | 7.85                        |                |
| 19245 | 2017-12-07 08:15:00:000 96.87 | 611.67                | 93.75                 | 29.56                 | 7.86                        |                |
| 19246 | 2017-12-07 08:30:00:000 93.75 | 598.5                 | 91.22                 | 29.89                 | 7.87                        |                |
| 19247 | 2017-12-07 08:45:00:000 88.02 | 566.75                | 86.06                 | 30.29                 | 7.88                        |                |
| 19248 | 2017-12-07 09:00:00:000 78.39 | 515.58                | 75.19                 | 30.5                  | 7.92                        |                |
| 19249 | 2017-12-07 09:15:00:000 77.24 | 492.42                | 75.19                 | 30.66                 | 7.94                        |                |
| 19250 | 2017-12-07 09:30:00:000 74.27 | 475.58                | 72.09                 | 30.76                 | 7.96                        |                |
| 19251 | 2017-12-07 09:45:00:000 71.15 | 456.92                | 69.47                 | 30.81                 | 7.95                        |                |
| 19252 | 2017-12-07 10:00:00:000 66.25 | 433.33                | 63.37                 | 30.92                 | 7.94                        |                |
| 19253 | 2017-12-07 10:15:00:000 65.94 | 422.42                | 64.41                 | 31.05                 | 7.98                        |                |
| 19254 | 2017-12-07 10:30:00:000 62.5  | 403.25                | 61.69                 | 31.27                 | 8.03                        |                |
| 19255 | 2017-12-07 10:45:00:000 57.6  | 373.25                | 56.44                 | 31.44                 | 8.08                        |                |
| 19256 | 2017-12-07 11:00:00: 51.3     | 341.08                | 49.41                 | 31.59                 | 8.11                        |                |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 19257 | 2017-12-07 11:15:00:000 | 47.03                 | 307.58                | 46.22                 | 31.74                       | 8.14           |
| 19258 | 2017-12-07 11:30:00:000 | 43.07                 | 279.92                | 41.62                 | 31.84                       | 8.15           |
| 19259 | 2017-12-07 11:45:00:000 | 39.37                 | 257.67                | 38.53                 | 31.91                       | 8.12           |
| 19260 | 2017-12-07 12:00:00:000 | 38.18                 | 247.17                | 35.44                 | 31.97                       | 8.09           |
| 19261 | 2017-12-07 12:15:00:000 | 36.82                 | 236.75                | 35.44                 | 32.04                       | 8.06           |
| 19262 | 2017-12-07 12:30:00:000 | 35.89                 | 232.25                | 35.44                 | 32.1                        | 8.04           |
| 19263 | 2017-12-07 12:45:00:000 | 35.52                 | 230.0                 | 35.44                 | 32.14                       | 8.03           |
| 19264 | 2017-12-07 13:00:00:000 | 36.2                  | 231.33                | 33.75                 | 32.18                       | 8.02           |
| 19265 | 2017-12-07 13:15:00:000 | 35                    | 228.08                | 33.75                 | 32.21                       | 8.02           |
| 19266 | 2017-12-07 13:30:00:000 | 35                    | 225.92                | 33.75                 | 32.24                       | 8.01           |
| 19267 | 2017-12-07 13:45:00:000 | 35.0                  | 224.92                | 33.75                 | 32.27                       | 8.01           |
| 19268 | 2017-12-07 14:00:00:000 | 34.06                 | 222.17                | 32.81                 | 32.3                        | 8.02           |
| 19269 | 2017-12-07 14:15:00:000 | 36.15                 | 231.25                | 35.91                 | 32.25                       | 8.01           |
| 19270 | 2017-12-07 14:30:00:000 | 46.61                 | 289.75                | 46.13                 | 32.04                       | 8              |
| 19271 | 2017-12-07 14:45:00:000 | 54.79                 | 343.67                | 54.28                 | 31.87                       | 8.0            |
| 19272 | 2017-12-07 15:00:00:000 | 59.11                 | 374.5                 | 56.81                 | 31.73                       | 8.01           |
| 19273 | 2017-12-07 15:15:00:000 | 66.04                 | 415.75                | 65.06                 | 31.53                       | 8.01           |
| 19274 | 2017-12-07 15:30:00:000 | 69.32                 | 441.17                | 68.25                 | 31.53                       | 8.01           |
| 19275 | 2017-12-07 15:45:00:000 | 70.21                 | 447.92                | 69.19                 | 31.52                       | 8.01           |
| 19276 | 2017-12-07 16:00:00:    | 67.92                 | 442.92                | 65.06                 | 31.51                       | 8.02           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 19277 | 2017-12-07 16:15:00:000 | 71.09                 | 453.0                 | 69.19                 | 31.53                       | 8.03           |
| 19278 | 2017-12-07 16:30:00:000 | 68.49                 | 441.67                | 67.69                 | 31.71                       | 8.06           |
| 19279 | 2017-12-07 16:45:00:000 | 62.34                 | 405.25                | 61.03                 | 31.77                       | 8.08           |
| 19280 | 2017-12-07 17:00:00:000 | 64.58                 | 413.17                | 62.53                 | 31.48                       | 8.06           |
| 19281 | 2017-12-07 17:15:00:000 | 73.18                 | 461.17                | 71.81                 | 31.26                       | 8.02           |
| 19282 | 2017-12-07 17:30:00:000 | 76.25                 | 484.75                | 74.91                 | 31.19                       | 7.98           |
| 19283 | 2017-12-07 17:45:00:000 | 75.94                 | 485.25                | 74.44                 | 31.22                       | 7.96           |
| 19284 | 2017-12-07 18:00:00:000 | 72.34                 | 473.42                | 69.75                 | 31.2                        | 7.97           |
| 19285 | 2017-12-07 18:15:00:000 | 76.41                 | 484.33                | 74.91                 | 31.19                       | 7.97           |
| 19286 | 2017-12-07 18:30:00:000 | 77.55                 | 493.92                | 75.38                 | 31.19                       | 7.98           |
| 19287 | 2017-12-07 18:45:00:000 | 78.59                 | 500.25                | 77.06                 | 31.16                       | 7.99           |
| 19288 | 2017-12-07 19:00:00:000 | 75.83                 | 491.67                | 72.84                 | 31.1                        | 7.99           |
| 19289 | 2017-12-07 19:15:00:000 | 79.22                 | 502.5                 | 77.06                 | 31.1                        | 7.98           |
| 19290 | 2017-12-07 19:30:00:000 | 78.7                  | 503.42                | 77.06                 | 31.12                       | 7.98           |
| 19291 | 2017-12-07 19:45:00:000 | 78.75                 | 501.75                | 77.06                 | 31.14                       | 7.98           |
| 19292 | 2017-12-07 20:00:00:000 | 75.05                 | 489.0                 | 72.56                 | 31.14                       | 7.98           |
| 19293 | 2017-12-07 20:15:00:000 | 78.44                 | 496.67                | 76.5                  | 31.2                        | 8.0            |
| 19294 | 2017-12-07 20:30:00:000 | 78.44                 | 499.33                | 76.59                 | 31.17                       | 8.01           |
| 19295 | 2017-12-07 20:45:00:000 | 80.36                 | 509.83                | 78.19                 | 31.05                       | 8.01           |
| 19296 | 2017-12-07 21:00:00:    | 78.44                 | 507.58                | 75.66                 | 30.99                       | 8.01           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 19297 | 2017-12-07 21:15:00:000 | 82.45                 | 523                   | 80.16                 | 30.96                       | 8.01           |
| 19298 | 2017-12-07 21:30:00:000 | 82.97                 | 529.0                 | 81.84                 | 30.94                       | 8.01           |
| 19299 | 2017-12-07 21:45:00:000 | 83.65                 | 531.67                | 81.84                 | 30.89                       | 8.01           |
| 19300 | 2017-12-07 22:00:00:000 | 79.32                 | 517.75                | 76.22                 | 30.89                       | 8.01           |
| 19301 | 2017-12-07 22:15:00:000 | 83.44                 | 527.17                | 81.28                 | 30.87                       | 8              |
| 19302 | 2017-12-07 22:30:00:000 | 84.01                 | 533.17                | 81.84                 | 30.84                       | 8              |
| 19303 | 2017-12-07 22:45:00:000 | 83.98                 | 534.5                 | 81.84                 | 30.82                       | 8              |
| 19304 | 2017-12-07 23:00:00:000 | 82.5                  | 529.5                 | 80.34                 | 30.81                       | 8              |
| 19305 | 2017-12-07 23:15:00:000 | 83.13                 | 529.92                | 81.84                 | 30.8                        | 8.0            |
| 19306 | 2017-12-07 23:30:00:000 | 84.06                 | 532.75                | 81.84                 | 30.77                       | 7.99           |
| 19307 | 2017-12-07 23:45:00:000 | 83.96                 | 533.25                | 81.84                 | 30.76                       | 7.99           |
| 19308 | 2017-12-08 00:00:00:000 | 79.38                 | 518.25                | 76.13                 | 30.73                       | 7.99           |
| 19309 | 2017-12-08 00:15:00:000 | 84.84                 | 535.42                | 82.31                 | 30.45                       | 7.98           |
| 19310 | 2017-12-08 00:30:00:000 | 87.4                  | 554.0                 | 85.41                 | 30.34                       | 7.97           |
| 19311 | 2017-12-08 00:45:00:000 | 88.8                  | 565.33                | 86.44                 | 30.33                       | 7.98           |
| 19312 | 2017-12-08 01:00:00:000 | 85.68                 | 553.92                | 81.84                 | 30.47                       | 7.98           |
| 19313 | 2017-12-08 01:15:00:000 | 89.43                 | 565.25                | 86.44                 | 30.49                       | 8.0            |
| 19314 | 2017-12-08 01:30:00:000 | 90                    | 572.08                | 88.03                 | 30.5                        | 8.02           |
| 19315 | 2017-12-08 01:45:00:000 | 90.0                  | 572.08                | 88.03                 | 30.49                       | 8.03           |
| 19316 | 2017-12-08 02:00:00:    | 84.32                 | 553.17                | 80.81                 | 30.55                       | 8.03           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 22897 | 2018-01-16 20:30:00:000 | 88.91                 | 568.0                 | 87.84                 | 29.61                       | 8.22           |
| 22898 | 2018-01-16 20:45:00:000 | 88.75                 | 565.58                | 86.91                 | 29.62                       | 8.22           |
| 22899 | 2018-01-16 21:00:00:000 | 83.91                 | 548.5                 | 81.28                 | 29.62                       | 8.22           |
| 22900 | 2018-01-16 21:15:00:000 | 86.41                 | 550.67                | 84.75                 | 29.59                       | 8.2            |
| 22901 | 2018-01-16 21:30:00:000 | 86.15                 | 549.33                | 84.66                 | 29.55                       | 8.2            |
| 22902 | 2018-01-16 21:45:00:000 | 84.17                 | 543.5                 | 83.16                 | 29.55                       | 8.19           |
| 22903 | 2018-01-16 22:00:00:000 | 82.14                 | 530.33                | 80.25                 | 29.57                       | 8.18           |
| 22904 | 2018-01-16 22:15:00:000 | 82.5                  | 526.33                | 81.84                 | 29.57                       | 8.17           |
| 22905 | 2018-01-16 22:30:00:000 | 82.19                 | 525.83                | 81.84                 | 29.58                       | 8.17           |
| 22906 | 2018-01-16 22:45:00:000 | 82.19                 | 527.67                | 80.81                 | 29.57                       | 8.18           |
| 22907 | 2018-01-16 23:00:00:000 | 82.55                 | 528.58                | 80.81                 | 29.53                       | 8.2            |
| 22908 | 2018-01-16 23:15:00:000 | 87.34                 | 551.33                | 86.53                 | 29.43                       | 8.22           |
| 22909 | 2018-01-16 23:30:00:000 | 91.56                 | 578.42                | 89.91                 | 29.37                       | 8.24           |
| 22910 | 2018-01-16 23:45:00:000 | 95.05                 | 602.0                 | 92.53                 | 29.41                       | 8.26           |
| 22911 | 2018-01-17 00:00:00:000 | 90.83                 | 591.17                | 87.94                 | 29.4                        | 8.26           |
| 22912 | 2018-01-17 00:15:00:000 | 95.0                  | 601.58                | 92.72                 | 29.42                       | 8.26           |
| 22913 | 2018-01-17 00:30:00:000 | 94.74                 | 603.42                | 92.62                 | 29.43                       | 8.26           |
| 22914 | 2018-01-17 00:45:00:000 | 93.59                 | 597.5                 | 91.5                  | 29.45                       | 8.25           |
| 22915 | 2018-01-17 01:00:00:000 | 87.97                 | 576.25                | 85.5                  | 29.44                       | 8.24           |
| 22916 | 2018-01-17 01:15:00:    | 91.04                 | 578.58                | 89.44                 | 29.44                       | 8.24           |

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| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 22917 | 2018-01-17 01:30:00:000 | 90.52                 | 577.67                | 89.53                 | 29.44                       | 8.23           |
| 22918 | 2018-01-17 01:45:00:000 | 88.28                 | 571.75                | 86.44                 | 29.43                       | 8.23           |
| 22919 | 2018-01-17 02:00:00:000 | 86.04                 | 556.83                | 84.47                 | 29.38                       | 8.21           |
| 22920 | 2018-01-17 02:15:00:000 | 87.45                 | 556.75                | 86.63                 | 29.37                       | 8.2            |
| 22921 | 2018-01-17 02:30:00:000 | 87.5                  | 554.92                | 86.63                 | 29.38                       | 8.19           |
| 22922 | 2018-01-17 02:45:00:000 | 84.58                 | 550.33                | 84.0                  | 29.37                       | 8.18           |
| 22923 | 2018-01-17 03:00:00:000 | 81.72                 | 534.17                | 80.25                 | 29.38                       | 8.17           |
| 22924 | 2018-01-17 03:15:00:000 | 85.47                 | 540.83                | 84.94                 | 29.4                        | 8.18           |
| 22925 | 2018-01-17 03:30:00:000 | 85.78                 | 544.5                 | 84.94                 | 29.43                       | 8.2            |
| 22926 | 2018-01-17 03:45:00:000 | 85.26                 | 550.0                 | 84.56                 | 29.43                       | 8.23           |
| 22927 | 2018-01-17 04:00:00:000 | 85.47                 | 549.58                | 82.97                 | 29.39                       | 8.25           |
| 22928 | 2018-01-17 04:15:00:000 | 92.6                  | 581.83                | 91.22                 | 29.33                       | 8.27           |
| 22929 | 2018-01-17 04:30:00:000 | 97.14                 | 612.75                | 95.34                 | 29.23                       | 8.27           |
| 22930 | 2018-01-17 04:45:00:000 | 99.48                 | 629.83                | 97.41                 | 29.19                       | 8.27           |
| 22931 | 2018-01-17 05:00:00:000 | 96.04                 | 620.42                | 92.81                 | 29.15                       | 8.27           |
| 22932 | 2018-01-17 05:15:00:000 | 100.83                | 638.5                 | 98.53                 | 29.14                       | 8.26           |
| 22933 | 2018-01-17 05:30:00:000 | 102.34                | 647.08                | 99.47                 | 29.09                       | 8.26           |
| 22934 | 2018-01-17 05:45:00:000 | 100.68                | 650.75                | 97.87                 | 29.08                       | 8.25           |
| 22935 | 2018-01-17 06:00:00:000 | 97.45                 | 634.0                 | 94.88                 | 29.06                       | 8.24           |
| 22936 | 2018-01-17 06:15:00:    | 100.57                | 636.58                | 99                    | 29.07                       | 8.23           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 22937 | 2018-01-17 06:30:00:000 | 100.57                | 639.75                | 99.0                  | 29.0                        | 8.22           |
| 22938 | 2018-01-17 06:45:00:000 | 101.98                | 645.67                | 100.41                | 28.87                       | 8.21           |
| 22939 | 2018-01-17 07:00:00:000 | 98.59                 | 638.5                 | 95.81                 | 28.8                        | 8.2            |
| 22940 | 2018-01-17 07:15:00:000 | 102.03                | 646.25                | 100.41                | 28.74                       | 8.18           |
| 22941 | 2018-01-17 07:30:00:000 | 102.03                | 647.5                 | 101.25                | 28.68                       | 8.11           |
| 22942 | 2018-01-17 07:45:00:000 | 35.47                 | 299.25                | 35.72                 | 28.65                       | 8.1            |
| 22943 | 2018-01-17 08:00:00:000 | 21.8                  | 159.25                | 22.08                 | 30.23                       | 8.17           |
| 22944 | 2018-01-17 08:15:00:000 | 76.33                 | 429.75                | 75.8                  | 32.16                       | 8.19           |
| 22945 | 2018-01-17 08:30:00:000 | 83.91                 | 525.83                | 83.34                 | 32.78                       | 8.18           |
| 22946 | 2018-01-17 08:45:00:000 | 77.86                 | 501.25                | 77.63                 | 33.84                       | 8.17           |
| 22947 | 2018-01-17 09:00:00:000 | 70.62                 | 471.75                | 69.47                 | 34.28                       | 8.16           |
| 22948 | 2018-01-17 09:15:00:000 | 68.44                 | 440.92                | 68.91                 | 34.34                       | 8.15           |
| 22949 | 2018-01-17 09:30:00:000 | 66.46                 | 426.83                | 66.84                 | 34.29                       | 8.14           |
| 22950 | 2018-01-17 09:45:00:000 | 65.26                 | 418.25                | 65.81                 | 34.3                        | 8.13           |
| 22951 | 2018-01-17 10:00:00:000 | 59.32                 | 392.42                | 59.16                 | 35.49                       | 8.13           |
| 22952 | 2018-01-17 10:15:00:000 | 58.49                 | 374.25                | 59.16                 | 35.83                       | 8.11           |
| 22953 | 2018-01-17 10:30:00:000 | 58.98                 | 376.5                 | 59.34                 | 36.29                       | 8.12           |
| 22954 | 2018-01-17 10:45:00:000 | 54.77                 | 356.25                | 53.86                 | 34.95                       | 8.19           |
| 22955 | 2018-01-17 11:00:00:000 | 55.08                 | 351.25                | 54.7                  | 34.33                       | 8.2            |
| 22956 | 2018-01-17 11:15:00:    | 56.41                 | 358.75                | 56.34                 | 33.71                       | 8.2            |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 22957 | 2018-01-17 11:30:00:000 | 55.78                 | 358.33                | 55.41                 | 32.9                        | 8.21           |
| 22958 | 2018-01-17 11:45:00:000 | 54.95                 | 353.25                | 54.84                 | 32.31                       | 8.22           |
| 22959 | 2018-01-17 12:00:00:000 | 52.81                 | 343.17                | 51.84                 | 31.9                        | 8.2            |
| 22960 | 2018-01-17 12:15:00:000 | 52.55                 | 337.75                | 52.31                 | 31.56                       | 8.19           |
| 22961 | 2018-01-17 12:30:00:000 | 51.46                 | 331.5                 | 51.28                 | 31.29                       | 8.16           |
| 22962 | 2018-01-17 12:45:00:000 | 50.26                 | 324.17                | 50.16                 | 31.08                       | 8.13           |
| 22963 | 2018-01-17 13:00:00:000 | 48.59                 | 316.92                | 47.53                 | 30.93                       | 8.1            |
| 22964 | 2018-01-17 13:15:00:000 | 48.59                 | 311.42                | 47.53                 | 30.88                       | 8.09           |
| 22965 | 2018-01-17 13:30:00:000 | 47.66                 | 308.25                | 47.53                 | 30.86                       | 8.08           |
| 22966 | 2018-01-17 13:45:00:000 | 48.23                 | 308.67                | 48.0                  | 30.81                       | 8.1            |
| 22967 | 2018-01-17 14:00:00:000 | 55.62                 | 344.92                | 54.19                 | 30.61                       | 8.2            |
| 22968 | 2018-01-17 14:15:00:000 | 64.95                 | 409.58                | 64.87                 | 30.45                       | 8.22           |
| 22969 | 2018-01-17 14:30:00:000 | 70.31                 | 446.0                 | 70.03                 | 30.33                       | 8.23           |
| 22970 | 2018-01-17 14:45:00:000 | 73.75                 | 469.5                 | 73.03                 | 30.22                       | 8.22           |
| 22971 | 2018-01-17 15:00:00:000 | 72.24                 | 470.83                | 70.97                 | 30.13                       | 8.22           |
| 22972 | 2018-01-17 15:15:00:000 | 76.95                 | 489.75                | 76.64                 | 30.08                       | 8.22           |
| 22973 | 2018-01-17 15:30:00:000 | 78.54                 | 499.83                | 78.19                 | 30.01                       | 8.22           |
| 22974 | 2018-01-17 15:45:00:000 | 79.11                 | 506.75                | 78.19                 | 29.96                       | 8.22           |
| 22975 | 2018-01-17 16:00:00:000 | 75.78                 | 496.25                | 74.72                 | 29.94                       | 8.22           |
| 22976 | 2018-01-17 16:15:00:    | 78.91                 | 504.58                | 78.19                 | 29.89                       | 8.22           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 22977 | 2018-01-17 16:30:00:000 | 79.53                 | 509.08                | 79.31                 | 29.88                       | 8.24           |
| 22978 | 2018-01-17 16:45:00:000 | 79.84                 | 509.08                | 79.87                 | 29.86                       | 8.24           |
| 22979 | 2018-01-17 17:00:00:000 | 76.67                 | 500.5                 | 75.19                 | 29.82                       | 8.24           |
| 22980 | 2018-01-17 17:15:00:000 | 80.68                 | 512.67                | 80.44                 | 29.79                       | 8.24           |
| 22981 | 2018-01-17 17:30:00:000 | 80.94                 | 518.58                | 81.0                  | 29.78                       | 8.24           |
| 22982 | 2018-01-17 17:45:00:000 | 80.78                 | 516.5                 | 79.97                 | 29.8                        | 8.25           |
| 22983 | 2018-01-17 18:00:00:000 | 76.46                 | 500.17                | 74.81                 | 29.81                       | 8.26           |
| 22984 | 2018-01-17 18:15:00:000 | 79.9                  | 509.25                | 79.59                 | 29.81                       | 8.26           |
| 22985 | 2018-01-17 18:30:00:000 | 80.83                 | 514.75                | 80.16                 | 29.81                       | 8.26           |
| 22986 | 2018-01-17 18:45:00:000 | 80.31                 | 513.5                 | 80.16                 | 29.77                       | 8.24           |
| 22987 | 2018-01-17 19:00:00:000 | 78.07                 | 506.67                | 77.53                 | 29.74                       | 8.24           |
| 22988 | 2018-01-17 19:15:00:000 | 81.77                 | 519.33                | 81.66                 | 29.66                       | 8.23           |
| 22989 | 2018-01-17 19:30:00:000 | 85.57                 | 542.58                | 85.22                 | 29.57                       | 8.23           |
| 22990 | 2018-01-17 19:45:00:000 | 87.86                 | 563.83                | 86.72                 | 29.56                       | 8.24           |
| 22991 | 2018-01-17 20:00:00:000 | 87.6                  | 563.0                 | 85.88                 | 29.59                       | 8.25           |
| 22992 | 2018-01-17 20:15:00:000 | 89.84                 | 569.83                | 88.03                 | 29.61                       | 8.25           |
| 22993 | 2018-01-17 20:30:00:000 | 89.84                 | 569.75                | 88.03                 | 29.62                       | 8.26           |
| 22994 | 2018-01-17 20:45:00:000 | 89.06                 | 568.92                | 88.03                 | 29.61                       | 8.26           |
| 22995 | 2018-01-17 21:00:00:000 | 85.31                 | 555.33                | 83.25                 | 29.51                       | 8.24           |
| 22996 | 2018-01-17 21:15:00:    | 89.84                 | 568.5                 | 88.73                 | 29.41                       | 8.23           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 22997 | 2018-01-17 21:30:00:000 | 92.76                 | 588.0                 | 91.5                  | 29.29                       | 8.22           |
| 22998 | 2018-01-17 21:45:00:000 | 97.97                 | 620.25                | 96.33                 | 29.25                       | 8.23           |
| 22999 | 2018-01-17 22:00:00:000 | 99.69                 | 627.75                | 95.77                 | 29.21                       | 8.24           |
| 23000 | 2018-01-17 22:15:00:000 | 107.42                | 677.37                | 103.36                | 29.24                       | 8.26           |
| 23001 | 2018-01-17 22:30:00:000 | 108.75                | 690.08                | 104.44                | 29.36                       | 8.28           |
| 23002 | 2018-01-17 22:45:00:000 | 107.55                | 684.58                | 102.94                | 29.47                       | 8.3            |
| 23003 | 2018-01-17 23:00:00:000 | 98.85                 | 650.25                | 93.19                 | 29.52                       | 8.31           |
| 23004 | 2018-01-17 23:15:00:000 | 103.44                | 654.25                | 99                    | 29.56                       | 8.31           |
| 23005 | 2018-01-17 23:30:00:000 | 104.01                | 659.25                | 99.0                  | 29.52                       | 8.31           |
| 23006 | 2018-01-17 23:45:00:000 | 104.84                | 664.83                | 100.5                 | 29.41                       | 8.29           |
| 23007 | 2018-01-18 00:00:00:000 | 101.2                 | 654.83                | 95.81                 | 29.39                       | 8.29           |
| 23008 | 2018-01-18 00:15:00:000 | 105.73                | 669.33                | 101.44                | 29.45                       | 8.3            |
| 23009 | 2018-01-18 00:30:00:000 | 105.16                | 669.83                | 100.97                | 29.5                        | 8.3            |
| 23010 | 2018-01-18 00:45:00:000 | 104.64                | 666.58                | 100.41                | 29.51                       | 8.3            |
| 23011 | 2018-01-18 01:00:00:000 | 97.81                 | 640.0                 | 92.81                 | 29.52                       | 8.3            |
| 23012 | 2018-01-18 01:15:00:000 | 102.97                | 649.42                | 98.53                 | 29.51                       | 8.29           |
| 23013 | 2018-01-18 01:30:00:000 | 102.4                 | 650.83                | 99                    | 29.51                       | 8.29           |
| 23014 | 2018-01-18 01:45:00:000 | 102.97                | 652.58                | 99.0                  | 29.5                        | 8.28           |
| 23015 | 2018-01-18 02:00:00:000 | 96.98                 | 629.58                | 92.44                 | 29.49                       | 8.28           |
| 23016 | 2018-01-18 02:15:00:    | 101.56                | 641.33                | 97.59                 | 29.47                       | 8.27           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 24957 | 2018-02-07 20:00:00:000 | 74.58                 | 479.42                | 73.31                 | 28.07                       | 8.15           |
| 24958 | 2018-02-07 20:15:00:000 | 78.91                 | 498.92                | 78.56                 | 28.06                       | 8.16           |
| 24959 | 2018-02-07 20:30:00:000 | 83.75                 | 529.75                | 83.16                 | 28.05                       | 8.17           |
| 24960 | 2018-02-07 20:45:00:000 | 88.02                 | 560.58                | 86.72                 | 28.05                       | 8.17           |
| 24961 | 2018-02-07 21:00:00:000 | 90.31                 | 575.08                | 88.78                 | 28.05                       | 8.16           |
| 24962 | 2018-02-07 21:15:00:000 | 95.16                 | 603.75                | 93.94                 | 28.06                       | 8.14           |
| 24963 | 2018-02-07 21:30:00:000 | 96.56                 | 615.0                 | 95.63                 | 28.07                       | 8.14           |
| 24964 | 2018-02-07 21:45:00:000 | 95.1                  | 617.42                | 93.0                  | 28.06                       | 8.12           |
| 24965 | 2018-02-07 22:00:00:000 | 92.34                 | 601.58                | 89.91                 | 28.05                       | 8.09           |
| 24966 | 2018-02-07 22:15:00:000 | 94.9                  | 601.83                | 93.94                 | 28.07                       | 8.06           |
| 24967 | 2018-02-07 22:30:00:000 | 94.38                 | 602.25                | 94.13                 | 28.1                        | 8.01           |
| 24968 | 2018-02-07 22:45:00:000 | 93.28                 | 603.75                | 92.06                 | 28.11                       | 7.97           |
| 24969 | 2018-02-07 23:00:00:000 | 91.04                 | 592                   | 89.44                 | 28.11                       | 7.95           |
| 24970 | 2018-02-07 23:15:00:000 | 94.17                 | 598.0                 | 93.66                 | 28.09                       | 7.95           |
| 24971 | 2018-02-07 23:30:00:000 | 94.22                 | 599.75                | 94.22                 | 28.09                       | 7.95           |
| 24972 | 2018-02-07 23:45:00:000 | 93.33                 | 599.75                | 92.62                 | 28.09                       | 7.96           |
| 24973 | 2018-02-08 00:00:00:000 | 93.02                 | 591.17                | 92.53                 | 28.11                       | 7.96           |
| 24974 | 2018-02-08 00:15:00:000 | 96.98                 | 613.42                | 96.19                 | 28.21                       | 7.96           |
| 24975 | 2018-02-08 00:30:00:000 | 102.4                 | 646.08                | 101.34                | 28.24                       | 7.97           |
| 24976 | 2018-02-08 00:45:00:    | 99.58                 | 648.0                 | 97.87                 | 28.07                       | 8.02           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 24977 | 2018-02-08 01:00:00:000 | 96.51                 | 613.92                | 94.69                 | 27.96                       | 8.06           |
| 24978 | 2018-02-08 01:15:00:000 | 64.95                 | 461.17                | 61.97                 | 27.8                        | 8.19           |
| 24979 | 2018-02-08 01:30:00:000 | 19.22                 | 156.42                | 16.88                 | 27.6                        | 8.38           |
| 24980 | 2018-02-08 01:45:00:000 | 16.72                 | 113                   | 14.34                 | 27.65                       | 8.38           |
| 24981 | 2018-02-08 02:00:00:000 | 33.49                 | 185.0                 | 30.66                 | 27.71                       | 8.27           |
| 24982 | 2018-02-08 02:15:00:000 | 86.61                 | 500.17                | 84.47                 | 27.77                       | 8.16           |
| 24983 | 2018-02-08 02:30:00:000 | 99.22                 | 618.08                | 96.84                 | 27.8                        | 8.1            |
| 24984 | 2018-02-08 02:45:00:000 | 97.5                  | 633.42                | 95.81                 | 27.82                       | 8.05           |
| 24985 | 2018-02-08 03:00:00:000 | 95.16                 | 604.92                | 94.22                 | 27.81                       | 8.01           |
| 24986 | 2018-02-08 03:15:00:000 | 98.59                 | 624.42                | 97.88                 | 27.8                        | 7.98           |
| 24987 | 2018-02-08 03:30:00:000 | 99.17                 | 628.0                 | 99.0                  | 27.78                       | 7.97           |
| 24988 | 2018-02-08 03:45:00:000 | 97.24                 | 629.92                | 95.91                 | 27.78                       | 7.96           |
| 24989 | 2018-02-08 04:00:00:000 | 95.16                 | 604.58                | 94.31                 | 27.76                       | 7.95           |
| 24990 | 2018-02-08 04:15:00:000 | 99.22                 | 627.58                | 98.44                 | 27.73                       | 7.94           |
| 24991 | 2018-02-08 04:30:00:000 | 99.53                 | 633.25                | 99                    | 27.71                       | 7.93           |
| 24992 | 2018-02-08 04:45:00:000 | 100.31                | 635.42                | 99.0                  | 27.69                       | 7.92           |
| 24993 | 2018-02-08 05:00:00:000 | 94.37                 | 614.58                | 92.34                 | 27.65                       | 7.92           |
| 24994 | 2018-02-08 05:15:00:000 | 99.48                 | 627.17                | 98.53                 | 27.6                        | 7.92           |
| 24995 | 2018-02-08 05:30:00:000 | 100.78                | 638.12                | 100.55                | 27.56                       | 7.93           |
| 24996 | 2018-02-08 05:45:00:    | 101.56                | 645.0                 | 100.97                | 27.53                       | 7.93           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 24997 | 2018-02-08 06:00:00:000 | 98.7                  | 637.75                | 96.84                 | 27.49                       | 7.96           |
| 24998 | 2018-02-08 06:15:00:000 | 104.38                | 658.0                 | 103.03                | 27.45                       | 7.93           |
| 24999 | 2018-02-08 06:30:00:000 | 105.47                | 667.25                | 104.06                | 27.37                       | 7.9            |
| 25000 | 2018-02-08 06:45:00:000 | 105.47                | 668.08                | 104.63                | 27.31                       | 7.85           |
| 25001 | 2018-02-08 07:00:00:000 | 98.39                 | 645.0                 | 95.91                 | 27.29                       | 7.81           |
| 25002 | 2018-02-08 07:15:00:000 | 103.85                | 656.25                | 103.03                | 27.28                       | 7.79           |
| 25003 | 2018-02-08 07:30:00:000 | 103.91                | 659.5                 | 103.5                 | 27.3                        | 7.79           |
| 25004 | 2018-02-08 07:45:00:000 | 103.85                | 657.67                | 103.5                 | 27.33                       | 7.78           |
| 25005 | 2018-02-08 08:00:00:000 | 98.07                 | 636.75                | 95.25                 | 27.36                       | 7.76           |
| 25006 | 2018-02-08 08:15:00:000 | 101.98                | 645.75                | 101.34                | 27.38                       | 7.75           |
| 25007 | 2018-02-08 08:30:00:000 | 101.04                | 642.42                | 99.84                 | 27.52                       | 7.75           |
| 25008 | 2018-02-08 08:45:00:000 | 96.61                 | 630.0                 | 95.44                 | 27.64                       | 7.76           |
| 25009 | 2018-02-08 09:00:00:000 | 91.72                 | 586.42                | 90.28                 | 27.61                       | 7.79           |
| 25010 | 2018-02-08 09:15:00:000 | 92.19                 | 590.0                 | 92.25                 | 27.62                       | 7.79           |
| 25011 | 2018-02-08 09:30:00:000 | 90.26                 | 579.17                | 90.37                 | 27.63                       | 7.79           |
| 25012 | 2018-02-08 09:45:00:000 | 86.25                 | 562.83                | 85.69                 | 27.63                       | 7.79           |
| 25013 | 2018-02-08 10:00:00:000 | 80.0                  | 516.17                | 78.56                 | 27.53                       | 7.87           |
| 25014 | 2018-02-08 10:15:00:000 | 70.62                 | 460.83                | 70.88                 | 27.42                       | 8.11           |
| 25015 | 2018-02-08 10:30:00:000 | 62.6                  | 408.58                | 62.62                 | 27.44                       | 8.23           |
| 25016 | 2018-02-08 10:45:00:    | 57.5                  | 375.92                | 56.91                 | 27.47                       | 8.31           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 25017 | 2018-02-08 11:00:00:000 | 58.85                 | 375.92                | 57.84                 | 27.63                       | 8.23           |
| 25018 | 2018-02-08 11:15:00:000 | 65.42                 | 413.0                 | 65.06                 | 27.92                       | 8.15           |
| 25019 | 2018-02-08 11:30:00:000 | 69.58                 | 442.92                | 69.19                 | 28.11                       | 8.13           |
| 25020 | 2018-02-08 11:45:00:000 | 69.53                 | 452.42                | 69.0                  | 28.27                       | 8.13           |
| 25021 | 2018-02-08 12:00:00:000 | 68.75                 | 439.67                | 67.5                  | 28.38                       | 8.1            |
| 25022 | 2018-02-08 12:15:00:000 | 69.84                 | 446.0                 | 69.09                 | 28.43                       | 8.11           |
| 25023 | 2018-02-08 12:30:00:000 | 70.36                 | 448.67                | 70.03                 | 28.53                       | 8.08           |
| 25024 | 2018-02-08 12:45:00:000 | 70.26                 | 456                   | 69.47                 | 28.65                       | 8.05           |
| 25025 | 2018-02-08 13:00:00:000 | 71.41                 | 455.0                 | 70.41                 | 28.75                       | 8.01           |
| 25026 | 2018-02-08 13:15:00:000 | 75.23                 | 478.75                | 75.09                 | 28.83                       | 7.99           |
| 25027 | 2018-02-08 13:30:00:000 | 76.51                 | 487.17                | 76.78                 | 28.9                        | 7.99           |
| 25028 | 2018-02-08 13:45:00:000 | 76.46                 | 490.42                | 76.78                 | 28.96                       | 7.97           |
| 25029 | 2018-02-08 14:00:00:000 | 71.09                 | 469.0                 | 70.03                 | 28.96                       | 7.98           |
| 25030 | 2018-02-08 14:15:00:000 | 71.67                 | 459.92                | 72.0                  | 28.92                       | 8.0            |
| 25031 | 2018-02-08 14:30:00:000 | 71.09                 | 456.33                | 71.53                 | 28.89                       | 8.01           |
| 25032 | 2018-02-08 14:45:00:000 | 71.09                 | 456.25                | 72.0                  | 28.84                       | 8.01           |
| 25033 | 2018-02-08 15:00:00:000 | 66.77                 | 438.67                | 66.28                 | 28.76                       | 8.01           |
| 25034 | 2018-02-08 15:15:00:000 | 68.75                 | 440.42                | 68.91                 | 28.67                       | 8.01           |
| 25035 | 2018-02-08 15:30:00:000 | 68.8                  | 443.5                 | 68.72                 | 28.59                       | 8              |
| 25036 | 2018-02-08 15:45:00:    | 68.91                 | 443.08                | 68.72                 | 28.54                       | 8.0            |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 25037 | 2018-02-08 16:00:00:000 | 67.19                 | 436.42                | 66.84                 | 28.49                       | 7.98           |
| 25038 | 2018-02-08 16:15:00:000 | 69.43                 | 444.08                | 68.91                 | 28.39                       | 7.98           |
| 25039 | 2018-02-08 16:30:00:000 | 68.28                 | 439.58                | 68.91                 | 28.3                        | 7.98           |
| 25040 | 2018-02-08 16:45:00:000 | 66.04                 | 432.83                | 65.91                 | 28.2                        | 7.99           |
| 25041 | 2018-02-08 17:00:00:000 | 61.25                 | 397.08                | 60.75                 | 28.1                        | 8.02           |
| 25042 | 2018-02-08 17:15:00:000 | 63.28                 | 404.75                | 63.38                 | 28.07                       | 8.02           |
| 25043 | 2018-02-08 17:30:00:000 | 65.0                  | 415.58                | 65.34                 | 28.04                       | 8.03           |
| 25044 | 2018-02-08 17:45:00:000 | 65.26                 | 422.0                 | 65.34                 | 28.03                       | 8.03           |
| 25045 | 2018-02-08 18:00:00:000 | 65.57                 | 420.67                | 65.53                 | 28.04                       | 8.03           |
| 25046 | 2018-02-08 18:15:00:000 | 66.98                 | 428.0                 | 66.66                 | 28.03                       | 8.03           |
| 25047 | 2018-02-08 18:30:00:000 | 67.97                 | 435.25                | 68.25                 | 28.05                       | 8.02           |
| 25048 | 2018-02-08 18:45:00:000 | 68.54                 | 436.67                | 68.72                 | 28.05                       | 8.02           |
| 25049 | 2018-02-08 19:00:00:000 | 69.11                 | 442.25                | 69.19                 | 28.06                       | 8.02           |
| 25050 | 2018-02-08 19:15:00:000 | 68.59                 | 439.92                | 68.72                 | 28.05                       | 8.02           |
| 25051 | 2018-02-08 19:30:00:000 | 68.75                 | 437.33                | 68.81                 | 28.05                       | 8.02           |
| 25052 | 2018-02-08 19:45:00:000 | 68.8                  | 440.08                | 68.44                 | 28.05                       | 8.01           |
| 25053 | 2018-02-08 20:00:00:000 | 67.97                 | 431.83                | 67.31                 | 28.01                       | 8.03           |
| 25054 | 2018-02-08 20:15:00:000 | 69.11                 | 439.25                | 69.47                 | 27.98                       | 8.05           |
| 25055 | 2018-02-08 20:30:00:000 | 71.09                 | 451.08                | 71.06                 | 27.98                       | 8.06           |
| 25056 | 2018-02-08 20:45:00:    | 73.2                  | 463.0                 | 72.56                 | 28.0                        | 8.06           |

