

all

JK PAPER LTD.

Unit : J.K. Paper Mills, Jaykaypur, Distt. Rayagada, Odisha-765017



Director (S)
Government of India, Ministry of Environment & Forests,
Eastern Regional Office,
A-3, Chandrasekharpur.
BHUBANESWAR-23

Ref: JKPW/ CTS/08.04A/92/2013,

December 17, 2013

Re: Expansion Cum modernization in Paper & Paper Board from 1,20,000 TPA to 3,00,000 TPA and Pulp from 1,10,000 BDTPA (bone dry tones per annum) to 2,20,000 BDTPA and CPP from 20 MW to 55 MW by replacement of some of the old machineries within existing mill area at Village Chandili, District Rayagada, Orissa by M/s J K Paper Limited - Environmental Clearance Compliance.

Your Reference: letter no: i) J-11011/172/2010-IA-II(I), Dated 20th April 2011

ii) J-11011/172/2010-IA-II(I), Dated 10th May 2013

Dear Sir,

With reference to the above letter, we are here with sending six monthly progress of implementation of Environmental Conditions as mentioned here under. We would also like to inform you that, we have commissioned our all new equipments and started our commercial production since 30.08.2013.

A. SPECIFIC CONDITIONS:

Point – (i)

Compliance to all the specific and general conditions stipulated for the existing plant by the Central/State Government should be ensured and regular reports submitted to the Ministry and its Regional Office at Bhubaneswar.

Status

Noted and being followed regularly.

Point – (ii)

The project authority shall install ESP to CFBC boilers to achieve the particulate emission below 50 mg/Nm³. The emissions from chemical recovery section shall be controlled through primary and secondary ventury scrubbers. To scrub the vent gases, scrubber shall be installed in the pulping and bleaching section. Lime scrubbing shall be done to mitigate SO₂ emissions and Low NOx burners shall be installed.

Status

We have adopted power boiler which is equipped with one ESP having 5 fields. Out of them one is spare for taking care of exigencies. With the above design, we are able to achieve the particulate emission below 50 mg/Nm³. We have commissioned our boiler in July'13 and since then running ok. In chemical recovery boiler, instead of primary and secondary ventury scrubber, we have adopted bigger size economizer with high efficient ESP to control emissions.



Works : J.K. Paper Mills, Ph : 91-6856-233770/233550/234077, Fax: 91-6856-234078
E-mail : jkpaper@jkpm.jkmail.com

Regd. Office : P.O. Central Pulp Mills, Fort Songadh, Distt. Tapi (Guj.)-394660, Ph : 91-2624-220228/220278-80,
Fax : 91-2624-220138 Cable : Cenpulp, E-mail: cpm@cpmjk.jkmail.com

Admn. Office : Nehru House, 4, Bahadur Shah Zafar Marg, New Delhi-110002, Ph: 91-11-33001112 / 23311112-5,
Fax: 91-11-23712680, Website: www.jkpaper.com

We have taken bleach scrubber in bleaching section by using caustic solution which is more effective than lime.

Stack emissions are being monitored using stack-monitoring devices after commissioning of new boilers. The monitoring results of Stack for Coal fired Boiler and liquor Fired Boiler from Sept'13 to Dec'13 is given below.

Monitoring results of Coal Fired Boiler

Period	Sampling locations	PM			SO ₂			NO ₂		
		Max	Min	Avg	Max	Min	Avg	Max	Min	Avg
Sep'13 – Dec'13	Coal Fired Boiler	48.42	43.52	46.69	11.82	10.73	11.44	12.09	10.59	11.67

Monitoring results of Liquor Fired Boiler

Period	Sampling locations	PM			H ₂ S			SO ₂			NO ₂		
		Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg
Sep'13 to Dec'13	Liquor Fired Boiler	45.27	41.83	44.05	1.37	1.28	1.32	12.44	10.27	11.66	12.66	11.42	12.06

Point – (iii)

The total water requirement after expansion shall not exceed 40,000 KLD. The industry should ensure the compliance of the standards for discharge of the treated effluent from the unit as stipulated under the EPA rules or SPCB whichever is more stringent. The company shall make efforts to limit the water consumption upto 75 m³/tonne of product. Adequate steps including use of modern RO/UF based technologies should be used to increase recycling and reduce water consumption. The wastewater shall be discharged only after meeting the CPCB norms. Efforts shall be made to achieve 10 Kappa by using H₂O₂. The Company shall harvest the rain water to recharge the ground water.

