

JAL: JHCGBU: ENV: 2013 / 8820

Date: 02.09.2013

To,

The Sr. Environmental Engineer
Regional Office
HP State Pollution Control Board
Nagar Panchayat Building, Baddi
Distt- Solan - 173205 (HP)

Subject:- Submission of Environmental Statement for the financial year ending the 31st March 2013.

Dear Sir,

With reference to your Consent to Operate vide Order no. PCB (399) dt. 19.11.09 and renewal dated 01/06.12, 2012, we are hereby submitting the Environmental Statement (Form-V) for the financial year 2012-2013.

Thanking You,

Yours faithfully

For Jaypee Himachal Cement Grinding & Blending Unit-Bagheri
(A Unit of Jaiprakash Associates Ltd)

Chalode

(Authorized signatory)

Encl- as above

- CC: - The Director (s), MOEF, Government of India, Northern Regional Office,
Bay No.24-25, Sector-31A, Dakshin Marg, Chandigarh-160030
CC: - The Additional Director (NZ), Central Pollution Control Board, Ground floor, PICUP
Bhavan, Vibhuti Khand, Gomtinagar, Lucknow-226010
CC: - The Member Secretary, HP State Pollution Control Board, Him Parivesh, Phase-III, New
Shimla-171009.

Received
Arti Syal
5-09-2013.

Government of India
Ministry of Environment and Forest

“FORM – V”

(See rule 14)

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING THE
31ST MARCH 2013

PART – A

(I)	Name & Address of the Owner / Occupier of the Industry Operation or Process	Shri Sunny Gaur Ji Managing Director Jaypee Himachal Cement Grinding & Blending Unit. (A Unit of Jaiprakash Associates Limited) Vill: Tikri Padiyana (Bagheri) P.O. Khillian, Tehsil- Nalagarh, Distt: Solan (H P) Pin-174101
(II)	Industry Category Primary (STC CODE) Secondary (SIC CODE)	Primary STC Category
(III)	Production Capacity	1.75 MTPA (Cement)
(IV)	Year of Establishment	Year: 2010
(V)	Date of last Environmental Statement Submitted	07.09.2012

PART – B

Water & Raw Material Consumption

A. Water

- (i) Water Consumption- **m³/day**
Process- **Nil**
Cooling& Spraying- **120 m³/day**
Domestic- **98 m³/day**

- (ii) Consumption per unit of production

Name of the Product	Process Water Consumption per unit of Product Output	
	During the Previous Financial Year (2011-2012)	During the Current Financial Year (2012-2013)
Cement	Nil	Nil

B. Raw Material Consumption

Name of the Raw Material	Name of Product	Consumption of Raw Material per Unit Product Output (MT/MT of Cement)	
		During the Previous Financial Year (2011-2012)	During the Current Financial Year (2012-2013)
1. Clinker	Cement	0.6704	0.6959
2. Fly Ash		0.2899	0.2624
3. Gypsum		0.0397	0.0416

Cement Production - 1680768 MT.
Clinker Consumption - 1169782 MT.
Fly ash Consumption - 440986 MT.
Gypsum Consumption - 70000 MT.

PART - C

Pollutant Discharged To Environment / Unit of Output

(Parameters as specified in the consent issued)

S. No.	Pollutants	Quantity of Pollutants Discharged (Mass / day) (tonne/day)	Concentrations of Pollutants in discharged (Mass / Volume) (kg/m³)	Percentage of variation from prescribed standard with reasons
(a)	Water			
(i)	Domestic	Nil	Nil	Nil
(ii)	Industrial	Nil	Nil	Nil
(b)	Air			
	Stack emission: (Stack attached with Cement Mill)	0.081	1.78×10^{-5}	-64.4 %

PART – D

**(As specified under Hazardous waste / Management, Handling &
Trans boundary Movement) rules -2008**

Hazardous Waste		Total Quantity (KL)	
		During the Previous Financial Year (2011-2012)	During the Current Financial Year (2012-2013)
(a)	From Process	Used oil	Used oil
		4.62	4.41
(b)	From Pollution Control Facilities.	NIL	NIL

PART – E

Solid Wastes

Solid Waste		Total Quantity	
		During the Previous Financial Year (2011-2012)	During the Current Financial Year (2012-2013)
(a)	From Process	No solid waste is generated from the cement Manufacturing process.	No solid waste is generated from the cement manufacturing process.
(b)	From Pollution Control facilities	NIL	NIL
(c)	(i) Qty. recycled or reused Within the unit.		
	(ii) Sold	NIL	NIL
	(iii) Disposed	NIL	NIL

PART – F

PLEASE SPECIFY THE CHARACTERISATIONS (IN TERMS OF COMPOSITION AND QUANTUM) OF HAZARDOUS AS WELL AS SOLID WASTES AND INDICATE DISPOSAL PRACTICE ADOPTED FOR BOTH THESE CATEGORIES OF WASTES.

