Phone: 03592 - 281913
Fax No. : 03592 -281913
Email: spcbsikkim@gmail.com

STATE POLLUTION CONTROL BOARD-SIKKIM
FORESTS & ENVIRONMENT DEPARTMENT
GOVERNMENT OF SIKKIM
GANGTOK -737102

File No. 936/SPCB/2848 Dated: 15/11/2019

To,

The Registrar,
National Green Tribunal,
Principal Bench,
Farid kote House,
New Delhi.

Sub: Original Application No. 736/2019 Rohit Kumar Vs. State of Sikkim. Submission of joint Compliance Report.

Sir,

Please find enclosed herewith factual report with reference to O.A. No. 736/2019 in the matter of Rohit Kumar Vs. State of Sikkim, regarding illegal operation of drug manufacturing companies at Samardung Busty, Karek Block Namthang ilaka South Sikkim as per the order of the Hon'ble National Green Tribunal Dated: 18/09/2019.

The report has been prepared by a joint committee comprising of Central Pollution Control Board, Regional Directorate, Shillong and State Pollution Control Board-Sikkim.

For kind information and further necessary action, please.

Thanking you,

Yours faithfully,

(Dr.Gopal Pradhan)
Member Secretary,
State Pollution Control Board-Sikkim

Dr. Gopal Pradhan
Member Secretary
State Pollution Control Board
Forest Env. & W/L Mangt. Deptt
Govt. of Sikkim, Gangtok

STATE POLLUTION CONTROL BOARD
GOVT OF SIKKIM, GANGTOK

INTRODUCTION

On September 18, 2019 Hon'ble National Green Tribunal had issued direction to the State Pollution Control Board, Sikkim and the Central Pollution Control Board, Shillong to look into the mater, take appropriate action in accordance with law and furnish factual report and action taken report in the matter based on the complaint by Sh. Rohit Kumar, with respect to OA No. 736/2019 in the grievance letter against illegal operation of drug manufacturing companies in Samardung Basti, Karek Block, Namthang Laka, South Sikkim – 737126 resulting in the polluting of Teesta River.

The following Units are operating on the Southern Bank of Teesta River:

1. Alkem Health Sciences Unit I
2. Alkem Health Sciences Unit II
3. Alkem Health Sciences Unit III
4. Alembic Pharmaceutical Limited
5. Ashwariya HealthCare
6. Catchet Pharmaceuticals Pvt. Ltd.
7. Marc Life Sciences
8. Intas Pharmaceuticals Limited Unit II
9. Salas Pharmaceuticals Pvt. Ltd.

** Catchet Pharmaceuticals has been taken over by Alkem Health Science, and will be renamed as Alkem Health Science Units 5 upon completion of formalities with the various State Departments. The name Catchet Pharmaceuticals is being maintained in this report.*

As per the direction of the Hon'ble NGT, the three visits have been conducted in the identified area. The details of the visits are as under:

Visit 1:

The first visit was from October 1, 2019 to October 3, 2019. The primary purpose of the first visit was to sample effluents from the outlet of the Effluent Treatment Plants and to sample water from the River Teesta. The visiting team comprised of the following:

Name and Designation	Board
Ritesh Prasad Gurung, Scientist D	Central Pollution Control Board, Shillong
Kusum Gurung, Joint Director	State Pollution Control Board, Sikkim
B. K. Chettri, Sr. Scientific Officer	State Pollution Control Board, Sikkim
K. Z. Bhutia, Asstt. Scientific Officer	State Pollution Control Board, Sikkim

Visit 2:

The second visit to the Units was from October 21, 2019 to October 26, 2016. The primary purpose of the second visit was to conduct bio-assay test in the units. The visiting team comprised of the following:

Name and Designation	Board
Ritesh Prasad Gurung, Scientist D	Central Pollution Control Board, Shillong
Samir R. Gurung, Jr. Scientific Assistant	State Pollution Control Board, Sikkim
Yangten G. Bhutia, Lab. Assistant	State Pollution Control Board, Sikkim

Visit 3:

The third visit to the Units was from November 5, 2019 to November 10, 2019. The primary purpose of the visit was to conduct stack emission monitoring of the boilers installed in the Units. The visiting team comprised of the following:

Name and Designation	Board
Ritesh Prasad Gurung, Scientist D	Central Pollution Control Board, Shillong
Kusum Gurung, Joint Director	State Pollution Control Board, Sikkim
W. J. Kharbhih, SRF	Central Pollution Control Board, Shillong

Detailed inspection of the Units is provided in Annexure 1 (A to I).

Legality of Existing Pharmaceutical Units

The visiting teams had inspected the documents pertaining to the Consents granted to the Units under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution), 1981. The details of the Consent to Operate under the said acts are as under:

Unit	Consent Under Air and Water Acts
Alkem Health Sciences Unit I	Valid Up to March 31, 2020
Alkem Health Sciences Unit II	Valid Up to March 31, 2020
Alkem Health Sciences Unit III	Valid Up to March 31, 2020
Alembic Pharmaceutical Limited	Valid Up to March 31, 2020
Ashwariya HealthCare	Valid Up to March 31, 2020
Catchet Pharmaceuticals Pvt. Ltd	Valid Up to March 31, 2020
Intas Pharmaceuticals Limited Unit II	Valid Up to March 31, 2020
Marc Life Sciences	Valid Up to March 31, 2020
Salas Pharmaceuticals Pvt. Ltd.	Valid Up to March 31, 2020

The visiting teams had inspected the documents pertaining to the Authorization under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016. The details of the Authorization under the said Rule are as under:

Unit	Authorization under HOW Rules
Alkem Health Sciences Unit I	Valid Up to March 31, 2020
Alkem Health Sciences Unit II	Valid Up to March 31, 2020
Alkem Health Sciences Unit III	Valid Up to March 31, 2020
Alembic Pharmaceutical Limited	Valid Up to March 31, 2020
Ashwariya HealthCare	Valid Up to March 31, 2020
Catchet Pharmaceuticals Pvt. Ltd	Valid Up to March 31, 2020
Intas Pharmaceuticals Limited Unit II	Valid Up to March 31, 2020
Marc Life Sciences	Valid Up to March 31, 2020
Salas Pharmaceuticals Pvt. Ltd.	Valid Up to March 31, 2020

Effluent Treatment Plants (ETP) in the Pharmaceutical Units

During the visits by the State Pollution Control Board, Sikkim and the Central Pollution Control Board, Shillong, it was observed that the treated effluents have been utilized mainly for the purpose of gardening. Some portion of the treated water is also being utilized in cooling tower. As such during normal conditions there is no direct discharge of effluents from the Pharmaceutical Units to Teesta River.

It was also observed during the visits that the Pharmaceutical Units had installed Continuous Online Monitoring System for monitoring of effluent parameters such as Bio-Chemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Potential of Hydrogen (pH), Total Suspended Solid (TSS) and Dissolved Oxygen (DO). Flow meter has also been installed to assess the amount of effluent discharge.

Third party analysis of the parameters as prescribed in the respective Consents and Authorization are also being done by the Units on a quarterly basis.

From the report of analysis of the prescribed parameters as sampled from the Effluent Treatment Plant (ETP) Outlet, it is seen that sufficient treatment is being provided to the effluent; all parameters were found to be within the prescribed limit. The report of the analysis is provided in Annexure 2 (A to I).

Hazardous Waste Management

It was observed during the joint visits that Hazardous wastes generated in kept in closed rooms under lock and key. The Hazardous Wastes are first collected in Polybags and then in PVC containers. The storage rooms have adequate protection from rain water and sunlight.

These wastes are forwarded to TSFD called West Bengal Waste Management, Haldia, West Bengal, which is approved by State Pollution Control Board, Sikkim. The transportation is done with the completion of 90 days.

Stack Emission

During the visit stack emissions were monitored by the Central Pollution Control Board, Shillong. It was seen that the seen from the analysis report that all stack emissions were within the stipulated limit (for Particulate Matter) as prescribed by the State Pollution Control Board, Shillong in the Terms and Condition under the Consent to Operate. Report of the stack emission is provided in Annexure 3.