Status

Our fresh water consumption is well within 40,000 M³/day.

The present water consumption is 69.1 M³ (April'13 to Nov'13) per tone of paper. The detail data is given in the graph Anx – I

Two stage oxygen delignification processes has been adopted at Pulp mill to control 10 kappa by use of H₂O₂.

Presently the rain water is going to recharge wells. We are also in process of constructing more recharge wells.

Point – (iv)

Adequate number of influent and effluent quality monitoring stations should be set up in consultation with the State Pollution Control Board and regular monitoring should be carried out for all relevant parameters to maintain the effluent treatment efficiency. The report shall be submitted to Ministry's Regional Office at Bhubaneswar, SPCB and CPCB.

Status

Influent and effluent monitoring stations are set up in consultation with the SPCB. pH, BOD, COD, TSS is being tested by Pulp and Paper Research Institute and AOX by Central Pulp and Paper Research Center, Saharanpur. The test results of pH, BOD, COD, TSS and AOX are being sent to SPCB on monthly basis. Monitoring data of Treated and untreated effluent, Upstream and Downstream of River Nagavali are attached in Annexure – II, III respectively.

Stage wise Effluent Monitoring Data

Period	Monitoring station	pH			SS (mg/l)			COD (mg/l)			BOD (mg/l)			AOX (mg/l)
		Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	
May'13 – Nov'13	Inlet to ET Plant	7.2	6.8	7.1	1128.0	910.0	1060.1	1173.0	992.8	1128.5	337.6	266.3	314.1	9.6
	Primary clarifier overflow	7.2	6.8	7.1	126.0	105.0	120.2	585.0	497.2	557.0	176.5	253.9	192.9	4
	Activated sludge basin overflow	7.6	7.3	7.5	2643.7	2525.0	2607.1	--	--	--	--	--	--	--
	Secondary clarifier overflow	7.6	7.3	7.5	24.0	12.3	20.6	222.0	167.0	209.9	18.0	7.5	14.0	4.4

Point – (v)

The company shall install Oxygen Delignification (ODL) Plant and maintain AOX below 1 kg/tonne of paper production.

Status

We have adopted two stage oxygen delignification processes in our new pulping process and the AOX level at our treated effluent is between 0.15 - 0.25 kg / ton of paper production.

Point – (vi)

Elemental Chlorine Free (ECF) technology shall be used and lime kiln should be installed to manage lime sludge.

Status

In our new process, we are not using chlorine in our bleaching process.

During the preparation of EIA report, we have considered organic hydrochloric acid for manufacturing of Chlorine dioxide which will be used for bleaching. But, we are not getting indigenous organic hydrochloric acid. Hence, for manufacturing of chlorine dioxide we are using chlorine for manufacture of Hydrochloric acid for production of Chlorine Dioxide instead of purchased commercial grade hydrochloric acid.

We have commissioned one Lime kiln plant of capacity 300 MT/day for lime sludge management.

Point – (vii)

The company shall submit the comprehensive water management plan along with monitoring plan for the ground water quality and the level, within three months from date of issue of this letter.

Status

Since long, we are monitoring ground water quality twice a year at three places around the factory and reports are being submitted regularly to your office. The data is enclosed in the Annexure - IV. With respect to ground water level, we are capturing the month wise data since Oct'11 with the help of a level indicator from bore well. The month wise ground water level data is as under (From Jan'12 to Dec'13).

Month	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12
Ground	19.3	19.5	19.9	20.5	20.6	20.9	19.8	20.1	20.1	19.8	19.6	19.8
water level	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13
in (m)	19.9	20.2	20.4	20.6	20.4	20.5	20.0	19.8	19.4	19.3	19.2	19.2

Point – (viii)

The ash generated from the plant shall be disposed of in accordance with the provisions of the Fly Ash Notification, 2003 as amended in 2009.

Status

In our present fly ash management system, about 43% of total generated fly ash is being used for manufacturing bricks and the remaining ash is being used for reclaiming near by low lying areas and converting it in to a usable land for development of shopping complex, temple, colonies etc. With the above management practice, we are utilizing 100% fly ash. The same management of fly ash will continue in future also.

Point – (ix)

The project authority shall dispose of hazardous waste as per the provision of Hazardous Wastes (Management Handling and Transboundary Movement) Rules, 2008.

Status

This is being followed regularly and will be continued.

Point – (x)

The company should develop green belt in 33% of the total land all along the boundary wall as per the CPCB guidelines to mitigate the effect of fugitive emissions.

