ENVIRONMENTAL DATA GENERATION OF

HINDALCO INDUSTRIES LTD.

Kathautia Open Cast Coal Mines, Post – Naudiha, P.S. Pandwa, Daltonganj, Distt. – Palamu (Jharkhanand)

June- 2020

Prepared by



NABL Accredited; MOEF & CC Recognized; CECB Approved Laboratory
An ISO 9001:2015, ISO 18001:2007 & ISO 14001:2004 Certified Laboratory

Reg. Off. - HDD-272 Phase-3, Kabir Nagar, Raipur (C.G.)-492099 Ph-(0771)-4027777, ultimatenviro@gmail.com



Recognized by Ministry of Environment Forest and Climate Change under EP act 1986

Name & Address Of The Customer
TO,
HINDALCO INDUSTRIES LIMITED,
KATHAUTIA OPEN CAST COAL MINES,
POST – NAUDIHA, P.S. PANDWA,
DALTONGANJ, DISTT.- PALAMU (JH)

REPORT NO	UES/TR/20-21/0912			
LAB REF NO	UES/20-21/AAQM/0662			
DATE OF SAMPLING	01/06/2020 to 29	/06/2020		
DATE OF RECEIPT	02/06/2020 to 30/06/2020			
DATE OF REPORT	02/07/2020			
DATE OF ANALYSIS	START: 03/06/2020	END: 02/07/2020		

		SAMPLE DET	AILS		
MONITORING FOR	AMBIENT AIR QUALITY MONIT			K/PO/SRV/2021/0033 DATED: 16/07/2020	
SAMPLING LOCATION	MINES OFFICE NEAR VTC (CO.	RE ZONE)			
DURATION OF SAMPLING	24 HOURS SAMPLE COLLECTED BY LABORATORY CHE			HEMIST	
SAMPLING PROCEDURE	AS PER METHOD REFERENCE			*into management	
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM ₁₀): 1X1 N SO ₂ : 30MLX1 NO. PVC BOTTLE RUBBER BLADDER: 1X1 NO.				

Test Method and NAAQM Standard for Ambient Air Quality Monitoring					
Parameter	Method Reference	NAAQM Standard			
Particulate Matter size less than 10 microns (PM10)	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100			
Particulate Matter size less than 2.5 microns (PM _{2.5})	CPCB Guidelines VolI	60			
Sulphur Dioxide (SO ₂)	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80			
Nitrogen Dioxide (NO2)	IS 5182 (Part 6): 2006 & CPCB Guidelines VolI				
Carbon Monoxide (CO)*	IS 5182(Part 10):1999, RA 2003	4.0			
Mercury (Hg)	EPA Method IO-5				

TEST REPORT							
Date of Sampling	PM ₁₀ µg/m³	PM _{2.5} μg/m³	SO ₂ µg/m³	NO₂ µg/m³	CO* mg/m³	Hg ng/m³	
01.06.2020	42	24	08	26	1.6	N.D.	
05.06.2020	46	22	12	22	1.2	N.D.	
08.06.2020	52	24	16	20	1.8	N.D.	
12.06.2020	50	26	12	26	1.2	N.D.	
20.06.2020	42	22	12	28	1.4	N.D.	
22.06.2020	56	28	09	18	1.0	N.D.	
25.06.2020	40	24	10	24	1.6	N.D.	
29.06.2020	52	20	14	20	1.8	N.D.	

Terms & conditions

> The report for publication, arbitration or as legal dispute is forbidden.

Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

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Recognized by Ministry of Environment Forest and Climate Change under EP act 1986

Name & Address Of The Customer

TO,

HINDALCO INDUSTRIES LIMITED,

KATHAUTIA OPEN CAST COAL MINES,

POST – NAUDIHA, P.S. PANDWA,

DALTONGANJ, DISTT.- PALAMU (JH)

REPORT NO	UES/TR/20-21/091	3
LAB REF NO	UES/20-21/AAQM/0	663
DATE OF SAMPLING	01/06/2020 to 29	/06/2020
DATE OF RECEIPT	02/06/2020 to 30	/06/2020
DATE OF REPORT	02/07/2020	etteriin muutuud makud ka
DATE OF ANALYSIS	START: 03/06/2020	END: 02/07/2020

MONITORING FOR	AMBIENT AIR COADITI MONITORING CUSTOMER REF. NO. & DATE		K/PO/SRV/2021/0033 DATED: 16/07/2020	
SAMPLING LOCATION	NEAR MAIN GATE (CORE ZONE)			
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY LABORATORY CH		HEMIST
SAMPLING PROCEDURE	AS PER METHOD REFERENCE		- London London	
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM ₁₀): 1X1 NO SO ₂ : 30MLX1 NO. PVC BOTTLE RUBBER BLADDER: 1X1 NO.		**	

Test Method and NAAQM Standard for Ambient Air Quality Monitoring					
Parameter	Method Reference	NAAQM Standard			
Particulate Matter size less than 10 microns (PM_{10})	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100			
Particulate Matter size less than 2.5 microns (PM _{2.5})	CPCB Guidelines VolI	60			
Sulphur Dioxide (SO ₂)	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80			
Nitrogen Dioxide (NO2)	IS 5182 (Part 6): 2006 & CPCB Guidelines VolI	80			
Carbon Monoxide (CO)*	IS 5182(Part 10):1999, RA 2003	4.0			
Mercury (Hg)	EPA Method IO-5				

TEST REPORT						
Date of Sampling	PM ₁₀ µg/m³	PM _{2.5} μg/m ³	SO ₂ µg/m³	NO ₂ μg/m ³	CO* mg/m³	Hg ng/m³
01.06.2020	52	28	08	26	1.0	N.D.
05.06.2020	46	26	12	22	1.8	N.D.
08.06.2020	58	28	08	30	1.2	N.D.
12.06.2020	50	24	18	26	1.2	N.D.
20.06.2020	52	26	14	22	1.8	N.D.
22.06.2020	62	24	06	26	1.6	N.D.
25.06.2020	38	28	08	22	1.2	N.D.
29.06.2020	47	22	10	28	1.0	N.D.

