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Letter No.: -HIL/GP-IV/4/ENV/HW/2022/ 251

Date: 30.12.2022

To,
The Member Secretary,
Chhattisgarh Environment Conservation Board,
Paryawas Bhawan, North Block Sector-19,
Atal Nagar, Dist. - Raipur Chhattisgarh - 492002.

Sub.: Submission of Compliance Report of Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016 for Gare Palma IV/4 Coal Mines of M/s Hindalco Industries Limited, Village – Banjikhola, Tehsil – Tamnar, Distt. –Raigarh, Chhattisgarh – 496107.

Ref. 1. Authorization No. 249/HO/HSMD/CECB/ATAL NAGAR, Raipur, Dated 10.06.2019,
2. Authorization Letter No. 1497/HSMD/HO/CECB/2019, Raipur, Dated 10.06.2019.

Dear Sir,

With reference to above subject, we are submitting the compliance Report of Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016 in respect of Gare Palma IV/4 Coal Mines of M/s Hindalco Industries Limited, Village – Banjikhola, Tehsil – Tamnar, Distt. –Raigarh, Chhattisgarh – 496107

This is for your kind information please.

Thanking you,

Yours faithfully,
For Hindalco Industries Limited,


Govind Kumar
(Mine Agent– GP IV/4 Coal Mines)



Encl.: As above

CC: Regional Officer, Chhattisgarh Environment Conservation Board (CECB), T. V. Tower Road, Raigarh (C.G.)

Hindalco Industries Limited

Gare Palma Mines (IV/4 & IV/5), Vill & Po: Milupara , Tehsil: Tamnar Dist: Raigarh- 496107 Chhattisgarh
T: +91 7762 228212, Website : www.hindalco.com E mail : hindalco@adityabirla.com
Registered Office : Ahura Centre, 1st Floor, B Wing, Mahakali Caves Road Andheri (East) , Mumbai 400093, India
T: + 912266917000 | Fax: + 912266917001
Corporate ID No: L27020MH1958PLC011238



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Corporate ID No: L27020MH1958PLC011238

Compliance Status of Authorization of Hazardous Waste

Authorization No. 249/HO/HSMD/CECB/ATAL NAGAR, Raipur, Date 10.06.2019

Authorization Letter No. 1497/HSMD/HO/CECB/2019, Raipur, Date 10.06.2019

SN	Condition	Compliance
01	The authorization shall comply with the provision of Environment (Protection) Act, 1986 and the rule made there under.	Noted and Being Complied.
02	The authorization or its renewal shall be produced for inspection at the request of an officer authorized by the Chhattisgarh Environment Conservation Board.	Agreed.
03	The person authorized shall not rent, lend, sell, transfer or otherwise transport the hazardous wastes without obtaining prior permission of the Chhattisgarh Environment Conservation Board.	Agreed.
04	Any unauthorized change in personnel, equipment or working condition as mentioned in the application by the person authorized shall constitute a breach of his authorization.	Agreed.
05	The person authorised shall implement Emergency Response Procedure (ERP) for which this authorisation is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time.	The Emergency Response Procedure (ERP) has already been implemented in the mines and mock drill is being carried out at regular interval of time. a copy of Emergency Response Procedure is attached as annexure - 1 .
06	The person authorised shall comply with the provisions outlined in the Central Pollution Control Board guidelines on “Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty”.	Noted and Being Complied.
07	It is duty of the authorized person to take prior permission of the Chhattisgarh Environment Conservation Board, to close down the facility.	Agreed.
08	The record of consumption and fate of the imported hazardous and other wastes shall be maintained.	Being complied.
09	Industry shall prepare emergency response plan (ERP) and ensure implementation the same at the event of any accident occurs due to handling and transporting of hazardous waste as per CPCB guideline.	The Emergency Response Plan (ERP) has already been implemented in the mines. a copy of Emergency Response Plan is attached as annexure -2 .
10	The hazardous and other waste which gets generated during recycling or reuse or recovery or pre-processing or utilisation of imported hazardous or other wastes shall be treated and disposed of as per standard operating	The generated Hazardous Waste is being sold to authorized recycler only. The Authorization certificate of the last vendor is attached as annexure – 3 .

	procedures/guidelines issued by CPCB from time to time.	
11	An application for the renewal of an authorization shall be made as laid down under these Rules.	Agreed.
12	Annual return in form IV shall be filed by June 30th for the period ending 31st March of the last financial year.	Complied. The Annual Return for the FY from 2019-20 to 2021-22 has been submitted in Form-IV to the board. copy of annual return is attached as annexure – 4.
13	The wastes shall be collected and stored properly with adequate safety measures as per rule	The generated Hazardous Waste is collected in sealed drums and stored in an isolated storage yard safely. Photographs of the Hazardous waste shed is attached as annexure – 5. We have placed an SOP for the handling of Hazardous waste. Copy of the SOP is attached as annexure -6.
14	Authorized person shall comply with provision of rule 17, 18 and 19 for packing, labeling and transport of hazardous waste.	Agreed.
15	The authorized person should maintain the records of hazardous waste as per enclosed Form – 3 of Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016	Being complied. The record of hazardous wastes is maintained in Form-3. Copy of record for the FY from 2019-20 to 2021-22 is attached as annexure – 7.
16	The occupier shall follow the guidelines (if any) of Central Pollution Control Board or MoEF & CC for management of Hazardous waste from time to time.	Agreed.
17	The industry should display online data outside factory gate on quantity and nature of hazardous chemicals and wastes being used in the plant, water and air emission and solid waste generated within the factory premises.	Complied. Photograph of the display board is attached as annexure -8.
18	Industry shall ensure disposal of hazardous waste generated during the production process through authorized recycler/Co-processing in cement plant/captive disposal facility/arrangement for sharing of authorized disposal facility/common TSDF as per rule. Failing which this authorization shall be treated as cancelled and appropriate action would be initiated against the industry.	Gare Palma IV/4 is a Coal Mine. Hence, the condition is not applicable.
19	Industry shall create new website for Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016 and upload all the information above the waste in the website.	Noted and Being Complied.
20	The waste must be given thermal/biological/physic-chemical treatment; the waste should be completely dewatered, detoxified, and proper conditioned and any	Agreed

	possible recovery is made before their disposal.	
21	The industry should constitute a hazardous waste management cell to take care of the management aspects of the hazardous waste generated in the plant.	An Environment Management Cell already exists, which is headed by Asst. Vice President to take care of hazardous waste management. A copy of EMC is attached as annexure – 9 .
22	An on-site storage the hazardous waste for a maximum period of 90 days should be provided and it shall be ensured that there is no leakage or seepage from the surrounding walls or bottom. The site should be covered and properly protected to prevent the entry of rain water in storage area.	Agreed.
23	At least four nos. of piezometer points should be provided around the storage site of H.W. to monitor the leaching of the waste and the monitoring report of the same shall be submitted to the board every six monthly. Each type of waste shall be stored in a separate storage cell.	The four nos. of piezometer had already been made and maintain record with online data monitoring. The monitoring report has been submitted regularly to the board. The generated Hazardous Waste is collected in sealed drums and stored in an isolated storage yard safely. The photographs and monitoring report of the piezometer are attached as annexure – 10 .
24	The discarded container of Hazardous waste and chemical shall not be used for storage of food grade products. At the storage site “Hazardous waste storage site & danger signboard” shall be provided with all safety devices.	Agreed.
25	In the event of any accident due to handling of hazardous waste the authorized person must inform immediately to the concern Regional Office and H.O. Atal Nagar, Raipur of the Board by fax/telephone or by E-mail about the incident and details report be sent in form no. 11 (see rule 22).	Agreed.
26	The Authorization obtained by the Chhattisgarh Environment Conservation Board should be prominently displayed.	Displayed.
27	Used batteries shall be disposed of as per the Batteries (Management & Handling) Rules, 2001	Complied. The used batteries return has been submitted regularly to the board. A copy of return from the period of Apr’22 to Sep’22 is attached as annexure – 11 .
28	Board reserves the right to cancel/amend the above condition and add new conditions as and when deemed necessary.	Agreed.
29	This authorization shall not be taken as a measure of proof that industry has not violated the Environmental laws in the past period.	Noted.

Annexure-1

Emergency Response Procedure (ERP) for Handling of Emergency Situation at Gare Palma IV/4 Coal Mine

BRIEF OF HANDLING THE SITUATION

On declaration of emergency, immediate action shall be initiated by the Agent (in his absence the next senior most officer) to

- Set up the control room, with directions to the persons responsible to handle it.
- Arrange for intimation to be sent to Govt. Agencies including DGMS.
- Arrange for directions to various departmental heads listed below to man their positions.
- The Departmental heads shall communicate their position and keep in constant / touch with control room for information, direction and liaison.

CONTROL ROOM

In case of Emergency of third order – when emergency has been declared by Executive head

- Control room under the charge of a competent official shall be set up forthwith.
- The control room shall preferably be on the surface.
- The control room shall be as near to the site of accident / incident as possible.
- The control room shall act as a facilitator in all the operations being conducted.
- The control room shall be manned by competent officials round the clock, in shifts, in a relieving system. Besides the Control room in charge shall be assisted by adequate number of officials to handle the volume of workload including communications, material and persons.
- The control room shall be equipped with one or more clear two-way communication system(s) which shall assist the control room in charge to communicate with the mine and the outside agencies also.
- Control room in charge shall record all communication in the register with date and time of communication in chronological manner.
- Control room in charge shall also record the visits, orders of visiting officials, and any other matter of relevance which takes place during his duty.

Annexure-2



HINDALCO INDUSTRIES LIMITED

EMERGENCY PREPAREDNESS PLAN

GARE PALMA IV/4 COAL MINES– 2019

● Index	1
● Who Declares Emergency	2
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● Details of Newspaper & Reporter	12
● Details of Vehicle Vendors	12
● DGMS	13

1. Page numbers may be corrected.
2. Blue is addition and ~~strike~~ is deletion.
3. The telephone and contact numbers may be reviewed again as I have seen some mistakes. This may be done on hard copy, and then transferred to soft copy for finalization.
4. Appreciate the effort made by the officers of GPIV/4 in formulation of the EMP, it is not exhaustive and can be elaborated by discussions at PSC and also based on the experience gained during operations. It is for this reason also that the EMP should be revised periodically but not later than 6 months.

WHO DECLARES EMERGENCY

Emergency of first order: -

When the situation is such that the facility and equipment available at mine site / level is adequate enough to handle the emergency situation, then the **Emergency situation** should be **handled by Manager of the mine**.

Emergency of second order: -

When the situation is such that the facility and equipment at mine site / level is inadequate to handle the emergency situation and help from higher authority is needed, then the **Emergency** should be **declared by Agent of the mine, and Manager** should **assist the Agent in handling the situation**.

Emergency of third order:-

When the situation arising out of the accident / incident are such that the internal resources of the industry / company and the facility and equipment at mine level and the area level are not adequate enough to handle the situation, **EMERGENCY** is to be declared, and help from nearby mines, other agencies, and the Government machinery may be sought.

Emergency of third order ought to be declared by Executive head of the organization, and the **Emergency Preparedness Plan** is put in operation, and the Agent and Manager of the mine shall assist him in handling the situation.

BRIEF OF HANDLING THE SITUATION

On declaration of emergency, immediate action shall be initiated by the Agent (in his absence the next senior most officer) to

- Set up the control room, with directions to the persons responsible to handle it.
- Arrange for intimation to be sent to Govt. Agencies including DGMS.
- Arrange for directions to various departmental heads listed below to man their positions.
- The Departmental heads shall communicate their position and keep in constant / touch with control room for information, direction and liaison.

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- Control room in charge shall record all communication in the register with date and time of communication in chronological manner.
- Control room in charge shall also record the visits, orders of visiting officials, and any other matter of relevance which takes place during his duty.

DUTIES OF VARIOUS HEADS ON DECLARATION OF EMERGENCY

The Executive head shall define in writing the following officials who shall work in close liaison with the control room and the technical head to fulfill the duties defined against each officer. The sectional head so defined shall be a responsible person who holds position of responsibility and authority. An alternative to the sectional head shall also be included in the order, to cope up with absenteeism.

Technical– The technical head shall take up

- All matters related to technical operations
- Decide what is to be done.
- This shall be in communication with control room in charge,
- Assisted by officials of other technical wings e.g. Electrical Mechanical and other heads, and also by the officials whose duties have been defined below.

Spokesperson– A spokesperson designated by the Head of the project shall

- Keep liaison with media.
- This shall be in coordination with control room in charge
- Information to be given to media shall only be through the spokesperson.
- Other officials may prefer to avoid speaking to media and direct the media if any to the spokesperson.
- The spokes person shall be in constant touch with the control room in charge.

Medical Officer – The Medical officer shall

- Arrange the emergency medical services requirement,
- Take decisions in respect to the medical aid requirement,
- Co-operation with control room arrange for shifting of persons needing medical attention to the required hospitals.
- During shifting of injured persons arrangements shall also be made to ensure a person of the organization to accompany the injured.
- Inform the major developments to the control room.
- Intimate the higher official time to time about the situation.

Stores and Purchase – The Stores and Purchase head shall

- Arrange the emergency requirement including purchases.
- He shall keep in constant touch with Control room in-charge and the technical head
- Arrange for urgent purchases as required by the Technical head.

Financial – The Financial head shall be responsible for arranging for the finances required during the emergency and the rescue and recovery operations. This shall be in coordination with control room in charge.

Personal – The Personal Head

- Responsible for contacting and for keeping liaison with the bereaved families, if any
- He shall ensure that the issues related to the compensation and other related matters are settled at the earliest.
- The progress in the matter shall be constantly be informed to control room in-charge.

Protocol– A protocol officer shall be designated

- Assist and accompany the political or other VIPs, visiting the site.
- He shall keep in constant liaison with the control room in-charge, and shall act accordingly.

Welfare– The welfare officer

- Entrusted with the work of making arrangements for food, water, lodging, for the rescue and recovery operations and for all other operations required to deal with the emergency.
- Attend to and assist Personal officer in contacting and for keeping liaison with the bereaved families
- Liaison with the control room.

Security – The Head of security shall be entrusted with the task of protecting the property and the officers and the rescue workers.

Liaison–The liaison officer so designated shall keep a close liaison with state and Central Govt.

Adjoining mines – the various machines including pumping capacities of each and the broad machines used by them, shall be an added advantage.

