

**NATIONAL MISSION FOR CLEAN GANGA**  
**FORMAT FOR SUBMISSION OF MONTHLY PROGRESS REPORT IN THE NGT MATTER OA NO.673 OF**  
**2018 (IN COMPLIANCE TO NGT ORDER) DATED 24.09.2020 FOR THE MONTH OF JANUARY –APRIL**  
**2022 FOR THE STATE OF MEGHALAYA**

**Overall status of the State:**

- I. Total Population: Urban Population & Rural Population : (5,95,450 & 23,71,439)29,64,007
- II. Estimated Sewage Generation (MLD)(2021) : 75 MLD in Urban areas
- III. **Details of Sewage Treatment Plant** :
- Existing no of STPs and Treatment Capacity (MLD) : 8
  - Capacity Utilization of existing STPs (MLD) : 1.469
  - MLD of Sewage being treated through alternate technology : 22.8 (Considering treatment by septic tank)
  - Gap in treatment Capacity in MLD : 50.37
  - No of operational STPs : 8
  - No of complying STPs : 8
  - No of Non-complying STPs :

**Details of Each Existing STP in the State**

No.	Location	Existing STP Capacity MLD	Capacity being utilised MLD	Operational Status of STP	Compliance status of STP
1.	Residential colony of Meghalaya Cements Ltd., Thangskai, East Jaintia Hills District	0.1	0.06	Operational	Complying
2.	Residential colony of Star Cements Ltd., Lumshnong, East Jaintia Hills District	0.4	0.239	Operational	Complying
3.	North Eastern Indira Gandhi Regional Institute of Health and Medical Sciences, Mawdiangdiang	1.0	1.0	Operational	Complying
4.	Residential colony of M/S Lafarge Umiam Mining Pvt. Ltd., Nongtra	0.12	0.03	Operational	Complying
5.	Residential School –JNV, Mawphlang	0.1	0.02	Operational	Complying
6.	Polo Market ,Shillong	0.05	0.05	Operational	Complying
7.	Green valley industries Ltd	0.03	0.03	Operational	Complying

	,Nongsning,EJH				
8.	Dalmia Cement (Bharat) Ltd,Thangskai,EJH	0.05	0.04	Operational	Complying

**Details of under construction STPs in the State**

No.	Location	Capacity of the plant in MLD	Physical progress in %	Status of I&D or house sewer connections	Completion timeline
1.	Septage Treatment plant,Shillong	0.115	100%		Completed and functional
2.	i. Faecal Sludge & Septage management ,Khliehriat ii. Purchase order for 3000 litres cess pool car has been placed with TATA Motors,	0.04	100 %		Completed and yet to be make operational.
3.	FSSM,Shillong  5 nos of On-site treatment plant,Shillong	0.35  13.42	75 % physical progress  40% physical progress		The estimated date of completion is March 2023

**Details of proposed STPs in the State**

No.	Location	Capacity of the STP proposed in MLD	Status of project(at DPR stage/under Tendering/work to be awarded)	Likely date of completion
1.	STP,Eastern Air Command,Shillong	0.105	Tendering under process	
2.	FSSM,Jowai	50 KLD	DPR already completed and tendering under process.	

**IV. Details of Industrial Pollution**

- No. of industries in the State

: 1559

- No. of water polluting industries in the state : 260
- Quantity of effluent generated from the industries in MLD : 3.5
- Quantity of hazardous sludge generated from the industries in TPD : 1.3105
- No. of industrial units having ETPs : 255
- No of Industrial units connected to CETPs : Nil
- Compliance status of the ETPs : Complying
- No and total capacity of CETPs (details of existing/under construction /proposed) : Nil
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Town	No of Industries	Industrial discharge (MLD)	Status of ETPs	Status of CETPs( existing, under construction &proposed)
Shillong	130	1.7585	Complying	-
Byrnihat	29	0.676	Complying	-
Nongstoin and Mairang	37	0.276	Complying	-
Ladrymbai&Khliehriat	12	0.029	Complying	-
Jowai	20	0.40	Complying	-
Khliehriat,Myndihati&Lumshnong	11	0.15	Complying	-
Tura	16	0.20	5 ETPS for servicing units under construction	
Umiam	5	0.135	Complying	-

