Central Coalfields Limited Office of the General Manager <u>P.O.- Dhori Distt – Bokaro.</u>

Ref. No.-GM (D)/ PS/ Env. Statements/2020-21/ 130

Dated: - 30.09.2021

To, Member Secretary, JSPCB, HEC, Dhurwa, Ranchi.

Sub: Submission of Environment Statement / Audit Reports - 2020-21.

Dear Sir,

We are enclosing herewith the Environment Statement / Audit Reports for the financial year 2020-21 in respect of following projects of Dhori Area duly signed by respective Project Officers for your kind perusal.

During 2020-21, Dhori OCP production was suspended due to non availability of Land.

Amlo OCP

- 2. Tarmi OCP
- 3. Selected Dhori Group of Mines (SDGOM)
- 4. Dhori (Khas) UGP
- 5. Dhori OCP
- 6. Tarmi Siding

Encl: As above.

Yours faithfully,

30/09/21

General Manager Dhori Area. General Manager C.C.L., Dhori Area

Copy to:

- 1. Regional officer, JSPCB, HIG-1, Housing colony, Dhanbad.
- 2. Staff Officer (Env), Dhori Area
- Project Officers- Amlo / Dhori (E)/ Tarmi / Selected Dhori Group of mines (SDGOM) / Dhori (K) UG/Tarmi Siding.



ENVIRONMENT STATEMENT/AUDIT REPORT

AMLO OPEN CAST PROJECT CENTRAL COAFILEDS LIMITED DHORI AREA

FOR 2020-21

SUBMITTED TO JHARKHAND POLLUTION CONTROL BOARD

FORM – V (See rule 14) Environmental Statement for the financial year ending the 31^{st} March 2021.

	I ARI-A.	
Ι	Name and address of the Project.	Amlo Opencast Project.,
		PO: Dhori,
		Dist: Bokaro
		State: Jharkhand
ii.	Industry category primary – (STC- Code)	Primary
iii	Production capacity	3.00 MTPA
		(as per Approved EC)
		J-11015/35/2007-IA.II(M)
		DT. 30-09-2010.
		Production (2020-2021) =1.2MTe
iv	Date of last environment statement submitted.	30/09/2020 (2019-20).

PART-A.

PART-B.

Water and Raw material composition:

Water Consumption (Avg)	
1. Mining	300 cum/Day
2 Domestic	400 cum/day
Total	700 cum/day

2. Raw material consumption:

Name of Raw material	Name of	Consumption of Raw materials per unit of		
	product	product output		
		During the previous	During the current	
		financial year	Financial year	
		(2019-20)	(2020-21)	
Explosive (Kg/Te)		0.189	0.104	
Diesel (Lit/Te)	COAL and	1.15	1.873	
Lubricant (Lit/Te)	OB	0.05	0.19	

PART- C

Pollution discharged to Environment / unit of output (Parameters as specified in the consent issued)

Pollution	Quantity of pollutants discharged (Cum/day)	Percentage of variation from prescribed standards with reason.
a) Water	110 (Workshop and domestic	The quality of water is meeting
	discharge)	the prescribed standard.
b) Air (SPM,	The quantity of air pollutants	The results of SPM/RPM/SOx
SOx, NOx are	from mine is difficult to measure.	& NOx generated are well
main pollutant)	However, concentrations of air	within the prescribed standard.

	pollutants are measurable and are given in annexure.	
c) Noise	Recorded Noise levels are attached as annexure.	Noise level in around project is under prescribed standard.

PART-D.

Hazardous Waste (As specified under Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016

	Total quantity				
Hazardous waste	During Previous financial year	During current financial			
	(2019-2020)	year (2020-2021)			
A) From Mining					
process	Nil	Nil			
B) From Pollution	Nil	Nil			
control facilities					
B) From material	Used oil :35.13 KL	Used Oil: 47.95 KL			
handling system	Battery returned:53 Nos.	Battery returned: 42 Nos.			

$\mathbf{PART} - \mathbf{E}$

SOLID WASTE:

Solid Waste	Total Quantity (M. cum)			
	During the previous	During the current		
	financial year (2019-20)	Financial year (2020-21)		
a) From process (OB)	1.24	2.26		
(Mining)				
b) From pollution control	Nil	Nil		
facilities				

PART - F

Please specify the Characteristics in terms of concentration and quantity of Hazardous as well as solid waste and indicate, disposal practice adopted for both these categories of wastes.

• <u>1. HAZARDOUS WASTES :</u>

• Hazardous wastes are not being produced either from mining operation or from any pollution control facilities. Used oil such as mobile & lubricant are used for the lubrication of HEMM etc.

• <u>2. SOLID WASTES :</u>

• During opencast mining over burden produced as solid wastes temporarily as these materials are used for land reclamation. During the year 2019-20, is 1.24 Million cubic meter of overburden was generated. The overburden material is more or less homogeneous comprising mainly shale, sand, silt, clay and gravels.

• <u>3. DISPOSAL PRACTICE :</u>

• Presently, the OB material is being filled in de coaled area of quarry. The external O.B dump of previous year is used in back filling and reclamation of land.

PART- G

Impact of pollution control measures on conservation of natural resources and consequently on cost of production.

Following pollution control measures have been adopted by the mine management:

- 1) Air [Pollution Control Measures:
- \checkmark Regular water sprinkling of water on haul roads and other roads.
- ✓ Dust suppression at all transfer points
- ✓ Vegetation of OB dumps
- ✓ Regular monitoring of all environment parameters.

2) Water Pollution control measures:

- ✓ The mine water collected in the lagoons acts as sedimentation pond where all suspended particles are settled. The clear water is used for spraying / industrial purpose. The excess water overflows to nallah.
- \checkmark Work shop ETP is in operation.
- \checkmark Regular monitoring is done to check the parameters.

3) Noise pollution control measures.

- \checkmark All HEMM provided with noise /sound proof cabins.
- \checkmark Ear muffs/plugs are provided to workers.



PART- H

Additional investment proposal for Environmental protection including abatement of pollution.

The following are the additional investment proposal for Environmental protection

- 1. All residential quarters constructed for the project has been provided with septic latrines and effluents are disposed off in soak pits.
- The Environmental Monitoring of the project will be continued quarterly as per guidelines of MOEF
- Environmental statement report will be prepared for each financial year ending 31st March.

PART-I

Any other particulars in respect of environment protection and abatement of pollution.

- The Environmental monitoring is carried out quarterly for the project by CMPDI as per the guidelines of the Ministry of Environment & Forest (MOEF).
- The Environmental Statement for the project is prepared every year.
- Ambient air quality, quality of effluent discharged from the mine and noise level all conform to the prescribed limits.
 To control functions due to a local discharged from the mine and noise level all set of the set
- To control fugitive dust on haul road arrangement of water sprinkling on the haul road has been made.

@@@@@@

AW30. 012

Amlo OCP Project Officer Amlo Project



Photographs of AMLO Project





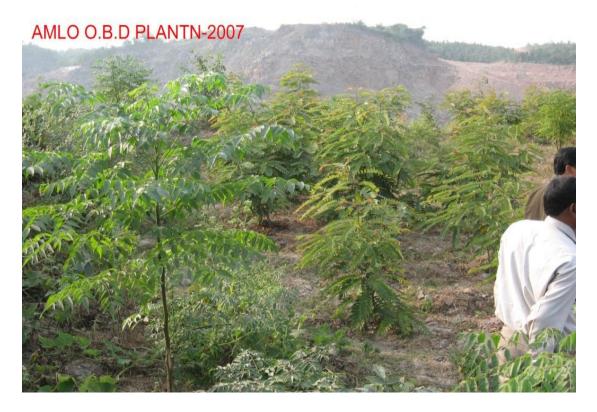


AMLO OCP plantation on OB dump in 2007



AMLO OCP plantation on OB dump in 2009





AMLO OCP







28 KL MIST SPRINKLER AT AMLO OCP

TEST REPORT							
06/20 Test Report no. 1621	Job No. 0943120075	Year	FY2020-21				
Type of Sample	Ambient Air	Quarter Ending	Jun-20				
Customer	CCL						
Mode of Receipt of Sample:	Joint sampling with customer						
Testing/Sampling Protocol:	IS 5182 (part 14): 2000 ,R -2010, Methods for Measurement of Air Pollution, LQR 32						
Remarks & Observation:	n: All samplers placed 1.5 m above ground level						