Water Quality of Teesta River

Water sample from Teesta River was collected at seven (7) different locations. The locations were identified with a rationale to assess any change in the quality of Teesta River because of the prevalence of pharmaceutical units on the Samardung Bank. In case of close proximity of the Units, the sampling was down on the upstream of the most upstream Unit and downstream of the most downstream Units. The locations are as follows:

Station Name	Location
Station 1	Upstream of Alembic Pharmaceutical Limited
Station 2	Downstream of Alkem Health Sciences Unit III
Station 3	Upstream of Catchet Pharmaceuticals
Station 4	Downstream of Ashwariya Healthcare
Station 5	Downstream of Marc Life Sciences
Station 6	Upstream of Salas Pharmaceuticals Pvt. Ltd.
Station 7	Downstream of Salas Pharmaceuticals Pvt. Ltd.

The analysis report of the water quality of Teesta River is provided in Annexure 4(A-G)

Other Sources of Effluents draining to Teesta River

Apart from the afore-mentioned industries Teesta River also receives runoff from settlements on the Southern Bank. This is because of the steep gradient on this side of the river. During the water sampling of the Teesta River on September 26, 2019, eight (8) run-off streams draining to the Teesta River was observed.

During the visit it was also observed that the opposite bank there are ten (10) Units of operating and Effluent Treatment Plant (ETP) and two (2) Units operating Sewage Treatment Plants (ETP). The details of these Units are as under:

Sl. No.	Unit Name	ETP/ STP
1	Aristo Pharmaceuticals	ETP
2	Torrent Pharmaceutical Limited Unit III	ETP
3	Zydus Healthcare Unit I	ETP
4	Intas Pharmaceuticals Limited Unit I	ETP
5	SBL Private Limited	ETP
6	Mayell and Fraser Private Limited	ETP
7	Savi Health Sciences	ETP
8	Mount Distilleries	ETP
9	Shangrila Distilleries	ETP
10	CG Food	ETP
11	Sikkim Manipal Institute of Technology	STP
12	Titan Watch Company	STP

Discharge of these Units to Teesta River was not covered during the inspections.

Remarks

From the analysis reports, as well as the document verification, it was seen that all Pharmaceutical Units are in compliance of the following environmental Acts and Rules

- Water (Prevention and Control of Pollution) Act, 1974
- Air (Prevention and Control of Pollution) Act, 1981
- Hazardous and Other Waste (Management and Transboundary) Movement Rules, 2016

From the analysis report of Teesta River it is seen that the water quality changes very little as it flows downstream with respect to all the parameters. These changes may be attributed to any of the sources on either bank of the Teesta River. The exact source could not be identified during the visits because of limited time; a detailed study will be required for source appropriation.

Annexure 1(A and B):

Detailed report of Alkem Health Science Unit I and Unit II

*Note: Alkem Health Science Unit I and Alkem Health Sciences Unit II are housed within the sample complex. The effluents of both the Units are treated together in the same ETP.

<table>
<tr><td>1</td><td>Name and Complete Postal Address of the Industry</td><td colspan="4">M/S ALKEM HEALTH SCIENCE
(A Unit of Alkem Laboratories Ltd.)&

M/S ALKEM HEALTH SCIENCE, Unit-2
(A Unit of Alkem Laboratories Ltd.)
Samardung, South Sikkim.</td></tr>
<tr><td>2</td><td>Tel./Fax/E-mail Nos.</td><td colspan="4">8170005291</td></tr>
<tr><td>3</td><td>Name of the Treatment Units in the System</td><td>Sr. No.</td><td>Unit</td><td>Size</td><td>Nos.</td></tr>
<tr><td></td><td></td><td>1</td><td>Inlet collection tank RCC</td><td>1.6m x 1.6m x 2m swd +0.5m F.B</td><td>1</td></tr>
<tr><td></td><td></td><td>2</td><td>Oil & Grease trap RCC</td><td>4.85m x 1.6m x 1.9m SWD + 0.6m F.B</td><td>1</td></tr>
<tr><td></td><td></td><td>3</td><td>Equalization Tank</td><td>5.8m x 5.8m x 2.5m SWD + 0.8m F.B</td><td>2</td></tr>
<tr><td></td><td></td><td>4</td><td>Primary Tank settling tank RCC</td><td>2.7m x 2.1m x 2.1m SWD + 0.3 F.B</td><td>1</td></tr>
<tr><td></td><td></td><td>5</td><td>1 st stage aeration tank RCC</td><td>9.6m x 4.8m x 4.5m + 0.3m F.B</td><td>1</td></tr>
<tr><td></td><td></td><td>6</td><td>Secondary settling tank RCC</td><td>3.5m x 2.5m x 2.15m SWD 0.3m F.B + 1.75 m H.B</td><td>1</td></tr>
<tr><td></td><td></td><td>7</td><td>2nd stage aeration tank RCC</td><td>6.85m x 3.5m x 5.0m SWD + 0.5m F.B</td><td>1</td></tr>
<tr><td></td><td></td><td>8</td><td>Final Settling tank RCC</td><td>3.5m x 2.7m x 2.15m + 0.3m F.B + 1.75m H.B</td><td>1</td></tr>
<tr><td></td><td></td><td>9</td><td>Intermediate Collection tank RCC</td><td>4.8m x 2.7m x 2.0m SWD + 0.5m F.B</td><td>1</td></tr>
<tr><td></td><td></td><td>10</td><td>Final Collection Tank RCC</td><td>7.25m x 2.7m x 3.5m SWD + 0.3m FB</td><td>1</td></tr>
<tr><td></td><td></td><td>11</td><td>Dual Media Filter</td><td>06 m3/ Hr</td><td>1</td></tr>
<tr><td></td><td></td><td>12</td><td>Ultra Filtration</td><td>10 M3/ Hr</td><td>1</td></tr>
<tr><td></td><td></td><td>13</td><td>RO Stage 03 stage</td><td>200 KLD</td><td>1</td></tr>
<tr><td></td><td></td><td>14</td><td>Final collection Tank</td><td>10 M3</td><td>1</td></tr>
<tr><td></td><td></td><td>15</td><td>MEE</td><td>12 m3/Day</td><td>1</td></tr>
<tr><td>4</td><td>Adequacy of the ETP</td><td colspan="4">Adequate, as seen from the analysis report</td></tr>
<tr><td>5</td><td>Status of Consent under the Water Act,1974</td><td colspan="4"><table><tr><td></td><td>Alkem Unit 1</td><td>Alkem Unit 2</td></tr><tr><td>Date of Issue</td><td>October 3, 2019</td><td>October 3, 2019</td></tr><tr><td>Issue Letter No.</td><td>151/ SPCB</td><td>152/SPCB</td></tr><tr><td>Valid Up to</td><td>March 31, 2020</td><td>March 31, 2020</td></tr></table></td></tr>
<tr><td>6</td><td>Name of the Emission Control Units in the System</td><td colspan="4">Fuel used for the boiler is Light Diesel Oil
Stack height attached to the boiler is 32 m</td></tr>
<tr><td>7</td><td>Adequacy of the ECS</td><td colspan="4">Adequate as per the analysis report</td></tr>
<tr><td>8</td><td>Operational Status</td><td colspan="4">In Operation</td></tr>
<tr><td>9</td><td>Status of the Consent under the Air Act, 1981</td><td colspan="4"><table><tr><td></td><td>Unit 1</td><td>Unit 2</td></tr><tr><td>Date of Issue</td><td>October 3, 2019</td><td>October 3, 2019</td></tr><tr><td>Issue Letter No.</td><td>151/ SPCB</td><td>152/SPCB</td></tr><tr><td>Valid Up to</td><td>March 31, 2020</td><td>March 31, 2020</td></tr></table></td></tr>
<tr><td>10</td><td>Adequacy of the Disposal Facility</td><td colspan="4">• Adequate</td></tr>
</table>

<table>
<tr><td></td><td>(Adequate/Not adequate)</td><td>

The disposal is being done through authorized TSDF in West Bengal
The storage of Hazardous Waste being done in a secure shed under lock and key. There is adequate protection from rain and sunlight.
Sent to TSDF Vendor M/s. West Bengal Waste Management Ltd. Haldia for safe disposal.