#### STATUS OF ULB WISE MANAGEMENT OF SOLID WASTE

##### V. Solid Waste Management

- Total number of Urban Local Bodies and their Population : 10 Nos , 3,75,930
- Current Municipal Solid Waste Generation : 245 TPD
- Number, installed capacity and utilization of existing MSW processing facilities in TPD (bifurcated by type of processing eg. Waste to Energy (Tonnage and Power Output), Compost Plants (Windrow, Vermi, decentralized pit composting), biomethanation, MRF etc.: Action plan to bridge gap between Installed Capacity and Current Utilization of processing facilities (if Gap> 20%):

<b>EXISTING SWM PLANTS IN MEGHALAYA</b>
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SN	Town	Facility Type	Installed Capacity	Nos.	Utilization	Action Plan to utilise installed capacity
1	Shillong	Waste to Recovery centre	8 TPD	4	12.72 TDP (6.00 TPD Organic Compost + 6.72 Recyclables)	3 nos Operational. 1 completed and yet to be made operational
2.	Tura	Waste to Compost	50 TPD	1	0 TPD	Yet to be made operational
3	Nongpoh	Waste to Compost	15 TPD	1	0 TPD	Yet to be made operational
4	Shillong	Waste to Compost	170 TPD	1		The plant is 100% operational
5	Khliehriat	Composting Plant	0.1 TPD	1		Completed and is on trial stage.

- No. And capacity of C & D waste processing plants in TPD (Existing, proposed and under construction):  
**None**
- Total no. Of wards, having door to door collection service, no. Of wards practicing segregation at source:**73**
- Details of MSW treatment facilities proposed and under construction (no. Capacity, and technology):

PROPOSED SWM PLANTS IN MEGHALAYA				
SN	Town	Facility type	Proposed capacity	Nos.
1.	Shillong	Waste to Energy	100 TPD	1
2.	Tura	Waste to Energy	50 TPD	1
		Waste Recovery Centre	2 TPD	1
3.	Nongpoh	Waste Recovery Centre	2 TPD	1
4.	Jowai	Waste Recovery Centre	2 TPD	1
5.	Williamnagar	Waste Recovery Centre	2 TPD	1
6.	Baghmara	Waste to Recovery Centre	2 TPD	1
7.	Resubelpara	Waste to Recovery Centre	2 TPD	1
8.	Nongstoin	Waste to Recovery Centre	2 TPD	1
9.	Mairang	Waste to Recovery Centre	2 TPD	1

- No. And area (in acres) of uncontrolled garbage dumpsites and Sanitary Landfills:
- No. and area (in acres) of legacy waste within 1km buffer of both side of the rivers: **8.94 acres (a MOU has been signed with CHAMHANA GW INDIA PVT.LTD on 22<sup>nd</sup>June 2020 which will include the setting up of waste to Energy plant at Tura and Shillong of 10TPD and 100 TPD capacities respectively. These plants will remediate the existing legacy waste at the present dumping grounds) For the Tura Plant, it is expected to start trail run by June 2022**
- No. Of drains falling into rivers and no. Of drains having floating racks/screens installed to prevent solid waste from falling into the rivers:**Garbage traps have been installed in 6 nos of drains connecting to the rivers and one oil grease trap of 5 Kld installed in one drain of Umkrah river in Shillong City**

#### **VI. Bio-medical Waste Management:**

- Total Bio-medical generation:**1276.24 Kg/day**
- No. of Hospitals and Health Care Facilities:**554**
- Status of Treatment Facility/CBMWTF:

**a) Common Bio-Medical waste treatment is completed and is in operation.**

**b) The Urban Affairs has procured three Bio-medical Wastes vehicles solely for transport of Bio-medical Wastes**

#### **VII. Hazardous Waste Management:**

- Total Hazardous Waste generation:**498.4434 KL/annum**
- No. of Industries generating Hazardous waste:**19 (Nineteen)**
- Treatment Capacity of all TSDF's:**Not available**
- Avg. Quantity of Hazardous waste reaching the TSDF's and Treated : **Nil**
- Details of on-going or proposed TSDF:**None**

#### **VIII. Plastic Waste Management:**

- Total Plastic Waste generation:**9.16 TPD**
- Treatment/Measures adopted for reduction or management of plastic waste:

**(a) The plastic wastes are collected as municipal waste. The plastic waste was segregated from the dry waste at the dumpsite and collected for compaction and bailing and send to Cement Plants for co-processing to be used as Fuel.**

**(b) Used for roadmaking in some parts of Tura, and Nongstoin.**

**IX. Details of Alternate Treatment Technology being adopted by the State/UT:**

**X. Identification of polluting sources including drains contributing to river pollution and action as per NGT order on insitu treatment:**

- XI. Details of Nodal Officer appointed by Chief Secretary in the State/UT:**The Government has constituted a Monitoring Committee under the chairmanship of the Principal Secretary to the Govt.of Meghalaya,Forests & Environment Department vide no.ENV.4/2018/426 DatedShillong the 19<sup>th</sup> June 2020**
- XII. Details of meetings carried under the Chairmanship Chief of Secretary in the State/UT:
- XIII. Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river:**Enclosed asII A to Annexure IX B**
- XIV. Ground water regulation: **For Domestic purpose –District Level Committee Ground Water Resource(Deputy commissioner of respective District as Chairman and official of Water resources as Member Secretary ) looks after it and grant NOCFor Commercial purpose - State Level Committee Ground Water Resource(Commissioner & Secretary, Water Resources as Chairman and Regional Director, CGWB, NER, as Member Convener) looks after it and grant NOC.**
- XV. Good irrigation practices being adopted by the State:**Traditional Bamboo Drip Irrigation**
- XVI. Rain Water Harvesting:**(a) Rain water harvesting implemented for Schools and government buildings.(b) Incorporated as one of the condition while giving permission for any house construction**
- XVII. Demarcation of Floodplain and removal of illegal encroachments:**contract for flood plains Zonation in identified river stretches was awarded to RMSI Private Ltd (Due to technical reasons FPZ is being proposed only at Umkhrach,Nonbah ,Umtrew and Myntdu as other rivers flow through deep gorges) .The work has started during the month of June 2021 and likely date of completion is may 2022. Setting up of HO stations will be done by the firm allotted for flood plain zonation.**
- XVIII. Maintaining minimum e-flow of river:**Perennial rivers**
- XIX. Plantation activities along the rivers:Sanction is still awaited for treatment of 48.58 ha (preliminary works for creation of plantations and creation of 94.5 polypot nursery beds for future plantations)..
- XX. Development of Biodiversity Park:**No proposal for setting due to non-availability of Government land.**
- XXI. Reuse of Treated Water:**Stand-alone ETPs are operational in 260number of hotels/guesthouse/health care centers /Industries and treated wastewater are reuse for gardening/cleaning purpose.**
- XXII. Model River being adopted by the State & Action Proposed for achieving the bathing quality standards:Nonbah river
- XXIII. Status of Preparation of Action Plan by the 13 Coastal States:**Not applicable to the State of Meghalaya**

- XXIV. Regulation of Mining Activities in the State/UT: Mining activities in the State is being regulated under the following acts and rules**
- a) Mines and Minerals (Development and Regulation) Act 1957 and its subsequent amendments**
  - b) EIA notification ,2006 and its subsequent amendments**
  - c) Meghalaya Minor mineral Concession Rules 2016 and its subsequent amendments**
  - d) EP Acts,1986**
  - e) The Air (Prevention and Control of Pollution )Act,1981 and the Water (Prevention and Control of Pollution )Act,1974**
- XXV. Action against identified polluters, law violators and officers responsible for failure for vigorous monitoring:**
- a) Units which failed to comply to the consent conditions have been issued directions,show cause notice and closure notices**
  - b) Units which have been operating without consent from the Pollution Control Board have been issued closure notices under relevant Acts and Rules**
  - c) Filing of Complaints to the District Courts**