Terms & conditions

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Test sample will be retained for 15 days after issue of test report upless otherwise agreed with customer.

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Name & Address Of The Customer TO, HINDALCO INDUSTRIES LIMITED, KATHAUTIA OPEN CAST COAL MINES, POST - NAUDIHA, P.S. PANDWA, DALTONGANJ, DISTT.- PALAMU (JH)

REPORT NO	UES/TR/20-21/091	.4		
LAB REF NO	UES/20-21/AAQM/0664			
DATE OF SAMPLING	01/06/2020 to 29	/06/2020		
DATE OF RECEIPT	02/06/2020 to 30	/06/2020		
DATE OF REPORT	02/07/2020			
DATE OF ANALYSIS	START: 03/06/2020	END: 02/07/2020		

SAMPLE DETAILS						
MONITORING FOR	AMBIENT AIR QUALITY MONI	NITORING CUSTOMER REF. NO. & DATE		AMBIENT AIR QUALITY MONITORING CUSTOMER REF. NO. & DATE K/PO/SRV/2021/0033		K/PO/SRV/2021/0033 DATED: 16/07/2020
SAMPLING LOCATION	NEAR DG STACK(CORE ZONE)	4.			1	
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY LABORATORY CHE		HEMIST		
SAMPLING PROCEDURE	AS PER METHOD REFERENCE			<u> </u>		
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM ₁₀): 1X1 SO ₂ : 30MLX1 NO. PVC BOTT: RUBBER BLADDER: 1X1 NO.					

Test Method and NAAQM Standard for Ambient Air Quality Monitoring					
Parameter	Method Reference	NAAQM Standard			
Particulate Matter size less than 10 microns (PM ₁₀)	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100			
Particulate Matter size less than 2.5 microns (PM _{2.5})	CPCB Guidelines VolI	60			
Sulphur Dioxide (SO ₂) IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI		80			
Nitrogen Dioxide (NO ₂)	IS 5182 (Part 6): 2006 & CPCB Guidelines VolI	80			
Carbon Monoxide (CO)*	IS 5182(Part 10):1999, RA 2003	4.0			
Mercury (Hg)	EPA Method IO-5				

TEST REPORT							
Date of Sampling	PM ₁₀ µg/m³	PM _{2.5} μg/m ³	SO ₂ µg/m ³	NO ₂ μg/m³	CO* mg/m³	Hg ng/m³	
01.06.2020	48	28	09	26	1.4	N.D.	
05.06.2020	42	26	14	20	1.8	N.D.	
08.06.2020	46	22	08	20	1.2	N.D.	
12.06.2020	52	24	16	26	1.1	N.D.	
20.06.2020	48	20	14	20	1.4	N.D.	
22.06.2020	42	26	09	28	1.0	N.D.	
25.06.2020	48	30	10	24	1.4	N.D.	
29.06.2020	46	22	08	20	1.6	N.D.	

Terms & conditions

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Name & Address Of The Customer TO, HINDALCO INDUSTRIES LIMITED, KATHAUTIA OPEN CAST COAL MINES, POST - NAUDIHA, P.S. PANDWA, DALTONGANJ, DISTT.- PALAMU (JH)

REPORT NO	UES/TR/20-21/091	.5		
LAB REF NO	UES/20-21/AAQM/0	1665		
DATE OF SAMPLING	01/06/2020 to 29	/06/2020		
DATE OF RECEIPT	02/06/2020 to 30/06/2020			
DATE OF REPORT	02/07/2020			
DATE OF ANALYSIS	START: 03/06/2020	END: 02/07/2020		

		SAMPLE 1	DETAILS		
MONITORING FOR	ANDIENI AIR COADITI MONITORING COSTOMER REF NO. & DATE:		K/PO/SRV/2021/0033 DATED: 16/07/2020		
SAMPLING LOCATION	NEAR SUBSTATION (CORE ZO	ONE)		William Control of the Control of th	
DURATION OF SAMPLING	24 HOURS	24 HOURS SAMPLE COLLECTED BY LABORATORY CHE			HEMIST
SAMPLING PROCEDURE	AS PER METHOD REFERENCE	3	MINION		
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM ₁₀): 1X SO ₂ : 30MLX1 NO. PVC BOI RUBBER BLADDER: 1X1 NO.	TLE, NO2: 3		•••	-

Test Method and NAAQM Standard for Ambient Air Quality Monitoring				
Parameter	NAAQM Standard			
Particulate Matter size less than 10 microns (PM_{10})	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100		
Particulate Matter size less than 2.5 microns (PM _{2.5})	CPCB Guidelines VolI	60		
Sulphur Dioxide (SO ₂)	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80		
Nitrogen Dioxide (NO2)	IS 5182 (Part 6): 2006 & CPCB Guidelines VolI	80		
Carbon Monoxide (CO)*	IS 5182(Part 10):1999, RA 2003	4.0		
Mercury (Hg)	EPA Method IO-5			

TEST REPORT						
Date of Sampling	PM ₁₀ µg/m³	PM _{2.5} μg/m ³	SO ₂ µg/m³	NO ₂ μg/m³	CO* mg/m³	Hg ng/m³
01.06.2020	52	28	08	24	1.6	N.D.
05.06.2020	56	26	12	22	1.4	N.D.
08.06.2020	54	24	08	32	1.2	N.D.
12.06.2020	50	34	16	22	1.1	N.D.
20.06.2020	52	22	10	28	1.4	N.D.
22.06.2020	48	24	08	22	1.0	N.D.
25.06.2020	50	22	14	20	1.0	N.D.
29.06.2020	47	26	09	26	1.2	N.D.

