

**Monthly Performance Report
(HWT-NG100-MPR-49-R0)**

**August 2020
(From 01/08/2020 to 31/08/2020)**

**100 TPD Municipal Solid Waste (MSW) Facility
Calangute, North Goa**

Prepared By
**Hindustan Waste Treatment Pvt. Ltd.
(HWT)**

Submitted To
**Goa Waste Management Corporation (GWMC)
Department of Science & Technology (DS&T)**

Table – 1
Summary of Overall Average Results for August 2020
(As compared to Schedule – 7: Performance Standards, Volume – I of RFP)

Sr. No.	Parameter	Performance Standard As per Schedule – 7	Actual Performance at Plant (Monthly Average)
1.	Number of fractions of recyclables sorted per day from the input mixed waste	Minimum 10 numbers of fractions shall be sorted daily from the input dry waste as received in the facility. The list of fractions are as follows: 1. PET Bottles 2. Mixed Plastic Articles 3. Newspapers / other Paper Material 4. Cardboard 5. Styrofoam & Thermocol 6. Coconut Shells 7. Clothes 8. Rubber Articles 9. Metal Articles & Cans 10. E-waste Articles and any Hazardous Waste	More than 10 numbers of fractions are being sorted daily from the input dry waste as received in the facility. The list of fractions are as follows: 1. Glass 2. Aluminium 3. Metal 4. Tetra Pack 5. Hard Plastic 6. PET 7. Mixed Plastic 8. Styrofoam + Thermocol 9. Cloth + Rags + Textile 10. Leather + Rexine + Rubber 11. Paper + Cardboard 12. Coconut Shells
2.	Quantum of reject/residues to be sent to the landfill after processing. No organic fraction shall be disposed in the landfill.	Maximum 10% of inert of the total input waste as received in the facility (in TPD).	Input waste to the Plant is 78.04 TPD . Quantum of Inert is 0.42 TPD which is < 10% of the Total Input Waste as received in the Facility. No Organic Waste has been disposed in the Sanitary Landfill Facility.
3.	Electricity generation in the Plant	Minimum electricity to be generated in the plant shall be 0.40 MW per 100 tons of input wet biodegradable waste as received in the Facility (in TPD).	Electricity generation is 0.46 MW/100 MT of Input Biodegradable Waste as received in the Facility (in TPD).
4.	Biogas Flaring System	The Biogas Flaring System shall strictly be used only in case of emergency and not as a routine practice.	Biogas is being flared strictly, only under emergency and not as a routine practice. The average running time of Biogas Flaring System is 0.00 hours/day .

Sr. No.	Parameter	Performance Standard As per Schedule – 7	Actual Performance at Plant (Monthly Average)										
5.	Discharge of treated effluent conforming to regulatory norms	Effluent Treatment Plant shall be operated under all conditions.	Effluent Treatment Plant is being operated continuously and is meeting all statutory conditions. The Treated Effluent Characteristics are as follows: <table border="1" data-bbox="1032 520 1435 730"> <tr> <td>pH</td> <td>7.10</td> </tr> <tr> <td>BOD</td> <td>7 mg/l</td> </tr> <tr> <td>COD</td> <td>75 mg/l</td> </tr> <tr> <td>TSS</td> <td>8 mg/l</td> </tr> <tr> <td>TDS</td> <td>1,613 mg/l</td> </tr> </table>	pH	7.10	BOD	7 mg/l	COD	75 mg/l	TSS	8 mg/l	TDS	1,613 mg/l
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TSS	8 mg/l												
TDS	1,613 mg/l												
6.	General Housekeeping, hygienic conditions, cleanliness, safety norms, adequate manpower, treatment methodology for plant operation & maintenance and storage conditions in the plant.	Minimum housekeeping, safety norms and cleanliness conditions shall be maintained at all times as per the Bid Document requirement.	<ul style="list-style-type: none"> • High standard of Housekeeping, Cleanliness and Safety are being maintained at all times at the Plant. • Adequate manpower has been deployed in all shifts. • Also, the treatment methodology is being followed properly and proper storage conditions have been maintained in the Plant. 										

Table – 1: Summary of Average Results for August 2020

100 TPD Municipal Solid Waste (MSW) Facility at Calangute, North Goa

#	Plant Performance Data: August 2020		
Sr. No.	Content	Month	Signature
1	Input Waste Composition	From 01.08.2020 To 31.08.2020	
2	Recyclables		
3	Electricity Generation		
4	Biogas Flare		
5	Effluent Treatment Plant		
6	Inert		
7	Housekeeping		

100 TPD Municipal Solid Waste (MSW) Facility at Calangute, North Goa

1 WASTE:																								
Sr. No.	Description	Unit	1-Aug	2-Aug	3-Aug	4-Aug	5-Aug	6-Aug	7-Aug	Weekly Average 1-7	8-Aug	9-Aug	10-Aug	11-Aug	12-Aug	13-Aug	14-Aug	Weekly Average 8-14	15-Aug	16-Aug	17-Aug	18-Aug		
1.1 Input Waste:																								
1	Type 1: Dry Waste	TPD	32.75	26.94	34.47	38.40	31.34	35.56	34.91	33.48	43.87%	37.73	25.82	44.25	41.78	36.77	32.88	43.83	37.58	45.87%	29.49	26.43	43.43	41.56
2	Type 2: Wet Waste	TPD	39.27	23.50	43.39	40.94	40.96	41.07	38.43	38.22	50.08%	39.56	37.72	43.11	41.98	41.67	39.42	34.22	39.67	48.42%	40.34	35.35	45.01	37.59
3	Type 3: Mixed Waste	TPD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00	0.00	0.00
4	Type 4: Tree Waste	TPD	7.54	5.51	1.12	5.42	2.87	6.71	3.15	4.62	6.05%	3.68	5.14	6.18	3.93	7.91	2.77	3.14	4.68	5.71%	1.21	2.05	4.46	2.07
5	Total.....(1)+(2)+(3)+(4)	TPD	79.56	55.95	78.98	84.76	75.17	83.34	76.49	76.32	100.00%	80.97	68.68	93.54	87.69	86.35	75.07	81.19	81.93	100.00%	71.04	63.83	92.90	81.22

Note:
 1 Type-I: Dry Waste: This has 25-30% Organic and 70-75% Inorganic.
 2 Type-II: Wet Waste: This has 65-70% Organic and 30-35%
 3 Type-I: Mixed Waste: This has 45-50% Organic and 50-55% Inorganic.