Hazardous waste:

Characterization of Hazardous Waste: Used oil

Disposal Practice of Hazardous Waste: Hazardous waste sold to Authorized Recycler.

Solid waste: NIL

PART – G

IMPACT OF THE POLLUTION ABATEMENT MEASURES TAKEN ON CONSERVATION OF NATURAL RESOURCES AND ON THE COST OF PRODUCTION.

Following measures have been adopted for abatement of pollution, conservation of natural resources:-

1. Utilization of fly ash for the manufacturing of cement :

We are consuming approx. 1208 MT of fly ash per day from different Thermal Power Plants transported in closed container and stored in closed silos from where it has been pneumatically conveyed to cement mill for cement grinding process.

2. Use of STP treated water for the plantation purpose:

We have latest and advance technology based Sewage Treatment Plant which comprises of:

1. Neutralization Tank
2. Aerator blower
3. Aeration Tanks
4. Clarifiers
5. Chlorine Contact Tank
6. Pressure Sand Filter and
7. Activated Carbon Filter

The capacity of sewage treatment plant is 210 KL per day. The sewage collected from the different part of colony and plant is being collected in raw sewage tank where blowing is being done for homogenization of raw sewage water. Then this homogenized sewage water comes to Aeration tank for sufficient aeration of sewage and then conveyed to clarifier where the suspended particle is being settle through mechanical clarification system. After this clarified water collected in intermediate holding tank and sludge settled at the bottom of clarifier is transported to sludge drying beds. Now the water from the intermediate tank is passed through pressure sand filter and then activated carbon filter and ultimately collected in the final holding tank and used in green belt development.& STP sludge is used as a manure.

3. Extensive plantation in and around the plant :

We have dedicated team of skilled horticultural work for arboriculture & plantation work with special reference to high density plantation (HDP) and green belt development program at our plant under the supervision of senior experienced person (Horticulture Officer).

List of following planting legends are given in table.

JAYPEE HIMACHAL CEMENT GRINDING & BLENDING UNIT BAGHERI

GREEN BELT DEVELOPMENT DETAILS

Sr. No.	Year	Area Covered	Type	No. Of Plant Planted	Species Of Plant Planted
1	January 2010 To Sep. 2010	35600 Sqm	Trees	1200	Mango,Lemon, Guava, Black berry, Silver Oaks Gulmohar, Mol shree, Alostonia.
			Creepers	250	Vougainvillia, Vegonia, Clitoria,
			Shrubs	6000	Duranta, Hamilia, irisine, Nerium, Murrya, Acalypha,
			Seasonal Flower	2500	Pitonia, Tegetis, Calandula,Pansy, Iceplant, verbina, Sun Flower, Rose, Dahalia
2	October 2010 To March 2011	23000 Sqm	Trees	900	Mango,Lemon, Guava, Black berry, Silver Oaks Gulmohar, Mol shree, Alostonia, Ashok, Esterculia
			Creepers	150	Vougainvillia, Vegonia, Clitoria,
			Shrubs	2550	Duranta, Hamilia, irisine, Nerium, Murrya, Acalypha,
			Seasonal Flower	1550	Pitonia, Tegetis, Calandula, Pansy, Iceplant, verbina, Sun Flower Rose, Dahalia
3	April 2011 To Sep. 2011	4800 Sqm	Trees	1050	Mango,Lemon, Guava, Black berry, Silver Oaks Gulmohar, Mol shree, Alostonia, Ashok, Esterculia
			Shrubs	5000	Duranta, Hamilia, irisine, Nerium, Murrya, Acalypha,
4	October 2011 To March, 2012	14900 Sqm	Trees	300	Alostonia, Aerocoria, Juniparous
			Shrubs	3000	Duranta, Hemalia, Inermi,
			Seasonal Flower	4000	Pitonia, Tegetis, Calandula,Pansy, Iceplant, verbina, Sun Flower, Rose, Dahalia
5	April 2012 To September 2012	2000 Sqm	Trees	3208	Juniparous,Tuni,Shisham,Chakresia,Kachnar,Kanakchmpa,Venjomia,Kesia, Silveroak,Arjun, Ashok,Mango, Guava
			Shrubs	2500	Duranta, Hemalia, Inermi,
			Seasonal Flower	1000	Gainda. Verbina, Sunflower
6	October, 2012 to March, 2013	3000 Sqm	Trees	500	Mango, Guava, Amla, Neem, Pipal, Bargad, Bottle Palm, Ficus Benjomina, Cycus, Bottle Brush, Gulmohar etc.
			Shrubs	1500	Inermi, Duranto etc.
			Seasonal Flower	5000	Sunflower, Guinda, Verbina, Putinia, Gajonia, Pansy, Dahlia, Guldawadi, Rose etc.
Total area covered-83300 Sqm					