**POLLUTED RIVERSTRETCHES**

I.	<b>Total No. of Pollution River Stretches</b>	7(Umkhrah&Umshyrpi river –Priority I:Umtrew,Nonbah&Kyrhukhla river –Priority IV: Myntdu&Lukha –Priority V)						
		<b>Umkhrah</b>	<b>Umshyrpi</b>	<b>Umtrew</b>	<b>Nonbah</b>	<b>Kyrhukhla</b>	<b>Myntdu</b>	<b>Lukha</b>
II.	<b>In-situ Bio-remediation</b>	<b>Work has already started</b>			<b>Phycoremediation has already started for Kyrhukhla river and in Lukha river it is ready and yet to be commission.The project is funded under MEPRF(Meghalaya Environment Protection and Restoration Fund ) For Myntduriver, DPR completed and work started.</b>			
III.	<b>Sewage Treatment Plant</b>							
	Total Sewage Generation (MLD)	33.52	15.47	0.36	3.10	0.8	3.07	0.5
	Total Existing Treatment Capacity (MLD)	0.05						
	Capacity Utilization							

**Note: Garbage traps have been installed in 6 nos. of drains connecting to the rivers and one oil grease trap of 5kld installed in one drain of Umkhrah River.**

<b>Town</b>	<b>Existing STP</b>	<b>Capacity Being Utilized</b>	<b>Whether Complying or not</b>	<b>STP Proposed if any</b>	<b>Status (DPR/tendering/under construction/ETC etc.)</b>
Shillong (catchment of Umkhrah&Umshyrpi river)	0.05 MLD	-	-		45 % physical progress for FSSM,Shillong&30% physical progress for 5 nos of On-site treatment plant,Shillong For 0.115 MLD FSSM98 % physical progress





<b>Town</b>	<b>Existing ETP Capacity(MLD)</b>	<b>Whether Complying or not</b>	<b>CETP Proposed if any</b>	<b>Status (DPR/tendering/under construction/ETC etc.)</b>
Shillong	1.8	Complying	-	-
Byrnihat	1.0	Complying	-	-
Nongstoin	0.41	Complying	-	-
Ladrymbai&Khliehriat	0.1	Complying	-	-
Jowai	0.45	Complying	-	-
Khliehriat,Myndihati&Lumshnong	0.615	Complying	-	-

<b>V.</b>	<b>Solid Waste Management</b>	<b>Umkhrah</b>	<b>Umshyrpi</b>	<b>Umtrew</b>	<b>Nonbah</b>	<b>Myntdu</b>	<b>Kyrhukhla</b>	<b>Lukha</b>
	Total Municipal Solid Waste generation (TPD)	164.81		1.16	10.05	9.95	2.6	1.6

	Existing facilities (TPD)	Chain link fencing has been installed at strategic garbage points. Penalty is imposed on habitual offenders. b) Additionally, Garbage traps have been installed in 6 nos of drains connecting to the rivers and one oil grease trap of 5 Kld installed in one drain of Umkhrah River. 170 TPD Compost Plant at Marten is completed and under testing of trial run. There are 4nos of decentralised compost plants. Out of these, 3 are operational and 1 is yet to be made operational.	15.0	Collection, segregation and transportation of wastes has been done by the SLRM team under SBM (Urban) .In some households the biodegradable wastes are treated by composting method in compost pit	Door to door collection and transportation coverage is being done by the Jowai Municipal Board. Segregation at source is in place.	i) Waste management soak pit household waste water management & soak pit household waste water management & organic waste compost for 112 households under SBM (G) ii) Construction of 0.1 TPD compost plant completed and on trial run.	Waste management soak pit household waste water management & organic waste compost pit for 366 households under SBM (G)
	Proposed	Waste to energy of 100 TPD capacity and the proposed investment is INR 24.5 crores. MoU has been signed on 22 <sup>nd</sup> June 2020 between the Department of Urban Affairs ,Government of Meghalaya and	Proposed for soak pit household waste water management & organic waste compost for 112	Land has been identified and a compost plan has been sanctioned under SBM (Urban)	Within the existing dumping site portion of land has been identified for indigenous compost plant and waste	-	-
Materials recovery centres have been set up in 61 villages							

		CHAMHANA GW India Pvt .Ltd on a Build, Own and Operate (BOD) basis for a period of 25 years. There is however ,delay in starting the project due to ongoing pandemic for transportation of equipments and other related matters to human resources .	households under SBM (G)		recovery. The work is to be started soon		
	Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river	Enclosed as annexure					

VI.	Bio-medical/Hazardous/Plastic Waste Management(in TPD)	Umkhrah	Umshyrpi	Umtrew	Nonbah	Kyrhukhla	Myntdu	Lukha
	Total Bio-medical Waste generation	1.0597		0.0021	0.029	0.00608	0.41	Nil