TEST RESULT

The sample has been tested with the following results: -

Area : Dł	nori	Pro	oject: Am	lo		Stations:	P.O	Office	
					Paramete	ers(in µg/m	3)		
Month	Date of Sampling	Date of receipt of sample	Date of analysis	Matter	Particulate Matter (PM ₁₀)	Particulate Matter (PM2.5)	Sulphur Dioxide (SO ₂)	Nitrogen Oxides (as NO ₂)	Wind Direction (from) & Weather
Apr-20 1st FN	08/04/20- 09/04/20	16-04-2020	16/04/20- 20/04/20	209	130	74	< 25	< 6	West Sunny
Apr-20 2nd FN	16/04/20- 17/04/20	04-05-2020	04/05/20- 06/05/20	152	83	36	< 25	< 6	West Sunny
May-20 3rd FN	05/05/20- 06/05/20	18-05-2020	18/05/20- 20/05/20	251	142	67	< 25	< 6	East Sunny
May-20 4th FN	19/05/20- 20/05/20	01-06-2020	01/06/20- 03/06/20	191	119	42	< 25	< 6	East Sunny
Jun-20 5th FN	02/06/20- 03/06/20	16-06-2020	16/06/20- 18/06/20	220	126	57	< 25	< 6	East Sunny
Jun-20 6th FN	17/06/20- 18/06/20	01-07-2020	01/07/20- 03/07/20	159	79	38	< 25	< 6	East Sunny

Note:

1. Gazette Notification No. G.S.R 742(E) dt.25th Sept.'2000 is enclosed along for reference applicable in core zone.

2. Gazette Notification No. G.S.R 826 (E) dt.Nov.'2009 is enclosed for reference applicable in buffer zone.

Analysed By

Checked By

Authorized Signatory

TEST REPORT								
06/20 Test Report no. 1622 Job No. 0943120075 Year FY2020								
Type of Sample	Ambient Air	Quarter Ending	Jun-20					
Customer	CCL							
Mode of Receipt of Sample:	Joint sampling with customer	Joint sampling with customer						
Testing/Sampling Protocol:IS 5182 (part 14): 2000 , R -2010, Methods for Measurement of Air Pollution, LQR 32								
Remarks & Observation: All samplers placed 1.5 m above ground level								

TEST RESULT

Area : Dł	ıori	Pro	oject: Am	lo		Stations	s: Woi	kshop	
					Paramete	ers (in µg/	m ³)		Wind
Month	Date of Sampling	Date of receipt of sample	Date of analysis	Total Particulate Matter (PM10+ >PM10)TPM	Particulate Matter (PM ₁₀)	Particulate Matter (PM2.5)	Sulphur Dioxide (SO ₂)	Nitrogen Oxides (as NO ₂)	Wind Direction (from) & Weather
Apr-20 1st FN	08/04/20- 09/04/20	16-04-2020	16/04/20- 20/04/20	216	110	66	< 25	< 6	West Sunny
Apr-20 2nd FN	16/04/20- 17/04/20	04-05-2020	04/05/20- 06/05/20	179	96	53	< 25	< 6	West Sunny
May-20 3rd FN	05/05/20- 06/05/20	18-05-2020	18/05/20- 20/05/20	227	132	86	< 25	< 6	East Sunny
May-20 4th FN	19/05/20- 20/05/20	01-06-2020	01/06/20- 03/06/20	161	88	56	< 25	< 6	East Sunny
Jun-20 5th FN	02/06/20- 03/06/20	16-06-2020	16/06/20- 18/06/20	220	95	43	< 25	< 6	East Sunny
Jun-20 6th FN	17/06/20- 18/06/20	01-07-2020	01/07/20- 03/07/20	116	67	27	< 25	< 6	East Sunny

2. Gazette Notification No. G.S.R 826 (E) dt.Nov.'2009 is enclosed for reference applicable in buffer zone.

Authorized Signatory

TEST REPORT							
06/20 Test Report no. 1623	Job No. 0943120075	Year	FY2020-21				
Type of Sample	Ambient Air	Quarter Ending	Jun-20				
Customer	CCL						
Mode of Receipt of Sample:	Joint sampling with customer						
Testing/Sampling Protocol:	IS 5182 (part 14): 2000 ,R -2010, Methods for Measurement of Air Pollution, LQR 32						
Remarks & Observation: All samplers placed 1.5 m above ground level							

TEST RESULT

The sample has been tested with the following results: -

Area : Dł	ıori	Pro	oject: Am	lo		Stations:	Cha	pri Gues	t House
					Paramete	ers(in μg/m	³)		Wind
Month	Date of Sampling	Date of receipt of sample	Date of analysis	Total Particulate Matter (PM10+ >PM10)TPM	Particulate Matter (PM ₁₀)	Particulate Matter (PM2.5)	Sulphur Dioxide (SO ₂)	Nitrogen Oxides (as NO ₂)	Direction (from) & Weather
Apr-20 1st FN	08/04/20- 09/04/20	16-04-2020	16/04/20- 20/04/20	149	65	23	< 25	< 6	West Sunny
Apr-20 2nd FN	16/01/20- 17/01/20	04-05-2020	04/05/20- 06/05/20	327	116	67	< 25	< 6	West Sunny
May-20 3rd FN	05/05/20- 06/05/20	18-05-2020	18/05/20- 20/05/20	192	77	38	< 25	< 6	East Sunny
May-20 4th FN	19/05/20- 20/05/20	01-06-2020	01/06/20- 03/06/20	200	95	69	< 25	< 6	East Sunny
Jun-20 5th FN	02/06/20- 03/06/20	16-06-2020	16/06/20- 18/06/20	163	80	38	< 25	< 6	East Sunny
Jun-20 6th FN	17/06/20- 18/06/20	01-07-2020	01/07/20- 03/07/20	113	65	29	< 25	< 6	East Sunny

Note:

1. Gazette Notification No. G.S.R 742(E) dt.25th Sept.'2000 is enclosed along for reference applicable in core zone.

2. Gazette Notification No. G.S.R 826 (E) dt.Nov.'2009 is enclosed for reference applicable in buffer zone.

Authorized Signatory

Note: 1) This Report refers to the values obtained at the time of testing and results related to the items tested 2) This Report cannot be reproduced in part or full without written permission of the management.

TEST REPORT								
06/20 Test Report no. 1624	Job No. 0943120075	Year	FY2020-21					
Type of Sample	Ambient Air	Quarter Ending	Jun-20					
Customer	CCL							
Mode of Receipt of Sample:	Joint sampling with customer							
Testing/Sampling Protocol:	IS 5182 (part 14): 2000 ,R -2010, Meth	IS 5182 (part 14): 2000 ,R -2010, Methods for Measurement of Air Pollution, LQR 32						
Remarks & Observation:	All samplers placed 1.5 m above groun	d level						

TEST RESULT

The sample has been tested with the following results: -

Area : Dł	nori	Pro	oject: Am	lo		Stations	Aml	o Village	
					Paramete	ers(in µg/m	n ³)		Wind
Month	Date of Sampling	Date of receipt of sample	Date of analysis	Total Particulate Matter (PM10+ >PM10)TPM	Particulate Matter (PM ₁₀)	Particulate Matter (PM2.5)	Sulphur Dioxide (SO ₂)	Nitrogen Oxides (as NO ₂)	Direction (from) & Weather
Apr-20 1st FN	09/04/20- 10/04/20	16-04-2020	16/04/20- 20/04/20	177	71	37	< 25	< 6	West Sunny
Apr-20 2nd FN	17/04/20- 18/04/20	04-05-2020	04/05/20- 06/05/20	362	127	70	< 25	< 6	West Sunny
May-20 3rd FN	06/05/20- 07/05/20	18-05-2020	18/05/20- 20/05/20	164	84	50	< 25	< 6	East Sunny
May-20 4th FN	20/05/20- 21/05/20	01-06-2020	01/06/20- 03/06/20	139	72	40	< 25	< 6	East Sunny
Jun-20 5th FN	03/06/20- 04/06/20	16-06-2020	16/06/20- 18/06/20	131	75	37	< 25	< 6	East Sunny
Jun-20 6th FN	18/06/20- 19/06/20	01-07-2020	01/07/20- 03/07/20	146	81	33	< 25	< 6	East Sunny

Note:

1. Gazette Notification No. G.S.R 742(E) dt.25th Sept.'2000 is enclosed along for reference applicable in core zone.

2. Gazette Notification No. G.S.R 826 (E) dt.Nov.'2009 is enclosed for reference applicable in buffer zone.

Authorized Signatory

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TEST REPORT	
Job No. 0943120075	Year

06/20 Test Report no. 1625	Job No. 0943120075	Year	FY2020-21			
Type of Sample:	Noise	Quarter Ending	Jun-20			
Customer	CCL					
Testing/Sampling Protocol:	'The noise pollution (Regulation and Control), Rules, 2000, LQR 34					
Remarks:						