4. Rain Water Harvesting Measures

Four Rain Water harvesting Tanks have been constructed at the plant area for recharge of ground water. The details are given below:

1) Near Clinker Silo

- a) Dimension of the Tank : 8.00m X 6.00m X 2.50m
- b) Total Volume of the Tank = 120 m³
- c) The storm water drains of Cement Mill .Dump hopper, Administrative Building, Packing Plant, Weigh Bridge, and Main Gate are connected to the pond.

2) Near Auto workshop

- a) Dimension of the Tank : 18.00m X 8.00m X 3.00m
- b) Total Volume of the Tank = 432 m³
- c) The storm water drains of DG house, Auto workshop area, and 132 KVA substations.

3) Near Club

- a) Dimension of the Tank : 10.00m X 6.00m X 3.00m
- b) Total Volume of the Tank = 180 m³
- c) The storm water drains of Township, Field hostel-4 & 5, Club area.

4) Near Cow Shed

- a) Dimension of the Tank: 10.00m X 6.00m X 5.00m
- b) Total Volume of the Tank = 300 m³
- c) The storm water drains of Field hostel No.-1 & 2, Worker colony.

5. Good House keeping

Following measures have been taken for good house keeping at Plant:-

- a. All the raw materials are being stored in the covered yard.
- b. The conveyor belts are fully covered.
- c. Clinker and cement is being stored in silos.
- d. Mechanical vacuum road sweeping machine used for the road sweeping, resulting in the reduction of fugitive emission from the manual sweeping. All the swept material is being reused in the cement process.
- e. Water sprinkling for dust suppression on the road and other dust generation points in and around the plant is being done.

- f. All the kachcha roads of plant and colony have been concreted as well as flowers and plantation has been done by the road side.
- g. Only covered trucks are allowed to carry fly ash.
- h. Development of extensive green belt in and around the plant.
- i. Guidelines Published by C.P.C.B for cement Industries for control of fugitive emissions are being implemented

6. Scheduled maintenance and monitoring of Pollution Control Devices

All the Pollution Control Devices have been maintained as per scheduled maintenance by dedicated environmental management team and monitoring of all these are done regularly as per HPSPCB Norms.

The lists of major Pollution Control Devices installed are as under:

A. Bag House

Sr. No.	Pollution Control Devices attached with	Pollution Control Devices installed
1	Cement Mill	Bag House

B. Bag filters installed at various transfer points:

SL. NO.	Bag Filter No.	LOCATION	Capacity m3/hr
MATERIAL HANDLING AREA			
1	K12FN1	F/A Truck Trip HOPPER TOP	18000
2	K12FN2	F/A Truck Trip HOPPER TOP	18000
3	K12FN3	OPC Truck Trip HOPPER TOP	18000
4	K12FN4	OPC Truck Trip HOPPER TOP	18000
5	K12FNH	Course F/A SILO-01 TOP	7500