</td></tr>
<tr><td>11</td><td>Status of the Authorisation under the H&O Waste Rules, 2016</td><td>
<table>
<tr><td></td><td>Unit 1</td><td>Unit 2</td></tr>
<tr><td>Date of Issue</td><td>July 27, 2019</td><td>June 28, 2019</td></tr>
<tr><td>Issue Letter No.</td><td>3111/ SPCB/1696</td><td>651/SPCB/795</td></tr>
<tr><td>Valid Up to</td><td>March 31, 2020</td><td>March 31, 2020</td></tr>
</table>
</td></tr>
<tr><td>12</td><td>Overall Observations</td><td>

Alkem Unit I and Unit II is housed within the sample complex.
Facilities such as ETP and boiler are shared by the units.
The production capacities of the Units are as under:
Production capacity as per submitted letter to SPCB Gangtok.

<table>
<tr><td>Product</td><td>Capacity of Unit I (Cr./ Annum)</td><td>Actual production of Unit I for 2018-19 (Cr./ Annum)</td></tr>
<tr><td>Tablet</td><td>120</td><td>22.3</td></tr>
<tr><td>Dry Syrup</td><td>12</td><td>2.51</td></tr>
<tr><td>Injections</td><td>13.5</td><td>10.89</td></tr>
</table>
<table>
<tr><td>Product</td><td>Capacity of Unit II (Cr./ Annum)</td><td>Actual production of Unit Ii for 2018-19 (Cr./ Annum)</td></tr>
<tr><td>Beta Tablet</td><td>90</td><td>16.15</td></tr>
<tr><td>Beta dry syrup</td><td>12</td><td>2.32</td></tr>
<tr><td>WFI FFS</td><td>24.55</td><td>22.42</td></tr>
<tr><td>G Block Tablets</td><td>780</td><td>130.37</td></tr>
<tr><td>G Block Capsules</td><td>300</td><td>95.22</td></tr>
</table>

The average daily effluent generation is about 65 KLD
The entire treated effluent being utilised in cooling tower having capacity of 2400 TON of refrigeration, in boiler as boiler feed and gardening use.
Online Continuous Effluent Monitoring system has been installed in the ETP
The ETP has been upgraded in 2017 by commissioning and installation of RO, UF, DMF and MEE to achieve Zero Liquid Discharge of entire treated effluent for use in cooling tower water makeup, boiler feed and gardening.
The total area under green belt is 4.75 Acre, which makes up about 35% of the total area.

</td></tr>
</table>

Detailed Report of Alkem Health Sciences Unit 3 **Annexure 1C**

1	Name and Complete Postal Address of the Industry	M/S ALKEM HEALTH SCIENCE, Unit-3 (A Unit of Alkem Laboratories Ltd.) Samardung, South Sikkim.			
2	Tel./Fax/E-mail Nos.	8170005291			
3	Name of the Treatment Units in the System	Sr. No.	Unit	Size	Nos.
		1	Inlet collection tank cum Oil & Grease trap	2.6 x 2.0 x 1.5m SWD + 2.4m FB	1
		2	Equalization Tank	2.6 X 2.6 x 2.5 m SWD + 0.4m FB	2
		3	Flash Mixer	0.7 x 0.7 x 1.0 SWD + 0.3m FB	2
		4	Flocculator tank	0.8 x 0.8 x 1.0m SWD + 0.3m FB	1
		5	Primary settling tank	1.5 x 1.2 x 1.95m SWD + 0.3m FB 0.75m HB + 0.3m SB	1
		6	Primary settling tank	1.3 x 1.0 x 1.95m SWD + 0.3m FB 0.65m x HB + .03m SB	1
		7	Aeration tank	5.0 x 2.5 x 3.0m SWD + 0.3m FB	1
		8	Secondary settling tank	1.5 x 1.2 x 1.95m SWD + 0.3m FB 0.75m Hb + 0.3m SB	1
		9	Aeration tank- MBR Module	5.4 x 2.8 x 2.5m SWD + 0.3m FB	1
		10	Ext. SDB Used as Final collection tank	2.3 x 3.0m x 1.5m SWD + 0.3m FB	1
		11	Ext. SDB Used as Sludge collection sump	1.5 x 1.5 x 1.5m SWD + 0.3m FB	
		12	SDB area used for volute press	2.3 x 3x 1.5m SWD + 0.3m FB	
4	Adequacy of the ETP	Adequate as seen from the analysis report			
5	Status of Consent under the Water Act,1974	Issued on October 3, 2019 Issued vide: 153/SPCB Valid up to March 31, 2020			
6	Name of the Emission Control Units in the System	Fuel used for the boiler is LDO Stack height attached to the boiler is 32 m			
7	Adequacy of the ECS	Adequate as per the analysis report			
8	Status of the Consent under the Air Act, 1981	Issued on October 3, 2019 Issued vide: 153/SPCB Valid up to March 31, 2020			
9	Type of Disposal Facility Existing	Sent to TSDF Vendor for safe disposal. (Agreement Attached)			
10	Adequacy of the Disposal Facility	• Adequate • The storage of Hazardous Waste being done in a secure shed under lock and key. There is adequate protection from rain and sunlight. • The disposal is being done through authorized			

Detailed Report of Alembic Pharmaceuticals Limited **Annexure 1(D)**

1	Name and Complete Postal Address of the Industry	Alembic Pharmaceuticals Limited Karek Block, Samardung Basti, South Sikkim, PIN-737126
2	Tel./Fax/E-mail Nos.	9800897401/02/03, vinod.kgoyal@alembic.co.in
3	Name of the Treatment Units in the System	1. The Capacity of Effluent Treatment Plant is 200 KLD. 2. The various components of ETP of Alembic Pharmaceuticals Ltd are as under:

Sr. No.	Treatment Unit/Equipment	Description
1	Bar Screen Chamber	0.5M(W)X1.5M(L)X0.2 MLD +0.3 M FB
2	Oil & Grease Trap	5.5M X 1.0 M X 2.2 MLD +0.5 M FB
3	Belt Oil Skimmer	80 MM(W) 2 M(L)
4	Equalization Tank(2 Nos)	6MX2MX2.4MLD+0.3M FB
5	Aeration Grid for equalization Tank	As per tank geometry 40M@50MM
6	Flash Mixer	0.75MX1.5MX0.75MLD+0.2M FB
7	Flocculator	1.5MX1.25MX2MLD+0.3M FB
8	Primary Settler	2MX2Mx2.3MLD+0.4M FB
9	Aeration Tank(8 Nos)	6MX2MX2.4MLD+0.3 M FB
10	Aeration Tank Blowers	700 m3/hrX.045 kg/cm2
11	Air Diffusers	Fixed Type Fine Bubble
12	Secondary Settler	4MX2.0X2.2MLD+0.5M FB
13	Tertiary Flash Mixer	1.25MX1.25MX1.5M
14	Tertiary Flocculator	1.25MX1.25MX1.9M
15	Tertiary Settler	4.0MX2.0MX1.8M
16	Sludge Recycle Tank	8m3/hrX1.2 MLC
17	Holding Tank	5MX2MX1.7M
18	Multi Grade Filter	1.0 DiaX1.8M Ht
19	Activated Carbon Filter	1.0 DiaX1.8M Ht
20	Filter Press	1.0 m3/hr
21	Decanter	1.0 m3/hr
22	Dual Media Filter	0.6 DIAX1.340 M Ht.
23	R. O System	100 KLD feed.

3. The average daily effluent generated is about 80-90 KLD.
4. Site is using organic Nutrients.(EM Solution /Fermsept)
5. Sludge dewatering system is available for dewatering of generated sludge.
6. The treated Effluent is being used for utility applications – Cooling towers, Wash Areas etc

<table>
<tr><td>4</td><td>Adequacy of the ETP</td><td>Adequate as seen from the analysis report</td></tr>
<tr><td>5</td><td>Status of Consent under the Water Act,1974</td><td>Valid up to March 31, 2020</td></tr>
<tr><td>6</td><td>Name of the Emission Control Units in the System</td><td>Stack height of 30 m
Fuel used is HSD</td></tr>
<tr><td>7</td><td>Adequacy of the ECS</td><td>Adequateas seen from the third party analysis report (As per Annexure - III) and also as per the analysis report of the CPCB</td></tr>
<tr><td>8</td><td>Status of the Consent under the Air Act, 1981</td><td>Valid up to March 31, 2020</td></tr>
<tr><td>9</td><td>Type of Disposal Facility Existing</td><td>• Dedicated Storage area with lock and key arrangement.
• Sludge generated is dispose off to TSDF (West Bengal Waste Management Limited, Haldia).
• Adequate protection against Sun and Rain.</td></tr>
<tr><td>10</td><td>Adequacy of the Disposal Facility (</td><td>Adequate</td></tr>
<tr><td>11</td><td>Status of the Authorisation under the H&O Waste Rules, 2016</td><td>Valid up to March 31, 2020</td></tr>
<tr><td>12</td><td>Overall Observations</td><td>The ETP final treated water is being reused in utility operations etc.