TEST RESULT

The sample has been tested with the following results: -

rea :	Dhori			Project:		Amlo
			Noi	se Level		
Station Name	Apr-20 1st FN	Apr-20 2nd FN	May-20 3rd FN	May-20 4th FN	Jun-20 5th FN	Jun-20 6th FN
Date of recording	08-04-2020	16-04-2020	05-05-2020	19-05-2020	02-06-2020	17-06-2020
P.O.Office	49.6	49.7	49.5	49.2	50.4	49.8
Date of recording	08-04-2020	16-04-2020	05-05-2020	19-05-2020	02-06-2020	17-06-2020
Workshop	55.3	59.5	62.7	60.2	65.6	62.5

Ambient Air Quality Standards in respect of Noise as per 'The noise pollution (Regulation and Control), Rules,2000								
Time Frame	Limits in	dB(A) Leq						
	Day Time 6.00 AM to 10.00 PM	Night Time 10.00 PM to 6.00 AM						
Industrial Area	75	70						
Commercial Area	65	55						
Residential area	55	45						
Silence Zone	50	40						

Analysed By

Authorized Signatory

TEST REPORT								
06/20 Test Report no. 1626	Job No. 0943120075	Year	FY2020-21					
Type of Sample:	Effluent Water	Quarter Ending	Jun-20					
Customer	CCL	CCL						
Mode of Receipt of Sample:	Joint sampling with customer							
Testing/Sampling Protocol:	MOEF -SCH-VI STANDAR	MOEF -SCH-VI STANDARDS, Class 'A', LQR 33						
Remarks & Observation:	Samples received in 5 ltrs plas	Samples received in 5 ltrs plastic Jerri cane, Colour as observed is transparent						

TEST RESULT

The sample has been tested with the following results: -

Area: Dhori		Project:	Amlo	Stati	ons: Lago	oon Discharge	e
		Anal	ysis Results of FN H	Effluent Wat	er		
	Paran	neters \rightarrow		COD	0 & G	pH value	TSS
	Detect	ion Limit		4	2	0.2	10
MOI	EF -SCH-VI, S	TANDARDS, O	Class 'A'	250	10	5.5 to 9.0	100
Month	Date of Sampling	Date of Receipt of Sample	Date of Analysis	Value in mg/l, except pH			
Apr-20 1st FN	10/04/20	16/04/20	16/04/20-04/05/20	20	<2.00	7.87	24
Apr-20 2nd FN	20/04/20	04/05/20	04/05/20-20/05/20	36	<2.00	7.86	40
May-20 3rd FN	07/05/20	18/05/20	18/05/20-31/05/20	20	<2.00	8.12	24
May-20 4th FN	22/05/20	01/06/20	01/06/20-18/06/20	24	<2.00	8.05	28
Jun-20 5th FN	05/06/20	16/06/20	16/06/20-02/07/20	20	<2.00	7.94	28
Jun-20 6th FN	20/06/20	01/07/20	01/07/20-16/07/20	24	<2.00	8.07	32
BIS Standard & M	lethod			APHA, 23rd Edition, Closed Reflux, Titrimetric	IS 3025/39:1991, R : 2003, Partition Gravimetric	IS-3025/11:1983, R-1996, Electrometric	IS 3025/17:1984, R :1996, Gravimetric

Authorized Signatory

TEST REPORT								
09/20 Test Report no. 1621	Job No. 094320075	Year	FY2020-21					
Type of Sample	Ambient Air	Quarter Ending	Sep-20					
Customer	CCL							
Mode of Receipt of Sample:	Joint sampling with customer							
Testing/Sampling Protocol:	IS 5182 (part 14): 2000 ,R -2010, Meth	IS 5182 (part 14): 2000 ,R -2010, Methods for Measurement of Air Pollution, LQR 32						
Remarks & Observation:	All samplers placed 1.5 m above groun	id level						

TEST RESULT

The sample has been tested with the following results: -

Area : Di	ıori	Pro	oject: Am	lo		Stations	: P.O	Office	
					Paramete	ers (in µg/1	n ³)		
Month	Date of Sampling	Date of receipt of sample	Date of analysis	Total Particulate Matter (PM10+ >PM10)TPM	Particulate Matter (PM ₁₀)	Particulate Matter (PM2.5)	Sulphur Dioxide (SO ₂)	Nitrogen Oxides (as NO ₂)	Wind Directior (from) & Weather
Jul-20 1st FN	02/07/20- 03/07/20	20-07-2020	20/07/20- 22/07/20	211	92	50	< 25	< 6	West Sunny
Jul-20 2nd FN	21/07/20- 22/07/20	03-08-2020	03/08/20- 04/08/20	192	112	67	< 25	< 6	West Sunny
Aug-20 3rd FN	03/08/20- 04/08/20	17-08-2020	17/08/20- 19/08/20	152	98	41	< 25	< 6	East Rair
Aug-20 4th FN	17/08/20- 18/08/20	01-09-2020	01/09/20- 03/09/20	139	73	32	< 25	< 6	East Sunny
Sep-20 5th FN	01/09/20- 02/09/20	16-09-2020	16/09/20- 18/09/20	127	70	37	< 25	< 6	East Rair
Sep-20 6th FN	17/09/20- 18/09/20	01-10-2020	01/10/20- 05/07/20	171	93	46	< 25	< 6	East Rair

Note:

1. Gazette Notification No. G.S.R 742(E) dt.25th Sept.'2000 is enclosed along for reference applicable in core zone.

2. Gazette Notification No. G.S.R 826 (E) dt.Nov.'2009 is enclosed for reference applicable in buffer zone.

Authorized Signatory

Note: 1) This Report refers to the values obtained at the time of testing and results related to the items tested 2) This Report cannot be reproduced in part or full without written permission of the management.

TEST REPORT								
09/20 Test Report no. 1622	Job No. 094320075	Year	FY2020-21					
Type of Sample	Ambient Air	Quarter Ending	Sep-20					
Customer	CCL							
Mode of Receipt of Sample:	Joint sampling with customer							
Testing/Sampling Protocol:	IS 5182 (part 14): 2000 ,R -20	IS 5182 (part 14): 2000 ,R -2010, Methods for Measurement of Air Pollution, LQR 32						
Remarks & Observation:	All samplers placed 1.5 m abo	All samplers placed 1.5 m above ground level						

TEST RESULT

Area : Dł	ıori	Pro	oject: Am	lo		Station	s: Wor	kshop	
					Paramete	ers (in µg/	m ³)		W/: 1
Month	Date of Sampling	Date of receipt of sample	Date of analysis	Total Particulate Matter (PM10+ >PM10)TPM	Particulate Matter (PM ₁₀)	Particulate Matter (PM2.5)	Sulphur Dioxide (SO ₂)	Nitrogen Oxides (as NO ₂)	Wind Direction (from) & Weather
Jul-20 1st FN	02/07/20- 03/07/20	20-07-2020	20/07/20- 22/07/20	237	145	74	< 25	< 6	West Sunny
Jul-20 2nd FN	21/07/20- 22/07/20	03-08-2020	03/08/20- 04/08/20	182	104	59	< 25	< 6	West Sunny
Aug-20 3rd FN	03/08/20- 04/08/20	17-08-2020	17/08/20- 19/08/20	131	78	37	< 25	< 6	East Rain
Aug-20 4th FN	17/08/20- 18/08/20	01-09-2020	01/09/20- 03/09/20	175	90	42	< 25	< 6	East Sunny
Sep-20 5th FN	01/09/20- 02/09/20	16-09-2020	16/09/20- 18/09/20	194	104	46	< 25	< 6	East Rain
Sep-20 6th FN	17/09/20- 18/09/20	01-10-2020	01/10/20- 05/07/20	213	129	66	< 25	< 6	East Rain

2. Gazette Notification No. G.S.R 826 (E) dt.Nov.'2009 is enclosed for reference applicable in buffer zone.

Analysed By

Authorized Signatory

09/20 Test Report no. 1623	Job No. 094320075	Year	FY2020-21				
Type of Sample	Ambient Air	Quarter Ending	Sep-20				
Customer	CCL						
Mode of Receipt of Sample:	Joint sampling with customer						
Testing/Sampling Protocol:	IS 5182 (part 14): 2000 ,R -2010, Methods for Measurement of Air Pollution, LQR 32						
Remarks & Observation:	All samplers placed 1.5 m above ground level						