Status

At present, from our total area, 33.73% has been covered with green belt. In addition to that, we are planning to develop another 8.9% of total land for green belt in future.

Point – (xi)

Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.

Status

Being conducted regularly and records maintained.

Point – (xii)

The company shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling.

Status

Suitable fire hydrant system is in place and it has been extended for our new operation area also.

Point – (xiii)

All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the pulp and paper sector should be strictly implemented.

Status

This is being followed strictly.

Point – (xiv)

All the commitments made to the public during the Public Hearing / Public Consultation meeting held on 22nd December, 2010 should be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bhubaneswar.

Status

We have prepared action plan to implement all the commitments made to the public during the Public Hearing through our CSR activities. Please refer to our Annexure - V

Point – (xv)

At least 5 % of the total cost of the project shall be earmarked towards the enterprise social commitment based on Public Hearing & social responsibility and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bhubaneswar. Implementation of such program should be ensured accordingly in a time bound manner.

Status

Please refer to our Annexure – V for detailed proposal and expenditure on CSR.

Point – (xvi)

Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

Status

During our construction period, we had provided all above facilities to labour engaged for construction.

Thanking you.

Yours faithfully,
For J K Paper Limited


Executive Vice President (Works)

Copy to:

1. Joint Director, MoEF, Paryavaran Bhawan, CGO Complex, Lodi Road, New Delhi-110003
2. Member Secretary, Odisha Pollution Control Board, Bhubaneswar, Odisha
3. Regional Officer, Odisha Pollution Control Board, Indira Nagar, Rayagada
4. Mr. P.Mohapatra, Sr.GM(PR), Bhubaneswar
5. Mr. Sandeep Bhalla, General Manager (Project), New Delhi Office



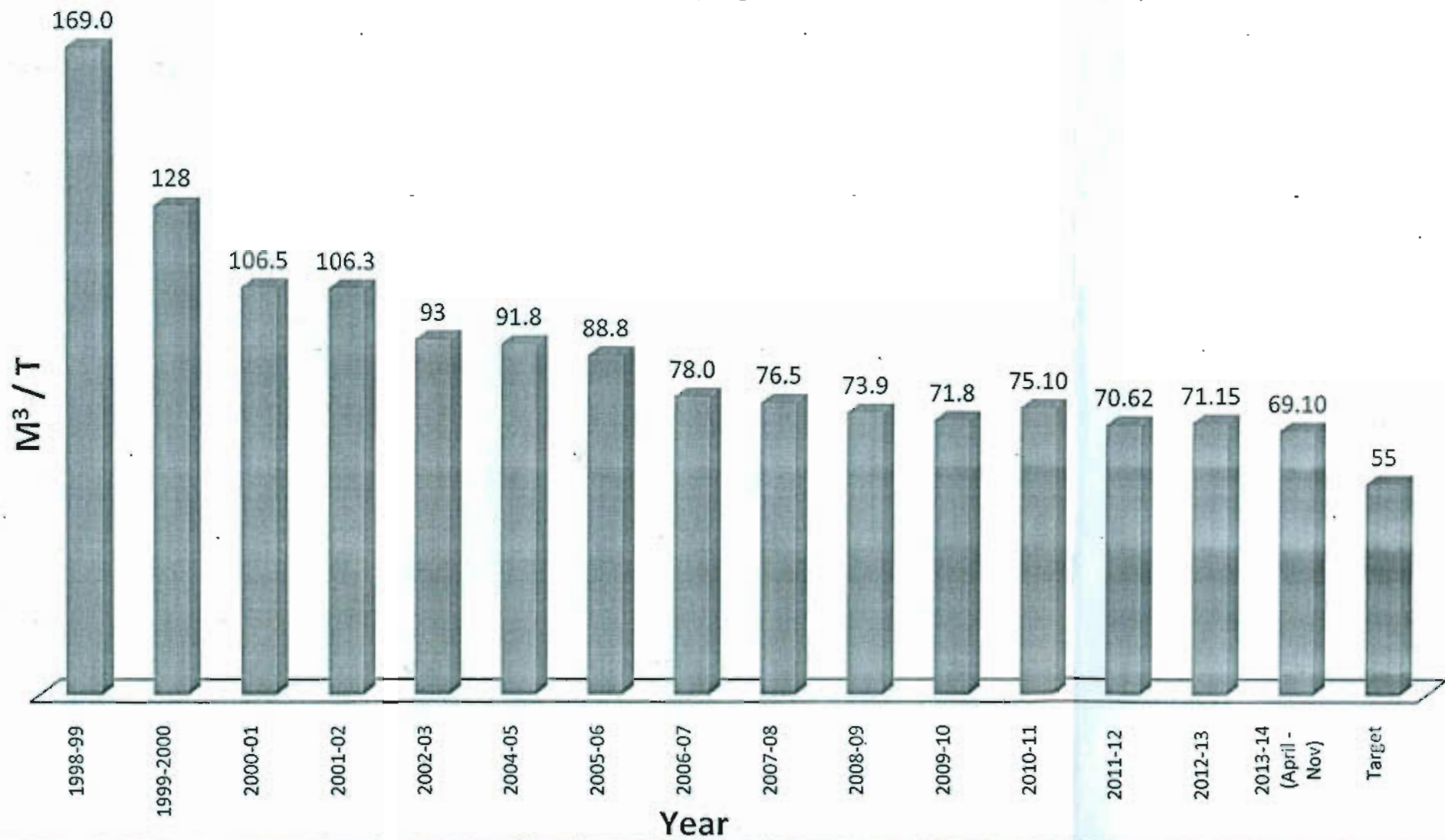
JK Paper Mills, P.P. 9, B.658, T.91, R.6/233950/234071, Fax: 91-6856-234078