Sr. No.	Description	Unit	1-Aug	2-Aug	3-Aug	4-Aug	5-Aug	6-Aug	7-Aug	Weekly Average 1-7	8-Aug	9-Aug	10-Aug	11-Aug	12-Aug	13-Aug	14-Aug	Weekly Average 8-14	15-Aug	16-Aug	17-Aug	18-Aug		
1.2 Output Products:																								
1	Organic Fraction	TPD	34.61	22.72	37.79	37.02	37.58	37.32	34.81	34.55	45.27%	37.38	32.89	40.56	38.74	37.17	35.02	33.83	36.51	44.57%	35.77	31.32	41.90	37.46
2	Inorganic Fraction:																							
	Recyclables	TPD	5.33	3.49	5.61	5.51	5.39	5.59	5.05	5.14	6.73%	6.10	4.45	6.49	6.06	5.54	5.58	5.90	5.73	7.00%	5.30	4.49	6.31	5.53
	RDF	TPD	30.98	23.03	33.52	35.17	28.32	32.87	32.27	30.88	40.46%	32.85	24.22	39.23	37.56	33.67	30.48	37.23	33.60	41.02%	26.17	24.97	36.99	33.89
	Bulking Material	TPD	1.10	0.80	0.94	1.06	0.82	0.84	1.21	0.97	1.27%	0.97	0.94	1.08	1.40	0.93	0.89	1.04	1.04	1.27%	1.03	0.99	1.37	1.23
	Inert	TPD	0.00	0.41	0.00	0.57	0.19	0.00	0.00	0.17	0.22%	0.00	1.04	0.00	0.00	1.13	0.33	0.00	0.36	0.44%	1.56	0.00	1.86	1.03
3	Tree Waste	TPD	7.54	5.51	1.12	5.42	2.87	6.71	3.15	4.62	6.05%	3.68	5.14	6.18	3.93	7.91	2.77	3.14	4.68	5.71%	1.21	2.05	4.46	2.07
	Total.....(1)+(2)+(3)	TPD	79.56	55.95	78.98	84.76	75.17	83.34	76.49	76.32	100%	80.97	68.68	93.54	87.69	86.35	75.07	81.19	81.93	100%	71.04	63.83	92.90	81.22

2 RECYCLABLES:																						
Sr. No.	Description	Unit	1-Aug	2-Aug	3-Aug	4-Aug	5-Aug	6-Aug	7-Aug	Weekly Average 1-7	8-Aug	9-Aug	10-Aug	11-Aug	12-Aug	13-Aug	14-Aug	Weekly Average 8-14	15-Aug	16-Aug	17-Aug	18-Aug
1	Glass	Kg	72	66	117	103	87	92	88	89	93	76	105	84	94	87	86	89	91	93	124	119
2	Aluminum	Kg	58	25	78	48	43	77	44	53	62	57	61	75	63	72	62	65	63	37	44	63
3	Metal	Kg	144	81	148	135	123	123	139	128	124	121	131	159	118	123	140	131	119	111	159	127
4	Tetra Pack	Kg	50	40	62	79	43	77	73	61	54	44	61	67	55	36	47	52	56	62	62	55
5	Hard Plastic	Kg	72	55	125	103	80	146	73	93	147	70	175	109	86	116	86	113	126	80	159	127
6	PET	Kg	86	66	125	95	80	138	110	100	131	127	157	168	157	123	148	144	112	86	97	127
7	Mixed Plastic	Kg	4,797	3,117	4,913	4,911	4,866	4,881	4,452	4,562	5,410	3,914	5,722	5,361	4,918	4,967	5,253	5,078	4,665	3,991	5,607	4,852
8	Thermocol + Styrofoam	Kg	50	35	39	40	72	61	73	53	77	44	79	42	47	58	78	61	70	31	62	63
9	Cloth + Rags + Textiles	Kg	432	504	771	643	600	506	425	554	541	445	594	427	588	390	570	508	377	618	778	491
10	Leather + Rexine + Rubber	Kg	720	252	553	674	470	529	491	527	727	388	708	704	431	470	476	558	677	568	654	689
11	Paper + Cardboard	Kg	432	343	537	492	434	460	499	457	541	381	577	561	471	484	500	502	447	432	610	538
12	Coconut	Kg	670	454	405	571	383	383	711	511	425	559	507	838	463	405	593	541	587	562	761	697

Note:
 1 Item No. 9 (Cloth + Rags + Textiles) and 10 (Leather + Rexine + Rubber) are sent to Cement Plants as RDF.
 2 Item No. 11 (Paper + Cardboard) and 12 (Coconut) are used as Bulking Material in Composting.

3 DISPOSAL OF INERT:																						
Sr. No.	Description	Unit	1-Aug	2-Aug	3-Aug	4-Aug	5-Aug	6-Aug	7-Aug	Weekly Average 1-7	8-Aug	9-Aug	10-Aug	11-Aug	12-Aug	13-Aug	14-Aug	Weekly Average 8-14	15-Aug	16-Aug	17-Aug	18-Aug
1 As per Tender: Maximum 10% of Inerts of the Total Input Waste (excluding Mulched Tree Waste) as received in the Facility.																						
2	Input Waste	TPD	79.56	55.95	78.98	84.76	75.17	83.34	76.49	76.32	80.97	68.68	93.54	87.69	86.35	75.07	81.19	81.93	71.04	63.83	92.90	81.22
3	Inert Fraction	TPD	0.00	0.41	0.00	0.57	0.19	0.00	0.00	0.17	0.00	1.04	0.00	0.00	1.13	0.33	0.00	0.36	1.56	0.00	1.86	1.03
4	% of Total Input Waste.....(3) ÷ (2)	%	0.00%	0.73%	0.00%	0.67%	0.25%	0.00%	0.00%	0.24%	0.00%	1.51%	0.00%	0.00%	1.31%	0.44%	0.00%	0.47%	2.20%	0.00%	2.00%	1.27%