The annual Plant capacity is as under
<table>
<tr><th>Year</th><th>Dosage</th><th>Installed Capacity</th><th>Actual</th></tr>
<tr><td rowspan="3">(2018-19)</td><td>Tablet</td><td>144CR/ANN</td><td>93.279 CR/ANN</td></tr>
<tr><td>Capsule</td><td>24CR/ANN</td><td>3.878 CR/ANN</td></tr>
<tr><td>Liquid Area</td><td>4253KL/ANN</td><td>3380KL/ANN</td></tr>
</table>
Approximately 33 % of the area is under green belt
All finished goods are transferred to Central Warehouse in Silliguri, West Bengal for further distribution.</td></tr>
</table>

Detailed Report of Aishwarya Health Care

Annexure 1(E)

<table>
<tr><td>1</td><td>Name and Complete Postal Address of the Industry</td><td>AISHWARYA HEALTHCARE ,SIKKIM
Lower Kabrey Block,Jholungey,Mamring Samardung Road,Namchi,South Sikkim, Pin No: 737137</td></tr>
<tr><td>2</td><td>Tel./Fax/E-mail Nos.</td><td>Ph. No.: 8145471584,Email:prem@aishwaryagroup.co.in</td></tr>
<tr><td>3</td><td>Name of the Treatment Units in the System</td><td>Aerobic Biological ETP cum STP consists of physical, chemical and Biological treatment.
Effluent Treatment Plant capacity of 50 KLD
35 KLD for waste water and 15 KLD for Sewage.
Details of Tanks and capacity:
<table>
<tr><th>Sl. No.</th><th>Description</th><th>Size:</th><th>Qty</th></tr>
<tr><td>1</td><td>Oil & Grease Cum Collection tank</td><td>2.5 x1.3 x1.3SWD +2.7m FB</td><td>01</td></tr>
<tr><td>2</td><td>Equalization tanks</td><td>2.5 x2.5 x2.5 SWD +0.3m FB</td><td>02</td></tr>
<tr><td>3</td><td>Primary settler tank</td><td>1.3 X 1.0 X 1.95 +WD +0.65 HB +0.25 SB</td><td>01</td></tr>
<tr><td>4</td><td>Aeration tank</td><td>4.6 x2.3 x3.3SWD 0.5m FB</td><td>01</td></tr>
<tr><td>5</td><td>Secondary settler tank</td><td>1.6 X 1.3 X 1.95 SWD +0.3m FB +0.8HB + 0.25 SB</td><td>01</td></tr>
<tr><td>6</td><td>Intermediate collection Tank</td><td>2000 ltr</td><td>01</td></tr>
<tr><td>7</td><td>Final Collection tank</td><td>10000 ltrs</td><td>01</td></tr>
</table>
<u>Process Flow:</u>
• Combined effluent coming from the factory by gravity is collected in the inlet collection tank for process waste and sewage collected in sewage collection tank.
• Oil and grease separated and effluent water transfer with the help of transfer pump capacity of the pump is 2.5 m3 /hrs. to equalization tank.
• Lime and Alum solution prepared in the 200 liters
• Lime solution dosed in the equalization tank, p H of the effluent measured when pH reached around 9-10.Dosing of the lime solution stopped. For the proper mixing of the effluent continuously air blower of 150 m^3/hrs capacity run.
• Alum dosing done in equalization tank, p H OF Effluent measured and reduced up to 6 -8.
• Poly electrolyte solution dosed for the flocculation
• Effluent continuously mixed with help of the air blower for 1 hrs.
• Effluent water transfer to primary tube settler for the settlement with the help of the pump.
• Over flow of the primary settler tank goes to aeration tank where it get biologically treated.
• Air blower continuously run for the aeration tank, MLSS measured and maintained 2500 ml /1000ML
• Daily Jaggery and Maida added in aeration tank for the growth of micro bacteria in the tank.
• Sewage water directly transfers from the sewage tank to aeration tank with the help of pump.</td></tr>
</table>

		• Over flow of the aeration tank goes to secondary tube settler then it transfer to the Filter feed tank capacity : 2000 liters • Water is transfer to sand filter and activated carbon filter with the help of the pump. • Final treated water is stored HDPE tank of capacity 10 KL • Final treated water is utilized for the gardening work. • Semi solid deposited at primary tube settler and secondary tube settler is transfer to Filter press for the completed water separation. • Sludge collected in the filter press is removed and stored in the hazardous stores Quarterly monitoring of critical parameter (15Nos) done by third party Envirotech East Pvt. Ltd. Last Test performed :07.08.2019 Online monitoring system installation completed at site, User ID and Password to be received from CPCB for the remote monitoring.
4	Adequacy of the ETP	Adequate as seen from the analysis report
5	Status of Consent under the Water Act,1974	Valid up to March 31, 2020
6	Name of the Emission Control Units in the System	Stack height of 30 m High Speed Diesel is used as fuel
7	Adequacy of the ECS	Adequate as seen from the monitoring results
8	Status of the Consent under the Air Act, 1981	Valid up to March 31, 2020
9	Type of Disposal Facility Existing	• Dedicated Hazardous Waste storage room available for the storage. Sludge collected from the Filter press is kept in tight poly bag then in PVC container. • Hazardous waste is forwarded to TSFD called West Bengal Waste Management, Haldia, West Bengal which is approved by Sikkim Pollution control board.
10	Adequacy of the Disposal Facility	Adequate
11	Status of the Authorisation under the H&O Waste Rules, 2016	Valid up to March 31, 2020
12	Overall Observations	Aishwarya healthcare is dealing with manufacturing of tablet, capsule, ointment, dry powder injection, liquid injection and ampule. Company having 12 packing line, out of 12 only 02 line are in operation at present. The installed capacity of the unit is as under:

Sl. No.	Product	Installed Capacity	Present Capacity

		per month	per month
	Tablets	1.2 Cr.	25 Lakhs
	Capsule	1.3 Cr	41 Lakhs
	Ointment	5 Lakhs	0.8 lakhs
	Dry injection	15 Lakhs	4 lakhs
	Liquid injection	10 Lakhs	3.3 Lakhs
	Ampule injection	15 Lakhs	4 lakhs

- About 40% of the area is under green belt
- All of final treated water of ETP is utilized for the gardening work.
- In upcoming days, if Company run in full phase, waste water generation will be increase, for utilization, Treated water will be utilized for the flushing in toilet and washroom and for makeup of Cooling Tower.
- Online monitoring system installation completed

Annexure 1(F)

Detailed Report of Cachet Pharmaceuticals Pvt. Ltd

<table>
<tr><td>1</td><td>Name and Complete Postal Address of the Industry</td><td>M/s Cachet Pharmaceuticals Pvt. Ltd.
Vill.- Jholungay, Lower Kabrey, Block – Namthang, South Sikkim - 737137</td></tr>
<tr><td>2</td><td>Tel./Fax/E-mailNos.</td><td>+ 91 – 7063591112,7477797187</td></tr>
<tr><td>3</td><td>Name of the Treatment Units in the System</td><td>Designof plant is as follows
Raw sewage ---Screening chamber-----Oil & Grease chamber ---- Collection tank ----- Equalization tank--- primary clarifier ---- Aeration tank---- secondary clarifier --- collection tank --- sand filter --- carbon filter --- final storage tank ---gardening purpose. Here Sewage is directly fed to aeration chamber
Before sand filter we doses NaOCL as a disinfectant.