TEST RESULT

The sample has been tested with the following results: -

Area : Di	ıori	Pro	oject: Am	lo		Stations	Cha	pri Gues	t House
					Paramete	ers(in µg/m	1 ³)		Wind
Month	Date of Sampling	Date of receipt of sample	Date of analysis	Total Particulate Matter (PM10+ >PM10)TPM	Particulate	Particulate Matter (PM2.5)	Sulphur Dioxide (SO ₂)	Nitrogen Oxides (as NO ₂)	Direction (from) & Weather
Jul-20 1st FN	03/07/20- 04/07/20	20-07-2020	20/07/20- 22/07/20	169	91	43	< 25	< 6	West Sunny
Jul-20 2nd FN	21/07/20- 22/07/20	03-08-2020	03/08/20- 04/08/20	158	74	34	< 25	< 6	West Sunny
Aug-20 3rd FN	03/08/20- 04/08/20	17-08-2020	17/08/20- 19/08/20	96	70	29	< 25	< 6	East Rain
Aug-20 4th FN	17/08/20- 18/08/20	01-09-2020	01/09/20- 03/09/20	127	65	28	< 25	< 6	East Sunny
Sep-20 5th FN	01/09/20- 02/09/20	16-09-2020	16/09/20- 18/09/20	144	75	35	< 25	< 6	East Rain
Sep-20 6th FN	18/09/20- 19/09/20	01-10-2020	01/10/20- 05/07/20	112	65	29	< 25	< 6	East Rain

Note:

1. Gazette Notification No. G.S.R 742(E) dt.25th Sept.'2000 is enclosed along for reference applicable in core zone.

2. Gazette Notification No. G.S.R 826 (E) dt.Nov.'2009 is enclosed for reference applicable in buffer zone.

Authorized Signatory

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TEST REPORT							
09/20 Test Report no. 1624	Job No. 094320075	Year	FY2020-21				
Type of Sample	Ambient Air	Quarter Ending	Sep-20				
Customer	CCL						
Mode of Receipt of Sample:	Joint sampling with customer	Joint sampling with customer					
Testing/Sampling Protocol:	IS 5182 (part 14): 2000 ,R -2010, Methods for Measurement of Air Pollution, LQR 32						
Remarks & Observation:	All samplers placed 1.5 m above ground level						

TEST RESULT

The sample has been tested with the following results: -

Area : Di	nori	Pro	oject: Am	lo		Stations	: Am	o Village	e
					Paramete	ers(in µg/n	n ³)		Wind
Month	Date of Sampling	Date of receipt of sample	Date of analysis	Total Particulate Matter (PM10+ >PM10)TPM	Particulate Matter (PM ₁₀)	Particulate Matter (PM2.5)	Sulphur Dioxide (SO ₂)	Nitrogen Oxides (as NO ₂)	Direction (from) & Weather
Jul-20 1st FN	03/07/20- 04/07/20	20-07-2020	20/07/20- 22/07/20	144	69	37	< 25	< 6	West Sunny
Jul-20 2nd FN	22/07/20- 23/07/20	03-08-2020	03/08/20- 04/08/20	173	85	52	< 25	< 6	West Sunny
Aug-20 3rd FN	04/08/20- 05/08/20	17-08-2020	17/08/20- 19/08/20	118	73	36	< 25	< 6	East Rain
Aug-20 4th FN	18/08/20- 19/08/20	01-09-2020	01/09/20- 03/09/20	178	89	43	< 25	< 6	East Sunny
Sep-20 5th FN	02/09/20- 03/09/20	16-09-2020	16/09/20- 18/09/20	199	96	55	< 25	< 6	East Rain
Sep-20 6th FN	18/09/20- 19/09/20	01-10-2020	01/10/20- 05/07/20	158	83	44	< 25	< 6	East Rain

Note:

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TEST REPORT							
09/20 Test Report no. 1625	Job No. 094320075	Year	FY2020-21				
Type of Sample:	Noise	Quarter Ending	Sep-20				
Customer	CCL						
Testing/Sampling Protocol:	'The noise pollution (Regulat	'The noise pollution (Regulation and Control), Rules, 2000, LQR 34					
Remarks:							

TEST RESULT

The sample has been tested with the following results: -

Area :	Dhori			Project:	Am	llo
			Noi	se Level		
Station Name	Jul-20 1st FN	Jul-20 2nd FN	Aug-20 3rd FN	Aug-20 4th FN	Sep-20 5th FN	Sep-20 6th FN
Date of recording	02-07-2020	21-07-2020	03-08-2020	17-08-2020	01-09-2020	17-09-2020
P.O.Office	51.3	50.3	50.6	50.5	49.5	50.7
Date of recording	02-07-2020	21-07-2020	03-08-2020	17-08-2020	01-09-2020	17-09-2020
Workshop	65.4	60.5	63.5	55.8	61.7	65.6

Ambient Air Quality Standards in respect of Noise as per 'The noise pollution (Regulation and Control), Rules,2000								
Time Frame		dB(A) Leq						
	Day Time 6.00 AM to 10.00 PM	Night Time 10.00 PM to 6.00 AM						
Industrial Area	75	70						
Commercial Area	65	55						
Residential area	55	45						
Silence Zone	50	40						

Analysed By

Authorized Signatory

TEST REPORT							
09/20 Test Report no. 1626	Job No. 094320075	Year	FY2020-21				
Type of Sample:	Effluent Water	Quarter Ending	Sep-20				
Customer	CCL						
Mode of Receipt of Sample:	Joint sampling with customer						
Testing/Sampling Protocol:	MOEF -SCH-VI STANDARDS, Class 'A', LQR 33						
Remarks & Observation:	Samples received in 5 ltrs plas	Samples received in 5 ltrs plastic Jerri cane, Colour as observed is transparent					

TEST RESULT

The sample has been tested with the following results: -

Area: Dhor	i	Project:	Amlo	Stati	ons: Lago	oon Discharge	e
		Anal	ysis Results of FN H	Effluent Wat	er		
	Paran	heters \rightarrow		COD	0 & G	pH value	TSS
	Detect	ion Limit		4	2	1	10
MO	EF -SCH-VI, S	TANDARDS, O	Class 'A'	250	10	5.5 to 9.0	100
Month	Date of Sampling	Date of Receipt of Sample	Date of Analysis		Value in mg	/l, except pH	[
Jul-20 1st FN	09/07/20	20/07/20	20/07/20-04/08/20	28	<2.00	8.23	32
Jul-20 2nd FN	24/07/20	03/08/20	03/08/20-19/08/20	32	<2.00	7.72	42
Aug-20 3rd FN	07/08/20	17/08/20	17/08/20-29/08/20	28	<2.00	7.93	34
Aug-20 4th FN	19/08/20	01/09/20	01/09/20-16/09/20	32	<2.00	7.82	35
Sep-20 5th FN	04/09/20	16/09/20	16/09/20-30/09/20	28	<2.00	7.78	36
Sep-20 6th FN	21/09/20	01/10/20	01/10/20-12/10/20	16	<2.00	7.44	20
BIS Standard & N	/lethod			APHA, 23rd Edition, Closed Reflux, Titrimetric Method, 2017	IS 3025/39:1991, R : 2003, Partition Gravimetric	IS-3025/11:1983, R-1996, Electrometric	IS 3025/17:1984, R :1996, Gravimetric Method

Authorized Signatory

TEST REPORT							
12/20 Test Report no. 1624	Job No. 094320075	Year	FY2020-21				
Type of Sample	Ambient Air	Quarter Ending	Dec-20				
Customer	CCL						
Mode of Receipt of Sample:	Joint sampling with customer	Joint sampling with customer					
Testing/Sampling Protocol:	IS 5182 (part 14): 2000 ,R -2010, Methods for Measurement of Air Pollution, LQR 32						
Remarks & Observation:	All samplers placed 1.5 m above ground level						

TEST RESULT

Area : Di	ıori	Pro	oject: Am	lo		Stations	s: P.O	Office	
					Paramete	ers (in µg/ı	m ³)		XX7' 1
Month	Date of Sampling	Date of receipt of sample	Date of analysis	Total Particulate Matter (PM10+ >PM10)TPM	Particulate Matter (PM ₁₀)	Particulate Matter (PM2.5)	Sulphur Dioxide (SO ₂)	Nitrogen Oxides (as NO ₂)	Wind Direction (from) & Weather
Oct-20 1st FN	01/10/20- 02/10/20	16-10-2020	16/10/20- 19/10/20	157	77	34	< 25	< 6	East Rain
Oct-20 2nd FN	17/10/20- 18/10/20	02-11-2020	02/11/20- 05/11/20	208	92	54	< 25	< 6	West Sunny
Nov-20 3rd FN	02/11/20- 03/11/20	17-11-2020	17/11/20- 19/11/20	163	82	48	< 25	< 6	West Sunny
Nov-20 4th FN	17/11/20- 18/11/20	01-12-2020	01/12/20- 03/12/20	175	84	55	< 25	< 6	West Cloud
Dec-20 5th FN	01/12/20- 02/12/20	16-12-2020	16/12/20- 19/12/20	129	62	27	< 25	< 6	West Sunny
Dec-20 6th FN	17/12/21- 18/12/21	01-01-2021	01/01/21- 05/01/21	149	74	41	< 25	< 6	West Sunny

Note:

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2. Gazette Notification No. G.S.R 826 (E) dt.Nov.'2009 is enclosed for reference applicable in buffer zone.