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Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above test(s) or

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Name & Address Of The Customer REPORT NO UES/TR/20-21/0916 TO, LAB REF NO UES/20-21/AAQM/0666 HINDALCO INDUSTRIES LIMITED, DATE OF SAMPLING 01/06/2020 to 29/06/2020 KATHAUTIA OPEN CAST COAL MINES, 02/06/2020 to 30/06/2020 DATE OF RECEIPT POST - NAUDIHA, P.S. PANDWA, 02/07/2020 DATE OF REPORT DALTONGANJ, DISTT.- PALAMU (JH) DATE OF ANALYSIS START: 03/06/2020 END: 02/07/2020

en e		SAMPLE DETAILS	19 July 19	
MONITORING FOR	AMBIENT AIR QUALITY MONI	NITORING CUSTOMER REF. NO. & DATE DATED: 16/07/2020		
SAMPLING LOCATION	R & R COLONY, CHANDAN NA	GAR (BUFFER ZONE)	and the second s	,1
DURATION OF SAMPLING	24 HOURS SAMPLE COLLECTED BY LABORATORY CH			HEMIST
SAMPLING PROCEDURE	AS PER METHOD REFERENCE			
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM ₁₀): 1X1 SO ₂ : 30MLX1 NO. PVC BOTTI RUBBER BLADDER: 1X1 NO.			-

Test Method and NAAQM Standard for Ambient Air Quality Monitoring				
Parameter	Method Reference	NAAQM Standard		
Particulate Matter size less than 10 microns (PM_{10})	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100		
Particulate Matter size less than 2.5 microns (PM _{2,5})	CPCB Guidelines VolI	60		
Sulphur Dioxide (SO ₂)	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80		
Nitrogen Dioxide (NO ₂)	IS 5182 (Part 6): 2006 & CPCB Guidelines VolI	80		
Carbon Monoxide (CO)*	IS 5182(Part 10):1999, RA 2003	4.0		
Mercury (Hg)	EPA Method IO-5			

TEST REPORT						
Date of Sampling	PM ₁₀ µg/m³	PM _{2.5} μg/m ³	SO ₂ μg/m ³	NO₂ µg/m³	CO* mg/m³	Hg ng/m³
01.06.2020	48	24	08	20	1.1	N.D.
05.06.2020	42	22	11	22	1.6	N.D.
08.06.2020	36	24	09	32	1.2	N.D.
12.06.2020	56	24	14	24	1.8	N.D.
20.06.2020	44	22	10	26	1.1	N.D.
22.06.2020	48	28	08	20	1.6	N.D.
25.06.2020	42	22	12	28	1.2	N.D.
29.06.2020	52	24	09	22	1.6	N.D.

Terms & conditions

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Name & Address Of The Customer

TO,

HINDALCO INDUSTRIES LIMITED,

KATHAUTIA OPEN CAST COAL MINES,

POST – NAUDIHA, P.S. PANDWA,

DALTONGANJ, DISTT.- PALAMU (JH)

REPORT NO	UES/TR/20-21/091	.7
LAB REF NO	UES/20-21/AAQM/0	667
DATE OF SAMPLING	01/06/2020 to 29	/06/2020
DATE OF RECEIPT	02/06/2020 to 30	/06/2020
DATE OF REPORT	02/07/2020	inija
DATE OF ANALYSIS	START: 03/06/2020	END: 02/07/2020

	alekiatara sa	AMPLE DETAILS				
MONITORING FOR	AMBIENT AIR QUALITY MONITO	ONITORING CUSTOMER REF. NO. & DATE		K/PO/SRV/2021/0033 DATED: 16/07/2020		
SAMPLING LOCATION	KATHAUTIYA VILLAGE (BUFFER	ZONE)		4		
DURATION OF SAMPLING	24 HOURS	URS SAMPLE COLLECTED BY LABORATORY CHE		HEMIST		
SAMPLING PROCEDURE	AS PER METHOD REFERENCE	AS PER METHOD REFERENCE				
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM ₁₀): 1X1 N SO ₂ : 30MLX1 NO. PVC BOTTLE RUBBER BLADDER: 1X1 NO.					

Test Method and NAAQM Standard for Ambient Air Quality Monitoring						
Parameter						
Particulate Matter size less than 10 microns (PM_{10})	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	Standard 100				
Particulate Matter size less than 2.5 microns $(PM_{2.5})$	CPCB Guidelines VolI	60				
Sulphur Dioxide (SO ₂)	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80				
Nitrogen Dioxide (NO ₂)	IS 5182 (Part 6): 2006 & CPCB Guidelines VolI	80				
Carbon Monoxide (CO)*	IS 5182(Part 10):1999, RA 2003	4.0				
Mercury (Hg)	EPA Method IO-5					

TEST REPORT						
Date of Sampling	PM ₁₀ µg/m³	PM _{2.5} μg/m ³	SO ₂ µg/m ³	NO ₂ μg/m³	CO* mg/m³	Hg ng/m³
01.06.2020	42	22	08	24	1.6	N.D.
05.06.2020	42	28	12	22	1.0	N.D.
08.06.2020	46	20	09	28	1.4	N.D.
12.06.2020	52	24	16	20	1.4	N.D.
20.06.2020	48	30	10	26	1.1	N.D.
22.06.2020	46	22	09	24	0.6	N.D.
25.06.2020	42	26	12	20	1.1	N.D.
29.06.2020	48	18	08	26	1.4	N.D.