Size of eachtank of ETP as follows
<table>
<tr><th>Sr.No.</th><th>Unit</th><th>Size (m)</th><th>Volume(CUM)</th><th>Qty.</th></tr>
<tr><td>1.</td><td>Screening +Oil & grease chamber</td><td>4.18 x 1.5 x 2.2</td><td>13.79</td><td>1</td></tr>
<tr><td>2.</td><td>Collection tank</td><td>5.3x1.24x2.2 +1.7x2.2x2.2</td><td>22.6</td><td>1</td></tr>
<tr><td>3</td><td>Sewage tank</td><td>3.4 x 2.2 x2.2</td><td>16.4</td><td>1</td></tr>
<tr><td></td><td></td><td>2.08x3.64x3.34</td><td>25</td><td>1</td></tr>
<tr><td>4</td><td>Equalization tank</td><td>2.08x3.64x3.34</td><td>25</td><td>2</td></tr>
<tr><td>5</td><td>Primary settler</td><td>1.6x1.26x1.5</td><td>3.18</td><td>1</td></tr>
<tr><td>6</td><td>Areation chamber</td><td>2.53x1.98x2.53</td><td>12.6</td><td>1</td></tr>
<tr><td>7</td><td>Secondarysettler</td><td>1.98x1.65x1.5</td><td>4.9</td><td>1</td></tr>
<tr><td>8</td><td>surge tank</td><td>Syntax type</td><td>2</td><td>1</td></tr>
<tr><td>9</td><td>Final storage tank</td><td>2.3 x3.7 x1.5</td><td>12.7</td><td>1</td></tr>
</table>
The Unit has also installed online system for monitoring the parameter of treated effluents</td></tr>
<tr><td>4</td><td>Adequacy of the ETP</td><td>Adequate as seen from the analysis result.</td></tr>
<tr><td>5</td><td>Status of Consent under the Water Act,1974</td><td>Authorisation No. – 150 /SPCB
Date of issue – 1/10/2019
Valid up to – 31/03/2020</td></tr>
<tr><td>6</td><td>Name of the Emission Control Units in the System</td><td>The Unit uses high speed diesel as a fuel
Stack height of chimney is 30 meter.</td></tr>
<tr><td>7</td><td>Adequacy of the ECS</td><td>Adequate as seen from the analysis results.</td></tr>
<tr><td>8</td><td>Status of the Consent under the Air Act, 1981</td><td>Authorisation No. – 150 /SPCB
Date of issue – 1/10/2019
Valid up to– 31/03/2020</td></tr>
<tr><td>9</td><td>Hazardous Waste Disposal</td><td>Hazardous wastes are stored in Plastic bags and then in PVC drums in a separate room under lock and key with adequate protection against rainfall and sunlight.

Hazardous waste is transported to West Bengal Waste Management</td></tr>
</table>

		Ltd.Haldia which is Authorized by State Pollution Control Board, Sikkim
10	Adequacy of the Disposal Facility	Adequate The disposal is through a Treatment, Storage and Disposal Facility in Haldia (West Bengal Waste Management Limited). The storage of Hazardous Waste is found to be adequate
	Status of the Authorisation under the H&O Waste Rules, 2016	Authorisation No. –598/spcb/1017 Date of Issue – 25/7/2019 Valid up to ---- 31/03/2020.
	Overall Observations	• Only tablet& oral liquid are being produced • In 2018-19 the Unit produced 2.35 crore liq. Bottle and 1.45crore tablet • The average liquid waste generation is about 20 KLD • All the treated effluent is utilized for the purpose of gardening • The green belt cover around the unit is about 30 %

Annexure 1(G)

Detailed Report of Marc Life Sciences

<table>
<tr><td>1</td><td>Name and Complete Postal Address of the Industry</td><td>Marc Life Sciences Sikkim
Khasra No35 36 409 410
Village Jholungay L- Maneydara South Sikkim</td></tr>
<tr><td>2</td><td>Tel./Fax/E-mail Nos.</td><td>9816047140/ Akhi-36@yahoo.com, marcsikkim@gmail.com</td></tr>
<tr><td>3</td><td>Name of the Treatment Units in the System</td><td>
<table>
<tr><th>SL. NO</th><th>TYPE OF ETP</th><th>CAPACITY / POWER</th><th>DIMENSION</th></tr>
<tr><td>1</td><td>EQUILAZATION TANK</td><td>37500 LTR</td><td>5 M (L) X 2.5 M(W) X 3 M (D)</td></tr>
<tr><td>2</td><td>PRIMARY CLARIFIER</td><td>2000 LTR</td><td>1.75 M (L) X 0.8M (W) X 1.8 M (D)</td></tr>
<tr><td>3</td><td>AERATION TANK</td><td>1500 LTR</td><td>1.6 M (L) X 1.45 M (W) X 2.6 M (D)</td></tr>
<tr><td>4</td><td>DIFFUSER</td><td>1500 LTR</td><td></td></tr>
<tr><td>5</td><td>SECONDARY CLARIFIER</td><td>1500 LTR</td><td>0.9 M (L) X 1.45 M (W) X 2 M (D)</td></tr>
<tr><td>6</td><td>INTERMEDIATE TANK</td><td>500 LTR</td><td>PVC TANK</td></tr>
<tr><td>7</td><td>ACTIVATED CARTON FILTER</td><td>104 (TANK VALUE)</td><td></td></tr>
<tr><td>8</td><td>CHLORINE DOSING TANK</td><td>500 LTR</td><td>PVC TANK</td></tr>
<tr><td>9</td><td>SLUDGE BED</td><td>100 KGS</td><td>1 M (L) X 1 M (W) X 1 M (D)</td></tr>
<tr><td>10</td><td>EFFLUENT FEED PUMP</td><td>1 HP</td><td></td></tr>
<tr><td>11</td><td>AIR BLOWER</td><td>2 HP</td><td></td></tr>
<tr><td>12</td><td>FILTER FEED PUMP</td><td>1 HP</td><td></td></tr>
</table>
</td></tr>
<tr><td>4</td><td>Adequacy of the ETP</td><td>Adequate</td></tr>
<tr><td>5</td><td>Status of Consent under the Water Act,1974</td><td>Issued on October 4, 2019 vide letter No. 161/SPCB.
Consent valid upto March 31, 2020</td></tr>
<tr><td>6</td><td>Name of the Emission Control Units in the System</td><td>Stack height of 30 m
Fuel used is HSD</td></tr>
<tr><td>7</td><td>Adequacy of the ECS</td><td>Adequate</td></tr>
<tr><td>8</td><td>Status of the Consent under the Air Act, 1981</td><td>Issued on October 4, 2019 vide letter No. 161/SPCB. Consent valid up to March 31, 2020</td></tr>
<tr><td>9</td><td>Type of Disposal Facility Existing</td><td>The generated hazardous waste is stored in a cool dry and dark place in 10x8x8 feet room under lock and key. There is adequate protection from rain and sunlight

The average HW generation is about 50kg/ month

The present quantity of HW is 35kg.

Disposed through M/s West Bengal Waste management Limited (Ramky) at</td></tr>
</table>

<table>
<tr><td></td><td></td><td>Jindal tower ,block –A 4th Floor ,21/1A/3, Durga Road , Kolkatta-700017</td></tr>
<tr><td>10</td><td>Adequacy of the Disposal Facility</td><td>Adequate</td></tr>
<tr><td>11</td><td>Status of the Authorisation under H&O Waste Rules, 2016</td><td>Valid up to March 31, 2020</td></tr>
<tr><td>12</td><td>Overall Observations</td><td>The Unit receives raw material from approved vendor for further processing such as granulation compression striping and packing.