4 ELECTRICITY GENERATION:																						
Sr. No.	Description	Unit	1-Aug	2-Aug	3-Aug	4-Aug	5-Aug	6-Aug	7-Aug	Weekly Average 1-7	8-Aug	9-Aug	10-Aug	11-Aug	12-Aug	13-Aug	14-Aug	Weekly Average 8-14	15-Aug	16-Aug	17-Aug	18-Aug
3.1 Biogas Gensets:																						
1	Biogas Genset-I: Running Time	hr/day	5.28	3.65	5.44	3.41	4.91	8.99	4.14	5.12	10.71	9.42	8.58	14.43	23.42	11.87	14.55	13.28	4.51	5.65	8.24	11.15
2	Biogas Genset-I: Biogas Consumption	Nm ³ /day	449	252	392	263	407	755	348	409	964	829	660	1,342	1,827	866	1,266	1,108	424	384	717	840
3	Biogas Genset-I: Energy Generation	kW.hr/day	700	350	650	420	660	1,140	550	639	1,620	1,360	1,050	2,000	2,850	1,360	2,140	1,769	700	540	1,090	1,180
4	Biogas Genset-II: Running Time	hr/day	22.55	23.45	23.55	22.40	22.25	22.85	23.10	22.88	19.50	23.75	23.90	19.15	14.10	18.40	15.70	19.21	22.40	22.00	24.00	22.80
5	Biogas Genset-II: Biogas Consumption	Nm ³ /day	1,889	1,874	2,048	1,955	1,921	1,856	1,906	1,921	1,445	1,923	1,972	1,536	986	1,455	1,168	1,498	1,821	1,683	1,956	1,840
6	Biogas Genset-II: Energy Generation	kW.hr/day	3,400	3,320	3,830	3,700	3,500	3,140	3,390	3,469	2,390	3,300	3,530	2,690	1,530	2,580	2,010	2,576	3,400	3,020	3,490	3,190
7	Total Biogas Consumption = (2)+(5)	Nm ³ /day	2,338	2,125	2,439	2,217	2,329	2,611	2,254	2,330	2,410	2,753	2,632	2,879	2,813	2,321	2,435	2,606	2,245	2,067	2,673	2,680
8	Total Energy Generation = (3)+(6)	kW.hr/day	4,100	3,670	4,480	4,120	4,160	4,280	3,940	4,107	4,010	4,660	4,580	4,690	4,380	3,940	4,150	4,344	4,100	3,560	4,580	4,370

100 TPD Municipal Solid Waste (MSW) Facility at Calangute, North Goa

Sr. No.	Description	Unit	1-Aug	2-Aug	3-Aug	4-Aug	5-Aug	6-Aug	7-Aug	Weekly Average 1-7	8-Aug	9-Aug	10-Aug	11-Aug	12-Aug	13-Aug	14-Aug	Weekly Average 8-14	15-Aug	16-Aug	17-Aug	18-Aug
3.2 Electricity Generation:																						
1	As per Tender: Minimum electricity to be generated in the plant shall be 0.4 MW per 100 tons of Input Biodegradable Waste as received in the Facility.	MW/100 MT	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
2	Biodegradable Waste = 1.2.2	TPD	39.27	23.50	43.39	40.94	40.96	41.07	38.43	38.22	39.56	37.72	43.11	41.98	41.67	39.42	34.22	39.67	40.34	35.35	45.01	37.59
3	Guaranteed Electricity Generation = (3.2.2 x 3.2.1) ÷ 100	kW	0.16	0.09	0.17	0.16	0.16	0.16	0.15	0.15	0.16	0.15	0.17	0.17	0.17	0.16	0.14	0.16	0.16	0.14	0.18	0.15
4	Guaranteed Electricity Generation = 3.2.3 x 24 x 1000	kW.hr/day	3,770	2,256	4,165	3,930	3,932	3,943	3,689	3,669	3,798	3,621	4,139	4,030	4,000	3,784	3,285	3,808	3,873	3,394	4,321	3,609
5	Available Electricity Generation = (A2 ÷ 24) + (A4 ÷ 24)	kW	171	153	187	172	173	178	164	171	167	194	191	195	183	164	173	181	171	148	191	182
6	Available Electricity Generation = 3.2.5 ÷ 100	MW/100 MT	0.44	0.65	0.43	0.42	0.42	0.43	0.43	0.46	0.42	0.51	0.44	0.47	0.44	0.42	0.51	0.46	0.42	0.42	0.42	0.48