| S.No. | Time                          | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                           |                       |                       |                       |                             |                |
| 25057 | 2018-02-08 21:00:00:000 70.83 | 459.25                | 69.56                 | 28.01                 | 8.05                        |                |
| 25058 | 2018-02-08 21:15:00:000 74.01 | 469.17                | 73.69                 | 28.01                 | 8.04                        |                |
| 25059 | 2018-02-08 21:30:00:000 73.75 | 471.17                | 74.25                 | 28.02                 | 8.04                        |                |
| 25060 | 2018-02-08 21:45:00:000 73.23 | 467.0                 | 72.75                 | 28.05                 | 8.01                        |                |
| 25061 | 2018-02-08 22:00:00:000 68.7  | 450.25                | 67.13                 | 28.06                 | 7.99                        |                |
| 25062 | 2018-02-08 22:15:00:000 71.82 | 454.83                | 71.72                 | 28.06                 | 7.98                        |                |
| 25063 | 2018-02-08 22:30:00:000 72.71 | 461.17                | 72.84                 | 28.05                 | 7.98                        |                |
| 25064 | 2018-02-08 22:45:00:000 71.25 | 456.25                | 72.28                 | 28.04                 | 7.97                        |                |
| 25065 | 2018-02-08 23:00:00:000 69.32 | 449.83                | 68.72                 | 28.07                 | 7.94                        |                |
| 25066 | 2018-02-08 23:15:00:000 74.69 | 472.08                | 75.19                 | 28.09                 | 7.92                        |                |
| 25067 | 2018-02-08 23:30:00:000 76.72 | 485.25                | 76.78                 | 28.13                 | 7.91                        |                |
| 25068 | 2018-02-08 23:45:00:000 78.12 | 494.83                | 78.47                 | 28.13                 | 7.92                        |                |
| 25069 | 2018-02-09 00:00:00:000 75.36 | 487.92                | 73.87                 | 28.1                  | 7.97                        |                |
| 25070 | 2018-02-09 00:15:00:000 79.9  | 505.67                | 79.5                  | 28.09                 | 8.0                         |                |
| 25071 | 2018-02-09 00:30:00:000 82.19 | 519.33                | 80.91                 | 28.07                 | 8.04                        |                |
| 25072 | 2018-02-09 00:45:00:000 83.28 | 528.92                | 82.12                 | 28.03                 | 8.07                        |                |
| 25073 | 2018-02-09 01:00:00:000 80.47 | 518.5                 | 77.91                 | 28.01                 | 8.1                         |                |
| 25074 | 2018-02-09 01:15:00:000 85.36 | 538.42                | 83.72                 | 28.03                 | 8.11                        |                |
| 25075 | 2018-02-09 01:30:00:000 86.2  | 547.92                | 85.22                 | 28.08                 | 8.1                         |                |
| 25076 | 2018-02-09 01:45:00: 87.66    | 554.75                | 86.63                 | 28.1                  | 8.09                        |                |

| S.No. | Time                           | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|--------------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                            |                       |                       |                       |                             |                |
| 28317 | 2018-03-14 21:45:00:000 99.69  | 637.42                | 98.44                 | 32.03                 | 8.31                        |                |
| 28318 | 2018-03-14 22:00:00:000 95.42  | 624.17                | 92.62                 | 32.01                 | 8.31                        |                |
| 28319 | 2018-03-14 22:15:00:000 100.47 | 638.33                | 98.16                 | 31.99                 | 8.32                        |                |
| 28320 | 2018-03-14 22:30:00:000 101.35 | 646.0                 | 99.84                 | 31.97                 | 8.32                        |                |
| 28321 | 2018-03-14 22:45:00:000 101.87 | 650.5                 | 99.84                 | 31.91                 | 8.31                        |                |
| 28322 | 2018-03-14 23:00:00:000 97.66  | 636.92                | 94.69                 | 31.85                 | 8.31                        |                |
| 28323 | 2018-03-14 23:15:00:000 103.12 | 653.25                | 100.78                | 31.78                 | 8.31                        |                |
| 28324 | 2018-03-14 23:30:00:000 104.22 | 665.08                | 102.94                | 31.72                 | 8.3                         |                |
| 28325 | 2018-03-14 23:45:00:000 105.1  | 670.08                | 102.94                | 31.67                 | 8.3                         |                |
| 28326 | 2018-03-15 00:00:00:000 105.63 | 673.75                | 104.06                | 31.65                 | 8.31                        |                |
| 28327 | 2018-03-15 00:15:00:000 105.99 | 676.0                 | 104.63                | 31.62                 | 8.31                        |                |
| 28328 | 2018-03-15 00:30:00:000 106.56 | 680.58                | 104.63                | 31.56                 | 8.31                        |                |
| 28329 | 2018-03-15 00:45:00:000 107.34 | 683.33                | 105.56                | 31.55                 | 8.31                        |                |
| 28330 | 2018-03-15 01:00:00:000 102.03 | 666.0                 | 98.34                 | 31.55                 | 8.32                        |                |
| 28331 | 2018-03-15 01:15:00:000 106.88 | 678.33                | 104.63                | 31.54                 | 8.32                        |                |
| 28332 | 2018-03-15 01:30:00:000 107.45 | 685.5                 | 106.03                | 31.53                 | 8.33                        |                |
| 28333 | 2018-03-15 01:45:00:000 106.93 | 686.58                | 105.09                | 31.53                 | 8.33                        |                |
| 28334 | 2018-03-15 02:00:00:000 106.61 | 682.92                | 104.16                | 31.51                 | 8.33                        |                |
| 28335 | 2018-03-15 02:15:00:000 108.12 | 687.5                 | 106.03                | 31.49                 | 8.33                        |                |
| 28336 | 2018-03-15 02:30:00: 108.44    | 690.67                | 106.03                | 31.46                 | 8.34                        |                |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 28337 | 2018-03-15 02:45:00:000 | 108.7                 | 693.25                | 106.03                | 31.44                       | 8.34           |
| 28338 | 2018-03-15 03:00:00:000 | 104.17                | 677.0                 | 100.03                | 31.42                       | 8.34           |
| 28339 | 2018-03-15 03:15:00:000 | 109.22                | 693.83                | 106.59                | 31.37                       | 8.35           |
| 28340 | 2018-03-15 03:30:00:000 | 111.3                 | 706.08                | 108.84                | 31.3                        | 8.35           |
| 28341 | 2018-03-15 03:45:00:000 | 112.4                 | 715.67                | 109.87                | 31.26                       | 8.35           |
| 28342 | 2018-03-15 04:00:00:000 | 111.04                | 713.83                | 107.72                | 31.2                        | 8.35           |
| 28343 | 2018-03-15 04:15:00:000 | 83.44                 | 579.25                | 81.09                 | 31.16                       | 8.36           |
| 28344 | 2018-03-15 04:30:00:000 | 20.31                 | 182.83                | 18.66                 | 31.14                       | 8.36           |
| 28345 | 2018-03-15 04:45:00:000 | 8.7                   | 72.75                 | 8.34                  | 31.11                       | 8.35           |
| 28346 | 2018-03-15 05:00:00:000 | 36.82                 | 197.42                | 36.0                  | 31.04                       | 8.34           |
| 28347 | 2018-03-15 05:15:00:000 | 107.66                | 624.67                | 104.81                | 31.01                       | 8.33           |
| 28348 | 2018-03-15 05:30:00:000 | 116.25                | 730.75                | 113.91                | 31.02                       | 8.31           |
| 28349 | 2018-03-15 05:45:00:000 | 114.48                | 731.17                | 112.5                 | 31.02                       | 8.28           |
| 28350 | 2018-03-15 06:00:00:000 | 113.07                | 723.5                 | 110.91                | 31.01                       | 8.25           |
| 28351 | 2018-03-15 06:15:00:000 | 112.55                | 717.17                | 111                   | 31.01                       | 8.22           |
| 28352 | 2018-03-15 06:30:00:000 | 112.03                | 715.25                | 111.0                 | 31.0                        | 8.19           |
| 28353 | 2018-03-15 06:45:00:000 | 111.72                | 712.17                | 109.41                | 30.99                       | 8.17           |
| 28354 | 2018-03-15 07:00:00:000 | 106.04                | 690.75                | 103.22                | 30.97                       | 8.16           |
| 28355 | 2018-03-15 07:15:00:000 | 109.11                | 693.08                | 107.25                | 30.94                       | 8.15           |
| 28356 | 2018-03-15 07:30:00:    | 109.37                | 694.92                | 107.72                | 30.93                       | 8.14           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 28357 | 2018-03-15 07:45:00:000 | 91.09                 | 611.83                | 88.69                 | 30.87                       | 8.14           |
| 28358 | 2018-03-15 08:00:00:000 | 21.56                 | 273.08                | 21.09                 | 30.81                       | 8.15           |
| 28359 | 2018-03-15 08:15:00:000 | 80.42                 | 457.5                 | 78.84                 | 30.84                       | 8.18           |
| 28360 | 2018-03-15 08:30:00:000 | 99.9                  | 623.33                | 98.81                 | 31.12                       | 8.28           |
| 28361 | 2018-03-15 08:45:00:000 | 92.6                  | 607.42                | 90.56                 | 31.43                       | 8.31           |
| 28362 | 2018-03-15 09:00:00:000 | 84.84                 | 563.92                | 82.97                 | 31.62                       | 8.3            |
| 28363 | 2018-03-15 09:15:00:000 | 83.12                 | 536.17                | 82.5                  | 31.76                       | 8.29           |
| 28364 | 2018-03-15 09:30:00:000 | 79.22                 | 511.83                | 78.28                 | 31.86                       | 8.26           |
| 28365 | 2018-03-15 09:45:00:000 | 72.92                 | 480.5                 | 72.19                 | 32.1                        | 8.25           |
| 28366 | 2018-03-15 10:00:00:000 | 67.19                 | 446.75                | 65.81                 | 32.28                       | 8.23           |
| 28367 | 2018-03-15 10:15:00:000 | 64.9                  | 419.67                | 64.31                 | 32.44                       | 8.23           |
| 28368 | 2018-03-15 10:30:00:000 | 61.46                 | 397.33                | 60.19                 | 32.57                       | 8.22           |
| 28369 | 2018-03-15 10:45:00:000 | 57.14                 | 376.0                 | 57.09                 | 32.67                       | 8.2            |
| 28370 | 2018-03-15 11:00:00:000 | 54.22                 | 356.92                | 52.41                 | 32.75                       | 8.18           |
| 28371 | 2018-03-15 11:15:00:000 | 53.12                 | 344.75                | 52.31                 | 32.82                       | 8.16           |
| 28372 | 2018-03-15 11:30:00:000 | 51.87                 | 338.0                 | 51.75                 | 32.86                       | 8.15           |
| 28373 | 2018-03-15 11:45:00:000 | 51.3                  | 332.42                | 49.87                 | 32.9                        | 8.15           |
| 28374 | 2018-03-15 12:00:00:000 | 50.0                  | 327.5                 | 48.28                 | 32.96                       | 8.16           |
| 28375 | 2018-03-15 12:15:00:000 | 49.95                 | 325.25                | 48.75                 | 33.02                       | 8.17           |
| 28376 | 2018-03-15 12:30:00:    | 49.84                 | 324.67                | 49.22                 | 33.07                       | 8.18           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 28377 | 2018-03-15 12:45:00:000 | 49.48                 | 324.58                | 48.66                 | 33.11                       | 8.19           |
| 28378 | 2018-03-15 13:00:00:000 | 49.22                 | 321.5                 | 47.53                 | 33.14                       | 8.19           |
| 28379 | 2018-03-15 13:15:00:000 | 49.74                 | 323.58                | 48.66                 | 33.16                       | 8.2            |
| 28380 | 2018-03-15 13:30:00:000 | 49.69                 | 324.08                | 48.66                 | 33.17                       | 8.19           |
| 28381 | 2018-03-15 13:45:00:000 | 49.69                 | 324.08                | 48.09                 | 33.18                       | 8.16           |
| 28382 | 2018-03-15 14:00:00:000 | 49.17                 | 320.08                | 47.53                 | 33.19                       | 8.13           |
| 28383 | 2018-03-15 14:15:00:000 | 48.91                 | 316.83                | 48.66                 | 33.17                       | 8.14           |
| 28384 | 2018-03-15 14:30:00:000 | 48.91                 | 317.25                | 48.56                 | 33.15                       | 8.14           |
| 28385 | 2018-03-15 14:45:00:000 | 49.43                 | 320.5                 | 47.91                 | 33.14                       | 8.14           |
| 28386 | 2018-03-15 15:00:00:000 | 50.26                 | 323.58                | 48.09                 | 33.06                       | 8.13           |
| 28387 | 2018-03-15 15:15:00:000 | 60.21                 | 378.08                | 58.78                 | 32.85                       | 8.13           |
| 28388 | 2018-03-15 15:30:00:000 | 68.18                 | 431.0                 | 67.03                 | 32.69                       | 8.12           |
| 28389 | 2018-03-15 15:45:00:000 | 71.88                 | 461.42                | 70.97                 | 32.6                        | 8.12           |
| 28390 | 2018-03-15 16:00:00:000 | 73.59                 | 470.42                | 72.09                 | 32.53                       | 8.13           |
| 28391 | 2018-03-15 16:15:00:000 | 76.72                 | 490.0                 | 75.75                 | 32.44                       | 8.14           |
| 28392 | 2018-03-15 16:30:00:000 | 78.18                 | 500.5                 | 77.16                 | 32.37                       | 8.15           |
| 28393 | 2018-03-15 16:45:00:000 | 78.39                 | 510.0                 | 76.13                 | 32.27                       | 8.14           |
| 28394 | 2018-03-15 17:00:00:000 | 78.39                 | 502.67                | 76.12                 | 32.18                       | 8.12           |
| 28395 | 2018-03-15 17:15:00:000 | 81.2                  | 519.92                | 80.34                 | 32.1                        | 8.11           |
| 28396 | 2018-03-15 17:30:00:000 | 81.25                 | 522.75                | 81.0                  | 32.02                       | 8.09           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 28397 | 2018-03-15 17:45:00:000 | 79.53                 | 521.33                | 78.84                 | 31.96                       | 8.07           |
| 28398 | 2018-03-15 18:00:00:000 | 77.66                 | 500.5                 | 76.31                 | 31.92                       | 8.06           |
| 28399 | 2018-03-15 18:15:00:000 | 80.62                 | 514.67                | 80.06                 | 31.91                       | 8.05           |
| 28400 | 2018-03-15 18:30:00:000 | 80.62                 | 517.25                | 81.0                  | 31.88                       | 8.04           |
| 28401 | 2018-03-15 18:45:00:000 | 80.0                  | 520.17                | 78.94                 | 31.83                       | 8.03           |
| 28402 | 2018-03-15 19:00:00:000 | 79.48                 | 508.83                | 78.0                  | 31.82                       | 8.04           |
| 28403 | 2018-03-15 19:15:00:000 | 82.97                 | 528.33                | 82.13                 | 31.8                        | 8.06           |
| 28404 | 2018-03-15 19:30:00:000 | 84.38                 | 538.83                | 84.38                 | 31.83                       | 8.07           |
| 28405 | 2018-03-15 19:45:00:000 | 83.59                 | 544.33                | 82.31                 | 31.83                       | 8.08           |
| 28406 | 2018-03-15 20:00:00:000 | 82.45                 | 527.5                 | 80.81                 | 31.85                       | 8.08           |
| 28407 | 2018-03-15 20:15:00:000 | 85.16                 | 544.83                | 84.38                 | 31.88                       | 8.08           |
| 28408 | 2018-03-15 20:30:00:000 | 85.16                 | 545.83                | 84.38                 | 31.92                       | 8.08           |
| 28409 | 2018-03-15 20:45:00:000 | 83.8                  | 542.75                | 82.88                 | 31.93                       | 8.08           |
| 28410 | 2018-03-15 21:00:00:000 | 82.34                 | 526.33                | 81.0                  | 31.94                       | 8.07           |
| 28411 | 2018-03-15 21:15:00:000 | 83.59                 | 534.17                | 82.97                 | 31.96                       | 8.07           |
| 28412 | 2018-03-15 21:30:00:000 | 83.85                 | 536.42                | 82.97                 | 31.95                       | 8.08           |
| 28413 | 2018-03-15 21:45:00:000 | 83.59                 | 541.92                | 82.59                 | 31.89                       | 8.1            |
| 28414 | 2018-03-15 22:00:00:000 | 85.31                 | 541.0                 | 83.06                 | 31.81                       | 8.11           |
| 28415 | 2018-03-15 22:15:00:000 | 90.47                 | 576.25                | 89.16                 | 31.78                       | 8.11           |
| 28416 | 2018-03-15 22:30:00:    | 91.09                 | 578.58                | 89.16                 | 31.76                       | 8.11           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 28417 | 2018-03-15 22:45:00:000 | 91.41                 | 582.5                 | 90.0                  | 31.74                       | 8.11           |
| 28418 | 2018-03-15 23:00:00:000 | 88.28                 | 563.62                | 86.2                  | 31.75                       | 8.12           |
| 28419 | 2018-03-15 23:15:00:000 | 93.33                 | 590.92                | 91.22                 | 31.71                       | 8.11           |
| 28420 | 2018-03-15 23:30:00:000 | 97.24                 | 617.17                | 94.88                 | 31.67                       | 8.11           |
| 28421 | 2018-03-15 23:45:00:000 | 100.68                | 639.5                 | 97.97                 | 31.54                       | 8.09           |
| 28422 | 2018-03-16 00:00:00:000 | 96.41                 | 636.38                | 92.25                 | 31.51                       | 8.1            |
| 28423 | 2018-03-16 00:15:00:000 | 100.78                | 638.58                | 97.97                 | 31.52                       | 8.11           |
| 28424 | 2018-03-16 00:30:00:000 | 99.53                 | 636.75                | 97.03                 | 31.5                        | 8.11           |
| 28425 | 2018-03-16 00:45:00:000 | 98.96                 | 632.25                | 97.03                 | 31.46                       | 8.1            |
| 28426 | 2018-03-16 01:00:00:000 | 93.39                 | 611.33                | 90.19                 | 31.48                       | 8.11           |
| 28427 | 2018-03-16 01:15:00:000 | 95.31                 | 606.83                | 93.19                 | 31.49                       | 8.12           |
| 28428 | 2018-03-16 01:30:00:000 | 93.8                  | 599.92                | 92.25                 | 31.51                       | 8.13           |
| 28429 | 2018-03-16 01:45:00:000 | 90.42                 | 591.75                | 89.25                 | 31.51                       | 8.13           |
| 28430 | 2018-03-16 02:00:00:000 | 88.12                 | 562.67                | 85.5                  | 31.54                       | 8.14           |
| 28431 | 2018-03-16 02:15:00:000 | 90.05                 | 573.08                | 89.16                 | 31.59                       | 8.15           |
| 28432 | 2018-03-16 02:30:00:000 | 89.01                 | 569.08                | 87.47                 | 31.58                       | 8.16           |
| 28433 | 2018-03-16 02:45:00:000 | 86.72                 | 565.5                 | 85.03                 | 31.58                       | 8.16           |
| 28434 | 2018-03-16 03:00:00:000 | 84.43                 | 539.08                | 82.5                  | 31.56                       | 8.15           |
| 28435 | 2018-03-16 03:15:00:000 | 87.92                 | 558.67                | 87.0                  | 31.56                       | 8.16           |
| 28436 | 2018-03-16 03:30:00:000 | 87.92                 | 561.33                | 87.56                 | 31.54                       | 8.17           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 32397 | 2018-04-27 00:00:00:000 | 220.89                | 1327.75               | 199.31                | 34.69                       | 8.02           |
| 32398 | 2018-04-27 00:15:00:000 | 220.57                | 1311.83               | 199.03                | 34.36                       | 8.06           |
| 32399 | 2018-04-27 00:30:00:000 | 134.43                | 860.25                | 119.16                | 34.55                       | 8.18           |
| 32400 | 2018-04-27 00:45:00:000 | 111.98                | 682.5                 | 110.34                | 34.75                       | 8.28           |
| 32401 | 2018-04-27 01:00:00:000 | 96.35                 | 591.92                | 97.59                 | 34.85                       | 8.34           |
| 32402 | 2018-04-27 01:15:00:000 | 90.05                 | 536.58                | 94.22                 | 34.88                       | 8.37           |
| 32403 | 2018-04-27 01:30:00:000 | 87.86                 | 519.33                | 91.41                 | 34.89                       | 8.37           |
| 32404 | 2018-04-27 01:45:00:000 | 86.46                 | 510.75                | 90.28                 | 34.93                       | 8.37           |
| 32405 | 2018-04-27 02:00:00:000 | 84.74                 | 503.5                 | 87.84                 | 35.19                       | 8.36           |
| 32406 | 2018-04-27 02:15:00:000 | 85.63                 | 504.92                | 90.28                 | 35.37                       | 8.34           |
| 32407 | 2018-04-27 02:30:00:000 | 87.34                 | 512.08                | 91.97                 | 35.38                       | 8.31           |
| 32408 | 2018-04-27 02:45:00:000 | 88.75                 | 521.33                | 93.66                 | 35.43                       | 8.28           |
| 32409 | 2018-04-27 03:00:00:000 | 88.49                 | 523.5                 | 91.97                 | 35.48                       | 8.26           |
| 32410 | 2018-04-27 03:15:00:000 | 90.78                 | 533.92                | 95.53                 | 35.51                       | 8.25           |
| 32411 | 2018-04-27 03:30:00:000 | 92.14                 | 539.75                | 96.47                 | 35.53                       | 8.24           |
| 32412 | 2018-04-27 03:45:00:000 | 93.54                 | 549.42                | 98.16                 | 35.53                       | 8.24           |
| 32413 | 2018-04-27 04:00:00:000 | 89.84                 | 540.75                | 90.37                 | 35.49                       | 8.24           |
| 32414 | 2018-04-27 04:15:00:000 | 41.25                 | 294.58                | 38.16                 | 35.55                       | 8.24           |
| 32415 | 2018-04-27 04:30:00:000 | 28.75                 | 176.67                | 25.41                 | 35.57                       | 8.23           |
| 32416 | 2018-04-27 04:45:00:    | 34.11                 | 201.67                | 29.91                 | 36.1                        | 8.25           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 32417 | 2018-04-27 05:00:00:000 | 53.54                 | 297.83                | 53.63                 | 36.37                       | 8.28           |
| 32418 | 2018-04-27 05:15:00:000 | 91.04                 | 510.42                | 93.56                 | 36.25                       | 8.19           |
| 32419 | 2018-04-27 05:30:00:000 | 90.78                 | 532.58                | 94.59                 | 36.27                       | 8.19           |
| 32420 | 2018-04-27 05:45:00:000 | 87.66                 | 520.0                 | 91.5                  | 36.21                       | 8.19           |
| 32421 | 2018-04-27 06:00:00:000 | 83.12                 | 500.83                | 85.41                 | 36.13                       | 8.18           |
| 32422 | 2018-04-27 06:15:00:000 | 85.16                 | 500.83                | 88.87                 | 36.02                       | 8.16           |
| 32423 | 2018-04-27 06:30:00:000 | 85.99                 | 504.92                | 90.0                  | 35.4                        | 8.13           |
| 32424 | 2018-04-27 06:45:00:000 | 90.52                 | 526.75                | 94.13                 | 34.67                       | 8.09           |
| 32425 | 2018-04-27 07:00:00:000 | 100.42                | 580.58                | 100.78                | 34.18                       | 8.06           |
| 32426 | 2018-04-27 07:15:00:000 | 142.81                | 798.75                | 137.62                | 33.85                       | 8.01           |
| 32427 | 2018-04-27 07:30:00:000 | 168.96                | 961.75                | 159.66                | 33.63                       | 7.97           |
| 32428 | 2018-04-27 07:45:00:000 | 193.28                | 1123.17               | 178.41                | 33.5                        | 7.96           |
| 32429 | 2018-04-27 08:00:00:000 | 200.62                | 1176.25               | 182.91                | 34.16                       | 7.96           |
| 32430 | 2018-04-27 08:15:00:000 | 180.99                | 1083.58               | 168.75                | 34.7                        | 7.98           |
| 32431 | 2018-04-27 08:30:00:000 | 150.57                | 915.0                 | 143.53                | 35.02                       | 8.0            |
| 32432 | 2018-04-27 08:45:00:000 | 120.94                | 737.58                | 118.97                | 35.47                       | 8.03           |
| 32433 | 2018-04-27 09:00:00:000 | 97.08                 | 618.92                | 95.91                 | 36.01                       | 8.08           |
| 32434 | 2018-04-27 09:15:00:000 | 83.44                 | 507.33                | 85.12                 | 36.54                       | 8.18           |
| 32435 | 2018-04-27 09:30:00:000 | 72.86                 | 441.58                | 75.94                 | 36.67                       | 8.25           |
| 32436 | 2018-04-27 09:45:00:    | 65.21                 | 394.5                 | 68.06                 | 36.48                       | 8.3            |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 32437 | 2018-04-27 10:00:00:000 | 62.81                 | 378.17                | 64.03                 | 35.71                       | 8.34           |
| 32438 | 2018-04-27 10:15:00:000 | 65.94                 | 388.42                | 68.53                 | 35.49                       | 8.36           |
| 32439 | 2018-04-27 10:30:00:000 | 69.58                 | 410.67                | 72.56                 | 35.35                       | 8.34           |
| 32440 | 2018-04-27 10:45:00:000 | 69.58                 | 412.92                | 72.56                 | 35.25                       | 8.35           |
| 32441 | 2018-04-27 11:00:00:000 | 67.5                  | 404.75                | 69.0                  | 35.19                       | 8.37           |
| 32442 | 2018-04-27 11:15:00:000 | 67.5                  | 400.25                | 70.03                 | 35.2                        | 8.39           |
| 32443 | 2018-04-27 11:30:00:000 | 67.24                 | 398.75                | 70.03                 | 35.14                       | 8.41           |
| 32444 | 2018-04-27 11:45:00:000 | 66.67                 | 397.75                | 70.03                 | 35.13                       | 8.43           |
| 32445 | 2018-04-27 12:00:00:000 | 67.81                 | 400.5                 | 68.91                 | 35.25                       | 8.45           |
| 32446 | 2018-04-27 12:15:00:000 | 70.62                 | 415.5                 | 73.41                 | 35.21                       | 8.47           |
| 32447 | 2018-04-27 12:30:00:000 | 49.27                 | 322.08                | 51.0                  | 35.25                       | 8.49           |
| 32448 | 2018-04-27 12:45:00:000 | 44.95                 | 259.92                | 45.66                 | 35.4                        | 8.49           |
| 32449 | 2018-04-27 13:00:00:000 | 65.68                 | 361.5                 | 66.28                 | 35.43                       | 8.48           |
| 32450 | 2018-04-27 13:15:00:000 | 77.34                 | 447.08                | 78.56                 | 35.52                       | 8.49           |
| 32451 | 2018-04-27 13:30:00:000 | 77.24                 | 459.25                | 79.03                 | 35.69                       | 8.49           |
| 32452 | 2018-04-27 13:45:00:000 | 79.53                 | 470.67                | 80.44                 | 35.74                       | 8.48           |
| 32453 | 2018-04-27 14:00:00:000 | 74.9                  | 453.33                | 74.25                 | 35.71                       | 8.48           |
| 32454 | 2018-04-27 14:15:00:000 | 70.62                 | 424.33                | 72.66                 | 35.69                       | 8.48           |
| 32455 | 2018-04-27 14:30:00:000 | 66.87                 | 402.5                 | 69.28                 | 35.67                       | 8.48           |
| 32456 | 2018-04-27 14:45:00:    | 62.97                 | 380.75                | 65.62                 | 36.6                        | 8.48           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 32457 | 2018-04-27 15:00:00:000 | 58.07                 | 357.17                | 60.47                 | 37.04                       | 8.47           |
| 32458 | 2018-04-27 15:15:00:000 | 57.03                 | 344                   | 60.47                 | 37.09                       | 8.46           |
| 32459 | 2018-04-27 15:30:00:000 | 57.29                 | 344                   | 60.47                 | 37.15                       | 8.46           |
| 32460 | 2018-04-27 15:45:00:000 | 57.81                 | 344.0                 | 60.38                 | 37.07                       | 8.46           |
| 32461 | 2018-04-27 16:00:00:000 | 58.33                 | 348.58                | 61.41                 | 36.53                       | 8.46           |
| 32462 | 2018-04-27 16:15:00:000 | 60.89                 | 361.25                | 64.03                 | 36.09                       | 8.46           |
| 32463 | 2018-04-27 16:30:00:000 | 63.65                 | 377.0                 | 66.94                 | 35.78                       | 8.46           |
| 32464 | 2018-04-27 16:45:00:000 | 65.99                 | 392.42                | 69.09                 | 35.99                       | 8.46           |
| 32465 | 2018-04-27 17:00:00:000 | 63.91                 | 386.5                 | 66.38                 | 36.47                       | 8.46           |
| 32466 | 2018-04-27 17:15:00:000 | 61.93                 | 372.83                | 65.44                 | 36.73                       | 8.45           |
| 32467 | 2018-04-27 17:30:00:000 | 69.06                 | 406.08                | 71.62                 | 36.51                       | 8.43           |
| 32468 | 2018-04-27 17:45:00:000 | 75.05                 | 443.67                | 77.16                 | 36.39                       | 8.41           |
| 32469 | 2018-04-27 18:00:00:000 | 79.06                 | 465.08                | 81.28                 | 35.96                       | 8.4            |
| 32470 | 2018-04-27 18:15:00:000 | 85.63                 | 503.25                | 89.53                 | 35.48                       | 8.4            |
| 32471 | 2018-04-27 18:30:00:000 | 87.4                  | 517.67                | 91.69                 | 35.15                       | 8.41           |
| 32472 | 2018-04-27 18:45:00:000 | 87.71                 | 523.58                | 91.22                 | 34.92                       | 8.41           |
| 32473 | 2018-04-27 19:00:00:000 | 87.5                  | 521.42                | 90.84                 | 34.77                       | 8.41           |
| 32474 | 2018-04-27 19:15:00:000 | 89.27                 | 527.92                | 93.94                 | 34.66                       | 8.43           |
| 32475 | 2018-04-27 19:30:00:000 | 91.25                 | 538.25                | 95.62                 | 34.56                       | 8.45           |
| 32476 | 2018-04-27 19:45:00:    | 92.86                 | 554.67                | 96.0                  | 34.48                       | 8.47           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 32477 | 2018-04-27 20:00:00:000 | 101.61                | 586.5                 | 102.28                | 34.44                       | 8.48           |
| 32478 | 2018-04-27 20:15:00:000 | 109.06                | 640.0                 | 110.53                | 34.41                       | 8.48           |
| 32479 | 2018-04-27 20:30:00:000 | 104.79                | 621.08                | 106.97                | 34.4                        | 8.49           |
| 32480 | 2018-04-27 20:45:00:000 | 101.98                | 614.25                | 104.34                | 34.36                       | 8.48           |
| 32481 | 2018-04-27 21:00:00:000 | 104.64                | 610.25                | 105.47                | 34.33                       | 8.47           |
| 32482 | 2018-04-27 21:15:00:000 | 127.66                | 733.08                | 125.91                | 34.7                        | 8.43           |
| 32483 | 2018-04-27 21:30:00:000 | 121.35                | 723.5                 | 119.91                | 35.49                       | 8.42           |
| 32484 | 2018-04-27 21:45:00:000 | 107.19                | 654.08                | 106.5                 | 35.82                       | 8.42           |
| 32485 | 2018-04-27 22:00:00:000 | 99.48                 | 591.58                | 99.75                 | 35.92                       | 8.41           |
| 32486 | 2018-04-27 22:15:00:000 | 97.5                  | 580.25                | 99.28                 | 35.99                       | 8.41           |
| 32487 | 2018-04-27 22:30:00:000 | 95.0                  | 561.67                | 97.31                 | 36.04                       | 8.42           |
| 32488 | 2018-04-27 22:45:00:000 | 92.45                 | 555.0                 | 94.41                 | 36.12                       | 8.44           |
| 32489 | 2018-04-27 23:00:00:000 | 91.61                 | 540.08                | 92.72                 | 36.26                       | 8.46           |
| 32490 | 2018-04-27 23:15:00:000 | 91.61                 | 541.42                | 94.78                 | 36.35                       | 8.47           |
| 32491 | 2018-04-27 23:30:00:000 | 89.95                 | 531.92                | 92.81                 | 36.35                       | 8.46           |
| 32492 | 2018-04-27 23:45:00:000 | 89.38                 | 533.25                | 92.81                 | 35.66                       | 8.41           |
| 32493 | 2018-04-28 00:00:00:000 | 93.83                 | 550.12                | 96.33                 | 35.08                       | 8.35           |
| 32494 | 2018-04-28 00:15:00:000 | 98.49                 | 578.25                | 102.66                | 34.85                       | 8.35           |
| 32495 | 2018-04-28 00:30:00:000 | 99.69                 | 584.92                | 104.16                | 34.55                       | 8.36           |
| 32496 | 2018-04-28 00:45:00:    | 105.1                 | 613.08                | 108.75                | 34.28                       | 8.35           |