Terms & conditions

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Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above test sonix TIC4

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----- End of the test report-



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Name & Address Of The Customer

TO,

HINDALCO INDUSTRIES LIMITED,

KATHAUTIA OPEN CAST COAL MINES,

POST – NAUDIHA, P.S. PANDWA,

DALTONGANJ, DISTT.- PALAMU (JH)

REPORT NO	UES/TR/20-21/0918			
LAB REF NO	UES/20-21/AAQM/0668			
DATE OF SAMPLING	01/06/2020 to 29/06/2020			
DATE OF RECEIPT	02/06/2020 to 30/06/2020			
DATE OF REPORT	02/07/2020	ummunininininininininininininininininini		
DATE OF ANALYSIS	START: 03/06/2020	END: 02/07/2020		

		SAMPLE D	ETAILS					
MONITORING FOR	AMBIENT AIR QUALITY MONI	ITORING CUSTOMER REF. NO. & DATE		K/PO/SRV/2021/0033 DATED: 16/07/2020				
SAMPLING LOCATION	BATSARA VILLAGE (BUFFER ZO	BATSARA VILLAGE (BUFFER ZONE)						
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY LABORATORY CHEMIST						
SAMPLING PROCEDURE	AS PER METHOD REFERENCE	AS PER METHOD REFERENCE						
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM ₁₀): 1X1 NO., FILTER PAPER (PM _{2.5}): 1X1 NO. SO ₂ : 30mLX1 NO. PVC BOTTLE, NO ₂ : 30mLX1 NO. PVC BOTTLE RUBBER BLADDER: 1X1 NO.							

Test Method and NAAQM Standard for Ambient Air Quality Monitoring					
Parameter	NAAQM Standard				
Particulate Matter size less than 10 microns (PM ₁₀)	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100			
Particulate Matter size less than 2.5 microns (PM _{2.5})	CPCB Guidelines VolI	60			
Sulphur Dioxide (SO ₂)	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80			
Nitrogen Dioxide (NO2)	IS 5182 (Part 6): 2006 & CPCB Guidelines VolI	80			
Carbon Monoxide (CO)*	IS 5182(Part 10):1999, RA 2003	4.0			
Mercury (Hg)	EPA Method IO-5				

TEST REPORT							
Date of Sampling	PM ₁₀ µg/m³	PM _{2.5} μg/m ³	SO ₂ μg/m³	NO ₂ µg/m³	CO* mg/m³	Hg ng/m³	
01.06.2020	52	28	12	19	1.4	N.D.	
05.06.2020	56	20	10	26	1.2	N.D.	
08.06.2020	58	26	09	24	1.6	N.D.	
12.06.2020	50	22	16	28	1.1	N.D.	
20.06.2020	52	28	11	20	1.0	N.D.	
22.06.2020	58	26	09	22	1.8	N.D.	
25.06.2020	50	32	14	26	1.2	N.D.	
29.06.2020	57	20	06	20	1.1	N.D.	

Terms & conditions

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Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

This is for information as the party has asked for above test(s) on VILY TICA

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AUTHORIZED SIGNATORY

-End of the test report-



Name & Address Of The Customer

HDD-272, Phase III - Near JP Chowk Ring Road No.-2, Kabir Nagar, Raipur (C.G.) - 492099 Ph: 0771 - 4027777 I Email: ultimatenviro@gmail.com

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TO, HINDALCO INDUSTRIES LIMITED, KATHAUTIA OPEN CAST COAL MINES, POST - NAUDIHA, P.S. PANDWA, DALTONGANJ, DISTT.- PALAMU (JH)

REPORT NO	UES/TR/20-21/0919			
LAB REF NO	UES/20-21/AAQM/0	669		
DATE OF SAMPLING	01/06/2020 to 29	0/06/2020		
DATE OF RECEIPT	02/06/2020 to 30/06/2020			
DATE OF REPORT	02/07/2020			
DATE OF ANALYSIS	START: 03/06/2020	END: 02/07/2020		

	SAM	PLE DETAILS					
MONITORING FOR	K/PO/SRV/2021/0033 DATED: 16/07/2020						
SAMPLING LOCATION	SIKKA VILLAGE (BUFFER ZONE)						
DURATION OF SAMPLING	24 HOURS SAMPLE COLLECTED BY LABORATORY CHEMIST						
SAMPLING PROCEDURE	AS PER METHOD REFERENCE	A High goring &	Annual and the second s				
SAMPLE QUANTITY/PACKING	FILTER PAPER (PM_{10}) : 1X1 NO., FILTER PAPER $(PM_{2.5})$: 1X1 NO. SO ₂ : 30MLX1 NO. PVC BOTTLE, NO ₂ : 30MLX1 NO. PVC BOTTLE RUBBER BLADDER: 1X1 NO.						

Test Method and NAAQM Standard for Ambient Air Quality Monitoring					
Parameter	NAAQM Standard				
Particulate Matter size less than 10 microns (PM_{10})	IS 5182 (Part 23): 2006 & CPCB Guidelines VolI	100			
Particulate Matter size less than 2.5 microns (PM _{2.5})	CPCB Guidelines VolI	60			
Sulphur Dioxide (SO ₂)	IS 5182 (Part 2): 2001, RA 2006 & CPCB Guidelines VolI	80			
Nitrogen Dioxide (NO2)	IS 5182 (Part 6): 2006 & CPCB Guidelines VolI	80			
Carbon Monoxide (CO)*	IS 5182(Part 10):1999, RA 2003	4.0			
Mercury (Hg)	EPA Method IO-5				

TEST REPORT							
Date of Sampling	PM ₁₀ µg/m³	PM _{2.5} μg/m ³	SO ₂ μg/m³	NO ₂ µg/m³	CO* mg/m³	Hg ng/m	
01.06.2020	62	28	12	24	1.1	N.D.	
05.06.2020	50	22	16	26	1.2	N.D.	
08.06.2020	54	26	08	22	1.4	N.D.	
12.06.2020	64	19	10	28	1.0	N.D.	
20.06.2020	48	24	16	22	1.2	N.D.	
22.06.2020	52	28	08	24	1.8	N.D.	
25.06.2020	58	22	14	30	1.1	N.D.	
29.06.2020	52	26	09	20	1.6	N.D.	