6	K12FNI	Raw F/A SILO-01 TOP	7500
7	K12FNJ	Raw F/A SILO-01 TOP	7500
8	K12FNK	OPC SILO-02 TOP	7500
9	K12FNL	OPC SILO-02 TOP	7500
10	K12FNM	FFA SILO-02 TOP	7500
MATERIAL HANDLING AREA- GRINDING UNIT			
11	513FN1	Clinker Truck Trip Hopper Top	18000
12	513FN2	Clinker Truck Trip Hopper Top	18000
13	K32FN1	Gyp. Truck Trip HOPPER TOP	18000
14	K32FN2	Gyp. Truck Trip HOPPER TOP	18000
15	K32FN5	Gyp.Belt Trans.Point	6325
16	513FN6	Clinker Dump Hopper Bottom	5500
17	513FN3	Clinker Silo Top	7000
18	513FN4	Clinker Silo Disc DBC to Belt	10000
19	513FN5	Clinker belt TR Pt. top	8050
20	K32FN3	Gypsum belt Trans Pt. top	10000

CEMENT GRINDING AREA			
21	521FN2	Belt feed to Mill Hop. TOP	10000
22	521FN3	W.F. discharge & Elev. Hop. TOP	10000
23	521FNB	RP FEED REJECT BUILDG TOP	8050
24	521FNA	RP FEED REJECT BUILDING	8000
25	521FN4	ROLL PRESS Venting	45000
26	521FN5	SKS VENT BAG HOUSE	480000
27	521FN6	Mill Venting B.F.	45000
28	521FN7	BAG HOUSE DISCHARGE	10000

29	521FN8	571BE1 Venting SKS Top	10000
30	241 FN1	Course F/A Bin Top	7500
F/A CLASSIFIER & CEMENT BLENDING AREA			
31	K42FN1	SILO 1 Extn RFA Bin TOP	2000
32	K42FN2	Raw F/A feed to Classifier	5500
33	K42FND	F/A CLASSIFIER BAG HOUSE	190000
34	K42FN3	CFA O/P Classifier Buildg.	10000
35	K42FN4	FFA O/P Classifier Buildg.	10000
36	K22FN5	SILO 1,EXTN BIN CFA K22CB1	3650
37	K32FN8	SILO 2,EXTN BIN FFA K32CB1	7500
38	K32FN9	SILO 2,EXTN BIN OPC K32CB2	3650
39	K32FNH	PPC SILO-03 TOP	8050
40	K32FNF	PPC SILO-03 TOP	8050
41	K32FNG	PPC SILO-03 TOP	8050

CEMENT EXTRACTION & PACKING AREA			
42	612FN1	SILO3,EXTN BIN TOP 612CB1	3650
43	612FN2	SILO3,EXTN BIN TOP 612CB2	3650
44	612FN3	SILO3, BULK LOADING SPOUT	3000
45	612FN8	SILO3,EXTN BIN TOP 612CB3	3650
46	642FN3	PACKER 1 TOP FLOOR	30000
47	642FN6	PACKER 2 TOP FLOOR	30000
48	642FN9	PACKER 3 TOP FLOOR	24000
49	642FNC	PACKER 4 TOP FLOOR	24000
50	L31FN1	Coal feeding to HAG	8400

PART – H

ADDITIONAL MEASURES / INVESTMENT PROPOSALS FOR ENVIRONMENTAL PROTECTION INCLUDING ABATEMENT POLLUTION, PREVENTION OF POLLUTION.

Additional measures being taken for prevention of Pollution are as follows:

1. Planning of extensive green belt development in the additional areas in and around the plant.
2. Truck tripling operation in dump hopper for clinker and fly has done under covered shed from all sides to avoid any dust generation.
3. Concretization of truck parking area outside the plant.
4. Gypsum and wet fly ash yard fully covered from all sides.
5. Online real time Continuous Monitoring Station for Ambient air installed and monitoring data being transmitted to CPCB/HPSPCB server.
6. Online real time Stack emission data is transmitted to CPCB/HPSPCB server.
7. STP: treated water used for green belt development and solid sludge as manure.
8. Sprinklers installed at vital points to suppress fugitive dust
9. Bag filters technical audit to be done every month
10. Awareness programs like plantation activities, Slogan competition, Extempore Speech competition was organized for children for awareness on environment protection/ water conservation at community Hall of our residential Colony on 5th June, 2013 (World Environment Day).
11. Regular Awareness Programs for Environment Protection, Energy conservation, Water Conservation. Green belt development for employees of all level of the unit to be arranged