DESIGNATION	OFFICE CONTACT NUMBER	PERSONAL CONTACT NUMBER
DISTRICT COLLECTOR	07762-222103, 222101(R)	
PA to DISTRICT COLLECTOR	9407657851	
SP	07762-223333	
Add. SP		
SDM, GHARGHODA	07767-284523	8120445560, 9425584600
SDM, DHARAMJAYGARH	07766-266223,	7999249562
SDM, RAIGARH	07762-222133, 224444 (R)	
T.I, TAMNAR	9977242600, 7869746665	
TAHASILDAR, TAMNAR		9770100209
BDO, TAMNAR		8839668954

DETAILS OF VARIOUS SUPPORT MATERIALS SUPPLIERS

Sl. No.	Agency	Owner	Address	Contact Number	Support Materials
1	Jayant Roller		Nagpur	9422105436	Roof bolts, W-Strap, Resin capsule
2	Ramtech		Hyderabad	9949266993	Resin Capsule

DETAILS OF VARIOUS CONTRACTORS

SR. NO.	AGENCY	OWNER'S NAME	ADDRESS	CONTACT	REMARKS
1	M/s TMC	ATUL DWIVEDI	RAIGARH	9755024800	FACE OPERATION
2	M/s SINGH & SONS	ROSHAN SINGH	NAGPUR	9767788777	FACE OPERATION
3	M/s GMM	H.L. GERIWAL	GURUGRAM	9766316572	OCP OPERATION
4	M/S DECO	HARSH AGRAWAL	DHANBAD	8873580081	OCP OPERATION
5	M/s SHANKAR CONSTRUCTION	SHANKAR PATEL	MILUPARA	9752516025	VENTILATION
6	M/s BABLU PATEL	BABLU PTEL	MILUPARA	9752115611	VENTILATION
7	M/s ASHOK PATEL	ASHOK PATEL	KONDKEL	9981672530	VENTILATION
8	M/s LEKHRAM CHOUDHARY	LEKHRAM CHOUDHARY	MILUPARA	8085842155	VENTILATION
9	M/s SITARAM MEHER	SITARAM MEHER	MILUPARA	9584367251	VENTILATION / MANPOWER SUPPLIER
10	M/s JWALA PRASAD GUPTA	JWALA PRASAD GUPTA	BIJNA	9993817712	VENTILATION
11	M/s CHAITRAM RATHIA	CHAITRAM RATHIA	BELJOR	9755791200	MANPOWER SUPPLIER
12	M/s GAYATRI CONSTRUCTION	UDHAV PATEL	KONDKEL	9981904639, 7725064621	MANPOWER SUPPLIER
13	M/s GOPAL PATEL	GOPAL PATEL	MADWADUMAR	9301518542, 9755485590	MANPOWER SUPPLIER
14	M/s SHOUKILAL CHOUHAN	SHOUKILAL CHOUHAN	KONDKEL	9752070996	MANPOWER SUPPLIER
15	M/S B.G. EARTHMOVERS	DHANANJAY AGRAWAL	RAIGARH	9893593565	HYADRA & PAYLOADER SUPPLIER

DETAILS OF HOSPITAL

NAME OF THE HOSPITAL	ADDRESS	EMERGENCY CONTACT NUMBER	AMBULANCE CONTACT NUMBER
Govt. Hospital	Tamnar	9993421620	
Fortis O P Jindal Hospital	Kharsia Road, Raigarh	07762-227033, 8827478001	
Metro Care Hospital	Near Pahad Mandir, Raigarh	07762-220666, 07762- 220555, +(91)- 9425003501	
Mission Hospital	Near Pahad Mandir, Raigarh	07762-223097	
Sanjeevani Nursing Home	Near Gopi Talkies, Raigarh	9424187081, 07762- 215801	
Dr R L Hospital And Trauma Centre	Goushala Road, Raigarh	07762-231400, 232400	
Asharfi Devi Lady Hospital	Sawadia Campus Raigarh	9907062189, 7898828840	
City Hospital	Kotra Road, Raigarh	07762-324080	
Kirodimal Ladies Hospital	Raigarh	07762-222486	
Ambulance			108

DETAILS OF DOCTORS

SL. NO.	NAME OF DOCTOR	HOSPITAL	ADDRESS	SPECILISATION	CONTACT NUMBER
1	P K Mishra	METRO	Near Pahad Mandir, Raigarh	Medicine	9424183105
2	G S Agarwal	PRIVATE	Railway Station Road, Near Natwar School, Raigarh	Medicine	9893233141
3	G C Chatterjee	PRIVATE	Railway Station Road, Near Natwar School, Raigarh	Medicine	9827151544
4	Manish Beriwal	PRIVATE		Medicine	9425003501
5	Mandavi	PRIVATE		E&T	9301277070
6	Dr R.k Sharma	METRO	Near Pahad Mandir, Raigarh	Surgery	9893397257

RESCUE SERVICES

NAME	RESCUE STATION, BRAJRAJNAGAR , MCL	RESCUE STATION, MANENDRAGARH, SECL	RESCUE STATION, DHANSAR, DHANBAD, BCCL	OFFICE PHONE NUMBER	PERSONAL PHONE NUMBER
GM, RESCUE & SAFETY	Mr Sujit Roy Choudhary	R.P.Singh			
PERSONAL CONTACT NUMBER	9437019134	9425533551			
NAME OF RESCUE SUPERINTENDENT	Mr Garnayak	Manoj Bisnoi			
OFFICE CONTACT NUMBER					
PERSONAL CONTACT NUMBER	9437021712	9425533572			
NAME OF MRS INSTRUCTOR	Mr. S K Gupta	9438879951			
NAME OF MRS INSTRUCTOR					

RESCUE TRAINED PERSON

NAME	DESIGNATION	RESIDENCE	MOBILE NUMBER
Pradipta Sahu	Mining Engineer	Milupara	7008453543
Anuj Jhangde	Mech. Fitter	Milupara	9981708308
Uday Oron	Mech. Fitter	Milupara	7089329051
Basant Gupta	Mech. Fitter	Raigarh	7697922031
Sahani Das Mahant	Mech. Fitter	Raigarh	9981242266
Dinesh Bareth	Mech. Fitter	Milupara	7610604498
Ramsai Rathiya	Associate	Kondkel	

SENIOR MANAGEMENT STAFF

SL. NO.	NAME	DESIGNATION	CONTACT NUMBER
1	Vivek Mishra	President	9111006126
2	Govind Kumar	Agent	91110024922
3	Bijaya kumura	Head HR	7077743318
4	H L Sahu	Safety Officer	9111024924
5	D.P. Lenka	Mines Manager	9111006023
6	Dipankar Khan	Head Geology & survey	9111006004
7	Subrat Parida	Prod. OC	9111006095
8	B B Patnaik	HR	9111006027
9	B.B Pandey	E&M	9111006025
10	C.S Singh	Survey	9111006049
11	Manoj Behara	HR	9111006161
12	Sunil Kumar	Store	9111006116
13	Tara Chand Kumar	Civil	9111006047

DETAIL OF NEARBY MINES

NAME OF MINE	ADDRESS	IMPORTANT PERSON	DESIGNATION	CONTACT NUMBER
GARE PALMA IV/1, IV/2 & IV/3 (SECL)		Arvind Kumar	OSD	9425531374
GARE PALMA IV/1 (SECL)		Nirmal Kumar	Agent	9752601325
		M L Soni	Manager	9425531090
GARE PALMA IV/2 & IV/3 (SECL)		GM Nayak	Agent	9425531871
		Niranjan Rukmanagad	Manager	9425282387
GARE PALMA IV/5 (HIL)	Milupara	Dipesh Bhatia	Agent	9111006001
	District- Raigarh	A.N. Swamy	Mine Manager	9111006005
	Chhattisgarh	Dipankar Khan	GM	9111006004
	496107	Siba Mishra	Sr. Manager	9111006102
		Sanjay Jain	GM	9111006012
		S Hoda	AGM	9111006020
		Rakesh Singh	Asst. Manager	9111006017
		Pramod Agrahari	Asst. Manager	9111006054
		D Patnaik	Asst Manager	9111006064
Gare Palma IV/8 (AMBUJA)		S. S. Srivastava	Agent	7225055007
		B.K. Singh	Manager	7225055229

NEWS PAPER & NEWS REPORTER

NAME OF THE NEWS PAPER	LAUNGAGE	PUBLICATION	NAME OF THE REPORTER	OFFICE ADDRESS	TELEPHONE NUMBER	MOBILE NUMBER
DANIK BHASKAR	HINDI	DAILY	ASHOK SARARTHI	TAMNAR		9755305791
ISPAT TIMES	HINDI	DAILY	AJAY DAS	TAMNAR		7697314151
KELO PRABAH	HINDI	DAILY	GOPAL GUPTA	TAMNAR		7693924430
HARI BHUMI	HINDI	DAILY	ASHWINI MALAKAR	KUNJEMURA (TAMNAR)		7489514816
KIRAN DUT	HINDI	DAILY	SARVAN CHAUHAN			8349112346
RAIGARH SANDESH	HINDI	DAILY	RAJIV GUPTA			9981881674

DETAILS OF VEHICLE VENDORS

Sr. no.	NAME OF THE OWNER	VEHICLE NUMBER	TYPE OF VEHICLE	OWNERS CONTACT NUMBER	DRIVERS CONTACT NUMBER
1	Mayur Thakkar	CG-13-V-0189	Scorpio	9993257325	7691915966
2	Mayur Thakkar	CG-13-W-5726	Scorpio	9993257325	9111163024
3	Mayur Thakkar	CG-13-Y-4969	Scorpio	9993257325	8839349778
4	Lukeshwar Prasad Patel	CG-13-Y-7910	Bolero	8959767696	8349909321
5	Santosh Saxena	CG-13-Y-5367	Scorpio	9827924431	8964928294
6	Khageswar Thawait	JH-01-CR-0816	Innova	700619191	7879128052

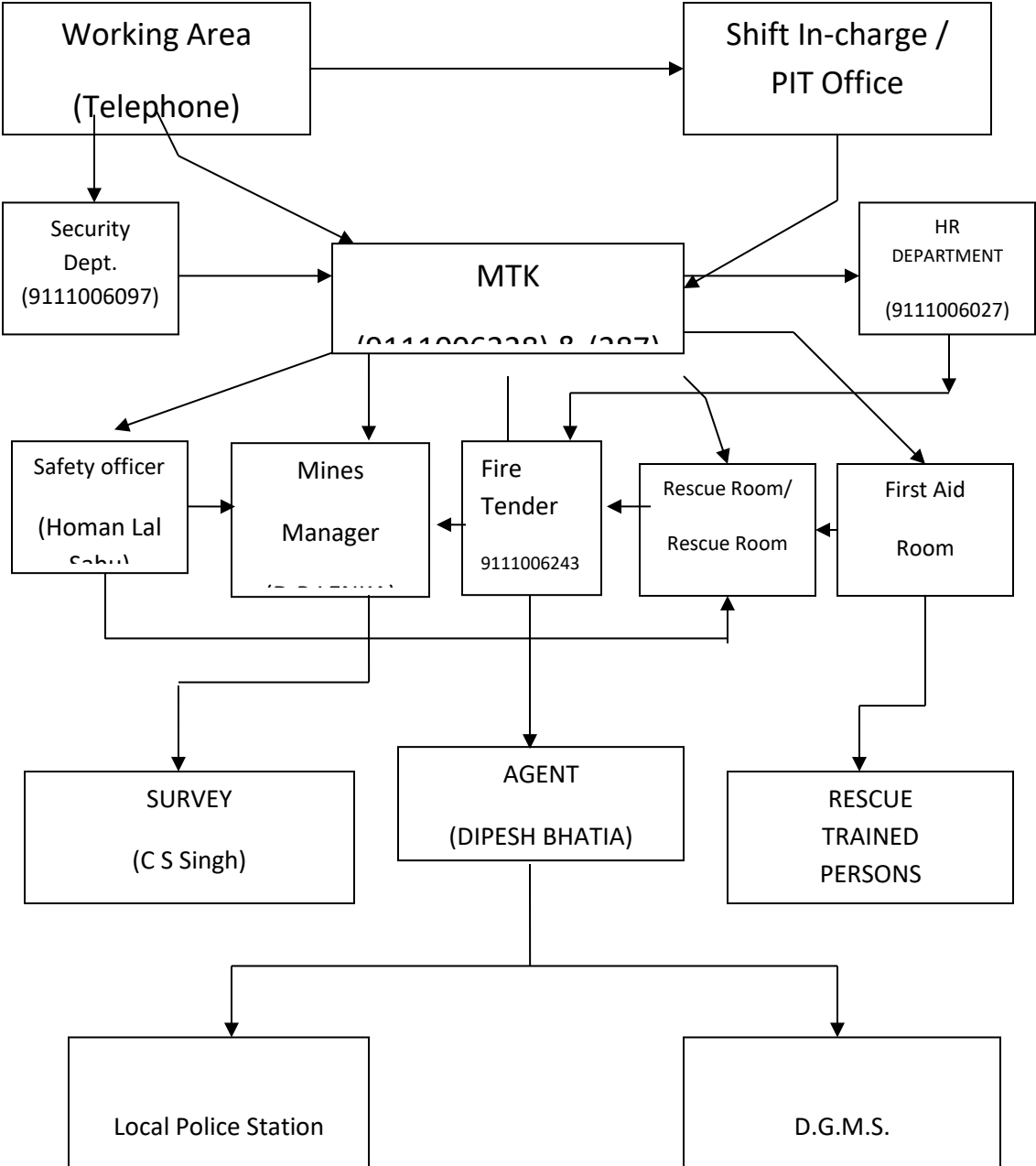
7	Sheela Mandavi	CG-13V-1475	Scorpio		9753777070
8	Vibhuti Prasad Gupta	CG-13-UJ-8860	Bolero	8085659766	6265366210
9	Tirupati Road carriers	CG-13-Q-0891	Bus	8006111557	7389520082
10	Tirupati Road carriers	CG-13-Q-0903	Bus	8006111557	9981198311
11	Tirupati Road carriers	CG-13-Q-0905	Bus	8006111557	8849514128
12	Tirupati Road carriers	CG-13-Q-0906	Bus	8006111557	7247279001

DGMS

Designation	Region	Residential Address	Office Ph. No.	Mobile No
Director of Mines Safety	Raigarh	Housing Board Circuit House	07762220114	
Dy. Director of Mines Safety	Raigarh	Near Indian School, Raigarh		9425570119
Director General	Dhanbad		03262221000	
Dy. Director of Mines Safety	Raigarh	D-102, Himalaya Heights, Raigarh	07762222116	
Dy. Director General	Ranchi			
Dy. Director General (HQ)	Dhanbad		03262221021	9471192211
Director (Elect.)	Dhanbad			9423075958
Dy. Director (Elect.)	Dhanbad			8102297501
Dy. Director (Elect.)	Dhanbad			7763800034

Emergency organization plan (Gare Palma IV/4 Coal Mine)

Under Reg.252 of CMR-2017



Sl.no.	Name of Shift Incharges	Mob. No.
1.	Akhileswar Prasad	9111006099
2.	Subrat Parida	9111006095
3.	Kamal Kr Soni	9111006165
4.	Amarjeet Singh	9111006043
5.	Gopi Nath Maity	9111006048
6.	Shailendra kumar	9111006208
7.	Ranjay Kumar	(9111006167
8.	Bhim Sain Singh	9111006153
9.	Avinash Kumar	9111006168
10.	Piyush Chandrayan	9111006217
11.	Sanjeev Kr Singh	9111006158
12.	Sunil Sahu	9111006224
13.	Ramjee Raj	9111006166
14.	Nityanand Singh	9111006226
15.	Ajay Rai	9111017328

Sl.no.	Name of Rescue Team-GP-IV/4 Coal Mine	Mob. No.
1	Piyush Chandrayan (Captain)	9111006217
2	Gourav Kr Parmar (Member)	9111003967
3	Ajay Singh (Member)	8085221960/8120356082
4	Sahani Das Mahant(Member)	9981242266
5	Uday Singh Urao (Member)	9755346910
6	Basant Gupta (Member)	9827989938/7697922031
7	Ramsai Rathia (Member)	9993904946
8	Anuj Kumar Jangde (Member)	9981708308
9	Pradeepta Sahu (Member)	7008453543
10	Hemant Rai (Member)	9981828981/9131244966
11	Dinesh Bareth (Member)	9685997949/7610604498

AMBULANCE DRIVER:

1. Shohendra Sidar- 6260946738

2. Rathu Ram Sarathy- 7489219554

Annexure-3



CHHATTISGARH ENVIRONMENT CONSERVATION BOARD
PARYAVAS BHAWAN, NORTH BLOCK, SECTOR -19,
ATAL NAGAR, RAIPUR (C.G.) 492002
E-mail : hocecb@gmail.com, Ph. No. 0771-2512220

No. **10638** /HSMD/HO/CECB/2020

Atal Nagar, Raipur, Date **27/2** /2020

To,

M/s Columbia Petro Chemicals,
22, Industrial Area, Bhanpuri,
Distt.-Raipur (C.G.)