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| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 33057 | 2018-05-03 21:00:00:000 | 91.72                 | 546.42                | 94.78                 | 35.06                       | 8.69           |
| 33058 | 2018-05-03 21:15:00:000 | 55.57                 | 368.25                | 54.47                 | 35.34                       | 8.71           |
| 33059 | 2018-05-03 21:30:00:000 | 37.71                 | 235.42                | 33.94                 | 35.57                       | 8.75           |
| 33060 | 2018-05-03 21:45:00:000 | 78.7                  | 439.08                | 79.59                 | 35.66                       | 8.78           |
| 33061 | 2018-05-03 22:00:00:000 | 92.92                 | 531.5                 | 96.0                  | 35.89                       | 8.8            |
| 33062 | 2018-05-03 22:15:00:000 | 100.05                | 583.75                | 102.66                | 36.03                       | 8.8            |
| 33063 | 2018-05-03 22:30:00:000 | 99.14                 | 582.88                | 101.95                | 36.27                       | 8.79           |
| 33064 | 2018-05-03 22:45:00:000 | 96.93                 | 572.83                | 100.22                | 36.44                       | 8.78           |
| 33065 | 2018-05-03 23:00:00:000 | 89.27                 | 543.42                | 90.38                 | 36.6                        | 8.77           |
| 33066 | 2018-05-03 23:15:00:000 | 89.27                 | 525.75                | 91.97                 | 36.6                        | 8.74           |
| 33067 | 2018-05-03 23:30:00:000 | 87.66                 | 517                   | 91.13                 | 36.48                       | 8.72           |
| 33068 | 2018-05-03 23:45:00:000 | 85.89                 | 509.0                 | 89.34                 | 36.47                       | 8.7            |
| 33069 | 2018-05-04 00:00:00:000 | 81.09                 | 489.92                | 82.31                 | 36.42                       | 8.68           |
| 33070 | 2018-05-04 00:15:00:000 | 74.37                 | 453.63                | 76.5                  | 35.82                       | 8.65           |
| 33071 | 2018-05-04 00:30:00:000 | 29.69                 | 223.33                | 29.53                 | 35.3                        | 8.64           |
| 33072 | 2018-05-04 00:45:00:000 | 12.55                 | 91.42                 | 12.09                 | 35.04                       | 8.66           |
| 33073 | 2018-05-04 01:00:00:000 | 14.53                 | 87.75                 | 13.59                 | 36.25                       | 8.69           |
| 33074 | 2018-05-04 01:15:00:000 | 16.56                 | 99.17                 | 15.19                 | 36.56                       | 8.62           |
| 33075 | 2018-05-04 01:30:00:000 | 15.94                 | 98.25                 | 15.19                 | 34.04                       | 8.66           |
| 33076 | 2018-05-04 01:45:00:    | 42.71                 | 221.58                | 43.41                 | 36.81                       | 8.51           |

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| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 33077 | 2018-05-04 02:00:00:000 | 79.95                 | 432.33                | 81.75                 | 37.04                       | 8.49           |
| 33078 | 2018-05-04 02:15:00:000 | 81.41                 | 478.08                | 84.84                 | 37.19                       | 8.45           |
| 33079 | 2018-05-04 02:30:00:000 | 77.45                 | 460.92                | 81.28                 | 37.24                       | 8.41           |
| 33080 | 2018-05-04 02:45:00:000 | 75.68                 | 447.83                | 79.12                 | 37.3                        | 8.41           |
| 33081 | 2018-05-04 03:00:00:000 | 73.75                 | 439.25                | 75.19                 | 37.26                       | 8.43           |
| 33082 | 2018-05-04 03:15:00:000 | 76.56                 | 450.5                 | 80.81                 | 37.32                       | 8.48           |
| 33083 | 2018-05-04 03:30:00:000 | 78.28                 | 458.67                | 81.28                 | 37.35                       | 8.51           |
| 33084 | 2018-05-04 03:45:00:000 | 78.54                 | 461.42                | 81.84                 | 37.3                        | 8.53           |
| 33085 | 2018-05-04 04:00:00:000 | 77.71                 | 461.83                | 79.78                 | 37.18                       | 8.55           |
| 33086 | 2018-05-04 04:15:00:000 | 82.24                 | 480.42                | 86.34                 | 37.12                       | 8.57           |
| 33087 | 2018-05-04 04:30:00:000 | 83.7                  | 491.83                | 88.41                 | 37.04                       | 8.57           |
| 33088 | 2018-05-04 04:45:00:000 | 84.22                 | 496.25                | 88.87                 | 37.01                       | 8.57           |
| 33089 | 2018-05-04 05:00:00:000 | 81.46                 | 487.25                | 84.38                 | 36.99                       | 8.57           |
| 33090 | 2018-05-04 05:15:00:000 | 84.27                 | 494.5                 | 88.87                 | 36.98                       | 8.56           |
| 33091 | 2018-05-04 05:30:00:000 | 84.84                 | 498.5                 | 88.87                 | 36.99                       | 8.56           |
| 33092 | 2018-05-04 05:45:00:000 | 85.16                 | 498.5                 | 89.34                 | 37.03                       | 8.54           |
| 33093 | 2018-05-04 06:00:00:000 | 81.46                 | 489.5                 | 84.38                 | 37.09                       | 8.52           |
| 33094 | 2018-05-04 06:15:00:000 | 86.04                 | 504.08                | 90.47                 | 37.14                       | 8.5            |
| 33095 | 2018-05-04 06:30:00:000 | 87.66                 | 513.58                | 92.16                 | 37.27                       | 8.48           |
| 33096 | 2018-05-04 06:45:00:    | 87.14                 | 513.17                | 92.06                 | 37.4                        | 8.43           |

| 'S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|--------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|        | 000                     |                       |                       |                       |                             |                |
| 33097  | 2018-05-04 07:00:00:000 | 81.98                 | 494.08                | 84.38                 | 37.65                       | 8.36           |
| 33098  | 2018-05-04 07:15:00:000 | 80.26                 | 476.83                | 84.38                 | 38.01                       | 8.22           |
| 33099  | 2018-05-04 07:30:00:000 | 79.06                 | 465.75                | 82.69                 | 37.94                       | 8.07           |
| 33100  | 2018-05-04 07:45:00:000 | 81.25                 | 478.0                 | 85.22                 | 37.18                       | 8.08           |
| 33101  | 2018-05-04 08:00:00:000 | 83.23                 | 492.42                | 85.12                 | 36.4                        | 8.23           |
| 33102  | 2018-05-04 08:15:00:000 | 90.21                 | 526.75                | 93.75                 | 36.14                       | 8.33           |
| 33103  | 2018-05-04 08:30:00:000 | 90.78                 | 536.0                 | 94.78                 | 36.49                       | 8.32           |
| 33104  | 2018-05-04 08:45:00:000 | 87.08                 | 516.83                | 91.22                 | 37.05                       | 8.16           |
| 33105  | 2018-05-04 09:00:00:000 | 77.97                 | 477.42                | 79.97                 | 37.23                       | 8.03           |
| 33106  | 2018-05-04 09:15:00:000 | 75.99                 | 452.42                | 79.41                 | 37.38                       | 7.94           |
| 33107  | 2018-05-04 09:30:00:000 | 72.24                 | 431.67                | 75.75                 | 37.45                       | 7.87           |
| 33108  | 2018-05-04 09:45:00:000 | 69.69                 | 415.25                | 72.56                 | 37.49                       | 7.82           |
| 33109  | 2018-05-04 10:00:00:000 | 67.45                 | 404.42                | 68.62                 | 37.17                       | 7.85           |
| 33110  | 2018-05-04 10:15:00:000 | 69.11                 | 408.0                 | 72.28                 | 36.92                       | 7.91           |
| 33111  | 2018-05-04 10:30:00:000 | 70.47                 | 416.58                | 74.25                 | 36.72                       | 7.97           |
| 33112  | 2018-05-04 10:45:00:000 | 72.24                 | 425.17                | 75.28                 | 36.54                       | 8.03           |
| 33113  | 2018-05-04 11:00:00:000 | 71.04                 | 425.58                | 72.09                 | 36.58                       | 8.09           |
| 33114  | 2018-05-04 11:15:00:000 | 72.71                 | 431.42                | 76.22                 | 37.21                       | 8.05           |
| 33115  | 2018-05-04 11:30:00:000 | 70.1                  | 418.75                | 73.69                 | 37.63                       | 7.94           |
| 33116  | 2018-05-04 11:45:00:    | 67.55                 | 402.83                | 70.97                 | 37.83                       | 7.91           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 33117 | 2018-05-04 12:00:00:000 | 64.69                 | 389.75                | 66.94                 | 38.01                       | 7.94           |
| 33118 | 2018-05-04 12:15:00:000 | 62.76                 | 376.17                | 66.0                  | 38.16                       | 7.99           |
| 33119 | 2018-05-04 12:30:00:000 | 61.56                 | 367.5                 | 64.97                 | 38.24                       | 8.03           |
| 33120 | 2018-05-04 12:45:00:000 | 60.68                 | 361.17                | 63.75                 | 38.3                        | 8.06           |
| 33121 | 2018-05-04 13:00:00:000 | 59.84                 | 358.08                | 61.22                 | 38.37                       | 8.08           |
| 33122 | 2018-05-04 13:15:00:000 | 59.79                 | 356.17                | 62.72                 | 38.43                       | 8.09           |
| 33123 | 2018-05-04 13:30:00:000 | 59.17                 | 354.17                | 62.16                 | 38.31                       | 8.09           |
| 33124 | 2018-05-04 13:45:00:000 | 61.72                 | 364.67                | 65.25                 | 37.64                       | 8.13           |
| 33125 | 2018-05-04 14:00:00:000 | 65.63                 | 384.17                | 68.34                 | 37.13                       | 8.19           |
| 33126 | 2018-05-04 14:15:00:000 | 69.06                 | 406.88                | 72.14                 | 36.73                       | 8.24           |
| 33127 | 2018-05-04 14:30:00:000 | 70.78                 | 419.0                 | 74.25                 | 36.43                       | 8.28           |
| 33128 | 2018-05-04 14:45:00:000 | 71.56                 | 425.25                | 75.37                 | 36.2                        | 8.31           |
| 33129 | 2018-05-04 15:00:00:000 | 71.67                 | 426.67                | 72.94                 | 36.04                       | 8.34           |
| 33130 | 2018-05-04 15:15:00:000 | 73.59                 | 437.17                | 77.06                 | 35.88                       | 8.36           |
| 33131 | 2018-05-04 15:30:00:000 | 75.16                 | 443.5                 | 78.56                 | 35.98                       | 8.37           |
| 33132 | 2018-05-04 15:45:00:000 | 75.57                 | 449.0                 | 79.5                  | 36.64                       | 8.36           |
| 33133 | 2018-05-04 16:00:00:000 | 73.85                 | 447.08                | 76.41                 | 36.87                       | 8.37           |
| 33134 | 2018-05-04 16:15:00:000 | 79.01                 | 465.75                | 82.69                 | 36.62                       | 8.39           |
| 33135 | 2018-05-04 16:30:00:000 | 81.61                 | 481.08                | 85.22                 | 36.56                       | 8.41           |
| 33136 | 2018-05-04 16:45:00:    | 81.25                 | 482.83                | 85.22                 | 36.77                       | 8.42           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 33137 | 2018-05-04 17:00:00:000 | 77.5                  | 469.75                | 79.97                 | 36.91                       | 8.4            |
| 33138 | 2018-05-04 17:15:00:000 | 78.33                 | 466.5                 | 81.84                 | 37.01                       | 8.39           |
| 33139 | 2018-05-04 17:30:00:000 | 78.33                 | 466.5                 | 81.84                 | 37.12                       | 8.39           |
| 33140 | 2018-05-04 17:45:00:000 | 78.96                 | 468.33                | 83.16                 | 37.16                       | 8.4            |
| 33141 | 2018-05-04 18:00:00:000 | 77.4                  | 464.75                | 79.5                  | 37.2                        | 8.41           |
| 33142 | 2018-05-04 18:15:00:000 | 80.26                 | 473.92                | 84.28                 | 36.97                       | 8.42           |
| 33143 | 2018-05-04 18:30:00:000 | 83.39                 | 491.17                | 87.28                 | 36.42                       | 8.44           |
| 33144 | 2018-05-04 18:45:00:000 | 86.25                 | 507.17                | 90.47                 | 36.02                       | 8.45           |
| 33145 | 2018-05-04 19:00:00:000 | 84.53                 | 507.17                | 86.91                 | 35.69                       | 8.47           |
| 33146 | 2018-05-04 19:15:00:000 | 89.37                 | 525.17                | 93.09                 | 35.76                       | 8.48           |
| 33147 | 2018-05-04 19:30:00:000 | 88.02                 | 523.0                 | 92.16                 | 36.26                       | 8.48           |
| 33148 | 2018-05-04 19:45:00:000 | 85.0                  | 506.33                | 89.06                 | 36.71                       | 8.47           |
| 33149 | 2018-05-04 20:00:00:000 | 80.47                 | 486.92                | 82.97                 | 36.93                       | 8.46           |
| 33150 | 2018-05-04 20:15:00:000 | 82.19                 | 486.92                | 86.62                 | 37.02                       | 8.47           |
| 33151 | 2018-05-04 20:30:00:000 | 84.17                 | 495.92                | 88.59                 | 37.09                       | 8.49           |
| 33152 | 2018-05-04 20:45:00:000 | 86.15                 | 508.17                | 90.0                  | 37.28                       | 8.53           |
| 33153 | 2018-05-04 21:00:00:000 | 88.23                 | 521.92                | 89.72                 | 36.49                       | 8.52           |
| 33154 | 2018-05-04 21:15:00:000 | 103.65                | 598.58                | 107.72                | 35.79                       | 8.52           |
| 33155 | 2018-05-04 21:30:00:000 | 105.47                | 618.58                | 108.84                | 35.62                       | 8.55           |
| 33156 | 2018-05-04 21:45:00:    | 102.86                | 608.08                | 106.78                | 35.95                       | 8.6            |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 33157 | 2018-05-04 22:00:00:000 | 88.96                 | 550.5                 | 90.75                 | 37.04                       | 8.64           |
| 33158 | 2018-05-04 22:15:00:000 | 85.08                 | 507.38                | 88.03                 | 37.32                       | 8.64           |
| 33159 | 2018-05-04 22:30:00:000 | 80.78                 | 480.33                | 84.28                 | 37.45                       | 8.63           |
| 33160 | 2018-05-04 22:45:00:000 | 78.54                 | 463.67                | 81.84                 | 37.32                       | 8.61           |
| 33161 | 2018-05-04 23:00:00:000 | 74.84                 | 446.83                | 77.72                 | 37.75                       | 8.58           |
| 33162 | 2018-05-04 23:15:00:000 | 113.8                 | 614.17                | 99.75                 | 37.67                       | 8.59           |
| 33163 | 2018-05-04 23:30:00:000 | 38.18                 | 283.75                | 33.09                 | 37.74                       | 8.63           |
| 33164 | 2018-05-04 23:45:00:000 | 58.33                 | 307.67                | 57.19                 | 38.01                       | 8.62           |
| 33165 | 2018-05-05 00:00:00:000 | 80.31                 | 458.25                | 82.31                 | 38.19                       | 8.6            |
| 33166 | 2018-05-05 00:15:00:000 | 80.83                 | 476.33                | 83.91                 | 38.36                       | 8.59           |
| 33167 | 2018-05-05 00:30:00:000 | 78.23                 | 464.0                 | 81.84                 | 38.51                       | 8.59           |
| 33168 | 2018-05-05 00:45:00:000 | 75.62                 | 453.58                | 78.66                 | 38.62                       | 8.59           |
| 33169 | 2018-05-05 01:00:00:000 | 74.53                 | 439.5                 | 77.16                 | 38.64                       | 8.59           |
| 33170 | 2018-05-05 01:15:00:000 | 74.84                 | 442.75                | 78.19                 | 38.67                       | 8.59           |
| 33171 | 2018-05-05 01:30:00:000 | 74.84                 | 442.0                 | 78.19                 | 38.68                       | 8.6            |
| 33172 | 2018-05-05 01:45:00:000 | 74.84                 | 440.83                | 78.19                 | 38.64                       | 8.6            |
| 33173 | 2018-05-05 02:00:00:000 | 73.91                 | 437.75                | 78.19                 | 38.67                       | 8.6            |
| 33174 | 2018-05-05 02:15:00:000 | 73.91                 | 436.0                 | 78.19                 | 38.45                       | 8.6            |
| 33175 | 2018-05-05 02:30:00:000 | 77.08                 | 451.33                | 81.28                 | 37.85                       | 8.6            |
| 33176 | 2018-05-05 02:45:00:    | 82.81                 | 481.75                | 86.34                 | 37.45                       | 8.63           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 33737 | 2018-05-10 23:30:00:000 | 72.29                 | 428.92                | 75.28                 | 37.13                       | 8.65           |
| 33738 | 2018-05-10 23:45:00:000 | 73.7                  | 434.33                | 76.78                 | 37.25                       | 8.64           |
| 33739 | 2018-05-11 00:00:00:000 | 74.32                 | 442.5                 | 76.88                 | 36.75                       | 8.61           |
| 33740 | 2018-05-11 00:15:00:000 | 81.41                 | 475.58                | 85.69                 | 36.66                       | 8.57           |
| 33741 | 2018-05-11 00:30:00:000 | 83.75                 | 493.33                | 88.59                 | 36.8                        | 8.55           |
| 33742 | 2018-05-11 00:45:00:000 | 84.84                 | 499.75                | 89.72                 | 36.91                       | 8.54           |
| 33743 | 2018-05-11 01:00:00:000 | 81.41                 | 490.67                | 84.09                 | 36.95                       | 8.53           |
| 33744 | 2018-05-11 01:15:00:000 | 84.84                 | 499.17                | 89.72                 | 37.01                       | 8.52           |
| 33745 | 2018-05-11 01:30:00:000 | 84.84                 | 501.08                | 89.72                 | 37.14                       | 8.52           |
| 33746 | 2018-05-11 01:45:00:000 | 83.44                 | 494.25                | 88.13                 | 37.27                       | 8.51           |
| 33747 | 2018-05-11 02:00:00:000 | 80.89                 | 483.5                 | 84.66                 | 37.35                       | 8.51           |
| 33748 | 2018-05-11 02:15:00:000 | 81.41                 | 480.67                | 85.78                 | 37.52                       | 8.5            |
| 33749 | 2018-05-11 02:30:00:000 | 80.62                 | 476.58                | 84.66                 | 37.61                       | 8.49           |
| 33750 | 2018-05-11 02:45:00:000 | 80.94                 | 476.58                | 84.84                 | 37.63                       | 8.48           |
| 33751 | 2018-05-11 03:00:00:000 | 80.94                 | 477.08                | 84.75                 | 37.77                       | 8.47           |
| 33752 | 2018-05-11 03:15:00:000 | 79.58                 | 471.25                | 83.16                 | 37.82                       | 8.46           |
| 33753 | 2018-05-11 03:30:00:000 | 78.44                 | 463.42                | 82.13                 | 37.91                       | 8.44           |
| 33754 | 2018-05-11 03:45:00:000 | 76.67                 | 454.5                 | 81.0                  | 37.98                       | 8.42           |
| 33755 | 2018-05-11 04:00:00:000 | 73.54                 | 442.67                | 76.59                 | 38.02                       | 8.4            |
| 33756 | 2018-05-11 04:15:00:    | 73.85                 | 436.83                | 78.19                 | 38.1                        | 8.37           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 33757 | 2018-05-11 04:30:00:000 | 73.28                 | 433.25                | 78.19                 | 38.13                       | 8.35           |
| 33758 | 2018-05-11 04:45:00:000 | 73.02                 | 430.92                | 78.19                 | 38.18                       | 8.32           |
| 33759 | 2018-05-11 05:00:00:000 | 70.52                 | 422.83                | 73.5                  | 38.23                       | 8.29           |
| 33760 | 2018-05-11 05:15:00:000 | 72.19                 | 424.58                | 76.78                 | 38.24                       | 8.27           |
| 33761 | 2018-05-11 05:30:00:000 | 72.19                 | 425                   | 76.78                 | 38.25                       | 8.25           |
| 33762 | 2018-05-11 05:45:00:000 | 72.19                 | 425.0                 | 76.78                 | 38.18                       | 8.24           |
| 33763 | 2018-05-11 06:00:00:000 | 69.74                 | 418.33                | 73.59                 | 38.33                       | 8.22           |
| 33764 | 2018-05-11 06:15:00:000 | 70.31                 | 413.75                | 74.53                 | 38.55                       | 8.22           |
| 33765 | 2018-05-11 06:30:00:000 | 68.59                 | 406.08                | 73.03                 | 38.56                       | 8.21           |
| 33766 | 2018-05-11 06:45:00:000 | 66.56                 | 395.17                | 71.06                 | 38.75                       | 8.2            |
| 33767 | 2018-05-11 07:00:00:000 | 62.81                 | 380.58                | 66.28                 | 38.87                       | 8.19           |
| 33768 | 2018-05-11 07:15:00:000 | 63.65                 | 377.0                 | 68.34                 | 38.64                       | 8.17           |
| 33769 | 2018-05-11 07:30:00:000 | 64.48                 | 380.58                | 68.81                 | 38.38                       | 8.16           |
| 33770 | 2018-05-11 07:45:00:000 | 64.38                 | 380.5                 | 68.62                 | 38.64                       | 8.18           |
| 33771 | 2018-05-11 08:00:00:000 | 63.18                 | 377.75                | 65.62                 | 38.49                       | 8.19           |
| 33772 | 2018-05-11 08:15:00:000 | 63.44                 | 375.92                | 67.12                 | 38.21                       | 8.2            |
| 33773 | 2018-05-11 08:30:00:000 | 62.5                  | 372.17                | 66.0                  | 37.98                       | 8.2            |
| 33774 | 2018-05-11 08:45:00:000 | 61.09                 | 365.33                | 65.06                 | 37.97                       | 8.2            |
| 33775 | 2018-05-11 09:00:00:000 | 61.35                 | 363.83                | 65.06                 | 37.68                       | 8.21           |
| 33776 | 2018-05-11 09:15:00:    | 63.02                 | 374.92                | 67.5                  | 37.33                       | 8.22           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 33777 | 2018-05-11 09:30:00:000 | 63.91                 | 378.92                | 68.06                 | 37.35                       | 8.22           |
| 33778 | 2018-05-11 09:45:00:000 | 63.02                 | 376.25                | 66.47                 | 37.45                       | 8.23           |
| 33779 | 2018-05-11 10:00:00:000 | 63.85                 | 378.5                 | 67.03                 | 37.45                       | 8.24           |
| 33780 | 2018-05-11 10:15:00:000 | 65.0                  | 385.25                | 69.09                 | 37.52                       | 8.26           |
| 33781 | 2018-05-11 10:30:00:000 | 65.78                 | 389.83                | 70.03                 | 37.57                       | 8.28           |
| 33782 | 2018-05-11 10:45:00:000 | 65.21                 | 391.58                | 69.0                  | 37.7                        | 8.3            |
| 33783 | 2018-05-11 11:00:00:000 | 64.9                  | 388.75                | 67.5                  | 37.83                       | 8.32           |
| 33784 | 2018-05-11 11:15:00:000 | 66.56                 | 394.17                | 70.5                  | 38.09                       | 8.34           |
| 33785 | 2018-05-11 11:30:00:000 | 66.2                  | 394.17                | 70.31                 | 38.23                       | 8.36           |
| 33786 | 2018-05-11 11:45:00:000 | 68.23                 | 408.17                | 70.88                 | 38.19                       | 8.38           |
| 33787 | 2018-05-11 12:00:00:000 | 68.75                 | 411.75                | 70.88                 | 38.25                       | 8.4            |
| 33788 | 2018-05-11 12:15:00:000 | 71.25                 | 421.25                | 74.25                 | 38.24                       | 8.42           |
| 33789 | 2018-05-11 12:30:00:000 | 71.56                 | 424.38                | 74.25                 | 38.37                       | 8.43           |
| 33790 | 2018-05-11 12:45:00:000 | 71.56                 | 424.25                | 74.25                 | 38.4                        | 8.44           |
| 33791 | 2018-05-11 13:00:00:000 | 69.79                 | 419.75                | 71.25                 | 38.44                       | 8.45           |
| 33792 | 2018-05-11 13:15:00:000 | 71.41                 | 424.83                | 74.25                 | 38.42                       | 8.45           |
| 33793 | 2018-05-11 13:30:00:000 | 71.41                 | 425.63                | 74.25                 | 38.36                       | 8.46           |
| 33794 | 2018-05-11 13:45:00:000 | 71.41                 | 427.0                 | 74.25                 | 38.36                       | 8.46           |
| 33795 | 2018-05-11 14:00:00:000 | 70.26                 | 422.5                 | 71.72                 | 38.31                       | 8.47           |
| 33796 | 2018-05-11 14:15:00:    | 71.67                 | 427.33                | 74.72                 | 38.33                       | 8.47           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 33797 | 2018-05-11 14:30:00:000 | 71.35                 | 428.25                | 75.66                 | 38.31                       | 8.47           |
| 33798 | 2018-05-11 14:45:00:000 | 72.45                 | 430.5                 | 75.66                 | 37.93                       | 8.47           |
| 33799 | 2018-05-11 15:00:00:000 | 72.19                 | 433.75                | 74.16                 | 37.51                       | 8.47           |
| 33800 | 2018-05-11 15:15:00:000 | 74.69                 | 444.58                | 77.63                 | 37.68                       | 8.48           |
| 33801 | 2018-05-11 15:30:00:000 | 73.8                  | 441.42                | 77.06                 | 37.93                       | 8.48           |
| 33802 | 2018-05-11 15:45:00:000 | 72.45                 | 432.25                | 75.66                 | 38.16                       | 8.48           |
| 33803 | 2018-05-11 16:00:00:000 | 68.8                  | 419.67                | 70.59                 | 38.15                       | 8.48           |
| 33804 | 2018-05-11 16:15:00:000 | 71.09                 | 421.0                 | 74.16                 | 37.9                        | 8.48           |
| 33805 | 2018-05-11 16:30:00:000 | 71.93                 | 427.33                | 75.19                 | 37.57                       | 8.48           |
| 33806 | 2018-05-11 16:45:00:000 | 72.71                 | 433.67                | 76.13                 | 37.34                       | 8.48           |
| 33807 | 2018-05-11 17:00:00:000 | 71.56                 | 431.0                 | 72.66                 | 37.26                       | 8.48           |
| 33808 | 2018-05-11 17:15:00:000 | 72.19                 | 432.42                | 75.66                 | 37.28                       | 8.48           |
| 33809 | 2018-05-11 17:30:00:000 | 72.19                 | 430.5                 | 75.66                 | 37.26                       | 8.48           |
| 33810 | 2018-05-11 17:45:00:000 | 71.41                 | 427.42                | 74.72                 | 37.31                       | 8.48           |
| 33811 | 2018-05-11 18:00:00:000 | 69.74                 | 420.17                | 71.25                 | 37.26                       | 8.49           |
| 33812 | 2018-05-11 18:15:00:000 | 71.41                 | 424.42                | 74.25                 | 37.23                       | 8.49           |
| 33813 | 2018-05-11 18:30:00:000 | 71.51                 | 426.17                | 74.25                 | 37.3                        | 8.49           |
| 33814 | 2018-05-11 18:45:00:000 | 71.56                 | 424.83                | 74.25                 | 37.34                       | 8.5            |
| 33815 | 2018-05-11 19:00:00:000 | 69.06                 | 416.75                | 70.78                 | 37.35                       | 8.5            |
| 33816 | 2018-05-11 19:15:00:    | 70.62                 | 419.17                | 73.97                 | 37.29                       | 8.5            |