EXPENDITURE ON VARIOUS ENVIRONMENTAL ACTIVITIES

For the year (2012 – 2013) & Budget for 2013-14

S. No.	Environmental activities	Cost (Rs. Lacs)	
		Recurring expenses year (2012-2013)	Recurring Proposed Budget (2013-14)
1	Expenditure on operation and maintenance of Sewage Treatment Plant	5.0	6.0
2	Running cost of APCD including power cost.	130.00	125.00
3	Spares, Chemicals & Calibration of Pollution monitoring equipment	4.54	5.0
4	Expenditure on testing from outside lab.	1.75	2.0
5	Green belt development	16.80	16.0
6	Road repairing	25.00	20.00
7	Truck tripling dump hopper covering with GI sheet	54.0	5.0-
8	Running cost of Online CAAQMS/ Stack emission data transfer system	5.0	5.0
9	Occupational health	25.00	25.0
10	Expenses under CSR	67.25	65.00
	Total	334.34	

PART- I

ANY OTHER PARTICULARS FOR IMPROVING THE QUALITY OF ENVIRONMENT.

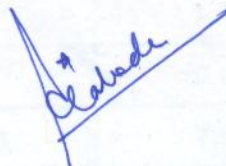
Preventive Measures

a) **Protection of Environment:** The Company has installed Dust Control Equipments, like Bag Houses, Bag Filters etc. at all emission points. All these equipments conform to the emission levels within the standards laid down by the Central Pollution Control Board / H.P. State Pollution Control Board. Ambient and fugitive air quality monitoring is regularly being carried out by the Company, as well as by other statutory bodies and the results has been found to be within the prescribed limits. Noise levels are also monitored and care is taken to keep the same within the prescribed norms.

b) **Use of Personal Protective Equipment:** All employees are provided with Personal Protective Equipments (PPEs), as per the requirement, such as workers working in plant area are provided with Dust Masks, Safety Helmets and Safety Boots, in noise pollution areas with Ear Plugs / Ear Muffs. In addition to this, other safety equipments like Fire Aprons, Gloves, Welding Goggles, Goggles etc. are also being provided as per the requirement.

Date: 02/09/13

Signature:



Name:

S.D. Kalode

Designation:

V.P - (Mech.)

Address:

Jaypee Himachal Cement
Grinding & Blending Unit, (A
unit of Jaiprakash Associates
Ltd), Village- Tikri Padiyana
(Bagheri), P O Khillian, Tehsil
Nalagarh, Distt Solan (H P)
Pin -174 101.

ANNEXURE I

JAYPEE HIMACHAL CEMENT GRINDING AND BLENDING UNIT, BAGHERI

(A UNIT OF JAIPRAKASH ASSOCIATES LTD.)

AMBIENT AIR QUALITY MONITORING REPORT

YEARLY REPORT(APRIL, 2012 TO MARCH, 2013)

LOCATION: 1 NEAR TOWNSHIP

PARTICULARS	RSPM $\mu\text{g}/\text{m}^3$	SPM $\mu\text{g}/\text{m}^3$	SO ₂ $\mu\text{g}/\text{m}^3$	NO _x $\mu\text{g}/\text{m}^3$
Minimum	42.17	12.54	1.82	5.28
Maximum	96.72	50.69	8.38	15.67
Average	59.28	24.80	4.46	11.43
Std. Deviation	10.77	7.51	1.87	2.11
Coefficient of variation	0.18	0.30	0.42	0.18
98th Percentile	85.29	45.99	7.96	15.33

LOCATION 2: NEAR DEHNI VILLAGE

Minimum	41.61	12.52	1.79	5.02
Maximum	102.48	46.43	8.46	17.07
Average	59.88	25.82	4.33	11.49
Std. Deviation	11.25	6.99	1.82	2.13
Coefficient of variation	0.19	0.27	0.42	0.19
98th Percentile	89.36	42.10	7.91	15.71

LOCATION 3: NEAR PADIYANA VILLAGE

Minimum	40.00	12.52	1.70	5.78
Maximum	102.58	50.84	7.47	15.75
Average	60.00	26.45	4.17	11.17
Std. Deviation	11.12	7.91	1.76	2.02
Coefficient of variation	0.18	0.30	0.42	0.18
98th Percentile	89.79	50.26	7.40	15.36

ANNEXURE II

JAYPEE HIMACHAL CEMENT GRINDING AND BLENDING UNIT, BAGHERI

(A UNIT OF JAIPRAKASH ASSOCIATES LTD.)

STACK MONITORING REPORT

YEARLY REPORT (APRIL, 2012 To MARCH, 2013)

PARTICULARS	stack gas Temp. (°K)	Stack gases velocity (m/sec)	Dust Conc. (mg/Nm³)
Minimum	341	3.98	11.04
Maximum	363	4.54	29.78
Average	349.85	4.24	17.80
Std. Dev	5.14	0.12	3.73
Coefficient of variation	0.01	0.03	0.21
98th Percentile	362.06	4.49	25.18

ANNEXURE III

JAYPEE HIMACHAL CEMENT GRINDING AND BLENDING UNIT, BAGHERI

(A UNIT OF JAIPRAKASH ASSOCIATES LTD.)

AMBIENT NOISE LEVEL MEASUREMENT REPORT

YEARLY REPORT (APRIL,2012 To MARCH, 2013)

LOCATION: 1 NEAR ADMIN BLOCK(PLANT BOUNDARY)		
PARTICULARS	NOISE LEVEL dB(A)	
	DAY TIME	NIGHT TIME
Minimum	68.50	63.00
Maximum	73.10	69.20
Average	70.82	67.30
Std. Deviation	1.21	1.60
Coefficient of variation	0.020	0.020
98th Percentile	73.01	69.20
LOCATION 2: NEAR PADIYANA VILLAGE		
Minimum	49.70	40.70
Maximum	54.80	45.10
Average	52.69	44.13
Std. Deviation	1.12	0.69
Coefficient of variation	0.02	0.02
98th Percentile	54.61	45.01
LOCATION 3: NEAR TOWNSHIP		
Minimum	49.20	41.30
Maximum	54.20	45.00
Average	51.63	43.85
Std. Deviation	1.23	0.69
Coefficient of variation	0.02	0.02
98th Percentile	53.82	45.00
LOCATION 4: NEAR BAGHERI VILLAGE		
MINIMUM	48.20	41.60
Maximum	52.10	45.00
Average	49.97	43.40
Std. Deviation	0.90	0.68

Coefficient of variation	0.02	0.02
98th Percentile	52.10	45
LOCATION 5: NEAR DEHNI VILLAGE		
MINIMUM	48.60	41.70
Maximum	52.50	45.00
Average	50.70	43.80
Std. Deviation	0.96	0.68
Coefficient of variation	0.02	0.02
98th Percentile	52.34	44.844

ANNEXURE IV

JAYPEE HIMACHAL CEMENT GRINDING AND BLENDING UNIT, BAGHERI

(A UNIT OF JAIPRAKASH ASSOCIATES LTD.)

SEWAGE TREATMENT PLANT REPORT

YEARLY REPORT (APRIL, 2012 TO MARCH, 2013)

SNo.	Parameters	Testing Values (After Treatment)					
		Minimum	Maximum	Average	Std. Deviation	Coefficient of variation	98th Percentile
1	pH	7.24	7.64	7.50	0.07	0.01	7.62
2	BOD	8.00	18.00	11.85	2.98	0.25	18
3	COD	42.00	118.00	67.65	21.26	0.31	104.84
4	TSS	14.00	28.00	21.04	3.67	0.17	28
5	Chloride	34.00	50.00	41.29	3.39	0.08	48.12
6	Oil & Grease	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible

Note: All parameters are in mg/litr, except pH

Treated water is being used for Green Belt Development and Horticulture purpose.

ANNEXURE V

JAYPEE HIMACHAL CEMENT GRINDING AND BLENDING UNIT, BAGHERI

(A UNIT OF JAIPRAKASH ASSOCIATES LTD.)

GROUND WATER (BOREWELL) QUALITY ANALYSIS REPORT

YEARLY REPORT (APRIL, 2012 TO MARCH, 2013)

SNo.	Parameters	Minimum	Maximum	Average
1	pH	7.20	7.40	7.31
2	Total Hardness as CaCo3(mg/L)	220.00	264.00	239.67
3	Chloride as Cl (mg/L)	14.00	20.00	16.79
4	Dissolved Solids(mg/L)	276.00	312.00	297.75