Sub: Passbook for Maintenance of Records of Hazardous and Other Wastes purchased by the Actual User [See Rule-6 (7 & 8) of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016].

Ref: Your Online application no. 4317776 dated 12/11/2019.

----:00:----

With reference to Your Online application no. 4317776 dated 12/11/2019 please find enclosed herewith the "Passbook for Maintenance of Records of Hazardous and Other Wastes purchased by the Actual User [See Rule-6 (7 & 8) of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016]" permission for Utilization/Re-processing/Recycling of Hazardous Wastes as specified in the certificate for the period upto 05/01/2025.

Encl.:- As above

For and on behalf of
C.G. Environment Conservation Board

Member Secretary

C.G. Environment Conservation Board
Nava Raipur Atal Nagar, Raipur (C.G.)

Endt No. /HSMD/HO/CECB/2020

Atal Nagar, Raipur, Date / /2020

Copy to:-

1. Member Secretary, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi- 110 032.
2. Zonal Office, Central Pollution Control Board, III rd Floor, Sahkar Bhawan, North T.T. Nagar Bhopal-462 003 (M.P.).
3. Regional Office, Chhattisgarh Environment Conservation Board, Raipur (C.G.).
4. H.O., H.S.M.D. Section, Chhattisgarh Environment Conservation Board, Atal Nagar, Raipur (C.G.).

Member Secretary

C.G. Environment Conservation Board
Nava Raipur Atal Nagar, Raipur (C.G.)



CHHATTISGARH ENVIRONMENT CONSERVATION BOARD

PARYAVAS BHAWAN, NORTH BLOCK, SECTOR -19,
NAVA RAIPUR ATAL NAGAR, RAIPUR (C.G.) 492002

E-mail : hocecb@gmail.com, Ph. No. 0771-2512220

No. 10334/HSMD/HO/CECB/2020

Raipur, Date 19/02/2020

To,

**M/s Columbia Petro Chemicals,
22, Industrial Area, Bhanpuri,
Distt.-Raipur (C.G.)**

Sub:- Renewal of authorization under the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016.

- Ref :-
1. Amendment and subsequent renewal of authorization letter no. 7286 / HSMD / HO / CECB/2018 dated 19/03/2018.
 2. Your Online application no. 4317776 dated 12/11/2019 and subsequent correspondence dated 14.12.2019.

---00---

The authorization under the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016 is hereby renewed for the period of **Five Year's** i.e. from **06/01/2020 to 05/01/2025**. The details of authorization along with terms & conditions are given as per below:-

FORM 2

[See rule 6 (2)]

GRANT OF AMENDMENT AND SUBSEQUENT RENEWAL OF AUTHORIZATION BY STATE POLLUTION CONTROL BOARD TO THE OCCUPIERS, RECYCLERS, REPROCESSORS, REUSERS, USER AND OPERATORS OF DISPOSAL FACILITIES

1. Number of authorization **299/HO/HSMD/CECB/ATAL NAGAR, RAIPUR.**
2. Reference of Online application no. **4317776 dated 12/11/2019.**
3. The operator of facility i.e. occupier **M/s Columbia Petrochemicals, 22, Industrial Area, Bhanpuri, Distt.-Raipur (C.G.)** is hereby granted an authorization based on the signed inspection report from RO for generation, collection, transport, reception, recycling and disposal of hazardous wastes in the premises situated at **22, Industrial Area, Bhanpuri, Distt.-Raipur (C.G.)**.

Detail of Authorisation

S.No.	Category of Hazardous Waste as per the Schedules I, II and III of these rules	Authorised mode of disposal or recycling or utilization or co-processing etc.	Quantity (Tonnes/Annum)
1.	Used/Spent Oil (Schedule IV/20)	Recycling	3200 Kl/Year
2.	Waste oil (Schedule IV/20)	Recycling	3200 Kl/Year
3.	Spent Clay Cotaining Oil (Schedule I, Cat. No. 4.5)	Incineration in the CTSDf of other state/co-processing in cement kiln	64 MT/Year
4.	Distillation/Process residues	Incineration in the CTSDf of other state/co-processing in cement kiln	100 Kl/Year

- (1) The authorization shall be valid for the period of **Five Years** i.e. from **06/01/2020** to **05/01/2025**.
- (2) The authorization is subject to the following conditions:

TERMS & CONDITIONS OF AUTHORIZATION

1. The authorization shall comply with the provisions of Environment (protection) Act, 1986 and the rules made there-under.
2. The authorization or its renewal shall be produced for inspection at the request of an officer authorized by the Chhattisgarh Environment Conservation Board.
3. The person authorized shall not rent, lend, sell transfer or otherwise transport the hazardous wastes without obtaining prior permission of the Chhattisgarh Environment Conservation Board.
4. Any unauthorized change in personnel, equipment, or working conditions as mentioned in the application by the person authorized shall constitute a breach of his authorization.
5. The person authorised shall implement Emergency Response Procedure (ERP) for which this authorisation is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time.
6. The person authorised shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty".
7. It is the duty of the authorized person to take prior permission of the Chhattisgarh Environment Conservation Board to close down the facility.
8. The record of consumption and fate of the imported hazardous and other wastes shall be maintained.
9. Industry shall prepare emergency response plan (ERP) and ensure implementation the same at the event of any accident occurs due to handling and transporting of hazardous waste as per CPCB guideline.

10. The hazardous and other waste which gets generated during recycling or reuse or recovery or pre-processing or utilisation of imported hazardous or other wastes shall be treated and disposed of as per standard operating procedures/guidelines issued by CPCB from time to time.
11. An application for the renewal of an authorisation shall be made three months before the expiry of authorization as laid down in the Rules.
12. Annual return in form IV shall be filed by June 30th for the period ending 31st March of the last financial year.
13. The wastes shall be collected and stored properly with adequate safety measures as per rule.
14. Authorized person shall comply with the provisions of rule 17, 18 and 19 for packing, labeling and transport of Hazardous Waste.
15. The authorized person should maintain the record of Hazardous Waste as per Form-3 of Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016.
16. The occupier shall follow the guidelines (if any) issued by Central Pollution Control Board or MoEF & CC for management of Hazardous waste from time to time.
17. The industry shall display data outside factory gate on quantity and nature of hazardous chemicals and wastes being used in the plant, water and air emissions and solid wastes generated within the factory premises.
18. Industry shall ensure disposal of hazardous waste generated during the production process through authorized recycler/Co-processing in cement plant/captive disposal facility/arrangement for sharing of authorized disposal facility/common TSDF as per rule. Failing which this authorization shall be treated as cancelled and appropriate action would be initiated against the industry.
19. Industry shall comply with all the provisions stipulated in the Standard Operating Procedures and minimal requisite facility for captive utilization of spent ion exchange resin generated from demineralization (DM) plant issued by MoEF & CC/CPCB.
20. Industry shall create new website for Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016 and upload all the information above the waste in the website.
21. The waste must be given thermal/biological/physico-chemical treatment; the waste should be completely dewatered, detoxified, and proper conditioned and any possible recovery is made before their disposal.
22. The industry should constitute a hazardous waste management cell to take care of the management aspect to the hazardous waste generated in the plant.
23. An on-site storage of the hazardous wastes for a maximum period of 90 days should be provided and it shall be ensured that there is no leakage or seepage from the surrounding walls or bottom. The site should be covered and properly protected to prevent the entry of rain water in storage area.
24. At least four nos. of peizometric points should be provided around the storage site of H.W. to monitor the leaching of the waste and the monitoring report of the same shall be submitted to the board every six monthly. Each type of waste shall be stored in a separate storage cell.
25. The discarded containers of Hazardous waste and chemical shall not be used for storage of food grade products. At the storage site "Hazardous waste storage site & danger signboard" shall be provided with all safety devices.
26. In the event of any accident due to handling of hazardous waste the authorized person must inform immediately to the Concerned Regional Office and H.O., Atal Nagar, Raipur of the Board by fax/telephone or by E-mail about the incident and details report be sent in form no. 11 [see rule 22].

27. The authorization obtained by the Chhattisgarh Environment Conservation Board should be prominently displayed.
28. Used batteries shall be disposed of as per the Batteries (Management & Handling) Rules, 2001.
29. Board reserves the right to cancel/amend the above condition and add new conditions as and when deemed necessary.

Member Secretary
C.G. Environment Conservation Board
Nava Raipur Atal Nagar, Raipur (C.G.)

Endt No. 10035/HSMD/H.O./CECB/2020

Raipur, Date 19/02/ 2020

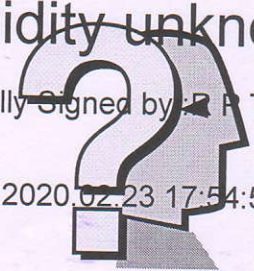
Copy to :- Regional Officer, Regional office, Chhattisgarh Environment Conservation Board,
Raipur (C.G.) please ensure compliance and report, if any condition/conditions are
violated by the industry.

Member Secretary
C.G. Environment Conservation Board
Nava Raipur Atal Nagar, Raipur (C.G.)

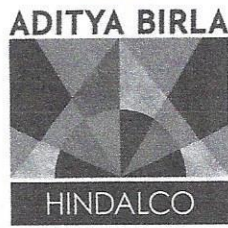
Validity unknown

Digitally Signed by: R. P. Tiwari
MS

Date: 2020.02.23 17:54:55 IST



Annexure-4



Letter No. : HIL/GP-IV/4/H- WASTE- R/2020/05- 43

13 May, 2020

**The Regional Officer,
Chhattisgarh Environment Conservation Board
TV Tower road,
Raigarh (CG)**

Sub. Submission of Annual Return in Form – 4 under Hazardous and Other Wastes (Management and Trans boundary Movement) Rules, 2016 for Gare Palma IV/4 Coal Mine of M/s Hindalco Industries Limited, Village – Banjikhoh, Tehsil – Tamnar, Distt. – Raigarh (CG).


Ref. : HW Authorization No. – 1497/HSMD/HO/CECB/2019, dated 10.06.2019.

Dear Sir,

We are submitting herewith the Annual Return in **Form – 4** under Hazardous and other waste (Management and Trans boundary Movement) Rules, 2016 for **Gare Palma IV/4** Coal Mine of M/s Hindalco Industries Limited, Village – Banjikhoh, Tehsil – Tamnar, Distt. – Raigarh (CG) for the Year 2019-20.

Thanking you,

Yours faithfully,


Dipesh Bhatia
(Vice President – GP Mines)
For **Hindalco Industries Limited**

Enclosed: Form -4 (FY - 2019- 20)

CC : Member Secretary, CECB Raipur



Hindalco Industries Limited

Gare Palma Mines (IV/4 & IV/5), Vill & Po: Milupara , Tehsil: Tamnar Dist: Raigarh- 496107 , Chhattisgarh
T: +91 7762 228212, Website : www.hindalco.com E mail : hindalco@adityabirla.com
Registered Office : Ahura Centre, 1st Floor, B Wing, Mahakali Caves Road Andheri (East) , Mumbai 400093, India
T: + 912266917000 | Fax: + 912266917001
Corporate ID No: L27020MH1958PLC011238

FORM 4

[See rules 6(5), 13(8), 16(6) and 20 (2)]

FORM FOR FILING ANNUAL RETURNS

[To be submitted to State Pollution Control Board by 30th day of June of every year for the preceding period April to March]

1. Name and address of facility: **Gare Palma IV/4 Coal Mine of M/s Hindalco Industries Limited, Village – Banjikhoh, Tehsil, – Tamnar, Distt. – Raigarh (CG).**

2. Authorisation No. and Date of issue: **HW Authorization No. – 1497/HSMD/HO/CECB/2019, dated 10.06.2019.**

3. Name of the authorised person and full address with telephone, fax number and e-mail:

Sh. Dipesh Bhatia, (VP – GP Mine)

Gare Palma IV/4 Coal Mine of M/s Hindalco Industries Limited, Village – Banjikhoh, Tehsil, – Tamnar, Distt. – Raigarh (CG).

Mobile No. : 9111006804

E-mail – dipesh.bhatia@adityabirla.com

4. Production during the year (product wise), wherever applicable:

Coal Production for the FY 2019 - 20

Unit		Coal (Metric Tons)
GP IV/4	UG Seam II	8,422
	UG Seam III	21,211
	UG Total	29,633
	OC Patch C	3,18,717
	OC Patch B	1,99,430
	OC Total	5,18,147
Total		5,47,780

Part A. To be filled by hazardous waste generators

1. Total quantity of waste generated category wise:-

Type of Hazardous Waste	Quantity (in Metric Tons per Annum)
Used Oil (HW Category – 5.1)	0.528
Waste / Residues containing Oil (HW Category – 5.2)	0.025 (25 Kg)
Contaminated Cotton Rags or Other cleaning material (33.2)	0.01 (10 Kg)

2. Quantity dispatched: **Nil**

(i) To disposal facility

(ii) To recycler or co-processors or pre-processor

(iii) Others :

3. Quantity utilised in-house, if any –

Type of Hazardous Waste	Quantity (in Metric Tons per Annum)
Used Oil (HW Category – 5.1)	0.300

The above mentioned quantity was utilized in-house in lubrication work at mechanical workshop at mine site

4. Quantity in storage at the end of the year –

Type of Hazardous Waste	Quantity (in Metric Tons per Annum)
Used Oil (HW Category – 5.1)	0.228 (228 kg)
Waste / Residues containing Oil (HW Category – 5.2)	0.025 (25 kg)
Contaminated Cotton Rags or Other cleaning material (33.2)	0.01 (10 kg)

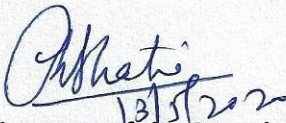
Due to small quantity of HW category 5.1,5.2 & 33.2 no recyclers wise to lift it from the mine site, so the quantity is stored in HIL Hazardous Waste storage site in a safe manner for further disposal.