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| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 33817 | 2018-05-11 19:30:00:000 | 71.46                 | 423.17                | 74.53                 | 37.24                       | 8.5            |
| 33818 | 2018-05-11 19:45:00:000 | 71.77                 | 426.5                 | 74.53                 | 37.25                       | 8.5            |
| 33819 | 2018-05-11 20:00:00:000 | 71.2                  | 425.92                | 72.94                 | 37.17                       | 8.49           |
| 33820 | 2018-05-11 20:15:00:000 | 72.66                 | 430.5                 | 76.69                 | 37.54                       | 8.48           |
| 33821 | 2018-05-11 20:30:00:000 | 74.06                 | 437.83                | 78.09                 | 37.61                       | 8.47           |
| 33822 | 2018-05-11 20:45:00:000 | 76.09                 | 449.08                | 80.25                 | 37.68                       | 8.46           |
| 33823 | 2018-05-11 21:00:00:000 | 77.6                  | 456.83                | 81.38                 | 37.54                       | 8.46           |
| 33824 | 2018-05-11 21:15:00:000 | 81.3                  | 475.92                | 85.5                  | 37.13                       | 8.45           |
| 33825 | 2018-05-11 21:30:00:000 | 84.22                 | 494.58                | 88.59                 | 37.22                       | 8.46           |
| 33826 | 2018-05-11 21:45:00:000 | 84.84                 | 500.58                | 89.72                 | 37.36                       | 8.47           |
| 33827 | 2018-05-11 22:00:00:000 | 83.07                 | 495.5                 | 86.62                 | 37.49                       | 8.48           |
| 33828 | 2018-05-11 22:15:00:000 | 84.58                 | 498.33                | 88.59                 | 37.79                       | 8.49           |
| 33829 | 2018-05-11 22:30:00:000 | 82.24                 | 489.25                | 87.19                 | 38.09                       | 8.5            |
| 33830 | 2018-05-11 22:45:00:000 | 79.74                 | 473.83                | 84.09                 | 38.26                       | 8.51           |
| 33831 | 2018-05-11 23:00:00:000 | 77.45                 | 462.5                 | 81.0                  | 38.13                       | 8.51           |
| 33832 | 2018-05-11 23:15:00:000 | 79.11                 | 467                   | 83.53                 | 37.64                       | 8.5            |
| 33833 | 2018-05-11 23:30:00:000 | 78.8                  | 467.0                 | 82.41                 | 38.13                       | 8.51           |
| 33834 | 2018-05-11 23:45:00:000 | 75.99                 | 455.25                | 79.97                 | 38.41                       | 8.52           |
| 33835 | 2018-05-12 00:00:00:000 | 73.44                 | 441.58                | 76.31                 | 38.68                       | 8.52           |
| 33836 | 2018-05-12 00:15:00:    | 71.77                 | 428.08                | 75.75                 | 38.95                       | 8.52           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 38017 | 2018-06-27 23:30:00:000 | 107.08                | 626.92                | 110.72                | 37.06                       | 8.49               |
| 38018 | 2018-06-27 23:45:00:000 | 114.43                | 665.42                | 117.56                | 36.69                       | 8.53               |
| 38019 | 2018-06-28 00:00:00:000 | 115.57                | 683.92                | 115.69                | 36.46                       | 8.55               |
| 38020 | 2018-06-28 00:15:00:000 | 122.19                | 716.25                | 124.31                | 36.27                       | 8.54               |
| 38021 | 2018-06-28 00:30:00:000 | 118.39                | 699.75                | 121.88                | 36.26                       | 8.53               |
| 38022 | 2018-06-28 00:45:00:000 | 116.67                | 687.17                | 119.63                | 36.31                       | 8.52               |
| 38023 | 2018-06-28 01:00:00:000 | 110.42                | 664.08                | 112.03                | 36.34                       | 8.51               |
| 38024 | 2018-06-28 01:15:00:000 | 113.28                | 665.0                 | 116.72                | 36.34                       | 8.5                |
| 38025 | 2018-06-28 01:30:00:000 | 111.51                | 657.67                | 115.03                | 36.35                       | 8.5                |
| 38026 | 2018-06-28 01:45:00:000 | 109.79                | 647.33                | 113.62                | 36.35                       | 8.5                |
| 38027 | 2018-06-28 02:00:00:000 | 102.19                | 619.17                | 104.91                | 36.37                       | 8.51               |
| 38028 | 2018-06-28 02:15:00:000 | 103.28                | 607.33                | 107.44                | 36.52                       | 8.56               |
| 38029 | 2018-06-28 02:30:00:000 | 106.09                | 619.58                | 109.97                | 36.55                       | 8.62               |
| 38030 | 2018-06-28 02:45:00:000 | 112.97                | 659.0                 | 115.03                | 36.79                       | 8.62               |
| 38031 | 2018-06-28 03:00:00:000 | 106.15                | 640.08                | 106.87                | 36.8                        | 8.56               |
| 38032 | 2018-06-28 03:15:00:000 | 108.91                | 638.17                | 111.66                | 36.86                       | 8.5                |
| 38033 | 2018-06-28 03:30:00:000 | 107.29                | 632.83                | 110.53                | 36.9                        | 8.46               |
| 38034 | 2018-06-28 03:45:00:000 | 105.52                | 623.75                | 108.84                | 36.98                       | 8.43               |
| 38035 | 2018-06-28 04:00:00:000 | 101.56                | 607.83                | 104.44                | 37                          | 8.41               |
| 38036 | 2018-06-28 04:15:00:    | 102.19                | 601.58                | 106.03                | 37.0                        | 8.4                |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 38037 | 2018-06-28 04:30:00:000 | 102.19                | 599.75                | 106.03                | 37.01                       | 8.38               |
| 38038 | 2018-06-28 04:45:00:000 | 100.47                | 599.25                | 103.41                | 37                          | 8.37               |
| 38039 | 2018-06-28 05:00:00:000 | 98.23                 | 588.83                | 100.31                | 37.0                        | 8.37               |
| 38040 | 2018-06-28 05:15:00:000 | 102.45                | 599.67                | 106.03                | 37.02                       | 8.37               |
| 38041 | 2018-06-28 05:30:00:000 | 103.33                | 606.5                 | 106.97                | 37.02                       | 8.37               |
| 38042 | 2018-06-28 05:45:00:000 | 104.17                | 611.42                | 350.53                | 37.0                        | 8.37               |
| 38043 | 2018-06-28 06:00:00:000 | 99.64                 | 598.25                | 101.44                | 37.02                       | 8.37               |
| 38044 | 2018-06-28 06:15:00:000 | 105.31                | 615.08                | 108.56                | 37.08                       | 8.37               |
| 38045 | 2018-06-28 06:30:00:000 | 106.46                | 622.5                 | 109.03                | 37.08                       | 8.38               |
| 38046 | 2018-06-28 06:45:00:000 | 106.46                | 622.92                | 109.03                | 37.08                       | 8.37               |
| 38047 | 2018-06-28 07:00:00:000 | 101.61                | 609.17                | 102.94                | 37.1                        | 8.38               |
| 38048 | 2018-06-28 07:15:00:000 | 105.47                | 617.33                | 108.56                | 37.12                       | 8.37               |
| 38049 | 2018-06-28 07:30:00:000 | 105.0                 | 616.92                | 108.47                | 37.16                       | 8.37               |
| 38050 | 2018-06-28 07:45:00:000 | 102.45                | 614.17                | 104.91                | 37.19                       | 8.37               |
| 38051 | 2018-06-28 08:00:00:000 | 97.89                 | 597.13                | 99.7                  | 37.36                       | 8.37               |
| 38052 | 2018-06-28 08:15:00:000 | 101.25                | 595.92                | 104.34                | 37.94                       | 8.41               |
| 38053 | 2018-06-28 08:30:00:000 | 98.96                 | 585.0                 | 102.19                | 38.35                       | 8.45               |
| 38054 | 2018-06-28 08:45:00:000 | 96.87                 | 573.25                | 100.41                | 38.55                       | 8.47               |
| 38055 | 2018-06-28 09:00:00:000 | 91.2                  | 551.5                 | 92.44                 | 38.64                       | 8.47               |
| 38056 | 2018-06-28 09:15:00:    | 93.96                 | 552.33                | 96.47                 | 38.69                       | 8.48               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 38057 | 2018-06-28 09:30:00:000 | 94.22                 | 554.17                | 96.47                 | 38.72                       | 8.48               |
| 38058 | 2018-06-28 09:45:00:000 | 90.83                 | 547.75                | 92.81                 | 38.95                       | 8.5                |
| 38059 | 2018-06-28 10:00:00:000 | 84.84                 | 506.38                | 87.19                 | 39.09                       | 8.46               |
| 38060 | 2018-06-28 10:15:00:000 | 83.98                 | 499.62                | 87.89                 | 39.08                       | 8.41               |
| 38061 | 2018-06-28 10:30:00:000 | 82.81                 | 490.08                | 85.69                 | 38.99                       | 8.38               |
| 38062 | 2018-06-28 10:45:00:000 | 81.67                 | 483.75                | 85.69                 | 38.96                       | 8.37               |
| 38063 | 2018-06-28 11:00:00:000 | 78.8                  | 472.5                 | 81.0                  | 38.95                       | 8.34               |
| 38064 | 2018-06-28 11:15:00:000 | 78.8                  | 466.08                | 81.94                 | 38.92                       | 8.32               |
| 38065 | 2018-06-28 11:30:00:000 | 74.53                 | 444.33                | 77.91                 | 39.32                       | 8.29               |
| 38066 | 2018-06-28 11:45:00:000 | 72.29                 | 429.25                | 75.75                 | 39.61                       | 8.29               |
| 38067 | 2018-06-28 12:00:00:000 | 68.59                 | 413.5                 | 70.59                 | 39.92                       | 8.25               |
| 38068 | 2018-06-28 12:15:00:000 | 67.03                 | 399.75                | 70.59                 | 40.23                       | 8.22               |
| 38069 | 2018-06-28 12:30:00:000 | 65.68                 | 391.17                | 69.09                 | 40.26                       | 8.19               |
| 38070 | 2018-06-28 12:45:00:000 | 66.46                 | 393.42                | 70.03                 | 40.12                       | 8.17               |
| 38071 | 2018-06-28 13:00:00:000 | 66.72                 | 394.75                | 69.33                 | 40.02                       | 8.16               |
| 38072 | 2018-06-28 13:15:00:000 | 67.81                 | 400.67                | 71.06                 | 39.86                       | 8.15               |
| 38073 | 2018-06-28 13:30:00:000 | 68.44                 | 406.37                | 72.28                 | 39.79                       | 8.14               |
| 38074 | 2018-06-28 13:45:00:000 | 77.73                 | 453.25                | 81.56                 | 38.4                        | 8.12               |
| 38075 | 2018-06-28 14:00:00:000 | 82.03                 | 482.75                | 84.28                 | 37.99                       | 8.14               |
| 38076 | 2018-06-28 14:15:00:    | 87.97                 | 516.5                 | 91.41                 | 38.0                        | 8.16               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 38077 | 2018-06-28 14:30:00:000 | 88.23                 | 521.67                | 92.62                 | 38.06                       | 8.18               |
| 38078 | 2018-06-28 14:45:00:000 | 87.97                 | 521.75                | 91.55                 | 38.28                       | 8.19               |
| 38079 | 2018-06-28 15:00:00:000 | 84.92                 | 504.88                | 88.45                 | 38.45                       | 8.19               |
| 38080 | 2018-06-28 15:15:00:000 | 86.25                 | 508.75                | 90                    | 38.53                       | 8.19               |
| 38081 | 2018-06-28 15:30:00:000 | 85.36                 | 507.08                | 90.0                  | 38.56                       | 8.19               |
| 38082 | 2018-06-28 15:45:00:000 | 84.92                 | 504.12                | 88.45                 | 38.61                       | 8.19               |
| 38083 | 2018-06-28 16:00:00:000 | 82.03                 | 487.08                | 84.38                 | 38.51                       | 8.19               |
| 38084 | 2018-06-28 16:15:00:000 | 84.14                 | 496.63                | 88.59                 | 38.46                       | 8.18               |
| 38085 | 2018-06-28 16:30:00:000 | 84.53                 | 499.25                | 88.59                 | 38.42                       | 8.18               |
| 38086 | 2018-06-28 16:45:00:000 | 83.39                 | 499.33                | 86.53                 | 38.42                       | 8.18               |
| 38087 | 2018-06-28 17:00:00:000 | 82.81                 | 488.5                 | 85.36                 | 38.33                       | 8.18               |
| 38088 | 2018-06-28 17:15:00:000 | 84.14                 | 496.75                | 88.59                 | 38.33                       | 8.18               |
| 38089 | 2018-06-28 17:30:00:000 | 84.53                 | 499.5                 | 88.59                 | 38.29                       | 8.17               |
| 38090 | 2018-06-28 17:45:00:000 | 83.12                 | 500.75                | 86.53                 | 38.34                       | 8.17               |
| 38091 | 2018-06-28 18:00:00:000 | 81.51                 | 484.08                | 84.38                 | 38.3                        | 8.17               |
| 38092 | 2018-06-28 18:15:00:000 | 83.75                 | 492.75                | 87.19                 | 38.3                        | 8.18               |
| 38093 | 2018-06-28 18:30:00:000 | 84.84                 | 499.0                 | 88.59                 | 38.24                       | 8.18               |
| 38094 | 2018-06-28 18:45:00:000 | 85.26                 | 505.67                | 89.91                 | 37.83                       | 8.18               |
| 38095 | 2018-06-28 19:00:00:000 | 86.33                 | 505.25                | 89.58                 | 37.49                       | 8.2                |
| 38096 | 2018-06-28 19:15:00:    | 90.42                 | 527.17                | 94.22                 | 37.39                       | 8.2                |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 38097 | 2018-06-28 19:30:00:000 | 95.31                 | 556.5                 | 99.0                  | 37.37                       | 8.22               |
| 38098 | 2018-06-28 19:45:00:000 | 98.95                 | 588.0                 | 102.02                | 37.31                       | 8.27               |
| 38099 | 2018-06-28 20:00:00:000 | 99.14                 | 580.25                | 101.53                | 37.14                       | 8.32               |
| 38100 | 2018-06-28 20:15:00:000 | 104.43                | 611.08                | 108.56                | 37.02                       | 8.35               |
| 38101 | 2018-06-28 20:30:00:000 | 104.69                | 617                   | 109.03                | 36.92                       | 8.37               |
| 38102 | 2018-06-28 20:45:00:000 | 104.69                | 617.0                 | 109.12                | 36.9                        | 8.38               |
| 38103 | 2018-06-28 21:00:00:000 | 98.75                 | 603.38                | 100.69                | 36.88                       | 8.38               |
| 38104 | 2018-06-28 21:15:00:000 | 104.43                | 611.83                | 108.47                | 36.92                       | 8.38               |
| 38105 | 2018-06-28 21:45:00:000 | 102.4                 | 612.75                | 105.38                | 37.01                       | 8.39               |
| 38106 | 2018-06-28 22:00:00:000 | 101.33                | 595                   | 104.48                | 37.03                       | 8.39               |
| 38107 | 2018-06-28 22:15:00:000 | 104.38                | 611.0                 | 107.91                | 37.06                       | 8.39               |
| 38108 | 2018-06-28 22:30:00:000 | 104.95                | 617.33                | 108.84                | 37.12                       | 8.39               |
| 38109 | 2018-06-28 22:45:00:000 | 104.69                | 616.92                | 108.84                | 37.14                       | 8.39               |
| 38110 | 2018-06-28 23:00:00:000 | 99.22                 | 597.75                | 101.25                | 37.18                       | 8.39               |
| 38111 | 2018-06-28 23:15:00:000 | 102.45                | 601.42                | 106.41                | 37.17                       | 8.4                |
| 38112 | 2018-06-28 23:30:00:000 | 102.45                | 603.25                | 106.5                 | 37.19                       | 8.4                |
| 38113 | 2018-06-28 23:45:00:000 | 102.71                | 603.67                | 106.97                | 37.18                       | 8.4                |
| 38114 | 2018-06-29 00:00:00:000 | 97.03                 | 591.63                | 98.86                 | 37.19                       | 8.4                |
| 38115 | 2018-06-29 00:15:00:000 | 102.14                | 598.75                | 106.5                 | 37.2                        | 8.4                |
| 38116 | 2018-06-29 00:30:00:    | 102.97                | 606.0                 | 107.44                | 37.19                       | 8.41               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 39297 | 2018-07-20 16:30:00:000 | 88.44                 | 520.25                | 93.66                 | 36.68                       | 8.26           |
| 39298 | 2018-07-20 16:45:00:000 | 89.22                 | 524.42                | 93.66                 | 36.72                       | 8.27           |
| 39299 | 2018-07-20 17:00:00:000 | 84.22                 | 508.0                 | 86.91                 | 36.89                       | 8.29           |
| 39300 | 2018-07-20 17:15:00:000 | 86.72                 | 508.83                | 90.94                 | 37.04                       | 8.29           |
| 39301 | 2018-07-20 17:30:00:000 | 87.34                 | 513.5                 | 92.16                 | 36.79                       | 8.31           |
| 39302 | 2018-07-20 17:45:00:000 | 89.38                 | 523.75                | 93.66                 | 36.73                       | 8.31           |
| 39303 | 2018-07-20 18:00:00:000 | 84.3                  | 497.88                | 87.47                 | 36.87                       | 8.33           |
| 39304 | 2018-07-20 18:15:00:000 | 87.4                  | 512.67                | 91.69                 | 36.72                       | 8.34           |
| 39305 | 2018-07-20 18:30:00:000 | 87.66                 | 517.75                | 92.25                 | 36.59                       | 8.32           |
| 39306 | 2018-07-20 18:45:00:000 | 86.88                 | 512.25                | 91.69                 | 36.65                       | 8.31           |
| 39307 | 2018-07-20 19:00:00:000 | 80.05                 | 487.75                | 83.53                 | 36.68                       | 8.3            |
| 39308 | 2018-07-20 19:15:00:000 | 84.27                 | 494.92                | 89.16                 | 36.71                       | 8.29           |
| 39309 | 2018-07-20 19:30:00:000 | 84.27                 | 497.25                | 88.97                 | 36.78                       | 8.28           |
| 39310 | 2018-07-20 19:45:00:000 | 84.22                 | 494.92                | 89.06                 | 36.9                        | 8.26           |
| 39311 | 2018-07-20 20:00:00:000 | 80.94                 | 472.75                | 84.38                 | 36.96                       | 8.24           |
| 39312 | 2018-07-20 23:45:00:000 | 104.3                 | 613.13                | 107.72                | 35.86                       | 8.04           |
| 39313 | 2018-07-21 00:00:00:000 | 67.76                 | 451.75                | 68.63                 | 35.72                       | 8.26           |
| 39314 | 2018-07-21 00:15:00:000 | 80.16                 | 449.75                | 82.97                 | 35.64                       | 8.28           |
| 39315 | 2018-07-21 08:30:00:000 | 76.09                 | 449.42                | 80.06                 | 39.09                       | 6.52           |
| 39316 | 2018-07-21 08:45:00:    | 72.24                 | 428.42                | 76.41                 | 39.11                       | 6.72           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 39317 | 2018-07-21 09:00:00:000 | 66.2                  | 404.83                | 69.19                 | 39.14                       | 6.58           |
| 39318 | 2018-07-21 09:15:00:000 | 67.34                 | 398.0                 | 72.28                 | 39.51                       | 6.5            |
| 39319 | 2018-07-21 09:30:00:000 | 67.27                 | 397.25                | 72.14                 | 39.45                       | 6.36           |
| 39320 | 2018-07-21 09:45:00:000 | 66.09                 | 391.0                 | 70.12                 | 39.48                       | 6.53           |
| 39321 | 2018-07-21 10:00:00:000 | 61.2                  | 370.67                | 63.94                 | 39.53                       | 6.62           |
| 39322 | 2018-07-21 10:15:00:000 | 63.07                 | 372                   | 66.84                 | 39.54                       | 6.66           |
| 39323 | 2018-07-21 10:30:00:000 | 64.14                 | 378.0                 | 68.91                 | 39.55                       | 6.72           |
| 39324 | 2018-07-21 10:45:00:000 | 63.65                 | 377.83                | 67.41                 | 39.78                       | 6.78           |
| 39325 | 2018-07-21 11:00:00:000 | 59.38                 | 370.5                 | 61.31                 | 39.67                       | 6.67           |
| 39326 | 2018-07-21 11:15:00:000 | 66.61                 | 391.92                | 71.16                 | 38.83                       | 6.79           |
| 39327 | 2018-07-21 11:30:00:000 | 71.41                 | 418.25                | 75.94                 | 38.3                        | 6.9            |
| 39328 | 2018-07-21 11:45:00:000 | 77.08                 | 450.0                 | 81.28                 | 37.93                       | 7.21           |
| 39329 | 2018-07-21 12:00:00:000 | 76.17                 | 461.75                | 79.17                 | 37.83                       | 7.25           |
| 39330 | 2018-07-21 12:15:00:000 | 78.85                 | 464.92                | 82.97                 | 37.8                        | 7.52           |
| 39331 | 2018-07-21 12:30:00:000 | 79.58                 | 469.83                | 84.38                 | 37.65                       | 7.63           |
| 39332 | 2018-07-21 12:45:00:000 | 82.45                 | 482.5                 | 86.91                 | 37.38                       | 7.7            |
| 39333 | 2018-07-21 13:00:00:000 | 79.64                 | 478.42                | 82.78                 | 37.37                       | 7.79           |
| 39334 | 2018-07-21 13:15:00:000 | 85.0                  | 496.67                | 89.34                 | 37.44                       | 7.88           |
| 39335 | 2018-07-21 13:30:00:000 | 86.41                 | 507.42                | 90.28                 | 37.45                       | 7.93           |
| 39336 | 2018-07-21 13:45:00:    | 86.15                 | 508.42                | 90.28                 | 37.44                       | 7.95           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 39337 | 2018-07-21 14:00:00:000 | 81.25                 | 492.58                | 84.94                 | 37.24                       | 7.95           |
| 39338 | 2018-07-21 14:15:00:000 | 87.11                 | 510.0                 | 91.97                 | 37.25                       | 7.97           |
| 39339 | 2018-07-21 14:30:00:000 | 87.66                 | 513.5                 | 91.97                 | 37.37                       | 7.8            |
| 39340 | 2018-07-21 14:45:00:000 | 86.72                 | 512.08                | 91.41                 | 37.41                       | 7.98           |
| 39341 | 2018-07-21 15:00:00:000 | 83.91                 | 506.67                | 87.37                 | 37.44                       | 8.01           |
| 39342 | 2018-07-21 15:15:00:000 | 86.41                 | 507.38                | 90.56                 | 37.4                        | 8.03           |
| 39343 | 2018-07-21 15:30:00:000 | 87.66                 | 514.75                | 92.25                 | 37.37                       | 8.06           |
| 39344 | 2018-07-21 15:45:00:000 | 87.66                 | 516.25                | 92.16                 | 37.34                       | 8.05           |
| 39345 | 2018-07-21 16:00:00:000 | 82.03                 | 507.08                | 84.94                 | 37.42                       | 8.06           |
| 39346 | 2018-07-21 16:15:00:000 | 86.56                 | 506.25                | 90.56                 | 37.31                       | 8.06           |
| 39347 | 2018-07-21 16:30:00:000 | 88.91                 | 522.37                | 93.66                 | 37.27                       | 8.09           |
| 39348 | 2018-07-21 16:45:00:000 | 90.31                 | 529.33                | 93.66                 | 37.38                       | 8.14           |
| 39349 | 2018-07-21 17:00:00:000 | 85.05                 | 515.33                | 88.03                 | 37.43                       | 8.17           |
| 39350 | 2018-07-21 17:15:00:000 | 89.95                 | 527.08                | 93.66                 | 37.48                       | 8.17           |
| 39351 | 2018-07-21 17:30:00:000 | 89.38                 | 527.08                | 93.66                 | 37.59                       | 8.15           |
| 39352 | 2018-07-21 17:45:00:000 | 87.66                 | 517.5                 | 92.25                 | 37.64                       | 8.13           |
| 39353 | 2018-07-21 18:00:00:000 | 80.86                 | 499.25                | 82.97                 | 37.65                       | 8.12           |
| 39354 | 2018-07-21 18:15:00:000 | 85.94                 | 504                   | 90.56                 | 37.54                       | 8.12           |
| 39355 | 2018-07-21 18:30:00:000 | 87.66                 | 515.0                 | 92.25                 | 37.36                       | 8.14           |
| 39356 | 2018-07-21 18:45:00:    | 88.59                 | 519.83                | 92.25                 | 37.37                       | 8.18           |

| S.No. | Time                    | 207                   |                       |                       |                             |                    | 1150 |  |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|------|--|
|       |                         | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |      |  |
|       | 000                     |                       |                       |                       |                             |                    |      |  |
| 39357 | 2018-07-21 19:00:00:000 | 80.16                 | 520.25                | 81.56                 | 37.36                       | 8.2                |      |  |
| 39358 | 2018-07-21 23:30:00:000 | 42.03                 | 250.0                 | 39.94                 | 35.86                       | 8.38               |      |  |
| 39359 | 2018-07-21 23:45:00:000 | 65.31                 | 347.12                | 64.69                 | 35.81                       | 8.36               |      |  |
| 39360 | 2018-07-22 07:15:00:000 | 45.0                  | 245.37                | 43.17                 | 37.78                       | 6.85               |      |  |
| 39361 | 2018-07-22 07:45:00:000 | 90.62                 | 530.25                | 93.94                 | 38.92                       | 6.27               |      |  |
| 39362 | 2018-07-22 09:15:00:000 | 78.8                  | 464.17                | 82.97                 | 39.44                       | 4.97               |      |  |
| 39363 | 2018-07-22 09:30:00:000 | 77.11                 | 455.0                 | 81.56                 | 39.48                       | 5.03               |      |  |
| 39364 | 2018-07-22 09:45:00:000 | 73.98                 | 441.38                | 79.03                 | 39.71                       | 5.11               |      |  |
| 39365 | 2018-07-22 10:00:00:000 | 70.55                 | 428.38                | 74.39                 | 40.02                       | 5.1                |      |  |
| 39366 | 2018-07-22 10:15:00:000 | 67.08                 | 400.0                 | 72                    | 40.17                       | 5.11               |      |  |
| 39367 | 2018-07-22 10:30:00:000 | 67.03                 | 397.75                | 72.0                  | 40.42                       | 5.16               |      |  |
| 39368 | 2018-07-22 10:45:00:000 | 67.03                 | 395.5                 | 71.06                 | 40.41                       | 5.18               |      |  |
| 39369 | 2018-07-22 11:00:00:000 | 66.51                 | 393.67                | 68.91                 | 40.25                       | 5.22               |      |  |
| 39370 | 2018-07-22 11:15:00:000 | 73.91                 | 431.75                | 78.19                 | 39.48                       | 5.24               |      |  |
| 39371 | 2018-07-22 11:30:00:000 | 78.12                 | 457.5                 | 82.13                 | 39.11                       | 5.28               |      |  |
| 39372 | 2018-07-22 11:45:00:000 | 83.28                 | 486.75                | 87.19                 | 38.86                       | 5.55               |      |  |
| 39373 | 2018-07-22 12:00:00:000 | 80.63                 | 487.37                | 82.83                 | 38.94                       | 5.95               |      |  |
| 39374 | 2018-07-22 12:15:00:000 | 83.2                  | 490.12                | 87.33                 | 38.82                       | 6.1                |      |  |
| 39375 | 2018-07-22 12:30:00:000 | 88.02                 | 513.25                | 92.34                 | 38.76                       | 6.22               |      |  |
| 39376 | 2018-07-22 12:45:00:    | 93.44                 | 545.88                | 96.47                 | 38.94                       | 6.37               |      |  |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 41257 | 2019-06-27 20:45:00:000 | 36.72                 | 270.75                | 46.1                  | 37.52                       | 6.99           |
| 41258 | 2019-06-27 21:00:00:000 | 36.72                 | 269.95                | 46.13                 | 37.5                        | 7              |
| 41259 | 2019-06-27 21:15:00:000 | 36.72                 | 269.27                | 46.13                 | 37.49                       | 7              |
| 41260 | 2019-06-27 21:30:00:000 | 36.72                 | 269.25                | 46.13                 | 37.49                       | 7.0            |
| 41261 | 2019-06-27 21:45:00:000 | 36.47                 | 267.58                | 46.13                 | 37.5                        | 7.01           |
| 41262 | 2019-06-27 22:00:00:000 | 35.78                 | 265.75                | 46.13                 | 37.51                       | 7.01           |
| 41263 | 2019-06-27 22:15:00:000 | 35.79                 | 265.27                | 46.13                 | 37.51                       | 7.01           |
| 41264 | 2019-06-27 22:30:00:000 | 35.78                 | 265.27                | 45.79                 | 37.51                       | 7.02           |
| 41265 | 2019-06-27 22:45:00:000 | 35.78                 | 265.35                | 46.13                 | 37.51                       | 7.02           |
| 41266 | 2019-06-27 23:00:00:000 | 36.41                 | 266.75                | 46.13                 | 37.51                       | 7.03           |
| 41267 | 2019-06-27 23:15:00:000 | 36.72                 | 267.83                | 46.13                 | 37.51                       | 7.04           |
| 41268 | 2019-06-27 23:30:00:000 | 36.71                 | 270.1                 | 46.13                 | 37.5                        | 7.05           |
| 41269 | 2019-06-27 23:45:00:000 | 37.5                  | 274.1                 | 47.25                 | 37.49                       | 7.06           |
| 41270 | 2019-06-28 00:00:00:000 | 37.94                 | 278.08                | 47.53                 | 37.47                       | 7.06           |
| 41271 | 2019-06-28 00:15:00:000 | 38.31                 | 279.85                | 47.53                 | 37.46                       | 7.05           |
| 41272 | 2019-06-28 00:30:00:000 | 38.35                 | 281.08                | 47.53                 | 37.45                       | 7.05           |
| 41273 | 2019-06-28 00:45:00:000 | 38.4                  | 280.25                | 47.53                 | 37.44                       | 7.05           |
| 41274 | 2019-06-28 01:00:00:000 | 38.41                 | 279.17                | 47.53                 | 37.44                       | 7.05           |
| 41275 | 2019-06-28 01:15:00:000 | 38.44                 | 278.75                | 47.53                 | 37.44                       | 7.06           |
| 41276 | 2019-06-28 01:30:00:    | 38.44                 | 278.77                | 47.53                 | 37.44                       | 7.06           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 41277 | 2019-06-28 01:45:00:000 | 38.44                 | 278.78                | 47.53                 | 37.43                       | 7.06           |
| 41278 | 2019-06-28 02:00:00:000 | 36.95                 | 272.83                | 45.09                 | 37.42                       | 7.06           |
| 41279 | 2019-06-28 02:15:00:000 | 37.26                 | 273.62                | 46.45                 | 37.42                       | 7.07           |
| 41280 | 2019-06-28 02:30:00:000 | 37.5                  | 277.0                 | 47.53                 | 37.42                       | 7.07           |
| 41281 | 2019-06-28 02:45:00:000 | 37.5                  | 278.18                | 47.53                 | 37.41                       | 7.06           |
| 41282 | 2019-06-28 03:00:00:000 | 37.5                  | 278.75                | 47.53                 | 37.41                       | 7.06           |
| 41283 | 2019-06-28 03:15:00:000 | 37.5                  | 278.33                | 47.53                 | 37.39                       | 7.06           |
| 41284 | 2019-06-28 03:30:00:000 | 37.5                  | 278.04                | 47.53                 | 37.39                       | 7.06           |
| 41285 | 2019-06-28 03:45:00:000 | 37.5                  | 278.78                | 47.53                 | 37.39                       | 7.06           |
| 41286 | 2019-06-28 04:00:00:000 | 37.51                 | 277.5                 | 47.53                 | 37.38                       | 7.05           |
| 41287 | 2019-06-28 04:15:00:000 | 37.5                  | 277.5                 | 47.53                 | 37.37                       | 7.05           |
| 41288 | 2019-06-28 04:30:00:000 | 37.5                  | 277.5                 | 47.53                 | 37.36                       | 7.06           |
| 41289 | 2019-06-28 04:45:00:000 | 37.53                 | 277.08                | 47.53                 | 37.34                       | 7.06           |
| 41290 | 2019-06-28 05:00:00:000 | 36.72                 | 272.77                | 44.81                 | 37.31                       | 7.06           |
| 41291 | 2019-06-28 05:15:00:000 | 37.31                 | 273.3                 | 46.13                 | 37.29                       | 7.06           |
| 41292 | 2019-06-28 05:30:00:000 | 37.65                 | 273.5                 | 46.69                 | 37.28                       | 7.05           |
| 41293 | 2019-06-28 05:45:00:000 | 37.66                 | 273.77                | 46.69                 | 37.27                       | 7.04           |
| 41294 | 2019-06-28 06:00:00:000 | 37.44                 | 273.5                 | 46.13                 | 37.27                       | 7.04           |
| 41295 | 2019-06-28 06:15:00:000 | 37.65                 | 273.5                 | 46.22                 | 37.26                       | 7.03           |
| 41296 | 2019-06-28 06:30:00:    | 37.65                 | 273.5                 | 47.19                 | 37.26                       | 7.03           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 41297 | 2019-06-28 06:45:00:000 | 36.84                 | 272.82                | 46.13                 | 37.25                       | 7.01           |
| 41298 | 2019-06-28 07:00:00:000 | 36.72                 | 271.53                | 44.91                 | 37.26                       | 7.01           |
| 41299 | 2019-06-28 07:15:00:000 | 36.72                 | 269.75                | 45.56                 | 37.27                       | 7.01           |
| 41300 | 2019-06-28 07:30:00:000 | 36.72                 | 269.15                | 46.13                 | 37.28                       | 7.03           |
| 41301 | 2019-06-28 07:45:00:000 | 36.72                 | 269.5                 | 46.13                 | 37.28                       | 7.03           |
| 41302 | 2019-06-28 08:00:00:000 | 36.56                 | 268.05                | 44.46                 | 37.27                       | 7.05           |
| 41303 | 2019-06-28 08:15:00:000 | 36.72                 | 269.28                | 45.66                 | 37.27                       | 7.03           |
| 41304 | 2019-06-28 08:30:00:000 | 36.72                 | 269.52                | 46.13                 | 37.28                       | 7.01           |
| 41305 | 2019-06-28 08:45:00:000 | 36.72                 | 270.93                | 46.13                 | 37.29                       | 7.02           |
| 41306 | 2019-06-28 09:00:00:000 | 36.72                 | 272                   | 46.13                 | 37.3                        | 7.02           |
| 41307 | 2019-06-28 09:15:00:000 | 36.72                 | 272.0                 | 46.13                 | 37.31                       | 7.02           |
| 41308 | 2019-06-28 09:30:00:000 | 36.7                  | 270.9                 | 46.13                 | 37.32                       | 7.01           |
| 41309 | 2019-06-28 09:45:00:000 | 36.65                 | 269.75                | 46.13                 | 37.34                       | 7.01           |
| 41310 | 2019-06-28 10:00:00:000 | 36.56                 | 269.25                | 44.77                 | 37.36                       | 7              |
| 41311 | 2019-06-28 10:15:00:000 | 36.56                 | 269.25                | 45.58                 | 37.37                       | 7.0            |
| 41312 | 2019-06-28 10:30:00:000 | 36.53                 | 269.75                | 45.92                 | 37.37                       | 7.01           |
| 41313 | 2019-06-28 10:45:00:000 | 36.51                 | 272.0                 | 45.88                 | 37.38                       | 7.01           |
| 41314 | 2019-06-28 11:00:00:000 | 37.09                 | 273.25                | 47.05                 | 37.41                       | 7.01           |
| 41315 | 2019-06-28 11:15:00:000 | 37.34                 | 274.4                 | 47.53                 | 37.43                       | 7.02           |
| 41316 | 2019-06-28 11:30:00:    | 37.34                 | 273.25                | 47.51                 | 37.43                       | 7.02           |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 41317 | 2019-06-28 11:45:00:000 | 37.29                 | 274.0                 | 47.44                 | 37.47                       | 7.02               |
| 41318 | 2019-06-28 12:00:00:000 | 37.25                 | 274.33                | 47.48                 | 37.47                       | 7.03               |
| 41319 | 2019-06-28 12:15:00:000 | 36.64                 | 273.25                | 46.59                 | 37.5                        | 7.04               |
| 41320 | 2019-06-28 12:30:00:000 | 36.41                 | 272.45                | 45.84                 | 37.56                       | 7.03               |
| 41321 | 2019-06-28 12:45:00:000 | 36.41                 | 271.75                | 45.84                 | 37.61                       | 7.02               |
| 41322 | 2019-06-28 13:00:00:000 | 36.41                 | 271.75                | 45.84                 | 37.63                       | 7.0                |
| 41323 | 2019-06-28 13:15:00:000 | 36.4                  | 271.75                | 45.84                 | 37.67                       | 7.01               |
| 41324 | 2019-06-28 13:30:00:000 | 36.28                 | 272                   | 45.84                 | 37.7                        | 7.01               |
| 41325 | 2019-06-28 13:45:00:000 | 36.46                 | 273.0                 | 46.97                 | 37.7                        | 7                  |
| 41326 | 2019-06-28 14:00:00:000 | 35.73                 | 268.38                | 43.98                 | 37.7                        | 7.0                |
| 41327 | 2019-06-28 14:15:00:000 | 36.25                 | 270.5                 | 45.64                 | 37.7                        | 7.01               |
| 41328 | 2019-06-28 14:30:00:000 | 36.25                 | 272.25                | 45.84                 | 37.71                       | 7.02               |
| 41329 | 2019-06-28 14:45:00:000 | 37.0                  | 273.32                | 47.25                 | 37.71                       | 7.02               |
| 41330 | 2019-06-28 15:00:00:000 | 37.19                 | 274.7                 | 47.25                 | 37.7                        | 7.02               |
| 41331 | 2019-06-28 15:15:00:000 | 37.19                 | 276.0                 | 47.25                 | 37.71                       | 7.02               |
| 41332 | 2019-06-28 15:30:00:000 | 37.19                 | 276.38                | 47.29                 | 37.73                       | 7.01               |
| 41333 | 2019-06-28 15:45:00:000 | 37.29                 | 277.25                | 47.49                 | 37.72                       | 7.01               |
| 41334 | 2019-06-28 16:00:00:000 | 36.55                 | 273.57                | 45.18                 | 37.72                       | 7.01               |
| 41335 | 2019-06-28 16:15:00:000 | 37.3                  | 275.72                | 46.74                 | 37.71                       | 7.01               |
| 41336 | 2019-06-28 16:30:00:    | 37.84                 | 278.67                | 47.53                 | 37.71                       | 7.01               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 41337 | 2019-06-28 16:45:00:000 | 38.28                 | 279.67                | 47.53                 | 37.7                        | 7.02               |
| 41338 | 2019-06-28 17:00:00:000 | 38.28                 | 280.0                 | 47.53                 | 37.68                       | 7.03               |
| 41339 | 2019-06-28 17:15:00:000 | 38.12                 | 279.17                | 47.53                 | 37.67                       | 7.04               |
| 41340 | 2019-06-28 17:30:00:000 | 38.28                 | 280.09                | 47.53                 | 37.66                       | 7.05               |
| 41341 | 2019-06-28 17:45:00:000 | 38.28                 | 281.5                 | 47.53                 | 37.63                       | 7.05               |
| 41342 | 2019-06-28 18:00:00:000 | 38.34                 | 282.57                | 47.53                 | 37.6                        | 7.03               |
| 41343 | 2019-06-28 18:15:00:000 | 38.44                 | 282.37                | 47.53                 | 37.54                       | 7.02               |
| 41344 | 2019-06-28 18:30:00:000 | 38.37                 | 280.67                | 47.53                 | 37.53                       | 7.03               |
| 41345 | 2019-06-28 18:45:00:000 | 37.59                 | 278.95                | 47.55                 | 37.54                       | 7.03               |
| 41346 | 2019-06-28 19:00:00:000 | 37.66                 | 277.53                | 47.55                 | 37.52                       | 7.03               |
| 41347 | 2019-06-28 19:15:00:000 | 37.66                 | 275.5                 | 47.57                 | 37.5                        | 7.04               |
| 41348 | 2019-06-28 19:30:00:000 | 36.78                 | 273.3                 | 46.74                 | 37.49                       | 7.05               |
| 41349 | 2019-06-28 19:45:00:000 | 36.78                 | 272.08                | 46.13                 | 37.48                       | 7.05               |
| 41350 | 2019-06-28 20:00:00:000 | 36.82                 | 272.48                | 46.55                 | 37.47                       | 7.04               |
| 41351 | 2019-06-28 20:15:00:000 | 36.84                 | 273.22                | 47.1                  | 37.44                       | 7.04               |
| 41352 | 2019-06-28 20:30:00:000 | 36.83                 | 272.13                | 46.13                 | 37.43                       | 7.04               |
| 41353 | 2019-06-28 20:45:00:000 | 36.81                 | 272.2                 | 46.13                 | 37.41                       | 7.05               |
| 41354 | 2019-06-28 21:00:00:000 | 37.13                 | 272.88                | 46.89                 | 37.4                        | 7.04               |
| 41355 | 2019-06-28 21:15:00:000 | 37.66                 | 275.02                | 47.66                 | 37.39                       | 7.05               |
| 41356 | 2019-06-28 21:30:00:000 | 37.66                 | 276.25                | 47.66                 | 37.33                       | 7.06               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 41357 | 2019-06-28 21:45:00:000 | 37.66                 | 276.25                | 47.63                 | 37.3                        | 7.06               |
| 41358 | 2019-06-28 22:00:00:000 | 37.66                 | 275.33                | 47.66                 | 37.29                       | 7.06               |
| 41359 | 2019-06-28 22:15:00:000 | 37.66                 | 275.0                 | 47.68                 | 37.28                       | 7.05               |
| 41360 | 2019-06-28 22:30:00:000 | 37.66                 | 273.62                | 47.74                 | 37.27                       | 7.05               |
| 41361 | 2019-06-28 22:45:00:000 | 37.66                 | 274                   | 47.76                 | 37.25                       | 7.05               |
| 41362 | 2019-06-28 23:00:00:000 | 37.66                 | 275.0                 | 45.67                 | 37.25                       | 7.05               |
| 41363 | 2019-06-28 23:15:00:000 | 37.66                 | 275.5                 | 46.13                 | 37.28                       | 7.05               |
| 41364 | 2019-06-28 23:30:00:000 | 37.14                 | 273.08                | 46.13                 | 37.28                       | 7.04               |
| 41365 | 2019-06-28 23:45:00:000 | 36.86                 | 270.98                | 46.13                 | 37.28                       | 7.04               |
| 41366 | 2019-06-29 00:00:00:000 | 36.88                 | 270.08                | 46.13                 | 37.28                       | 7.04               |
| 41367 | 2019-06-29 00:15:00:000 | 36.86                 | 269.5                 | 46.13                 | 37.29                       | 7.04               |
| 41368 | 2019-06-29 00:30:00:000 | 36.88                 | 271.12                | 46.13                 | 37.3                        | 7.04               |
| 41369 | 2019-06-29 00:45:00:000 | 37.45                 | 272.83                | 46.13                 | 37.31                       | 7.05               |
| 41370 | 2019-06-29 01:00:00:000 | 36.98                 | 270.8                 | 44.92                 | 37.31                       | 7.05               |
| 41371 | 2019-06-29 01:15:00:000 | 37.34                 | 273.55                | 46.44                 | 37.32                       | 7.05               |
| 41372 | 2019-06-29 01:30:00:000 | 38.23                 | 278.5                 | 47.74                 | 37.33                       | 7.05               |
| 41373 | 2019-06-29 01:45:00:000 | 38.44                 | 281.17                | 47.74                 | 37.33                       | 7.05               |
| 41374 | 2019-06-29 02:00:00:000 | 38.44                 | 282.93                | 47.93                 | 37.34                       | 7.05               |
| 41375 | 2019-06-29 02:15:00:000 | 38.44                 | 284.38                | 49.22                 | 37.35                       | 7.05               |
| 41376 | 2019-06-29 02:30:00:    | 38.44                 | 283.0                 | 48.02                 | 37.32                       | 7.06               |