Terms & conditions

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Name & Address Of The Custon	ner	REPORT NO LAB REF NO		UES/TR/20-21/0920 UES/20-21/FE/0670			
то,							
HINDALCO INDUSTRIES LIMITED, KATHAUTIA OPEN CAST COAL MINES, POST – NAUDIHA, P.S. PANDWA, DALTONGANJ, DISTT PALAMU (JH)		COAL MINES, DATE OF SAMPLING DATE OF RECEIPT DATE OF REPORT		/06/2020			
				26/06/2020 01/07/2020			
							DATE OF ANALYSIS
				SAMPLE DETAILS			
MONITORING FOR	WORK ZONE MONITORING	CUSTOMER REF. NO. & DATE	K/PO/SRV/2021/0033 DATED: 16/07/2020				
SAMPLING LOCATION	MINING PHASE PIT "A"		***************************************	· · · · · · · · · · · · · · · · · · ·			
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY	LABORATORY CHEMIST				
SAMPLING PROCEDURE	AS PER METHOD REFERENCE						
SAMPLE QUANTITY/PACKING	GMF FILTER PAPER (8 X 10 INCH): 1X1 NO.						

- : . · · · · · · · · · · · · · · · · · ·	TEST REPORT								
SR. NO.	PARAMETER	UNIT	RESULT	As per Moef Notification (350-1)	METHOD REFERENCE				
1	Total Suspended Particulate Matter (as SPM)	μg/m³	384	500	EPA Method IO-2.1				

Note: All results are on the basis of 24 hour sampling.

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

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- > Test sample will be retained for 15 days after issue of test report unless otherwise agreed with customer.

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END: 30/06/2020



HDD-272, Phase III - Near JP Chowk Ring Road No.-2, Kabir Nagar, Raipur (C.G.) - 492099 Ph: 0771 - 4027777 | Email: ultimatenviro@gmail.com

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Name & Address Of The Customer To, HINDALCO INDUSTRIES LIMITED, KATHAUTIA OPEN CAST COAL MINES, POST – NAUDIHA, P.S. PANDWA,		REPORT NO LAB REF NO DATE OF SAMPLING DATE OF RECEIPT DATE OF REPORT	UES/TR/20-21/0 UES/20-21/FE/0 22/06/2020 26/06/2020 01/07/2020	
DALI ONGANJ, DI	STT PALAMU (JH)	DATE OF ANALYSIS	START: 26/06/2020	ENI
		SAMPLE DETAILS		
MONITORING FOR WORK ZONE MONITORING		CUSTOMER REF. NO. & DATE	K/PO/SRV/2021, DATED: 16/07/2	
SAMPLING LOCATION	PIT "B"			

MONITORING FOR	WORK ZONE MONITORING	CUSTOMER REF. NO. &	3	K/PO/SRV/2021/0033 DATED: 16/07/2020	
SAMPLING LOCATION	PIT "B"		***************************************		
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY	LAB	DRATORY CHEMIST	1
SAMPLING PROCEDURE	AS PER METHOD REFERENCE	**************************************	-Laa		
SAMPLE QUANTITY/PACKING	GMF FILTER PAPER (8 X 10	INCH): 1X1 NO.			

		150	I REPUR		
SR. NO.	PARAMETER	UNIT	RESULT	As per Moef Notification (350-1)	METHOD REFERENCE
1	Total Suspended Particulate Matter (as SPM)	μg/m³	346	500	EPA Method IO-2.1

Note: All results are on the basis of 24 hour sampling.

REMARKS: RESULTS ARE AS ABOVE

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DALTONGANJ, DISTT PALAMU (JH)
POST – NAUDIHA, P.S. PANDWA,
KATHAUTIA OPEN CAST COAL MINES,
HINDALCO INDUSTRIES LIMITED,
To,
Name & Address Of The Customer

REPORT NO	UES/TR/20-21/0922				
LAB REF NO	UES/20-21/FE/0672				
DATE OF SAMPLING	22/06/2020				
DATE OF RECEIPT	26/06/2020				
DATE OF REPORT	01/07/2020				
DATE OF ANALYSIS	START: 26/06/2020	END: 30/06/2020			

SAMPLE DETAILS							
MONITORING FOR	WORK ZONE MONITORING	CUSTOMER REF. NO. & DATE	K/PO/SRV/2021/0033 DATED: 16/07/2020				
SAMPLING LOCATION	PIT "C"						
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY	LABORATORY CHEMIST				
SAMPLING PROCEDURE	AS PER METHOD REFERENCE		***************************************				
SAMPLE QUANTITY/PACKING	GMF FILTER PAPER (8 X 10 INCH): 1X1 NO.						

TEST REPORT

SR. NO.	PARAMETER	UNIT	RESULT	As per Moef Notification (350-1)	METHOD REFERENCE
1	Total Suspended Particulate Matter (as SPM)	µg/m³	418	500	EPA Method IO-2.1

Note: All results are on the basis of 24 hour sampling.