Total Bio-medical Waste Treatment	1.0597	0.0021	0.029	0.00608	0.41	Nil	
Bio-Medical Treatment facilities	a) Common Bio-Medical waste treatment plan is completed and is under trial run b) The Urban Affairs has procured three Bio-medical Wastes vehicles solely for transport of Bio-medical Wastes.						
Hazardous Waste generation	Nil	Nil	1.17	Nil	Nil	0.1405	
Hazardous Waste Treatment	-	-	1.135	-	-	0.1405	
Plastic Waste generation	0.230	-	-	-	-	-	
Plastic Waste processing	(a) The plastic Waste was collected as municipal waste into dry waste and wet waste. The plastic waste was segregated from the dry waste at the dumpsite and collected for compaction and bailing and send to Cement plants for co-processing to be used as Fuel. (b) Used for road making in some parts of Nongstoin						
Total No. of Hospital and bio-medical waste generation/treatment	6	2	None	2	None	2	None
Total of units generating Hazardous waste/treatment facility			6				11

		Umkhrah	Umshyrpi	Umtrew	Nonbah	Myntdu	Kyrhukhla	Lukha
VII.	Ground water regulation	For Domestic purpose –District Level Committee Ground Water Resource (Deputy commissioner of respective District as Chairman and official of Water resources as Member Secretary) looks after it and grant NOC. For Commercial purpose - State Level Committee Ground Water Resource(Commissioner & Secretary, Water Resources as Chairman and Regional Director, CGWB, NER, as Member Convener) looks after it and grant NOC						

VIII.	Maintaining minimum e-flow of river	Perennial	
IX.	Protection and management of Flood Plain Zones (FPZ)	<ol style="list-style-type: none"> <li>1. <b>Network Design including the proposed additional installation submitted 15 % of the work completed for flood plains Zonation in identified river stretches viz Umkhrah, Nonbah , Umtrew and Myntdu as other rivers flow through deep gorges) .</b></li> <li>2. <b>Setting up of HO stations will be done by the firm allotted for flood plain zonation.</b></li> </ol>	
X.	Rain water harvesting	<ol style="list-style-type: none"> <li>i. Rain water harvesting implemented for Schools and government buildings</li> <li>ii. Incorporated as one of the condition while giving permission for any house construction</li> </ol>	
XI.	Plantation along river	Sanction is still awaited for treatment of 48.58 ha (preliminary works for creation of plantations and creation of 94.5 polypot nursery beds for future plantations).	No proposal was made since there is a Reserve Forest and green cover on both sides of the river
XII.	Development of biodiversity park on flood plains by removing encroachment	Matter of encroachment is pending in the Supreme Court. Biodiversity parks in existence.	No proposal for setting up of Bio-Diversity Park due to non-availability of Government land.
XIII.	Reuse of Waste water	Treated wastewater are reuse for gardening/cleaning purpose	

WATER QUALITY DATA OF POLLUTED RIVER STRETCHES –JANUARY 2022

Stations→ Parameters↓	Umshyrpi		Umkhrah				Umtrew at Byrnihat	Nonbah at Nongstoin	Myntdu at Jowai	Lunar River (Tributary of Lukha River ) at Myndihati	Kyrhuhkhla River
	Near Law College	Umshyrpi Bridge	Demthring	Umkaliar	Near Slaughter House	Mawpdang					
<i>pH</i>	7.1	6.8	7.0	7.1	7.0	7.1	7.1	7.4	6.8	2.8	3.1
<i>Dissolved Oxygen(mg/l)</i>	1.3	4.7	2.2	4.7	1.6	1.2	7.4	7.2	6.8	7.0	7.2
<i>Bio-chemical Oxygen Demand (mg/l)</i>	41.0	12.0	32.0	13.0	37.0	44.0	2.3	2.2	2.1	2.2	2.0
<i>Faecal Coliform (MPN/100ml)</i>	24000	5800	17000	4900	27000	23000	420	490	430	<1.8	<1.8
<i>Total Coliform (MPN/100ml)</i>	79000	17000	4600	21000	8400	79000	2700	2400	2100	<1.8	<1.8
<i>Faecal Streptococci (MPN/100m</i>	3800	1700	2100	2100	3800	3300	79	70	58	<1.8	<1.8