| S.No. | Time                    |                       |                       |                       |                             | 214                | 1157 |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|------|
|       |                         | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |      |
|       | 000                     |                       |                       |                       |                             |                    |      |
| 41737 | 2019-07-02 22:15:00:000 | 43.44                 | 317.27                | 53.72                 | 37.47                       | 7.01               |      |
| 41738 | 2019-07-02 22:30:00:000 | 42.97                 | 315.75                | 53.72                 | 37.43                       | 6.99               |      |
| 41739 | 2019-07-02 22:45:00:000 | 42.66                 | 313.75                | 53.72                 | 37.4                        | 6.99               |      |
| 41740 | 2019-07-02 23:00:00:000 | 42.5                  | 311.4                 | 52.59                 | 37.39                       | 6.98               |      |
| 41741 | 2019-07-02 23:15:00:000 | 42.66                 | 313.1                 | 52.78                 | 37.39                       | 6.99               |      |
| 41742 | 2019-07-02 23:30:00:000 | 43.53                 | 316.33                | 53.77                 | 37.37                       | 7                  |      |
| 41743 | 2019-07-02 23:45:00:000 | 43.6                  | 318.48                | 53.85                 | 37.35                       | 7                  |      |
| 41744 | 2019-07-03 00:00:00:000 | 43.59                 | 319.75                | 53.8                  | 37.31                       | 7.0                |      |
| 41745 | 2019-07-03 00:15:00:000 | 43.59                 | 319.5                 | 53.85                 | 37.27                       | 7.01               |      |
| 41746 | 2019-07-03 00:30:00:000 | 43.59                 | 317.6                 | 53.77                 | 37.25                       | 7.01               |      |
| 41747 | 2019-07-03 00:45:00:000 | 42.94                 | 315.42                | 53.81                 | 37.24                       | 7.01               |      |
| 41748 | 2019-07-03 01:00:00:000 | 42.73                 | 313.57                | 53.92                 | 37.21                       | 7.02               |      |
| 41749 | 2019-07-03 01:15:00:000 | 41.91                 | 309.0                 | 52.31                 | 37.17                       | 7.03               |      |
| 41750 | 2019-07-03 01:30:00:000 | 43.49                 | 315.75                | 54.0                  | 37.05                       | 7.04               |      |
| 41751 | 2019-07-03 01:45:00:000 | 42.94                 | 313.95                | 53.77                 | 36.94                       | 7.04               |      |
| 41752 | 2019-07-03 02:00:00:000 | 42.83                 | 311.75                | 52.31                 | 36.85                       | 7.04               |      |
| 41753 | 2019-07-03 02:15:00:000 | 42.26                 | 310.45                | 52.31                 | 36.79                       | 7.04               |      |
| 41754 | 2019-07-03 02:30:00:000 | 41.89                 | 309.0                 | 52.31                 | 36.8                        | 7.05               |      |
| 41755 | 2019-07-03 02:45:00:000 | 41.88                 | 307.7                 | 52.31                 | 36.91                       | 7.03               |      |
| 41756 | 2019-07-03 03:00:00:    | 41.88                 | 307.42                | 52.31                 | 36.97                       | 7.01               |      |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 41757 | 2019-07-03 03:15:00:000 | 41.88                 | 305.48                | 52.31                 | 37.0                        | 6.97               |
| 41758 | 2019-07-03 03:30:00:000 | 41.41                 | 303.67                | 51.75                 | 37.01                       | 6.95               |
| 41759 | 2019-07-03 03:45:00:000 | 41.09                 | 301.57                | 50.91                 | 37.01                       | 6.93               |
| 41760 | 2019-07-03 04:00:00:000 | 41.09                 | 299.85                | 50.91                 | 37                          | 6.92               |
| 41761 | 2019-07-03 04:15:00:000 | 40.78                 | 298.58                | 50.91                 | 37                          | 6.91               |
| 41762 | 2019-07-03 04:30:00:000 | 40.16                 | 297.64                | 50.91                 | 37.0                        | 6.9                |
| 41763 | 2019-07-03 04:45:00:000 | 40.16                 | 296.73                | 50.91                 | 36.98                       | 6.9                |
| 41764 | 2019-07-03 05:00:00:000 | 40.16                 | 296.63                | 50.91                 | 36.98                       | 6.88               |
| 41765 | 2019-07-03 05:15:00:000 | 40.16                 | 295.25                | 50.91                 | 36.97                       | 6.87               |
| 41766 | 2019-07-03 05:30:00:000 | 40.16                 | 295.07                | 50.91                 | 36.96                       | 6.87               |
| 41767 | 2019-07-03 05:45:00:000 | 40.17                 | 294                   | 50.91                 | 36.96                       | 6.86               |
| 41768 | 2019-07-03 06:00:00:000 | 40.16                 | 294.0                 | 50.91                 | 36.95                       | 6.86               |
| 41769 | 2019-07-03 06:15:00:000 | 40.16                 | 294.83                | 50.91                 | 36.96                       | 6.86               |
| 41770 | 2019-07-03 06:30:00:000 | 40.17                 | 295.25                | 50.91                 | 36.95                       | 6.87               |
| 41771 | 2019-07-03 06:45:00:000 | 40.16                 | 296.5                 | 50.91                 | 36.95                       | 6.87               |
| 41772 | 2019-07-03 07:00:00:000 | 39.97                 | 294.2                 | 49.56                 | 36.94                       | 6.87               |
| 41773 | 2019-07-03 07:15:00:000 | 40.59                 | 296.6                 | 50.53                 | 36.95                       | 6.88               |
| 41774 | 2019-07-03 07:30:00:000 | 40.94                 | 300.45                | 50.74                 | 36.97                       | 6.88               |
| 41775 | 2019-07-03 07:45:00:000 | 40.92                 | 302.43                | 51.22                 | 36.97                       | 6.88               |
| 41776 | 2019-07-03 08:00:00:    | 40.11                 | 298.46                | 49.46                 | 36.97                       | 6.88               |

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| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 41777 | 2019-07-03 08:15:00:000 | 41.01                 | 300.25                | 50.62                 | 36.98                       | 6.59               |
| 41778 | 2019-07-03 08:30:00:000 | 41.72                 | 304.0                 | 52.31                 | 36.99                       | 6.59               |
| 41779 | 2019-07-03 08:45:00:000 | 42.66                 | 310.12                | 52.17                 | 36.98                       | 6.76               |
| 41780 | 2019-07-03 09:00:00:000 | 42.55                 | 310.77                | 52.12                 | 36.92                       | 6.76               |
| 41781 | 2019-07-03 09:15:00:000 | 42.5                  | 311.95                | 52.65                 | 36.93                       | 6.66               |
| 41782 | 2019-07-03 09:30:00:000 | 42.5                  | 312.75                | 53.68                 | 36.96                       | 6.66               |
| 41783 | 2019-07-03 09:45:00:000 | 42.5                  | 312.75                | 53.7                  | 36.99                       | 6.62               |
| 41784 | 2019-07-03 10:00:00:000 | 41.75                 | 308.6                 | 51.02                 | 37.03                       | 6.64               |
| 41785 | 2019-07-03 10:15:00:000 | 41.56                 | 308.0                 | 52.03                 | 37.07                       | 6.69               |
| 41786 | 2019-07-03 10:30:00:000 | 41.66                 | 308.6                 | 51.97                 | 37.12                       | 6.72               |
| 41787 | 2019-07-03 10:45:00:000 | 41.63                 | 308.31                | 52.03                 | 37.11                       | 6.76               |
| 41788 | 2019-07-03 11:00:00:000 | 41.06                 | 302.64                | 51.08                 | 37.09                       | 6.81               |
| 41789 | 2019-07-03 11:15:00:000 | 42.15                 | 310.38                | 51.82                 | 37.2                        | 6.21               |
| 41790 | 2019-07-03 11:30:00:000 | 39.51                 | 293.85                | 49.03                 | 35.14                       | 6.57               |
| 41791 | 2019-07-03 11:45:00:000 | 41.44                 | 304.75                | 51.75                 | 37.01                       | 6.59               |
| 41792 | 2019-07-03 12:00:00:000 | 42.27                 | 309.63                | 51.91                 | 37.42                       | 6.82               |
| 41793 | 2019-07-03 12:15:00:000 | 42.39                 | 311.25                | 51.92                 | 37.4                        | 6.78               |
| 41794 | 2019-07-03 12:30:00:000 | 42.47                 | 311.07                | 51.99                 | 37.4                        | 6.46               |
| 41795 | 2019-07-03 12:45:00:000 | 41.9                  | 309.75                | 51.87                 | 37.47                       | 6.46               |
| 41796 | 2019-07-03 13:00:00:000 | 41.41                 | 308.83                | 51.75                 | 37.53                       | 6.46               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 41797 | 2019-07-03 13:15:00:000 | 41.41                 | 308.13                | 51.81                 | 37.56                       | 6.5                |
| 41798 | 2019-07-03 13:30:00:000 | 41.41                 | 307.09                | 51.75                 | 37.61                       | 6.54               |
| 41799 | 2019-07-03 13:45:00:000 | 41.41                 | 307.03                | 51.75                 | 37.66                       | 6.55               |
| 41800 | 2019-07-03 14:00:00:000 | 41.41                 | 307.05                | 51.75                 | 37.7                        | 6.54               |
| 41801 | 2019-07-03 14:15:00:000 | 41.41                 | 307.03                | 51.75                 | 37.74                       | 6.52               |
| 41802 | 2019-07-03 14:30:00:000 | 41.41                 | 306.68                | 51.75                 | 37.76                       | 6.51               |
| 41803 | 2019-07-03 14:45:00:000 | 41.41                 | 305.31                | 51.75                 | 37.76                       | 6.5                |
| 41804 | 2019-07-03 15:00:00:000 | 41.41                 | 305.08                | 51.75                 | 37.76                       | 6.48               |
| 41805 | 2019-07-03 15:15:00:000 | 41.41                 | 304.27                | 51.75                 | 37.75                       | 6.49               |
| 41806 | 2019-07-03 15:30:00:000 | 41.28                 | 303                   | 51.56                 | 37.74                       | 6.51               |
| 41807 | 2019-07-03 15:45:00:000 | 40.86                 | 303.0                 | 50.91                 | 37.73                       | 6.53               |
| 41808 | 2019-07-03 16:00:00:000 | 40.55                 | 301.96                | 50.34                 | 37.73                       | 6.53               |
| 41809 | 2019-07-03 16:15:00:000 | 40.47                 | 302.12                | 50.34                 | 37.73                       | 6.53               |
| 41810 | 2019-07-03 16:30:00:000 | 40.5                  | 301.87                | 50.34                 | 37.72                       | 6.54               |
| 41811 | 2019-07-03 16:45:00:000 | 40.59                 | 301.65                | 50.34                 | 37.7                        | 6.54               |
| 41812 | 2019-07-03 17:00:00:000 | 40.63                 | 301.75                | 50.34                 | 37.69                       | 6.51               |
| 41813 | 2019-07-03 17:15:00:000 | 41.12                 | 303                   | 51.23                 | 37.67                       | 6.48               |
| 41814 | 2019-07-03 17:30:00:000 | 41.41                 | 303                   | 51.73                 | 37.65                       | 6.48               |
| 41815 | 2019-07-03 17:45:00:000 | 40.63                 | 303                   | 50.34                 | 37.63                       | 6.48               |
| 41816 | 2019-07-03 18:00:00:    | 40.63                 | 303                   | 50.34                 | 37.62                       | 6.47               |

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| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 41817 | 2019-07-03 18:15:00:000 | 41.37                 | 303.0                 | 51.66                 | 37.6                        | 6.48               |
| 41818 | 2019-07-03 18:30:00:000 | 41.61                 | 304.1                 | 52.01                 | 37.59                       | 6.49               |
| 41819 | 2019-07-03 18:45:00:000 | 41.7                  | 305.47                | 52.03                 | 37.57                       | 6.5                |
| 41820 | 2019-07-03 19:00:00:000 | 39.91                 | 297.17                | 49.24                 | 37.56                       | 6.52               |
| 41821 | 2019-07-03 19:15:00:000 | 41.63                 | 303.77                | 51.71                 | 37.53                       | 6.54               |
| 41822 | 2019-07-03 19:30:00:000 | 43.09                 | 313.77                | 53.72                 | 37.5                        | 6.56               |
| 41823 | 2019-07-03 19:45:00:000 | 43.75                 | 320.65                | 54.28                 | 37.49                       | 6.54               |
| 41824 | 2019-07-03 20:00:00:000 | 44.34                 | 325.1                 | 55.13                 | 37.48                       | 6.56               |
| 41825 | 2019-07-03 20:15:00:000 | 45.47                 | 330.85                | 56.36                 | 37.45                       | 6.59               |
| 41826 | 2019-07-03 20:30:00:000 | 46.51                 | 338.28                | 57.38                 | 37.41                       | 6.52               |
| 41827 | 2019-07-03 20:45:00:000 | 47.75                 | 345.93                | 58.88                 | 37.37                       | 6.53               |
| 41828 | 2019-07-03 21:00:00:000 | 46                    | 339.05                | 56.65                 | 37.34                       | 6.54               |
| 41829 | 2019-07-03 21:15:00:000 | 48.0                  | 347.7                 | 58.76                 | 37.3                        | 6.57               |
| 41830 | 2019-07-03 21:30:00:000 | 49.66                 | 359.45                | 60.92                 | 37.26                       | 6.58               |
| 41831 | 2019-07-03 21:45:00:000 | 50.58                 | 366.56                | 61.85                 | 37.24                       | 6.56               |
| 41832 | 2019-07-03 22:00:00:000 | 51.25                 | 371.38                | 63.22                 | 37.22                       | 6.57               |
| 41833 | 2019-07-03 22:15:00:000 | 51.82                 | 376.33                | 63.71                 | 37.21                       | 6.61               |
| 41834 | 2019-07-03 22:30:00:000 | 52.04                 | 379.21                | 64.69                 | 37.19                       | 6.65               |
| 41835 | 2019-07-03 22:45:00:000 | 52.04                 | 380.7                 | 64.69                 | 37.19                       | 6.65               |
| 41836 | 2019-07-03 23:00:00:    | 52.03                 | 381                   | 64.69                 | 37.18                       | 6.66               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 41837 | 2019-07-03 23:15:00:000 | 52.03                 | 381.0                 | 64.69                 | 37.16                       | 6.68               |
| 41838 | 2019-07-03 23:30:00:000 | 52.03                 | 379.97                | 64.69                 | 37.16                       | 6.7                |
| 41839 | 2019-07-03 23:45:00:000 | 52.03                 | 380                   | 64.69                 | 37.15                       | 6.71               |
| 41840 | 2019-07-04 00:00:00:000 | 52.03                 | 381.0                 | 64.69                 | 37.13                       | 6.71               |
| 41841 | 2019-07-04 00:15:00:000 | 52.9                  | 382.16                | 64.69                 | 37.13                       | 6.72               |
| 41842 | 2019-07-04 00:30:00:000 | 52.97                 | 383.02                | 64.69                 | 37.12                       | 6.73               |
| 41843 | 2019-07-04 00:45:00:000 | 52.97                 | 384.98                | 64.69                 | 37.12                       | 6.73               |
| 41844 | 2019-07-04 01:00:00:000 | 53.17                 | 387.38                | 65.29                 | 37.12                       | 6.73               |
| 41845 | 2019-07-04 01:15:00:000 | 53.91                 | 390.62                | 66.11                 | 37.12                       | 6.74               |
| 41846 | 2019-07-04 01:30:00:000 | 54.32                 | 393.9                 | 66.11                 | 37.12                       | 6.75               |
| 41847 | 2019-07-04 01:45:00:000 | 54.69                 | 397.8                 | 67.56                 | 37.11                       | 6.76               |
| 41848 | 2019-07-04 02:00:00:000 | 55.4                  | 401.32                | 67.78                 | 37.11                       | 6.77               |
| 41849 | 2019-07-04 02:15:00:000 | 55.53                 | 403.98                | 67.78                 | 37.11                       | 6.77               |
| 41850 | 2019-07-04 02:30:00:000 | 56.3                  | 406.88                | 69.0                  | 37.11                       | 6.78               |
| 41851 | 2019-07-04 02:45:00:000 | 56.41                 | 408.25                | 69.19                 | 37.12                       | 6.79               |
| 41852 | 2019-07-04 03:00:00:000 | 56.42                 | 407.07                | 68.99                 | 37.11                       | 6.82               |
| 41853 | 2019-07-04 03:15:00:000 | 55.65                 | 406.08                | 67.78                 | 37.11                       | 6.79               |
| 41854 | 2019-07-04 03:30:00:000 | 55.58                 | 403.87                | 67.78                 | 37.1                        | 6.78               |
| 41855 | 2019-07-04 03:45:00:000 | 55.32                 | 402.17                | 67.78                 | 37.1                        | 6.77               |
| 41856 | 2019-07-04 04:00:00:    | 51.6                  | 384.13                | 63.19                 | 37.1                        | 6.77               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 44297 | 2019-07-29 23:30:00:000 | 43.49                 | 336.43                | 48.51                 | 26.94                       | 7.78               |
| 44298 | 2019-07-29 23:45:00:000 | 43.75                 | 338.2                 | 48.58                 | 27.08                       | 7.71               |
| 44299 | 2019-07-30 00:00:00:000 | 43.75                 | 339.42                | 48.6                  | 28.0                        | 7.18               |
| 44300 | 2019-07-30 00:15:00:000 | 43.75                 | 339.58                | 48.58                 | 27.71                       | 7.18               |
| 44301 | 2019-07-30 00:30:00:000 | 43.18                 | 336.05                | 48.62                 | 36.11                       | 7.37               |
| 44302 | 2019-07-30 00:45:00:000 | 42.97                 | 333.43                | 48.64                 | 36.11                       | 7.7                |
| 44303 | 2019-07-30 01:00:00:000 | 42.97                 | 332.35                | 48.62                 | 36.12                       | 7.77               |
| 44304 | 2019-07-30 01:15:00:000 | 42.97                 | 333.65                | 48.62                 | 36.11                       | 7.74               |
| 44305 | 2019-07-30 01:30:00:000 | 42.97                 | 335.0                 | 48.64                 | 36.1                        | 7.29               |
| 44306 | 2019-07-30 01:45:00:000 | 42.97                 | 334.55                | 48.64                 | 36.08                       | 7.03               |
| 44307 | 2019-07-30 02:00:00:000 | 42.8                  | 332.93                | 48.62                 | 36.06                       | 7.16               |
| 44308 | 2019-07-30 02:15:00:000 | 42.36                 | 331.15                | 47.4                  | 36.04                       | 6.98               |
| 44309 | 2019-07-30 02:30:00:000 | 42.47                 | 330.75                | 47.64                 | 36.04                       | 6.84               |
| 44310 | 2019-07-30 02:45:00:000 | 42.86                 | 331.07                | 48.42                 | 36.02                       | 6.74               |
| 44311 | 2019-07-30 03:00:00:000 | 42.54                 | 330.77                | 47.76                 | 36.02                       | 6.69               |
| 44312 | 2019-07-30 03:15:00:000 | 42.19                 | 329.42                | 46.97                 | 36.0                        | 6.83               |
| 44313 | 2019-07-30 03:30:00:000 | 42.19                 | 327.15                | 46.97                 | 35.98                       | 6.95               |
| 44314 | 2019-07-30 03:45:00:000 | 42.19                 | 326.75                | 46.95                 | 35.96                       | 7.03               |
| 44315 | 2019-07-30 04:00:00:000 | 41.96                 | 325.39                | 46.97                 | 35.94                       | 7.23               |
| 44316 | 2019-07-30 04:15:00:    | 41.84                 | 324                   | 46.95                 | 35.94                       | 7.01               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 44317 | 2019-07-30 04:30:00:000 | 41.62                 | 324.0                 | 46.97                 | 35.93                       | 6.88               |
| 44318 | 2019-07-30 04:45:00:000 | 41.25                 | 322.37                | 46.97                 | 35.91                       | 6.84               |
| 44319 | 2019-07-30 05:00:00:000 | 41.26                 | 321.33                | 46.97                 | 35.91                       | 6.72               |
| 44320 | 2019-07-30 05:15:00:000 | 41.26                 | 320.87                | 46.16                 | 35.9                        | 6.61               |
| 44321 | 2019-07-30 05:30:00:000 | 41.28                 | 319.96                | 45.5                  | 35.89                       | 6.51               |
| 44322 | 2019-07-30 05:45:00:000 | 41.3                  | 319.4                 | 45.43                 | 35.9                        | 6.74               |
| 44323 | 2019-07-30 06:00:00:000 | 40.44                 | 316.75                | 45.47                 | 35.9                        | 7.56               |
| 44324 | 2019-07-30 06:15:00:000 | 40.44                 | 314.6                 | 45.53                 | 35.88                       | 7.19               |
| 44325 | 2019-07-30 06:30:00:000 | 40.44                 | 314.55                | 45.43                 | 35.85                       | 6.99               |
| 44326 | 2019-07-30 06:45:00:000 | 40.4                  | 315.9                 | 45.47                 | 35.83                       | 6.89               |
| 44327 | 2019-07-30 07:00:00:000 | 40.4                  | 316.83                | 45.32                 | 35.82                       | 6.77               |
| 44328 | 2019-07-30 07:15:00:000 | 41.25                 | 318.32                | 45.38                 | 35.81                       | 6.7                |
| 44329 | 2019-07-30 07:30:00:000 | 41.24                 | 319.95                | 45.34                 | 35.82                       | 6.76               |
| 44330 | 2019-07-30 07:45:00:000 | 41.2                  | 319.83                | 45.32                 | 35.83                       | 7.23               |
| 44331 | 2019-07-30 08:00:00:000 | 41.23                 | 319.43                | 45.28                 | 35.82                       | 7.39               |
| 44332 | 2019-07-30 08:15:00:000 | 41.24                 | 319.37                | 45.88                 | 35.79                       | 6.53               |
| 44333 | 2019-07-30 08:30:00:000 | 41.24                 | 322.25                | 46.97                 | 35.76                       | 6.44               |
| 44334 | 2019-07-30 08:45:00:000 | 41.23                 | 322.43                | 46.97                 | 35.76                       | 6.54               |
| 44335 | 2019-07-30 09:00:00:000 | 41.21                 | 320.43                | 45.28                 | 35.75                       | 6.62               |
| 44336 | 2019-07-30 09:15:00:    | 41.23                 | 320.13                | 45.6                  | 35.74                       | 6.72               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 44337 | 2019-07-30 09:30:00:000 | 41.14                 | 319.85                | 45.28                 | 35.74                       | 6.79               |
| 44338 | 2019-07-30 09:45:00:000 | 41.14                 | 319.75                | 45.3                  | 35.72                       | 7.18               |
| 44339 | 2019-07-30 10:00:00:000 | 40.57                 | 318.15                | 45.28                 | 35.71                       | 7.46               |
| 44340 | 2019-07-30 10:15:00:000 | 40.31                 | 317.22                | 45.28                 | 35.72                       | 7.16               |
| 44341 | 2019-07-30 10:30:00:000 | 40.31                 | 317.25                | 45.28                 | 35.72                       | 6.99               |
| 44342 | 2019-07-30 10:45:00:000 | 40.31                 | 317.25                | 45.28                 | 35.72                       | 6.85               |
| 44343 | 2019-07-30 11:00:00:000 | 40.31                 | 317.22                | 45.28                 | 35.77                       | 6.73               |
| 44344 | 2019-07-30 11:15:00:000 | 40.31                 | 317.15                | 45.28                 | 35.79                       | 6.73               |
| 44345 | 2019-07-30 11:30:00:000 | 40.31                 | 315.93                | 45.28                 | 35.79                       | 6.68               |
| 44346 | 2019-07-30 11:45:00:000 | 40.31                 | 315.75                | 45.28                 | 35.77                       | 6.72               |
| 44347 | 2019-07-30 12:00:00:000 | 40.31                 | 315.25                | 45.28                 | 35.76                       | 6.71               |
| 44348 | 2019-07-30 12:15:00:000 | 40.31                 | 313.2                 | 45.28                 | 35.78                       | 6.58               |
| 44349 | 2019-07-30 12:30:00:000 | 40.31                 | 312.03                | 45.28                 | 35.79                       | 6.72               |
| 44350 | 2019-07-30 12:45:00:000 | 39.5                  | 310.29                | 44.85                 | 35.8                        | 6.77               |
| 44351 | 2019-07-30 13:00:00:000 | 39.41                 | 308.17                | 43.88                 | 35.8                        | 7.94               |
| 44352 | 2019-07-30 13:15:00:000 | 39.43                 | 307.75                | 43.88                 | 35.81                       | 7.17               |
| 44353 | 2019-07-30 13:30:00:000 | 39.42                 | 307.73                | 43.88                 | 35.84                       | 7.44               |
| 44354 | 2019-07-30 13:45:00:000 | 39.4                  | 307.75                | 43.88                 | 35.87                       | 6.69               |
| 44355 | 2019-07-30 14:00:00:000 | 39.4                  | 307.73                | 43.88                 | 35.9                        | 7.48               |
| 44356 | 2019-07-30 14:15:00:    | 39.41                 | 307.73                | 43.88                 | 35.9                        | 7.28               |

| S.No. | Time                    | 223 1166              |                       |                       |                             | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       |                         | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) |                    |
|       | 000                     |                       |                       |                       |                             |                    |
| 44357 | 2019-07-30 14:30:00:000 | 39.47                 | 307.75                | 43.88                 | 35.91                       | 6.88               |
| 44358 | 2019-07-30 14:45:00:000 | 39.42                 | 307.72                | 43.88                 | 35.92                       | 6.93               |
| 44359 | 2019-07-30 15:00:00:000 | 39.48                 | 307.75                | 43.88                 | 35.92                       | 6.83               |
| 44360 | 2019-07-30 15:15:00:000 | 39.47                 | 307.75                | 43.88                 | 35.92                       | 6.82               |
| 44361 | 2019-07-30 15:30:00:000 | 39.47                 | 306.29                | 43.88                 | 35.92                       | 6.77               |
| 44362 | 2019-07-30 15:45:00:000 | 39.48                 | 307.17                | 43.88                 | 35.92                       | 6.76               |
| 44363 | 2019-07-30 16:00:00:000 | 38.91                 | 305.42                | 43.88                 | 35.94                       | 6.97               |
| 44364 | 2019-07-30 16:15:00:000 | 39.52                 | 308.55                | 44.18                 | 35.94                       | 6.88               |
| 44365 | 2019-07-30 16:30:00:000 | 39.48                 | 309.52                | 44.44                 | 35.95                       | 6.71               |
| 44366 | 2019-07-30 16:45:00:000 | 40.08                 | 310.78                | 45.28                 | 35.95                       | 6.87               |
| 44367 | 2019-07-30 17:00:00:000 | 40.31                 | 312.22                | 45.28                 | 35.95                       | 6.87               |
| 44368 | 2019-07-30 17:15:00:000 | 40.31                 | 314.75                | 45.28                 | 35.96                       | 6.96               |
| 44369 | 2019-07-30 17:30:00:000 | 40.31                 | 315.75                | 45.28                 | 35.97                       | 7.38               |
| 44370 | 2019-07-30 17:45:00:000 | 40.31                 | 315.87                | 45.28                 | 35.97                       | 6.89               |
| 44371 | 2019-07-30 18:00:00:000 | 40.99                 | 318.32                | 45.62                 | 35.97                       | 7.02               |
| 44372 | 2019-07-30 18:15:00:000 | 41.09                 | 319.96                | 46.93                 | 35.96                       | 7.17               |
| 44373 | 2019-07-30 18:30:00:000 | 41.09                 | 321.73                | 46.95                 | 35.95                       | 7.16               |
| 44374 | 2019-07-30 18:45:00:000 | 41.11                 | 321.6                 | 46.93                 | 35.94                       | 6.99               |
| 44375 | 2019-07-30 19:00:00:000 | 41.11                 | 321.93                | 46.97                 | 35.93                       | 6.8                |
| 44376 | 2019-07-30 19:15:00:    | 41.15                 | 322.7                 | 46.97                 | 35.92                       | 7.07               |

| S.No. | Time                          | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | 224 1167<br>ETP_1 pH (pH)(avg) |
|-------|-------------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------------------|
|       | 000                           |                       |                       |                       |                             |                                |
| 44377 | 2019-07-30 19:30:00:000 41.19 | 323.33                | 46.97                 | 35.89                 | 6.99                        |                                |
| 44378 | 2019-07-30 19:45:00:000 41.9  | 324.5                 | 46.97                 | 35.87                 | 6.54                        |                                |
| 44379 | 2019-07-30 20:00:00:000 42.06 | 325.25                | 46.97                 | 35.86                 | 6.52                        |                                |
| 44380 | 2019-07-30 20:15:00:000 42.03 | 325.25                | 46.95                 | 35.86                 | 6.75                        |                                |
| 44381 | 2019-07-30 20:30:00:000 42.05 | 325.27                | 46.95                 | 35.85                 | 7.07                        |                                |
| 44382 | 2019-07-30 20:45:00:000 42.05 | 324.93                | 46.95                 | 35.84                 | 6.66                        |                                |
| 44383 | 2019-07-30 21:00:00:000 42.08 | 324.53                | 46.97                 | 35.82                 | 6.53                        |                                |
| 44384 | 2019-07-30 21:15:00:000 41.76 | 324.5                 | 46.97                 | 35.82                 | 7.44                        |                                |
| 44385 | 2019-07-30 21:30:00:000 41.97 | 324.0                 | 46.97                 | 35.81                 | 6.88                        |                                |
| 44386 | 2019-07-30 21:45:00:000 41.24 | 322.85                | 46.97                 | 35.82                 | 6.89                        |                                |
| 44387 | 2019-07-30 22:00:00:000 41.24 | 322.75                | 46.97                 | 35.83                 | 6.83                        |                                |
| 44388 | 2019-07-30 22:15:00:000 41.31 | 323.08                | 46.99                 | 35.84                 | 6.69                        |                                |
| 44389 | 2019-07-30 22:30:00:000 42.13 | 324.65                | 46.97                 | 35.85                 | 6.62                        |                                |
| 44390 | 2019-07-30 22:45:00:000 42.15 | 326.32                | 46.97                 | 27.66                 | 7.27                        |                                |
| 44391 | 2019-07-30 23:00:00:000 42.14 | 329.08                | 47.53                 | 27.51                 | 7.29                        |                                |
| 44392 | 2019-07-30 23:15:00:000 42.72 | 331.45                | 48.64                 | 27.3                  | 7.3                         |                                |
| 44393 | 2019-07-30 23:30:00:000 42.97 | 332.23                | 48.66                 | 27.17                 | 7.31                        |                                |
| 44394 | 2019-07-30 23:45:00:000 42.97 | 332.88                | 48.6                  | 27.1                  | 7.31                        |                                |
| 44395 | 2019-07-31 00:00:00:000 42.97 | 333.65                | 48.66                 | 26.98                 | 7.31                        |                                |
| 44396 | 2019-07-31 00:15:00: 42.97    | 333.68                | 48.66                 | 26.84                 | 7.31                        |                                |