Part B. To be filled by Treatment, storage and disposal facility operators - Not Applicable.

1. Total quantity received –
2. Quantity in stock at the beginning of the year -
3. Quantity treated –
4. Quantity disposed in landfills as such and after treatment –
5. Quantity incinerated (if applicable) -
6. Quantity processed other than specified above -
7. Quantity in storage at the end of the year –

Part C. To be filled by recyclers or co-processors or other users - Not Applicable.

1. Quantity of waste received during the year –
 - (i) Domestic sources
 - (ii) imported (if applicable)
2. Quantity in stock at the beginning of the year –
3. Quantity recycled or co-processed or used –
4. Quantity of products dispatched (wherever applicable) –
5. Quantity of waste generated –
6. Quantity of waste disposed –
7. Quantity re-exported (wherever applicable)-
8. Quantity in storage at the end of the year -


Signature of the Occupier

Date: May 13, 2020

Place: Raigarh

ADITYA BIRLA



Letter No. : HIL/GP-IV/4/H- WASTE- R/2021/62

03 May, 2021

The Regional Officer,
Chhattisgarh Environment Conservation Board
TV Tower road,
Raigarh (CG)

Sub. Submission of Annual Return in Form – 4 under Hazardous and Other Wastes (Management and Tran boundary Movement) Rules, 2016 for Gare Palma IV/4 Coal Mine of M/s Hindalco Industries Limited, Village – Banjikhoh, Tehsil – Tamnar, Distt. – Raigarh (CG) for the Year 2020- 21.

Ref. : HW Authorization No. – 1497/HSMD/HO/CECB/2019, dated 10.06.2019.

Dear Sir,

We are submitting herewith the Annual Return in **Form – 4** under Hazardous and other waste (Management and Trans boundary Movement) Rules, 2016 for **Gare Palma IV/4** Coal Mine of M/s Hindalco Industries Limited, Village – Banjikhoh, Tehsil – Tamnar, Distt. – Raigarh (CG) for the **Financial Year 2020- 21.**

Thanking you,

Yours faithfully,

Dipesh Bhatia
(Vice President – GP Mines)
For Hindalco Industries Limited

Enclosed: Form - 4 (FY - 2020- 21)

CC : Member Secretary, CECB Raipur



Hindalco Industries Limited

Gare Palma Mines (IV/4 & IV/5), Vill & Po: Mitupara , Tehsil: Tamnar Dist: Raigarh- 496107 , Chhattisgarh
T: +91 7762 228212, Website : www.hindalco.com E mail : hindalco@adityabirla.com
Registered Office : Ahura Centre, 1st Floor, B Wing, Mahakali Caves Road Andheri (East) , Mumbai 400093, India
T: + 912266917000 | Fax: + 912266917001
Corporate ID No: L27020MH1958PLC011238

FORM 4

[See rules 6(5), 13(8), 16(6) and 20 (2)]

FORM FOR FILING ANNUAL RETURNS

[To be submitted to State Pollution Control Board by 30th day of June of every year for the preceding period April to March]

1. Name and address of facility: **Gare Palma IV/4 Coal Mine of M/s Hindalco Industries Limited, Village – Banjikhoh, Tehsil, – Tamnar, Distt. – Raigarh (CG).**

2. Authorisation No. and Date of issue: **HW Authorization No. – 1497/HSMD/HO/CECB/2019, dated 10.06.2019.**

3. Name of the authorised person and full address with telephone, fax number and e-mail:

Sh. Dipesh Bhatia, (VP – GP Mine)

Gare Palma IV/4 Coal Mine of M/s Hindalco Industries Limited, Village – Banjikhoh, Tehsil, – Tamnar, Distt. – Raigarh (CG).

Mobile No. : 9111006804

E-mail – dipesh.bhatia@adityabirla.com

4. Production during the year (product wise), wherever applicable:

Coal Production for the FY 2020 - 21

Unit		Coal (Metric Tons)
GP IV/4 Coal Mines	UG Seam II	0
	UG Seam III	0
	UG Total	0
	OC Patch C	199237
	OC Patch B	62454
	OC Total	261691
	Total	261691

Part A. To be filled by hazardous waste generators

1. Total quantity of waste generated category wise:-

Type of Hazardous Waste	Quantity (in Metric Tons per Annum)
Used Oil (HW Category – 5.1)	0.560 (560 Kg)
Waste / Residues containing Oil (HW Category – 5.2)	0.030 (30 Kg)
Contaminated Cotton Rags or Other cleaning material (33.2)	0.017 (17 Kg)

2. Quantity dispatched:

(i) To disposal facility

(ii) **To recycler or co-processors or pre-processor:** Waste sold to PCB Authorized Recycler i.e. M/s Columbia Petrochemicals, 22 Industrial Area, Bhanpuri, Distt. – Raigarh CG dated 06/10/2020.

Type of Hazardous Waste	Quantity (in Metric Tons per Annum)
Used Oil (HW Category – 5.1)	0.420 (420 Kg)

(iii) Others :

3. Quantity utilised in-house, if any –

Type of Hazardous Waste	Quantity (in Metric Tons per Annum)
Used Oil (HW Category – 5.1)	0.100 (100 kg)

The above mentioned quantity was utilized in-house in lubrication work at mechanical workshop at mine site

4. Quantity in storage at the end of the year –

Type of Hazardous Waste	Quantity (in Metric Tons per Annum)
Used Oil (HW Category – 5.1)	0.040 (40 Kg)
Waste / Residues containing Oil (HW Category – 5.2)	0.030 (30 Kg)
Contaminated Cotton Rags or Other cleaning material (33.2)	0.017 (17 Kg)

Due to small quantity of HW category 5.1, 5.2 & 33.2 no recyclers wise to lift it from the mine site, so the quantity is stored in HIL Hazardous Waste storage site in a safe manner for further disposal.

Part B. To be filled by Treatment, storage and disposal facility operators - Not Applicable.

1. Total quantity received –
2. Quantity in stock at the beginning of the year -
3. Quantity treated –
4. Quantity disposed in landfills as such and after treatment –
5. Quantity incinerated (if applicable) -
6. Quantity processed other than specified above -
7. Quantity in storage at the end of the year –

Part C. To be filled by recyclers or co-processors or other users - Not Applicable.

1. Quantity of waste received during the year –
 - (i) Domestic sources
 - (ii) imported (if applicable)
2. Quantity in stock at the beginning of the year –
3. Quantity recycled or co-processed or used –
4. Quantity of products dispatched (wherever applicable) –
5. Quantity of waste generated –
6. Quantity of waste disposed –
7. Quantity re-exported (wherever applicable) -
8. Quantity in storage at the end of the year -

Date: 03 May 2021

Place: Raigarh


Signature of the Occupier

122/2



Letter No.: HIL/GP-IV/4/H- WASTE- R-2/2022/70

22 April, 2022

**The Regional Officer,
Chhattisgarh Environment Conservation Board
TV Tower road,
Raigarh (CG)**

Sub. Submission of Annual Return in Form – 4 under Hazardous and Other Wastes (Management and Tran boundary Movement) Rules, 2016 and subsequent amendment for Gare Palma IV/4 Coal Mine of M/s Hindalco Industries Limited, Village – Banjikhoh, Tehsil – Tamnar, Distt. – Raigarh (CG) for the Year 2021- 22.

Ref.: HW Authorization No. – 1497/HSMD/HO/CECB/2019, dated 10.06.2019.

Dear Sir,

We are submitting herewith the Annual Return in **Form – 4** under Hazardous and other waste (Management and Trans boundary Movement) Rules, 2016 and subsequent amendment for **Gare Palma IV/4** Coal Mine of M/s Hindalco Industries Limited, Village – Banjikhoh, Tehsil – Tamnar, Distt. – Raigarh (CG) for the **Financial Year 2021- 22.**

Thanking you,

Yours faithfully,

**Govind Kumar
(Agent – GP Mines)
Hindalco Industries Limited**

Enclosed: Form - 4 (FY - 2021- 22)



CC: Member Secretary, Chhattisgarh Environment Conservation Board, Paryavas Bhawan, Raipur Chhattisgarh.

Hindalco Industries Limited

Gare Palma Mines (IV/4 & IV/5), Vill & Po: Milupara , Tehsil: Tamnar Dist: Raigarh- 496107 , Chhattisgarh
T: +91 7762 228212, Website : www.hindalco.com E mail : hindalco@adityabirla.com
Registered Office : Ahura Centre, 1st Floor, B Wing, Mahakali Caves Road Andheri (East) , Mumbai 400093, India
T: + 912266917000 | Fax: + 912266917001
Corporate ID No: L27020MH1958PLC011238

FORM 4

[See rules 6(5), 13(8), 16(6) and 20 (2)]

FORM FOR FILING ANNUAL RETURNS

[To be submitted to State Pollution Control Board by 30th day of June of every year for the preceding period **April 2021 to March 2022**]

1. Name and address of facility: **Gare Palma IV/4 Coal Mine of M/s Hindalco Industries Limited, Village – Banjikhoh, Tehsil, – Tamnar, Distt. – Raigarh (CG).**

2. Authorisation No. and Date of issue: **HW Authorization No. – 1497/HSMD/HO/CECB/2019, dated 10.06.2019.**

3. Name of the authorised person and full address with telephone, fax number and e-mail:

Sh. Govind Kumar, (Agent – GP Mines)

Gare Palma IV/4 Coal Mine of M/s Hindalco Industries Limited, Village – Banjikhoh, Tehsil, – Tamnar, Distt. – Raigarh (CG).

Mobile No.: 9111024922

E-mail – govind.kumar@adityabirla.com

4. Production during the year (product wise), wherever applicable:

Coal Production for the FY 2021 - 22

Unit	Coal (Metric Tons)
Under Ground	0
Opencast	559956
Total	559956

Part A. To be filled by hazardous waste generators

1. Total quantity of waste generated category wise: -

Type of Hazardous Waste	Quantity (in Metric Tons per Annum)
Used Oil (HW Category – 5.1)	0.14 (140 Kg)
Waste / Residues containing Oil (HW Category – 5.2)	Nil
Contaminated Cotton Rags or Other cleaning material (33.2)	Nil

2. Quantity dispatched:

(i) To disposal facility

(ii) **To recycler or co-processors or pre-processor:** Waste sold to PCB Authorized Recycler i.e. M/s. Columbia Petro Chemicals, 22, Industrial Area, Bhanpuri, Distt. – Raipur (CG), dated 30/03/2022.

Type of Hazardous Waste	Quantity (in Metric Tons per Annum)
Used Oil (HW Category – 5.1)	0.14 (140 Kg)

(iii) Others:

3. Quantity utilised in-house, if any –

Type of Hazardous Waste	Quantity (in Metric Tons per Annum)
Used Oil (HW Category – 5.1)	Nil
Waste / Residues containing Oil (HW Category – 5.2)	Nil
Contaminated Cotton Rags or Other cleaning material (33.2)	Nil

4. Quantity in storage at the end of the year –

Type of Hazardous Waste	Quantity (In Metric Tons per Annum)
Used Oil (HW Category – 5.1)	Nil
Waste / Residues containing Oil (HW Category – 5.2)	0.030 (30 Kg)
Contaminated Cotton Rags or Other cleaning material (33.2)	0.017 (17 Kg)

Due to small quantity of HW category 5.2 & 33.2 no recyclers wise to lift it from the mine site, so the quantity is stored in HIL Hazardous Waste storage site in a safe manner for further disposal.

Part B. To be filled by Treatment, storage and disposal facility operators - Not Applicable.

1. Total quantity received –
2. Quantity in stock at the beginning of the year -
3. Quantity treated –
4. Quantity disposed in landfills as such and after treatment –
5. Quantity incinerated (if applicable) -
6. Quantity processed other than specified above -
7. Quantity in storage at the end of the year –

Part C. To be filled by recyclers or co-processors or other users - Not Applicable.

1. Quantity of waste received during the year –
 - (i) Domestic sources
 - (ii) imported (if applicable)
2. Quantity in stock at the beginning of the year –
3. Quantity recycled or co-processed or used –
4. Quantity of products dispatched (wherever applicable) –
5. Quantity of waste generated –
6. Quantity of waste disposed –
7. Quantity re-exported (wherever applicable)-
8. Quantity in storage at the end of the year -

Date: 22 April 2022
Place: Raigarh


Signature of the Occupier

Annexure-5

Photographs of Hazardous Waste Storage Shed at Gare Palma IV/4 Coal Mines



HINDALCO INDUSTRIES LIMITED
GARE PALMA IV/4 COAL MINE
HAZARDOUS WASTE STORAGE SITE

Hazardous Waste Authorization No. 557/HSA/3/W/CFCB Issued on 10/06/2023 valid up to 25/03/2024

Type of Hazardous waste	Category of Hazardous waste	Quantity Generated	Quantity Stored up to Previous Month	Storage Capacity
Used Oil	5.1	<u>04</u> Kg	<u>214</u> Kg	10000 Kg
Waste /Residue Containing Oil	5.2	<u>00</u> Kg	<u>30</u> Kg	
Contaminated Cotton Rag / Cleaning Material	33.2	<u>00</u> Kg	<u>17</u> Kg	

Sale to the Authorized Recycler :

1) Used Oil - 140 Kg. Dated 30.03.2022

2) Waste /Residue Containing Oil NIL Kg. Dated

3) Contaminated Cotton Rag / Cleaning Material NIL Kg. Dated

Date of Information Update: 05/11/2022

Annexure-6

GARE PALMA IV/4 & IV/5 COAL MINES	
WORK INSTRUCTION	
<u>STORAGE AND HANDLING OF HAZARDOUS WASTE</u>	

PURPOSE

To establish a system for collection, storage, disposal and transportation of hazardous and other wastes (Used Oil, Waste/Residues Containing Oil & Contaminated Cotton Waste/other cleaning material) in environmentally sound manner.

SCOPE

Applicable to all kinds of Hazardous and other wastes generated in the premises of GP Coal Mines.