Analysed By

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TEST REPORT								
12/20 Test Report no. 1625	Job No. 094320075	Year	FY2020-21					
Type of Sample Ambient Air Quarter Ending Dec-								
Customer	CCL							
Mode of Receipt of Sample:	Joint sampling with customer							
Testing/Sampling Protocol:	IS 5182 (part 14): 2000 ,R -2010, Methods for Measurement of Air Pollution, LQR 32							
Remarks & Observation:	Remarks & Observation: All samplers placed 1.5 m above ground level							

TEST RESULT

The sample has been tested with the following results: -

Area :	Dhori	Project:	Amlo	Stations:	Workshop

					Paramete	ers (in µg/m	3)		
Month	Date of Sampling	Date of receipt of sample	Date of analysis	Total Particulate Matter (PM10+ >PM10)TPM	Particulate Matter (PM ₁₀)	Particulate Matter (PM2.5)	Sulphur Dioxide (SO ₂)	Nitrogen Oxides (as NO ₂)	Wind Direction (from) & Weather
Oct-20 1st FN	01/10/20- 02/10/20	16-10-2020	16/10/20- 19/10/20	112	61	23	< 25	< 6	East Rain
Oct-20 2nd FN	17/10/20- 18/10/20	02-11-2020	02/11/20- 05/11/20	235	144	73	< 25	< 6	West Sunny
Nov-20 3rd FN	02/11/20- 03/11/20	17-11-2020	17/11/20- 19/11/20	159	79	34	< 25	< 6	West Sunny
Nov-20 4th FN	17/11/20- 18/11/20	01-12-2020	01/12/20- 03/12/20	203	120	70	< 25	< 6	West Cloud
Dec-20 5th FN	01/12/20- 02/12/20	16-12-2020	16/12/20- 19/12/20	231	113	66	< 25	< 6	West Sunny
Dec-20 6th FN	17/12/21- 18/12/21	01-01-2021	01/01/21- 05/01/21	363	166	85	< 25	7	West Sunny

Note:

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12/20 Test Report no. 1626	Job No. 094320075	Year	FY2020-21				
Type of Sample	Ambient Air	Quarter Ending	Dec-20				
Customer	CCL	CCL					
Mode of Receipt of Sample:	Joint sampling with customer						
Testing/Sampling Protocol:	IS 5182 (part 14): 2000 ,R -2010, Methods for Measurement of Air Pollution, LQR 32						
Remarks & Observation:	All samplers placed 1.5 m above ground lev	All samplers placed 1.5 m above ground level					

TEST RESULT

The sample has been tested with the following results: -

Area : Di	ıori	Pro	oject: Am	lo		Stations	Cha	pri Gues	t House
					Paramete	ers(in µg/m	1 ³)		W/in d
Month	Date of Sampling	Date of receipt of sample	Date of analysis	Total Particulate Matter (PM10+ >PM10)TPM	Particulate Matter (PM ₁₀)	Particulate Matter (PM2.5)	Sulphur Dioxide (SO ₂)	Nitrogen Oxides (as NO ₂)	Wind Direction (from) & Weather
Oct-20 1st FN	01/10/20- 02/10/20	16-10-2020	16/10/20- 19/10/20	135	75	32	< 25	< 6	East Rain
Oct-20 2nd FN	18/10/20- 19/10/20	02-11-2020	02/11/20- 05/11/20	163	79	39	< 25	< 6	West Sunny
Nov-20 3rd FN	03/11/20- 04/11/20	17-11-2020	17/11/20- 19/11/20	177	72	41	< 25	< 6	West Sunny
Nov-20 4th FN	18/11/20- 19/11/20	01-12-2020	01/12/20- 03/12/20	376	137	77	< 25	< 6	West Cloud
Dec-20 5th FN	01/12/20- 02/12/20	16-12-2020	16/12/20- 19/12/20	191	88	46	< 25	< 6	West Sunny
Dec-20 6th FN	17/12/21- 18/12/21	01-01-2021	01/01/21- 05/01/21	316	136	61	< 25	< 6	West Sunny

Note:

1. Gazette Notification No. G.S.R 742(E) dt.25th Sept.'2000 is enclosed along for reference applicable in core zone.

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TEST REPORT								
12/20 Test Report no. 1627	Job No. 094320075	Year	FY2020-21					
Type of Sample	Ambient Air Quarter Ending							
Customer	CCL							
Mode of Receipt of Sample:	Joint sampling with customer							
Testing/Sampling Protocol:	IS 5182 (part 14): 2000 ,R -2010, Methods for Measurement of Air Pollution, LQR 32							
Remarks & Observation:	Remarks & Observation: All samplers placed 1.5 m above ground level							

TEST RESULT

The sample has been tested with the following results: -

Area : Di	ıori	Pro	oject: Am	lo	Stations: Amlo Village				2
					Paramete	ers(in μg/m	3)		Wind
Month	Date of Sampling	Date of receipt of sample	Date of analysis	Total Particulate Matter (PM10+ >PM10)TPM	Particulate Matter (PM ₁₀)	Particulate Matter (PM2.5)	Sulphur Dioxide (SO ₂)	Nitrogen Oxides (as NO ₂)	Direction (from) & Weather
Oct-20 1st FN	01/10/20- 02/10/20	16-10-2020	16/10/20- 19/10/20	166	82	40	< 25	< 6	East Rain
Oct-20 2nd FN	18/10/20- 19/10/20	02-11-2020	02/11/20- 05/11/20	151	68	28	< 25	< 6	West Sunny
Nov-20 3rd FN	03/11/20- 04/11/20	17-11-2020	17/11/20- 19/11/20	120	61	31	< 25	< 6	West Sunny
Nov-20 4th FN	18/11/20- 19/11/20	01-12-2020	01/12/20- 03/12/20	131	68	32	< 25	< 6	West Cloud
Dec-20 5th FN	02/12/20- 03/12/20	16-12-2020	16/12/20- 19/12/20	170	79	31	< 25	< 6	West Sunny
Dec-20 6th FN	18/12/21- 19/12/21	01-01-2021	01/01/21- 05/01/21	203	96	57	< 25	< 6	West Sunny

Note:

Gazette Notification No. G.S.R 742(E) dt.25th Sept.'2000 is enclosed along for reference applicable in core zone.
 Gazette Notification No. G.S.R 826 (E) dt.Nov.'2009 is enclosed for reference applicable in buffer zone.

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TEST REPORT								
12/20 Test Report no. 1628	Job No. 094320075	Year	FY2020-21					
Type of Sample:	Noise	Quarter Ending	Dec-20					
Customer	CCL							
Testing/Sampling Protocol:	'The noise pollution (Regulat	'The noise pollution (Regulation and Control), Rules, 2000, LQR 34						
Remarks:								

TEST RESULT

The sample has been tested with the following results: -

ea :	Dhori			Project:		Amlo
			Noi	se Level		
Station Name	Oct-20 1st FN	Oct-20 2nd FN	Nov-20 3rd FN	Nov-20 4th FN	Dec-20 5th FN	Dec-20 6th FN
Date of recording	01-10-2020	17-10-2020	02-11-2020	17-11-2020	01-12-2020	17-12-2020
P.O.Office	50.7	50.2	50.2	50.7	50.4	50.6
Date of recording	01-10-2020	17-10-2020	02-11-2020	17-11-2020	01-12-2020	17-12-2020
Workshop	62.5	56.7	65.3	58.7	65.3	65.4

Ambient Air Quality Standards in respect of Noise as per 'The noise pollution (Regulation and Control), Rules,2000							
Time Frame	Limits in	dB(A) Leq					
	Day Time	Night Time					
	6.00 AM to 10.00 PM 10.00 PM to 6.00 AM						
Industrial Area	75	70					
Commercial Area	65	55					
Residential area	55	45					
Silence Zone	50	40					