E-mail : jkpaper@jkpm.jkmail.com

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Water Consumption Trend





PULP AND PAPER RESEARCH INSTITUTE

(Regd. under Societies Registration Act, 1860)

JAYKAYPUR - 765 017, DIST. RAYAGADA, ORISSA (INDIA)

ANALYSIS REPORT

Material	Effluent water samples	Our Ref.:	08. 266 / 486
Recd. on	22-11-2013	Date:	16-12-2013
From	JK Paper Mills, Jaykaypur	Page No.:	1 of 4
Your Ref.	JKPW/CTS/08.15/72/2013		

TABLE - 1: ANALYSIS REPORT OF
EFFLUENT INLET (FEED TO PRIMARY CLARIFIER) (SAMPLE-1)
EFFLUENT OUTLET (SECONDARY CLARIFIER OVERFLOW) (SAMPLE-2)

Sl.No.	Parameters	Unit	Sample-1	Sample-2
1.	Colour and odour	PtCoU	-	410, agree
2.	pH	-	7.95	7.2
3.	Temperature	°C	37	34
4.	Oil and grease	mg/l	0.56	0.29
5.	Dissolved oxygen	mg/l	0.0	0.6
6.	Total suspended solids	mg/l	520	22
7.	Electrical conductivity	µmho/cm	1650	620
8.	COD	mg/l	967	119
9.	BOD ₃ ²⁷	mg/l	121	13
10.	Total residual chlorine	mg/l	-	0.32
11.	Ammonical nitrogen (as N)	mg/l	-	41.1
12.	Total Kjeldahl nitrogen (as NH ₃)	mg/l	-	7.8
13.	Free Ammonia (as NH ₃)	mg/l	-	ND
14.	Sulphide (as S)			1.62
15.	Fluoride (as F)	mg/l	-	1.03
16.	Dissolved phosphates (as P)	mg/l	-	9.1
17.	Arsenic (as As)	mg/l	-	ND
18.	Lead (as Pb)	mg/l	-	ND
19.	Hexavalent chromium (as Cr+6)			0.18
20.	Total chromium (as Cr)	mg/l	-	0.40
21.	Copper (as Cu)	mg/l	-	1.09
22.	Zinc (as Zn)	mg/l	-	1.36
23.	Nickel (as Ni)	mg/l	-	0.87
24.	Boron	mg/l	-	0.15
25.	Manganese (as Mn)	mg/l	-	0.19
26.	Iron (as Fe)	mg/l	-	1.33
27.	Manganese (as Mn)			0.05
28.	Sodium (as Na)	mg/l	318	295
29.	Potassium (as K)	mg/l	52	35
30.	% sodium as Na	-	-	55.4
31.	Sodium absorption ratio	-	-	5.91
32.	Nitrite nitrogen	mg/l	0.29	0.27
33.	Nitrate nitrogen	mg/l	2.67	0.62
34.	Residual sodium carbonate	mg/l	-	0.84

Date of collection : Effluent water samples on 22.11.2013

Time : 9.45 hrs.