RESPONSIBILITY

- Department Head (Stores & Purchase) is responsible for storage and sale / disposal of hazardous and other waste to CPCB/CECB registered and authorized vendors within ninety days (90 days) from the date of generation.
- Department Head (O&M) / Section Incharge (Mech.) / Mine Managers are responsible for sending Hazardous & other wastes to Stores Dept.
- Environment Head (EMD) is responsible for submitting reports, maintaining records / formats and compliances of hazardous and other wastes authorization.

COLLECTION & STORAGE

- All Department Incharges at Mines will send the Used Oil, Waste/Residues Containing Oil & Contaminated Cotton Waste/other cleaning material in closed container (spillages & leakages free) to Stores Dept.
- During handling of hazardous & other waste (H& OW) due care and safety precautions shall be taken to avoid any health hazard & leakages or release of hazardous waste into environment. Also during handling of HW use safety appliance like safety shoes, helmet, hand gloves and goggles etc.
- The Stores Dept. would take weight of HW prior to sending onsite HW storage i.e. at isolated identified locations away from the workshop area due to fire & other hazards.
- The Stores Dept. will monitor waste generation from mining operation and mining equipments maintenance.
- The hazardous waste storage site is inspected once in six months as per checklist [available with EMD]

CRITERIA FOR SELECTION OF VENDORS

- Department Head (Stores & Purchase) shall approve vendors for disposal / sale of hazardous waste based on
 - Registration of CPCB
 - Authorization by state pollution control board in respective category of Hazardous Waste
 - Transportation capability (As per Motor vehicle Act 1989 (as amended till date), GPS system and the vehicle is approved by SPCB)
 - Financial viability
 - H & O waste Passbook

He ensures that copy of registration, Passbook & authorization is verified by the DH (EMD) before approval. These details are revaluated whenever there is renewal of above registration / authorization or once in two years.

TRANSPORTATION & DISPOSAL

- Department Head (Stores & Purchase) will ensure that the hazardous & other wastes disposed off to the registered/authorized vendor and transported by authorized transporter, which is in the scope of authorized disposal agency.
- Department Head (Stores & Purchase) will ensure that sale order is issued only in favour of registered /authorized vendor indicating scope and other relevant information.
- Environment Head (EMD) shall ensure that before transportation of HW all legal compliances of hazardous and other waste waste transportation under Hazardous Materials (Management & Trans boundary Movement) Rules 2016 like transport manifest (Form - 10), TREM card (in local language) and labeling on container are completed.

RECORDS TO BE MAINTAINED

EMD Dept. will maintain following records:

Sr. #	Record	Record Description	Frequency of submission
1.	Hazardous & Other Waste Authorization	Online Application for renewal of the authorization shall be made before its expiry	As and when needed
2.	Form – 3	Maintaining records of hazardous storage / disposal at facility	Monthly reports keeping at EMD office provided by store department
3.	Form – 4	Submission of Annual	Yearly reports to CECB, Raipur

Sr. #	Record	Record Description	Frequency of submission
		Returns, regarding storage / disposal of hazardous waste.	
4	Form 8	Labeling of Containers of Hazardous and other Waste	During transportation.
5	Form 9	Transport Emergency (TREM) Card	To hand over transporter/driver, as and when transportation takes place for awareness of emergency, if any arises during transportation.
6.	Form – 10 <ul style="list-style-type: none"> • Copy–1 (White) • Copy–2 (Yellow) • Copy – 3 (Pink) 	Hazardous waste manifest (information of hazardous waste for disposal)	When transportation take place To be forwarded by the sender to the State Pollution Control Board after signing all the seven copies To be retained by the sender after taking signature on it from the transporter and the rest of the five signed copies to be carried by the transporter. To be retained by the receiver (actual user or treatment storage and disposal facility operator) after receiving the waste and the remaining four copies are to be duly signed by the receiver.
	<ul style="list-style-type: none"> • Copy–4 (Orange) • Copy–5 (Green) • Copy–6 (Blue) • Copy 7 (Grey) 		To be handed over to the transporter by the receiver after accepting waste. To be sent by the receiver to the State Pollution Control Board. To be sent by the receiver to the sender. To be sent by the receiver to the State Pollution Control Board of the sender in case the sender is in another State.
7.	Form 11	Accident reporting and follow-up	As and when required

Annexure-7

FORM 3

[See rules 6(5), 13(7), 14(6), 16(5) and 20 (1)]

FORMAT FOR MAINTAINING RECORDS OF HAZARDOUS AND OTHER WASTES

1. Name and address of the facility : **M/s Hindalco Industries Limited
Gare Palma IV/4, Coal Mine,
Vill – Bankheta & Post – Milupara,
Tahsil – Tamnar, Distt. – Raigarh
Chhattisgarh - 496107**
2. Date of issuance of authorization and its reference number : **1497/HO/HSMD/CECB/2019/RAIPUR, 10.06.2019**
3. Description of hazardous and other wastes handled (Generated or Received)

Date	Type of waste with category as per Schedules I, II and III of these rules	Total Quantity (MT)	Method of Storage	Destined to or received from
2019 - 20	Cat. No. 5.1 – Used Oil	0.33 KL	Collected in Drum and Stored at Hazardous waste Shed	From DG set
2019 - 20	Cat. No. 5.2 – Waste or Residue containing Oil	5 KG	Collected in Drum and Stored at Hazardous waste Shed	From DG Set
2019 - 20	Cat. No. 33.2 - Contaminated cotton rags or other cleaning materials	3 KG	Collected in Drum and Stored at Hazardous waste Shed	From DG Set

4. Date wise description of management of hazardous and other wastes including products sent and to whom in case of recyclers or pre-processor or utilizer:

Name and Address of consignee	Mode of Packing of the waste for transportation	Date of Transportation
-	-	-

5. Date of environmental monitoring (as per authorization or guidelines of Central Pollution Control Board) : **16.03.2020**

Date : April 2020
Place: Milupara


Signature of occupier

FORM 3

[See rules 6(5), 13(7), 14(6), 16(5) and 20 (1)]

FORMAT FOR MAINTAINING RECORDS OF HAZARDOUS AND OTHER WASTES

1. Name and address of the facility : **M/s Hindalco Industries Limited
Gare Palma IV/4, Coal Mine,
Vill – Bankheta & Post – Milupara,
Tahsil – Tamnar, Distt. – Raigarh
Chhattisgarh - 496107**
2. Date of issuance of authorization and its reference number : **1497/HO/HSMD/CECB/2019/RAIPUR, 10.06.2019**
3. Description of hazardous and other wastes handled (Generated or Received)


Date	Type of waste with category as per Schedules I, II and III of these rules	Total Quantity (MT)	Method of Storage	Destined to or received from
2020 - 21	Cat. No. 5.1 – Used Oil	0.33 KL	Collected in Drum and Stored at Hazardous waste Shed	From DG set
2020 - 21	Cat. No. 5.2 – Waste or Residue containing Oil	5 KG	Collected in Drum and Stored at Hazardous waste Shed	From DG Set
2020 - 21	Cat. No. 33.2 - Contaminated cotton rags or other cleaning materials	7 KG	Collected in Drum and Stored at Hazardous waste Shed	From DG Set

4. Date wise description of management of hazardous and other wastes including products sent and to whom in case of recyclers or pre-processor or utilizer:

Name and Address of consignee	Mode of Packing of the waste for transportation	Date of Transportation
Columbia Petro Chemical	Closed Drum	06.10.2020

5. Date of environmental monitoring (as per authorization or guidelines of Central Pollution Control Board) : **16.03.2021**

Date : April 2021
Place: Milupara


Signature of occupier

FORM 3

[See rules 6(5), 13(7), 14(6), 16(5) and 20 (1)]

FORMAT FOR MAINTAINING RECORDS OF HAZARDOUS AND OTHER WASTES

1. Name and address of the facility : **M/s Hindalco Industries Limited
Gare Palma IV/4, Coal Mine,
Vill – Bankheta & Post – Milupara,
Tahsil – Tamnar, Distt. – Raigarh
Chhattisgarh - 496107**
2. Date of issuance of authorization and its reference number : **1497/HO/HSMD/CECB/2019/RAIPUR, 10.06.2019**
3. Description of hazardous and other wastes handled (Generated or Received)

Date	Type of waste with category as per Schedules I, II and III of these rules	Total Quantity (MT)	Method of Storage	Destined to or received from
2021 – 22	Cat. No. 5.1 – Used Oil	0.1 KL	Collected in Drum and Stored at Hazardous waste Shed	From DG set
2021 – 22	Cat. No. 5.2 – Waste or Residue containing Oil	0 KG	Collected in Drum and Stored at Hazardous waste Shed	From DG Set
2021 - 22	Cat. No. 33.2 - Contaminated cotton rags or other cleaning materials	0 KG	Collected in Drum and Stored at Hazardous waste Shed	From DG Set

4. Date wise description of management of hazardous and other wastes including products sent and to whom in case of recyclers or pre-processor or utilizer:

Name and Address of consignee	Mode of Packing of the waste for transportation	Date of Transportation
Columbia Petro Chemical	Closed Drum	30.03.2022

5. Date of environmental monitoring (as per authorization or guidelines of Central Pollution Control Board) : **28.03.2022**

Date : April 2022
Place: Milupara


Signature of occupier

Annexure-8

Photographs of Display Board at Gare Palma IV/4 Coal Mines



Annexure-9



Date: 26.12.2022

ENVIRONMENT MANAGEMENT CELL

An Environment Management Cell of Gare Palma IV/5 Coal Mine is hereby constituted consisting of the following persons which take care of Environment related matters such as Pollution Monitoring, Pollution Control, Plantation, Waste management, Awareness & Training Programs etc. in the mine area. The Environment Cell Meeting is held on Regular basis.

Sr. No.	Name of person	Designation	Designation in the Env. Cell
1	Govind Kumar	Asst. Vice President - Mines	Chairman
2	B. G. Krishna	AGM - Mines	Vice – Chairman
3	Satish Kumar	AM – Mining & Environment	Secretary
4	Sanjay Kumar Jain	GM - E&M	Member
5	Bijaya Kumura	AGM – HR & Admin	Member
6	Vidyadhar Patel	Head – F&A	Member
7	Devang Pandya	Head - Commercial	Member
8	Tarachand Kumar	Manager- Civil	Member
9	Pradeep Sinha	AM - Safety	Member
10	Prashant Bhukta	AM – Mining	Member
11	Spandan Sengupta	AM - Geology	Member
12	Girija Shankar Tamrakar	DE - Environment	Member

Satish Kumar
26.12.2022
Satish Kumar
Secretary (ENV. Cell)
Gare Palma IV/5 Coal Mines

Govind Kumar
26/12/22.
Govind Kumar
Chairman (ENV. Cell)
Gare Palma IV/5 Coal Mines

Hindalco Industries Limited

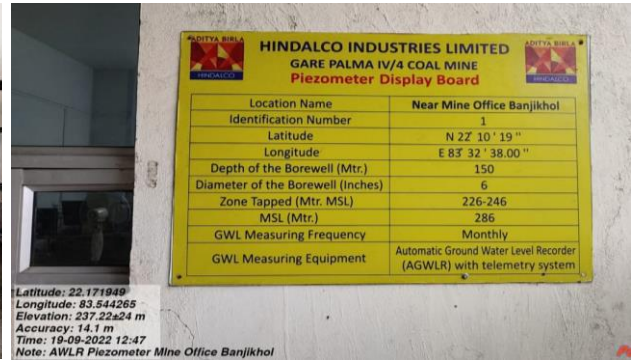
Gare Palma Mines (IV/4 & IV/5), Vill & Po: Milupara , Tehsil: Tamnar Dist: Raigarh- 496107 , Chhattisgarh
T: +91 7762 228212, Website : www.hindalco.com E mail : hindalco@adityabirla.com
Registered Office : Ahura Centre, 1st Floor, B Wing, Mahakali Caves Road Andheri (East) , Mumbai 400093, India
T: + 912266917000 | Fax: + 912266917001
Corporate ID No: L27020MH1958PLC011238

Annexure-10

Photographs of Automatic Water Level Recorder (Piezometer) at GP IV/4 Coal mines



Latitude: 22.171936
 Longitude: 83.543985
 Elevation: 286.12±8 m
 Accuracy: 5.9 m
 Time: 19-09-2022 12:49
 Note: AWLR Piezometer Mine Office Banjikhoh

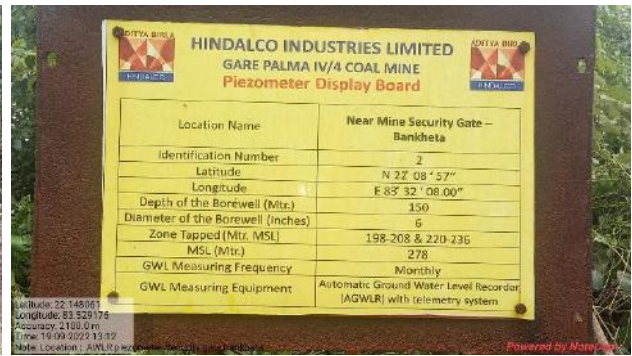


Latitude: 22.171949
 Longitude: 83.544265
 Elevation: 237.22±24 m
 Accuracy: 14.1 m
 Time: 19-09-2022 12:47
 Note: AWLR Piezometer Mine Office Banjikhoh

Near Mine office Banjikhoh



Latitude: 22.148091
 Longitude: 83.529175
 Accuracy: 2188.0 m
 Time: 19-09-2022 13:16
 Note: Location: AWLR piezometer Security gate Bankheta



Latitude: 22.148061
 Longitude: 83.529175
 Accuracy: 2188.0 m
 Time: 19-09-2022 13:17
 Note: Location: AWLR piezometer Security gate Bankheta

Near Mine Security Gate Bankheta



Latitude: 22.177307
 Longitude: 83.527842
 Accuracy: 2300.0 m
 Time: 19-09-2022 15:01
 Note: Location: AWLR piezometer Mine office Milupara

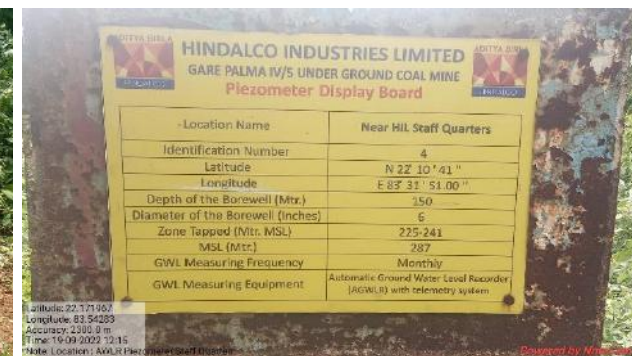


Latitude: 22.177307
 Longitude: 83.527842
 Accuracy: 2300.0 m
 Time: 19-09-2022 15:01
 Note: Location: AWLR piezometer Mine office Milupara