The installed capacity of the Unit is as following
<table>
<tr><th>SNo</th><th>Type of product</th><th>Production capacity</th><th>Actual production 2018-2019</th></tr>
<tr><td>1</td><td>Tablet</td><td>195 Million</td><td>23.89 Million</td></tr>
<tr><td>2</td><td>Capsule</td><td>100 Milliom</td><td>5.89 Million</td></tr>
<tr><td>3</td><td>Injection</td><td>20.15 Million</td><td>0.47 Million</td></tr>
</table>
Water is used mainly for cleaning and washing of equipments
The average wastewater generation is less than 1KLD as the manufacturing processes are dry

All the treated effluent is used for gardening purpose; no direct discharge of treated effluent is observed at any location

Online sensors and flow-meter has been has been installed
More than 40% of the area is under greenbelt

The finished products aredispatched to two different locations in UP</td></tr>
</table>

Annexure 1(H)

Detailed Report of Intas Pharmaceuticals Limited

1	Name and Complete Postal Address of the Industry	**Intas Pharmaceuticals Limited Unit II** Samardung Road Kabrey Block-Namthang Elaka South Sikkim Pin- 737132
2	Tel./Fax/E-mail Nos.	9932286000 / 9932287000
3	Name of the Treatment Units in the System	Bar Screen Chamber ($2.5\ m^3$) → Oil & Grease Separator ($3.0\ m^3$) → Equalization ($10.0\ m^3$, 2 nos.) → Flocculation ($2.5\ m^3$) → Primary Clarifier ($10.0\ m^3$) → Aeration ($25.0\ m^3$) → Sec. Clarifier ($12.0\ m^3$) → MGF & ACF → Chlorination → Collection to Final Tank ($8.0\ m^3$) → Transfer to distribution network for reclining
4	Adequacy of the ETP	Adequate as seen from the analysis reports
5	Status of Consent under the Water Act,1974	Consent ref. No. 74/SPCB, dated- 25/07/2019 and valid till 31.03.2020.
6	Name of the Emission Control Units in the System	a) 30 Mtr. height of boiler chimney is installed. b) Only HSD is used as fuel in Boilers. c) Automatic cut off system is there in boilers for safety.
7	Adequacy of the ECS (	Adequate as seen from the analysis report
8	Status of the Consent under the Air Act, 1981	Consent ref. No. 74/SPCB, dated- 25/07/2019 and valid till 31.03.2020.
9	Type of Disposal Facility Existing	Separate & closed lockable storage room is provided for the storage for Hazardous Waste. Through quarterly through TSDF at M/s. **West Bengal Waste Management,** Haldia, Dist. – Purba Medinipur, West Bengal
10	Adequacy of the Disposal Facility	Adequate
11	Status of the Authorisation under the H&O Waste Rules, 2016	Consent ref. No. 166/SPCB/469, dated- 07/06/2019 and valid till 31.03.2020.).
12	Overall Observations	The production capacity of the unit is as under:

Sl. No.	Type of Product	Production per annum
1	Tablets	240 crores
2	Capsules	18 crores

The plant is operating at about 60% production capacity at present.

The entire production process is a dry one and does not require water; water is only used for cleaning of Equipments, in Cooling Tower and for domestic purpose.

There is no chemical reaction in process involved

		and only physical mixing is done in the manufacturing process. Plant do not discharge any treated effluent outside the premises. The treated effluent is used for gardening The treated effluent generated is about 10 to 12 KL per day. 100 % of this treated water is used for gardening which is approximately 40% of total area of Land (approx 1.2 Acres). Plant is running only one shift with extended 2 to 3 hours if required. There are four gardens and the area of gardens is respectively 2480 Sqm. 825 Sqm. 225 Sqm & 150 Sqm. (total garden area is 3680 Sqm). Total plot area is 9793 Sqm and green belt area is approx 40 % of plot area.

Annexure 1(I)

Detailed Report of Salas Pharmaceuticals Pvt. Limited

1	Name and Complete Postal Address of the Industry	M/s Salas Pharmaceuticals Pvt. Ltd., Khatiyan No. - 14, Plot No. – 3 & 4, Vill .- Kharpani, Mamring, South Sikkim - 737132
2	Contact Person & Mob./E-mail Nos.	**Director**- Mr. Vindhya Prakash , Mob.- +91-9334487642, Email Id - vindhyaprakash@salaspharma.co.in,vindhya.prakash@gmail.com **Plant head** – Mr. Rajesh Tripathi, Mob.- +91-6296890096& +91-9593546514 Email Id - sikkimoffice@salaspharma.co.in
3	Name of the Treatment Units in the System	Collection tank (2 KL), Aeration tank (8 KL), equalization tank(3 KL), Bio-Media chamber(3 KL), Tube Settler(1.5 KL), Collection Tank(2 KL), Transfer Pump, Multi grade filter, Activated Carbon, Dual media Filter (Membrane filter & Cartridge filter), Online Monitoring System, Flow meter, Final collection tank (500 L).
4	Adequacy of the ETP	Adequate.
5	Status of Consent under the Water Act,1974	Consent ref. No. 217/SPCB, dated- 06.11.2019 and valid till 31.03.2020.
6	Name of the Emission Control Units in the System	Stack Height : 30 Mtr High Speed Diesel is used as fuel
7	Adequacy of the ECS	Adequate
8	Status of the Consent under the Air Act, 1981	Consent ref. No. 217/SPCB, dated- 06.11.2019 and valid till 31.03.2020.
9	Type of Disposal Facility Existing	Central Storage under lock & key. Adequate protection from rain & Sunlight. Quarterly, through M/s. **West Bengal Waste Management. Haldia, Dist. – PurbaMedinipur, West Bengal.**
10	Adequacy of the Disposal Facility (Adequate/Not adequate)	Adequate
11	Status of the Authorisation under the H&O Waste Rules, 2016	Consent ref. No. 621/SPCB/2534, dated- 23.10.2019 and valid till 31.03.2020.
12	**Overall Observations**	**The Total production capacity of the unit is as under:**

Sl. No.	Type of Product	Production Capacity/ annum	Current Production /Annum
1	Tablets	24 crores	3 crores
2	Capsules	1.2 crores	0.30 crores

The unit receives raw material from approved vender for processing, Such as granulations, Compression, Packing.

More than 40% of land is developed as green belt.

All the treated effluent i.e. water is utilised for Gardening.

The water is mainly used for cleaning of equipment & area, the average use of water is around 2.0kld in production. Which is

		treated in ETP & then used for gardening, No any direct discharge off a fluent is observed at any location. The Finish goods are dispatched to :- Salas Pharmaceuticals Pvt Ltd. Patna. Online continuous monitoring of effluents done

Annexure 2 (A and B)

Treated Effluent Characteristics of the ETP of Alkem Health Sciences Unit I and Unit II

Parameter	Prescribed Limit	Concentration	Analysing Board
pH	6.5 – 8	7.1	CPCB, Shillong
Oil and Grease	10 mg/l	9 mg/l	CPCB, Shillong
Total Suspended Solid	100 mg/l	40 mg/l	CPCB, Shillong
Biochemical Oxygen Demand	30 mg/l	27 mg/l	CPCB, Shillong
Bio-assay test	90% survival of fish after 96 hours in 100 % effluent	100% survival	CPCB, Shillong and SPCB, Sikkim
Mercury	0.01 mg/l	BDL	Pollution Control Board Assam
Arsenic Chromium	0.20 mg/l	BDL	Pollution Control Board Assam
Chromium (Hexavalent)	0.10 mg/l	BDL	Pollution Control Board Assam
Lead	0.10 mg/l	BDL	Pollution Control Board Assam
Cyanide	0.10 mg/l	BDL	Pollution Control Board Assam
Phenolics (as C_6H_5OH)	1.0 mg/l	BDL	Pollution Control Board Assam
Sulphides (as S)	2.0 mg/l	BDL	Pollution Control Board Assam
Phosphate (as P)	10 mg/l	BDL	CPCB, Shillong

Remarks: As seen from the report, all parameters are within the prescribed limit

Annexure 2 (C)

Treated Effluent Characteristics of the ETP of Alkem Health Sciences Unit III

Parameter	Prescribed Limit	Concentration	Analysing Board
pH	6.5 – 8	7.5	CPCB, Shillong
Oil and Grease	10 mg/l	6 mg/l	CPCB, Shillong
Total Suspended Solid	100 mg/l	63 mg/l	CPCB, Shillong
Biochemical Oxygen Demand	30 mg/l	6 mg/l	CPCB, Shillong
Bio-assay test	90% survival of fish after 96 hours in 100 % effluent	100% Survival	CPCB, Shillong and SPCB, Sikkim
Mercury	0.01 mg/l	BDL	Pollution Control Board Assam
Arsenic Chromium	0.20 mg/l	BDL	Pollution Control Board Assam
Chromium (Hexavalent)	0.10 mg/l	BDL	Pollution Control Board Assam
Lead	0.10 mg/l	BDL	Pollution Control Board Assam
Cyanide	0.10 mg/l	BDL	Pollution Control Board Assam
Phenolics (as C_6H_5OH)	1.0 mg/l	BDL	Pollution Control Board Assam
Sulphides (as S)	2.0 mg/l	BDL	Pollution Control Board Assam
Phosphate (as P)	10 mg/l	2.656 mg/l	CPCB, Shillong