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REMARKS: RESULTS ARE AS ABOVE

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Name & Address Of The Customer To		REPORT NO	UES/TR/20-21/0923			
	HINDALCO INDUSTRIES LIMITED,		UES/20-21/FE/0673			
KATHAUTIA OPEN CAST COAL MINES, POST – NAUDIHA, P.S. PANDWA, DALTONGANJ, DISTT PALAMU (JH)		DATE OF SAMPLING	22/06/2020			
		DATE OF RECEIPT	26/06/2020 01/07/2020			
		DATE OF REPORT				
		DATE OF ANALYSIS	START: 26/06/2020	END: 30/06/2020		
		SAMPLE DETAILS				
MONITORING FOR	WORK ZONE MONITORING	CUSTOMER REF. NO. & DATE	K/PO/SRV/2021/0033 DATED: 16/07/2020			
SAMPLING LOCATION	DUMP YARD EXTERNAL					
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY	LABORATORY CHEMIST			
SAMPLING PROCEDURE	AS PER METHOD REFERENCE	·				
SAMPLE QUANTITY/PACKING	GMF FILTER PAPER (8 X 10 INCH): 1X1 NO.					

SR. NO.	PARAMETER	UNIT	RESULT	As per Moef Notification (350-1)	METHOD REFERENCE		
1	Total Suspended Particulate Matter (as SPM)	µg/m³	368	500	EPA Method IO-2.1		

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Note: All results are on the basis of 24 hour sampling.

REMARKS: RESULTS ARE AS ABOVE

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	lame & Address Of The Customer		UES/TR/20-21/0924		
To,		LAB REF NO	UES/20-21/FE/0	674	
HINDALCO INDUSTRIES LIMITED, KATHAUTIA OPEN CAST COAL MINES, POST – NAUDIHA, P.S. PANDWA, DALTONGANJ, DISTT PALAMU (JH)		DATE OF SAMPLING	22/06/2020		
		DATE OF RECEIPT	26/06/2020 01/07/2020		
		DATE OF REPORT			
		DATE OF ANALYSIS	START: 26/06/2020	END: 30/06/2020	
		SAMPLE DETAILS			
MONITORING FOR	WORK ZONE MONITORING	CUSTOMER REF. NO. & DATE	K/PO/SRV/2021/0033 DATED: 16/07/2020		
SAMPLING LOCATION	COAL STOCK YARD				
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY	LABORATORY CHEMIST		
SAMPLING PROCEDURE	AS PER METHOD REFERENCE				
SAMPLE QUANTITY/PACKING	GMF FILTER PAPER (8 X 10 INCH): 1X1 NO.				

-		IES	I REPOR		
SR. NO.	PARAMETER	UNIT	RESULT	As per Moef Notification (350-1)	METHOD REFERENCE
1	Total Suspended Particulate Matter (as SPM)	µg/m³	322	500	EPA Method IO-2.1

Note: All results are on the basis of 24 hour sampling.

REMARKS: RESULTS ARE AS ABOVE

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	Name & Address Of The Customer		UES/TR/20-21/0925			
To, HINDALCO INDUSTRIES LIMITED, KATHAUTIA OPEN CAST COAL MINES, POST – NAUDIHA, P.S. PANDWA, DALTONGANJ, DISTT PALAMU (JH)		LAB REF NO	UES/20-21/FE/0675			
		DATE OF SAMPLING	22	/06/2020		
		DATE OF RECEIPT	26	/06/2020		
		DATE OF REPORT		01/07/2020		
		DATE OF ANALYSIS	START: 26/06/2020		END:30/06/2020	
	er a se condicione de la constanta de la const	SAMPLE DETAILS				
MONITORING FOR	WORK ZONE MONITORING	CUSTOMER REF. NO. & DATE	K/PO/SRV/2021/0033 DATED: 16/07/2020			
SAMPLING LOCATION	HAUL ROAD				internation and the second production and th	
DURATION OF SAMPLING	SAMPLE COLLECTED BY		LABORATORY CHEMIST			
SAMPLING PROCEDURE	AS PER METHOD REFERENCE	*	-			
SAMPLE QUANTITY/PACKING	GMF FILTER PAPER (8 X 1	0 INCH): 1X1 NO.			ingenia) in interess of the control	

		TES	T REPOR		
SR. NO.	PARAMETER	UNIT	RESULT	As per Moef Notification (350-1)	METHOD REFERENCE
1	Total Suspended Particulate Matter (as SPM)	μg/m³	358	500	EPA Method IO-2.1

Note: All results are on the basis of 24 hour sampling.

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Name & Address Of The Customer To, HINDALCO INDUSTRIES LIMITED, KATHAUTIA OPEN CAST COAL MINES, POST – NAUDIHA, P.S. PANDWA, DALTONGANJ, DISTT PALAMU (JH)		REPORT NO	UES/TR/20-21/0926			
		LAB REF NO	UES/20-21/FE/0676			
		DATE OF SAMPLING	22/06/2020			
		DATE OF RECEIPT	26/06/2020			
		DATE OF REPORT	01/07/2020			
		DATE OF ANALYSIS	START: 26/06/2020	END: 30/06/2020		
		SAMPLE DETAILS				
MONITORING FOR	WORK ZONE MONITORING	CUSTOMER REF. NO. & DATE	K/PO/SRV/2021/ DATED: 16/07/2			
SAMPLING LOCATION	RAJHARA RAILWAY SIDEING					
DURATION OF SAMPLING 24 HOURS		SAMPLE COLLECTED BY	LABORATORY CHEMIST			
SAMPLING PROCEDURE	AS PER METHOD REFERENCE					
SAMPLE QUANTITY/PACKING	GMF FILTER PAPER (8 X 1	0 INCH): 1X1 NO.	anni anni anni anni anni anni anni anni	inananinaninaninanina		

	TEST REPORT							
SR. NO.	PARAMETER	UNIT	RESULT	As per Moef Notification (350-1)	METHOD REFERENCE			
1	Total Suspended Particulate Matter (as SPM)	µg/m³	368	500	EPA Method IO-2.1			

Note: All results are on the basis of 24 hour sampling.