Near Mine office Milupara



Latitude: 22.183542
 Longitude: 83.522846
 Accuracy: 2300.0 m
 Time: 19-09-2022 12:14
 Note: Location: AWLR Piezometer Staff Quarter



Latitude: 22.171907
 Longitude: 83.542833
 Accuracy: 2300.0 m
 Time: 19-09-2022 13:15
 Note: Location: AWLR Piezometer Staff Quarter

Near HIL Staff Quarter



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

Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

Name & Address Of The Customer TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA - IV/4, COAL MINE, VILLAGE - BANKHETA, POST -MILUPARA, DISTT. - RAIGARH (C.G.) 496107.	REPORT NO	UES/TR/22-23/04749	
	LAB REF NO	UES/22-23/W/010915	
	DATE OF SAMPLING	26/11/2022	
	DATE OF RECEIPT	28/11/2022	
	DATE OF REPORT	02/12/2022	
	DATE OF ANALYSIS	START:28/11/2022	END:02/12/2022
SAMPLE DETAILS			
SAMPLE TYPE	GROUND WATER	ORDER /REFERENCE:	P.O.13552310211, DATED: 07. 09. 2022
CUSTOMER SAMPLE ID	NEAR MAIN SECURITY GATE BANKHETA MINE (PIEZOMETER) AWLR	SAMPLE CONDITION AT RECEIPT	OK
PACKING OF SAMPLE	3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE	SEALED	SAMPLE COLLECTED BY CHEMIST
SAMPLING PROCEDURE	IS: 3025 (PART I) : 1987 RA 2003; APHA 23RD ED. 2012, 1060-B, 1-39	QUANTITY RECEIVED	5 LTR

Report No.04749

TEST REPORT

SR. NO.	PARAMETER	UNIT	METHOD OF TEST	AS PER IS 10500:2012		RESULT
				Acceptable Limit	Permissible limit	
1	Colour	Hazen	IS:3025:(Part-4)	5	15	<1
2	Odour	-	IS 3025(part-5)	Agreeable	Agreeable	Agreeable
3	Taste	-	IS 3025(part-8)	Agreeable	Agreeable	Agreeable
4	pH	-	APHA 23 nd Ed.2012,4500-H ⁺ -B, 4-92	6.5-8.5	No Relaxation	6.87
5	Turbidity	NTU	APHA 23 nd Ed.2012,2130-B,2-13	1	5	1.31
6	Electrical Conductivity	µS/cm	IS 3025(part-14):1984, RA 2013	-	-	146.8
7	Residual Chlorine	mg/Lit	APHA 23 nd Ed.2012,4500-Cl-G, 4-69	0.2	1	N.D.
8	Total Solid	mg/Lit	APHA 23 nd Ed.2012,2540- B, 2-64	-	-	91.1
9	Total Dissolved Solids	mg/Lit	IS 3025(part-16):1984, RA 2006	500	2000	88.4
10	Total Suspended Solids	mg/Lit	APHA 23 nd Ed.2012,2540- D, 2-66	-	-	2.4
11	Alkalinity Total (as CaCO ₃)	mg/Lit	IS 3025(part-23):1986, RA 2003	200	600	42.0
12	Total Hardness (as CaCO ₃)	mg/Lit	APHA 23 nd Ed.2012,2340-C, 2-44,45	200	600	60.0
13	Calcium Hardness (as CaCO ₃)	mg/Lit	APHA 23 nd Ed.2012,3500-Ca-B, 3-67	-	-	38.0
14	Magnesium Hardness (as CaCO ₃)	mg/Lit	APHA 23 nd Ed.2012,3500-Mg-B, 3-84	-	-	22.0
15	Calcium (as Ca)	mg/Lit	APHA 23 nd Ed.2012,3500-Ca-B, 3-67	75	200	15.23
16	Magnesium (as Mg)	mg/Lit	APHA 23 nd Ed.2012,3500-Mg-B, 3-84	30	100	5.34
17	Chloride (as Cl)	mg/Lit	APHA 23 nd Ed.2012,4500-Cl-B, 4-72	250	1000	12.9
18	Sulphate (as SO ₄)	mg/Lit	APHA 23 nd Ed.2012,4500-SO ₄ -E, 4-190	200	400	15.7
19	Nitrate (as NO ₃)	mg/Lit	APHA 23 nd Ed.2012,4500-NO ₃ -B, 4-122	45	No Relaxation	0.33
20	Phosphate (as P)	mg/Lit	APHA 23 nd Ed.2012,4500-P-C, 4-153	-	-	N.D.
21	Sodium (as Na)	mg/Lit	APHA 23 nd Ed.2012,3500-Na-B, 3-97	-	-	8.6

AN ISO : 9001:2015 / ISO: 14001:2015 / ISO 45001:2018 CERTIFIED LABORATORY



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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Report No.04749

TEST REPORT

SR. NO.	PARAMETER	UNIT	METHOD OF TEST	AS PER IS 10500:2012		RESULT
				Acceptable Limit	Permissible limit	
22	Potassium (as K)	mg/Lit	APHA 23 nd Ed.2012,3500-K-B, 3-87	-	-	0.45
23	Boron (as B)	mg/Lit	APHA 23 nd Ed.2012,4500-B-B, 4-25	0.5	1.0	N.D.
24	Iron (as Fe)	mg/Lit	APHA 23 nd Ed.2012,3111-B,3-18	0.3	No Relaxation	N.D.
25	Fluoride (as F)	mg/Lit	APHA 23 nd Ed.2012,4500-F-B &D, 4-84 & 87	1	1.5	0.08
26	Manganese (as Mn)	mg/Lit	APHA 23 nd Ed.2012,3111-B, 3-18	0.1	0.3	N.D.
27	Lead (as Pb)	mg/Lit	APHA 23 nd Ed.2012,3111-B, 3-18	0.01	No Relaxation	N.D.
28	Nickel (as Ni)	mg/Lit	APHA 23 nd Ed.2012,3500-Ni, 3-108	0.02	No Relaxation	N.D.
29	Zinc (as Zn)	mg/Lit	APHA 23 nd Ed.2012,3111-B, 3-18	5	15	N.D.
30	Copper (as Cu)	mg/Lit	APHA 23 nd Ed.2012,3111-B, 3-18	0.05	1.5	N.D.
31	Cadmium (as Cd)	mg/Lit	APHA 23 nd Ed.2012,3500-Cd, 3-105	0.003	No Relaxation	N.D.
32	Mercury (as Hg)	mg/Lit	APHA 23 nd Ed.2012,3112-B, 3-23	0.001	No Relaxation	N.D.
33	Arsenic (as As)	mg/Lit	APHA 23 nd Ed.2012,3114-C, 3-38	0.01	0.05	N.D.
34	Selenium (as Se)	mg/Lit	APHA 23 nd Ed.2012,3114-C, 3-38	0.01	No Relaxation	N.D.
35	Chromium (as Cr)	mg/Lit	APHA 23 nd Ed.2012,3500-Cr-B, 3-69	0.05	No Relaxation	N.D.
36	Anionic Detergent (as MBAS)	mg/Lit	APHA 23 nd Ed.2012,5540-C, 5-53	0.2	1.0	N.D.
37	Phenolic Compound (as C ₆ H ₅ OH)	mg/Lit	APHA 23 nd Ed.2012,5540-B & C, 5-47	0.001	0.002	N.D.
38	Poly-nuclear Aromatic Hydrocarbon (PAH)	µg/Lit	APHA 23 nd Ed.2012,6440-6-93	0.0001	No Relaxation	N.D.
39	Mineral Oil	mg/Lit	IS 3025 (part-39) : 1991, RA 2003	0.5	No Relaxation	N.D.
40	Oil & Grease	mg/Lit	IS 3025 (Part 39):1991, RA 2003	-	-	N.D.
Microbiological Analysis						
1	Total Coliforms	MPN/100 ML	IS:1622:1981: RA:2019	Shall not be detectable in any 100 ml sample		Absent
2	Faecal Coliform	MPN/100ml	IS:1622:1981: RA:2019	Shall not be detectable in any 100 ml sample		Absent
3	E. Coli	MPN/100ml	IS:1622:1981:RA:2019	Shall not be detectable in any 100ml sample		Absent
Pesticides						
1	p,p DDT	µg/L	US EPA 508-1995	1		N.D.
2	o,p DDT	µg/L	US EPA 508-1995	1		N.D.
3	p,pDDE	µg/L	US EPA 508-1995	1		N.D.
4	p,p DDD	µg/L	US EPA 508-1995	1		N.D.
5	O,p DDD	µg/L	US EPA 508-1995	1		N.D.
6	Gamma-HCH (Lindane)	µg/L	US EPA 508-1995	2		N.D.
7	Alpha-HCH	µg/L	US EPA 508-1995	0.01		N.D.



HDD-272, Phase III - Near JP Chowk
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Recognized by Ministry of Environment Forest and Climate Change under EP act 1996

Report No.04749

TEST REPORT


SR. NO.	PARAMETER	UNIT	METHOD OF TEST	AS PER IS 10500:2012		RESULT
				Acceptable Limit	Permissible limit	
8	Beta-HCH	µg/L	US EPA 508-1995	0.04		N.D.
9	Delta HCH	µg/L	US EPA 508-1995	0.04		N.D.
10	Alpha-Endosulfan	µg/L	US EPA 508-1995	0.4		N.D.
11	Beta-Endosulfan	µg/L	US EPA 508-1995	0.4		N.D.
12	Endosulfansulphate	µg/L	US EPA 508-1995	0.4		N.D.
13	Monocrotophos	µg/L	US EPA 8141A-1994	1		N.D.
14	Ethion	µg/L	US EPA 8141A-1994	3		N.D.
15	Chloropyrifos	µg/L	US EPA 8141A-1994	30		N.D.
16	Phorate	µg/L	US EPA 8141A-1994	2		N.D.
17	Phoratesulphoxide	µg/L	US EPA 8141A-1994	-		N.D.
18	Phoratesulphone	µg/L	US EPA 8141A-1994	-		N.D.
19	2,4-D	µg/L	US EPA 515.1-1995	30		N.D.
20	Alachlor	µg/L	US EPA 508- 1995	20		N.D.
21	Atrazine	µg/L	US EPA 532-2000	2		N.D.
22	Methyl parathion	µg/L	US EPA 8141A-1994	0.3		N.D.
23	Methyl paraxone	µg/L	US EPA 8141A-1994	-		N.D.
24	Malathion	µg/L	US EPA 8141A-1994	190		N.D.
25	Malaoxon	µg/L	US EPA 8141A-1994	-		N.D.
26	Aldrin	µg/L	US EPA 508- 1995	0.03		N.D.
27	Dieldrin	µg/L	US EPA 508-1995	0.03		N.D.

Note: mg/lit.: milligram per liter, N.D.: Not Detected.

REMARKS: RESULTS ARE AS ABOVE

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.
- > This is for information as the party has asked for above test(s) only.


02/12/2022

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-----End of the test report-----



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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<i>Name & Address Of The Customer</i>		REPORT NO	UES/TR/22-23/04750	
TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA - IV/4, COAL MINE, VILLAGE - BANKHETA, POST -MILUPARA, DISTT. - RAIGARH (C.G.) 496107.		LAB REF NO	UES/22-23/W/010916	
		DATE OF SAMPLING	26/11/2022	
		DATE OF RECEIPT	28/11/2022	
		DATE OF REPORT	02/12/2022	
		DATE OF ANALYSIS	START:28/11/2022	END:02/12/2022
		SAMPLE DETAILS		
SAMPLE TYPE	GROUND WATER		ORDER /REFERENCE:	P.O.13552310211, DATED:07.09.2022
CUSTOMER SAMPLE ID	NEAR MINE OFFICE - BANJIKHOL MINE (PIEZOMETER) AWLR		SAMPLE CONDITION AT RECEIPT	OK
PACKING OF SAMPLE	3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE	SEALED	SAMPLE COLLECTED BY	CHEMIST
SAMPLING PROCEDURE	IS:3025(PART I):1987 RA 2003; APHA 22ND ED. 2012, 1060-B,1-39		QUANTITY RECEIVED	5 LTR

Report No.04750

TEST REPORT

SR. NO.	PARAMETER	UNIT	METHOD OF TEST	AS PER IS 10500:2012		RESULT
				Acceptable Limit	Permissible limit	
1	Colour	Hazen	IS:3025:(Part-4)	5	15	<1
2	Odour	-	IS 3025(part-5)	Agreeable	Agreeable	Agreeable
3	Taste	-	IS 3025(part-8)	Agreeable	Agreeable	Agreeable
4	pH	-	APHA 23 nd Ed.2012,4500-H ⁺ -B, 4-92	6.5-8.5	No Relaxation	7.18
5	Turbidity	NTU	APHA 23 nd Ed.2012,2130-B,2-13	1	5	1.3
6	Electrical Conductivity	µS/cm	IS 3025(part-14):1984, RA 2013	-	-	174.9
7	Residual Chlorine	mg/Lit	APHA 23 nd Ed.2012,4500-Cl-G, 4 - 69	0.2	1	N.D.
8	Total Solid	mg/Lit	APHA 23 nd Ed.2012,2540- B, 2- 64	-	-	107.9
9	Total Dissolved Solids	mg/Lit	IS 3025(part-16):1984, RA 2006	500	2000	105.6
10	Total Suspended Solids	mg/Lit	APHA 23 nd Ed.2012,2540- D, 2- 66	-	-	2.3
11	Alkalinity Total (as CaCO ₃)	mg/Lit	IS 3025(part-23):1986, RA 2003	200	600	52.0
12	Total Hardness (as CaCO ₃)	mg/Lit	APHA 23 nd Ed.2012,2340-C, 2- 44,45	200	600	78.0
13	Calcium Hardness (as CaCO ₃)	mg/Lit	APHA 23 nd Ed.2012,3500-Ca-B, 3-67	-	-	44.0
14	Magnesium Hardness (as CaCO ₃)	mg/Lit	APHA 23 nd Ed.2012,3500-Mg-B, 3-84	-	-	34.0
15	Calcium (as Ca)	mg/Lit	APHA 23 nd Ed.2012,3500-Ca-B, 3-67	75	200	17.63
16	Magnesium (as Mg)	mg/Lit	APHA 23 nd Ed.2012,3500-Mg-B, 3-84	30	100	8.26
17	Chloride (as Cl)	mg/Lit	APHA 23 nd Ed.2012,4500-Cl-B, 4-72	250	1000	19.9
18	Sulphate (as SO ₄)	mg/Lit	APHA 23 nd Ed.2012,4500-SO ₄ -E, 4-190	200	400	25.8