| S.No. | Time                    |                       |                       |                       |                             | 225 1168           |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       |                         | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|       | 000                     |                       |                       |                       |                             |                    |
| 45477 | 2019-10-06 23:00:00:000 | 28.3                  | 324.09                | 39.09                 | 35.41                       | 6.83               |
| 45478 | 2019-10-06 23:15:00:000 | 27.81                 | 318.98                | 37.69                 | 35.42                       | 6.84               |
| 45479 | 2019-10-06 23:30:00:000 | 27.73                 | 317.55                | 37.63                 | 35.42                       | 6.84               |
| 45480 | 2019-10-06 23:45:00:000 | 28.28                 | 321.17                | 39.09                 | 35.41                       | 6.84               |
| 45481 | 2019-10-07 00:00:00:000 | 29.0                  | 327.38                | 39.45                 | 35.4                        | 6.84               |
| 45482 | 2019-10-07 00:15:00:000 | 30.13                 | 338.85                | 40.5                  | 35.38                       | 6.83               |
| 45483 | 2019-10-07 00:30:00:000 | 30.87                 | 345.35                | 41.55                 | 35.37                       | 6.83               |
| 45484 | 2019-10-07 00:45:00:000 | 30.94                 | 350.92                | 42.13                 | 35.36                       | 6.82               |
| 45485 | 2019-10-07 01:00:00:000 | 31.72                 | 355.97                | 40.98                 | 35.35                       | 6.82               |
| 45486 | 2019-10-07 01:15:00:000 | 31.73                 | 358.4                 | 42.23                 | 35.34                       | 6.81               |
| 45487 | 2019-10-07 01:30:00:000 | 31.67                 | 358.46                | 43.01                 | 35.34                       | 6.82               |
| 45488 | 2019-10-07 01:45:00:000 | 30.45                 | 348.35                | 41.15                 | 35.36                       | 6.83               |
| 45489 | 2019-10-07 02:00:00:000 | 29.47                 | 336.71                | 39.91                 | 35.39                       | 6.84               |
| 45490 | 2019-10-07 02:15:00:000 | 29.22                 | 332.5                 | 39.56                 | 35.4                        | 6.85               |
| 45491 | 2019-10-07 02:30:00:000 | 29.77                 | 336.03                | 40.5                  | 35.41                       | 6.85               |
| 45492 | 2019-10-07 02:45:00:000 | 30.16                 | 339.86                | 40.5                  | 35.4                        | 6.85               |
| 45493 | 2019-10-07 03:00:00:000 | 30.6                  | 343.75                | 40.74                 | 35.38                       | 6.84               |
| 45494 | 2019-10-07 03:15:00:000 | 31.0                  | 354.25                | 41.99                 | 35.37                       | 6.8                |
| 45495 | 2019-10-07 03:30:00:000 | 31.72                 | 357.28                | 42.78                 | 35.35                       | 6.76               |
| 45496 | 2019-10-07 03:45:00:    | 31.72                 | 360.94                | 43.66                 | 35.33                       | 6.73               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 45497 | 2019-10-07 04:00:00:000 | 31.73                 | 362.25                | 43.77                 | 35.31                       | 6.71               |
| 45498 | 2019-10-07 04:15:00:000 | 32.2                  | 363.44                | 43.76                 | 35.3                        | 6.71               |
| 45499 | 2019-10-07 04:30:00:000 | 32.08                 | 362.54                | 43.63                 | 35.3                        | 6.72               |
| 45500 | 2019-10-07 04:45:00:000 | 30.98                 | 353.0                 | 41.72                 | 35.33                       | 6.76               |
| 45501 | 2019-10-07 05:00:00:000 | 29.7                  | 340.17                | 40.5                  | 35.35                       | 6.78               |
| 45502 | 2019-10-07 05:15:00:000 | 29.26                 | 335.02                | 40.5                  | 35.37                       | 6.8                |
| 45503 | 2019-10-07 05:30:00:000 | 30.06                 | 337.28                | 40.5                  | 35.37                       | 6.8                |
| 45504 | 2019-10-07 05:45:00:000 | 30.16                 | 340.5                 | 40.5                  | 35.37                       | 6.8                |
| 45505 | 2019-10-07 06:00:00:000 | 30.16                 | 340.17                | 40.52                 | 35.36                       | 6.8                |
| 45506 | 2019-10-07 06:15:00:000 | 30.22                 | 341.92                | 40.57                 | 35.35                       | 6.8                |
| 45507 | 2019-10-07 06:30:00:000 | 30.94                 | 347.48                | 42.03                 | 35.33                       | 6.8                |
| 45508 | 2019-10-07 06:45:00:000 | 31.17                 | 352.16                | 42.19                 | 35.32                       | 6.79               |
| 45509 | 2019-10-07 07:00:00:000 | 31.21                 | 353.98                | 42.11                 | 35.31                       | 6.79               |
| 45510 | 2019-10-07 07:15:00:000 | 30.55                 | 348.62                | 41.46                 | 35.3                        | 6.8                |
| 45511 | 2019-10-07 07:30:00:000 | 29.91                 | 341.75                | 40.5                  | 35.31                       | 6.8                |
| 45512 | 2019-10-07 07:45:00:000 | 29.86                 | 340.25                | 40.5                  | 35.31                       | 6.8                |
| 45513 | 2019-10-07 08:00:00:000 | 30.42                 | 344.0                 | 39.99                 | 35.3                        | 6.8                |
| 45514 | 2019-10-07 08:15:00:000 | 30.63                 | 345.75                | 40.39                 | 35.29                       | 6.8                |
| 45515 | 2019-10-07 08:30:00:000 | 30.64                 | 345.97                | 40.89                 | 35.28                       | 6.8                |
| 45516 | 2019-10-07 08:45:00:    | 30.63                 | 347.95                | 41.91                 | 35.28                       | 6.79               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 45517 | 2019-10-07 09:00:00:000 | 31.25                 | 353.35                | 40.58                 | 35.28                       | 6.79               |
| 45518 | 2019-10-07 09:15:00:000 | 30.97                 | 354.72                | 41.91                 | 35.28                       | 6.78               |
| 45519 | 2019-10-07 09:30:00:000 | 30.55                 | 350.25                | 41.78                 | 35.31                       | 6.79               |
| 45520 | 2019-10-07 09:45:00:000 | 29.74                 | 341.16                | 40.22                 | 35.36                       | 6.8                |
| 45521 | 2019-10-07 10:00:00:000 | 28.85                 | 334.58                | 40.25                 | 35.4                        | 6.8                |
| 45522 | 2019-10-07 10:15:00:000 | 28.81                 | 332.5                 | 40.25                 | 35.43                       | 6.81               |
| 45523 | 2019-10-07 10:30:00:000 | 29.33                 | 335.55                | 40.22                 | 35.48                       | 6.8                |
| 45524 | 2019-10-07 10:45:00:000 | 29.69                 | 338.75                | 40.22                 | 35.52                       | 6.8                |
| 45525 | 2019-10-07 11:00:00:000 | 30.31                 | 346.58                | 40.22                 | 35.55                       | 6.79               |
| 45526 | 2019-10-07 11:15:00:000 | 30.52                 | 350.57                | 40.98                 | 35.59                       | 6.72               |
| 45527 | 2019-10-07 11:30:00:000 | 30.47                 | 351.5                 | 41.65                 | 35.64                       | 6.65               |
| 45528 | 2019-10-07 11:45:00:000 | 30.47                 | 352.81                | 41.72                 | 35.66                       | 6.62               |
| 45529 | 2019-10-07 12:00:00:000 | 30.48                 | 352.27                | 41.72                 | 35.73                       | 6.56               |
| 45530 | 2019-10-07 12:15:00:000 | 30.47                 | 352.3                 | 41.68                 | 35.78                       | 6.58               |
| 45531 | 2019-10-07 12:30:00:000 | 30.45                 | 351.95                | 41.7                  | 35.8                        | 6.62               |
| 45532 | 2019-10-07 12:45:00:000 | 30.03                 | 344.42                | 40.88                 | 35.86                       | 6.65               |
| 45533 | 2019-10-07 13:00:00:000 | 28.75                 | 331.23                | 38.87                 | 35.94                       | 6.7                |
| 45534 | 2019-10-07 13:15:00:000 | 28.73                 | 329.11                | 39.25                 | 35.99                       | 6.71               |
| 45535 | 2019-10-07 13:30:00:000 | 29.78                 | 339.55                | 40.5                  | 36.01                       | 6.71               |
| 45536 | 2019-10-07 13:45:00:000 | 30.43                 | 345.48                | 41.65                 | 36.01                       | 6.71               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 45537 | 2019-10-07 14:00:00:000 | 30.42                 | 349.92                | 40.57                 | 36.01                       | 6.72               |
| 45538 | 2019-10-07 14:15:00:000 | 30.39                 | 349.48                | 40.69                 | 36.03                       | 6.72               |
| 45539 | 2019-10-07 14:30:00:000 | 30.44                 | 350.93                | 41.68                 | 36.02                       | 6.71               |
| 45540 | 2019-10-07 14:45:00:000 | 31.04                 | 354.89                | 41.66                 | 36.0                        | 6.71               |
| 45541 | 2019-10-07 15:00:00:000 | 31.38                 | 357.56                | 43.17                 | 35.98                       | 6.71               |
| 45542 | 2019-10-07 15:15:00:000 | 31.41                 | 357.8                 | 43.31                 | 35.96                       | 6.71               |
| 45543 | 2019-10-07 15:30:00:000 | 31.39                 | 356.68                | 42.01                 | 35.94                       | 6.71               |
| 45544 | 2019-10-07 15:45:00:000 | 31.26                 | 355.88                | 41.72                 | 35.91                       | 6.71               |
| 45545 | 2019-10-07 16:00:00:000 | 30.48                 | 354.52                | 41.67                 | 35.9                        | 6.72               |
| 45546 | 2019-10-07 16:15:00:000 | 30.47                 | 352.32                | 41.71                 | 35.89                       | 6.72               |
| 45547 | 2019-10-07 16:30:00:000 | 29.84                 | 343.85                | 40.5                  | 35.89                       | 6.74               |
| 45548 | 2019-10-07 16:45:00:000 | 28.98                 | 336.72                | 40.25                 | 35.9                        | 6.75               |
| 45549 | 2019-10-07 17:00:00:000 | 28.75                 | 334.64                | 40.22                 | 35.9                        | 6.75               |
| 45550 | 2019-10-07 17:15:00:000 | 29.5                  | 335.8                 | 40.22                 | 35.89                       | 6.76               |
| 45551 | 2019-10-07 17:30:00:000 | 29.4                  | 335.87                | 40.22                 | 35.87                       | 6.76               |
| 45552 | 2019-10-07 17:45:00:000 | 28.75                 | 332.58                | 39.59                 | 35.87                       | 6.77               |
| 45553 | 2019-10-07 18:00:00:000 | 29.67                 | 336.25                | 38.81                 | 35.86                       | 6.77               |
| 45554 | 2019-10-07 18:15:00:000 | 29.69                 | 337.82                | 39.99                 | 35.85                       | 6.78               |
| 45555 | 2019-10-07 18:30:00:000 | 30.01                 | 342.41                | 40.4                  | 35.83                       | 6.78               |
| 45556 | 2019-10-07 18:45:00:    | 30.63                 | 346.17                | 41.88                 | 35.82                       | 6.78               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 45557 | 2019-10-07 19:00:00:000 | 30.63                 | 350.45                | 41.91                 | 35.81                       | 6.77               |
| 45558 | 2019-10-07 19:15:00:000 | 30.78                 | 353.12                | 41.91                 | 35.81                       | 6.77               |
| 45559 | 2019-10-07 19:30:00:000 | 31.46                 | 356.46                | 42.84                 | 35.81                       | 6.77               |
| 45560 | 2019-10-07 19:45:00:000 | 31.48                 | 359.31                | 43.36                 | 35.8                        | 6.76               |
| 45561 | 2019-10-07 20:00:00:000 | 32.19                 | 365.16                | 42.55                 | 35.79                       | 6.76               |
| 45562 | 2019-10-07 20:15:00:000 | 32.61                 | 370.46                | 43.7                  | 35.77                       | 6.74               |
| 45563 | 2019-10-07 20:30:00:000 | 33.28                 | 374.1                 | 44.98                 | 35.76                       | 6.74               |
| 45564 | 2019-10-07 20:45:00:000 | 22.19                 | 283.85                | 29.42                 | 35.77                       | 6.75               |
| 45565 | 2019-10-07 21:00:00:000 | 23.71                 | 270.31                | 32.34                 | 35.79                       | 6.76               |
| 45566 | 2019-10-07 21:15:00:000 | 29.24                 | 322.4                 | 39.82                 | 35.79                       | 6.76               |
| 45567 | 2019-10-07 21:30:00:000 | 30.7                  | 343.84                | 41.91                 | 35.79                       | 6.76               |
| 45568 | 2019-10-07 21:45:00:000 | 30.66                 | 349.6                 | 41.91                 | 35.79                       | 6.76               |
| 45569 | 2019-10-07 22:00:00:000 | 30.66                 | 350.1                 | 41.91                 | 35.79                       | 6.76               |
| 45570 | 2019-10-07 22:15:00:000 | 30.7                  | 351.25                | 41.91                 | 35.78                       | 6.75               |
| 45571 | 2019-10-07 22:30:00:000 | 30.69                 | 352.32                | 41.91                 | 35.78                       | 6.75               |
| 45572 | 2019-10-07 22:45:00:000 | 30.76                 | 353.89                | 41.91                 | 35.77                       | 6.74               |
| 45573 | 2019-10-07 23:00:00:000 | 30.73                 | 352.92                | 41.91                 | 35.77                       | 6.74               |
| 45574 | 2019-10-07 23:15:00:000 | 30.64                 | 347.75                | 41.77                 | 35.78                       | 6.74               |
| 45575 | 2019-10-07 23:30:00:000 | 29.84                 | 344.43                | 40.5                  | 35.77                       | 6.74               |
| 45576 | 2019-10-07 23:45:00:    | 29.84                 | 344.5                 | 40.5                  | 35.77                       | 6.75               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 49877 | 2019-12-22 19:15:00:000 | 25.92                 | 398.53                | 35.19                 | 32.96                       | 7.16               |
| 49878 | 2019-12-22 19:30:00:000 | 25.94                 | 398.45                | 35.21                 | 32.95                       | 7.15               |
| 49879 | 2019-12-22 19:45:00:000 | 25.94                 | 398.5                 | 35.16                 | 32.94                       | 7.14               |
| 49880 | 2019-12-22 20:00:00:000 | 25.92                 | 398.63                | 35.21                 | 32.93                       | 7.14               |
| 49881 | 2019-12-22 20:15:00:000 | 26.29                 | 403.53                | 35.62                 | 32.92                       | 7.14               |
| 49882 | 2019-12-22 20:30:00:000 | 25.68                 | 396.12                | 34.79                 | 32.88                       | 7.13               |
| 49883 | 2019-12-22 20:45:00:000 | 24.79                 | 381.53                | 33.24                 | 32.85                       | 7.11               |
| 49884 | 2019-12-22 21:00:00:000 | 24.05                 | 372.55                | 32.59                 | 32.83                       | 7.07               |
| 49885 | 2019-12-22 21:15:00:000 | 25.86                 | 396.03                | 34.97                 | 32.82                       | 7.05               |
| 49886 | 2019-12-22 21:30:00:000 | 24.72                 | 380.02                | 33.51                 | 32.8                        | 7.04               |
| 49887 | 2019-12-22 21:45:00:000 | 26.4                  | 400.9                 | 35.36                 | 32.82                       | 7.05               |
| 49888 | 2019-12-22 22:00:00:000 | 23.1                  | 355.67                | 30.96                 | 32.84                       | 7.06               |
| 49889 | 2019-12-22 22:15:00:000 | 24.12                 | 369.31                | 32.56                 | 32.84                       | 7.09               |
| 49890 | 2019-12-22 22:30:00:000 | 22.88                 | 350.93                | 30.81                 | 32.82                       | 7.1                |
| 49891 | 2019-12-22 22:45:00:000 | 22.92                 | 353.08                | 31.01                 | 32.81                       | 7.09               |
| 49892 | 2019-12-22 23:00:00:000 | 23.55                 | 363.55                | 31.89                 | 32.81                       | 7.08               |
| 49893 | 2019-12-22 23:15:00:000 | 22.4                  | 345.47                | 30.28                 | 32.8                        | 7.09               |
| 49894 | 2019-12-22 23:30:00:000 | 23.39                 | 361.41                | 31.78                 | 32.74                       | 7.08               |
| 49895 | 2019-12-22 23:45:00:000 | 23.43                 | 363.4                 | 31.91                 | 32.47                       | 7.02               |
| 49896 | 2019-12-23 00:00:00:    | 25.53                 | 391.57                | 34.65                 | 32.3                        | 6.96               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 49897 | 2019-12-23 00:15:00:000 | 23.57                 | 360.3                 | 31.8                  | 32.35                       | 6.98               |
| 49898 | 2019-12-23 00:30:00:000 | 23.54                 | 363.55                | 31.91                 | 32.51                       | 7.04               |
| 49899 | 2019-12-23 00:45:00:000 | 23.59                 | 360.63                | 31.89                 | 32.6                        | 7.06               |
| 49900 | 2019-12-23 01:00:00:000 | 23.58                 | 359.92                | 31.89                 | 32.67                       | 7.1                |
| 49901 | 2019-12-23 01:15:00:000 | 24.75                 | 377.91                | 33.65                 | 32.71                       | 7.13               |
| 49902 | 2019-12-23 01:30:00:000 | 26.16                 | 401.78                | 36.11                 | 32.72                       | 7.13               |
| 49903 | 2019-12-23 01:45:00:000 | 26.09                 | 400.07                | 35.91                 | 32.73                       | 7.13               |
| 49904 | 2019-12-23 02:00:00:000 | 21.05                 | 324.23                | 27.28                 | 32.75                       | 7.17               |
| 49905 | 2019-12-23 02:15:00:000 | 25.92                 | 393.87                | 35.17                 | 32.76                       | 7.19               |
| 49906 | 2019-12-23 02:30:00:000 | 26.12                 | 398.68                | 35.89                 | 32.73                       | 7.2                |
| 49907 | 2019-12-23 02:45:00:000 | 26.12                 | 400.02                | 35.96                 | 32.71                       | 7.19               |
| 49908 | 2019-12-23 03:00:00:000 | 26.09                 | 399.98                | 35.94                 | 32.73                       | 7.21               |
| 49909 | 2019-12-23 03:15:00:000 | 26.09                 | 400.13                | 35.91                 | 32.74                       | 7.23               |
| 49910 | 2019-12-23 03:30:00:000 | 26.09                 | 401.48                | 36.0                  | 32.71                       | 7.23               |
| 49911 | 2019-12-23 03:45:00:000 | 26.96                 | 406.43                | 36.47                 | 32.66                       | 7.22               |
| 49912 | 2019-12-23 04:00:00:000 | 27.03                 | 410.45                | 36.84                 | 32.64                       | 7.22               |
| 49913 | 2019-12-23 04:15:00:000 | 25.43                 | 385.52                | 34.41                 | 32.67                       | 7.24               |
| 49914 | 2019-12-23 04:30:00:000 | 17.26                 | 267.65                | 22.5                  | 32.71                       | 7.26               |
| 49915 | 2019-12-23 04:45:00:000 | 26.0                  | 394.8                 | 35.32                 | 32.73                       | 7.27               |
| 49916 | 2019-12-23 05:00:00:    | 26.09                 | 395.96                | 35.44                 | 32.72                       | 7.27               |

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| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 49917 | 2019-12-23 05:15:00:000 | 26.11                 | 395.04                | 35.44                 | 32.68                       | 7.26               |
| 49918 | 2019-12-23 05:30:00:000 | 26.09                 | 394.65                | 35.44                 | 32.66                       | 7.27               |
| 49919 | 2019-12-23 05:45:00:000 | 26.09                 | 395.4                 | 35.44                 | 32.68                       | 7.27               |
| 49920 | 2019-12-23 06:00:00:000 | 26.09                 | 395.4                 | 35.44                 | 32.67                       | 7.27               |
| 49921 | 2019-12-23 06:15:00:000 | 25.22                 | 388.52                | 34.76                 | 32.72                       | 7.3                |
| 49922 | 2019-12-23 06:30:00:000 | 25.24                 | 386.67                | 34.69                 | 32.69                       | 7.3                |
| 49923 | 2019-12-23 06:45:00:000 | 25.46                 | 391.46                | 35.1                  | 32.64                       | 7.28               |
| 49924 | 2019-12-23 07:00:00:000 | 26.1                  | 395.32                | 35.53                 | 32.62                       | 7.28               |
| 49925 | 2019-12-23 07:15:00:000 | 26.09                 | 396.5                 | 35.44                 | 32.61                       | 7.27               |
| 49926 | 2019-12-23 07:30:00:000 | 26.11                 | 399.3                 | 35.96                 | 32.57                       | 7.26               |
| 49927 | 2019-12-23 07:45:00:000 | 26.91                 | 404.6                 | 36.3                  | 32.55                       | 7.26               |
| 49928 | 2019-12-23 08:00:00:000 | 27.03                 | 406.92                | 36.6                  | 32.53                       | 7.27               |
| 49929 | 2019-12-23 08:15:00:000 | 27.02                 | 406.25                | 36.58                 | 32.52                       | 7.26               |
| 49930 | 2019-12-23 08:30:00:000 | 27.03                 | 406.9                 | 36.62                 | 32.51                       | 7.25               |
| 49931 | 2019-12-23 08:45:00:000 | 27.03                 | 405.68                | 36.6                  | 32.5                        | 7.25               |
| 49932 | 2019-12-23 09:00:00:000 | 27.03                 | 406.75                | 36.71                 | 32.51                       | 7.25               |
| 49933 | 2019-12-23 09:15:00:000 | 26.84                 | 404.43                | 36.38                 | 32.52                       | 7.25               |
| 49934 | 2019-12-23 09:30:00:000 | 26.24                 | 398.97                | 35.87                 | 32.63                       | 7.27               |
| 49935 | 2019-12-23 09:45:00:000 | 24.63                 | 374.58                | 33.71                 | 32.81                       | 7.34               |
| 49936 | 2019-12-23 10:00:00:    | 24.06                 | 370.68                | 33.04                 | 32.78                       | 7.31               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 49937 | 2019-12-23 10:15:00:000 | 16.17                 | 252.15                | 18.9                  | 32.15                       | 7.09               |
| 49938 | 2019-12-23 10:30:00:000 | 16.29                 | 253.82                | 20.21                 | 32.34                       | 7.12               |
| 49939 | 2019-12-23 10:45:00:000 | 25.57                 | 390.25                | 35.02                 | 32.76                       | 7.25               |
| 49940 | 2019-12-23 11:00:00:000 | 25.99                 | 396.45                | 35.72                 | 32.62                       | 7.15               |
| 49941 | 2019-12-23 11:15:00:000 | 26.59                 | 405.05                | 36.49                 | 32.67                       | 7.12               |
| 49942 | 2019-12-23 11:30:00:000 | 26.44                 | 402.88                | 36.24                 | 32.57                       | 7.1                |
| 49943 | 2019-12-23 11:45:00:000 | 27.26                 | 413.08                | 37.18                 | 32.65                       | 7.09               |
| 49944 | 2019-12-23 12:00:00:000 | 24.63                 | 376.67                | 33.14                 | 32.98                       | 7.17               |
| 49945 | 2019-12-23 12:15:00:000 | 22.33                 | 343.37                | 28.95                 | 33.04                       | 7.21               |
| 49946 | 2019-12-23 12:30:00:000 | 30.67                 | 466.13                | 34.11                 | 32.94                       | 7.18               |
| 49947 | 2019-12-23 12:45:00:000 | 25.04                 | 384.12                | 31.78                 | 33.61                       | 7.44               |
| 49948 | 2019-12-23 13:00:00:000 | 15.75                 | 247.52                | 21.54                 | 34.35                       | 7.69               |
| 49949 | 2019-12-23 13:15:00:000 | 14.39                 | 229.64                | 20.03                 | 34.46                       | 7.67               |
| 49950 | 2019-12-23 13:30:00:000 | 14.97                 | 233.33                | 20.14                 | 34.45                       | 7.63               |
| 49951 | 2019-12-23 13:45:00:000 | 15.96                 | 250.1                 | 21.68                 | 34.22                       | 7.56               |
| 49952 | 2019-12-23 14:00:00:000 | 21.58                 | 333.27                | 29.46                 | 32.68                       | 7.06               |
| 49953 | 2019-12-23 14:15:00:000 | 23.14                 | 358.82                | 31.63                 | 31.87                       | 6.73               |
| 49954 | 2019-12-23 14:30:00:000 | 23.7                  | 366.32                | 32.17                 | 31.41                       | 6.48               |
| 49955 | 2019-12-23 14:45:00:000 | 23.78                 | 367.34                | 32.26                 | 31.51                       | 6.48               |
| 49956 | 2019-12-23 15:00:00:000 | 26.42                 | 402.1                 | 35.74                 | 32.57                       | 6.94               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 49957 | 2019-12-23 15:15:00:000 | 22.84                 | 354.15                | 31.29                 | 33.1                        | 7.17               |
| 49958 | 2019-12-23 15:30:00:000 | 24.22                 | 372.62                | 32.49                 | 33.15                       | 7.2                |
| 49959 | 2019-12-23 15:45:00:000 | 26.47                 | 405.82                | 35.81                 | 32.58                       | 6.91               |
| 49960 | 2019-12-23 16:00:00:000 | 27.73                 | 422.03                | 37.74                 | 32.7                        | 6.94               |
| 49961 | 2019-12-23 16:15:00:000 | 23.77                 | 364.72                | 32.46                 | 33.16                       | 7.16               |
| 49962 | 2019-12-23 16:30:00:000 | 21.81                 | 338.38                | 29.93                 | 33.25                       | 7.23               |
| 49963 | 2019-12-23 16:45:00:000 | 21.72                 | 337.75                | 29.81                 | 33.12                       | 7.18               |
| 49964 | 2019-12-23 17:30:00:000 | 21.99                 | 343.94                | 24.4                  | 32.27                       | 6.76               |
| 49965 | 2019-12-23 17:45:00:000 | 17.23                 | 272.03                | 20.12                 | 32.18                       | 6.79               |
| 49966 | 2019-12-23 18:00:00:000 | 30.07                 | 441.72                | 40.78                 | 31.76                       | 6.64               |
| 49967 | 2019-12-23 18:15:00:000 | 24.99                 | 385.12                | 34.16                 | 31.89                       | 6.69               |
| 49968 | 2019-12-23 18:30:00:000 | 30.97                 | 463.52                | 42.13                 | 32.22                       | 6.8                |
| 49969 | 2019-12-23 18:45:00:000 | 30.5                  | 462.48                | 41.27                 | 32.41                       | 6.86               |
| 49970 | 2019-12-23 19:00:00:000 | 29.38                 | 449.75                | 40.11                 | 32.51                       | 6.89               |
| 49971 | 2019-12-23 19:15:00:000 | 23.51                 | 373.23                | 32.31                 | 32.32                       | 6.8                |
| 49972 | 2019-12-23 19:30:00:000 | 23.24                 | 358.5                 | 31.58                 | 31.81                       | 6.58               |
| 49973 | 2019-12-23 19:45:00:000 | 22.86                 | 353.68                | 31.11                 | 31.71                       | 6.61               |
| 49974 | 2019-12-23 20:00:00:000 | 23.68                 | 366.35                | 32.23                 | 32.68                       | 7.04               |
| 49975 | 2019-12-23 20:15:00:000 | 20.81                 | 325.35                | 27.83                 | 33.12                       | 7.24               |
| 49976 | 2019-12-23 20:30:00:    | 23.24                 | 353.02                | 31.52                 | 33.07                       | 7.18               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 49977 | 2019-12-23 20:45:00:000 | 23.05                 | 357.63                | 31.61                 | 33.17                       | 7.18               |
| 49978 | 2019-12-23 21:00:00:000 | 22.5                  | 350.5                 | 30.98                 | 33.18                       | 7.16               |
| 49979 | 2019-12-23 21:15:00:000 | 22.5                  | 348.6                 | 30.84                 | 33.2                        | 7.13               |
| 49980 | 2019-12-23 21:30:00:000 | 22.5                  | 348.8                 | 30.94                 | 33.21                       | 7.09               |
| 49981 | 2019-12-23 21:45:00:000 | 22.5                  | 347.98                | 30.94                 | 33.18                       | 7.06               |
| 49982 | 2019-12-23 22:00:00:000 | 22.5                  | 348.67                | 30.94                 | 33.16                       | 7.04               |
| 49983 | 2019-12-23 22:15:00:000 | 22.5                  | 346.85                | 30.73                 | 33.18                       | 7.04               |
| 49984 | 2019-12-23 22:30:00:000 | 22.5                  | 345.37                | 30.68                 | 33.17                       | 7.05               |
| 49985 | 2019-12-23 22:45:00:000 | 22.5                  | 348.63                | 30.94                 | 33.15                       | 7.04               |
| 49986 | 2019-12-23 23:00:00:000 | 22.5                  | 345.58                | 30.56                 | 33.19                       | 7.06               |
| 49987 | 2019-12-23 23:15:00:000 | 21.72                 | 338.3                 | 29.92                 | 33.24                       | 7.09               |
| 49988 | 2019-12-23 23:30:00:000 | 21.59                 | 331.68                | 29.29                 | 33.31                       | 7.12               |
| 49989 | 2019-12-23 23:45:00:000 | 21.4                  | 328.53                | 29.18                 | 33.18                       | 7.09               |
| 49990 | 2019-12-24 00:00:00:000 | 24.8                  | 375.48                | 34.03                 | 32.56                       | 6.85               |
| 49991 | 2019-12-24 00:15:00:000 | 23.54                 | 363.38                | 31.86                 | 32.03                       | 6.65               |
| 49992 | 2019-12-24 00:30:00:000 | 23.44                 | 359.68                | 31.78                 | 31.68                       | 6.51               |
| 49993 | 2019-12-24 00:45:00:000 | 23.73                 | 365.6                 | 32.16                 | 31.42                       | 6.41               |
| 49994 | 2019-12-24 01:00:00:000 | 24.36                 | 368.6                 | 32.48                 | 31.15                       | 6.28               |
| 49995 | 2019-12-24 01:15:00:000 | 24.38                 | 369.9                 | 32.86                 | 21.88                       | 7.43               |
| 49996 | 2019-12-24 01:30:00:    | 24.14                 | 370.03                | 32.81                 | 21.73                       | 7.5                |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|----------------|
|       | 000                     |                       |                       |                       |                             |                |
| 52417 | 2020-01-19 19:15:00:000 | 34.53                 | 381.55                | 42.49                 | 30.84                       | 7.15           |
| 52418 | 2020-01-19 19:30:00:000 | 34.53                 | 384.07                | 42.88                 | 30.84                       | 7.06           |
| 52419 | 2020-01-19 19:45:00:000 | 34.64                 | 385.23                | 42.88                 | 30.83                       | 7.03           |
| 52420 | 2020-01-19 20:00:00:000 | 34.96                 | 391.83                | 43.48                 | 30.82                       | 7.05           |
| 52421 | 2020-01-19 20:15:00:000 | 34.53                 | 387.84                | 43.19                 | 30.82                       | 7.04           |
| 52422 | 2020-01-19 20:30:00:000 | 35.07                 | 392.4                 | 43.74                 | 30.82                       | 7.05           |
| 52423 | 2020-01-19 20:45:00:000 | 35.21                 | 392.15                | 43.56                 | 30.81                       | 7.08           |
| 52424 | 2020-01-19 21:00:00:000 | 35.32                 | 393.27                | 43.84                 | 30.81                       | 7.12           |
| 52425 | 2020-01-19 21:15:00:000 | 35.03                 | 390.65                | 43.57                 | 30.81                       | 7.16           |
| 52426 | 2020-01-19 21:30:00:000 | 35.99                 | 401.68                | 44.59                 | 30.8                        | 7.25           |
| 52427 | 2020-01-19 21:45:00:000 | 35.32                 | 395.97                | 43.99                 | 30.78                       | 7.24           |
| 52428 | 2020-01-19 22:00:00:000 | 35.32                 | 394.82                | 44.04                 | 30.77                       | 7.16           |
| 52429 | 2020-01-19 22:15:00:000 | 35.31                 | 395.15                | 43.91                 | 30.76                       | 6.87           |
| 52430 | 2020-01-19 22:30:00:000 | 35.62                 | 399.18                | 44.44                 | 30.77                       | 7.81           |
| 52431 | 2020-01-19 22:45:00:000 | 35.16                 | 393.85                | 43.8                  | 30.76                       | 8.29           |
| 52432 | 2020-01-19 23:00:00:000 | 34.79                 | 390.87                | 43.5                  | 30.72                       | 7.25           |
| 52433 | 2020-01-19 23:15:00:000 | 35.27                 | 392.22                | 43.84                 | 30.69                       | 6.68           |
| 52434 | 2020-01-19 23:30:00:000 | 34.75                 | 390.62                | 43.46                 | 30.66                       | 6.57           |
| 52435 | 2020-01-19 23:45:00:000 | 35.13                 | 392.71                | 43.67                 | 30.64                       | 6.48           |
| 52436 | 2020-01-20 00:00:00:    | 34.92                 | 390.8                 | 43.54                 | 30.62                       | 6.53           |

236 1179

|       |                               |                       |                       |                       |                             | 237               | 1180 |
|-------|-------------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|-------------------|------|
| S.No. | Time                          | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH(pH)(avg) |      |
|       | 000                           |                       |                       |                       |                             |                   |      |
| 52437 | 2020-01-20 00:15:00:000 34.77 |                       | 389.75                | 43.46                 | 30.6                        |                   | 6.63 |
| 52438 | 2020-01-20 00:30:00:000 34.53 |                       | 386.78                | 43.24                 | 30.6                        |                   | 6.76 |
| 52439 | 2020-01-20 00:45:00:000 34.66 |                       | 387.65                | 43.31                 | 30.57                       |                   | 6.95 |
| 52440 | 2020-01-20 01:00:00:000 34.53 |                       | 387.27                | 43.31                 | 30.54                       |                   | 7.07 |
| 52441 | 2020-01-20 01:15:00:000 34.53 |                       | 387.17                | 43.27                 | 30.51                       |                   | 7.05 |
| 52442 | 2020-01-20 01:30:00:000 34.86 |                       | 388.77                | 43.41                 | 30.49                       |                   | 6.91 |
| 52443 | 2020-01-20 01:45:00:000 35.31 |                       | 394.41                | 43.9                  | 30.47                       |                   | 6.81 |
| 52444 | 2020-01-20 02:00:00:000 34.58 |                       | 388.8                 | 43.35                 | 30.48                       |                   | 6.76 |
| 52445 | 2020-01-20 02:15:00:000 34.53 |                       | 383.75                | 42.84                 | 30.47                       |                   | 6.74 |
| 52446 | 2020-01-20 02:30:00:000 34.48 |                       | 386.25                | 43.12                 | 30.45                       |                   | 6.7  |
| 52447 | 2020-01-20 02:45:00:000 34.17 |                       | 382.32                | 42.83                 | 30.43                       |                   | 6.63 |
| 52448 | 2020-01-20 03:00:00:000 34.53 |                       | 385.92                | 43.16                 | 30.43                       |                   | 6.59 |
| 52449 | 2020-01-20 03:15:00:000 34.38 |                       | 383.3                 | 42.81                 | 30.43                       |                   | 6.59 |
| 52450 | 2020-01-20 03:30:00:000 34.11 |                       | 380.93                | 42.49                 | 30.41                       |                   | 6.58 |
| 52451 | 2020-01-20 03:45:00:000 33.75 |                       | 377.82                | 42.27                 | 30.39                       |                   | 6.54 |
| 52452 | 2020-01-20 04:00:00:000 34.22 |                       | 380.72                | 42.64                 | 30.39                       |                   | 6.5  |
| 52453 | 2020-01-20 04:15:00:000 34.32 |                       | 383.0                 | 42.81                 | 30.36                       |                   | 6.51 |
| 52454 | 2020-01-20 04:30:00:000 34.22 |                       | 380.77                | 42.54                 | 30.34                       |                   | 6.61 |
| 52455 | 2020-01-20 04:45:00:000 34.27 |                       | 381.07                | 42.66                 | 30.3                        |                   | 6.65 |
| 52456 | 2020-01-20 05:00:00: 34.01    |                       | 379.05                | 42.32                 | 30.3                        |                   | 6.65 |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 52457 | 2020-01-20 05:15:00:000 | 33.64                 | 373.35                | 41.81                 | 30.29                       | 6.67               |
| 52458 | 2020-01-20 05:30:00:000 | 32.95                 | 370.29                | 41.44                 | 30.28                       | 6.69               |
| 52459 | 2020-01-20 05:45:00:000 | 33.79                 | 376.72                | 42.19                 | 30.26                       | 6.74               |
| 52460 | 2020-01-20 06:00:00:000 | 33.96                 | 378.23                | 42.32                 | 30.23                       | 6.69               |
| 52461 | 2020-01-20 06:15:00:000 | 33.1                  | 370.17                | 41.34                 | 30.21                       | 6.62               |
| 52462 | 2020-01-20 06:30:00:000 | 33.2                  | 369.68                | 41.51                 | 30.21                       | 6.57               |
| 52463 | 2020-01-20 06:45:00:000 | 33.96                 | 377.5                 | 42.26                 | 30.2                        | 6.56               |
| 52464 | 2020-01-20 07:00:00:000 | 33.28                 | 372.7                 | 41.66                 | 30.19                       | 6.56               |
| 52465 | 2020-01-20 07:15:00:000 | 33.26                 | 372.88                | 41.75                 | 30.17                       | 6.55               |
| 52466 | 2020-01-20 07:30:00:000 | 33.75                 | 375.77                | 41.96                 | 30.16                       | 6.11               |
| 52467 | 2020-01-20 07:45:00:000 | 33.59                 | 373.5                 | 41.72                 | 30.14                       | 5.37               |
| 52468 | 2020-01-20 08:00:00:000 | 33.39                 | 373.0                 | 41.74                 | 30.15                       | 6.68               |
| 52469 | 2020-01-20 08:15:00:000 | 33.52                 | 374.63                | 41.81                 | 30.18                       | 8.75               |
| 52470 | 2020-01-20 08:30:00:000 | 32.59                 | 365.82                | 40.99                 | 30.15                       | 7.79               |
| 52471 | 2020-01-20 08:45:00:000 | 32.97                 | 370.35                | 41.55                 | 30.15                       | 6.88               |
| 52472 | 2020-01-20 09:00:00:000 | 32.92                 | 370.08                | 41.61                 | 30.15                       | 6.64               |
| 52473 | 2020-01-20 09:15:00:000 | 32.9                  | 369.83                | 41.51                 | 30.15                       | 6.52               |
| 52474 | 2020-01-20 09:30:00:000 | 32.86                 | 366.52                | 40.99                 | 30.16                       | 6.61               |
| 52475 | 2020-01-20 09:45:00:000 | 32.81                 | 366.0                 | 40.94                 | 30.19                       | 6.63               |
| 52476 | 2020-01-20 10:00:00:    | 32.95                 | 368.98                | 41.29                 | 30.23                       | 6.6                |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 52477 | 2020-01-20 10:15:00:000 | 33.59                 | 374.13                | 41.85                 | 30.28                       | 6.65               |
| 52478 | 2020-01-20 10:30:00:000 | 32.88                 | 371.18                | 41.46                 | 30.33                       | 6.79               |
| 52479 | 2020-01-20 10:45:00:000 | 33.56                 | 374.25                | 41.85                 | 30.39                       | 6.88               |
| 52480 | 2020-01-20 11:00:00:000 | 33.74                 | 374.62                | 41.77                 | 30.45                       | 6.88               |
| 52481 | 2020-01-20 11:15:00:000 | 32.82                 | 369.27                | 41.3                  | 30.52                       | 6.87               |
| 52482 | 2020-01-20 11:30:00:000 | 33.72                 | 376.42                | 42.02                 | 30.57                       | 6.99               |
| 52483 | 2020-01-20 11:45:00:000 | 33.46                 | 375.07                | 41.77                 | 30.64                       | 7.27               |
| 52484 | 2020-01-20 12:00:00:000 | 33.75                 | 374.94                | 41.91                 | 30.71                       | 7.1                |
| 52485 | 2020-01-20 12:15:00:000 | 33.06                 | 372.4                 | 41.53                 | 30.78                       | 6.95               |
| 52486 | 2020-01-20 12:30:00:000 | 33.09                 | 370.37                | 41.47                 | 30.86                       | 6.79               |
| 52487 | 2020-01-20 12:45:00:000 | 33.26                 | 370.77                | 41.64                 | 30.92                       | 6.75               |
| 52488 | 2020-01-20 13:00:00:000 | 33.14                 | 369.86                | 41.36                 | 30.96                       | 6.75               |
| 52489 | 2020-01-20 13:15:00:000 | 33.18                 | 372.07                | 41.64                 | 31.0                        | 6.67               |
| 52490 | 2020-01-20 13:30:00:000 | 33.44                 | 373.57                | 41.85                 | 31.04                       | 6.63               |
| 52491 | 2020-01-20 13:45:00:000 | 33.02                 | 369.83                | 41.47                 | 31.07                       | 6.65               |
| 52492 | 2020-01-20 14:00:00:000 | 33.57                 | 373.22                | 41.96                 | 31.1                        | 6.69               |
| 52493 | 2020-01-20 14:15:00:000 | 33.02                 | 370.13                | 41.49                 | 31.14                       | 6.89               |
| 52494 | 2020-01-20 14:30:00:000 | 33.02                 | 370.92                | 41.72                 | 31.16                       | 7.13               |
| 52495 | 2020-01-20 14:45:00:000 | 33.81                 | 377.02                | 42.39                 | 31.15                       | 7.35               |
| 52496 | 2020-01-20 15:00:00:    | 33.14                 | 372.5                 | 41.72                 | 31.15                       | 7.52               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 52497 | 2020-01-20 15:15:00:000 | 33.35                 | 371.93                | 41.91                 | 31.13                       | 7.51               |
| 52498 | 2020-01-20 15:30:00:000 | 33.44                 | 374.98                | 42.17                 | 31.11                       | 7.56               |
| 52499 | 2020-01-20 15:45:00:000 | 33.28                 | 372.4                 | 41.87                 | 31.07                       | 6.96               |
| 52500 | 2020-01-20 16:00:00:000 | 33.7                  | 375.27                | 42.13                 | 31.02                       | 6.51               |
| 52501 | 2020-01-20 16:15:00:000 | 33.02                 | 370.58                | 41.47                 | 30.99                       | 6.95               |
| 52502 | 2020-01-20 16:30:00:000 | 33.28                 | 371.83                | 41.68                 | 30.95                       | 7.08               |
| 52503 | 2020-01-20 16:45:00:000 | 33.59                 | 374.12                | 41.76                 | 30.89                       | 6.93               |
| 52504 | 2020-01-20 17:00:00:000 | 33.75                 | 375.28                | 41.87                 | 30.84                       | 6.75               |
| 52505 | 2020-01-20 17:15:00:000 | 33.46                 | 373.32                | 41.65                 | 30.8                        | 6.65               |
| 52506 | 2020-01-20 17:30:00:000 | 33.07                 | 370.67                | 41.36                 | 30.76                       | 6.67               |
| 52507 | 2020-01-20 17:45:00:000 | 32.97                 | 370.07                | 41.32                 | 30.73                       | 6.73               |
| 52508 | 2020-01-20 18:00:00:000 | 32.85                 | 369.2                 | 41.21                 | 30.71                       | 7.38               |
| 52509 | 2020-01-20 18:15:00:000 | 33.64                 | 373.93                | 41.72                 | 30.68                       | 7.86               |
| 52510 | 2020-01-20 18:30:00:000 | 33.53                 | 373.95                | 41.68                 | 30.66                       | 7.78               |
| 52511 | 2020-01-20 18:45:00:000 | 33.76                 | 375.85                | 41.94                 | 30.62                       | 6.88               |
| 52512 | 2020-01-20 19:00:00:000 | 33.02                 | 371.43                | 41.55                 | 30.6                        | 6.44               |
| 52513 | 2020-01-20 19:15:00:000 | 33.33                 | 372.53                | 41.55                 | 30.56                       | 6.56               |
| 52514 | 2020-01-20 19:30:00:000 | 33.21                 | 371.48                | 41.44                 | 30.52                       | 6.88               |
| 52515 | 2020-01-20 19:45:00:000 | 32.9                  | 370.15                | 41.36                 | 30.51                       | 7.1                |
| 52516 | 2020-01-20 20:00:00:    | 32.84                 | 368.88                | 41.21                 | 30.48                       | 7.15               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 52517 | 2020-01-20 20:15:00:000 | 32.97                 | 370.58                | 41.44                 | 30.47                       | 6.98               |
| 52518 | 2020-01-20 20:30:00:000 | 33.01                 | 370.0                 | 41.34                 | 30.47                       | 6.82               |
| 52519 | 2020-01-20 20:45:00:000 | 33.13                 | 372.07                | 41.59                 | 30.46                       | 6.71               |
| 52520 | 2020-01-20 21:00:00:000 | 33.56                 | 373.28                | 41.62                 | 30.46                       | 6.62               |
| 52521 | 2020-01-20 21:15:00:000 | 33.08                 | 371.82                | 41.48                 | 30.47                       | 6.57               |
| 52522 | 2020-01-20 21:30:00:000 | 33.75                 | 372.95                | 41.62                 | 30.46                       | 6.54               |
| 52523 | 2020-01-20 21:45:00:000 | 33.67                 | 374.65                | 41.72                 | 30.45                       | 6.55               |
| 52524 | 2020-01-20 22:00:00:000 | 33.56                 | 374.85                | 41.76                 | 30.45                       | 6.45               |
| 52525 | 2020-01-20 22:15:00:000 | 33.75                 | 376.47                | 41.89                 | 30.46                       | 6.78               |
| 52526 | 2020-01-20 22:30:00:000 | 34.39                 | 384.75                | 42.88                 | 30.47                       | 6.28               |
| 52527 | 2020-01-20 22:45:00:000 | 34.56                 | 387.25                | 42.88                 | 30.48                       | 6.95               |
| 52528 | 2020-01-20 23:00:00:000 | 35.09                 | 391.35                | 43.48                 | 30.48                       | 6.3                |
| 52529 | 2020-01-20 23:15:00:000 | 35.65                 | 396.23                | 43.86                 | 30.51                       | 6.38               |
| 52530 | 2020-01-20 23:30:00:000 | 36.55                 | 404.55                | 44.68                 | 30.53                       | 6.79               |
| 52531 | 2020-01-20 23:45:00:000 | 36.61                 | 407.3                 | 45.02                 | 30.54                       | 6.94               |
| 52532 | 2020-01-21 00:00:00:000 | 37.97                 | 419.37                | 46.33                 | 30.55                       | 7.04               |
| 52533 | 2020-01-21 00:15:00:000 | 37.72                 | 420.87                | 46.27                 | 30.55                       | 7.12               |
| 52534 | 2020-01-21 00:30:00:000 | 38.08                 | 421.9                 | 46.5                  | 30.54                       | 7.17               |
| 52535 | 2020-01-21 00:45:00:000 | 37.19                 | 415.47                | 45.81                 | 30.53                       | 7.23               |
| 52536 | 2020-01-21 01:00:00:    | 37.18                 | 412.75                | 45.64                 | 30.53                       | 7.25               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 55977 | 2020-02-25 21:30:00:000 | 64.07                 | 306.07                | 77.92                 | 31.8                        | 7.1                |
| 55978 | 2020-02-25 21:45:00:000 | 64.07                 | 306.53                | 77.92                 | 31.78                       | 7.1                |
| 55979 | 2020-02-25 22:00:00:000 | 64.07                 | 306.97                | 78.0                  | 31.76                       | 7.1                |
| 55980 | 2020-02-25 22:15:00:000 | 64.19                 | 307.32                | 78.11                 | 31.74                       | 7.12               |
| 55981 | 2020-02-25 22:30:00:000 | 64.12                 | 307.07                | 78.07                 | 31.72                       | 7.12               |
| 55982 | 2020-02-25 22:45:00:000 | 64.07                 | 307.32                | 78.15                 | 31.71                       | 7.12               |
| 55983 | 2020-02-25 23:00:00:000 | 64.07                 | 306.67                | 78.17                 | 31.69                       | 7.12               |
| 55984 | 2020-02-25 23:15:00:000 | 64.35                 | 307.86                | 78.43                 | 31.66                       | 7.12               |
| 55985 | 2020-02-25 23:30:00:000 | 64.76                 | 309.02                | 78.73                 | 31.64                       | 7.12               |
| 55986 | 2020-02-25 23:45:00:000 | 64.52                 | 308.02                | 78.49                 | 31.65                       | 7.13               |
| 55987 | 2020-02-26 00:00:00:000 | 64.18                 | 306.67                | 78.06                 | 31.67                       | 7.14               |
| 55988 | 2020-02-26 00:15:00:000 | 64.17                 | 306.83                | 78.11                 | 31.67                       | 7.14               |
| 55989 | 2020-02-26 00:30:00:000 | 64.86                 | 309.2                 | 78.96                 | 31.6                        | 7.13               |
| 55990 | 2020-02-26 00:45:00:000 | 65.66                 | 312.67                | 79.78                 | 31.53                       | 7.1                |
| 55991 | 2020-02-26 01:00:00:000 | 66.2                  | 315.13                | 80.42                 | 31.49                       | 7.08               |
| 55992 | 2020-02-26 01:15:00:000 | 66.72                 | 317.78                | 81.0                  | 31.46                       | 7.06               |
| 55993 | 2020-02-26 01:30:00:000 | 66.93                 | 318.86                | 81.2                  | 31.43                       | 7.05               |
| 55994 | 2020-02-26 01:45:00:000 | 67.47                 | 320.88                | 81.75                 | 31.41                       | 7.03               |
| 55995 | 2020-02-26 02:00:00:000 | 66.86                 | 320.03                | 81.56                 | 31.39                       | 7.03               |
| 55996 | 2020-02-26 02:15:00:    | 67.34                 | 320.73                | 81.64                 | 31.36                       | 7.03               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 55997 | 2020-02-26 02:30:00:000 | 66.77                 | 318.15                | 81.08                 | 31.33                       | 7.04               |
| 55998 | 2020-02-26 02:45:00:000 | 66.79                 | 318.43                | 81.3                  | 31.3                        | 7.06               |
| 55999 | 2020-02-26 03:00:00:000 | 66.8                  | 316.25                | 80.74                 | 31.29                       | 7.07               |
| 56000 | 2020-02-26 03:15:00:000 | 66.81                 | 316.92                | 81.0                  | 31.31                       | 7.07               |
| 56001 | 2020-02-26 03:30:00:000 | 66.56                 | 316.33                | 80.76                 | 31.31                       | 7.06               |
| 56002 | 2020-02-26 03:45:00:000 | 66.27                 | 315.66                | 80.54                 | 31.3                        | 7.04               |
| 56003 | 2020-02-26 04:00:00:000 | 65.95                 | 313.4                 | 80.16                 | 31.31                       | 7.03               |
| 56004 | 2020-02-26 04:15:00:000 | 64.95                 | 309.65                | 78.96                 | 31.41                       | 7.04               |
| 56005 | 2020-02-26 04:30:00:000 | 63.57                 | 302.83                | 77.53                 | 31.52                       | 7.08               |
| 56006 | 2020-02-26 04:45:00:000 | 62.56                 | 297.48                | 76.24                 | 31.59                       | 7.11               |
| 56007 | 2020-02-26 05:00:00:000 | 61.78                 | 294.82                | 75.49                 | 31.62                       | 7.14               |
| 56008 | 2020-02-26 05:15:00:000 | 61.46                 | 293.2                 | 75.13                 | 31.63                       | 7.16               |
| 56009 | 2020-02-26 05:30:00:000 | 60.94                 | 290.32                | 74.7                  | 31.65                       | 7.18               |
| 56010 | 2020-02-26 05:45:00:000 | 60.94                 | 288.75                | 74.04                 | 31.66                       | 7.19               |
| 56011 | 2020-02-26 06:00:00:000 | 60.94                 | 288.95                | 74.25                 | 31.65                       | 7.2                |
| 56012 | 2020-02-26 06:15:00:000 | 60.48                 | 288.04                | 73.99                 | 31.65                       | 7.21               |
| 56013 | 2020-02-26 06:30:00:000 | 60.46                 | 287.83                | 74.01                 | 31.64                       | 7.21               |
| 56014 | 2020-02-26 06:45:00:000 | 60.29                 | 287.33                | 73.74                 | 31.63                       | 7.21               |
| 56015 | 2020-02-26 07:00:00:000 | 60.47                 | 287.42                | 73.89                 | 31.6                        | 7.22               |
| 56016 | 2020-02-26 07:15:00:    | 60.21                 | 287.07                | 73.86                 | 31.57                       | 7.22               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 56017 | 2020-02-26 07:30:00:000 | 60.16                 | 286.75                | 73.76                 | 31.55                       | 7.22               |
| 56018 | 2020-02-26 07:45:00:000 | 60.16                 | 286.73                | 73.65                 | 31.54                       | 7.22               |
| 56019 | 2020-02-26 08:00:00:000 | 60.16                 | 286.58                | 73.73                 | 31.54                       | 7.23               |
| 56020 | 2020-02-26 08:15:00:000 | 60.16                 | 286.75                | 73.69                 | 31.53                       | 7.22               |
| 56021 | 2020-02-26 08:30:00:000 | 60.16                 | 285.83                | 73.47                 | 31.52                       | 7.22               |
| 56022 | 2020-02-26 08:45:00:000 | 60.15                 | 285.57                | 73.5                  | 31.5                        | 7.23               |
| 56023 | 2020-02-26 09:00:00:000 | 60.14                 | 286.22                | 73.55                 | 31.49                       | 7.23               |
| 56024 | 2020-02-26 09:15:00:000 | 60.69                 | 288.58                | 74.39                 | 31.42                       | 7.22               |
| 56025 | 2020-02-26 09:30:00:000 | 60.94                 | 290.22                | 74.62                 | 31.41                       | 7.21               |
| 56026 | 2020-02-26 09:45:00:000 | 60.99                 | 291.32                | 74.94                 | 31.45                       | 7.21               |
| 56027 | 2020-02-26 10:00:00:000 | 61.25                 | 292.15                | 75.07                 | 31.53                       | 7.2                |
| 56028 | 2020-02-26 10:15:00:000 | 61.35                 | 292.15                | 75.17                 | 31.61                       | 7.19               |
| 56029 | 2020-02-26 10:30:00:000 | 61.61                 | 293.23                | 75.34                 | 31.68                       | 7.18               |
| 56030 | 2020-02-26 10:45:00:000 | 61.61                 | 293.47                | 75.32                 | 31.77                       | 7.18               |
| 56031 | 2020-02-26 11:00:00:000 | 61.72                 | 293.75                | 75.49                 | 31.84                       | 7.16               |
| 56032 | 2020-02-26 11:15:00:000 | 61.72                 | 293.88                | 75.5                  | 31.92                       | 7.16               |
| 56033 | 2020-02-26 11:30:00:000 | 62.34                 | 296.25                | 75.97                 | 31.95                       | 7.15               |
| 56034 | 2020-02-26 11:45:00:000 | 62.5                  | 297.67                | 76.27                 | 32.01                       | 7.14               |
| 56035 | 2020-02-26 12:00:00:000 | 61.93                 | 295.98                | 75.96                 | 32.13                       | 7.14               |
| 56036 | 2020-02-26 12:15:00:    | 61.72                 | 294.85                | 75.62                 | 32.25                       | 7.14               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 56037 | 2020-02-26 12:30:00:000 | 60.01                 | 287.52                | 73.39                 | 32.5                        | 7.18               |
| 56038 | 2020-02-26 12:45:00:000 | 60.18                 | 286.27                | 73.24                 | 32.52                       | 7.21               |
| 56039 | 2020-02-26 13:00:00:000 | 60.77                 | 290.0                 | 74.34                 | 32.49                       | 7.2                |
| 56040 | 2020-02-26 13:15:00:000 | 61.56                 | 294.14                | 75.74                 | 32.47                       | 7.18               |
| 56041 | 2020-02-26 13:30:00:000 | 62.08                 | 296.48                | 76.29                 | 32.45                       | 7.15               |
| 56042 | 2020-02-26 13:45:00:000 | 62.34                 | 297.62                | 76.15                 | 32.44                       | 7.13               |
| 56043 | 2020-02-26 14:00:00:000 | 62.34                 | 297.67                | 75.92                 | 32.48                       | 7.11               |
| 56044 | 2020-02-26 14:15:00:000 | 62.34                 | 297.17                | 75.58                 | 32.47                       | 7.1                |
| 56045 | 2020-02-26 14:30:00:000 | 61.92                 | 295.87                | 75.26                 | 32.45                       | 7.09               |
| 56046 | 2020-02-26 14:45:00:000 | 61.64                 | 295.28                | 75.13                 | 32.45                       | 7.08               |
| 56047 | 2020-02-26 15:00:00:000 | 61.65                 | 294.58                | 75.09                 | 32.42                       | 7.07               |
| 56048 | 2020-02-26 15:15:00:000 | 62.22                 | 297.27                | 75.38                 | 32.35                       | 7.07               |
| 56049 | 2020-02-26 15:30:00:000 | 62.28                 | 298.67                | 75.88                 | 32.31                       | 7.06               |
| 56050 | 2020-02-26 15:45:00:000 | 62.34                 | 297                   | 75.24                 | 32.3                        | 7.05               |
| 56051 | 2020-02-26 16:00:00:000 | 62.34                 | 297.0                 | 75.38                 | 32.28                       | 7.06               |
| 56052 | 2020-02-26 16:15:00:000 | 62.34                 | 296.05                | 75.43                 | 32.25                       | 7.06               |
| 56053 | 2020-02-26 16:30:00:000 | 62.34                 | 297.67                | 75.77                 | 32.21                       | 7.06               |
| 56054 | 2020-02-26 16:45:00:000 | 62.01                 | 295.86                | 75.35                 | 32.21                       | 7.06               |
| 56055 | 2020-02-26 17:00:00:000 | 61.93                 | 295.68                | 75.23                 | 32.21                       | 7.06               |
| 56056 | 2020-02-26 17:15:00:    | 62.03                 | 295.57                | 75.36                 | 32.13                       | 7.06               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 56057 | 2020-02-26 17:30:00:000 | 62.34                 | 298.78                | 75.99                 | 32.07                       | 7.05               |
| 56058 | 2020-02-26 17:45:00:000 | 62.34                 | 297.17                | 75.51                 | 32.06                       | 7.04               |
| 56059 | 2020-02-26 18:00:00:000 | 62.24                 | 297.38                | 75.64                 | 32.07                       | 7.05               |
| 56060 | 2020-02-26 18:15:00:000 | 61.55                 | 294.85                | 75.09                 | 32.09                       | 7.05               |
| 56061 | 2020-02-26 18:30:00:000 | 61.84                 | 295.29                | 75.19                 | 32.09                       | 7.05               |
| 56062 | 2020-02-26 18:45:00:000 | 61.56                 | 293.52                | 74.7                  | 32.11                       | 7.06               |
| 56063 | 2020-02-26 19:00:00:000 | 61.56                 | 293.73                | 74.85                 | 32.1                        | 7.07               |
| 56064 | 2020-02-26 19:15:00:000 | 61.56                 | 294.38                | 74.91                 | 32.11                       | 7.08               |
| 56065 | 2020-02-26 19:30:00:000 | 61.61                 | 294.82                | 75.02                 | 32.1                        | 7.09               |
| 56066 | 2020-02-26 19:45:00:000 | 62.35                 | 297.62                | 75.77                 | 32.03                       | 7.08               |
| 56067 | 2020-02-26 20:00:00:000 | 62.35                 | 298.33                | 75.86                 | 32.0                        | 7.1                |
| 56068 | 2020-02-26 20:15:00:000 | 62.48                 | 298.8                 | 76.05                 | 31.98                       | 7.09               |
| 56069 | 2020-02-26 20:30:00:000 | 63.28                 | 300.97                | 76.56                 | 31.95                       | 7.08               |
| 56070 | 2020-02-26 20:45:00:000 | 62.46                 | 299.82                | 76.34                 | 31.95                       | 7.07               |
| 56071 | 2020-02-26 21:00:00:000 | 63.1                  | 300.88                | 76.57                 | 31.94                       | 7.07               |
| 56072 | 2020-02-26 21:15:00:000 | 62.4                  | 299.53                | 76.46                 | 31.94                       | 7.06               |
| 56073 | 2020-02-26 21:30:00:000 | 62.86                 | 300.5                 | 76.56                 | 31.93                       | 7.06               |
| 56074 | 2020-02-26 21:45:00:000 | 63.28                 | 301.5                 | 76.74                 | 31.91                       | 7.06               |
| 56075 | 2020-02-26 22:00:00:000 | 63.22                 | 301.0                 | 76.69                 | 31.9                        | 7.06               |
| 56076 | 2020-02-26 22:15:00:    | 62.86                 | 300.1                 | 76.57                 | 31.88                       | 7.05               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 56077 | 2020-02-26 22:30:00:000 | 63.28                 | 301.0                 | 76.71                 | 31.86                       | 7.05               |
| 56078 | 2020-02-26 22:45:00:000 | 63.01                 | 300.87                | 76.69                 | 31.86                       | 7.05               |
| 56079 | 2020-02-26 23:00:00:000 | 63.16                 | 301.3                 | 76.74                 | 31.83                       | 7.05               |
| 56080 | 2020-02-26 23:15:00:000 | 63.28                 | 301.42                | 76.78                 | 31.82                       | 7.05               |
| 56081 | 2020-02-26 23:30:00:000 | 63.55                 | 302.35                | 77.14                 | 31.82                       | 7.04               |
| 56082 | 2020-02-26 23:45:00:000 | 63.33                 | 302.6                 | 77.06                 | 31.82                       | 7.02               |
| 56083 | 2020-02-27 00:00:00:000 | 63.28                 | 301.75                | 76.86                 | 31.83                       | 6.99               |
| 56084 | 2020-02-27 00:15:00:000 | 63.39                 | 302.82                | 77.27                 | 31.82                       | 6.98               |
| 56085 | 2020-02-27 00:30:00:000 | 63.28                 | 302.22                | 77.04                 | 31.8                        | 6.97               |
| 56086 | 2020-02-27 00:45:00:000 | 63.28                 | 301.77                | 77.02                 | 31.77                       | 6.98               |
| 56087 | 2020-02-27 01:00:00:000 | 63.28                 | 301.92                | 77.08                 | 31.73                       | 6.99               |
| 56088 | 2020-02-27 01:15:00:000 | 62.66                 | 299.95                | 76.54                 | 31.75                       | 7.01               |
| 56089 | 2020-02-27 01:30:00:000 | 62.5                  | 298.52                | 76.26                 | 31.75                       | 7.03               |
| 56090 | 2020-02-27 01:45:00:000 | 62.5                  | 296.8                 | 75.94                 | 31.74                       | 7.05               |
| 56091 | 2020-02-27 02:00:00:000 | 62.5                  | 297.8                 | 76.2                  | 31.72                       | 7.07               |
| 56092 | 2020-02-27 02:15:00:000 | 62.5                  | 298.25                | 76.18                 | 31.7                        | 7.09               |
| 56093 | 2020-02-27 02:30:00:000 | 62.5                  | 298.22                | 76.35                 | 31.69                       | 7.1                |
| 56094 | 2020-02-27 02:45:00:000 | 63.01                 | 300.17                | 76.72                 | 31.66                       | 7.09               |
| 56095 | 2020-02-27 03:00:00:000 | 62.97                 | 300.57                | 76.69                 | 31.66                       | 7.06               |
| 56096 | 2020-02-27 03:15:00:    | 63.28                 | 301.72                | 77.08                 | 31.64                       | 7.04               |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 63237 | 2020-06-04 23:45:00:000 | 43.59                 | 279.25                | 64.41                 | 35.81                       | N/A                |
| 63238 | 2020-06-05 00:00:00:000 | 46.09                 | 277                   | 68.27                 | 35.8                        | N/A                |
| 63239 | 2020-06-05 00:15:00:000 | 46.09                 | 277.0                 | 68.2                  | 35.77                       | N/A                |
| 63240 | 2020-06-05 00:30:00:000 | 46.09                 | 275.5                 | 68.16                 | 35.74                       | N/A                |
| 63241 | 2020-06-05 01:00:00:000 | 45.31                 | 270.42                | 67.12                 | 35.68                       | N/A                |
| 63242 | 2020-06-05 01:15:00:000 | 45.05                 | 267.75                | 66.38                 | 35.61                       | N/A                |
| 63243 | 2020-06-05 01:30:00:000 | 44.53                 | 266.12                | 66.23                 | 35.57                       | N/A                |
| 63244 | 2020-06-05 01:45:00:000 | 41.02                 | 246.38                | 61.73                 | 35.51                       | N/A                |
| 63245 | 2020-06-05 02:00:00:000 | 43.59                 | 260                   | 64.97                 | 35.45                       | N/A                |
| 63246 | 2020-06-05 02:15:00:000 | 43.75                 | 260                   | 63.56                 | 35.4                        | N/A                |
| 63247 | 2020-06-05 02:30:00:000 | 42.86                 | 261.0                 | 63.0                  | 35.37                       | N/A                |
| 63248 | 2020-06-05 02:45:00:000 | 43.28                 | 258.75                | 63.7                  | 35.36                       | N/A                |
| 63249 | 2020-06-05 03:00:00:000 | 43.75                 | 258.75                | 63.56                 | 35.35                       | N/A                |
| 63250 | 2020-06-05 03:15:00:000 | 42.81                 | 256.0                 | 63.28                 | 35.31                       | N/A                |
| 63251 | 2020-06-05 03:30:00:000 | 35.16                 | 212.5                 | 53.44                 | 35.29                       | N/A                |
| 63252 | 2020-06-05 03:45:00:000 | 41.09                 | 246.5                 | 61.03                 | 35.27                       | N/A                |
| 63253 | 2020-06-05 04:00:00:000 | 42.81                 | 254.5                 | 62.72                 | 35.28                       | N/A                |
| 63254 | 2020-06-05 04:15:00:000 | 42.03                 | 252.0                 | 62.06                 | 35.27                       | N/A                |
| 63255 | 2020-06-05 04:30:00:000 | 40.89                 | 244.75                | 60.38                 | 35.27                       | N/A                |
| 63256 | 2020-06-05 04:45:00:    | 41.15                 | 244.75                | 60.75                 | 35.24                       | N/A                |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 63257 | 2020-06-05 05:00:00:000 | 41.95                 | 248.5                 | 61.31                 | 35.22                       | N/A                |
| 63258 | 2020-06-05 05:15:00:000 | 41.09                 | 246.5                 | 60.84                 | 35.21                       | N/A                |
| 63259 | 2020-06-05 05:30:00:000 | 37.71                 | 227.5                 | 56.72                 | 35.2                        | N/A                |
| 63260 | 2020-06-05 06:00:00:000 | 41.09                 | 246.5                 | 60.66                 | 35.18                       | N/A                |
| 63261 | 2020-06-05 06:15:00:000 | 41.09                 | 245.25                | 60.47                 | 35.17                       | N/A                |
| 63262 | 2020-06-05 06:30:00:000 | 37.71                 | 226.58                | 56.63                 | 35.16                       | N/A                |
| 63263 | 2020-06-05 06:45:00:000 | 41.09                 | 245.67                | 60.47                 | 35.16                       | N/A                |
| 63264 | 2020-06-05 07:00:00:000 | 41.09                 | 244.5                 | 60.47                 | 35.15                       | N/A                |
| 63265 | 2020-06-05 07:15:00:000 | 40.7                  | 243.87                | 60.47                 | 35.14                       | N/A                |
| 63266 | 2020-06-05 07:30:00:000 | 39.06                 | 235.0                 | 58.36                 | 35.14                       | N/A                |
| 63267 | 2020-06-05 07:45:00:000 | 40.31                 | 242.5                 | 59.91                 | 35.18                       | N/A                |
| 63268 | 2020-06-05 08:00:00:000 | 40.57                 | 243.33                | 59.91                 | 35.21                       | N/A                |
| 63269 | 2020-06-05 08:15:00:000 | 40.31                 | 242.5                 | 59.81                 | 35.24                       | N/A                |
| 63270 | 2020-06-05 08:30:00:000 | 40.31                 | 238.25                | 59.06                 | 35.33                       | N/A                |
| 63271 | 2020-06-05 08:45:00:000 | 40.31                 | 239.75                | 59.34                 | 35.33                       | N/A                |
| 63272 | 2020-06-05 09:00:00:000 | 40.57                 | 242.92                | 60.0                  | 35.41                       | N/A                |
| 63273 | 2020-06-05 09:15:00:000 | 41.09                 | 245.25                | 60.47                 | 35.48                       | N/A                |
| 63274 | 2020-06-05 09:30:00:000 | 39.92                 | 239.75                | 60.47                 | 35.5                        | N/A                |
| 63275 | 2020-06-05 09:45:00:000 | 41.09                 | 246.5                 | 64.13                 | 35.53                       | N/A                |
| 63276 | 2020-06-05 10:00:00:    | 42.03                 | 251.58                | 64.87                 | 35.61                       | N/A                |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 63277 | 2020-06-05 10:15:00:000 | 42.5                  | 253.25                | 65.25                 | 35.66                       | N/A                |
| 63278 | 2020-06-05 10:30:00:000 | 41.51                 | 247.5                 | 63.84                 | 35.7                        | N/A                |
| 63279 | 2020-06-05 10:45:00:000 | 42.81                 | 254.75                | 65.53                 | 35.72                       | N/A                |
| 63280 | 2020-06-05 11:00:00:000 | 43.09                 | 257.81                | 66.09                 | 35.82                       | N/A                |
| 63281 | 2020-06-05 11:15:00:000 | 42.03                 | 254.38                | 64.41                 | 35.9                        | N/A                |
| 63282 | 2020-06-05 11:30:00:000 | 43.75                 | 258.75                | 66.09                 | 35.97                       | N/A                |
| 63283 | 2020-06-05 11:45:00:000 | 43.67                 | 262.13                | 66.94                 | 36.07                       | N/A                |
| 63284 | 2020-06-05 12:00:00:000 | 44.22                 | 263.67                | 67.12                 | 36.14                       | N/A                |
| 63285 | 2020-06-05 12:15:00:000 | 41.87                 | 252.62                | 64.83                 | 36.18                       | N/A                |
| 63286 | 2020-06-05 12:30:00:000 | 43.91                 | 261.83                | 66.56                 | 36.27                       | N/A                |
| 63287 | 2020-06-05 12:45:00:000 | 44.53                 | 265.5                 | 67.5                  | 36.33                       | N/A                |
| 63288 | 2020-06-05 13:00:00:000 | 44.53                 | 265.87                | 67.57                 | 36.38                       | N/A                |
| 63289 | 2020-06-05 13:15:00:000 | 44.06                 | 264.0                 | 67.08                 | 36.46                       | N/A                |
| 63290 | 2020-06-05 13:30:00:000 | 44.53                 | 268.25                | 67.78                 | 36.52                       | N/A                |
| 63291 | 2020-06-05 13:45:00:000 | 45.05                 | 268.17                | 67.88                 | 36.55                       | N/A                |
| 63292 | 2020-06-05 14:00:00:000 | 44.3                  | 265.44                | 67.36                 | 36.61                       | N/A                |
| 63293 | 2020-06-05 14:15:00:000 | 39.58                 | 238.25                | 61.69                 | 36.66                       | N/A                |
| 63294 | 2020-06-05 14:30:00:000 | 42.7                  | 255.94                | 65.67                 | 36.67                       | N/A                |
| 63295 | 2020-06-05 14:45:00:000 | 42.66                 | 255.42                | 65.62                 | 36.72                       | N/A                |
| 63296 | 2020-06-05 15:00:00:    | 42.14                 | 253.25                | 65.34                 | 36.74                       | N/A                |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 63297 | 2020-06-05 15:15:00:000 | 37.66                 | 227.25                | 59.62                 | 36.71                       | N/A                |
| 63298 | 2020-06-05 15:30:00:000 | 41.88                 | 253.25                | 65.11                 | 36.7                        | N/A                |
| 63299 | 2020-06-05 15:45:00:000 | 42.66                 | 254.19                | 65.81                 | 36.68                       | N/A                |
| 63300 | 2020-06-05 16:15:00:000 | 38.36                 | 228.0                 | 60.05                 | 36.58                       | N/A                |
| 63301 | 2020-06-05 16:30:00:000 | 42.66                 | 257.25                | 66.38                 | 36.53                       | N/A                |
| 63302 | 2020-06-05 16:45:00:000 | 43.44                 | 259.25                | 66.94                 | 36.48                       | N/A                |
| 63303 | 2020-06-05 17:00:00:000 | 43.44                 | 260.0                 | 67.22                 | 36.44                       | N/A                |
| 63304 | 2020-06-05 17:15:00:000 | 42.66                 | 255.75                | 66.38                 | 36.39                       | N/A                |
| 63305 | 2020-06-05 17:30:00:000 | 43.44                 | 262.0                 | 67.78                 | 36.35                       | N/A                |
| 63306 | 2020-06-05 17:45:00:000 | 43.44                 | 262.75                | 67.78                 | 36.31                       | N/A                |
| 63307 | 2020-06-05 18:00:00:000 | 41.46                 | 249.08                | 64.97                 | 36.28                       | N/A                |
| 63308 | 2020-06-05 18:15:00:000 | 43.44                 | 258.75                | 67.22                 | 36.24                       | N/A                |
| 63309 | 2020-06-05 18:30:00:000 | 44.37                 | 264.13                | 67.78                 | 36.21                       | N/A                |
| 63310 | 2020-06-05 18:45:00:000 | 44.37                 | 265.5                 | 68.34                 | 36.14                       | N/A                |
| 63311 | 2020-06-05 19:00:00:000 | 43.28                 | 261.69                | 67.01                 | 36.08                       | N/A                |
| 63312 | 2020-06-05 19:15:00:000 | 44.41                 | 264.44                | 67.99                 | 36.02                       | N/A                |
| 63313 | 2020-06-05 19:30:00:000 | 44.37                 | 266.75                | 68.91                 | 35.96                       | N/A                |
| 63314 | 2020-06-05 19:45:00:000 | 45.31                 | 269.19                | 69.05                 | 35.92                       | N/A                |
| 63315 | 2020-06-05 20:00:00:000 | 42.66                 | 256.62                | 66.09                 | 35.83                       | N/A                |
| 63316 | 2020-06-05 20:15:00:    | 45.7                  | 271.5                 | 69.61                 | 35.8                        | N/A                |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 63317 | 2020-06-05 20:30:00:000 | 46.09                 | 273.5                 | 70.31                 | 35.77                       | N/A                |
| 63318 | 2020-06-05 20:45:00:000 | 46.09                 | 276.25                | 70.31                 | 35.74                       | N/A                |
| 63319 | 2020-06-05 21:00:00:000 | 45.52                 | 272.17                | 69.47                 | 35.75                       | N/A                |
| 63320 | 2020-06-05 21:15:00:000 | 46.88                 | 280.5                 | 71.44                 | 35.73                       | N/A                |
| 63321 | 2020-06-05 21:30:00:000 | 47.25                 | 282.85                | 71.72                 | 35.72                       | N/A                |
| 63322 | 2020-06-05 22:00:00:000 | 47.34                 | 282.81                | 71.37                 | 35.65                       | N/A                |
| 63323 | 2020-06-05 22:15:00:000 | 47.81                 | 284.42                | 72.0                  | 35.62                       | N/A                |
| 63324 | 2020-06-05 22:30:00:000 | 47.81                 | 284.5                 | 71.93                 | 35.6                        | N/A                |
| 63325 | 2020-06-05 22:45:00:000 | 47.58                 | 283.44                | 71.79                 | 35.59                       | N/A                |
| 63326 | 2020-06-05 23:00:00:000 | 47.55                 | 282.58                | 71.63                 | 35.59                       | N/A                |
| 63327 | 2020-06-05 23:15:00:000 | 47.5                  | 282.55                | 71.66                 | 35.59                       | N/A                |
| 63328 | 2020-06-05 23:30:00:000 | 47.5                  | 283.12                | 71.58                 | 35.61                       | N/A                |
| 63329 | 2020-06-05 23:45:00:000 | 47.97                 | 283                   | 71.72                 | 35.63                       | N/A                |
| 63330 | 2020-06-06 00:00:00:000 | 47.81                 | 283.0                 | 71.72                 | 35.64                       | N/A                |
| 63331 | 2020-06-06 00:15:00:000 | 47.89                 | 283.75                | 71.86                 | 35.62                       | N/A                |
| 63332 | 2020-06-06 00:30:00:000 | 47.81                 | 285.88                | 72.28                 | 35.63                       | N/A                |
| 63333 | 2020-06-06 00:45:00:000 | 47.81                 | 286.63                | 72.42                 | 35.62                       | N/A                |
| 63334 | 2020-06-06 01:00:00:000 | 48.75                 | 289.5                 | 72.75                 | 35.62                       | N/A                |
| 63335 | 2020-06-06 01:15:00:000 | 48.75                 | 289.56                | 72.98                 | 35.62                       | N/A                |
| 63336 | 2020-06-06 01:30:00:    | 48.75                 | 288.5                 | 73.13                 | 35.62                       | N/A                |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 66297 | 2020-07-07 23:00:00:000 | 34.08                 | 386.69                | 29.81                 | 29.97                       | 6.6                |
| 66298 | 2020-07-07 23:15:00:000 | 34.69                 | 390.35                | 29.95                 | 29.97                       | 6.6                |
| 66299 | 2020-07-07 23:30:00:000 | 34.97                 | 390.92                | 30.05                 | 29.97                       | 6.6                |
| 66300 | 2020-07-07 23:45:00:000 | 34.98                 | 393.68                | 30.09                 | 29.97                       | 6.6                |
| 66301 | 2020-07-08 00:00:00:000 | 35.02                 | 394.61                | 30.28                 | 29.97                       | 6.6                |
| 66302 | 2020-07-08 00:15:00:000 | 35.13                 | 394.86                | 30.37                 | 29.97                       | 6.6                |
| 66303 | 2020-07-08 00:30:00:000 | 35.63                 | 398.21                | 30.7                  | 29.97                       | 6.6                |
| 66304 | 2020-07-08 00:45:00:000 | 36.27                 | 404.68                | 31.14                 | 29.97                       | 6.6                |
| 66305 | 2020-07-08 01:00:00:000 | 36.72                 | 408.4                 | 31.39                 | 29.98                       | 6.6                |
| 66306 | 2020-07-08 01:15:00:000 | 36.72                 | 412.75                | 31.78                 | 29.98                       | 6.6                |
| 66307 | 2020-07-08 01:30:00:000 | 37.52                 | 417.53                | 32.06                 | 29.97                       | 6.6                |
| 66308 | 2020-07-08 01:45:00:000 | 37.53                 | 421.35                | 32.34                 | 29.98                       | 6.6                |
| 66309 | 2020-07-08 02:00:00:000 | 37.66                 | 422.43                | 32.42                 | 29.98                       | 6.6                |
| 66310 | 2020-07-08 02:15:00:000 | 38.44                 | 427.0                 | 32.72                 | 29.98                       | 6.6                |
| 66311 | 2020-07-08 02:30:00:000 | 38.44                 | 429.54                | 32.91                 | 29.98                       | 6.6                |
| 66312 | 2020-07-08 02:45:00:000 | 38.44                 | 429.75                | 33.05                 | 29.98                       | 6.6                |
| 66313 | 2020-07-08 03:00:00:000 | 38.44                 | 430.92                | 32.91                 | 29.98                       | 6.6                |
| 66314 | 2020-07-08 03:15:00:000 | 39.43                 | 441.92                | 33.87                 | 29.98                       | 6.6                |
| 66315 | 2020-07-08 03:30:00:000 | 40.65                 | 451.32                | 34.59                 | 29.98                       | 6.6                |
| 66316 | 2020-07-08 03:45:00:    | 41.88                 | 466.71                | 35.81                 | 29.98                       | 6.6                |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 66317 | 2020-07-08 04:00:00:000 | 42.68                 | 473.5                 | 36.14                 | 29.99                       | 6.6                |
| 66318 | 2020-07-08 04:15:00:000 | 43.54                 | 480.81                | 36.77                 | 29.99                       | 6.6                |
| 66319 | 2020-07-08 04:30:00:000 | 43.59                 | 481.68                | 36.8                  | 29.99                       | 6.6                |
| 66320 | 2020-07-08 04:45:00:000 | 43.95                 | 489.21                | 37.45                 | 29.99                       | 6.6                |
| 66321 | 2020-07-08 05:00:00:000 | 43.98                 | 491.81                | 37.55                 | 29.99                       | 6.6                |
| 66322 | 2020-07-08 05:15:00:000 | 44.48                 | 493.5                 | 37.59                 | 29.99                       | 6.6                |
| 66323 | 2020-07-08 05:30:00:000 | 44.44                 | 495.83                | 37.88                 | 29.99                       | 6.6                |
| 66324 | 2020-07-08 05:45:00:000 | 45.2                  | 499.5                 | 38.09                 | 29.99                       | 6.6                |
| 66325 | 2020-07-08 06:00:00:000 | 45.31                 | 502.46                | 38.44                 | 29.99                       | 6.6                |
| 66326 | 2020-07-08 06:15:00:000 | 45.31                 | 504.59                | 38.53                 | 29.99                       | 6.6                |
| 66327 | 2020-07-08 06:30:00:000 | 45.83                 | 420.46                | 38.72                 | 29.99                       | 6.6                |
| 66328 | 2020-07-08 06:45:00:000 | 45.92                 | 404.17                | 38.78                 | 29.99                       | 6.6                |
| 66329 | 2020-07-08 07:00:00:000 | 45.9                  | 403.13                | 38.81                 | 29.99                       | 6.6                |
| 66330 | 2020-07-08 07:15:00:000 | 45.61                 | 403.47                | 38.81                 | 29.99                       | 6.6                |
| 66331 | 2020-07-08 07:30:00:000 | 46.09                 | 404.84                | 38.85                 | 29.99                       | 6.6                |
| 66332 | 2020-07-08 07:45:00:000 | 46.09                 | 404.5                 | 38.81                 | 29.99                       | 6.6                |
| 66333 | 2020-07-08 08:00:00:000 | 46.12                 | 405.5                 | 38.93                 | 29.99                       | 6.6                |
| 66334 | 2020-07-08 08:15:00:000 | 46.09                 | 407.64                | 39.09                 | 29.99                       | 6.6                |
| 66335 | 2020-07-08 08:30:00:000 | 46.22                 | 408.36                | 39.22                 | 29.99                       | 6.6                |
| 66336 | 2020-07-08 08:45:00:    | 46.12                 | 409.61                | 39.33                 | 29.99                       | 6.6                |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 66337 | 2020-07-08 09:00:00:000 | 46.44                 | 409.65                | 39.26                 | 29.99                       | 6.6                |
| 66338 | 2020-07-08 09:15:00:000 | 46.15                 | 409.47                | 39.31                 | 29.99                       | 6.6                |
| 66339 | 2020-07-08 09:30:00:000 | 46.28                 | 409.62                | 39.37                 | 29.99                       | 6.6                |
| 66340 | 2020-07-08 09:45:00:000 | 46.52                 | 410.25                | 39.37                 | 29.99                       | 6.6                |
| 66341 | 2020-07-08 10:00:00:000 | 47.03                 | 414.58                | 39.66                 | 29.99                       | 6.6                |
| 66342 | 2020-07-08 10:15:00:000 | 47.3                  | 416.3                 | 39.91                 | 29.99                       | 6.6                |
| 66343 | 2020-07-08 10:30:00:000 | 47.03                 | 415.5                 | 40.03                 | 29.99                       | 6.6                |
| 66344 | 2020-07-08 10:45:00:000 | 47.7                  | 418.22                | 40.15                 | 29.99                       | 6.6                |
| 66345 | 2020-07-08 11:00:00:000 | 46.99                 | 415.75                | 39.8                  | 29.99                       | 6.6                |
| 66346 | 2020-07-08 11:15:00:000 | 47.05                 | 414.54                | 39.7                  | 29.99                       | 6.6                |
| 66347 | 2020-07-08 11:30:00:000 | 46.93                 | 414.06                | 39.66                 | 29.99                       | 6.6                |
| 66348 | 2020-07-08 11:45:00:000 | 46.91                 | 414.4                 | 39.77                 | 29.99                       | 6.6                |
| 66349 | 2020-07-08 12:00:00:000 | 46.93                 | 415.5                 | 39.7                  | 29.99                       | 6.6                |
| 66350 | 2020-07-08 12:15:00:000 | 47.68                 | 418.46                | 40.18                 | 29.99                       | 6.6                |
| 66351 | 2020-07-08 12:30:00:000 | 47.81                 | 421.1                 | 40.2                  | 29.98                       | 6.6                |
| 66352 | 2020-07-08 12:45:00:000 | 47.81                 | 419.19                | 40.09                 | 29.98                       | 6.6                |
| 66353 | 2020-07-08 13:00:00:000 | 47.09                 | 416.31                | 39.55                 | 29.98                       | 6.6                |
| 66354 | 2020-07-08 13:15:00:000 | 46.88                 | 415.22                | 39.47                 | 29.98                       | 6.6                |
| 66355 | 2020-07-08 13:30:00:000 | 46.88                 | 412.46                | 39.23                 | 29.98                       | 6.6                |
| 66356 | 2020-07-08 13:45:00:    | 46.65                 | 412.0                 | 39.21                 | 29.97                       | 6.6                |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 66357 | 2020-07-08 14:00:00:000 | 46.61                 | 412.64                | 39.28                 | 29.97                       | 6.6                |
| 66358 | 2020-07-08 14:15:00:000 | 46.7                  | 411.75                | 39.22                 | 29.97                       | 6.6                |
| 66359 | 2020-07-08 14:30:00:000 | 46.09                 | 410.34                | 39.09                 | 29.97                       | 6.6                |
| 66360 | 2020-07-08 14:45:00:000 | 46.09                 | 406.63                | 38.72                 | 29.98                       | 6.6                |
| 66361 | 2020-07-08 15:00:00:000 | 45.8                  | 403.78                | 38.43                 | 29.98                       | 6.6                |
| 66362 | 2020-07-08 15:15:00:000 | 45.31                 | 401.17                | 38.14                 | 29.98                       | 6.6                |
| 66363 | 2020-07-08 15:30:00:000 | 45.31                 | 398.89                | 38.09                 | 29.98                       | 6.6                |
| 66364 | 2020-07-08 15:45:00:000 | 45.02                 | 398.41                | 37.9                  | 29.98                       | 6.6                |
| 66365 | 2020-07-08 16:00:00:000 | 44.51                 | 395.19                | 37.69                 | 29.99                       | 6.6                |
| 66366 | 2020-07-08 16:15:00:000 | 44.53                 | 392.28                | 37.62                 | 29.99                       | 6.6                |
| 66367 | 2020-07-08 16:30:00:000 | 44.91                 | 395.33                | 38.03                 | 29.99                       | 6.6                |
| 66368 | 2020-07-08 16:45:00:000 | 44.73                 | 396.34                | 38.0                  | 29.99                       | 6.6                |
| 66369 | 2020-07-08 17:00:00:000 | 45.31                 | 398.0                 | 38.25                 | 29.99                       | 6.6                |
| 66370 | 2020-07-08 17:15:00:000 | 45.31                 | 399.09                | 38.29                 | 29.99                       | 6.6                |
| 66371 | 2020-07-08 17:30:00:000 | 45.31                 | 398.54                | 38.3                  | 29.99                       | 6.6                |
| 66372 | 2020-07-08 17:45:00:000 | 45.31                 | 398.66                | 38.3                  | 29.99                       | 6.6                |
| 66373 | 2020-07-08 18:00:00:000 | 45.31                 | 399.36                | 38.33                 | 29.99                       | 6.6                |
| 66374 | 2020-07-08 18:15:00:000 | 45.31                 | 400.25                | 38.46                 | 29.99                       | 6.6                |
| 66375 | 2020-07-08 18:30:00:000 | 45.31                 | 398.09                | 38.29                 | 29.99                       | 6.6                |
| 66376 | 2020-07-08 18:45:00:    | 45.31                 | 399.0                 | 38.33                 | 29.99                       | 6.6                |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 66377 | 2020-07-08 19:00:00:000 | 45.31                 | 398.2                 | 38.31                 | 29.99                       | 6.6                |
| 66378 | 2020-07-08 19:15:00:000 | 45.31                 | 399.81                | 38.39                 | 29.99                       | 6.6                |
| 66379 | 2020-07-08 19:30:00:000 | 45.31                 | 399.66                | 38.39                 | 29.99                       | 6.6                |
| 66380 | 2020-07-08 19:45:00:000 | 45.31                 | 399.75                | 38.41                 | 29.99                       | 6.6                |
| 66381 | 2020-07-08 20:00:00:000 | 45.33                 | 399.61                | 38.45                 | 29.99                       | 6.6                |
| 66382 | 2020-07-08 20:15:00:000 | 45.31                 | 400.17                | 38.53                 | 29.99                       | 6.6                |
| 66383 | 2020-07-08 20:30:00:000 | 45.31                 | 400.39                | 38.43                 | 29.99                       | 6.6                |
| 66384 | 2020-07-08 20:45:00:000 | 45.31                 | 401.18                | 38.53                 | 29.99                       | 6.6                |
| 66385 | 2020-07-08 21:00:00:000 | 45.31                 | 400.5                 | 38.48                 | 29.99                       | 6.6                |
| 66386 | 2020-07-08 21:15:00:000 | 45.31                 | 399.75                | 38.43                 | 29.99                       | 6.6                |
| 66387 | 2020-07-08 21:30:00:000 | 45.31                 | 400.4                 | 38.42                 | 29.99                       | 6.6                |
| 66388 | 2020-07-08 21:45:00:000 | 45.31                 | 400.16                | 38.46                 | 29.99                       | 6.6                |
| 66389 | 2020-07-08 22:00:00:000 | 45.31                 | 399.0                 | 38.38                 | 29.99                       | 6.6                |
| 66390 | 2020-07-08 22:15:00:000 | 45.31                 | 400.03                | 38.46                 | 29.99                       | 6.6                |
| 66391 | 2020-07-08 22:30:00:000 | 45.31                 | 400.43                | 38.53                 | 29.99                       | 6.6                |
| 66392 | 2020-07-08 22:45:00:000 | 45.31                 | 400.25                | 38.64                 | 29.99                       | 6.6                |
| 66393 | 2020-07-08 23:00:00:000 | 45.21                 | 398.28                | 38.29                 | 29.99                       | 6.6                |
| 66394 | 2020-07-08 23:15:00:000 | 45.31                 | 399.0                 | 38.39                 | 29.99                       | 6.6                |
| 66395 | 2020-07-08 23:30:00:000 | 45.31                 | 399.08                | 38.41                 | 29.99                       | 6.6                |
| 66396 | 2020-07-08 23:45:00:    | 45.31                 | 397.44                | 38.25                 | 29.99                       | 6.6                |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 69277 | 2020-08-08 00:00:00:000 | 24.2                  | 328.42                | 33.75                 | 34.5                        | N/A                |
| 69278 | 2020-08-08 00:15:00:000 | 24.84                 | 333.82                | 34.03                 | 34.5                        | N/A                |
| 69279 | 2020-08-08 00:30:00:000 | 24.77                 | 331.59                | 33.98                 | 34.47                       | N/A                |
| 69280 | 2020-08-08 00:45:00:000 | 23.89                 | 322.02                | 33.28                 | 34.41                       | N/A                |
| 69281 | 2020-08-08 01:00:00:000 | 23.2                  | 315.72                | 32.93                 | 34.38                       | N/A                |
| 69282 | 2020-08-08 01:15:00:000 | 23.31                 | 315.18                | 32.98                 | 34.39                       | N/A                |
| 69283 | 2020-08-08 01:30:00:000 | 24.05                 | 321.0                 | 33.25                 | 34.39                       | N/A                |
| 69284 | 2020-08-08 01:45:00:000 | 24.05                 | 323.52                | 33.42                 | 34.39                       | N/A                |
| 69285 | 2020-08-08 02:00:00:000 | 24.06                 | 324.0                 | 33.47                 | 34.38                       | N/A                |
| 69286 | 2020-08-08 02:15:00:000 | 23.5                  | 319.23                | 33.24                 | 34.33                       | N/A                |
| 69287 | 2020-08-08 02:30:00:000 | 24.05                 | 325.86                | 33.67                 | 34.34                       | N/A                |
| 69288 | 2020-08-08 02:45:00:000 | 24.84                 | 330.72                | 34.0                  | 34.34                       | N/A                |
| 69289 | 2020-08-08 03:00:00:000 | 24.26                 | 328.69                | 33.86                 | 34.33                       | N/A                |
| 69290 | 2020-08-08 03:15:00:000 | 24.84                 | 330.57                | 34.03                 | 34.32                       | N/A                |
| 69291 | 2020-08-08 03:30:00:000 | 24.84                 | 335.62                | 34.48                 | 34.33                       | N/A                |
| 69292 | 2020-08-08 03:45:00:000 | 24.84                 | 337.52                | 34.66                 | 34.33                       | N/A                |
| 69293 | 2020-08-08 04:00:00:000 | 24.84                 | 337.36                | 34.63                 | 34.33                       | N/A                |
| 69294 | 2020-08-08 04:15:00:000 | 24.84                 | 334.14                | 34.49                 | 34.32                       | N/A                |
| 69295 | 2020-08-08 04:30:00:000 | 24.22                 | 327.13                | 33.81                 | 34.26                       | N/A                |
| 69296 | 2020-08-08 04:45:00:    | 24.06                 | 326.1                 | 33.75                 | 34.24                       | N/A                |