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Name & Address Of The Custon	ner	REPORT NO	UES/TR/20-21/0927				
То,	LAB REF NO	UES/20-21/FE/0677					
HINDALCO INDUSTRIES LIMITED, KATHAUTIA OPEN CAST COAL MINES, POST – NAUDIHA, P.S. PANDWA, DALTONGANJ, DISTT PALAMU (JH)		DATE OF SAMPLING	22/	22/06/2020			
		DATE OF RECEIPT	26/06/2020 01/07/2020				
		DATE OF REPORT					
DALTONGANJ, DIS	DATE OF ANALYSIS	START: 26/06/2020		END:30/06/2020			
		SAMPLE DETAILS					
MONITORING FOR	WORK ZONE MONITORING	CUSTOMER REF. NO. & DATE	D. & K/PO/SRV/2021/0033 DATED: 16/07/2020				
SAMPLING LOCATION	TRUCK PARKING ZONE			nation en la prima de mo milialidation de la constitución de la const	manda — — — — — — — — — — — — — — — — — — —		
DURATION OF SAMPLING	24 HOURS	SAMPLE COLLECTED BY LABORATORY CHEMIST					
SAMPLING PROCEDURE	AS PER METHOD REFERENCE		4				
SAMPLE QUANTITY/PACKING	GMF FILTER PAPER (8 X 1	0 INCH): 1X1 NO.			(MICHO)		

JEST REPORT								
SR. NO.	PARAMETER	UNIT :	RESULT	As per Moef Notification (350-1)	METHOD REFERENCE			
1	Total Suspended Particulate Matter (as SPM)	µg/m³	346	500	EPA Method IO-2.1			

Note: All results are on the basis of 24 hour sampling.

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

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SAMPLING LOCATION

SAMPLE COLLECTED BY

SAMPLING PROCEDURE

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Name & Address Of The Custo.	mer	REPORT NO	UES/TR/20-21/0928
HINDALCO INDUST	TRIES LIMITED,	LAB REF NO	UES/20-21/N/0678-0685
KATHAUTIA OPEN CAST COAL MINES, POST – NAUDIHA, P.S. PANDWA,		DATE OF REPORT	01/07/2020
DALTONGANJ, DIS	•	DATE OF SAMPLING	22/06/2020 to 23/06/2020
	S	AMPLE DETAILS	
MONITORING FOR	NOISE LEVEL MONITORING		
CUSTOMER REF. NO. &	K/PO/SRV/2021/0033 DATED: 16/07/2020	hone minimum manadan kata kata kata kata kata kata kata ka	193194

INSIDE COAL MINE & OUTSIDE COAL MINE (AS DESCRIBED BELOW)

LABORATORY CHEMIST

MANUFACTURER'S INSTRUCTION

. T	T	EST REP	ORT			
		RESULT		LIMIT (INDUSTRIAL ZONE)		
LOCATION	UNIT	DAY TIME	NIGHT TIME	DAY TIME	NIGHT TIME	
Inside Plant						
MINES OFFICE NEAR VTC	dB(A)	65.3	58.4		70	
NEAR MAIN GATE	dB(A)	74.4	62.0	75		
NEAR DG STACK	dB(A)	66.7	52.8			
NEAR SUBSTATION	dB(A)	66.6	56.4			
网络沙鸡 图图		RESULT		LIMIT (RESIDENTIAL ZONE)		
LOCATION	UNIT	DAY TIME	NIGHT TIME	DAY TIME	NIGHT TIME	
Outside Plant	V. Colores State			and the second s		
R & R COLONY, CHANDAN NAGAR	dB(A)	50.8	48.6	,		

REMARKS: RESULTS ARE AS ABOVE

KATHAUTIYA VILLAGE

BATSARA VILLAGE

SIKKA VILLAGE

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dB(A)

dB(A)

dB(A)

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53.6

48.6

42.8

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42.0

40.4

38.4

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to Name & Address Of The Cu	stomer	Report No	UES/TR/20-21/0929			
To,		Lab Ref No	UES/20-21/W/0686-0687			
HINDALCO INDUST	TRIES LIMITED,	Date Of Sampling	22/06/2020			
KATHAUTIA OPEN CAST COAL MINES, POST – NAUDIHA, P.S. PANDWA,		Date Of Receipt	26/06/2020			
		Date Of Report	01/07/2020			
DALTONGANJ, DIS	· · · · · · · · · · · · · · · · · · ·	Date Of Analysis	Start:26/06/2020	End: 30/06/2020		
	SA	MPLE DETAILS				
Customer Sample ID	 Near Workshop Sump Water Pit-D 	Customer Ref. No. & Date	& K/PO/SRV/2021/0033 DATED: 16/07/2020			
Sample Type	Effluent Water	Sample Condition At Receipt	Ok			
Packing Of Sample	Jerry Cane (3 ltr.*1) Glass bottle (1 ltr.*1)	Sample Collected By	ed By Laboratory Chemist			
Other Details	Sealed	Quantity Received Approx. 4Lt				

