

ANACON LABORATORIES PVT. LTD.

ISO 9001:2008, ISO 14001:2004, OHSAS 18001 Certified Organization,
 Recognized By Ministry of Environment & Forests (MoEF), New Delhi
 Accredited By Quality Council of India by NABET - Environment Impact Assessment Studies
 Authorised by Food Safety & Standards Authority of India Under FSS Act
 Approved by Bureau of Indian Standards (BIS)

[Report For The Month of July-August-September-2017 (Qtrly)]
AIR MONITORING ANALYSIS REPORT


Report No.:-	AN/AA/HECBIL/2017-18/300-1	Report Date:-	25.09.2017
Name of Client & Address:-	M/s HIND ENERGY AND COAL BENEFICATION (I) LTD. Village:- Hindadih, Sipat , Bilaspur (C.G.)-495 001.		
Type of Work :-	Ambient Air Monitoring (September-2017)	Sample Ref.No. :-	1718/Mon-156-1
Sample Drawn By :	Anacon Representative	Sample Received Date	18.09.2017
Date of Analysis :-	19.09.2017 To 20.09.2017	Testing Period	01 Day

(24 hrs Sampling)

SL. No.	Sampling Location	Sampling Date	PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO _x µg/m ³
1.	Near Steel Yard	12.09.2017	56.1	17.9	8.2	23.6
2.	Near Rotary Breaker	12.09.2017	48.7	16.8	7.1	17.3
3.	Near Dispatch	13.09.2017	62.8	23.1	8.4	26.4
4.	Near Barrack	13.09.2017	51.3	18.4	7.3	18.9
CPCB Standards			100	60	80	80

SL No.	Sampling Location	Sampling Date	Pb µg/m ³	As ng/m ³	Ni ng/m ³	Cd µg/m ³	Cr µg/m ³
1.	Near Steel Yard	12.09.2017	0.041	ND	0.068	ND	ND
2.	Near Rotary Breaker	12.09.2017	0.032	ND	0.054	ND	ND
3.	Near Dispatch	13.09.2017	0.046	ND	0.062	ND	ND
4.	Near Barrack	13.09.2017	0.029	ND	0.046	ND	ND
CPCB Standards			1.0 (24 hrs)	6.0 (annual)	20.0 (annual)	---	---

Thanks for utilizing our services.

 Chemist:- 

 Authorized Signatory



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Report No.-ALPL/25092017/302-2

ISSUED TO: HIND ENERGY AND COAL BENEFICATION (I) LTD. Village:- Hindadih Seepat , Bilaspur (C.G.)-495 001.	Sample Inward No. : 1718/Mon- 156-W2 Report Issue Date : 25.09.2017 Your Reference : HECBIL/HINDADIH/BSP/2017-18/02 Reference Date : 01.01.2017
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Sample Category : Effluent Water
Sample Particulars : Settling Tank-2

Sample Registration Date : 18.09.2017	Analysis Starting Date : 19.09.2017
Quantity received : 2 L & 250ml	Analysis Completion Date : 23.09.2017
Sample tested as received	Tests required : As per w.o.
Sampling Date : 14.09.2017	Sampled by : Anacon Representative Mr. Avinash Ishwarkar

TEST RESULTS

Sr. No.	Test Parameter	Measurement Unit	Test Method	Test Result
1.	pH	-	IS 3025 (Part 11)	7.21 at 25°C
2.	Chemical oxygen demand (COD)	mg / l	IS 3025 (Part 58)	13.29
3.	Biochemical oxygen demand (BOD at 27°C for 3 days)	mg / l	IS 3025 (Part 44)	4.16
4.	Total suspended solids (TSS)	mg / l	IS 3025 (Part 17)	12
5.	Total dissolved solids (TDS)	mg / l	IS 3025 (Part 16)	291
6.	Chlorides (as Cl)	mg/l	IS 3025 (Part 32)	16.39
7.	Sulphate (as SO ₄)	mg/l	IS 3025 (Part 24)	31.58
8.	Oil & Grease	mg / l	IS 3025 (Part 39)	< 4

NOTES : ● Please see watermark "Original Test Report" in blue color to confirm the authenticity of this report. ● Results shall be referred to tested sample(s) and applicable to tested parameters only. ● Test report shall not be reproduced except in full without prior written approval of Anacon Labs. ● Liability of Anacon Labs is limited to invoiced amount only. ● Non-perishable and perishable sample(s) shall be disposed off after 90 days and 15 days respectively from the date of issue of Test Report, unless specified otherwise. ● 'mg/l' is equivalent to 'ppm', ● 'µg/l' is equivalent to 'ppb'. ● '<' indicates detection limit of instrument/method and shall be considered as 'absent'.

REMARKS: Above waste water is recycled 100% and zero discharge in maintain.

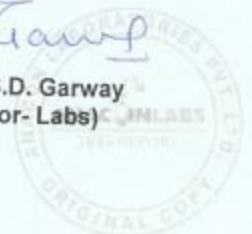
For ANACON LABORATORIES PVT. LTD.,

Verified by

Ms. Ranjana Shambharkar
(Sr. Chemist)

Authorized Signatory

Dr. (Mrs.) S.D. Garway
(Director- Labs)



[Report For The Month of July-August-September-2017 (Qtrly)]

Fugitive Dust Monitoring Analysis Report

Report No.:-	AN/FE/HECBIL/2017-18/300-2	Report Date:-	25.09.2017
Name of Client & Address:-	M/s HIND ENERGY AND COAL BENEFICATION (I) LTD. Village:- Hindadih, Seepat , Bilaspur (C.G.)-495 001.		
Type of Work :-	Fugitive Dust Monitoring (September-2017)	Sample Ref.No. :-	1718/Mon-156-2
Sample Drawn By :	Anacon Representative	Sample Received Date	18.09.2017
Date of Analysis :-	19.09.2017 To 20.09.2017	Testing Period	01 Day

SL. NO.	Sampling Location	Sampling Date	SPM $\mu\text{g}/\text{m}^3$	SO ₂ $\mu\text{g}/\text{m}^3$	NO _x $\mu\text{g}/\text{m}^3$
1	Near Weight Bridge	12.09.2017	304	12.8	32.4
2	Near Environment Lab	13.09.2017	181	8.4	17.9
CPCB Standards			--	--	--

Thanks for utilizing our services

Chemist:- 



Authorized Signatory



TEST REPORT

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Report No.-ALPL/25092017/301-1

ISSUED TO: HIND ENERGY AND COAL BENEFICATION (I) LTD. Village:- Hindadih Seepat , Bilaspur (C.G.)-495 001.	Sample Inward No. : 1718/Mon-156-GW1 Report Issue Date : 25.09.2017 Your Reference : HECBIL/HINDADIH/BSP/2017-18/02 Reference Date : 01.01.2017
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Sample Category : Ground Water
Sample Code : GW-1
Sample Location : Near Main Gate

Sample Registration Date : 18.09.2017	Analysis Starting Date : 19.09.2017
Quantity received : 2 L	Analysis Completion Date : 23.09.2017
Sample tested as received	Tests required : As per w.o.
Sampling Date : 14.09.2017	Sampled by : Anacon Representative Mr. Avinash Ishwarkar

TEST RESULTS

[Report For The Month of July-August-September-2017 (Qtrly)]

Sr. No	Test Parameter	Measurement Unit	Test Method	As per IS 10500 : 2012 (Drinking Water - Specification)		Test Result
				Acceptable Limit	*Permissible Limit	
1.	pH value	-	IS 3025 (Part 11)	6.5 to 8.5	No relaxation	7.64 at 25°C
2.	Electrical Conductivity at 25°C	µs/cm	IS 3025 (Part 14)	-	-	541.6
3.	Turbidity	NTU	IS 3025 (Part 10)	1	5	0.7
4.	Total dissolved solids (TDS)	mg / l	IS 3025 (Part 16)	500	2000	303
5.	Magnesium (as Mg)	mg / l	IS 3025 (Part 46)	30	100	9.18
6.	Total hardness (as CaCO ₃)	mg / l	IS 3025 (Part 21)	200	600	193.65
7.	Total alkalinity (as CaCO ₃)	mg / l	IS 3025 (Part 23)	200	600	121.67
8.	Calcium (as Ca)	mg / l	IS 3025 (Part 40)	75	200	62.38
9.	Chlorides (as Cl)	mg / l	IS 3025 (Part 32)	250	1000	27.42
10.	Sulphate (as SO ₄)	mg / l	IS 3025 (Part 24)	200	400	18.59
11.	Fluoride (as F)	mg / l	IS 3025 (Part 60)	1.0	1.5	0.21
12.	Iron (as Fe)	mg / l	IS 3025 (Part 2)	1.0	No relaxation	0.16
13.	Nitrates (as NO ₃)	mg / l	APHA Method	45	No relaxation	7.39
14.	Total coliform	MPN/100 ml	IS 1622	--	--	< 2

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REMARKS: Based upon request of the party, sample was tested for above mentioned parameters only. Sample complies with IS:10500:2012, for tests conducted, indicating that it is fit for drinking purpose with respect to tested parameters.

For ANACON LABORATORIES PVT. LTD.,

Verified by

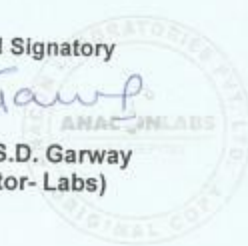
Ms. Ranjana Shambharkar
(Sr. Chemist)

Authorized Signatory

Dr. (Mrs.) S.D. Garway
(Director- Labs)

Head Office : 60, Bajprabhu Nagar, Nagpur - 440033 India. Ph. No. (0712) 2242077, 9372404924, Email : ngp@anacon.in
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Support Helpline : Technical (9373287475), Accounts Division (9326960081, 9372960079), Administration (9372960078, 9975947666) Email : support@anacon.in. You may also visit us at www.anaconlaboratories.com

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TEST REPORT

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Report No.-ALPL/25092017/301-2

ISSUED TO: HIND ENERGY AND COAL BENEFICATION (I) LTD. Village:- Hindadih Seepat , Bilaspur (C.G.)-495 001.	Sample Inward No. : 1718/Mon-156-GW2 Report Issue Date : 25.09.2017 Your Reference : HECBIL/HINDADIH/BSP/2017-18/02 Reference Date : 01.01.2017
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Sample Category : Ground Water
 Sample Code : GW-2
 Sample Location : Near Security Quarter

Sample Registration Date : 18.09.2017	Analysis Starting Date : 19.09.2017
Quantity received : 2 L	Analysis Completion Date : 23.09.2017
Sample tested as received	Tests required : As per w.o.
Sampling Date : 14.09.2017	Sampled by : Anacon Representative Mr. Avinash Ishwarkar

TEST RESULTS

[Report For The Month of July-August-September-2017 (Qtrly)]

Sr. No	Test Parameter	Measurement Unit	Test Method	As per IS 10500 : 2012 (Drinking Water - Specification)		Test Result
				Acceptable Limit	*Permissible Limit	
1.	pH value	-	IS 3025 (Part 11)	6.5 to 8.5	No relaxation	7.82 at 25°C
2.	Electrical Conductivity at 25°C	µs/cm	IS 3025 (Part 14)	-	-	503.8
3.	Turbidity	NTU	IS 3025 (Part 10)	1	5	0.4
4.	Apparent colour	Hazen units	IS 3025 (Part 4)	5	15	<1
5.	Odour	-	IS 3025 (Part 5)	Agreeable	Agreeable	Agreeable
6.	Taste	-	IS 3025 (Part 8)	Agreeable	Agreeable	Agreeable
7.	Iron (as Fe)	mg / l	IS 3025 (Part 2)	1.0	No relaxation	0.11
8.	Total dissolved solids (TDS)	mg / l	IS 3025 (Part 16)	500	2000	282
9.	Fluoride (as F)	mg / l	IS 3025 (Part 60)	1.0	1.5	0.17
10.	Cyanide (as CN)	mg / l	IS 3025 (Part 27)	0.05	No relaxation	< 0.005
11.	Chlorides (as Cl)	mg / l	IS 3025 (Part 32)	250	1000	38.21
12.	Residual chlorine	mg/l	IS 3025 (Part 26)	0.2	1	< 0.1
13.	Total alkalinity (as CaCO ₃)	mg / l	IS 3025 (Part 23)	200	600	112.68
14.	Total hardness (as CaCO ₃)	mg / l	IS 3025 (Part 21)	200	600	159.85
15.	Calcium (as Ca)	mg / l	IS 3025 (Part 40)	75	200	51.39
16.	Magnesium (as Mg)	mg / l	IS 3025 (Part 46)	30	100	7.64
17.	Sulphate (as SO ₄)	mg / l	IS 3025 (Part 24)	200	400	16.27
18.	Nitrates (as NO ₃)	mg / l	APHA Method	45	No relaxation	< 2
19.	Copper (as Cu)	mg / l	IS 3025 (Part 2)	0.05	1.5	< 0.03
20.	Manganese (as Mn)	mg / l	IS 3025 (Part 2)	0.1	0.3	< 0.05

< indicates detection limit of the laboratory.

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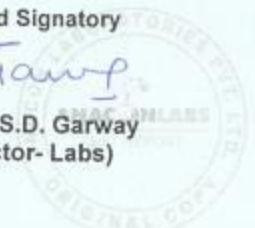
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For ANACON LABORATORIES PVT. LTD.,

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Sample Category : Ground Water
Sample Code : GW-2
Sample Location : Near Security Quarter

Sample Registration Date : 18.09.2017 Quantity received : 2 L Sample tested as received Sampling Date : 14.09.2017	Analysis Starting Date : 19.09.2017 Analysis Completion Date : 23.09.2017 Tests required : As per w.o. Sampled by : Anacon Representative Mr. Avinash Ishwarkar	
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TEST RESULTS

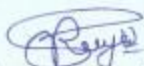
[Report For The Month of July-August-September-2017 (Qtrly)]

Sr. No	Test Parameter	Measurement Unit	Test Method	As per IS 10500 : 2012 (Drinking Water - Specification)		Test Result
				Acceptable Limit	*Permissible Limit	
21.	Mercury (as Hg)	mg / l	IS 3025 (Part 2)	0.001	No relaxation	< 0.0005
22.	Cadmium (as Cd)	mg / l	IS 3025 (Part 2)	0.003	No relaxation	< 0.001
23.	Selenium (as Se)	mg / l	IS 3025 (Part 2)	0.01	No relaxation	< 0.001
24.	Arsenic (as As)	mg / l	IS 3025 (Part 2)	0.01	0.05	< 0.01
25.	Aluminium (as Al)	mg / l	IS 3025 (Part 2)	0.03	0.2	< 0.005
26.	Lead (as Pb)	mg / l	IS 3025 (Part 2)	0.01	No relaxation	< 0.005
27.	Zinc (as Zn)	mg / l	IS 3025 (Part 2)	5	15	< 0.1
28.	Total Chromium (as Cr)	mg / l	IS 3025 (Part 2)	0.05	No relaxation	< 0.03
29.	Boron (as B)	mg / l	IS 3025 (Part 2)	0.5	1.0	< 0.1
30.	Mineral Oil	mg / l	IS 3025 (Part 39)	0.5	No relaxation	< 0.001
31.	Phenolic compounds (as C ₆ H ₅ OH)	mg / l	IS 3025 (Part 43)	0.001	0.002	< 0.001
32.	Anionic detergents	mg / l	IS 13428 (Annex K)	0.2	1.0	< 0.001
33.	Polyneuclear aromatic hydrocarbon (PAH)	µg/l	USEPA : 550	0.1	No relaxation	< 0.03
34.	Total coliform	MPN/100 ml	IS 1622	---	---	< 2

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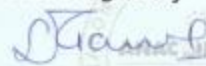
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Verified by



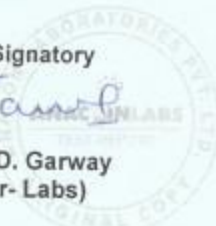
For ANACON LABORATORIES PVT. LTD.,

Authorized Signatory



Ms. Ranjana Shambharkar
(Sr. Chemist)

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Report No.-ALPL/25092017/302-1

ISSUED TO: HIND ENERGY AND COAL BENEFICATION (I) LTD. Village:- Hindadih Seepat , Bilaspur (C.G.)-495 001.	Sample Inward No. : 1718/Mon-156-W1 Report Issue Date : 25.09.2017 Your Reference : HECBIL/HINDADIH/BSP/2017-18/02 Reference Date : 01.01.2017
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Sample Category : Effluent Water
Sample Particulars : Settling Tank-1

Sample Registration Date : 18.09.2017	Analysis Starting Date : 19.09.2017
Quantity received : 2 L & 250ml	Analysis Completion Date : 23.09.2017
Sample tested as received	Tests required : As per w.o.
Sampling Date : 14.09.2017	Sampled by : Anacon Representative Mr. Avinash Ishwarkar

TEST RESULTS

Sr. No.	Test Parameter	Measurement Unit	Test Method	Test Result
1.	pH	-	IS 3025 (Part 11)	7.08 at 25°C
2.	Chemical oxygen demand (COD)	mg / l	IS 3025 (Part 58)	21.64
3.	Biochemical oxygen demand (BOD at 27°C for 3 days)	mg / l	IS 3025 (Part 44)	7.18
4.	Total suspended solids (TSS)	mg / l	IS 3025 (Part 17)	19
5.	Total dissolved solids (TDS)	mg / l	IS 3025 (Part 16)	318
6.	Chlorides (as Cl)	mg/l	IS 3025 (Part 32)	21.34
7.	Sulphate (as SO ₄)	mg/l	IS 3025 (Part 24)	42.61
8.	Oil & Grease	mg / l	IS 3025 (Part 39)	< 4

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REMARKS: Above waste water is recycled 100% and zero discharge in maintain.

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