5 BIOGAS FLARE:																						
Sr. No.	Description	Unit	1-Aug	2-Aug	3-Aug	4-Aug	5-Aug	6-Aug	7-Aug	Weekly Average 1-7	8-Aug	9-Aug	10-Aug	11-Aug	12-Aug	13-Aug	14-Aug	Weekly Average 8-14	15-Aug	16-Aug	17-Aug	18-Aug
1	Operation Time	hr/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	Biogas Flared	Nm ³ /day	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6 DIGESTERS:																						
Sr. No.	Description	Unit	1-Aug	2-Aug	3-Aug	4-Aug	5-Aug	6-Aug	7-Aug	Weekly Average 1-7	8-Aug	9-Aug	10-Aug	11-Aug	12-Aug	13-Aug	14-Aug	Weekly Average 8-14	15-Aug	16-Aug	17-Aug	18-Aug
5.1 Digester-I: Front End																						
1	pH	---	7.69	7.66	7.69	7.70	7.57	7.69	7.64	7.66	7.68	7.70	7.71	7.64	7.66	7.67	7.62	7.67	7.68	7.66	7.60	7.58
2	TSS	ppm	32,488	33,598	33,288	34,572	37,321	37,321	37,292	35,126	36,831	36,478	37,456	32,136	33,592	33,428	35,148	35,010	33,664	34,524	32,779	33,567
3	VSS	ppm	21,034	22,015	21,045	24,805	26,460	26,460	27,564	24,198	26,046	25,468	26,912	20,804	21,433	22,450	22,180	23,613	24,658	24,573	21,051	23,489
4	Total Alkalinity	ppm as CaCO ₃	7,825	7,750	7,750	7,825	7,700	7,750	7,850	7,779	7,900	7,850	7,850	7,825	7,725	7,825	7,925	7,843	7,900	7,750	7,825	7,900
5	VFA	ppm as HAC	1,502	1,502	1,419	1,502	1,668	1,502	1,585	1,526	1,502	1,419	1,502	1,502	1,585	1,502	1,585	1,514	1,668	1,502	1,585	1,668
5.2 Digester-I: Back End																						
1	pH	---	7.74	7.68	7.72	7.75	7.62	7.68	7.70	7.70	7.70	7.69	7.74	7.68	7.69	7.69	7.67	7.69	7.60	7.62	7.62	7.61
2	TSS	ppm	33,024	34,568	32,632	36,797	36,403	36,403	35,107	34,991	35,368	33,288	36,500	32,901	32,657	34,892	34,978	34,369	36,844	35,468	33,345	34,288
3	VSS	ppm	20,048	23,744	22,008	26,868	26,478	26,478	25,592	24,459	24,904	21,045	28,052	21,461	23,956	21,356	17,527	22,614	26,167	24,368	21,427	22,018
4	Total Alkalinity	ppm as CaCO ₃	7,975	7,650	7,925	7,975	7,850	7,950	7,975	7,900	8,050	7,750	8,000	7,975	7,900	7,975	8,100	7,964	7,750	7,750	7,975	7,975
5	VFA	ppm as HAC	1,253	1,419	1,170	1,087	1,502	1,502	1,419	1,336	1,336	1,419	1,253	1,336	1,502	1,336	1,419	1,372	1,585	1,502	1,365	1,419
5.3 Buffer Tank: Front End																						
1	pH	---	7.80	7.70	7.79	7.77	7.72	7.75	7.75	7.75	7.72	7.81	7.82	7.70	7.74	7.71	7.73	7.75	7.72	7.66	7.70	7.62
2	TSS	ppm	30,958	31,498	31,246	30,083	31,377	31,377	30,162	30,957	29,886	31,008	30,202	30,137	31,018	31,237	30,439	30,561	34,566	33,412	31,498	32,367
3	VSS	ppm	19,683	20,658	19,634	21,532	21,868	21,867	21,185	20,918	20,134	20,106	28,286	18,668	19,653	20,963	20,183	21,142	22,345	20,015	20,658	20,338
4	Total Alkalinity	ppm as CaCO ₃	8,450	8,325	8,550	8,600	8,425	8,375	8,600	8,475	8,350	8,475	8,375	8,400	8,400	8,300	8,425	8,389	7,975	7,775	8,325	8,250
5	VFA	ppm as HAC	838	838	755	838	921	672	838	814	672	755	838	672	755	755	921	767	1,336	1,419	838	1,004
5.4 Buffer Tank: Back End																						
1	pH	---	7.81	7.72	7.82	7.79	7.74	7.77	7.78	7.78	7.77	7.79	7.79	7.75	7.77	7.74	7.76	7.77	7.82	7.70	7.72	7.60
2	TSS	ppm	31,008	31,377	31,488	29,054	30,755	30,755	30,051	30,641	29,019	31,246	32,705	30,579	33,470	30,468	30,558	31,149	30,202	30,137	31,067	33,049
3	VSS	ppm	20,106	21,868	18,096	20,319	21,303	21,303	21,141	20,591	19,513	19,634	22,991	19,803	20,737	19,664	19,520	20,266	28,286	18,668	19,843	19,968
4	Total Alkalinity	ppm as CaCO ₃	8,475	8,425	8,475	8,425	8,350	8,500	8,675	8,475	8,450	8,550	8,500	8,500	8,500	8,400	8,500	8,486	8,375	8,400	8,425	8,175
5	VFA	ppm as HAC	755	921	755	755	838	755	755	791	589	755	672	672	838	755	838	731	838	672	755	1,004
5.5 Digester-II: Front End																						
1	pH	---	7.65	7.62	7.63	7.69	7.55	7.60	7.62	7.62	7.64	7.62	7.67	7.60	7.61	7.60	7.60	7.62	7.62	7.59	7.58	7.54
2	TSS	ppm	35,312	34,596	34,560	36,573	37,146	37,146	37,422	36,108	39,867	34,596	37,401	35,336	36,964	36,299	30,473	35,848	36,524	35,678	38,313	35,657
3	VSS	ppm	23,967	22,799	20,693	27,392	27,534	27,534	27,933	25,407	28,953	22,799	27,425	22,559	24,859	24,522	18,573	24,241	23,561	23,487	25,052	21,365
4	Total Alkalinity	ppm as CaCO ₃	7,750	7,825	7,650	7,725	7,550	7,575	7,675	7,679	7,725	7,825	7,700	7,675	7,550	7,700	7,725	7,700	7,675	7,675	7,600	7,700
5	VFA	ppm as HAC	1,585	1,419	1,585	1,585	1,751	1,585	1,668	1,597	1,585	1,419	1,668	1,668	1,668	1,585	1,668	1,609	1,502	1,585	1,751	1,668
5.6 Digester-II: Back End																						
1	pH	---	7.74	7.58	7.68	7.73	7.58	7.63	7.66	7.66	7.65	7.58	7.69	7.62	7.64	7.62	7.64	7.63	7.67	7.60	7.59	7.58
2	TSS	ppm	34,876	35,939	35,966	35,056	35,939	35,939	35,986	35,672	37,201	35,939	36,973	34,596	35,618	35,384	32,442	35,450	37,401	35,336	39,977	34,569
3	VSS	ppm	22,392	26,460	22,387	25,805	26,602	26,602	26,675	25,275	27,229	26,460	27,355	22,799	23,684	23,632	20,437	24,514	27,425	22,559	26,620	23,007
4	Total Alkalinity	ppm as CaCO ₃	7,925	7,675	7,850	8,000	7,750	7,725	7,825	7,821	7,925	7,675	7,875	7,825	7,660	7,875	7,825	7,809	7,700	7,675	7,675	7,750
5	VFA	ppm as HAC	1,419	1,336	1,336	1,155	1,585	1,419	1,502	1,393	1,585	1,336	1,336	1,419	1,502	1,419	1,502	1,443	1,668	1,668	1,502	1,253