| S.No. | Time                | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|---------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                 |                       |                       |                       |                             |                    |
| 69297 | 2020-08-08 05:00:00 | 24.65                 | 330.72                | 33.96                 | 34.24                       | N/A                |
| 69298 | 2020-08-08 05:15:00 | 24.84                 | 336.04                | 34.41                 | 34.26                       | N/A                |
| 69299 | 2020-08-08 05:30:00 | 24.84                 | 335.21                | 34.45                 | 34.27                       | N/A                |
| 69300 | 2020-08-08 05:45:00 | 25.1                  | 338.89                | 34.67                 | 34.27                       | N/A                |
| 69301 | 2020-08-08 06:00:00 | 25.1                  | 339.5                 | 34.77                 | 34.26                       | N/A                |
| 69302 | 2020-08-08 06:15:00 | 25.78                 | 348.52                | 35.31                 | 34.28                       | N/A                |
| 69303 | 2020-08-08 06:30:00 | 26.56                 | 354.95                | 35.59                 | 34.3                        | N/A                |
| 69304 | 2020-08-08 06:45:00 | 26.72                 | 356.02                | 35.74                 | 34.28                       | N/A                |
| 69305 | 2020-08-08 07:00:00 | 26.64                 | 356.43                | 35.55                 | 34.28                       | N/A                |
| 69306 | 2020-08-08 07:15:00 | 26.64                 | 353.67                | 35.44                 | 34.29                       | N/A                |
| 69307 | 2020-08-08 07:30:00 | 26.28                 | 352.39                | 35.31                 | 34.28                       | N/A                |
| 69308 | 2020-08-08 07:45:00 | 25.78                 | 347.34                | 35.05                 | 34.29                       | N/A                |
| 69309 | 2020-08-08 08:00:00 | 25.8                  | 347.16                | 34.98                 | 34.3                        | N/A                |
| 69310 | 2020-08-08 08:15:00 | 25.78                 | 349.33                | 35.09                 | 34.3                        | N/A                |
| 69311 | 2020-08-08 08:30:00 | 25.8                  | 343.83                | 34.72                 | 34.28                       | N/A                |
| 69312 | 2020-08-08 08:45:00 | 25.01                 | 334.98                | 34.11                 | 34.25                       | N/A                |
| 69313 | 2020-08-08 09:00:00 | 25.61                 | 341.36                | 34.64                 | 34.34                       | N/A                |
| 69314 | 2020-08-08 09:15:00 | 26.41                 | 352.61                | 35.32                 | 34.39                       | N/A                |
| 69315 | 2020-08-08 09:30:00 | 26.58                 | 356.39                | 35.41                 | 34.41                       | N/A                |
| 69316 | 2020-08-08 09:45:00 | 26.58                 | 356.88                | 35.33                 | 34.43                       | N/A                |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 69317 | 2020-08-08 10:00:00:000 | 26.66                 | 358.59                | 35.23                 | 34.44                       | N/A                |
| 69318 | 2020-08-08 10:15:00:000 | 26.58                 | 355.55                | 35.04                 | 34.43                       | N/A                |
| 69319 | 2020-08-08 10:30:00:000 | 25.9                  | 351.19                | 34.66                 | 34.44                       | N/A                |
| 69320 | 2020-08-08 10:45:00:000 | 24.65                 | 359.31                | 33.61                 | 34.47                       | N/A                |
| 69321 | 2020-08-08 11:00:00:000 | 22.9                  | 351.18                | 32.1                  | 34.45                       | N/A                |
| 69322 | 2020-08-08 11:15:00:000 | 21.42                 | 347.85                | 30.68                 | 34.45                       | N/A                |
| 69323 | 2020-08-08 11:30:00:000 | 19.06                 | 350.9                 | 28.91                 | 34.47                       | N/A                |
| 69324 | 2020-08-08 11:45:00:000 | 18.05                 | 347.68                | 27.84                 | 34.5                        | N/A                |
| 69325 | 2020-08-08 12:00:00:000 | 17.17                 | 363.25                | 27.2                  | 34.53                       | N/A                |
| 69326 | 2020-08-08 12:15:00:000 | 16.25                 | 357.5                 | 26.72                 | 34.56                       | N/A                |
| 69327 | 2020-08-08 12:30:00:000 | 16.25                 | 373.73                | 26.72                 | 34.58                       | N/A                |
| 69328 | 2020-08-08 12:45:00:000 | 16.18                 | 356.09                | 26.49                 | 34.52                       | N/A                |
| 69329 | 2020-08-08 13:00:00:000 | 16.25                 | 367.27                | 26.7                  | 34.51                       | N/A                |
| 69330 | 2020-08-08 13:15:00:000 | 17.03                 | 381.72                | 27.22                 | 34.5                        | N/A                |
| 69331 | 2020-08-08 13:30:00:000 | 17.03                 | 369.17                | 27.28                 | 34.47                       | N/A                |
| 69332 | 2020-08-08 13:45:00:000 | 17.17                 | 369.91                | 27.22                 | 34.46                       | N/A                |
| 69333 | 2020-08-08 14:00:00:000 | 3.82                  | 139.02                | 16.01                 | 34.5                        | N/A                |
| 69334 | 2020-08-08 14:15:00:000 | 11.72                 | 181.25                | 20.5                  | 34.53                       | N/A                |
| 69335 | 2020-08-08 14:30:00:000 | 16.89                 | 352.82                | 27.0                  | 34.5                        | N/A                |
| 69336 | 2020-08-08 14:45:00:    | 16.24                 | 348.69                | 26.41                 | 34.43                       | N/A                |

| S.No. | Time                          | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                           |                       |                       |                       |                             |                    |
| 69337 | 2020-08-08 15:00:00:000 15.33 | 335.64                | 25.75                 | 34.37                 | N/A                         |                    |
| 69338 | 2020-08-08 15:15:00:000 15.33 | 329.55                | 25.52                 | 34.3                  | N/A                         |                    |
| 69339 | 2020-08-08 15:30:00:000 14.42 | 323.39                | 25.27                 | 34.22                 | N/A                         |                    |
| 69340 | 2020-08-08 15:45:00:000 14.41 | 318.61                | 25.06                 | 34.16                 | N/A                         |                    |
| 69341 | 2020-08-08 16:00:00:000 15.23 | 326.97                | 25.41                 | 34.16                 | N/A                         |                    |
| 69342 | 2020-08-08 16:15:00:000 15.69 | 338.15                | 25.99                 | 34.23                 | N/A                         |                    |
| 69343 | 2020-08-08 16:30:00:000 18.0  | 257.59                | 27.74                 | 34.33                 | N/A                         |                    |
| 69344 | 2020-08-08 16:45:00:000 19.28 | 267.98                | 29.06                 | 34.39                 | N/A                         |                    |
| 69345 | 2020-08-08 17:00:00:000 21.05 | 287.81                | 30.2                  | 34.41                 | N/A                         |                    |
| 69346 | 2020-08-08 17:15:00:000 21.9  | 302.8                 | 31.22                 | 34.44                 | N/A                         |                    |
| 69347 | 2020-08-08 17:30:00:000 23.46 | 318.59                | 32.13                 | 34.45                 | N/A                         |                    |
| 69348 | 2020-08-08 17:45:00:000 23.88 | 325.05                | 32.55                 | 34.43                 | N/A                         |                    |
| 69349 | 2020-08-08 18:00:00:000 24.12 | 330.8                 | 32.91                 | 34.4                  | N/A                         |                    |
| 69350 | 2020-08-08 18:15:00:000 24.45 | 332.48                | 32.88                 | 34.27                 | N/A                         |                    |
| 69351 | 2020-08-08 18:30:00:000 23.91 | 326.09                | 32.52                 | 34.18                 | N/A                         |                    |
| 69352 | 2020-08-08 18:45:00:000 23.91 | 326.34                | 32.57                 | 34.13                 | N/A                         |                    |
| 69353 | 2020-08-08 19:00:00:000 23.91 | 323.5                 | 32.32                 | 34.09                 | N/A                         |                    |
| 69354 | 2020-08-08 19:15:00:000 24.14 | 328.63                | 32.71                 | 34.14                 | N/A                         |                    |
| 69355 | 2020-08-08 19:30:00:000 24.25 | 332.17                | 32.91                 | 34.17                 | N/A                         |                    |
| 69356 | 2020-08-08 19:45:00: 24.69    | 336.93                | 33.23                 | 34.23                 | N/A                         |                    |

| S.No. | Time                    | ETP_1 BOD (mg/L)(avg) | ETP_1 COD (mg/L)(avg) | ETP_1 TSS (mg/L)(avg) | ETP_1 Temperature (°C)(avg) | ETP_1 pH (pH)(avg) |
|-------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------------|--------------------|
|       | 000                     |                       |                       |                       |                             |                    |
| 69357 | 2020-08-08 20:00:00:000 | 24.69                 | 341.32                | 33.47                 | 34.27                       | N/A                |
| 69358 | 2020-08-08 20:15:00:000 | 25.53                 | 345.14                | 33.78                 | 34.28                       | N/A                |
| 69359 | 2020-08-08 20:30:00:000 | 25.57                 | 346.69                | 33.87                 | 34.29                       | N/A                |
| 69360 | 2020-08-08 20:45:00:000 | 26.23                 | 354.83                | 34.38                 | 34.29                       | N/A                |
| 69361 | 2020-08-08 21:00:00:000 | 26.41                 | 358.23                | 34.57                 | 34.29                       | N/A                |
| 69362 | 2020-08-08 21:15:00:000 | 26.89                 | 363.95                | 34.85                 | 34.29                       | N/A                |
| 69363 | 2020-08-08 21:30:00:000 | 26.41                 | 359.64                | 34.59                 | 34.24                       | N/A                |
| 69364 | 2020-08-08 21:45:00:000 | 26.41                 | 356.14                | 34.47                 | 34.21                       | N/A                |
| 69365 | 2020-08-08 22:00:00:000 | 26.41                 | 356.05                | 34.57                 | 34.21                       | N/A                |
| 69366 | 2020-08-08 22:15:00:000 | 26.41                 | 357.05                | 34.57                 | 34.2                        | N/A                |
| 69367 | 2020-08-08 22:30:00:000 | 26.23                 | 356.89                | 34.47                 | 34.14                       | N/A                |
| 69368 | 2020-08-08 22:45:00:000 | 25.63                 | 351.63                | 34.05                 | 34.1                        | N/A                |
| 69369 | 2020-08-08 23:00:00:000 | 25.7                  | 353.09                | 34.16                 | 34.09                       | N/A                |
| 69370 | 2020-08-08 23:15:00:000 | 26.41                 | 357.61                | 34.59                 | 34.08                       | N/A                |
| 69371 | 2020-08-08 23:30:00:000 | 26.41                 | 357.53                | 34.62                 | 34.09                       | N/A                |
| 69372 | 2020-08-08 23:45:00:000 | 26.43                 | 356.57                | 34.59                 | 34.11                       | N/A                |
| 69373 | 2020-08-09 00:00:00:000 | 26.42                 | 358.03                | 34.63                 | 34.12                       | N/A                |
| 69374 | 2020-08-09 00:15:00:000 | 26.44                 | 358.85                | 34.73                 | 34.12                       | N/A                |
| 69375 | 2020-08-09 00:30:00:000 | 26.44                 | 356.85                | 34.62                 | 34.13                       | N/A                |
| 69376 | 2020-08-09 00:45:00:    | 26.45                 | 361.31                | 34.84                 | 34.12                       | N/A                |



Anushree Kapadia &lt;anushree@hexislegal.in&gt;

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**Service of reply/ objections to report of committee**

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**Anushree Kapadia** <anushree@hexislegal.in>

Fri, Oct 9, 2020 at 3:44 PM

To: uh-gpcb-ahme@gujarat.gov.in, rajeshgpcb@gmail.com, legal.gpcb@gmail.com, Aniruddha Kulkarni <aniruddha1488@gmail.com>, sshooda65@gmail.com, JITENDAR SINGH <jpvlawassociates@gmail.com>, megha jani <adv.megha.jani@gmail.com>

**National Green Tribunal**  
**O.A. No. 7/2020 (WZ)**

**ADVANCE SERVICE OF REPLY/ OBJECTIONS TO REPORT OF COMMITTEE**

Dear Sir/ Ma'am

Please find attached the complete scan of the reply / objections on behalf of Respondent No. 1 in O.A. No. 7/2020 (WZ) filed before Hon'ble National Green Tribunal.

Yours sincerely

Anushree Kapadia

Advocate for Respondent no. 1

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Anushree Kapadia  
Advocate  
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