ND : Not detectable

Remarks:

For Pulp and Paper Research Institute

Director



PULP AND PAPER RESEARCH INSTITUTE

(Regd. under Societies Registration Act, 1860)

JAYKAYPUR - 765 017, DIST. RAYAGADA, ORISSA (INDIA)

ANALYSIS REPORT

Material	River water samples	Our Ref.:	08.266 / 486
Recd. on	22-11-2013	Date:	16-12-2013
From	JK Paper Mills, Jaykaypur	Page No.:	2 of 4
Your Ref.	JKPW/CTS/08.15/72/2013		

TABLE - 2: ANALYSIS REPORT OF
UPSTREAM OF RIVER NAGAVALI WATER (SAMPLE-3)
DOWNSTREAM OF RIVER NAGAVALI WATER (SAMPLE-4)

Sl. No.	Parameters	Unit	Sample-3	Sample-4
1.	pH	-	7.6	7.0
2.	Colour	PtCoU	6	7
3.	Temperature	°C	28	29
4.	Oil and grease	mg/l	0.0.035	0.038
5.	Dissolved oxygen	mg/l	8.7	7.9
6.	Total suspended solid	mg/l	41	51
7.	Turbidity	NTU	6.9	10.3
8.	Electrical conductivity	µmho/cm	185	210
9.	Total dissolved solid	mg/l	126	177
10.	Chloride (as Cl)	mg/l	29.9	35.6
11.	COD	mg/l	14	21
12.	BOD ₃ ²⁷	mg/l	0.25	1.78
13.	Sulphate (as SO ₄)	mg/l	0.9	3.33
14.	Fluoride (as F)	mg/l	0.03	0.041
15.	Copper (as Cu)	mg/l	ND	ND
16.	Lead (as Pb)	mg/l	ND	ND
17.	Total chromium (as Cr)	mg/l	ND	ND
18.	Zinc (as Zn)	mg/l	0.22	0.23
19.	Nickel (as Ni)	mg/l	Nil	Nil
20.	Iron (as Fe)	mg/l	0.15	0.34
21.	Calcium (as Ca)	mg/l	27	36.8
22.	Magnesium (as Mg)	mg/l	5.3	8.8
23.	Sodium (as Na)	mg/l	23	31
24.	Potassium (as K)	mg/l	5	7
25.	Nitrite nitrogen	mg/l	0.30	0.63
26.	Nitrate nitrogen	mg/l	0.04	0.048
27.	Total hardness (as CaCO ₃)	mg/l	58	90
28.	Total alkalinity (as CaCO ₃)	mg/l	59	67

Date of collection : River water samples on 22.11.2013

Time : 10.30 hrs.

Remarks:

For Pulp and Paper Research Institute

Director

KALYANI LABORATORIES PVT. LTD.

841-A, RASUL GARH, BHUBANESWAR-751010, ODISHA

TEST CERTIFICATE

Test Report No.: KLPL-TR/10/S274

Issue Date: 11.11.2013

Name and address of the Customer: M/s J. K. Paper Ltd.,
Jaykaypur, Dist- Rayagada-765017

Customer's reference: Nil

Date of Sample Receipt: 18.10.2013 Testing Dt.: 19.10.2013 Test completion Dt: 09.11.2013

Sample Description : Treated Effluent Water Sample No. of Samples: 1 No

Sample Condition: Sealed Plastic Bottle

Sampling Method used, if any: Sample not collected by KLPL.

RESULTS OF ANALYSIS OF TREATED EFFLUENT WATER SAMPLE

Sl. No	Parameters	Units	Results	Standard For Discharge to Inland Surface Water (CPCB)	Test Methods
1.	Sulphide(as S)	mg/l	0.14	2.0	APHA-22 nd Edition (4500-S ² -F)
2.	Mercury(as Hg)	mg/l	BDL (<0.001)	0.01	APHA-22 nd Edition (3112 B)
3.	Cadmium(as Cd)	mg/l	BDL (<0.001)	2.0	APHA-22 nd Edition (3111 B)
4.	Phenolic Compounds	mg/l	BDL (<1.0)	1.0	Cl. 5.0 of IS 3025 (Part 43)
5.	Hexavalent Chromium (as Cr ⁺⁶)	mg/l	BDL (<0.1)	0.1	APHA-22 nd Edition (3500-Cr-B)
6.	Bioassay	-	100% survival of test species (Zebra fish) in 100% effluent after 96 hour.	90 % survival of fish after 96 hrs. in 100 % effluent.	IS 6582
Remarks: BDL: Below Detection Limit					
Any unusual feature observed during determination					Nil

End of Test Report

Rekha Nayak
11/11/2013
Authorized Signatory
Kalyani Laboratories Private Limited





PULP AND PAPER RESEARCH INSTITUTE

(Regd. under Societies Registration Act, 1860)

JAYKAYPUR - 765 017, DIST. RAYAGADA, ORISSA (INDIA)

ANALYSIS REPORT

Material	Ground water samples	Our Ref.:	08. 266 / 486
Recd. on	22-11-2013	Date:	16-12-2013
From	JK Paper Mills, Jaykaypur	Page No.:	3 of 4
Your Ref.	JKPW/CTS/08.15/72/2013		

TABLE - 3: ANALYSIS REPORT OF
GROUND WATER FROM LIME DISPOSAL SITE (NEAR KURUMPETA) (SAMPLE-5)
GROUND WATER FROM LIME DISPOSAL SITE (NEAR GETTIPADA) (SAMPLE-6)
GROUND WATER FROM LIME DISPOSAL SITE (NEAR KALAHANDIPADA) (SAMPLE-7)

Sl. No.	Parameters	Unit	Sample-5	Sample-6	Sample-7
1.	pH	-	6.8	6.4	7.2
2.	Colour	PtCoU	2	2	3
3.	Temperature	°C	30	30	31
4.	Oil and grease	mg/l	0.18	0.11	0.12
5.	Dissolved oxygen	mg/l	6.0	5.6	7.5
6.	Total suspended solid	mg/l	24	8	12
7.	Turbidity	NTU	1.5	1.0	1.1
8.	Electrical conductivity	µmho/cm	200	210	380
9.	Total dissolved solid	mg/l	145	142	180
10.	Chloride (as Cl)	mg/l	33.0	40.6	49.5
11.	COD	mg/l	5.8	4.5	12.0
12.	BOD ₃ ²⁷	mg/l	Nil	1.0	1.2
13.	Sulphate (as SO ₄)	mg/l	2.0	6.8	20.0
14.	Fluoride (as F)	mg/l	0.5	0.39	0.66
15.	Copper (as Cu)	mg/l	ND	ND	ND
16.	Lead (as Pb)	mg/l	ND	ND	ND
17.	Total chromium (as Cr)	mg/l	ND	ND	ND
18.	Zinc (as Zn)	mg/l	0.32	0.33	0.6
19.	Nickel (as Ni)	mg/l	0.74	0.48	0.85
20.	Iron (as Fe)	mg/l	1.35	1.2	0.36
21.	Calcium (as Ca)	mg/l	28.2	28.8	62.5
22.	Magnesium (as Mg)	mg/l	15.6	17.5	30.0
23.	Sodium (as Na)	mg/l	24	16	40
24.	Potassium (as K)	mg/l	2	3	3
25.	Nitrite nitrogen	mg/l	0.088	0.001	0.091
26.	Nitrate nitrogen	mg/l	0.066	0.08	0.5
27.	Total hardness (as CaCO ₃)	mg/l	80	82	233
28.	Total alkalinity (as CaCO ₃)	mg/l	75	80	125

Date of collection : Ground water samples on 22.11.2013

Time : 11.00 hrs.

Remarks:

For Pulp and Paper Research Institute


Director

JK PAPER LTD. :: UNIT - JKPM

**EXPENDITURE INCURRED ON CORPORATE SOCIAL RESPONSIBILITY
DURING 2011-12, 2012-13 & PROPOSED FOR 2013-14**

SL. NO.	ACTIVITY	2011 -12	2012 - 13	2013-14
1	Community Development	Rs.(in lacs)		
	- Community Asset Building	6.06	11.66	40.00
	- Livelihood Intervention	14.98	25.31	30.00
	- Community Health	38.74	40.67	35.00
	- Awareness & Capacity Building	5.23	19.08	7.00
2	Women & Child Development	6.59	8.03	20.00
3	Promotion of Educational Services	14.11	13.97	16.00
4	Promotion of Socio - Cultural & Religious Activities	61.02	70.05	16.00
5	Promotion of Sports & Games	5.48	7.47	5.00
6	Infrastructure Development	27.52	83.14	32.00
7	Employment through Plantation (Alternative livelihood opportunities by supporting subsidised planting materials)	162.4	340.80	523.61
	TOTAL	342.13	620.18	724.61