7 EFFLUENT TREATMENT PLANT:																						
Sr. No.	Description	Unit	1-Aug	2-Aug	3-Aug	4-Aug	5-Aug	6-Aug	7-Aug	Weekly Average 1-7	8-Aug	9-Aug	10-Aug	11-Aug	12-Aug	13-Aug	14-Aug	Weekly Average 8-14	15-Aug	16-Aug	17-Aug	18-Aug
6.1 Raw Effluent Quality:																						
1	Flow	m ³ /day	64.05	51.00	42.27	40.87	35.54	59.93	63.11	50.97	57.52	58.79	50.64	63.34	46.36	53.34	56.09	55.15	21.01	15.21	53.52	44.71
2	pH	---	6.30	6.86	6.16	7.24	6.06	6.49	6.41	6.50	6.69	7.12	7.92	7.66	7.32	6.64	7.18	7.22	6.70	7.19	6.76	6.30
3	Biochemical Oxygen Demand (BOD ₅)	mg/l	2,111	1,555	1,601	2,037	2,180	1,793	2,022	1,900	2,499	2,314	2,411	2,222	2,484	1,837	2,083	2,264	1,960	1,635	1,863	2,324
4	Chemical Oxygen Demand (COD)	mg/l	6,586	3,732	3,554	5,500	7,129	5,738	6,834	5,582	6,198	7,521	7,546	6,111	8,396	6,227	5,937	6,848	6,350	4,660	5,514	7,274
5	Total Suspended Solids (TSS)	mg/l	4,665	3,701	3,970	5,052	5,167	2,761	4,529	4,264	4,048	4,744	5,955	3,822	4,993	3,950	3,729	4,463	4,234	3,123	4,005	4,857
6	Total Dissolve Solids (TDS)	mg/l	1,386	1,580	1,777	1,565	1,519	1,452	1,577	1,551	1,431	1,784	1,317	1,774	1,799	1,308	1,501	1,55				

100 TPD Municipal Solid Waste (MSW) Facility at Calangute, North Goa

Sr. No.	Description	Unit	1-Aug	2-Aug	3-Aug	4-Aug	5-Aug	6-Aug	7-Aug	Weekly Average 1-7	8-Aug	9-Aug	10-Aug	11-Aug	12-Aug	13-Aug	14-Aug	Weekly Average 8-14	15-Aug	16-Aug	17-Aug	18-Aug
6.2 Treated Effluent Quality:																						
1	pH	---	6.87	7.46	7.31	6.65	7.16	6.68	6.77	6.99	7.38	6.74	7.12	7.07	6.64	6.78	7.15	6.98	6.59	7.66	7.57	7.79
2	Biochemical Oxygen Demand (BOD5)	mg/l	7	5	9	5	6	6	5	6	5	7	8	9	6	9	7	7	6	5	9	6
3	Chemical Oxygen Demand (COD)	mg/l	68	53	56	80	61	69	78	66	56	86	68	76	78	75	83	75	70	92	60	66
4	Total Suspended Solids (TSS)	mg/l	8	6	10	6	7	7	6	7	6	8	9	10	7	10	8	8	7	6	10	7
5	Total Dissolve Solids (TDS)	mg/l	1,541	1,713	1,924	1,525	1,755	1,779	1,567	1,686	1,502	1,867	1,804	1,519	1,447	1,470	1,729	1,620	1,667	1,496	1,623	1,487

8 HOUSEKEEPING:																						
Sr. No.	Description	Unit	1-Aug	2-Aug	3-Aug	4-Aug	5-Aug	6-Aug	7-Aug	Weekly Average 1-7	8-Aug	9-Aug	10-Aug	11-Aug	12-Aug	13-Aug	14-Aug	Weekly Average 8-14	15-Aug	16-Aug	17-Aug	18-Aug
1	Hygienic Conditions	---	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted
2	Cleanliness	---	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted
3	Manpower Deployed	---	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted
4	Safety Norms	---	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted
5	Treatment Methodology	---	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted
6	Storage Conditions	---	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted

100 TPD Municipal Solid Waste (MSW) Facility at Calangute, North Goa

1 WASTE:																							
Sr. No.	Description	Unit	19-Aug	20-Aug	21-Aug	Weekly Average 15-21		22-Aug	23-Aug	24-Aug	25-Aug	26-Aug	27-Aug	28-Aug	Weekly Average 22-28		29-Aug	30-Aug	31-Aug	Weekly Average 29-31		Monthly Average 1-31	
1.1 Input Waste:																							
1	Type 1: Dry Waste	TPD	34.64	41.03	42.02	36.94	46.34%	31.06	26.14	34.89	37.98	31.13	32.62	40.46	33.47	44.30%	39.34	25.00	42.27	35.54	47.46%	35.38	45.34%
2	Type 2: Wet Waste	TPD	40.40	40.77	44.97	40.63	50.97%	34.67	39.10	46.60	41.53	43.15	43.05	39.13	41.03	54.31%	40.20	34.25	42.08	38.84	51.88%	39.79	50.98%
3	Type 3: Mixed Waste	TPD	0.00	0.00	0.00	0.00	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%	
4	Type 4: Tree Waste	TPD	0.98	4.02	0.18	2.14	2.68%	1.64	1.10	0.14	2.19	0.12	0.75	1.39	1.05	1.39%	0.93	0.50	0.06	0.50	0.66%	2.87	3.67%
5	Total.....(1)+(2)+(3)+(4)	TPD	76.02	85.82	87.17	79.71	100.00%	67.37	66.34	81.63	81.70	74.40	76.42	80.98	75.55	100.00%	80.47	59.75	84.41	74.88	100.00%	78.04	100.00%

- # Note:
 1 Type-I: Dry Waste: This has 25-30% Organic and 70-75% Inorganic.
 2 Type-II: Wet Waste: This has 65-70% Organic and 30-35%
 3 Type-I: Mixed Waste: This has 45-50% Organic and 50-55% Inorganic.

Sr. No.	Description	Unit	19-Aug	20-Aug	21-Aug	Weekly Average 15-21		22-Aug	23-Aug	24-Aug	25-Aug	26-Aug	27-Aug	28-Aug	Weekly Average 22-28		29-Aug	30-Aug	31-Aug	Weekly Average 29-31		Monthly Average 1-31	
1.2 Output Products:																							
1	Organic Fraction	TPD	35.73	39.25	42.91	37.76	47.37%	31.54	34.92	39.75	39.06	38.66	38.25	38.01	37.17	49.20%	37.58	29.75	40.79	36.04	48.13%	36.45	46.71%
2	Inorganic Fraction:																						
	Recyclables	TPD	5.18	6.15	6.13	5.59	7.01%	4.97	4.48	5.72	5.56	5.66	5.82	6.23	5.49	7.27%	5.84	4.37	5.87	5.36	7.16%	5.47	7.02%
	RDF	TPD	33.17	35.20	35.46	32.27	40.48%	28.22	24.80	34.33	33.95	29.14	30.72	34.30	30.78	40.74%	33.27	24.27	35.56	31.04	41.45%	31.80	40.75%
	Bulking Material	TPD	0.96	1.20	1.03	1.12	1.40%	1.01	1.04	1.11	0.95	0.82	0.89	1.05	0.98	1.30%	1.14	0.85	1.10	1.03	1.37%	1.03	1.32%
	Inert	TPD	0.00	0.00	1.46	0.84	1.06%	0.00	0.00	0.58	0.00	0.00	0.00	0.00	0.08	0.11%	1.71	0.00	1.03	0.91	1.22%	0.42	0.53%
3	Tree Waste	TPD	0.98	4.02	0.18	2.14	2.68%	1.64	1.10	0.14	2.19	0.12	0.75	1.39	1.05	1.39%	0.93	0.50	0.06	0.50	0.66%	2.87	3.67%
	Total.....(1)+(2)+(3)	TPD	76.02	85.82	87.17	79.71	100%	67.37	66.34	81.63	81.70	74.40	76.42	80.98	75.55	100%	80.47	59.75	84.41	74.88	100%	78.04	100%

2 RECYCLABLES:																							
Sr. No.	Description	Unit	19-Aug	20-Aug	21-Aug	Weekly Average 15-21		22-Aug	23-Aug	24-Aug	25-Aug	26-Aug	27-Aug	28-Aug	Weekly Average 22-28		29-Aug	30-Aug	31-Aug	Weekly Average 29-31		Monthly Average 1-31	
1	Glass	Kg	83	98	87	99		92	91	122	111	97	76	96	98		80	71	84	78		92	
2	Aluminum	Kg	60	41	70	54		53	33	65	40	67	38	56	50		56	53	67	59		56	
3	Metal	Kg	135	164	157	139		131	104	147	127	149	114	143	131		143	95	160	133		132	
4	Tetra Pack	Kg	45	65	87	62		33	52	57	56	74	61	64	57		48	41	59	49		57	
5	Hard Plastic	Kg	98	139	87	117		112	124	163	135	104	76	127	120		111	101	118	110		111	
6	PET	Kg	98	164	87	110		99	65	130	103	104	98	159	108		119	113	84	105		115	
7	Mixed Plastic	Kg	4,585	5,423	5,489	4,945		4,384	3,960	4,971	4,930	5,021	5,282	5,539	4,870		5,218	3,857	5,230	4,768		4,854	
8	Thermocol + Styrofoam	Kg	75	57	70	61		66	46	65	56	45	76	48	57		64	41	67	57		58	
9	Cloth + Rags + Textiles	Kg	420	769	609	580		493	496	660	716	490	477	748	583		501	450	742	564		557	
10	Leather + Rexine + Rubber	Kg	420	679	452	591		532	522	758	525	669	666	549	603		748	397	835	660		578	
11	Paper + Cardboard	Kg	488	524	539	511		394	437	538	501	446	507	501	475		485	373	540	466		484	
12	Coconut	Kg	473	679	487	607		611	607	570	445	379	378	549	506		652	480	557	563		543	

- # Note:
 1 Item No. 9 (Cloth + Rags + Textiles) and 10 (Leather + Rexine + Rubber) are sent to Cement Plants as RDF.
 2 Item No. 11 (Paper + Cardboard) and 12 (Coconut) are used as Bulking Material in Composting.

3 DISPOSAL OF INERT:																							
Sr. No.	Description	Unit	19-Aug	20-Aug	21-Aug	Weekly Average 15-21		22-Aug	23-Aug	24-Aug	25-Aug	26-Aug	27-Aug	28-Aug	Weekly Average 22-28		29-Aug	30-Aug	31-Aug	Weekly Average 29-31		Monthly Average 1-31	
1 As per Tender: Maximum 10% of Inerts of the Total Input Waste (excluding Mulched Tree Waste) as received in the Facility.																							
2	Input Waste	TPD	76.02	85.82	87.17	79.71		67.37	66.34	81.63	81.70	74.40	76.42	80.98	75.55		80.47	59.75	84.41	74.88		78.04	
3	Inert Fraction	TPD	0.00	0.00	1.46	0.84		0.00	0.00	0.58	0.00	0.00	0.00	0.00	0.08		1.71	0.00	1.03	0.91		0.42	
4	% of Total Input Waste.....(3) ÷ (2)	%	0.00%	0.00%	1.67%	1.02%		0.00%	0.00%	0.71%	0.00%	0.00%	0.00%	0.00%	0.10%		2.13%	0.00%	1.22%	1.12%		0.53%	

4 ELECTRICITY GENERATION:																							
Sr. No.	Description	Unit	19-Aug	20-Aug	21-Aug	Weekly Average 15-21		22-Aug	23-Aug	24-Aug	25-Aug	26-Aug	27-Aug	28-Aug	Weekly Average 22-28		29-Aug	30-Aug	31-Aug	Weekly Average 29-31		Monthly Average 1-31	
3.1 Biogas Gensets:																							
1	Biogas Genset-I: Running Time	hr/day	13.05	7.10	15.85	9.36		1.14	5.40	9.76	4.56	11.46	15.25	19.70	9.61		10.95	18.95	18.46	16.12		10.00	
2	Biogas Genset-I: Biogas Consumption	Nm ³ /day	1,023	520	1,237	735		84	427	908	429	859	1,336	1,849	842		877	1,538	1,422	1,279		822	
3	Biogas Genset-I: Energy Generation	kW.hr/day	1,530	770	1,850	1,094		140	640	1,480	660	1,220	2,080	3,080	1,328.57		1,360	2,400	2,360	2,040		1,288	
4	Biogas Genset-II: Running Time	hr/day	23.75	23.80	23.80	23.22		23.45	22.45	23.55	23.95	23.55	17.25	23.95	22.59		23.80	23.40	14.40	20.53		21.84	
5	Biogas Genset-II: Biogas Consumption	Nm ³ /day	1,928	1,945	1,879	1,865		1,865	1,861	1,890	1,970	1,892	1,459	2,108	1,863		1,768	1,843	1,095	1,568		1,766	
6	Biogas Genset-II: Energy Generation	kW.hr/day	3,400	3,590	3,270	3,337		3,330	3,460	3,300	3,600	3,260	2,490	3,780	3,317		3,010	3,120	1,900	2,677		3,126	
7	Total Biogas Consumption = (2)+(5)	Nm ³ /day	2,951	2,465	3,115	2,600		1,950	2,288	2,798	2,398	2,751	2,795	3,956	2,705		2,645	3,380	2,517	2,847		2,588	
8	Total Energy Generation = (3)+(6)	kW.hr/day	4,930	4,360	5,120	4,431		3,470	4,100	4,780	4,260	4,480	4,570	6,860	4,646		4,370	5,520	4,260	4,717		4,415	

100 TPD Municipal Solid Waste (MSW) Facility at Calangute, North Goa

Sr. No.	Description	Unit	19-Aug	20-Aug	21-Aug	Weekly Average 15-21	22-Aug	23-Aug	24-Aug	25-Aug	26-Aug	27-Aug	28-Aug	Weekly Average 22-28	29-Aug	30-Aug	31-Aug	Weekly Average 29-31	Monthly Average 1-31
3.2 Electricity Generation:																			
1	As per Tender: Minimum electricity to be generated in the plant shall be 0.4 MW per 100 tons of Input Biodegradable Waste as received in the Facility.	MW/100 MT	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
2	Biodegradable Waste = 1.2.2	TPD	40.40	40.77	44.97	40.63	34.67	39.10	46.60	41.53	43.15	43.05	39.13	41.03	40.20	34.25	42.08	38.84	39.79
3	Guaranteed Electricity Generation = (3.2.2 x 3.2.1) ÷ 100	kW	0.16	0.16	0.18	0.16	0.14	0.16	0.19	0.17	0.17	0.17	0.16	0.16	0.16	0.14	0.17	0.16	0.16
4	Guaranteed Electricity Generation = 3.2.3 x 24 x 1000	kW.hr/day	3,878	3,914	4,317	3,901	3,328	3,754	4,474	3,987	4,142	4,133	3,756	3,939	3,859	3,288	4,040	3,729	3,820
5	Available Electricity Generation = (A2 ÷ 24) + (A4 ÷ 24)	kW	205	182	213	185	145	171	199	178	187	190	286	194	182	230	178	197	184
6	Available Electricity Generation = 3.2.5 ÷ 100	MW/100 MT	0.51	0.45	0.47	0.45	0.42	0.44	0.43	0.43	0.43	0.44	0.73	0.47	0.45	0.67	0.42	0.52	0.46

5 BIOGAS FLARE:																			
Sr. No.	Description	Unit	19-Aug	20-Aug	21-Aug	Weekly Average 15-21	22-Aug	23-Aug	24-Aug	25-Aug	26-Aug	27-Aug	28-Aug	Weekly Average 22-28	29-Aug	30-Aug	31-Aug	Weekly Average 29-31	Monthly Average 1-31
1	Operation Time	hr/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	Biogas Flared	Nm ³ /day	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0

6 DIGESTERS:																			
Sr. No.	Description	Unit	19-Aug	20-Aug	21-Aug	Weekly Average 15-21	22-Aug	23-Aug	24-Aug	25-Aug	26-Aug	27-Aug	28-Aug	Weekly Average 22-28	29-Aug	30-Aug	31-Aug	Weekly Average 29-31	Monthly Average 1-31
5.1 Digester-I: Front End																			
1	pH	---	7.60	7.62	7.61	7.62	7.63	7.65	7.69	7.62	7.60	7.68	7.62	7.64	7.68	7.68	7.60	7.65	7.65
2	TSS	ppm	35,146	34,107	32,136	33,703	33,458	37,456	37,292	35,437	36,844	34,531	35,468	35,784	34,568	33,578	33,567	34,583	34,841
3	VSS	ppm	26,460	24,592	20,804	23,661	25,635	24,357	27,460	23,795	26,167	23,854	24,368	25,091	23,744	24,368	23,489	24,152	24,143
4	Total Alkalinity	ppm as CaCO ₃	7,700	7,725	7,650	7,779	7,750	7,675	7,700	7,725	7,750	7,700	7,750	7,721	7,650	7,750	7,675	7,708	7,766
5	VFA	ppm as HAC	1,419	1,502	1,502	1,549	1,419	1,502	1,585	1,502	1,585	1,502	1,502	1,514	1,419	1,502	1,419	1,476	1,516
5.2 Digester-I: Back End																			
1	pH	---	7.63	7.65	7.64	7.62	7.66	7.68	7.72	7.66	7.69	7.71	7.68	7.69	7.71	7.61	7.62	7.67	7.67
2	TSS	ppm	35,403	35,292	34,901	35,077	33,592	34,568	35,107	34,606	36,767	34,259	36,522	35,060	37,598	32,136	35,437	35,169	34,933
3	VSS	ppm	25,478	25,564	21,461	23,783	21,433	23,744	25,958	21,954	24,724	22,785	21,355	23,136	24,361	20,804	23,795	22,706	23,340
4	Total Alkalinity	ppm as CaCO ₃	7,750	7,850	7,825	7,839	7,725	7,650	7,850	7,850	7,875	7,925	7,975	7,836	7,850	7,650	7,900	7,856	7,879
5	VFA	ppm as HAC	1,253	1,336	1,253	1,388	1,585	1,419	1,336	1,336	1,336	1,419	1,419	1,407	1,419	1,502	1,419	1,431	1,387
5.3 Buffer Tank: Front End																			
1	pH	---	7.63	7.64	7.62	7.66	7.75	7.69	7.71	7.68	7.67	7.72	7.66	7.70	7.69	7.67	7.64	7.68	7.71
2	TSS	ppm	32,377	33,162	33,137	32,931	30,579	34,261	33,162	32,535	35,572	35,328	33,412	33,550	33,275	34,755	34,051	34,062	26,222
3	VSS	ppm	22,867	22,185	22,668	21,582	19,803	23,318	21,185	21,536	22,139	22,100	20,015	21,442	21,357	21,303	21,141	21,226	21,262
4	Total Alkalinity	ppm as CaCO ₃	7,925	7,875	7,725	7,979	8,500	8,000	7,725	7,700	7,675	7,725	7,775	7,871	7,725	8,075	7,725	7,816	8,106
5	VFA	ppm as HAC	1,253	1,253	1,336	1,206	672	1,419	1,502	1,253	1,336	1,502	1,419	1,300	1,502	1,087	1,502	1,385	1,095
5.4 Buffer Tank: Back End																			
1	pH	---	7.67	7.65	7.65	7.69	7.62	7.68	7.74	7.71	7.69	7.69	7.69	7.69	7.72	7.66	7.68	7.69	7.72
2	TSS	ppm	34,755	33,051	32,579	32,120	32,367	32,535	34,051	35,567	35,663	34,261	34,589	34,148	34,566	33,412	32,579	33,926	32,397
3	VSS	ppm	21,303	22,141	20,803	21,573	20,338	21,536	21,141	20,361	25,385	23,318	22,049	22,018	22,345	20,015	20,803	21,758	21,241
4	Total Alkalinity	ppm as CaCO ₃	8,075	7,925	7,750	8,161	8,250	7,700	7,825	7,750	7,725	8,000	7,875	7,875	7,975	7,775	7,850	7,892	8,178
5	VFA	ppm as HAC	1,087	1,253	1,253	980	1,004	1,253	1,336	1,336	1,419	1,419	1,336	1,300	1,336	1,419	1,253	1,344	1,029
5.5 Digester-II: Front End																			
1	pH	---	7.55	7.55	7.54	7.57	7.62	7.64	7.63	7.58	7.57	7.55	7.58	7.60	7.60	7.57	7.54	7.57	7.60
2	TSS	ppm	35,403	36,422	34,336	36,048	34,596	35,618	37,422	36,030	36,383	35,843	37,455	36,192	36,589	33,396	36,383	35,976	36,034
3	VSS	ppm	27,534	27,933	20,559	24,213	22,799	23,684	27,933	21,728	25,234	24,318	24,188	24,269	23,455	20,799	25,234	23,711	24,368
4	Total Alkalinity	ppm as CaCO ₃	7,550	7,575	7,500	7,611	7,825	7,660	7,575	7,575	7,525	7,425	7,550	7,591	7,500	7,675	7,550	7,548	7,626
5	VFA	ppm as HAC	1,668	1,585	1,668	1,632	1,419	1,502	1,668	1,668	1,668	1,668	1,585	1,597	1,668	1,419	1,668	1,601	1,607
5.6 Digester-II: Back End																			
1	pH	---	7.58	7.59	7.57	7.60	7.60	7.61	7.68	7.59	7.62	7.57	7.62	7.61	7.59	7.63	7.58	7.60	7.62
2	TSS	ppm	35,939	35,986	33,396	36,086	35,336	36,964	35,986	35,175	37,661	35,504	36,524	36,164	35,678	37,422	33,396	35,781	35,831
3	VSS	ppm	26,460	26,675	20,799	24,792	22,559	24,859	26,675	22,203	26,875	23,086	23,561	24,260	23,487	27,933	20,799	23,854	24,539
4	Total Alkalinity	ppm as CaCO ₃	7,675	7,725	7,675	7,696	7,675	7,550	7,725	7,700	7,675	7,575	7,675	7,654	7,675	7,575	7,575	7,621	7,720
5	VFA	ppm as HAC	1,336	1,336	1,419	1,455	1,668	1,668	1,419	1,502	1,419	1,502	1,502	1,526	1,585	1,668	1,502	1,547	1,473

7 EFFLUENT TREATMENT PLANT:																			
Sr. No.	Description	Unit	19-Aug	20-Aug	21-Aug	Weekly Average 15-21	22-Aug	23-Aug	24-Aug	25-Aug	26-Aug	27-Aug	28-Aug	Weekly Average 22-28	29-Aug	30-Aug	31-Aug	Weekly Average 29-31	Monthly Average 1-31
6.1 Raw Effluent Quality:																			
1	Flow	m ³ /day	54.90	44.89	47.05	40.18	46.28	22.90	55.57	53.35	49.30	46.79	46.83	45.86	54.99	63.63	47.16	55.26	49.49
2	pH	---	6.40	6.95	6.10	6.63	7.21	6.11	7.39	6.65	6.40	6.04	7.66	6.78	6.49	6.56	6.35	6.47	6.72
3	Biochemical Oxygen Demand (BOD ₅)	mg/l	2,159	2,089	1,759	1,970	2,317	2,498	2,446	2,200	1,667	1,621	1,534	2,040	2,449	1,864	1,956	2,090	2,053
4	Chemical Oxygen Demand (COD)	mg/l	6,866	6,643	5,048	6,051	6,789	6,170	6,311	7,062	5,018	3,355	4,234	5,563	6,220	5,928	4,577	5,575	5,924
5	Total Suspended Solids (TSS)	mg/l	3,886	4,658	3,483	4,035	4,286	5,446	5,846	5,038	4,034	2,756	3,206	4,373	5,314	4,064	3,560	4,313	4,290
6	Total Dissolve Solids (TDS)	mg/l	1,682	1,460	1,494	1,530	1,333	1,408	1,561	1,408	1,346	1,360	1,633	1,436	1,736	1,754	1,631	1,707	1,557

100 TPD Municipal Solid Waste (MSW) Facility at Calangute, North Goa

Sr. No.	Description	Unit	19-Aug	20-Aug	21-Aug	Weekly Average 15-21	22-Aug	23-Aug	24-Aug	25-Aug	26-Aug	27-Aug	28-Aug	Weekly Average 22-28	29-Aug	30-Aug	31-Aug	Weekly Average 29-31	Monthly Average 1-31
6.2 Treated Effluent Quality:																			
1	pH	---	7.51	7.76	7.11	7.43	6.74	7.89	6.65	6.59	6.86	6.81	6.63	6.88	7.96	7.07	6.64	7.22	7.10
2	Biochemical Oxygen Demand (BOD5)	mg/l	6	5	7	6	9	6	8	7	5	6	6	7	8	9	6	8	7
3	Chemical Oxygen Demand (COD)	mg/l	85	93	93	80	55	91	82	60	78	63	90	74	92	76	78	82	75
4	Total Suspended Solids (TSS)	mg/l	7	6	8	7	10	7	9	8	6	7	7	8	9	10	7	9	8
5	Total Dissolve Solids (TDS)	mg/l	1,800	1,679	1,658	1,630	1,400	1,422	1,670	1,619	1,413	1,442	1,715	1,526	1,840	1,519	1,447	1,602	1,613

8 HOUSEKEEPING:																			
Sr. No.	Description	Unit	19-Aug	20-Aug	21-Aug	Weekly Average 15-21	22-Aug	23-Aug	24-Aug	25-Aug	26-Aug	27-Aug	28-Aug	Weekly Average 22-28	29-Aug	30-Aug	31-Aug	Weekly Average 29-31	Monthly Average 1-31
1	Hygienic Conditions	---	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted
2	Cleanliness	---	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted
3	Manpower Deployed	---	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted
4	Safety Norms	---	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted
5	Treatment Methodology	---	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted
6	Storage Conditions	---	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted	Accepted