TEST REPORT								
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER	NEAR WORK SHOP	SUMP WATER PIT-D		
1	Colour	Hazen	APHA 22 nd Ed. 2012,2120-B,2-6	See 6 of Annexure-I	<1	<1		
2	Odour	-	APHA 22 nd Ed. 2012,2120-B,2-6	See 6 of Annexure-I	Agreeable	Agreeable		
3	3 Temperature °C		APHA 22 nd Ed.2012,2130-B,2-13	Shall not exceed 5°C above the receiving water temperature	25,4	25.2		
4	рн	ADHA 22nd Ed 2012 A500_H+_		7.38	7.44			
5	Total Residual mg/L APHA 22 nd Ed.2012,4500-Cl-G, 4 - 69 1.0		N.D.	N.D.				
6	Total Suspended Solids			26.0	32.0			
7	Dissolved Phosphate (as P)	te mg/L APHA 22 nd Ed.2012,4500-P-C, 4-153 5.0		N.D.	N.D.			
8	Fluoride (as F)	mg/L	APHA 22 nd Ed.2012,4500-F- B&D,4-84 & 87	22 nd Ed.2012,4500-F- 4-84 & 87		0.2		
9	Lead (as Pb)	mg/L	АРНА 22 nd Ed.2012,3111-В, 3- 18	0.1	N.D.	N.D.		
10	Zinc (as Zn)	mg/L	APHA 22 nd Ed.2012,3111-B, 3-18	5.0	0.08	0.06		
11	Copper (as Cu)	mg/L	APHA 22 nd Ed.2012,3111-B, 3-18	3.0	N.D.	N.D.		
12	Cadmium (as Cd)	mg/L	APHA 22 nd Ed.2012,3500-Cd, 3-105	2.0	N.D.	N.D.		
13	Mercury (as Hg)	mg/L	APHA 22 nd Ed.2012,3112-B, 3-23	0.01	N.D.	N.D.		
14	Arsenic (as As)	mg/L	APHA 22 nd Ed.2012,3114-C, 3-38	0.2	N.D.	N.D.		



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to Name & Address Of The Cu.	stomer	Report No	UES/TR/20-21/0929			
To, HINDALCO INDUSTRIES LIMITED, KATHAUTIA OPEN CAST COAL MINES, POST – NAUDIHA, P.S. PANDWA,		Lab Ref No	UES/20-21/W/0686-0687			
		Date Of Sampling	22/06/2020			
		Date Of Receipt	26/06/2020			
		Date Of Report	01/07/2020			
DALTONGANJ, DIS		Date Of Analysis	Start: 26/06/2020 End: 30/0			
	SA	MPLE DETAILS				
Customer Sample ID	1. Near Workshop 2. Sump Water Pit-D	Customer Ref. No. & Date	K/PO/SRV/2021/0 DATED: 16/07/20	7 T. P. T.		
Sample Type	Effluent Water	Sample Condition At Receipt	t Ok			
Packing Of Sample	Jerry Cane (3 ltr.*1) Glass bottle (1 ltr.*1)	Sample Collected By Taboratory Chomist		nist		
rucking or banpic						

TEST REPORT								
SR. NO.	PARAMETER	UNIT	METHOD OF TEST	THE ENVIRONMENT (PROTECTION) RULES, 1986 [SCHEDULE-VI] PART-A INLAND SURFACE WATER	NEAR WORK SHOP	SUMP WATER PIT-D		
15	Selenium (as Se)	mg/L	APHA 22 nd Ed.2012,3114-C, 3-38	0.05	N.D.	N.D.		
16	Total Chromium (as Cr)	mg/L	APHA 22 nd Ed.2012,3500-Cr- B,3-69	2.0	N.D.	N.D.		
17	Chemical Oxygen Demand (COD)	mg/L	APHA 22 nd Ed.2012, 5520-B,5- 17	250	54.0	62.0		
18	Biochemical Oxygen Demand (BOD)	mg/L	IS 3025(Part 44):1993,RA 2003	30	13.4	6.8		
19	Oil & Grease	mg/L	IS 3025(Part 39):1991,RA 2003,	10.0	N.D.	N.D.		
20	Phenolic Compounds (as C ₆ H ₅ OH)	mg/L	IS 3025(Part 43):1992,RA 2003	1.0	N.D.	N.D.		

Note: mg/lit.: milligram per liter.

REMARKS: RESULTS ARE AS ABOVE

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to Name & Address Of The Cus	Lab Ref No		UES/TR/20-21/0930 UES/20-21/W/0688-0690			
HINDALCO INDUSTRIES LIMITED,		Date Of Sampling 22/06/2020 Date Of Receipt 26/06/2020 Date Of Report 01/07/2020				
KATHAUTIA OPEN						
POST – NAUDIHA, P.S. PANDWA, DALTONGANJ, DISTT PALAMU (JH)				/07/2020		
		Date Of Analysis	Start:26/06/2020		End:30/06/2020	
	SA	AMPLE DETAILS				
Sampling Location	1. SECURITY BAIRCK 2. SIKKS VILLAGE 3. BATSARA VILLAGE	Customer Ref. No. & Date				
Monitoring For	Piezometer Ground Water Depth	Sample Condition At Receipt		Ok		
Sample Collected By	Laboratory Chemist					

TEST REPORT								
SR. NO.	LOCATION	LOCATION LATITUDE		UNIT	RESULT (DEPTH/BELOW GROUND WATER LEVEL)			
1	NEAR SECURITY BARRAK	24°01′10.28″N	84°05′18.88″E	METER	6.3			
2	NEAR SIKKA VILLAGE	24°06′54.88″N	84°05′34.33″E	METER	12.2			
3	NEAR BATSARA VILLAGE	24°06′52.49″N	84°05′41.49″E	METER	11.7			

Note: BGWL - Below Ground Water Level.

REMARKS: RESULTS ARE AS ABOVE

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