WATER QUALITY DATA OF POLLUTED RIVER STRETCHES – FEBRUARY 2022

Stations→ Parameters↓	Umshyrpi		Umkhrah				Umtrew at Byrnihat	Nonbah at Nongstoin	Myntdu at Jowai	Lunar River (Tributary of Lukha River ) at Myndihati	Kyrhuhkhla River
	Near Law College	Umshyrpi Bridge	Demthring	Umkaliar	Near Slaughter House	Mawpdang					
<i>pH</i>	7.1	7.0	6.8	7.2	7.0	7.1	6.8	6.8		3.1	4.8
<i>Dissolved Oxygen(mg/l)</i>	2.6	4.3	1.8	4.6	1.0	1.0	7.2	7.8		6.9	6.8
<i>Bio-chemical Oxygen</i>	29.0	11.0	36.0	15.0	44.0	45.0	2.4	2.0		2.3	2.3

<b>Demand (mg/l)</b>											
<b>Faecal Coliform (MPN/100ml)</b>	22000	4900	21000	5800	31000	27000	480	630		<1.8	<1.8
<b>Total Coliform (MPN/100ml)</b>	63000	17000	49000	23000	94000	94000	3200	2700		<1.8	<1.8
<b>Faecal Streptococci (MPN/100m)</b>	3300	1400	2300	2200	4100	4100	110	94		<1.8	<1.8

WATER QUALITY DATA OF POLLUTED RIVER STRETCHES – MARCH 2022

Stations→ Parameters↓	Umshyrpi		Umkhrah				Umtrew at Byrnihat	Nonbah at Nongstoin	Myntdu at Jowai	Lunar River (Tributary of Lukha River ) at Myndihati	Kyrhukhla River
	Near Law College	Umshyrpi Bridge	Demthring	Umkaliar	Near Slaughter House	Mawpdang					
<b>pH</b>	7.5	7.0	7.0	7.2	7.1	7.1	6.9	6.6	7.2	3.3	
<b>Dissolved Oxygen(mg/l)</b>	2.3	4.0	1.5	4.3	1.2	1.2	7.0	7.5	7.0	6.7	
<b>Bio-chemical Oxygen Demand (mg/l)</b>	32.0	15.0	40.0	18.0	40.0	42.0	2.1	2.1	1.9	2.4	
<b>Faecal Coliform (MPN/100ml)</b>	23000	5800	27000	6300	38000	41000	630	840	490	<1.8	<1.8
<b>Total Coliform (MPN/100ml)</b>	70000	21000	70000	27000	110000	120000	3500	3500	2700	<1.8	<1.8
<b>Faecal Streptococci (MPN/100m)</b>	3800	1700	3100	240	4800	4900	130	110	94	<1.8	<1.8



WATER QUALITY DATA OF POLLUTED RIVER STRETCHES – APRIL 2022

Stations→ Parameters↓	Umshyrpi		Umkhrah				Umtrew at Byrnihat	Nonbah at Nongstoin	Myntdu at Jowai	Lunar River (Tributary of Lukha River ) at Myndihati	Kyrhukhla River
	Near Law College	Umshyrpi Bridge	Demthring	Umkaliar	Near Slaughter House	Mawpdang					
<b>pH</b>	6.7	7.1	7.3	7.2	7.0	6.8	7.3	6.7	7.1	3.1	3.5
<b>Dissolved Oxygen(mg/l)</b>	1.7	4.2	1.4	4.1	1.0	1.0	6.8	7.4	6.9	6.5	6.9
<b>Bio-chemical Oxygen Demand (mg/l)</b>	38.0	13.0	42.0	20.0	43.0	44.0	2.3	2.3	2.0	2.5	2.6
<b>Faecal Coliform (MPN/100ml)</b>	27000	6300	31000	7900	41000	43000	790	1100	580	<1.8	<1.8
<b>Total Coliform (MPN/100ml)</b>	84000	23000	79000	31000	120000	130000	4300	4300	2800	<1.8	<1.8
<b>Faecal Streptococci (MPN/100m</b>	4100	2100	3300	2700	6300	7900	170	130	110	<1.8	<1.8