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Report No.04750

TEST REPORT

SR. NO.	PARAMETER	UNIT	METHOD OF TEST	AS PER IS 10500:2012		RESULT
				Acceptable Limit	Permissible limit	
19	Nitrate (as NO ₃)	mg/Lit	APHA 23 nd Ed.2012,4500-NO ₃ -B, 4-122	45	No Relaxation	2.1
20	Phosphate (as P)	mg/Lit	APHA 23 nd Ed.2012,4500-P-C, 4-153	-	-	N.D.
21	Sodium (as Na)	mg/Lit	APHA 23 nd Ed.2012,3500-Na-B, 3-97	-	-	8.4
22	Potassium (as K)	mg/Lit	APHA 23 nd Ed.2012,3500-K-B, 3-87	-	-	0.28
23	Boron (as B)	mg/Lit	APHA 23 nd Ed.2012,4500-B-B, 4-25	0.5	1.0	N.D.
24	Iron (as Fe)	mg/Lit	APHA 23 nd Ed.2012,3111-B,3-18	0.3	No Relaxation	N.D.
25	Fluoride (as F)	mg/Lit	APHA 23 nd Ed.2012,4500-F-B &D, 4-84 & 87	1	1.5	N.D.
26	Manganese (as Mn)	mg/Lit	APHA 23 nd Ed.2012,3111-B, 3-18	0.1	0.3	N.D.
27	Lead (as Pb)	mg/Lit	APHA 23 nd Ed.2012,3111-B, 3-18	0.01	No Relaxation	N.D.
28	Nickel (as Ni)	mg/Lit	APHA 23 nd Ed.2012,3500-Ni, 3-108	0.02	No Relaxation	N.D.
29	Zinc (as Zn)	mg/Lit	APHA 23 nd Ed.2012,3111-B, 3-18	5	15	N.D.
30	Copper (as Cu)	mg/Lit	APHA 23 nd Ed.2012,3111-B, 3-18	0.05	1.5	N.D.
31	Cadmium (as Cd)	mg/Lit	APHA 23 nd Ed.2012,3500-Cd, 3-105	0.003	No Relaxation	N.D.
32	Mercury (as Hg)	mg/Lit	APHA 23 nd Ed.2012,3112-B, 3-23	0.001	No Relaxation	N.D.
33	Arsenic (as As)	mg/Lit	APHA 23 nd Ed.2012,3114-C, 3-38	0.01	0.05	N.D.
34	Selenium (as Se)	mg/Lit	APHA 23 nd Ed.2012,3114-C, 3-38	0.01	No Relaxation	N.D.
35	Chromium (as Cr)	mg/Lit	APHA 23 nd Ed.2012,3500-Cr-B, 3-69	0.05	No Relaxation	N.D.
36	Anionic Detergent (as MBAS)	mg/Lit	APHA 23 nd Ed.2012,5540-C, 5-53	0.2	1.0	N.D.
37	Phenolic Compound (as C ₆ H ₅ OH)	mg/Lit	APHA 23 nd Ed.2012,5540-B & C, 5-47	0.001	0.002	N.D.
38	Poly-nuclear Aromatic Hydrocarbon (PAH)	µg/Lit	APHA 23 nd Ed.2012,6440-6-93	0.0001	No Relaxation	N.D.
39	Mineral Oil	mg/Lit	IS 3025 (part-39) : 1991, RA 2003	0.5	No Relaxation	N.D.
40	Oil & Grease	mg/Lit	IS 3025 (Part 39):1991, RA 2003	-	-	N.D.

Microbiological Analysis

1	Total Coliforms	MPN/100 ML	IS:1622:1981: RA:2019	Shall not be detectable in any 100 ml sample	Absent
2	Faecal Coliform	MPN/100ml	IS:1622:1981: RA:2019	Shall not be detectable in any 100 ml sample	Absent
3	E. Coli	MPN/100ml	IS:1622:1981:RA:2019	Shall not be detectable in any 100ml sample	Absent

Pesticides

1	p,p DDT	µg/L	US EPA 508-1995	1	N.D.
2	o,p DDT	µg/L	US EPA 508-1995	1	N.D.
3	p,pDDE	µg/L	US EPA 508-1995	1	N.D.

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Report No.04750

TEST REPORT

SR. NO.	PARAMETER	UNIT	METHOD OF TEST	AS PER IS 10500:2012		RESULT
				Acceptable Limit	Permissible limit	
4	p,p DDD	µg/L	US EPA 508-1995		1	N.D.
5	O,p DDD	µg/L	US EPA 508-1995		1	N.D.
6	Gamma-HCH (Lindane)	µg/L	US EPA 508-1995		2	N.D.
7	Alpha-HCH	µg/L	US EPA 508-1995		0.01	N.D.
8	Beta-HCH	µg/L	US EPA 508-1995		0.04	N.D.
9	Delta HCH	µg/L	US EPA 508-1995		0.04	N.D.
10	Alpha-Endosulfan	µg/L	US EPA 508-1995		0.4	N.D.
11	Beta-Endosulfan	µg/L	US EPA 508-1995		0.4	N.D.
12	Endosulfansulphate	µg/L	US EPA 508-1995		0.4	N.D.
13	Monocrotophos	µg/L	US EPA 8141A-1994		1	N.D.
14	Ethion	µg/L	US EPA 8141A-1994		3	N.D.
15	Chloropyrifos	µg/L	US EPA 8141A-1994		30	N.D.
16	Phorate	µg/L	US EPA 8141A-1994		2	N.D.
17	Phoratesulphoxide	µg/L	US EPA 8141A-1994		-	N.D.
18	Phoratesulphone	µg/L	US EPA 8141A-1994		-	N.D.
19	2,4-D	µg/L	US EPA 515.1-1995		30	N.D.
20	Alachlor	µg/L	US EPA 508-1995		20	N.D.
21	Atrazine	µg/L	US EPA 532-2000		2	N.D.
22	Methyl parathion	µg/L	US EPA 8141A-1994		0.3	N.D.
23	Methyl paraxone	µg/L	US EPA 8141A-1994		-	N.D.
24	Malathion	µg/L	US EPA 8141A-1994		190	N.D.
25	Malaaxon	µg/L	US EPA 8141A-1994		-	N.D.
26	Aldrin	µg/L	US EPA 508-1995		0.03	N.D.
27	Dieldrin	µg/L	US EPA 508-1995		0.03	N.D.

Note: mg/lit.: milligram per liter, N.D.- Not Detected.

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

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- > This is for information as the party has asked for above test(s) only.

[Signature]
02/12/2022

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-----End of the test report-----



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Name & Address Of The Customer		REPORT NO	UES/TR/22-23/04787
TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA - IV/5, MILUPARA U/G COAL MINE, VILLAGE - MILUPARA, BLOCK-TAMNAR, DISTT. - RAIGARH (C.G.) 496107		LAB REF NO	UES/22-23/W/010990
		DATE OF SAMPLING	27/11/2022
		DATE OF RECEIPT	28/11/2022
		DATE OF REPORT	02/12/2022
		DATE OF ANALYSIS	START: 28/11/2022 END: 02/12/2022
		SAMPLE DETAILS	
SAMPLE TYPE	GROUND WATER	ORDER /REFERENCE:	P.O.13552310212, DATED: 07.09.2022
CUSTOMER SAMPLE ID	STAFF QUARTER- MILUPARA PIEZOMETER (AWLR)	SAMPLE CONDITION AT RECEIPT	OK
PACKING OF SAMPLE	3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE	SEALED	SAMPLE COLLECTED BY CHEMIST
SAMPLING PROCEDURE	IS:3025(PART I):1987 RA 2003; APHA 22ND ED. 2012, 1060-B, 1-39	QUANTITY RECEIVED	5 LTR

REPORT NO. 04787

TEST REPORT

SR. NO.	PARAMETER	UNIT	METHOD OF TEST	ACCEPTABLE LIMIT FOR DRINKING WATER (IS 10500:2012)		RESULT
				Acceptable Limit	Permissible limit	
1	Colour	Hazen	IS:3025:(Part-4)	5	15	<1
2	Odour	-	IS 3025:(part-5)	Agreeable	Agreeable	Agreeable
3	Taste	-	IS 3025:(part-8)	Agreeable	Agreeable	Agreeable
4	pH	-	APHA 22 nd Ed.2012,4500-H ⁺ -B, 4-92	6.5-8.5	No Relaxation	6.97
5	Turbidity	NTU	APHA 22 nd Ed.2012,2130-B,2-13	1	5	0.73
6	Electrical Conductivity	µS/cm	IS 3025(part-14):1984, RA 2013	-	-	215.8
7	Residual Chlorine	mg/Lit	APHA 22 nd Ed.2012,4500-Cl-G, 4-69	0.2	1	N.D.
8	Total Solid	mg/Lit	APHA 22 nd Ed.2012,2540- B, 2-64	-	-	138.3
9	Total Dissolved Solids	mg/Lit	IS 3025(part-16):1984, RA 2006	500	2000	130.4
10	Total Suspended Solids	mg/Lit	APHA 22 nd Ed.2012,2540- D, 2-66	-	-	7.9
11	Alkalinity Total (as CaCO ₃)	mg/Lit	IS 3025(part-23):1986, RA 2003	200	600	38.0
12	Total Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,2340-C, 2-44,45	200	600	86.0
13	Calcium Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,3500-Ca-B, 3-67	-	-	56.0
14	Magnesium Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,3500-Mg-B, 3-84	-	-	30.0
15	Calcium (as Ca)	mg/Lit	APHA 22 nd Ed.2012,3500-Ca-B, 3-67	75	200	22.44
16	Magnesium (as Mg)	mg/Lit	APHA 22 nd Ed.2012,3500-Mg-B, 3-84	30	100	7.29
17	Chloride (as Cl)	mg/Lit	APHA 22 nd Ed.2012,4500-Cl-B, 4-72	250	1000	23.9
18	Sulphate (as SO ₄)	mg/Lit	APHA 22 nd Ed.2012,4500-SO ₄ -E,4-190	200	400	27.6
19	Nitrate (as NO ₃)	mg/Lit	APHA 22 nd Ed.2012,4500-NO ₃ -B,4-122	45	No Relaxation	0.71
20	Phosphate (as P)	mg/Lit	APHA 22 nd Ed.2012,4500-P-C, 4-153	-	-	N.D.

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REPORT NO. 04787

TEST REPORT

SR. NO.	PARAMETER	UNIT	METHOD OF TEST	ACCEPTABLE LIMIT FOR DRINKING WATER (IS 10500:2012)		RESULT
				Acceptable Limit	Permissible limit	
21	Sodium (as Na)	mg/Lit	APHA 22ndEd.2012,3500-Na-B, 3-97	-	-	5.4
22	Potassium (as K)	mg/Lit	APHA 22nd Ed.2012,3500-K-B, 3-87	-	-	2.9
23	Boron (as B)	mg/Lit	APHA 22nd Ed.2012,4500-B-B, 4-25	0.5	1.0	N.D.
24	Iron (as Fe)	mg/Lit	APHA 22nd Ed.2012,3111-B,3-18	0.3	No Relaxation	N.D.
25	Fluoride (as F)	mg/Lit	APHA 22nd Ed.2012,4500-F-B &D, 4-84 & 87	1	1.5	0.18
26	Manganese (as Mn)	mg/Lit	APHA 22nd Ed.2012,3111-B, 3-18	0.1	0.3	N.D.
27	Lead (as Pb)	mg/Lit	APHA 22nd Ed.2012,3111-B, 3-18	0.01	No Relaxation	N.D.
28	Nickel (as Ni)	mg/Lit	APHA 22nd Ed.2012,3500-Ni, 3-108	0.02	No Relaxation	N.D.
29	Zinc (as Zn)	mg/Lit	APHA 22nd Ed.2012,3111-B, 3-18	5	15	N.D.
30	Copper (as Cu)	mg/Lit	APHA 22nd Ed.2012,3111-B, 3-18	0.05	1.5	N.D.
31	Cadmium (as Cd)	mg/Lit	APHA 22nd Ed.2012,3500-Cd, 3-105	0.003	No Relaxation	N.D.
32	Mercury (as Hg)	mg/Lit	APHA 22nd Ed.2012,3112-B, 3-23	0.001	No Relaxation	N.D.
33	Arsenic (as As)	mg/Lit	APHA 22nd Ed.2012,3114-C, 3-38	0.01	0.05	N.D.
34	Selenium (as Se)	mg/Lit	APHA 22nd Ed.2012,3114-C, 3-38	0.01	No Relaxation	N.D.
35	Chromium (as Cr)	mg/Lit	APHA 22nd Ed.2012,3500-Cr-B, 3-69	0.05	No Relaxation	N.D.
36	Anionic Detergent (as MBAS)	mg/Lit	APHA 22nd Ed.2012,5540-C, 5-53	0.2	1.0	N.D.
37	Phenolic Compound (as C ₆ H ₅ OH)	mg/Lit	APHA 22nd Ed.2012,5540-B & C, 5-47	0.001	0.002	N.D.
38	Poly-nuclear Aromatic Hydrocarbon (PAH)	µg/Lit	APHA 22nd Ed.2012,6440-6-93	0.0001	No Relaxation	N.D.
39	Mineral Oil	mg/Lit	IS 3025 (part-39) : 1991, RA 2003	0.5	No Relaxation	N.D.
40	Oil & Grease	mg/Lit	IS 3025 (Part 39):1991, RA 2003	-	-	N.D.
Microbiological Analysis						
1	Total Coliforms	MPN/100 ML	IS:1622:1981: RA:2019	Shall not be detectable in any 100 ml sample		Absent
2	Faecal coliform	MPN/100ml	IS:1622:1981: RA:2019	Shall not be detectable in any 100 ml sample		Absent
3	E. Coli	MPN/100ml	IS:1622:1981:RA:2019	Shall not be detectable in any 100ml sample		Absent
Pesticides						
1	p,p DDT	µg/L	US EPA 508-1995	1		N.D.
2	o,p DDT	µg/L	US EPA 508-1995	1		N.D.
3	p,pDDE	µg/L	US EPA 508-1995	1		N.D.
4	p,p DDD	µg/L	US EPA 508-1995	1		N.D.
5	O,p DDD	µg/L	US EPA 508-1995	1		N.D.
6	Gamma-HCH (Lindane)	µg/L	US EPA 508-1995	2		N.D.
7	Alpha-HCH	µg/L	US EPA 508-1995	0.01		N.D.