Remarks: As seen from the report, all parameters are within the prescribed limit

R. P. Tiwari

Annexure 2 (D)

Treated Effluent Characteristics of the ETP of Alembic Pharmaceutical Limited

Parameter	Prescribed Limit	Concentration	Analysing Board
pH	6.5 – 8	6.7	CPCB, Shillong
Oil and Grease	10 mg/l	4 mg/l	CPCB, Shillong
Total Suspended Solid	100 mg/l	11 mg/l	CPCB, Shillong
Biochemical Oxygen Demand	30 mg/l	2 mg/l	CPCB, Shillong
Bio-assay test	90% survival of fish after 96 hours in 100 % effluent	100% survival	CPCB, Shillong and SPCB, Sikkim
Mercury	0.01 mg/l	BDL	Pollution Control Board Assam
Arsenic Chromium	0.20 mg/l	BDL	Pollution Control Board Assam
Chromium (Hexavalent)	0.10 mg/l	BDL	Pollution Control Board Assam
Lead	0.10 mg/l	BDL	Pollution Control Board Assam
Cyanide	0.10 mg/l	BDL	Pollution Control Board Assam
Phenolics (as C_6H_5OH)	1.0 mg/l	BDL	Pollution Control Board Assam
Sulphides (as S)	2.0 mg/l	BDL	Pollution Control Board Assam
Phosphate (as P)	10 mg/l	0.992 mg/l	CPCB, Shillong

Remarks: As seen from the report, all parameters are within the prescribed limit

Annexure 2 (E)

Treated Effluent Characteristics of the ETP of Ashwariya HealthCare

Parameter	Prescribed Limit	Concentration	Analysing Board
pH	6.5 – 8	6.7	CPCB, Shillong
Oil and Grease	10 mg/l	7 mg/l	CPCB, Shillong
Total Suspended Solid	100 mg/l	67 mg/l	CPCB, Shillong
Biochemical Oxygen Demand	30 mg/l	18.7 mg/l	CPCB, Shillong
Bio-assay test	90% survival of fish after 96 hours in 100 % effluent	91% survival	CPCB, Shillong and SPCB, Sikkim
Mercury	0.01 mg/l	BDL	Pollution Control Board Assam
Arsenic Chromium	0.20 mg/l	BDL	Pollution Control Board Assam
Chromium (Hexavalent)	0.10 mg/l	BDL	Pollution Control Board Assam
Lead	0.10 mg/l	BDL	Pollution Control Board Assam
Cyanide	0.10 mg/l	BDL	Pollution Control Board Assam
Phenolics (as C_6H_5OH)	1.0 mg/l	BDL	Pollution Control Board Assam
Sulphides (as S)	2.0 mg/l	BDL	Pollution Control Board Assam
Phosphate (as P)	10 mg/l	1.704 mg/l	CPCB, Shillong

Remarks: As seen from the report, all parameters are within the prescribed limit

Annexure 2 (F)

Treated Effluent Characteristics of the ETP of Catchet Pharmaceuticals Pvt. Ltd

Parameter	Prescribed Limit	Concentration	Analysing Board
pH	6.5 – 8	6.8	CPCB, Shillong
Oil and Grease	10 mg/l	7 mg/l	CPCB, Shillong
Total Suspended Solid	100 mg/l	20 mg/l	CPCB, Shillong
Biochemical Oxygen Demand	30 mg/l	24 mg/l	CPCB, Shillong
Bio-assay test	90% survival of fish after 96 hours in 100 % effluent	100% survival	CPCB, Shillong and SPCB, Sikkim
Mercury	0.01 mg/l	BDL	Pollution Control Board Assam
Arsenic Chromium	0.20 mg/l	BDL	Pollution Control Board Assam
Chromium (Hexavalent)	0.10 mg/l	BDL	Pollution Control Board Assam
Lead	0.10 mg/l	BDL	Pollution Control Board Assam
Cyanide	0.10 mg/l	BDL	Pollution Control Board Assam
Phenolics (as C_6H_5OH)	1.0 mg/l	BDL	Pollution Control Board Assam
Sulphides (as S)	2.0 mg/l	BDL	Pollution Control Board Assam
Phosphate (as P)	10 mg/l	0.852 mg/l	CPCB, Shillong

Remarks: As seen from the report, all parameters are within the prescribed limit

Annexure 2 (G)

Treated Effluent Characteristics of the ETP of Marc Life Sciences

Parameter	Prescribed Limit	Concentration	Analysing Board
pH	6.5 – 8	7.2	CPCB, Shillong
Oil and Grease	10 mg/l	4 mg/l	CPCB, Shillong
Total Suspended Solid	100 mg/l	42 mg/l	CPCB, Shillong
Biochemical Oxygen Demand	30 mg/l	20 mg/l	CPCB, Shillong
Bio-assay test	90% survival of fish after 96 hours in 100 % effluent	100% survival	CPCB, Shillong and SPCB, Sikkim
Mercury	0.01 mg/l	BDL	Pollution Control Board Assam
Arsenic Chromium	0.20 mg/l	BDL	Pollution Control Board Assam
Chromium (Hexavalent)	0.10 mg/l	BDL	Pollution Control Board Assam
Lead	0.10 mg/l	BDL	Pollution Control Board Assam
Cyanide	0.10 mg/l	BDL	Pollution Control Board Assam
Phenolics (as C_6H_5OH)	1.0 mg/l	BDL	Pollution Control Board Assam
Sulphides (as S)	2.0 mg/l	BDL	Pollution Control Board Assam
Phosphate (as P)	10 mg/l	0.732 mg/l	CPCB, Shillong

Remarks: As seen from the report, all parameters are within the prescribed limit

Annexure 2 (H)

Treated Effluent Characteristics of the ETP of Intas Pharmaceuticals Limited Unit II

Parameter	Prescribed Limit	Concentration	Analysing Board
pH	6.5 – 8	7.1	CPCB, Shillong
Oil and Grease	10 mg/l	3 mg/l	CPCB, Shillong
Total Suspended Solid	100 mg/l	37 mg/l	CPCB, Shillong
Biochemical Oxygen Demand	30 mg/l	16.7 mg/l	CPCB, Shillong
Bio-assay test	90% survival of fish after 96 hours in 100 % effluent	100% survival	CPCB, Shillong and SPCB, Sikkim
Mercury	0.01 mg/l	BDL	Pollution Control Board Assam
Arsenic Chromium	0.20 mg/l	BDL	Pollution Control Board Assam
Chromium (Hexavalent)	0.10 mg/l	BDL	Pollution Control Board Assam
Lead	0.10 mg/l	BDL	Pollution Control Board Assam
Cyanide	0.10 mg/l	BDL	Pollution Control Board Assam
Phenolics (as C_6H_5OH)	1.0 mg/l	BDL	Pollution Control Board Assam
Sulphides (as S)	2.0 mg/l	BDL	Pollution Control Board Assam
Phosphate (as P)	10 mg/l	2.064 mg/l	CPCB, Shillong

Remarks: As seen from the report, all parameters are within the prescribed limit

Annexure 2 (I)

Treated Effluent Characteristics of the ETP of Salas Pharmaceuticals Pvt. Ltd

Parameter	Prescribed Limit	Value	Analysing Board
pH	6.5 – 8	6.9	CPCB, Shillong
Oil and Grease	10 mg/l	5 mg/l	CPCB, Shillong
Total Suspended Solid	100 mg/l	67 mg/l	CPCB, Shillong
Biochemical Oxygen Demand	30 mg/l	15 mg/l	CPCB, Shillong
Bio-assay test	90% survival of fish after 96 hours in 100 % effluent	100% survival	CPCB, Shillong and SPCB, Sikkim
Mercury	0.01 mg/l	BDL	Pollution Control Board Assam
Arsenic Chromium	0.20 mg/l	BDL	Pollution Control Board Assam
Chromium (Hexavalent)	0.10 mg/l	BDL	Pollution Control Board Assam
Lead	0.10 mg/l	BDL	Pollution Control Board Assam
Cyanide	0.10 mg/l	BDL	Pollution Control Board Assam
Phenolics (as C_6H_5OH)	1.0 mg/l	BDL	Pollution Control Board Assam
Sulphides (as S)	2.0 mg/l	BDL	Pollution Control Board Assam
Phosphate (as P)	10 mg/l	4.42 mg/l	CPCB, Shillong

Remarks: As seen from the report, all parameters are within the prescribed limit

Annexure 3

Stack Emission (Particulate Matter) Results of Boilers of Pharmaceutical Units in Samardung Basti, South Sikkim

Unit	Boiler Capacity	Limit	Concentration
Alkem Health Sciences Unit I and II	3 T/hr	800 mg/Nm^3	5.1 mg/Nm^3
Alkem Health Sciences Unit III	3 T/hr	800 mg/Nm^3	3.4 mg/Nm^3
Alembic Pharmaceutical Limited	1 T/hr	1200 mg/Nm^3	5.58 mg/Nm^3
Ashwariya Life Sciences	3 T/hr	800 mg/Nm^3	4.04 mg/Nm^3
Catchet Pharmaceuticals	1.1 T/hr	1200 mg/Nm^3	4.10 mg/Nm^3
Intas Pharmaceuticals Limited Unit II	0.8 T/hr	1200 mg/Nm^3	3.8 mg/Nm^3
Marc Life Sciences	0.6 t/hr	1200 mg/Nm^3	3.2 mg/Nm^3
Salas Pharmaceuticals	0.5 T/hr	1200 mg/Nm^3	4.1 mg/Nm^3

Remarks: As seen from the analysis report, all stack emission concentration for Particulate Matter is within the prescribed limit

Annexure 4 (A)

Water Quality of Teesta River Upstream of Alembic Pharmaceutical Limited (Station 1)

Parameter	Concentration	Analysing Board
pH	6.44	CPCB, Shillong
Oil and Grease	6 mg/l	CPCB, Shillong
Total Suspended Solid	84 mg/l	CPCB, Shillong
Biochemical Oxygen Demand	2 mg/l	CPCB, Shillong
Mercury	BDL	Pollution Control Board Assam
Arsenic Chromium	BDL	Pollution Control Board Assam
Chromium (Hexavalent)	BDL	Pollution Control Board Assam
Lead	BDL	Pollution Control Board Assam
Cyanide	BDL	Pollution Control Board Assam
Phenolics (as C_6H_5OH)	BDL	Pollution Control Board Assam
Sulphides (as S)	BDL	Pollution Control Board Assam
Phosphate (as P)	4.4 mg/l	CPCB, Shillong

Annexure 4 (B)

Water Quality of Teesta River Downstream of Alkem Health Sciences Unit III (Station 2)

Parameter	Concentration	Analysing Board
pH	6.77	CPCB, Shillong
Oil and Grease	5 mg/l	CPCB, Shillong
Total Suspended Solid	64 mg/l	CPCB, Shillong
Biochemical Oxygen Demand	2.5 mg/l	CPCB, Shillong
Mercury	BDL	Pollution Control Board Assam
Arsenic Chromium	BDL	Pollution Control Board Assam
Chromium (Hexavalent)	BDL	Pollution Control Board Assam
Lead	BDL	Pollution Control Board Assam
Cyanide	BDL	Pollution Control Board Assam
Phenolics (as C_6H_5OH)	BDL	Pollution Control Board Assam
Sulphides (as S)	BDL	Pollution Control Board Assam
Phosphate (as P)	4.48 mg/l	CPCB, Shillong

Annexure 4 (C)

Water Quality of Teesta River Upstream of Catchet Pharmaceuticals (Station 3)

Parameter	Concentration	Analysing Board
pH	7.02	CPCB, Shillong
Oil and Grease	6 mg/l	CPCB, Shillong
Total Suspended Solid	70 mg/l	CPCB, Shillong
Biochemical Oxygen Demand	2 mg/l	CPCB, Shillong
Mercury	BDL	Pollution Control Board Assam
Arsenic Chromium	BDL	Pollution Control Board Assam
Chromium (Hexavalent)	BDL	Pollution Control Board Assam
Lead	BDL	Pollution Control Board Assam
Cyanide	BDL	Pollution Control Board Assam
Phenolics (as C_6H_5OH)	BDL	Pollution Control Board Assam
Sulphides (as S)	BDL	Pollution Control Board Assam
Phosphate (as P)	7.4 mg/l	CPCB, Shillong

Annexure 4 (D)

Water Quality of Teesta River Downstream of Ashwariya Healthcare (Station 4)

Parameter	Concentration	Analysing Board
pH	7.5	CPCB, Shillong
Oil and Grease	6 mg/l	CPCB, Shillong
Total Suspended Solid	42 mg/l	CPCB, Shillong
Biochemical Oxygen Demand	2 mg/l	CPCB, Shillong
Mercury	BDL	Pollution Control Board Assam
Arsenic Chromium	BDL	Pollution Control Board Assam
Chromium (Hexavalent)	BDL	Pollution Control Board Assam
Lead	BDL	Pollution Control Board Assam
Cyanide	BDL	Pollution Control Board Assam
Phenolics (as C_6H_5OH)	BDL	Pollution Control Board Assam
Sulphides (as S)	BDL	Pollution Control Board Assam
Phosphate (as P)	7.4 mg/l	CPCB, Shillong

Annexure 4 (E)

Water Quality of Teesta River Downstream of Marc Life Sciences (Station 5)

Parameter	Concentration	Analysing Board
pH	7.06	CPCB, Shillong
Oil and Grease	7 mg/l	CPCB, Shillong
Total Suspended Solid	64 mg/l	CPCB, Shillong
Biochemical Oxygen Demand	2.7 mg/l	CPCB, Shillong
Mercury	BDL	Pollution Control Board Assam
Arsenic Chromium	BDL	Pollution Control Board Assam
Chromium (Hexavalent)	BDL	Pollution Control Board Assam
Lead	BDL	Pollution Control Board Assam
Cyanide	BDL	Pollution Control Board Assam
Phenolics (as C_6H_5OH)	BDL	Pollution Control Board Assam
Sulphides (as S)	BDL	Pollution Control Board Assam
Phosphate (as P)	4.44 mg/l	CPCB, Shillong

Annexure 4 (F)

Water Quality of Teesta River Upstream of Salas Pharmaceuticals Pvt. Ltd. (Station 6)

Parameter	Concentration	Analysing Board
pH	6.8	CPCB, Shillong
Oil and Grease	5 mg/l	CPCB, Shillong
Total Suspended Solid	40 mg/l	CPCB, Shillong
Biochemical Oxygen Demand	2.7 mg/l	CPCB, Shillong
Mercury	BDL	Pollution Control Board Assam
Arsenic Chromium	BDL	Pollution Control Board Assam
Chromium (Hexavalent)	BDL	Pollution Control Board Assam
Lead	BDL	Pollution Control Board Assam
Cyanide	BDL	Pollution Control Board Assam
Phenolics (as C_6H_5OH)	BDL	Pollution Control Board Assam
Sulphides (as S)	BDL	Pollution Control Board Assam
Phosphate (as P)	1.48 mg/l	CPCB, Shillong

Annexure 4 (G)

Water Quality of Teesta River Downstream of Salas Pharmaceuticals Pvt. Ltd. (Station 7)

Parameter	Concentration	Analysing Board
pH	7.1	CPCB, Shillong
Oil and Grease	5 mg/l	CPCB, Shillong
Total Suspended Solid	67 mg/l	CPCB, Shillong
Biochemical Oxygen Demand	2.8 mg/l	CPCB, Shillong
Mercury	BDL	Pollution Control Board Assam
Arsenic Chromium	BDL	Pollution Control Board Assam
Chromium (Hexavalent)	BDL	Pollution Control Board Assam
Lead	BDL	Pollution Control Board Assam
Cyanide	BDL	Pollution Control Board Assam
Phenolics (as C_6H_5OH)	BDL	Pollution Control Board Assam
Sulphides (as S)	BDL	Pollution Control Board Assam
Phosphate (as P)	1.46 mg/l	CPCB, Shillong