Analysed By

Authorized Signatory

TEST REPORT						
12/20 Test Report no. 1629	Job No. 094320075	Year	FY2020-21			
Type of Sample:	Effluent Water	Quarter Ending	Dec-20			
Customer	CCL					
Mode of Receipt of Sample:	Joint sampling with customer					
Testing/Sampling Protocol:	MOEF -SCH-VI STANDAR	IOEF -SCH-VI STANDARDS, Class 'A', LQR 33				
Remarks & Observation:	Samples received in 5 ltrs plas	tic Jerri cane, Colour as observed i	is transparent			

TEST RESULT

The sample has been tested with the following results: -

Area: Dhor	i	Project:	Amlo	Stati	ons: Lago	oon Discharge	e
		Anal	ysis Results of FN H	Effluent Wat	er		
	Paran	neters \rightarrow		COD	0 & G	pH value	TSS
	Detect	tion Limit		4	2	0.2	10
МО	MOEF -SCH-VI, STANDARDS, Class 'A'				10	5.5 to 9.0	100
Month	Date of Sampling	Date of Receipt of Sample	Date of Analysis	Value in mg/l, except pH			
Oct-20 1st FN	05/10/20	16/10/20	16/10/20-05/11/20	24	<2.00	7.89	32
Oct-20 2nd FN	19/10/20	02/11/20	02/11/20-13/11/20	28	<2.00	7.56	36.8
Nov-20 3rd FN	06/11/20	17/11/20	17/11/20-01/12/20	28	<2.00	7.93	36.4
Nov-20 4th FN	20/11/20	01/12/20	01/12/20-16/12/20	32	<2.00	7.65	38.2
Dec-20 5th FN	00/01/00	00/01/00	00/01/00-00/01/00	0	0	0	0
Dec-20 6th FN	21/12/20	01/01/21	01/01/21-08/01/21	20	<2.00	7.75	24.2
BIS Standard & I	Method			APHA, 23rd Edition, Closed Reflux, Titrimetric Method, 2017	IS 3025/39:1991, R : 2003, Partition Gravimetric	· · · · · · · · · · · · · · · · · · ·	IS 3025/17:1984, R :1996, Gravimetric Method

Authorized Signatory

TEST REPORT

12/20 Test Report No. 1630	Job No. 094320075	Year	2020-21		
Type of Sample:	Effluent Water	Quarter Ending	Dec.'20		
Customer / W. O. no. & Date:	CCL	Date of Receipt of Sample:	16/12/20		
Mode of Receipt of Sample:	Joint sampling with customer	Date of Analysis:	16/12/20-11/01/21		
Testing Protocol:	MOEF -SCH-VI STANDARDS, Clas	ss 'A', LQR 33			
Remarks & Observation:	Samples received in 5 ltrs plastic Jerri cane, Colour as observed is transparent				
		-			

TEST RESULT

The sample has been tested with the following results:-

Area Statio	ons: 1. Lagoo	on Discharge			Project:		Amlo Date of Sampling: 04/12/2020
	2. 3.						
Sl.No.	Parameter		npling Stati		Detection Limit	MOEF -SCH-VI STANDARDS	BIS Standard & Method
1	A ' 1 XY' /1 XC	1	2	3	0.02	Class 'A'	IS 3025/34:1988,
1	Ammonical Nitrogen, mg/l, Max	1.15			0.02	50.0	R : 2009, Nessler's Method
2	Arsenic (as As), mg/l, Max	< 0.002			0.002	0.2	IS 3025/37:1988 R : 2003, AAS-VGA
3	B.O.D (3 days 27°C), mg/l, Max	<2.00			2.00	30.0	IS 3025 /44:1993, R:2003 3 day incubation at 27°C
4	Cadmium(as Cd), mg/l, Max	< 0.0004			0.0004	2.0	APHA, 23rd Edition 3120 B ICP Method, 2017
5	COD, mg/l, Max	24			4.00	250.0	APHA, 23rd Edition, Closed Reflux Titrimetric Method: 2017
6	Copper (as Cu), mg/l, Max	< 0.02			0.02	3.0	IS 3025/42: 1992, R : 2009, AAS (Air-Ac-Flame)
7	Dissolved Phosphate, mg/l, Max	0.76			0.30	5.0	APHA, 23rd Edition Molybdovanadate Method, 2017
8	Fluoride (as F) mg/l, Max	1.48			0.02	2.0	APHA, 23rd Edition, SPADNS Method, 2017
9	Free Ammonia, mg/l, Max	< 0.02			0.02	5.0	IS:3025/34:1988, Nesseler's
10	Hexavalent Chromium, mg/l, Max	< 0.01			0.01	0.1	APHA, 23rd Edition, Diphenylcarbohydrazide
11	Iron (as Fe), mg/l, Max	< 0.04			0.04	3.0	IS 3025 /53: 2003, R : 2009 , AAS-(Air-Ac-Flame)
12	Lead (as Pb), mg/l, Max	< 0.001			0.001	0.1	APHA, 23rd Edition 3120 B ICP Method, 2017
13	Manganese(as Mn), mg/l, Max	< 0.01			0.01	2.0	IS-3025/59:2006, AAS (Air-Ac-Flame)
14	Nickel (as Ni), mg/l, Max	< 0.003			0.003	3.0	APHA, 23rd Edition 3120 B ICP Method, 2017
15	Nitrate Nitrogen, mg/l, Max	0.99			0.50	10.0	APHA, 23rd Edition, UV- Spectrphotometric Method, 2017
16	Oil & Grease, mg/l, Max	<2.00			2.00	10.0	IS 3025/39:1991, R : 2003, Partitic Gravimetric Method
17	pH value	8.01			1.0	5.5 to 9.0	IS-3025/11:1983, R-1996, Electrometric Method
18	Phenolic compounds (as C ₆ H ₅ OH),mg/l, Max	< 0.001			0.001	1.0	APHA, 23rd Edition, 4- Amino Antipyrine Method, 2017
19	Selenium (as Se), mg/l, Max	< 0.0005			0.0005	0.05	APHA, 23rd Edition 3120 B ICP Method, 2017
20	Sulphide (as SO ₃), mg/l, Max	< 0.005			0.005	2.0	APHA, 23rd Edition Methylene Blue Method, 2017
21	Temperature (°C)	24.2				not exceed e receiving temp.	IS-3025/09:1984, R;2002, Thermometeric
22	Total Chromium (as Cr), mg/l, Max	< 0.002			< 0.002	2.0	APHA, 23rd Edition 3120 B ICP Method, 2017
23	Total Kjeldahl Nitrogen, mg/l, Max	2.8			1.00	100.0	APHA, 23rd Edition, Kjeldahl Method: 2017
24	Total Residual Chlorine, mg/l, Max	< 0.02			0.02	1.0	APHA, 23rd Edition, DPD Method 2017
25	Total Suspended Solids, mg/l, Max	29.6			10.00	100.0	IS 3025/17:1984, R :1996, Gravimetric Method
26	Zinc (as Zn), mg/l, Max	< 0.005			0.005	5.0	IS 3025 /49: 1994, R: 2009, AAS (Air-Ac-Flame)

Analysed By

Checked By

Authorized Signatory

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TEST REPORT

STATUTA BARA	Lab No. T-2	187		
	12/20 Test I	Report No. Metal/04	Job No. 094320075	2020-21
TC - 7470				
Type of Sampl	e	Ambient Air	Quarter Ending	Dec.'20
Customer		CCL	Date of Receipt of Sample:	16/12/2020
Mode of Recei	pt of Sample:	Joint sampling with customer	Date of Analysis:	17/02-17/02/2021
Sampling Protocol:		USEPA IO-3.2: 1999, LQR 32		
Remarks & Ob	oservation:	All samplers placed 1.5 m above	ground level	

TEST RESULT

The sample has been tested with the following results: -

Area :	Dhori	Project:	Amlo
Stations:	 P.O Office Workshop Chapri Guest House Amlo Village 		Date of Sampling: 01-02/12/2020 01-02/12/2020 01-02/12/2020 02-03/12/2020
S N Tost	· · · · · · · · · · · · · · · · · · ·		

S.N o	Test Parameters	Units		Test Re	esult		· · · · · · · · · · · · · · · · · · ·		Test Method
	Stations:		1	2	3	4	Limit	2011)	
1	Conc. of As in Air	ng/m ³	2.17	1.92	3.95	5.40	0.1	6.00	USEPA IO- 3.2:1999
2	Conc. of Pb in Air	$\mu g/m^3$	< 0.02	<0.02	< 0.02	0.03	0.02	0.5	USEPA IO- 3.2:1999
3	Conc. of Ni in Air	ng/m ³	1.54	2.00	1.84	1.81	0.1	20.00	USEPA IO- 3.2: 1999

	TEST REPORT							
03/21 Test Report no. 1621	Job No. 094320075	Year	FY2020-21					
Type of Sample	Ambient Air	Quarter Ending	Mar-21					
Customer	CCL							
Mode of Receipt of Sample:	Joint sampling with customer							
Testing/Sampling Protocol:	IS 5182 (part 14): 2000 ,R -201	IS 5182 (part 14): 2000 ,R -2010, Methods for Measurement of Air Pollution, LQR 32						
Remarks & Observation:	All samplers placed 1.5 m abov	e ground level						

TEST RESULT

The sample has been tested with the following results: -

16/02/21-

17/02/21

01/03/21-

02/03/21

17/03/21-

18/03/21

01-03-2021

16-03-2021

01-04-2021

Area : Di	hori	Pro	oject: Am	lo		Stations:	P.O	Office	
					Paramete	ers (in µg/m	3)		Wind
Month	Date of Sampling	Date of receipt of sample	Date of analysis	Total Particulate Matter (PM ₁₀ + >PM ₁₀)TPM	Particulate Matter (PM ₁₀)	Particulate Matter (PM _{2.5})	Sulphur Dioxide (SO ₂)	Nitrogen Oxides (as NO _x)	Direction (from) & Weather
Jan-21 1st FN	05/01/21- 06/01/21	18-01-2021	18/01/21- 20/01/21	256	131	65	< 25	< 6	East Rain
Jan-21 2nd FN	19/01/21- 20/01/21	01-02-2021	01/02/21- 04/01/21	157	78	34	< 25	< 6	West Cloud
Feb-21 3rd FN	02/02/21- 03/02/21	16-02-2021	16/02/21- 19/02/21	147	65	33	< 25	< 6	West Sunny

216

252

143

123

115

70

63

82

31

< 25

< 25

< 25

< 6

< 6

< 6

Note:

Feb-21 4th FN

Mar-21 5th FN

Mar-21 6th FN

1. Gazette Notification No. G.S.R 742(E) dt.25th Sept.'2000 is applicable in core zone.

01/03/21-

04/03/21

16/03/21-

19/03/21

01/04/21-

05/04/21

2. Gazette Notification No. G.S.R 826 (E) dt.Nov. 2009 is applicable in buffer zone.

Analysed By

Authorized Signatory

Note: 1) This Report refers to the values obtained at the time of testing and results related to the items tested 2) This Report cannot be reproduced in part or full without written permission of the management.

3) This is computer generated report and requires no signature.

West

Sunny West

Sunny

West

Sunny

TEST REPORT						
03/21 Test Report no. 1622	Job No. 094320075	Year	FY2020-21			
Type of Sample	Ambient Air	Quarter Ending	Mar-21			
Customer	CCL	· · · · · ·				
Mode of Receipt of Sample:	Joint sampling with customer					
Testing/Sampling Protocol:	IS 5182 (part 14): 2000 ,R -2010, Methods for Measurement of Air Pollution, LQR 32					
Remarks & Observation:	All samplers placed 1.5 m abo	ve ground level				

TEST RESULT

The sample has been tested with the following results: -

Area :	Dhori	Project:	Amlo	Stations:	Workshop	
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Date of				Parameters (in µg/m ³)					Wind
Month	Date of Sampling	receipt of sample				Particulate	Sulphur Dioxide (SO ₂)	Nitrogen Oxides (as NO _x)	Direction (from) & Weather
Jan-21 1st FN	05/01/21- 06/01/21	18-01-2021	18/01/21- 20/01/21	318	169	82	< 25	6	East Rain
Jan-21 2nd FN	19/01/21- 20/01/21	01-02-2021	01/02/21- 04/01/21	340	140	72	< 25	7	West Cloud
Feb-21 3rd FN	02/02/21- 03/02/21	16-02-2021	16/02/21- 19/02/21	304	159	82	< 25	< 6	West Sunny
Feb-21 4th FN	16/02/21- 17/02/21	01-03-2021	01/03/21- 04/03/21	265	149	84	< 25	< 6	West Sunny
Mar-21 5th FN	01/03/21- 02/03/21	16-03-2021	16/03/21- 19/03/21	226	83	47	< 25	< 6	West Sunny
Mar-21 6th FN	17/03/21- 18/03/21	01-04-2021	01/04/21- 05/04/21	226	105	63	< 25	< 6	West Sunny

Note:

1. Gazette Notification No. G.S.R 742(E) dt.25th Sept.'2000 is applicable in core zone.

2. Gazette Notification No. G.S.R 826 (E) dt.Nov.'2009 is applicable in buffer zone.

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TEST REPORT								
03/21 Test Report no. 1623	Job No. 094320075	Year	FY2020-21					
Type of Sample	Ambient Air	Quarter Ending	Mar-21					
Customer	CCL	CCL						
Mode of Receipt of Sample:	Joint sampling with customer							
Testing/Sampling Protocol:	IS 5182 (part 14): 2000 ,R -2010, Methods	IS 5182 (part 14): 2000 ,R -2010, Methods for Measurement of Air Pollution, LQR 32						
Remarks & Observation:	All samplers placed 1.5 m above ground lev	vel						

TEST RESULT

The sample has been tested with the following results: -

Area : Dł	ıori	Pro	oject: Am	lo		Stations:	Cha	pri Gues	t House
					Paramete	ers (in µg/m ²	3)		Wind
Month	Date of Sampling	Date of receipt of sample	Date of analysis		Particulate Matter (PM ₁₀)	Particulate Matter (PM _{2.5})	Sulphur Dioxide (SO ₂)	Nitrogen Oxides (as NO _x)	Direction (from) & Weather
Jan-21 1st FN	05/01/21- 06/01/21	18-01-2021	18/01/21- 20/01/21	176	63	28	< 25	< 6	East Rain
Jan-21 2nd FN	19/01/21- 20/01/21	01-02-2021	01/02/21- 04/01/21	185	98	52	< 25	< 6	West Cloud
Feb-21 3rd FN	03/02/21- 04/02/21	16-02-2021	16/02/21- 19/02/21	511	219	120	< 25	7	West Sunny
Feb-21 4th FN	17/02/21- 18/02/21	01-03-2021	01/03/21- 04/03/21	157	75	38	< 25	< 6	West Sunny
Mar-21 5th FN	02/03/21- 03/03/21	16-03-2021	16/03/21- 19/03/21	206	98	53	< 25	< 6	West Sunny
Mar-21 6th FN	17/03/21- 18/03/21	01-04-2021	01/04/21- 05/04/21	315	110	65	< 25	< 6	West Sunny

Note:

1. Gazette Notification No. G.S.R 742(E) dt.25th Sept.'2000 is applicable in core zone.

2. Gazette Notification No. G.S.R 826 (E) dt.Nov.'2009 is applicable in buffer zone.

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Note: 1) This Report refers to the values obtained at the time of testing and results related to the items tested 2) This Report cannot be reproduced in part or full without written permission of the management.

TEST REPORT							
03/21 Test Report no. 1624	Job No. 094320075	Year	FY2020-21				
Type of Sample	Ambient Air	Quarter Ending	Mar-21				
Customer	CCL	CCL					
Mode of Receipt of Sample:	Joint sampling with customer						
Testing/Sampling Protocol:	IS 5182 (part 14): 2000 ,R -2010	IS 5182 (part 14): 2000 ,R -2010, Methods for Measurement of Air Pollution, LQR 32					
Remarks & Observation:	All samplers placed 1.5 m above	e ground level					

TEST RESULT

The sample has been tested with the following results: -

Area : Dhori		Pro	oject: Am	lo		Stations:	Aml	o Village	e
		Date of			Paramete	ers (in µg/m	3)		Wind
Month	Date of Sampling	receipt of sample	Date of analysis	Total Particulate Matter (PM ₁₀ + >PM ₁₀)TPM		Particulate Matter (PM _{2.5})	Sulphur Dioxide (SO ₂)	Nitrogen Oxides (as NO _x)	Direction (from) & Weather
Jan-21 1st FN	06/01/21- 07/01/21	18-01-2021	18/01/21- 20/01/21	166	86	42	< 25	< 6	East Rain
Jan-21 2nd FN	20/01/21- 21/01/21	01-02-2021	01/02/21- 04/01/21	203	85	44	< 25	< 6	West Cloud
Feb-21 3rd FN	03/02/21- 04/02/21	16-02-2021	16/02/21- 19/02/21	185	89	52	< 25	< 6	West Sunny
Feb-21 4th FN	17/02/21- 18/02/21	01-03-2021	01/03/21- 04/03/21	130	66	34	< 25	< 6	West Sunny
Mar-21 5th FN	02/03/21- 03/03/21	16-03-2021	16/03/21- 19/03/21	235	83	44	< 25	7	West Sunny
Mar-21 6th FN	18/03/21- 19/03/21	01-04-2021	01/04/21- 05/04/21	240	75	30	< 25	< 6	West Sunny

Note:

1. Gazette Notification No. G.S.R 742(E) dt.25th Sept.'2000 is applicable in core zone.

2. Gazette Notification No. G.S.R 826 (E) dt.Nov.'2009 is applicable in buffer zone.

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TEST REPORT							
03/21 Test Report no. 1625	Job No. 094320075	Year	FY2020-21				
Type of Sample:	Noise	Quarter Ending	Mar-21				
Customer	CCL						
Testing/Sampling Protocol:	'The noise pollution (Regulat	'The noise pollution (Regulation and Control), Rules, 2000, LQR 34					
Remarks:							

TEST RESULT

The sample has been tested with the following results: -

62.4

62.7

Area :	D	hori	A	mlo		
Station Nama			Noise Leve	el dB(A) Leq		
Station Name	Jan-21 1st FN Day	Jan-21 2nd FN Day	Feb-21 3rd FN Day	Feb-21 4th FN Day	N Mar-21 5th FN Mar-21 6 Day/Night Day/N	
Date of recording	05-01-2021	19-01-2021	02-02-2021	16-02-2021	01-03-2021	17-03-2021
1. P.O.Office	50.3	50.5	52.5	52.3	51.2/45.1	52.4/46.2
Date of recording	05-01-2021	19-01-2021	02-02-2021	16-02-2021	01-03-2021	17-03-2021

60.3

62.4

63.4/50.2

65.2/55.3

Ambient Air Quality Standards in respect of Noise as per 'The noise								
pollution	(Regulation and Control),	Rules,2000						
Time Frame	Limits in	dB(A) Leq						
	Day Time	Night Time						
	6.00 AM to 10.00 PM	10.00 PM to 6.00 AM						
Industrial Area	75	70						
Commercial Area	65	55						
Residential area	55	45						
Silence Zone	50	40						

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2. Workshop

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TEST REPORT								
03/21 Test Report no. 1626	Job No. 094320075	Year	FY2020-21					
Type of Sample:	Effluent Water	Quarter Ending	Mar-21					
Customer	CCL	CCL						
Mode of Receipt of Sample:	Joint sampling with custor	mer						
Testing/Sampling Protocol:	MOEF -SCH-VI STANI	MOEF -SCH-VI STANDARDS, Class 'A', LQR 33						
Remarks & Observation:	Samples received in 5 ltrs	plastic Jerri cane, Colour as obser	rved is transparent					

TEST RESULT

The sample has been tested with the following results: -

Area: Dhor	i	Project:	Amlo	Stati	ons: Lago	oon Discharge	e		
	Analysis Results of FN Effluent Water								
	Paran	neters \rightarrow		COD	0 & G	pH value	TSS		
	Detect	tion Limit		4	2	1.0	10		
MO	EF -SCH-VI, S	TANDARDS, O	Class 'A'	250	10	5.5 to 9.0	100		
Month	Date of Sampling	Date of Receipt of Sample	Date of Analysis	Value in mg/l, except pH					
Jan-21 1st FN	09/01/21	18/01/21	18/01/21-01/02/21	24	<2.00	8.21	29.8		
Jan-21 2nd FN	22/01/21	01/02/21	01/02/21-16/02/21	2	<2.00	7.87	35.2		
Feb-21 3rd FN	05/02/21	16/02/21	16/02/21-25/02/21	24	<2.00	7.88	30.8		
Feb-21 4th FN	20/02/21	01/03/21	01/03/21-16/03/21	20	<2.00	7.92	24.2		
Mar-21 5th FN	04/03/21	16/03/21	16/03/21-31/03/21	24	<2.00	7.69	31.2		
Mar-21 6th FN	20/03/21	01/04/21	01/04/21-10/04/21	24	<2.00	7.83	29.4		
BIS Standard & N	Iethod			APHA, 23rd Edition, Closed Reflux, Titrimetric Method, 2017	IS 3025/39:1991, R : 2003, Partition Gravimetric	IS-3025/11:1983, R-1996, Electrometric	IS 3025/17:1984, R :1996, Gravimetric Method		

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TEST REPORT

03/21 Test Report no. 1627	Job No. 094320075	Year	FY2020-21				
Type of Sample:	Drinking Water	Vater Quarter Ending					
Customer	CCL	Date of Receipt:	18-01-2021				
Mode of Receipt of Sample:	Joint sampling with customer	Date of Analysis:	18.01.21-31.03.21				
Testing/Sempling Protocol	IS:10500 Drinking Water Stand	landa LOD 22					
Testing/Sampling Protocol:	9						
Remarks & Observation:	Remarks & Observation: Samples received in 5 ltrs plastic Jerri cane, Colour as observed is transparent						
TEST RESULT							

The sample has been tested with the following results: -

Area :	Dhori	Project:	Amlo
Stations:			Date of Sampling:

1 Amlo Chapri Guest House

09-01-2021

SI.N	Parameter	Samp	Sampling Stations			IS:10500	Standard / Test Method
0		1	2	3	n Limit	Standards	
1	Boron (as B), mg/l, Max	<0.20			0.20	0.5	APHA, 23rd Edition ,Carmine
2	Cadmium (as Cd), mg/l, Max	<0.0004			0.0005	0.003	APHA, 23rd Edition, AAS-GTA
3	Calcium (as Ca), mg/l, Max	28.8			1.60	75	IS-3025/40:1991, EDTA
4	Chloride (as Cl), mg/l, Max	22			2.00	250	IS-3025/32:1988, R- 2007, Argentometric
5	Copper (as Cu), mg/l, Max	<0.02			0.03	0.05	IS 3025/42 : 1992 R : 2009, AAS-Flame
6	Fluoride (as F) mg/l, Max	0.75			0.02	1.0	APHA, 23rd Edition, SPADNS
7	Free Residual Chlorine, mg/l, Min	0.03			0.02	0.2	APHA, 23rd Edition, DPD
8	Iron (as Fe), mg/l, Max	<0.04			0.06	1.0	IS 3025 /53 : 2003, R : 2009 , AAS-Flame
9	Lead (as Pb), mg/l, Max	<0.001			0.005	0.01	APHA, 23rd Edition, AAS-GTA
10	Manganese (as Mn), mg/l, Max	<0.01			0.02	0.1	IS-3025/59:2006,AAS- Flame
11	Nickel (as Ni), mg/l, Max	<0.003			0.01	0.02	IS-3025/54:2003, AAS-Flame
12	Nitrate (as NO ₃), mg/l, Max	6.00			0.5	45	APHA, 23rd Edition, UV-Spectrophotometric
13	Odour	Agreeable			Qualitative	Agreeable	IS 3025 /05:1983, R- 2012, Qualitative
14	pH value	7.23			0.2	6.5 to 8.5	IS-3025/11:1983, R- 1996, Electrometric
15	Phenolic compounds (as C ₆ H ₅ OH), mg/l, Max	<0.001			0.001	0.001	APHA, 23rd Edition,4- Amino Autipyrine
16	Selenium (as Se), mg/l, Max	<0.0005			0.002	0.01	APHA, 23rd Edition, AAS-GTA
17	Sulphate (as SO ₄) mg/l, Max	70			2.00	200	APHA, 23rd Edition. Turbidity
18	Total Alkalinity (caco3),mg/l, Max	88			4.00	200	IS- 3025/23:1986,Titration
19	Total Arsenic (as As), mg/l, Max	<0.002			0.002	0.01	IS 3025/ 37:1988 R : 2003, AAS-VGA
20	Total Chromium (as Cr), mg/l, Max	<0.002			0.04	0.05	IS-3025/52:2003, AAS- Flame
21	Total Dissolved Solids, mg/l, Max	263			25.00	500	IS 3025 /16:1984 R : 2006, Gravimetric
22	Total Hardness (c _a co ₃), mg/l, Max	144			4.00	200	IS-3025/21:1983, R-2002, EDTA
23	Turbidity, NTU, Max	2			1.0	1	IS-3025/10:1984 R-1996, Nephelometric
24	Zinc (as Zn), mg/l, Max	<0.005			0.01	5.0	IS 3025/49 : 1994, R : 2009, AAS-Flame

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