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REPORT NO. 04787

TEST REPORT

SR. NO.	PARAMETER	UNIT	METHOD OF TEST	ACCEPTABLE LIMIT FOR DRINKING WATER (IS 10500:2012)		RESULT
				Acceptable Limit	Permissible limit	
8	Beta-HCH	µg/L	US EPA 508-1995	0.04		N.D.
9	Delta HCH	µg/L	US EPA 508-1995	0.04		N.D.
10	Alpha-Endosulfan	µg/L	US EPA 508-1995	0.4		N.D.
11	Beta-Endosulfan	µg/L	US EPA 508-1995	0.4		N.D.
12	Endosulfansulphate	µg/L	US EPA 508-1995	0.4		N.D.
13	Monocrotophos	µg/L	US EPA 8141A-1994	1		N.D.
14	Ethion	µg/L	US EPA 8141A-1994	3		N.D.
15	Chloropyrifos	µg/L	US EPA 8141A-1994	30		N.D.
16	Phorate	µg/L	US EPA 8141A-1994	2		N.D.
17	Phoratesulphoxide	µg/L	US EPA 8141A-1994	-		N.D.
18	Phoratesulphone	µg/L	US EPA 8141A-1994	-		N.D.
19	2,4-D	µg/L	US EPA 515.1-1995	30		N.D.
20	Alachlor	µg/L	US EPA 508-1995	20		N.D.
21	Atrazine	µg/L	US EPA 532-2000	2		N.D.
22	Methyl parathion	µg/L	US EPA 8141A-1994	0.3		N.D.
23	Methyl paraxone	µg/L	US EPA 8141A-1994	-		N.D.
24	Malathion	µg/L	US EPA 8141A-1994	190		N.D.
25	Malaoxon	µg/L	US EPA 8141A-1994	-		N.D.
26	Aldrin	µg/L	US EPA 508-1995	0.03		N.D.
27	Dieldrin	µg/L	US EPA 508-1995	0.03		N.D.

Note: mg/lit.: milligram per liter, N.D. - Not Detected.

REMARKS: RESULTS ARE AS ABOVE

Terms & conditions

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- > This is for information as the party has asked for above test(s) only.

RBell
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AUTHORIZED SIGNATORY

-----End of the test report-----



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Name & Address Of The Customer		REPORT NO	UES/TR/22-23/04788	
TO, HINDALCO INDUSTRIES LIMITED, GARE PALMA - IV/5, MILUPARA U/G COAL MINE, VILLAGE - MILUPARA, BLOCK-TAMNAR, DISTT. - RAIGARH (C.G.) 496107		LAB REF NO	UES/22-23/W/010991	
		DATE OF SAMPLING	27/11/2022	
		DATE OF RECEIPT	28/11/2022	
		DATE OF REPORT	02/12/2022	
		DATE OF ANALYSIS	START: 28/11/2022	END: 02/12/2022
SAMPLE DETAILS				
SAMPLE TYPE	GROUND WATER		ORDER /REFERENCE:	VERBAL COMMUNICATION.
CUSTOMER SAMPLE ID	NEAR MILUPARA MINES OFFICE PIEZOMETER -AWLR		SAMPLE CONDITION AT RECEIPT	OK
PACKING OF SAMPLE	3 L X 1 NO. PVC CAN 1 L X 1 NO. PVC CAN 1 L X 1 NO. GLASS BOTTLE	SEALED	SAMPLE COLLECTED BY	CHEMIST
SAMPLING PROCEDURE	IS:3025(PART I):1987 RA 2003; APHA 22ND ED. 2012, 1060-B, 1-39		QUANTITY RECEIVED	5 LTR

REPORT NO. 04788

TEST REPORT

SR. NO.	PARAMETER	UNIT	METHOD OF TEST	AS PER IS 10500:2012		RESULT
				Acceptable Limit	Permissible limit	
1	Colour	Hazen	IS:3025:(Part-4)	5	15	<1
2	Odour	-	IS 3025(part-5)	Agreeable	Agreeable	Agreeable
3	Taste	-	IS 3025(part-8)	Agreeable	Agreeable	Agreeable
4	pH	-	APHA 22 nd Ed.2012,4500-H ⁺ -B, 4-92	6.5-8.5	No Relaxation	7.19
5	Turbidity	NTU	APHA 22 nd Ed.2012,2130-B,2-13	1	5	2.75
6	Electrical Conductivity	µS/cm	IS 3025(part-14):1984, RA 2013	-	-	269.4
7	Residual Chlorine	mg/Lit	APHA 22 nd Ed.2012,4500-Cl-G,4 - 69	0.2	1	N.D.
8	Total Solid	mg/Lit	APHA 22 nd Ed.2012,2540- B, 2-64	-	-	169.5
9	Total Dissolved Solids	mg/Lit	IS 3025(part-16):1984, RA 2006	500	2000	163.0
10	Total Suspended Solids	mg/Lit	APHA 22 nd Ed.2012,2540- D, 2-66	-	-	6.5
11	Alkalinity Total (as CaCO ₃)	mg/Lit	IS 3025(part-23):1986, RA 2003	200	600	38.0
12	Total Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,2340-C, 2-44,45	200	600	64.0
13	Calcium Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,3500-Ca-B, 3-67	-	-	34.0
14	Magnesium Hardness (as CaCO ₃)	mg/Lit	APHA 22 nd Ed.2012,3500-Mg-B, 3-84	-	-	30.0
15	Calcium (as Ca)	mg/Lit	APHA 22 nd Ed.2012,3500-Ca-B, 3-67	75	200	13.63
16	Magnesium (as Mg)	mg/Lit	APHA 22 nd Ed.2012,3500-Mg-B, 3-84	30	100	7.29
17	Chloride (as Cl)	mg/Lit	APHA 22 nd Ed.2012,4500-Cl-B, 4-72	250	1000	18.9
18	Sulphate (as SO ₄)	mg/Lit	APHA 22 nd Ed.2012,4500-SO ₄ -E,4-190	200	400	15.1
19	Nitrate (as NO ₃)	mg/Lit	APHA 22 nd Ed.2012,4500-NO ₃ -B, 4-122	45	No Relaxation	2.9

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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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TEST REPORT

SR. NO.	PARAMETER	UNIT	METHOD OF TEST	AS PER IS 10500:2012		RESULT
				Acceptable Limit	Permissible limit	
20	Phosphate (as P)	mg/Lit	APHA 22nd Ed.2012,4500-P-C, 4-153	-	-	N.D.
20	Sodium (as Na)	mg/Lit	APHA 22ndEd.2012,3500-Na-B, 3-97	-	-	7.8
21	Potassium (as K)	mg/Lit	APHA 22 nd Ed.2012,3500-K-B, 3-87	-	-	0.29
22	Boron (as B)	mg/Lit	APHA 22 nd Ed.2012,4500-B-B, 4-25	0.5	1.0	N.D.
23	Iron (as Fe)	mg/Lit	APHA 22 nd Ed.2012,3111-B,3-18	0.3	No Relaxation	N.D.
24	Fluoride (as F)	mg/Lit	APHA 22 nd Ed.2012,4500-F-B &D, 4-84 & 87	1	1.5	0.20
25	Manganese (as Mn)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	0.1	0.3	N.D.
26	Lead (as Pb)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	0.01	No Relaxation	N.D.
27	Nickel (as Ni)	mg/Lit	APHA 22 nd Ed.2012,3500-Ni, 3-108	0.02	No Relaxation	N.D.
28	Zinc (as Zn)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	5	15	N.D.
29	Copper (as Cu)	mg/Lit	APHA 22 nd Ed.2012,3111-B, 3-18	0.05	1.5	N.D.
30	Cadmium (as Cd)	mg/Lit	APHA 22 nd Ed.2012,3500-Cd,3-105	0.003	No Relaxation	N.D.
31	Mercury (as Hg)	mg/Lit	APHA 22 nd Ed.2012,3112-B, 3-23	0.001	No Relaxation	N.D.
32	Arsenic (as As)	mg/Lit	APHA 22 nd Ed.2012,3114-C, 3-38	0.01	0.05	N.D.
33	Selenium (as Se)	mg/Lit	APHA 22 nd Ed.2012,3114-C, 3-38	0.01	No Relaxation	N.D.
34	Chromium (as Cr)	mg/Lit	APHA 22 nd Ed.2012,3500-Cr-B, 3-69	0.05	No Relaxation	N.D.
35	Anionic Detergent (as MBAS)	mg/Lit	APHA 22 nd Ed.2012,5540-C, 5-53	0.2	1.0	N.D.
36	Phenolic Compound (as C ₆ H ₅ OH)	mg/Lit	APHA 22 nd Ed.2012,5540-B & C, 5-47	0.001	0.002	N.D.
37	Poly-nuclear Aromatic Hydrocarbon (PAH)	µg/Lit	APHA 22 nd Ed.2012,6440-6-93	0.0001	No Relaxation	N.D.
38	Mineral Oil	mg/Lit	IS 3025 (part-39) : 1991, RA 2003	0.5	No Relaxation	N.D.
39	Oil & Grease	mg/Lit	IS 3025 (Part 39):1991, RA 2003	-	-	N.D.
Microbiological Analysis						
1	Total Coliforms	MPN/100 ML	IS:1622:1981: RA:2019	Shall not be detectable in any 100 ml sample		Absent
2	Faecal coliform	MPN/100ml	IS:1622:1981: RA:2019	Shall not be detectable in any 100 ml sample		Absent
3	E. Coli	MPN/100ml	IS:1622:1981:RA:2019	Shall not be detectable in any 100ml sample		Absent
Pesticides						
1	p,p DDT	µg/L	US EPA 508-1995	1		N.D.
2	o.p DDT	µg/L	US EPA 508-1995	1		N.D.

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SR. NO.	PARAMETER	UNIT	METHOD OF TEST	AS PER IS 10500:2012		RESULT
				Acceptable Limit	Permissible limit	
3	p,pDDE	µg/L	US EPA 508-1995		1	N.D.
4	p,p DDD	µg/L	US EPA 508-1995		1	N.D.
5	O,p DDD	µg/L	US EPA 508-1995		1	N.D.
6	Gamma-HCH (Lindane)	µg/L	US EPA 508-1995		2	N.D.
7	Alpha-HCH	µg/L	US EPA 508-1995		0.01	N.D.
8	Beta-HCH	µg/L	US EPA 508-1995		0.04	N.D.
9	Delta HCH	µg/L	US EPA 508-1995		0.04	N.D.
10	Alpha-Endosulfan	µg/L	US EPA 508-1995		0.4	N.D.
11	Beta-Endosulfan	µg/L	US EPA 508-1995		0.4	N.D.
12	Endosulfansulphate	µg/L	US EPA 508-1995		0.4	N.D.
13	Monocrotophos	µg/L	US EPA 8141A-1994		1	N.D.
14	Ethion	µg/L	US EPA 8141A-1994		3	N.D.
15	Chloropyrifos	µg/L	US EPA 8141A-1994		30	N.D.
16	Phorate	µg/L	US EPA 8141A-1994		2	N.D.
17	Phoratesulphoxide	µg/L	US EPA 8141A-1994		-	N.D.
18	Phoratesulphone	µg/L	US EPA 8141A-1994		-	N.D.
19	2,4-D	µg/L	US EPA 515.1-1995		30	N.D.
20	Alachlor	µg/L	US EPA 508-1995		20	N.D.
21	Atrazine	µg/L	US EPA 532-2000		2	N.D.
22	Methyl parathion	µg/L	US EPA 8141A-1994		0.3	N.D.
23	Methyl paraxone	µg/L	US EPA 8141A-1994		-	N.D.
24	Malathion	µg/L	US EPA 8141A-1994		190	N.D.
25	Malaaxon	µg/L	US EPA 8141A-1994		-	N.D.
26	Aldrin	µg/L	US EPA 508-1995		0.03	N.D.
27	Dieldrin	µg/L	US EPA 508-1995		0.03	N.D.

Note: mg/lit.: milligram per liter, N.D. - Not Detected

REMARKS: RESULTS ARE AS ABOVE

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.
- > This is for information as the party has asked for above test(s) only

RBell
02/12/2022

REVIEWED BY



For ULTIMATE ENVIROLYTICAL SOLUTIONS

PandA

AUTHORIZED SIGNATORY

-----End of the test report-----

Annexure-11



Letter No.: HIL/GP-IV/4/B- WASTE- HYR-1/2022-23/449

09th December, 2022

The Regional Officer,
Chhattisgarh Environment Conservation Board
TV Tower road,
Raigarh (CG)

Sub: Half-Yearly Return of Used Batteries for the Period from April 2022 to September 2022.

Ref: Half-Yearly Return for used Batteries as per Batteries (Management and Handling)
Rules, 2001 and as amended till date.

Dear Sir,

Submitting herewith the Half-Yearly Return of Used Batteries for the period from April 2022 to September 2022 duly filled in "Form-VIII" as per Rule 10.2.(ii) of Battery Management & Handling Rule-2001 and as amended till date for **Gare Palma IV/4 Coal Mine** of M/s Hindalco Industries Limited, Village – Banjikhola, Tehsil – Tamnar, Dist. -- Raigarh (CG).

Submitted for your kind consideration and record please.

Yours faithfully,
For **Hindalco Industries Limited,**


19/12/22

Govind Kumar
(Mine Agent – GP Mines)



Enclosed: Form -VIII (April 2022 to September 2022)

CC : Member Secretary, Chhattisgarh Environment Conservation Board, Paryavas Bhawan, Raipur
Chhattisgarh

Hindalco Industries Limited

Gare Palma Mines (IV/4 & IV/5), Vill & Po: Milupara , Tehsil: Tamnar Dist: Raigarh- 496107 , Chhattisgarh
T: +91 7762 228212, Website : www.hindalco.com E mail : hindalco@adityabirla.com
Registered Office : Ahura Centre, 1st Floor, B Wing, Mahakali Caves Road Andheri (East) , Mumbai 400093, India
T: + 912266917000 | Fax: + 912266917001
Corporate ID No: L27020MH1958PLC011238

	c. Stand-by	Nil
	iii. Others	(i) 11 Nos (ii) 0.281 MT
4	Number or used batteries of categories mentioned in Sl. No. 3 and Tonnage of scrap sent to manufacturer / dealer / importer / registered recycler / or any other agency to whom the used batteries scrap was sent	Nil

[Handwritten signature and date]
 19/12/22

Place: Raigarh
 Date: 09.12.2022

Signature of the authorized person

Battery Procurement Details (GP IV/4 Coal Mines)
(Procurement Period- April 2022 to September 2022)

Date of Procurement	Material Code	Material Description	UOM	Quantity	Weight (Kg)	Total Weight (Kg)	Category (i.a/i.b/ii.a/ii.b/ii.c.iii)	
05-05-2022	261117100041	BATTERY;VOLT:9V	NOS	04	0.1	0.4	iii	
10-06-2022	261117050095	BATTERY, DRY CELL;TYP:LITHIUM;CML SZ:1.2IN, VOLT:1.2V, CUR CPCTY:12	NOS	03	0.2	0.6	iii	
27-06-2022	261117100053	BATTERY;TYP:LEAD ACID, CHARGED, PLATE, HEAVY DUTY,MN:6XN25-3R MFR	NOS	04	70	280	iii	
TOTAL							281	

Battery Disposed Details

Disposal Period: April 2022 to September 2022

Vehicle No.	Gate Pass No.	Date	Outbound No.	Invoice No.	Material Code	Material Description	UOM	Qty.
Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil