



स्टील अथॉरिटी ऑफ इंडिया लिमिटेड  
**STEEL AUTHORITY OF INDIA LIMITED**  
कोलियरीज डिवीज़न, चासनाला  
**COLLIERIES DIVISION, CHASNALLA**

Ref: Mgr./Tasra/EC (Comp-Mine)/23/ 269

Date: 25.10.2023

To,  
The Additional Director(s),  
EI Division, MOEF & CC.  
Paryavaran Bhawan, CGO Complex,  
Lodhi Road, New Delhi – 110003

Sub: Status of Compliance to the Condition stipulated in the Environmental Clearance granted by MoEF for Tasra Coal Mining Project (4 MTPA), BSL\_-Collieries, SAIL (A Central Govt. of India) for the period April' 2023 to Sept.' 2023.

Ref: EC granted vide Ref. no. J-11015/122/2007-IA-II(M) dated 13<sup>th</sup> October, 2009.

Dear Sir,

Please find enclosed herewith the updated six monthly compliance report for the period April' 2023 to Sept.' 2023 with respect to the condition stipulated in the Environment Clearance granted by MoEF & CC, New Delhi vide letter no. J-11015/122/2007-IA-II (M) dated 13<sup>th</sup> October, 2009 for Tasra Coal Mine Project of M/s Steel Authority of India Limited for kind perusal.

Hard copy of the report is enclosed.

Thanking you,

Yours faithfully

Asstt. General Manager (M) & Colliery Manager  
Tasra OCP, BSL- Collieries.

**Kr. Upendra Singh**  
Manager, Tasra Colliery  
SAIL-Collieries Division

Encl: As above

Copy to:

1. The Additional Director(s),  
MOEF&CC (Govt. of India),  
Integrated Regional office  
2<sup>nd</sup> Floor, Headquater- Jharkhand State Housing Board,  
Harmu Chock , Ranchi -834002
2. The member Secretary  
Central Pollution Control Board,  
Parivesh Bhawan, CBD-Cum Office complex,  
East Arjun Nagar, Delhi – 110032
3. The Member Secretary,  
JSPCB, Township Administration Building,  
Hec Complex, Dhurwa, Ranchi 834004.
4. The Regional Officer,  
Regional Office, JSPCB, Dhanbad

Collieries Division, Chasnalla, Dhanbad, Jharkhand-828135, Tel: 0326-2385-001, 2385-002; email: [gmtasra@gmail.com](mailto:gmtasra@gmail.com), website: [www.sail.co.in](http://www.sail.co.in)

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हर किसी की ज़िन्दगी से जुड़ा हुआ है सेल

There's a little bit of SAIL in everybody's life

**Status of Compliance to the Condition stipulated in the Environmental Clearance granted by MoEF for Tasra Coal Mining Project (4 MTPA) for the period April' 2023 to Sept.' 2023.**

**(EC granted vide Ref. no. J-11015/122/2007-IA-II(M) dated 13<sup>th</sup> October, 2009)**

**(A) Specific Conditions:-**

Cond. No.	Conditions Imposed	Compliance Status as on Sept.' 2023
(i)	The Environmental Clearance is restricted to opencast operations only. A separate application shall be submitted for environmental clearance for Underground Mining Project proposed below 260m below ground level.	Noted for compliance. Tasra Coal Mining Project is planned for opencast mining upto 260m below ground level. The life of the mine is 28 years including 2 years of construction i.e. development period. Reserves below 260m depth will be extracted by underground mining method for which a separate application will be submitted for grant of Environmental Clearance before underground mining operations are undertaken. Presently depth of mine is 35m only.
(ii)	An application for environmental clearance shall be made within 3 months for the establishment of Coal Washery of 3.5 MTPA Capacity proposed within the ML area.	Complied. Environmental Clearance for Tasra Pit Head Coking Coal Washery for 3.5 MTPA has been obtained and granted/obtained vide letter no. J-11015/365/2009-IA.II (M) pt dated 30.03.2017.
(iii)	Mining shall be carried out maintaining a minimum distance of 100m between the river Damodar and Quarry edge along northern boundary. The embankment to be constructed along the river Damodar adjoining quarry shall be based on peak flow and shall be at least 3m above HFL. The slope of the embankment shall be at least 2:1 towards the ML, compacted and stone pitching down towards the river and shall be stabilized with plantation. Material such as OB shall be tested for strength before using for construction of embankment.	Noted.  Presently no mining operation is being carried out at Tasra OCP due to mining contract ended.  MDO has been appointed, Construction of Embankment has been kept under the scope of MDO and shall be constructed as per the approved Mining Plan & all such compliances will be taken up.  As per EC condition, Previously Mine was developed& maintaining a minimum distance of 100 m between river Damodar and the southern Quarry edge as per approved Mining Plan.  At present quarry edge wherein small scale mining is being carried out is at a distance of 600 meters from the bank of Damodar river. (was)  SAIL would have to acquire the intervening area for expansion of the project and simultaneously

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		<p>construct the embankment.</p> <p>DGMS permission conditions also requires construction of embankment, when the natural RL of the adjoining area of Mine, is less than 1.5 m above the HFL.</p> <p>The present natural RL all along the adjoin area being more than 1.5 M above HFL, embankment along the river Damodar is presently not required.</p>
(iv)	<p>The plan for diversion and realignment of the Domohani Jore and Cilatu Jore and modification of the natural surface drainage and design of the diversion canal shall be following the natural topography of the region to be done in consultation and approval of the concerned State Flood and Irrigation Department, dimension and depth of the nala shall be finalized based on the peak flow of the water.</p>	<p>As per the mining schedule of Tasra OCP, the diversion and realignment of Domohani Jore and Cilatu Jore is planned beyond 8<sup>th</sup> year from the commencement of commercial production.</p> <p>It may be note small scale mining was practiced by SAIL since grant of EC for reasons stipulated above. Presently no mining operation is being carried out at Tasra OCP due to mining contract ended.</p> <p>However, MDO has been appointed &amp; Construction of Embankment has been kept under the scope of MDO and the diversion of and realignment of Domohani &amp; Cilatu Jore has been kept under the scope of MDO &amp; all such facilities will be taken up.</p>
(v)	<p>Top soil shall be stacked properly with proper slope at earmarked site(s) and shall not be kept active and shall be used within a year of generation for reclamation and development of green belt.</p>	<p>Pending appointment of MDO, interim mining operation in Tasra OCP has been started in a very small scale from existing old quarry, previously worked by BCCL. was</p> <p>After acquisition of 15.17 acres of land in December 2017 top soil was very minimal and the same was utilized partially for development of park at Chasnalla and remaining top soil has been stacked by the side of OB dump due to paucity of space.</p> <p>Presently no mining operation is being carried out at Tasra OCP due to mining contract ended.</p> <p>However, MDO has been appointed and all compliance will be taken up.</p> <p>Land acquisition process is being carried out through District Authority under LARR Act, 2013. On long term leases basis, SAIL has been acquired</p>

  
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		<p>60 acres of FCIL land for the development and other purpose.</p> <p>Refer Photograph No. ( 1 to 2)</p>
(vi)	<p>OB shall be stacked at earmarked external dump site within ML area of maximum height of 90m of 3 benches of 30m each. A garland drain of adequate capacity, and toe wall along the OB dump shall be created to arrest the silt flow from the dumps. In addition to the garland drain, a separate 4-6m channel to serve as storm water drain shall also be created all along the mine based on peak data. Silt arrestor shall be constructed for both garland drain and storm water drain and the drain shall be regularly de-silted.</p> <p>Toe wall shall be constructed at the base of the dump shall be strengthened at critical patches with stones and compacted. Plantation using native species shall be developed between the dumps and River Damodar. For reclamation of dumps and quarry with plantation, no chemical fertilizer shall be used. The ultimate slope of the dump shall not exceed 28°. Reclamation of the OB Dumps of an area of 168.47 Ha with vegetation shall be completed by 10<sup>th</sup> Year. Monitoring and management of the reclaimed dump site shall continue until the vegetation becomes self-sustaining compliance status shall be submitted to MoEF and its Regional Office located at Bhubneshwar on yearly basis.</p>	<p>As per approved Mining Plan and EIA/EMP submitted to MoEF&amp; CC, OB was dumped at earmarked location within mining lease hold (ML) area. Presently no mining operation is being carried out at Tasra OCP due to mining contract ended.</p> <p>Presently, the mine is in development stage, the OB generated during small scale mining was used to fill up the old abandoned mine previously worked by M/S BCCL lying well within the earmarked OB dump area. As such it is submitted that presently from approved Mining Plan.</p> <p>It is also submitted that SAIL in advance has taken up plantation activity in coordination with the Forest Department, Dhanbad along the northern bank of river Damodar ( area intervening between the future bottom edge of future OB dump and northern bank of river). Refer Photographs No. 12, 13 &amp; 24.</p>

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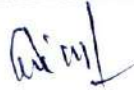
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(vii)	<p>Catch drain and siltation pond of appropriate size shall be constructed to arrest silt and sediment flows from soil, OB and mineral dumps. The water so collected shall be utilized for watering the mining area, road, greenbelt development etc. The drains shall be regularly de-silted and maintained properly.</p> <p>Garland drains (size, gradient and length) and sump capacity shall be designed keeping safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mining site. Sump capacity shall also provide adequate retention period to allow proper settling of silt material.</p>	<p>Previously, OB was dumped to fill up old abandoned pit, previously worked by M/S BCCL as per approved Mining Plan. As such, there is no surface run off into the river Damodar. Catch drain has been constructed along the edge of OB dump facing the river. Catch drain is terminating into siltation pond. Around some portion facing the river Damodar some low laying area has been created being used as siltation pond. As such, there is no surface run off into the river Damodar.</p> <p>Refer Photographs No.3 to 4</p> <p>The Garland drains has been regularly de-silted and maintained properly.</p> <p>Refer Photographs No. 11</p> <p>The rain water so collected at mine pit. However regular monitoring of water analysis test is being carried out as per conditions stipulated in CTO conditions.</p> <p>Presently no mining operation is being carried out at Tasra OCP due to mining contract ended.</p> <p>However, MDO has been appointed &amp; all compliance will be taken up.</p>
(viii)	<p>Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check run-off and situation shall be based on rainfall data.</p>	<p>Noted for compliance.</p> <p>Previously the OB was dumped to fill up at ground level of old abandoned pit previously worked by M/S BCCL as per approved Mining Plan. As such, there is no surface run off into the river Damodar.</p> <p>Refer Photographs No. 05</p> <p>Since OB dump is active, retaining wall shall be constructed once the height of OB is increased above ground level.</p> <p>Presently no mining operation is being carried out at Tasra OCP due to mining contract ended.</p> <p>However, MDO has been appointed and all compliance will be taken up.</p>
(ix)	<p>The approach road shall be blacked topped. A three tire avenue plantation</p>	<p>a) As the mine is in initial development stage,</p>

  
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	<p>shall be developed along the main approach roads and haul roads. Entire mine transportation shall be by rail mode only. Mineral transportation from the mine to the railway siding shall be by closed belt conveyor only. The railway siding shall be provided with Silo rapid loading system.</p>	<p>temporary approach road is being maintained. Approach roads and haul roads are being maintained by road grader and continuous water sprinkling is being done for dust suppression. Plantation has been done along temporary haul road. Further 30 no of sapling have been planted along temporary haul road on environment day i.e. on 05.06.2023. Presently no mining operation is being carried out at Tasra OCP due to mining contract ended.</p> <p>However, MDO has been appointed and all compliance will be taken up. Once the mine is fully developed, permanent approach road of requisite design shall be maintained. Subsequently three tire avenue plantation will be also developed along the main roads and haul roads. ROM coal will be transported to CHP end through haul road along southern pit limit and the crushed coal from CHP will be transported to the proposed Washery by closed belt conveyor. Further washed coal from the Washery to the Steel Plants will be transported by rail. The railway siding shall be provided with Silo rapid loading system.</p>
(x)	Drills shall be wet operated only.	<p>Noted for compliance.</p> <p>Presently no mining operation is being carried out at Tasra OCP due to mining contract ended.</p>
(xi)	Controlled blasting shall be practiced with the use of delay detonators. The mitigate measures for control of ground vibration and to arrest the fly rocks and boulders shall be implemented.	<p>Noted for compliance.</p> <p>Presently no mining operation is being carried out at Tasra OCP due to mining contract ended.</p>
(xii)	Water sprinkling system shall be provided to check fugitive emissions from crushing operation, conveyor system, haulage roads, transfer points etc. Hopper of the coal crushing units and Washery unit shall be fitted with high efficiency bag filters and mist spray water sprinkling system shall be installed and operated effectively at all times of operation to check fugitive emissions from crushing operation, transfer point at railway siding.	<p>Noted for compliance.</p> <p>Presently no mining operation is being carried out at Tasra OCP due to mining contract ended.</p> <p>However, MDO has been appointed and all compliance will be taken up.</p>
(xiii)	No ground water (bore well) shall be used for mining operations. Additional	<p>No ground water (bore well) is being used. Presently no mining operation is being carried out</p>

  
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	<p>water if any required for the project shall be used from recycled water or from mine discharge water or rain water collected in rain water harvesting pits within the project area</p>	<p>at Tasra OCP due to mining contract ended.</p> <p>However, MDO has been appointed and all compliance will be taken up.</p>
(xiv)	<p>Regular monitoring of ground water level and quality shall be carried out by establishing a network of existing wells and construction of new Piezometers. The monitoring of quantity shall be done four times a year in pre monsoon (May), Monsoon (August), post monsoon (November) and winter (January) seasons and for the quality in may Data thus collected shall be located to MoEF and to the Central Pollution Control Board quarterly within one month of Monitoring. Rain water structures shall be erected in the core and buffer zone in case monitoring indicates a decline in water table.</p>	<p>Noted for compliance.</p> <p>Presently no mining operation is being carried out at Tasra OCP due to mining contract ended.</p> <p>However, MDO has been appointed and all compliance will be taken up.</p> <p>It is mentioned that Tasra Opencast Project was previously worked by M/s BCCL. There are numbers of old abandoned quarries within the project area, which is presently serving the purpose of rain harvesting cum-ground water recharge.</p> <p>The Monitoring of quality of ground water, surface water (upstream &amp; downstream of mine site) and mine water from core zone and buffer zone of Tasra mine have been regularly monitored. Copy of test reports enclosed as Annexure -1 (Page No. 10-14)</p> <p>Of late measurement of ground water table in two of the boreholes in Tasra Coal Mining Project area has been taken.</p> <p>Report is enclosed as Annexure-2</p> <p>As such there is no depletion of ground water resources.</p> <p>However, 32 rainwater harvesting cum ground water recharge system is being constructed at Tasra/Chasnalla coal complex area at Chasnalla. Refer Photographs No. 14</p>

  
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(xv)	<p>The project authorities shall meet water requirement of nearby villages in case of village well goes dry due to dewatering of mine.</p>	<p>SAIL has initiated efforts to meet the water requirements of nearby villages and this is being complied regularly.</p> <p>Drinking water facilities is being provided to nearby villages of project area:</p> <ol style="list-style-type: none"> <li>1. Drinking water is being supplied by covered water tanker to project affected villages. Water is supplied for domestic use in and around Tasra mine area by water tanker @ 25KL/day.</li> <li>2. Installed of 02 nos high yielding deep tube well pump, motor, for supply of drinking water to project affected people of Tasra.</li> <li>3. Repaired of 15 no of hand pumps and 03 no of submersible pumps to ensure provision of drinking water in and around Tasra project affected villages. All the pumps have been made operational.</li> </ol> <p>Refer Photographs No. 18,19,20 &amp;21</p> <p>Of late measurement of ground water table in two of the boreholes in Tasra Coal Mining Project area has been taken. Report is enclosed as Annexure-2</p>
(xvi)	<p>Sewage treatment plant of adequate capacity shall be installed in the colony. ETP shall also be provided for workshop and CHP wastewater. Treated wastewater meeting prescribed norms only shall be recycled for mining operations to the extent possible and permitted to be discharged to the natural water courses only if it meets the prescribed standards.</p>	<p>Noted for compliance.</p> <p>It may be noted that the mine is still in development stage and interim mining was carried out in very small scale i.e. production level is to the tune of 8% of the Peak Rated Capacity i.e. 4 MTPA of Tasra Mine.</p> <p>Presently no mining operation is being carried out at Tasra OCP due to mining contract ended.</p> <p>No residential colony has been constructed for Tasra Coal Mining Project and the construction of upcoming R&amp;R colony is under the scope of work of MDO.</p> <p>However, MDO has been appointed and all compliance will be taken up.</p> <p><b>Action Plan:</b></p> <ol style="list-style-type: none"> <li>1. ETP for workshop shall be constructed upon expansion of the mine by MDO.</li> <li>2. STP of adequate capacity shall be taken up</li> </ol>

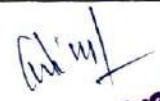
  
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		once construction of R&R colony is taken up by MDO.
(xvii)	<p>Total area that shall be brought under afforestation at the time of mine closure shall not be less than 444.49 Ha. which includes reclaimed topsoil dump area&amp; external OB dump (168.47 ha.), backfilled area (276.02 ha.) along MineLease boundary, embankment, undisturbed area, along roads and infrastructure, green belt and in township outside the lease by planning native species in consultation with the local DFO/ Agriculture Dept. The density of the tree shall be around 2500 plant/Ha.</p>	<p>Noted for compliance.</p> <p>Presently no mining operation is being carried out at Tasra OCP due to mining contract ended.</p> <p>However, MDO has been appointed and all compliance will be taken up.</p> <p>After completion of mining operations Mineclosure will be done as per approved Mine Closure Plan.</p> <p>As per approved Mining Plan and EIA/EMP submitted to MoEF&amp; CC, OB is being dumped at earmarked location within mining lease hold (ML) area.</p> <p>Previously, the OB generated during small scale mining was used to fill up the old abandoned mine previously worked by M/S BCCL lying well within the earmarked OB dump area.</p> <p>Plantation will be carried out in consultation with local DFO/Agriculture Department as per approved Mining Plan and EIA/EMP.</p> <p>It is also submitted that SAIL in advance has taken up plantation activity in coordination with the Forest Department, Dhanbad along the northern bank of river Damodar. (Area intervening between the future bottom edge of future OB dump and northern bank of river). (Refer Photographs No. 12, 13 &amp; 24)</p>
(xviii)	<p>A progressive Mine Closure Plan shall be implemented by reclamation of 276.02 ha, of the total quarry area of 371.33ha, which shall be backfilled and afforested by planting native plants species in consultation with the local DFO/ Agriculture Department. The density of the plants shall be around 2500 plants per ha. The balance 95.33 ha of de-coaled quarry area being converted into a waterreservoir shall be gently sloped and the upper benches of the reservoir shall be terraced and stabilized with plantation.</p>	<p>Noted for compliance.</p> <p>Preparation of Mine Closure Plan has been kept under the scope of work of MDO. Mine closure activity is elaborated in the approved Mining Plan and is envisaged to start from sixth year of Operation.</p> <p>Pending preparation of Mine Closure Plan as required under statute, the amount on account of Mine Closure Activity is being deposited in Escrow account based on the tripartite agreement made between SAIL, Office of Coal Controller Kolkata,</p>

*(Signature)*  
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	Only native species shall be used for plantation.	<p>and IDBI Bank on 15.09.2017.</p> <p>As per agreement made on 15.09.2017 we have deposited six installments towards Mine Closure Cost. Details of amount deposited is as below :-</p> <table><tr><th>Year</th><th>Deposited in escrow A/C( In Rs)</th></tr><tr><td>2017-2018</td><td>263.67 Lakh</td></tr><tr><td>2018-2019</td><td>276.85 Lakh</td></tr><tr><td>2019-2020</td><td>290.70 Lakh</td></tr><tr><td>2020-2021</td><td>305.23 Lakh</td></tr><tr><td>2021-2022</td><td>320.49 Lakh</td></tr><tr><td>2022-2023</td><td>336.52 Lakh</td></tr></table> <p><b>Action Plan:</b> Progressive Mine Closure Plan shall be prepared and get approved from MoC has been taken up.</p>	Year	Deposited in escrow A/C( In Rs)	2017-2018	263.67 Lakh	2018-2019	276.85 Lakh	2019-2020	290.70 Lakh	2020-2021	305.23 Lakh	2021-2022	320.49 Lakh	2022-2023	336.52 Lakh
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(xix)	Beside carrying out regular periodic health check-up of their workers, 10% of workers identified from workforce engaged in active mining operation shall be subjected to health check-up for occupational diseases and hearing impairment if any, through an agency as NIOH, Ahmadabad within a period of 1 year and the results reported to this ministry and to DGMS.	<p>Qualified Occupational Health Doctor has been appointed as per DGMS Norm.</p> <p>No worker of Tasra OCP has been found to have occupational diseases or hearing impairment during a health check-up.</p> <p>Workers are provided with PPE device and time to time training on safety and health aspects were provided.</p> <p>Presently no mining operation is being carried out at Tasra OCP due to mining contract ended.</p>														
(xx)	An amount of Rs. 600.60/- lakhs as capital cost and Rs. 35/- lakhs towards annual recurring cost has been earmarked for environmental protection measures. The details of which shall be uploaded on the company web site every year.	<p>Noted for compliance.</p> <p>Mine is in development stage, a small scale mining was carried out. Presently no mining operation is being carried out at Tasra OCP due to mining contract ended.</p> <p>Capital Expenditure details for FY: 2023-24:- Rs. 1200000/- .</p> <p>Earmarked capital cost has been given in the scope of MDO.</p> <p>However, MDO has been appointed and all compliance will be taken up.</p>														
(xxi)	A detailed R&R plan for the life of the project comprising land losers, homestead losers, and landless including tribal to be displaced from	Acquisition of land & construction of R&R colony was under the scope of MDO and accordingly they had initiated the process of acquiring 16.60 Ha of private land at Asanbani Mouza. Pending														

  
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<p>the project area shall be prepared and implemented in stipulated time-frame. A master plan for the R&amp;R colony and specific plan for Phase – I consisting of 1642 PAF's shall be prepared within two months from the date of environmental clearance along with time schedule for completion of activities including construction of R&amp;R colony and completion of various works for civic amenities in the colony. R&amp;R shall include setting of an ITI for training &amp; skill development amongst the persons to be employed and those not being absorbed for vocational training for alternate livelihood, particularly stimulation training for various skills, which may be for indirect employment. Annuities for the Vulnerable persons being displaced shall also be included in R&amp;R person affected by double/triple displacement shall be compensated as per norms. R&amp;R for Phase- I shall be completed within a year of grant of environmental clearance.</p> <p>A sub-committee comprising of 3 Experts of Appraisal Committee shall monitor the compliance of implementation of Phase-I of R&amp;R and beyond if required.</p>	<p>construction of R&amp;R colony, PAFs who were going to be displaced on account of acquisition of 6.14 Ha of land by SAIL, suggested for interim accommodation in the nearby quarters of M/s FCIL till they were finally rehabilitated at R&amp;R colony. Villagers' request for interim accommodation was deliberated in the R&amp;R Committee and it was ratified by R&amp;R Committee in its meeting on 06.11.2017. Accordingly, SAIL took FCIL quarters on lease and 105 nos. of PAFs were provided interim accommodation. Post termination of contract with M/s LITL, basic amenities like water, electricity, sanitation, etc. are being provided at the interim accommodation site by SAIL.</p> <p>A master plan for the R&amp;R colony and specific plan for the phase –I consisting of 1642 PAF has been prepared and the same will be implemented in the due course after land acquisition. Process is initiated upon appointment of new MDO.</p> <p>Detailed survey was carried out by District Administration under the provision of LARR Act, 2013. Draft R&amp;R Policy was framed by R&amp;R Administrator appointed by State Govt for Tasra OCP. Public hearing on Draft R&amp;R scheme was held by District Administration and R&amp;R Scheme was approved by R&amp;R Commissioner, Govt. of Jharkhand on 05.10.2016. Based on fresh preliminary notification for land acquisition, fresh R&amp;R Scheme will be formulated by R&amp;R Administrator for the Project and approved by Govt. of Jharkhand.</p> <p>R&amp;R activities related to the project including establishment of R&amp;R colony shall be taken up as per the approved R&amp;R Plan by concerned Authority.</p> <p>Socio-economic survey of the seven mouzas was carried out by Project &amp; Development India Limited (PDIL) in 2009. As per PDIL report, there were 3455 nos. of Project Affected Families (PAFs). Based on PDIL Report'2009, R&amp;R scheme for PAFs for Rs.219.53 Crore was approved by SAIL Board in its meeting held on 17 .03.2010.</p> <p>MECON or any other consultant of repute shall be entrusted to prepare fresh DPR and Master plan for construction of R&amp;R colony as per provisions of</p>
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 SAIL-Collieries Division


		<p>LARR' Act-2013 under appointment of MDO.</p> <p>Presently no mining operation is being carried out at Tasra OCP due to mining contract ended.</p> <p>However, MDO has been appointed &amp; all compliance will be taken up.</p>
(xxii)	<p>Peripheral village of Parasbania, Chattabad, Orbeta, Kurtand, Sindri Basti, Manohartand, Chasnallabasti, Manpur, Jharna, Bogla, and Chandankyari shall be taken for socio economic activity under CSR, for which a sum of Rs. 65/- Crores shall be earmarked for capital cost and Rs. 4/- Crore as revenue cost over the life of the project. The proponent shall continue VDC for monitoring the implementation of CSR. In addition the Sub-Committee of EAC shall also monitored if required.</p>	<p>Noted for compliance.</p> <p>As stated above mining operation was carried out intermittently and on a very small scale. It is fact that VDC has not been constituted for Tasra Coal Mining Project. However various developmental activities on account of CSR have been carried out in consultation with the villagers of Project Affected Area.</p> <p>Details of CSR activities taken up within Tasra Project area since 2009 are as below:</p> <ol style="list-style-type: none"> <li>1. 30 no of unemployed village youths were imparted light motor vehicle training and driving license were issued.</li> <li>2. 30 no of girls and ladies of project area were imparted stitching and embroidery training.</li> <li>3. 42 no of village youths were sponsored for ITI course for skill development.</li> <li>4. Coordinated with Sindri Central Sport Association in organizing 19th Junior Jharkhand State Basket Championship at Sindri under CSR scheme. BSL Collieries was cosponsorer for this event.</li> <li>5. Water is supplied for domestic use in and around Tasra mine area by water tanker @ 25KL/day.</li> <li>6. Volleyball distributed under CSR scheme distributed to the youths of Project affected area of Tasra OCP to promote sports and build trust and confidence among village youths.</li> <li>7. Installed of 02 nos high yielding deep tube well pump, motor, for supply of drinking water to project affected people of Tasra.</li> <li>8. Program of stitching and embroidery for villagers under CSR scheme is going on.</li> <li>9. Blankets distribution under CSR scheme to the poor, disabled and old people of Project affected</li> </ol>

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**Kr. Upendra Singh**  
Manager, Tasra Colliery  
SAIL-Collieries Division



		<p>area of Tasra OCP was done..</p> <p>10. Organized eye camp in coordination with Rotary club under CSR scheme at Tasra project area, Gaushala, Sindri and operated 37 persons at Shankar Netralaya Kolkata.</p> <p>11. Repaired of 15 no of hand pumps and 03 no of submersible pumps to ensure provision of Drinking water in and around Tasra project affected villages. All the pumps have been made operational.</p> <p>12. Distributed Study materials amongst the poor students through NGO at Prayas India Center at Motinager, Rorhbandh, and Sindri.</p> <p>13. Free Medical-checkup on wheel under CSR scheme is being carried out at Tasra Project Area. (</p> <p>14. Distribution of bed with mattress at Lalmani Vridh Ashram i.e. Old Age Home, Tundi under CSR, Collieries, SAIL.</p> <p>15. Stitching and embroidery training courses for women empowerment is being carried out.</p> <p>16. Distributed Computer sets amongst the poor students through NGO at Prayas India Center at Motinager, Rorhbandh, and Sindri.</p> <p>Refer Photographs No. 15 to 23</p>
(xxiii)	<p>The project authority shall carry out a detailed pre-mining socio-economic survey based on the UNDP Human Development Report and quality of life parameters and monitor the socio-economic status once every three years and maintain record thereof and report in their annual report, the socio-economic report of R&amp;R and CSR activities. The details of which shall be uploaded on the company's web site every year. A post of GM to exclusively look after R&amp;R &amp; CSR shall be created.</p>	<p>Noted for compliance.</p> <p>PDIL i.e. Project Development India Limited, a Central Govt. PSU and by Abhiyan Samiti a Dhanbad based NGO in the year 2008 and 2009 respectively, i.e. prior to start of mining operation. Again Socio economic survey was carried out by M/s MECON in 2017.</p> <p>Further socio-economic survey will be carried out based on the UNDP Human Development Report and quality life parameters to monitor the socio-economic status. Record of CSR activities taken up is being maintained:</p> <p>An Officer in the rank of GM has been posted at Unit level and AGM has been posted at project</p>

  
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 SAIL-Collieries Division

		<p>level to look after the CSR activity.</p> <p>The CSR activities are being undertaken in consultation with the villagers of Project Affected Area.</p> <p>However, MDO has been appointed for the project, also all facilities will be taken up.</p>
(xxiv)	For monitoring land use pattern and post mining land use, a time series of land use maps based on satellite imagery (1:5000) of the core and buffer zone from the start of the project until end of the mine life shall be prepared once in three year from any one particular season which is consistent in the time series and the report submitted to MoEF and its regional office at Bhubneshwar.	<p>Satellite imagery of the core and buffer zone has been done before pre-mining activity i.e. on 2007</p> <p>As elaborated above, Mining activity is carried out in very small scale that too intermittently. As such the mine is yet to be developed so there is no significant change in the land use in comparison to pre mining activity.</p> <p><b>Action Plan:</b> Latest Satellite imagery land use map shall be submitted in due course with expansion of the mine.</p> <p>However, MDO has been appointed and compliance will be taken up.</p>
(xxv)	A final mine closure plan along with details of Corpus Fund shall be submitted to the MoEF, 5 year in advance of the final mine closure for approval.	Noted for compliance.

#### **General Conditions:-**

Cond. No.	Conditions Imposed	Compliance Status as on Sept.' 2023
(i)	No change in technology and scope of work shall be made without prior approval of the Ministry of Environment and Forest	Complied.
(ii)	No change in the calendar plan including quantum of mineral coal and waste being produced shall be made.	Complied. Quantum of mineral coal and waste dumping will be kept within the planned quantities as per approved mining plan.
(iii)	Four ambient quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring SPM, RSPM, So2 and NOx. Locations of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in	Quarterly Sampling and analysis of PM10, PM2.5, SO2 and NOx etc have been carried out from established in the core zone as well as buffer zone of Tasra OCP by an NABL Accredited/ISO9001:2008 and OHSAS 18001:2007 certified lab M/s Adity R&D service (Recognized by Jharkhand State Pollution Control Board), Sindri, Dhanbad

*(Signature)*

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Manager, Tasra Colliery  
SAIL-Collieries Division



	consultation with the State Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr in SPM and RSPM etc., shall be carried out at-least once in 6 months	Copy of reports is enclosed as Annexure- 1( Page No 5 to 8)
(iv)	Data on ambient air quality (SPM, RSPM, So <sub>2</sub> and NO <sub>x</sub> and heavy metals such as Hg, As, Ni, Cr etc.) and other monitoring data shall be regularly submitted to the Ministry including its Regional Office at Bhubaneswar and to the State Pollution Control Board and the Central Pollution Control Board once in six months. Random verification of samples through analysis from independent laboratories recognized under the E (P) Rules, 1986 shall be furnished as part of compliance.	Complied. Monitoring of Environmental parameters is being carried out by an NABL Accredited/ISO9001:2008 and OHSAS 18001:2007 certified lab M/s Adity R&D service (Recognized by Jharkhand State Pollution Control Board), Sindri, Dhanbad Copy of reports is enclosed as Annexure- 1( Page no. 5 to 8)
(v)	Adequate measures shall be taken for control of noise level below 85 dBA in the work environment. Workers engaged in blasting operation, operation of HEMM etc. shall be provided with ear plugs/muffs.	Complied. The report is duly monitored by an NABL Accredited/ISO9001:2008 and OHSAS 18001:2007 certified lab M/s Adity R&D service (Recognized by Jharkhand State Pollution Control Board), Sindri, Dhanbad. Copy of Reports is enclosed as Annexure-1 ( Page No. 9)
(vi)	Industrial waste water (workshop and waste water from the mine) shall be properly collected treated so as to conform to the standards including for heavy metals, before discharge prescribed under GSR+22 (E) dated 19 May, 1993 and 31 <sup>st</sup> December, 1993 or as amended from time to time. Oil and grease trap shall be installed before discharge of workshop effluents.	Noted for compliance.  Presently no mining operation is being carried out at Tasra OCP due to mining contract ended.  However, Tasra Open Cast Project is planned for Peak rated Capacity of 4 MTPA and is proposed to be developed through Mine Developer Cum Operator (MDO).
(vii)	Vehicular emission shall be kept under control and regularly monitored. Vehicles used for transportation of the mineral shall be covered with tarpaulins and optimally loaded.	Complied.
(viii)	Monitoring of environment quality parameters shall be carried out through establishment of adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution	Complied. The monitoring of environment quality parameters has been duly monitored by an NABL Accredited/ISO9001:2008 and OHSAS 18001:2007 certified lab M/s Adity R&D Service (Recognized by Jharkhand State Pollution Control

  
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	Control Board and data got analyzed through a laboratory recognized under EP Rules, 1986.	Board) Sindri, Dhanbad. Copy of reports enclosed at Annexure- 1 ( page no. 10 to 16)
(ix)	Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects. Occupational Health Surveillance Programme of the worker shall be undertaken periodically to observe any contractions due to exposure to dust and to take corrective measures, if required.	Complied. On resumption of Mining Operation Persons working in dusty areas shall be provided protective respiratory devices and also provided with adequate training and information on safety and health aspects. Occupational Health Surveillance Programme of the worker shall be undertaken periodically to observe any contractions due to exposure of dust and to take corrective measures, if required.
(x)	Separate Environmental Management Cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.	Separate Environmental Management Department has been set up and headed by GM (Environment) who reports directly to the Head of the Mine and also AGM (Environment) appointed at Tasra Project Level. In addition to this, SAIL is having a separate Corporate Environment Management Division (EMD) at Kolkata under the control of Executive Director, who facilitates in environmental management of all SAIL units.
(xi)	The fund earmarked for environmental protection measures shall be kept in separate account and should not be diverted for other purpose. Year-wise expenditure should be reported to the Ministry and its regional office located at Bhubneshwar.	Noted for compliance.
(xii)	The project authorities shall advertise at least in two local newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality concerned, within 7 day of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at website of the Ministry of Environment and Forest at <a href="http://www.envfor.nic.in">http://www.envfor.nic.in</a>	Complied. Advertisement was issued in two local newspaper widely circulated around the project.
(xiii)	A copy of the clearance letter shall be marked to concerned Panchyat/ZilaParishad, Municipal Corporation or Urban Local Body and local NGO, if any, from whom	Compliance has been done as per the EC condition. A copy of clearance letter has also been displayed on the company's web site.

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**Kr. Upendra Singh**  
 Manager, Tasra Colliery  
 SAIL-Collieries Division



	suggestion/representation has been received while processing the proposal. A copy of the clearance letter also to be displayed on the company's website.	
(xiv)	A copy of clearance letter shall be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industry Centre and Collector Office/Tehsildar Office for 30 days.	Compliance has been done as per the EC condition.
(xv)	The Clearance letter shall be uploaded on the Company's website. The compliance status of stipulated EC conditions shall also be uploaded by the project authorities on their website and updated at least once every six months so as to bring the same in the public domain. The monitoring data of environmental quality parameters (air, water, noise and soil) and critical pollutants such as SPM, RPM, SO <sub>2</sub> , NO <sub>x</sub> (ambient and stack if any) and critical sectorial parameters shall be displayed at the entrance of the project premises and mine office and in corporate office and on the company's website.	Noted for compliance. The Environmental Clearance has been uploaded on the company's website. The compliance status of stipulated EC conditions shall also be uploaded on the company's website and updated at least once in every six months after submission of the report to the concerned Authorities. The environmental monitoring data shall also be displayed at the entrance of the project premises and mines office and in corporate office and on the company's website. The monitoring data of environmental quality parameters is enclosed as Annexure- 1  Refer Photographs No. 8
(xvi)	The project proponent shall submit six monthly reports on the status compliance of the environmental clearance conditions (both in hard copy and e-mail) to the respective Regional Office of the MoEF, the respective Zonal Office of CPCB and the SPCB.	Being complied.
(xvii)	The Regional Officials of the Ministry located at Bhubneshwar shall monitor compliance of the stipulated conditions. The project authorities shall extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data information monitoring report.	Being complied.

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**Kr. Upendra Singh**  
 Manager, Tazra Colliery  
 SAIL-Collieries Division

(xviii)	The environmental statement for each financial year ending 31 <sup>st</sup> September Form V is mandate to be submitted by the Project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Act, 1986 as amended subsequently, shall also be uploaded on the company's website along with the status of compliance of EC conditions and shall be sent to the respective Regional Offices of the MoEF by e-mail.	Noted. On resumption of Mining Operation at Tasra OCP the Environmental Statement for each financial year shall be submitted to the concerned State Pollution Control Board and shall also be uploaded on the company's website along with the status of compliance of EC conditions and shall be sent to the respective Regional Offices of the MoEF by e-mail.
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Note: This for your kind information that presently small scale mining operation at Tasra OCP has been temporarily suspended from 26.08.2023 owing to expiry of the small scale mining contract.

It may be further submitted that Tasra Open Cast Project is an ambitious project of SAIL having annual peak rated capacity of 4MTPA. SAIL intends to develop this project through Mine Developer route and in this respect MDO has been appointed by SAIL for development and operation of Tasra Open Cast Project and CMSA (Coal Mine Service Agreement) has been executed between MDO and SAIL on 08.09.2023.

As per Scope of works MDO shall take necessary steps for compliance of all EC conditions on behalf of SAIL. Presently MDO is in the process of acquire of land on behalf of M/s SAIL & setting up of necessary infrastructure for development and operation of the mine.

Mine operations will be resumed after acquisition of Land and same will intimated to kind office.

*ad m/*  
**Kr. Upendra Singh**  
 Manager, Tasra Colliery  
 SAIL-Collieries Division



Photographs:



Photo No. 1



Photo No. 2

Top Soil at Tasra

*Aditya*  
**Kr. Upendra Singh**  
Manager, Tasra Colliery  
SAIL-Collieries Division



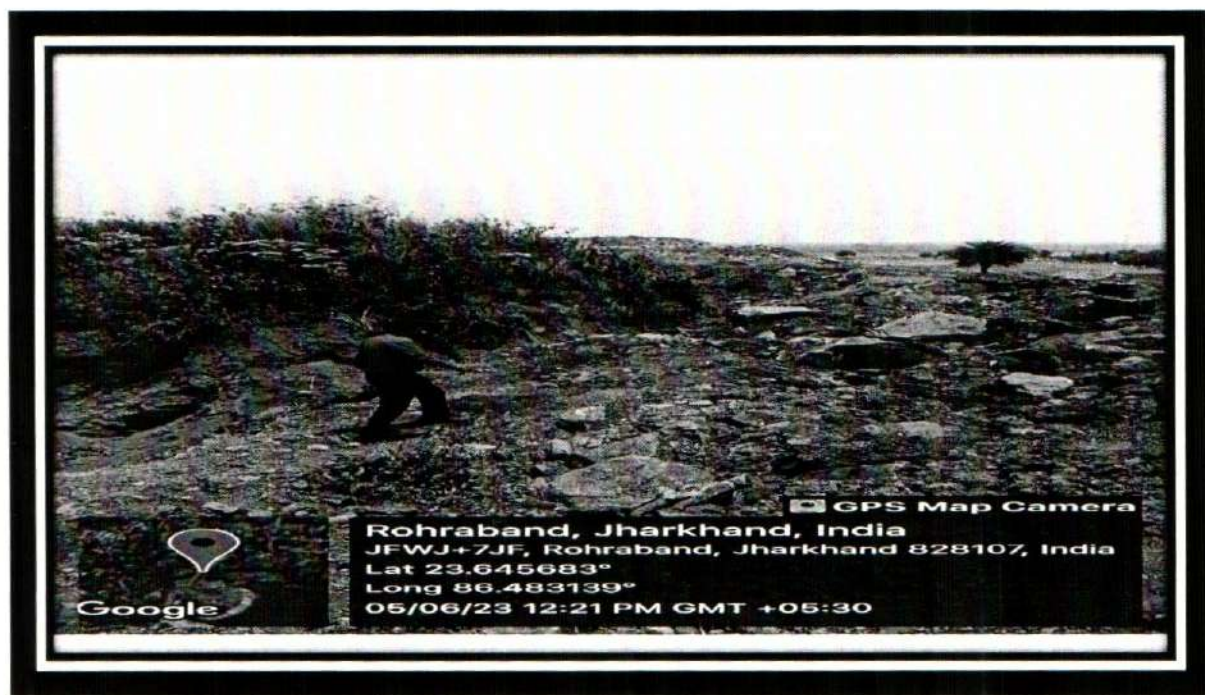


Photo No. 3

Catch Drain near Top soil at Tasra

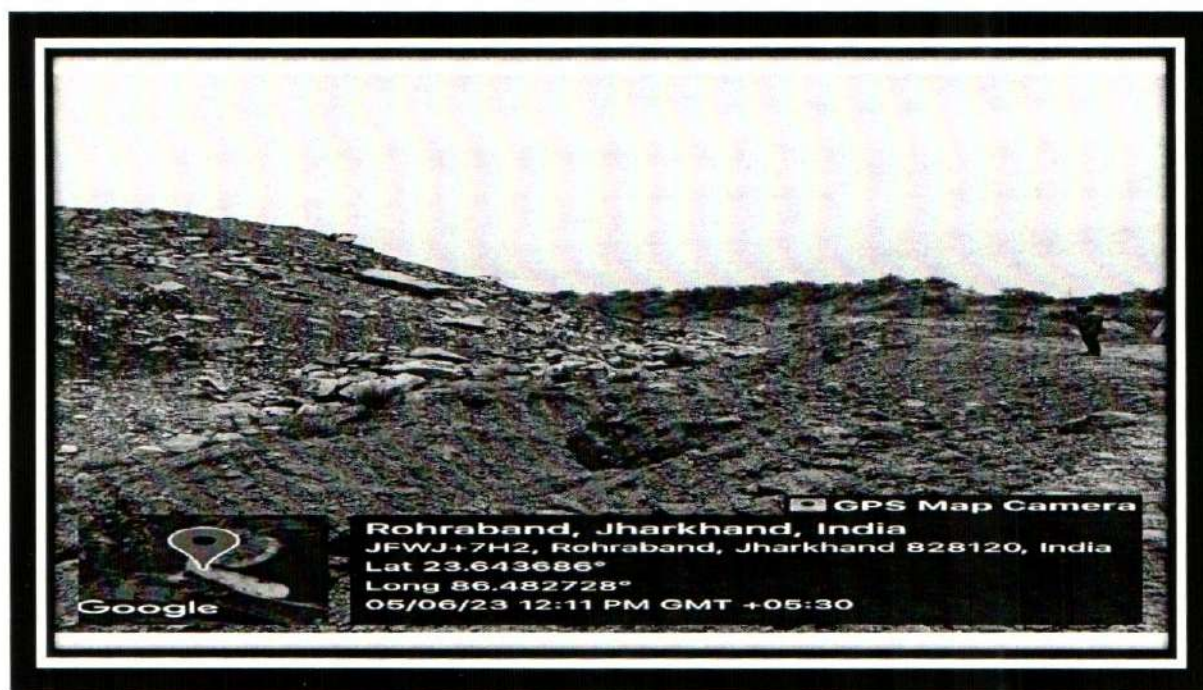


Photo No. 4

Catchment and siltation pond around OB dump facing the river at Tasra

*Amr*  
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 Manager, Tasra Colliery  
 SAIL-Collieries Division





Photo No.5

OB was dumped at Old Quarry located within earmarked OB dump Area as per Mining Plan of Tasra.

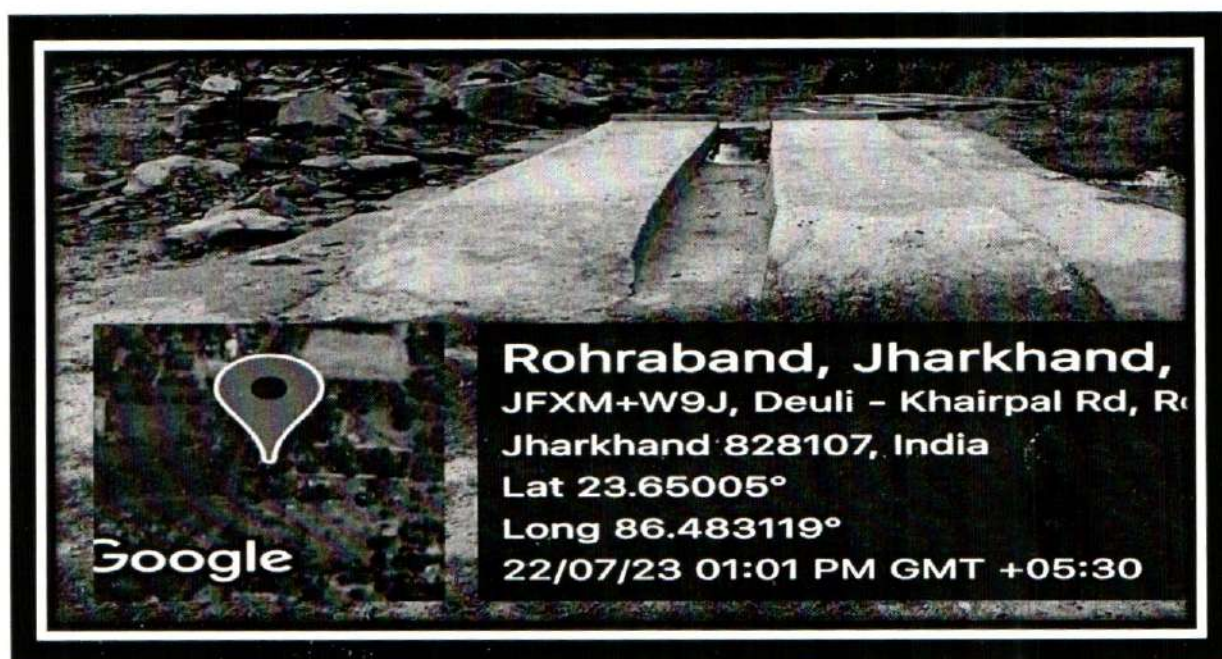


Photo No. 6

Construction of oil and grease trap at Tasra Site.

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**Kr. Upendra Singh**  
 Manager, Tasra Colliery  
 SAIL-Collieries Division





Photo No. 7 Monitoring Data Displayed at Mine Entry of Tasra OCP  
Ground Water Level Measurement at Tasra Site

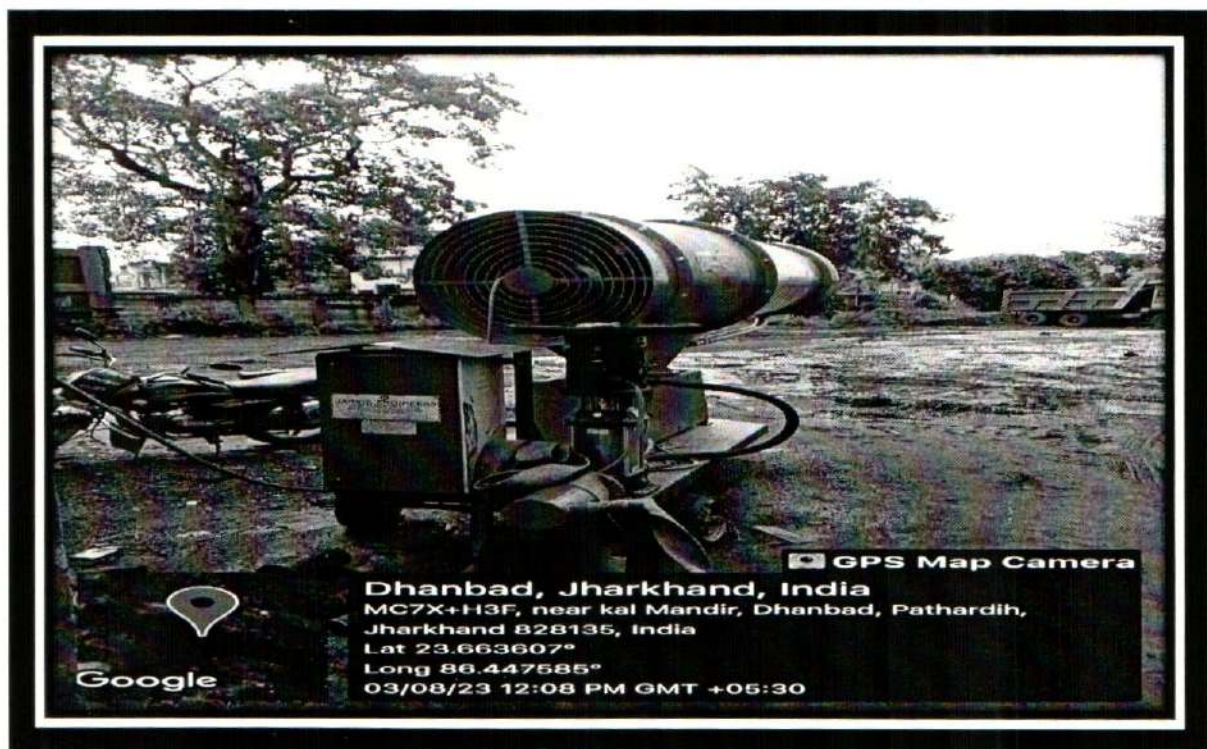


Photo No. 8

Installation of trolley mounted Fog Mist cannon at Tasra Siding

*Adm*  
**Kr. Upendra Singh**  
 Manager, Tasra Colliery  
 SAIL-Collieries Division



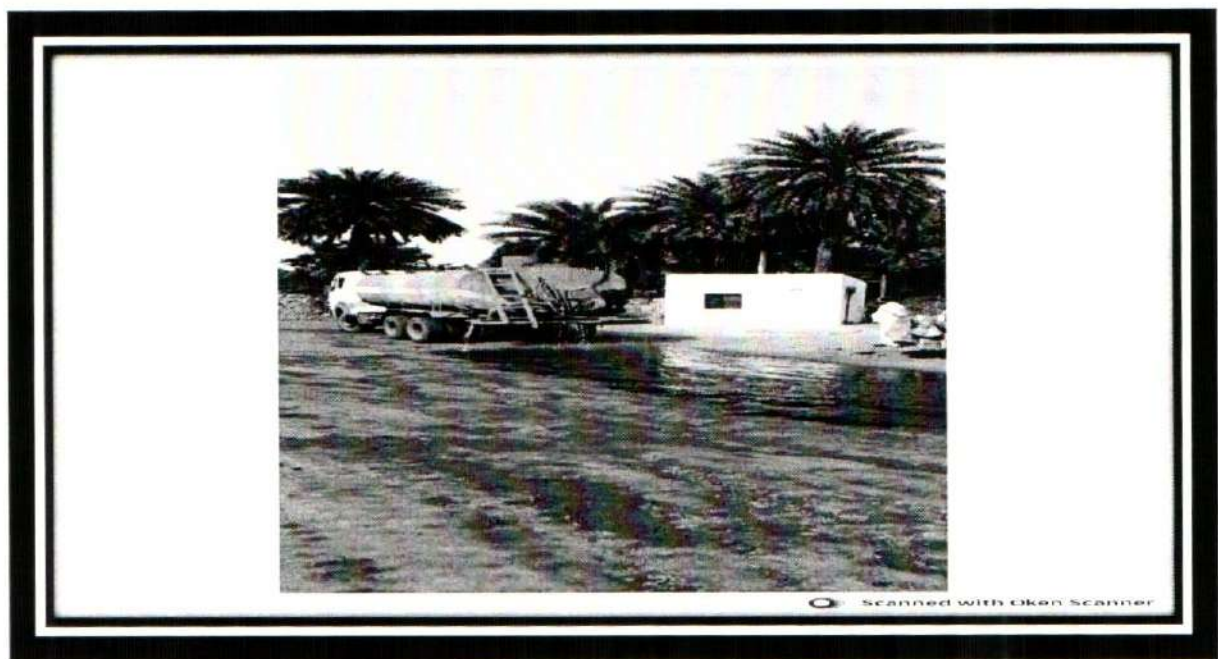


Photo No.9 Water sprinkling at Tasra



Photo No. 10

PM10 Analyzer installed at Tasra Siding

*(Signature)*  
**Kr. Upendra Singh**  
 Manager, Tasra Colliery  
 SAIL-Collieries Division

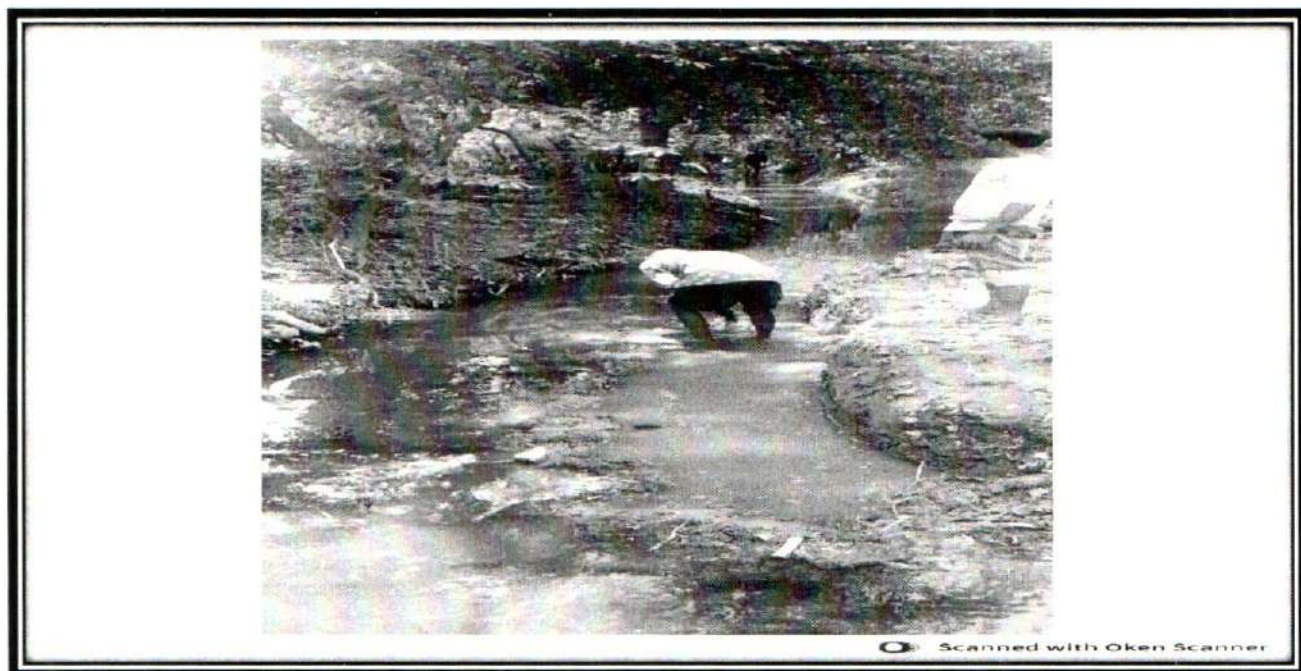


Photo No. 11 Garland Drain Cleaning near Tasra mine periphery area.



Photo No. 12

*Aditya*  
**Kr. Upendra Singh**  
Manager, Tasra Colliery  
SAIL-Collieries Division





Photo No.13 Plantation at River Damodar Edge at Tasra Project Area.

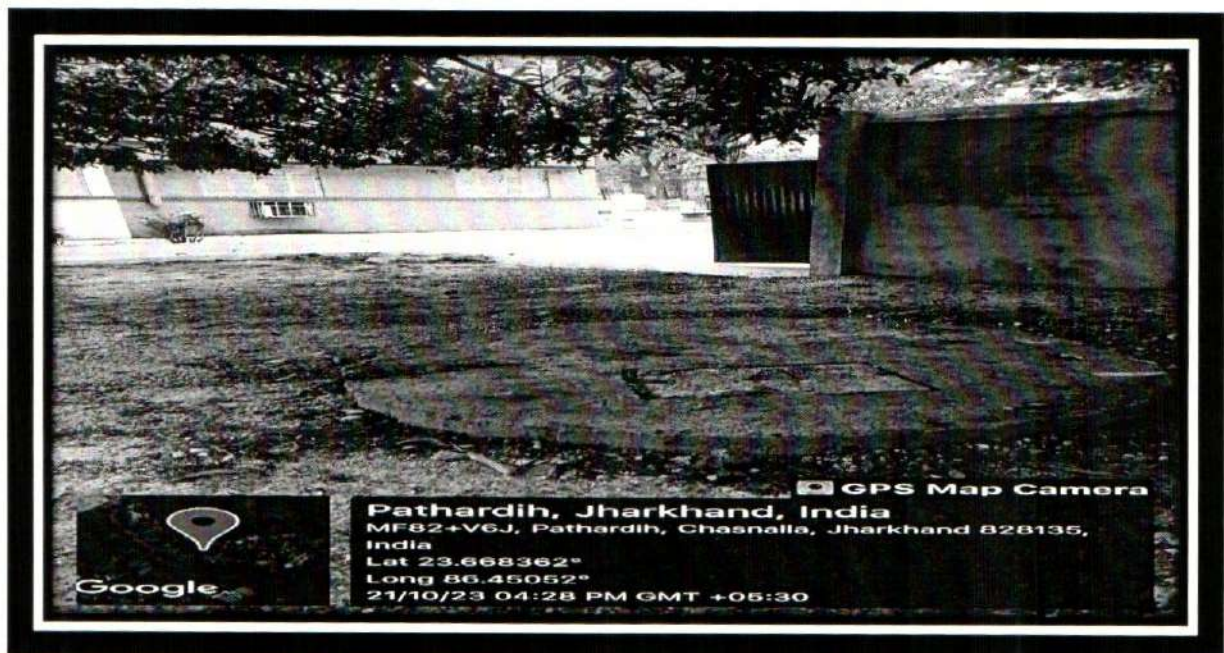


Photo No. 14 Roof top rain harvesting at Chasnalla Coal Complex

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**Kr. Upendra Singh**  
 Manager, Tasra Colliery  
 SAIL-Collieries Division



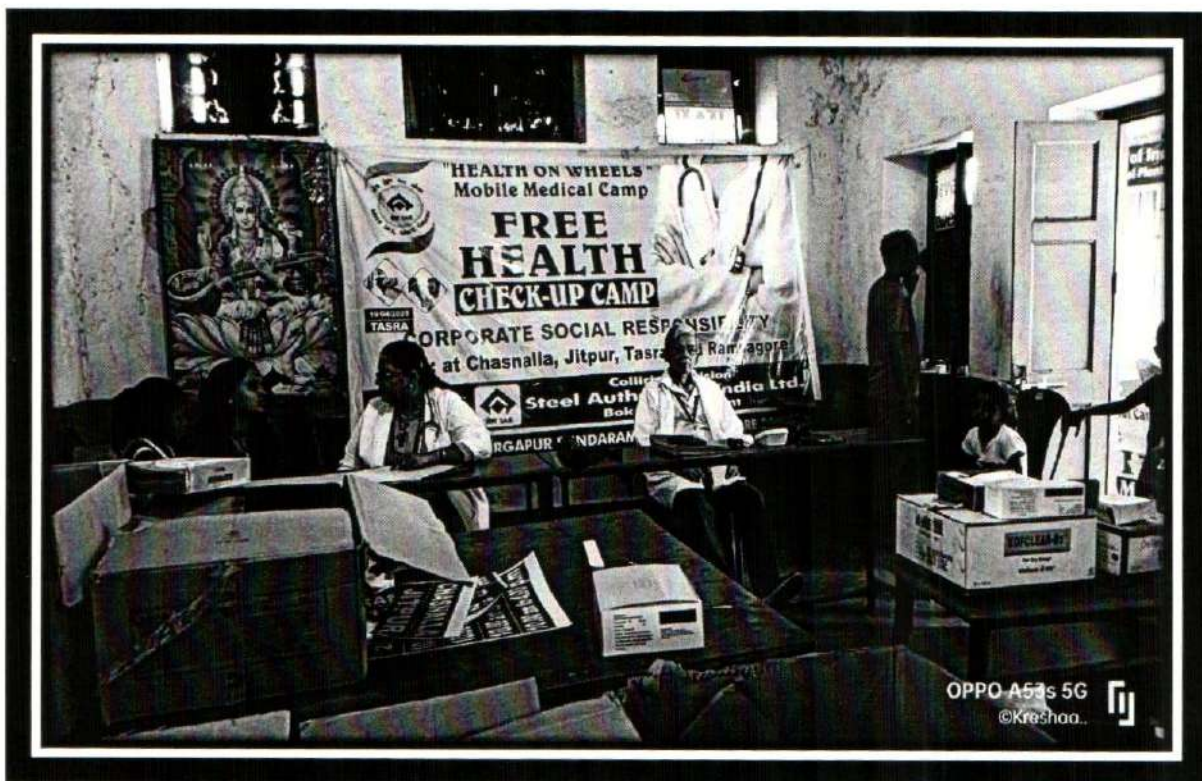
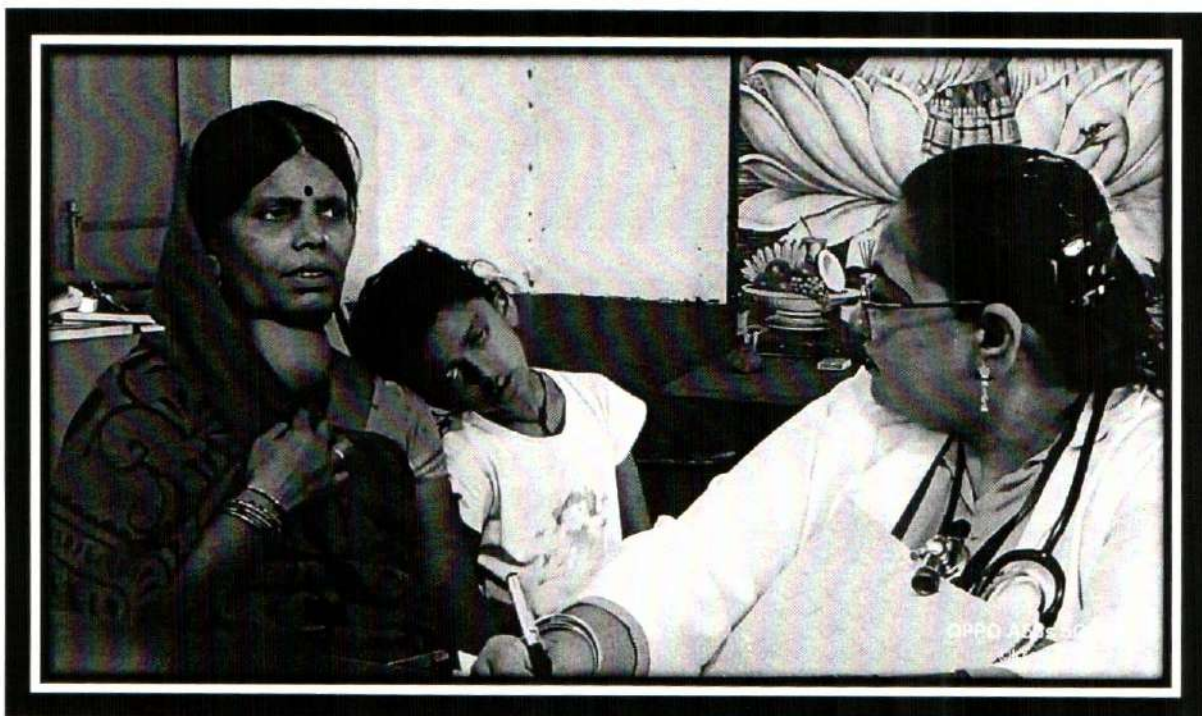


Photo No. 15



*Antim*  
**Kr. Upendra Singh**  
 Manager, Tasra Colliery  
 SAIL-Collieries Division



Photo No. 16 Free Medical Camp at Tasra Site.



Photo No. 17 Stitching and Embroidery courses at Chasnalla Coal Complex



Photo No. 18

*Upendra*  
**Kr. Upendra Singh**  
Manager, Tasra Colliery  
SAIL-Collieries Division





Photo No. 19 Hand pump repaired



Photo No.20 Distrubutation of drinking water

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**Kr. Upendra Singh**  
 Manager, Tasra Colliery  
 SAIL-Collieries Division





Photo No. 21 Drinking water facilities provided by Repaired submersibles pump at Tasra

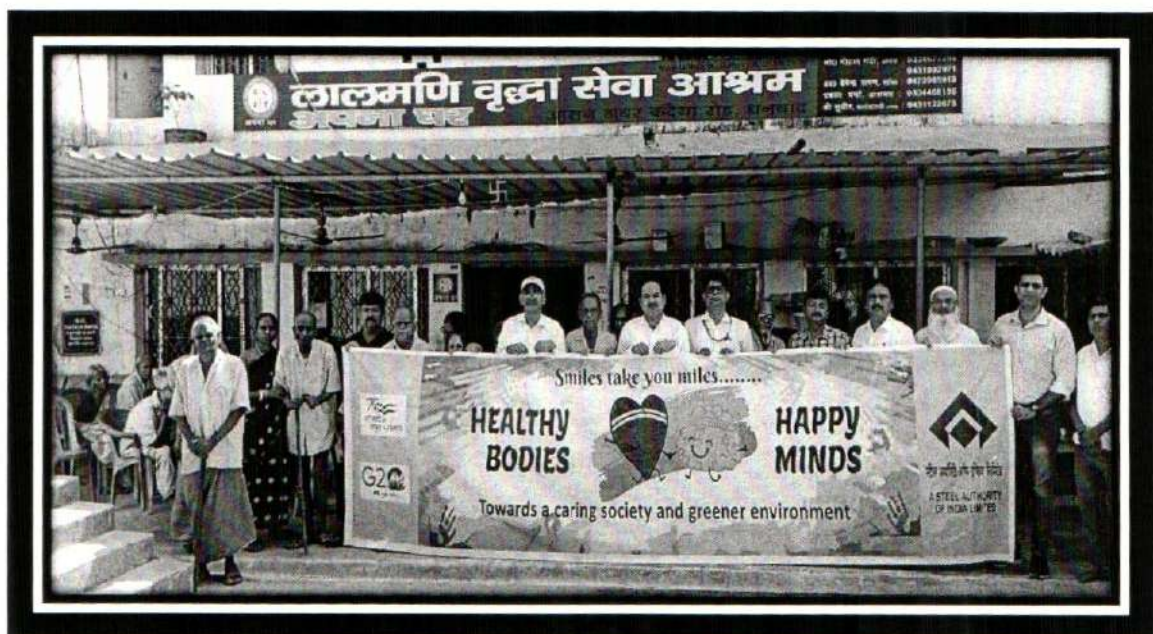


Photo No. 22

Distribution of bed with mattress to old aged Home, Tundi Dhanbad.

*At my*  
**Kr. Upendra Singh**  
 Manager, Tasra Colliery  
 SAIL-Collieries Division





Photo No. 23 Distributed Computer sets amongst the poor students through NGO at Prayas India Center at Motinager, Rorhbandh, and Sindri.

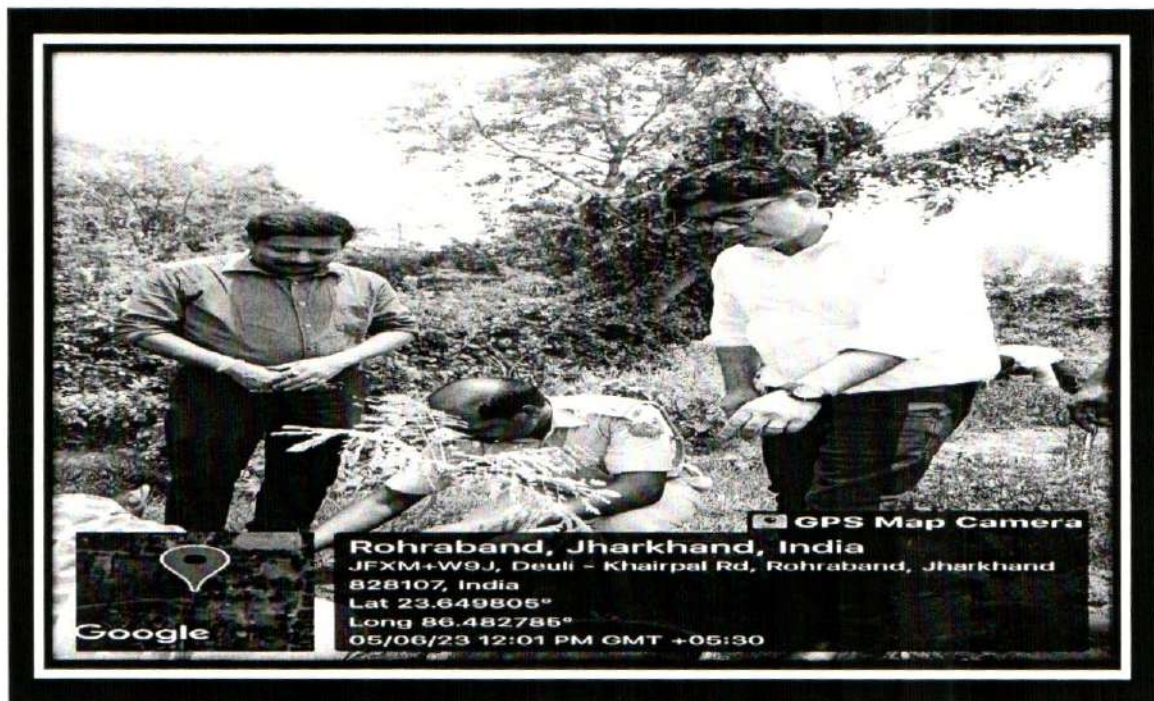


Photo No. 24 Plantation drive at Tasra

*Aditya*  
**Kr. Upendra Singh**  
 Manager, Tasra Colliery  
 SAIL-Collieries Division





Photo No. 25 Celebrating World Environment Day-2023 at Chasnalla Caol Complex

*Aditya*  
**Kr. Upendra Singh**  
Manager, Tasra Colliery  
SAIL-Collieries Division



स्टील अथॉरिटी ऑफ इंडिया लिमिटेड  
**STEEL AUTHORITY OF INDIA LIMITED**  
कोलियरीज डिवीज़न, चासनाला  
**COLLIERIES DIVISION, CHASNALLA**

Ref: Mgr./Tasra/EC (Comp-Washery)/23/ 269

Date: 25.10.2023

To,  
The Additional Director(s),  
EI Division, MOEF & CC  
Paryavaran Bhawan, CGO Complex,  
Lodhi Road, New Delhi - 110003

Sub: Status of Compliance to the Condition stipulated in the Environmental Clearance granted by MoEF for Pit Head Coking Coal Washery (3.5 MTPA), Tasra Coal Mining Project, BSL-Collieries, SAIL (Central Govt. of India) for the period April' 2023 to Sept.' 2023.

Ref: (EC granted vide Reference No. J-11015/365/2009-IA.II (M) pt. dated 30<sup>th</sup> March, 2017)

Dear Sir,

Please find enclosed herewith the updated six monthly compliance report for the period April' 2023 to Sept.' 2023 with respect to the Condition stipulated in the Environment Clearance granted by MOEF&CC, New Delhi vide letter no. J-11015/365/2009-IA-II (M) dated 30 March 2017 for Tasra Pit Head Coking Coal Washery of 3.5MTPA of M/s Steel Authority of India Limited for kind perusal.

Hard copy of the report is enclosed.

Thanking you.

Yours faithfully

Asstt. General Manager (M) & Colliery Manager  
Tasra OCP, BSL- Collieries.

**Kr. Upendra Singh**  
Manager, Tasra Colliery  
SAIL-Collieries Division

Encl: As above

Copy to:

1. The Additional Director(s),  
MOEF&CC (Govt. of India),  
Integrated Regional office  
2<sup>nd</sup> Floor, Headquarter- Jharkhand State Housing Board,  
Harmu Chock, Ranchi -834002
2. The member Secretary  
Central Pollution Control Board,  
Parivesh Bhawan, CBD-Cum Office complex,  
East Arjun Nagar, Delhi - 110032
3. The Member Secretary,  
JSPCB, Township Administration Building,  
Hec Complex, Dhurwa, Ranchi 834004.
4. The Regional Officer,  
Regional Office, JSPCB, Dhanbad.



**Status of Compliance to the Condition stipulated in the Environmental Clearance granted by MoEF for Pit Head Coking Coal Washery (3.5 MTPA) for the period of April.' 2023 to Sept.'2023.**

**(EC granted vide Reference No. J-11015/365/2009-IA.II (M) pt. dated 30<sup>th</sup> March, 2017)**

**A. Specific Conditions:-**

Condt. No.	Conditions Imposed	Status on Sept.' 2023
1	The Technology for washery shall be as per the project report submitted and presented to the Expert Appraisal Committee	Noted. We will follow the desired technology for washery will be as per the project report submitted to EAC, & MOEF & CC.
2	The Technology so chosen for the washery should confirm to 'Zero Liquid Discharge'.	Noted. The technology for washery confirms the concept of 'Zero Liquid Discharge' and same shall be adopted.
3	Long Distance Belt Conveyor (LDBC) system for transportation of raw coal from Tasra Coal Pit to the proposed washery covering a length of 2 Km with water sprinkling arrangement at all transfer points, shall be installed	Transportation of Raw Coal from proposed Coal Handling Plant (CHP) will be done through Long Distance Belt Conveyor (LDBC) system, covering a length of 2 Km with water sprinkling arrangements installed at all transfer points. The raw coal from the Tasra Pit will be moved through Haul Road upto CHP as per EIA of Tasra Coal Mine, and then from there it will be moved to proposed washery through LDBC as per EIA of Pit Head Coking Coal Washery. The same has been communicated to MoEF and Climate Change for modification as per our letter no. GM/TASRA/41 dated 20.05.2017.
4	Thick green belt of 35-45 m width to be provided around the washery to mitigate/check the dust pollution. A 3-tire avenue plantation should also be developed along vacant areas, storage yards, loading/transfer points, and also along internal roads/main approach roads.	As specified, we will develop 3- tire plantation as per CBCB guideline along the vacant areas, storage yards, loading/transfer points and also along internal/main approach roads.
5	Transport of washed coals and middlings shall be ensured by rail with wagon loading through silo.	Noted.
Condt.	Conditions Imposed	Status on Sept.' 2023

*Amr*  
**Kr. Upendra Singh**  
 Manager, Tasra Colliery  
 SAIL-Collieries Division



No.		
6	Disposal of washery rejects shall be in accordance with the extant policy and guidelines, and environment friendly.	According to the technology of the proposed washery only two products will be generated i.e. Clean Coal and Secondary Product. No rejects will be generated during the operation.
7	Waste Water shall be effectively treated and recycled completely, either for washery or maintenance of green belt around the plant.	The generated waste water will be effectively treated and recycled completely for reuse in washery operation through establishment of ETP and treated water will be used for maintenance of green belt around the plant.
8	The assurances given during the Public Hearing and as per the Action Plan formulated by the project proponent should be implemented.	The assurances given during the Public Hearing shall be implemented in Phased manner and as per the Action Plan formulated.
9	Hoppers of the coal crushing unit and washery shall be fitted with high efficiency bag filters or mist spray water sprinkling system and operated effectively at all times of operation to check fugitive emissions from crushing operations, transfer points of closed belt conveyor systems and from transportation roads.	Hoppers of the coal crushing unit and washery will be fitted with high efficiency bag filters or mist spray water sprinkling system and will operate effectively at all times of operation to check fugitive emissions from crushing operations, transfer points of closed belt conveyor systems and from transportation roads.
10	All approach roads shall be black topped and internal roads shall be concreted. The roads shall be regularly cleaned with mechanical sweepers.	All approach roads will be black topped and internal roads will be concreted. The roads will be regularly cleaned with mechanical sweepers.
11	Records of quantum and ash content of raw coal being washed, and clean coal and coal rejects produced from every batch of washing shall be maintained and details thereof be made available to Ministry whenever directed.	All the records will be maintained properly and will be made available to Ministry whenever directed.
12	No groundwater shall be used for the Plant Operations. Any additional water requirement envisaged shall be obtained by recycle/reuse of treated effluent and from rainwater harvesting measures.	No ground water will be used for the Plant Operation. The treated mine water from Tasra OCP will be used as the major water source for plant operation. Any additional water requirement will be obtained by recycle/reuse of treated effluent and from rainwater harvesting measures. Surplus (if any) Mining water from Chasnalla Colliery will also be diverted for use in proposed Washery.
13	Socio-economic and welfare measures for the	Noted.

  
**Kr. Upendra Singh**  
 Manager, Tasra Colliery  
 SAIL-Collieries Division



	local communities for the adjoining villages shall be implemented under CSR. Activities under CSR activities to be undertaken for the adjoining villages shall be identified in consultation with the local authorities, the details of status of implementation of CSR and expenditure there on which should be annually updated on the company website.	
14	Heavy metal content in raw coal, and washed coal shall be analyzed once in a year and records maintained thereof.	We will abide by the said condition.

**B. General Conditions:-**

Condt. No.	Conditions Imposed	Status as on Sept.' 2023
1	No change in technology and scope of working shall be made without prior approval of the Ministry of Environment, Forests and Climate Change.	We will abide by the said condition and there will be no change in the technology and scope of working. If any the same will be intimated to your good office.
2	Data on ambient air quality (PM10, PM 25, SO2 and NOX) and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly submitted to Regional Office of the Ministry and to the State Pollution Control Board once in six months. Random verification of samples through analysis from independent laboratories recognized under the EPA rules, 1986 shall be furnished as part of compliance report once in a year.	Quarterly Sampling and analysis of PM10, PM2.5, SO2 and NOx etc have been carried out from established in the core zone as well as buffer zone of Tasra coal mining project by an NABL Accredited/ISO9001:2008 and OHSAS 18001:2007 certified lab M/s Adity R&D service (Recognized by Jharkhand State Pollution Control Board), Sindri, Dhanbad Copy of Reports is <b>enclosed as Annexure-1</b>
3	Adequate measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in noisy areas like crushers, pumps, conveyors, bath, cyclones etc shall be provided with ear plugs/muffs.	Noise level will be maintained below 85 dBA and workers engaged in noisy areas like crushers, pumps, conveyors, bath, cyclones etc. will be provided with ear plugs/muffs. Copy of Reports is <b>enclosed as Annexure-1</b>
4	Industrial waste water shall be properly collected and treated in sedimentation ponds and treated water shall be recycled in washing circuit and other usages. No effluent shall be discharge to surface water bodies	Noted for compliance. Presently, Tasra washery has not been commissioned till date. Presently no mining operation is being carried out at Tasra OCP. However, MDO has been appointed for a period of 28 <sup>th</sup> years for development and operation of Tasra Opencast Project & all such

*(Signature)*  
**Kr. Upadhyay**  
 Manager, Tasra Colliery  
 SAIL-Collieries Division



		facilities will be taken up.
5	Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transporting the mineral shall be covered with tarpaulins and optimally loaded.	Noted for compliance.
6	Monitoring of effluent quality parameters shall be carried out through establishment of adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board and data got analyzed through a laboratory recognized under EPA Rules, 1986.	Presently, Tasra washery has not been commissioned till date. However after Commissioning of washery and starting of operation, monitoring of effluent quality parameters will be carried out through establishment of adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board and data shall be analysed through a laboratory recognized under EPA Rules, 1986.
7	Personnel (Departmental, Outsourced and casual if any) working in industry areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects.	Noted for compliance.
8	Occupational Health Surveillance Programme of all workers (Departmental, Outsourced and casual if any) shall be undertaken periodically to observe any ill effect due to exposure to dust and to take corrective measures, if needed and records maintained thereof. The quality of environment due to outsourcing and the health and safety issues of the outsourced manpower should be addressed by the company while outsourcing.	After commissioning of Tasra washery Occupational health surveillance program shall be carried out as per norms.
9	A separate environmental management cell with suitable qualified personnel shall be set up under the control of a Senior Executive, who will report directly to the Head of the company.	Separate Environmental Management Department has been set up and headed by GM (Environment), who reports directly to the Head of the Mine. In addition to this, SAIL is having a separate Corporate Environment Management Division (EMD) at Kolkata under the control of Executive Director, who facilitates in environmental management of all SAIL units.
10	The funds earmarked for environmental protection measures shall not be diverted for other purpose. Year-wise expenditure shall be	We will abide by the said condition.

*U Singh*  
**Kr. Upendra Singh**  
 Manager, Tasra Colliery  
 SAIL-Collieries Division



	reported to this Ministry and its concerned Regional Office.	
11	The project authorities shall advertise at least in two local newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality concerned within seven days of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution control Board and may also be seen at the website of the Ministry of Environment, Forests & Climate Change at <a href="http://envfor.nic.in">http://envfor.nic.in</a> .	Complied.
12	A copy of the environmental clearance letter shall be marked to concern Panchayat/ Zila Parishad , Municipal Corporation or Urban local body and local NGO, if any, from whom any suggestion/representation has been received while processing the proposal. A copy of the clearance letter shall also be displayed on company's website.	Complied
13	An Electronic copy of the environmental clearance letter shall be forwarded to State Pollution Control Board, Regional Office of the Ministry, District Industry Sector and Collector's Office/Tehsildar's Office for its display in public domain for 30 days.	Complied.
14	The clearance letter shall be uploaded on the company's website. The compliance status of the stipulated environmental clearance conditions shall also be uploaded by the project authorities on their website and updated at least once every six months so as to bring the same in public domain. The monitoring data of environmental quality parameter (air, water, noise and soil) and critical pollutant such as PM10, PM25, SO2 and NO (ambient) and critical sectoral parameters shall also be displayed at the entrance of the project premises.	Noted.
15	The project proponent shall submit six monthly compliance reports on status of compliance of the stipulated environmental clearance conditions (both in hard copy and in e-mail) to the respective Regional Office of the Ministry	Noted

  
**Kr. Upendra Singh**  
 Manager, Tasra Colliery  
 SAIL-Collieries Division

	and the SPCB.	
16	The Regional Office of this Ministry located in the Region shall monitor compliance of the stipulated conditions. The Project authorities shall extend full cooperation to the office(s) of the Regional Office by furnishing the requisite data/information/monitoring reports.	We will extend all our cooperation during such inspections by the Authority.
17	The environmental statement for each financial year ending 31 March in Form —V is mandated to be submitted by the project proponent for the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be uploaded on the company's website along with the status of compliance of EC conditions and shall be sent to the respective Regional Offices of the MoEF & CC by e-mail.	Noted

**Note:** Tasra Washery has not been commissioned till date. Presently no mining operation is being carried out at Tasra OCP. However, MDO has been appointed for a period of 28<sup>th</sup> years for development and operation of Tasra Opencast Project & all such facilities will be taken up.

*h/m*  
 Kr. Upendra Singh  
 Manager, Tasra Colliery  
 SAIL-Collieries Division



Monitoring of Air Quality, Noise Level, and  
Analysis of Water samples at different points  
of Tasra OCP, SAIL – Collieries Division

Monsoon Season

OF



**SAIL**

Tasra Colliery Division  
Steel Authority of India Ltd.  
Chasnala – 828135, DHANBAD



*Prepared by:*

**ADITI R&D SERVICES**

PLOT NO. I-B/17(P), SINDRI INDUSTRIAL AREA,  
P.O.- DOMGARH, DIST. – DHANBAD-828107  
(JHARKHAND)

*(Signature)*  
**Kr. Upendra Singh**  
Manager, Tasra Colliery  
SAIL-Collieries Division



# ADITI R&D SERVICES

Testing Laboratory

Recognised by Jharkhand State Pollution Control Board  
AN ISO 9001:2008 and OHSAS 18001:2007 Certified Company

Plot No. - I-B-17 (P)  
Sindri, Industrial Area,  
P.O.- Domgarh, Dist.- Dhanbad  
Jharkhand - 828107  
Phone : 0326-2952377  
Mobile : 09471358492  
09431512608

Ref. No.: ARDS/23-24/ Env.Mon./Tasra/0970

Date: 25.08.2023

To  
The Chief General Manager (R&T)  
Tasra Colliery,  
SAIL-CD, Chasnalla  
Dhanbad, Jharkhand.

Sub: Monsoon Environmental Monitoring Report of Tasra  
OCP, SAIL- Colliery Division

Sir,

We are pleased to submit the Monsoon Environmental Monitoring Report vide Work Order No.: CD/CC/WO/2023-24/10 Dated 25.05.2023 conducted from 16.08.2023 to 17.08.2023 for Ambient Air Quality, Drinking Water, Surface Water and Noise level Monitoring for your kind perusal and record.

With Best Regards,

Yours faithfully,

  
(S. K. Jha)

Technical Manager

Encl: Environmental Monitoring Report



  
**Kr. Upendra Singh**  
Manager, Tasra Colliery  
SAIL-Collieries Division





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## INTRODUCTION ABOUT - ADITI R&D SERVICES

Aditi R&D Services (ARDS) – Testing Laboratory is providing specialized testing services to the industries of India from Nov, 2003. We have established our reputation as an organization committed to providing good quality of testing services in the field Environmental, Mechanical and Chemical Testing.

Aditi R&D Services (ARDS) – Testing Laboratory is well equipped with wide range of testing facilities in the field of Environmental, Mechanical Testing and Chemical Testing. The laboratory uses regulatory and widely accepted methods such as Indian Standards (IS).

Aditi R&D Services (ARDS) – Testing Laboratory is state of art Testing Laboratory managed by highly competent personnel and equipped with highly sophisticated and precise equipments for analyzing quality & Pollution Control.

Aditi R&D Services (ARDS) – Testing Laboratory is an independent organization and wishes to be a specialized testing laboratory (or third-party laboratory) to the industry.

In order to ensure highest quality of services the laboratory maintains the management system that fulfills the requirements of the customer, Recognized by the Jharkhand State Pollution Control Board and IS/ISO/IEC 17025:2017.



*Upendra Singh*  
**Kr. Upendra Singh**  
Manager, Tasra Colliery  
SAIL-Collieries Division



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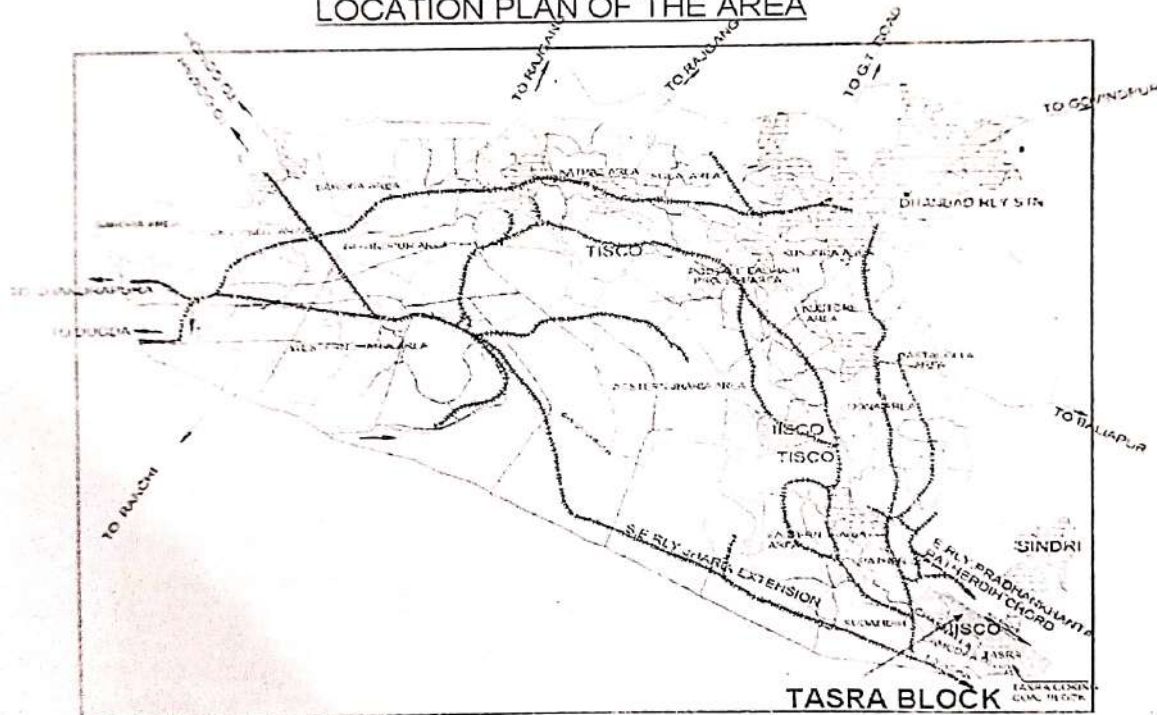
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## Brief Descriptions of TASRA OCP Project:-

Tasra is the eastern most colliery of Jharia coalfield and it was previously under BCCIL. Steel Authority of India Ltd. (SAIL) proposes to exploit Tasra Block as captive mine by opencast working method to meet the demand of coking coal to different steel plants of the SAIL.

Tasra Block is located in the eastern most part of Jharia Coalfield, adjacent to Chasnalla colliery. It is 26 km south of the Dhanbad town and bounded by BIT, Sindri in the north, Damodar River in the south, FCIL in the east and Chasnalla colliery in the west. The Dhanbad-Sindri road passes in the north-side of the block and the nearest railway station is Sindri, 4 km north of the block. It covers an area of 4.5 Kilometer Square and bounded by Latitude  $23^{\circ} 38'25''$  to  $23^{\circ} 39'58''$  N and Longitude  $86^{\circ} 27'12''$  to  $86^{\circ} 29'15''$  E.

## LOCATION PLAN OF THE AREA



*Signature*

*Abh 14/*

**Kr. Upendra Singh**  
Manager, Tasra Colliery  
SAIL-Collieries Division





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Mobile : 09471358492  
09431512608

Ref. No.: - ARDS/23-24/971

Date: 25.08.2023

## TEST REPORT OF AMBIENT AIR QUALITY

- Name of the industry : TASRA COAL MINING PROJECT, COLLIERIES DIVISION,  
STEEL AUTHORITY OF INDIA LTD.  
CHASNALLA - 828135, DIST. - DHANBAD
- Work Order Ref. NO.: : CD/CC/WO/2023-24/10 Dated- 25.05.2023
- Date of Sample Collection : 16.08.2023 - 18.08.2023
- Date of Testing : 19.08.2023 - 22.08.2023
- Test Procedure : As per IS - 5182
- Sampling Location : Near Devparbha Office Tasra  
(Core Zone)

### TEST RESULTS

	Avg. Ambient Temperature	Average Relative Humidity (%)	Sample 1	Sample 2	NAAQ - CPCB STANDARD
	32	72	16.08.2023 - 17.08.2023	17.08.2023 - 18.08.2023	
Sl No.	Particulars		Value	Value	
1.	Particulate Matter (PM <sub>10</sub> ), µg/m <sup>3</sup>		87.14	83.75	100 µg/m <sup>3</sup>
2.	Particulate Matter (PM <sub>2.5</sub> ), µg/m <sup>3</sup>		47.45	45.63	60 µg/m <sup>3</sup>
3.	SO <sub>2</sub> , µg/m <sup>3</sup>		36.30	35.61	80 µg/m <sup>3</sup>
4.	NO <sub>2</sub> , µg/m <sup>3</sup>		20.42	19.86	80 µg/m <sup>3</sup>
5.	NH <sub>3</sub> , µg/m <sup>3</sup>		16.12	17.25	400 µg/m <sup>3</sup>
6.	CO, mg/m <sup>3</sup>		0.83	0.78	4 mg/m <sup>3</sup>
7.	Pb, µg/m <sup>3</sup>		0.001	BDL	1 µg/m <sup>3</sup>
8.	As, ng/m <sup>3</sup>		BDL	BDL	6ng/m <sup>3</sup>
9.	Ni, ng/m <sup>3</sup>		BDL	BDL	20ng/m <sup>3</sup>
10.	Benzene, µg/m <sup>3</sup>		BDL	BDL	5 µg/m <sup>3</sup>
11.	Benzoapyreneng/m <sup>3</sup>		BDL	BDL	1ng/m <sup>3</sup>
12.	Ozone, µg/m <sup>3</sup>		14.34	10.66	180 µg/m <sup>3</sup>

S. S. Sanyal  
Sr. Chemist  
Aditi R&D Services



Technical Manager  
Aditi R&D Services, Sindri

Kr. Upendra Singh  
Manager, Tasra



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Mobile : 09471358492  
09431512608

Ref. No.: - ARDS/23-24/972

Date: 25.08.2023

## TEST REPORT OF AMBIENT AIR QUALITY

- Name of the industry : TASRA COAL MINING PROJECT, COLLIERIES DIVISION,  
STEEL AUTHORITY OF INDIA LTD.  
CHASNALLA - 828135, DIST. - DHANBAD
- Work Order Ref. NO.: : CD/CC/WO/2023-24/10 Dated- 25.05.2023
- Date of Sample Collection : 16.08.2023 - 18.08.2023
- Date of Testing : 19.08.2023 - 22.08.2023
- Test Procedure : As per IS-5182
- Sampling Location : Near Arya Samaj, Sindri  
(Core Zone)

### TEST RESULTS

	Avg. Ambient Temperature	Average Relative Humidity (%)	Sample 1	Sample 2	NAAQ - CPCB STANDARD
	32	72	16.08.2023 - 17.08.2023	17.08.2023 - 18.08.2023	
Sl No.	Particulars		Value	Value	
1.	Particulate Matter (PM <sub>10</sub> ), µg/m <sup>3</sup>		84.58	82.99	100 µg/m <sup>3</sup>
2.	Particulate Matter (PM <sub>2.5</sub> ), µg/m <sup>3</sup>		46.55	44.79	60 µg/m <sup>3</sup>
3.	SO <sub>2</sub> , µg/m <sup>3</sup>		28.96	27.22	80 µg/m <sup>3</sup>
4.	NO <sub>2</sub> , µg/m <sup>3</sup>		21.76	19.59	80 µg/m <sup>3</sup>
5.	NH <sub>3</sub> , µg/m <sup>3</sup>		15.50	13.84	400 µg/m <sup>3</sup>
6.	CO, mg/m <sup>3</sup>		0.96	0.76	4 mg/m <sup>3</sup>
7.	Pb, µg/m <sup>3</sup>		0.001	0.001	1 µg/m <sup>3</sup>
8.	As, ng/m <sup>3</sup>		BDL	BDL	6ng/m <sup>3</sup>
9.	Ni, ng/m <sup>3</sup>		BDL	BDL	20ng/m <sup>3</sup>
10.	Benzene, µg/m <sup>3</sup>		BDL	BDL	5 µg/m <sup>3</sup>
11.	Benzoapyreneng/m <sup>3</sup>		BDL	BDL	1ng/m <sup>3</sup>
12.	Ozone, µg/m <sup>3</sup>		14.73	12.96	180 µg/m <sup>3</sup>

S. R. Dey  
Sr. Chemist  
Aditi R&D Services



Technical Manager  
Aditi R&D Services, Sindri

Kr. Upendra Singh  
Manager, Tasra Colliery  
SAIL Collieries Division





# ADITI R&D SERVICES

Testing Laboratory

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Phone : 0326-2952377  
Mobile : 09471358492  
09431512608

Ref. No.: - ARDS/23-24/973

Date: 25.08.2023

## TEST REPORT OF AMBIENT AIR QUALITY

- Name of the industry : TASRA COAL MINING PROJECT, COLLIERIES DIVISION,  
STEEL AUTHORITY OF INDIA LTD.  
CHASNALLA - 828135, DIST. - DHANBAD
- Work Order Ref. NO.: : CD/CC/WO/2023-24/10 Dated- 25.05.2023
- Date of Sample Collection : 16.08.2023 - 18.08.2023
- Date of Testing : 19.08.2023 - 22.08.2023
- Test Procedure : As per IS-5182
- Sampling Location : K.D. Colony Rorabandh  
(Buffer Zone)

### TEST RESULTS

Sl No.	Particulars	Avg. Ambient Temperature	Average Relative Humidity (%)	Sample 1	Sample 2	NAAQ - CPCB STANDARD
		32	72	16.08.2023 - 17.08.2023	17.08.2023 - 18.08.2023	
Sl No.	Particulars	Value		Value		
1.	Particulate Matter (PM <sub>10</sub> ), µg/m <sup>3</sup>	72.70		69.15		100 µg/m <sup>3</sup>
2.	Particulate Matter (PM <sub>2.5</sub> ), µg/m <sup>3</sup>	39.48		37.93		60 µg/m <sup>3</sup>
3.	SO <sub>2</sub> , µg/m <sup>3</sup>	22.34		21.58		80 µg/m <sup>3</sup>
4.	NO <sub>2</sub> , µg/m <sup>3</sup>	19.89		17.95		80 µg/m <sup>3</sup>
5.	NH <sub>3</sub> , µg/m <sup>3</sup>	16.75		14.65		400 µg/m <sup>3</sup>
6.	CO, mg/m <sup>3</sup>	0.92		0.71		4 mg/m <sup>3</sup>
7.	Pb, µg/m <sup>3</sup>	BDL		BDL		1 µg/m <sup>3</sup>
8.	As, ng/m <sup>3</sup>	BDL		BDL		6ng/m <sup>3</sup>
9.	Ni, ng/m <sup>3</sup>	BDL		BDL		20ng/m <sup>3</sup>
10.	Benzene, µg/m <sup>3</sup>	BDL		BDL		5 µg/m <sup>3</sup>
11.	Benzoapyreneng/m <sup>3</sup>	BDL		BDL		1ng/m <sup>3</sup>
12.	Ozone, µg/m <sup>3</sup>	15.36		13.54		180 µg/m <sup>3</sup>

S. D. Bery  
Sr. Chemist  
Aditi R&D Services



Technical Manager  
Aditi R&D Services, Sindri

Kr. Upendra Singh  
Manager, Tasra Colliery  
SAIL-Collieries Division



# ADITI R&D SERVICES

## Testing Laboratory

Recognised by Jharkhand State Pollution Control Board  
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Jharkhand - 828107  
Phone : 0326-2952377  
Mobile : 09471358492  
09431512608

Ref. No.: - ARDS/23-24/974

Date: 25.08.2023

### TEST REPORT OF AMBIENT AIR QUALITY

- Name of the Industry : TASRA COAL MINING PROJECT, COLLIERIES DIVISION,  
STEEL AUTHORITY OF INDIA LTD.  
CHASNALLA - 828135, DIST. - DHANBAD
- Work Order Ref. NO.: :CD/CC/WO/2023-24/10 Dated- 25.05.2023
- Date of Sample Collection : 16.08.2023 - 18.08.2023
- Date of Testing : 19.08.2023 - 22.08.2023
- Test Procedure : As per IS-5182
- Sampling Location : G.M. OFFICE CHASNALLA

### TEST RESULTS

Sl No.	Particulars	Avg. Ambient Temperature	Average Relative Humidity (%)	Sample 1	Sample 2	NAAQ - CPCB STANDARD
		32	72	16.08.2023 - 17.08.2023	17.08.2023 - 18.08.2023	
1.	Particulate Matter (PM <sub>10</sub> ), µg/m <sup>3</sup>			74.19	70.41	100 µg/m <sup>3</sup>
2.	Particulate Matter (PM <sub>2.5</sub> ), µg/m <sup>3</sup>			38.94	36.49	60 µg/m <sup>3</sup>
3.	SO <sub>2</sub> , µg/m <sup>3</sup>			27.92	25.29	80 µg/m <sup>3</sup>
4.	NO <sub>2</sub> , µg/m <sup>3</sup>			20.71	18.30	80 µg/m <sup>3</sup>
5.	NH <sub>3</sub> , µg/m <sup>3</sup>			16.87	14.57	400 µg/m <sup>3</sup>
6.	CO, mg/m <sup>3</sup>			0.82	0.68	4 mg/m <sup>3</sup>
7.	Pb, µg/m <sup>3</sup>			BDL	BDL	1 µg/m <sup>3</sup>
8.	As, ng/m <sup>3</sup>			BDL	BDL	6ng/m <sup>3</sup>
9.	Ni, ng/m <sup>3</sup>			BDL	BDL	20ng/m <sup>3</sup>
10.	Benzene, µg/m <sup>3</sup>			BDL	BDL	5 µg/m <sup>3</sup>
11.	Benzoapyreneng/m <sup>3</sup>			BDL	BDL	1ng/m <sup>3</sup>
12.	Ozone, µg/m <sup>3</sup>			12.82	10.52	180 µg/m <sup>3</sup>

S. R. Singh  
Sr. Chemist  
Aditi R&D Services



Technical Manager  
Aditi R&D Services, Sindri

Kr. Upendra Singh  
Manager, Tasra Colliery  
SAIL-Collieries Division





# ADITI R&D SERVICES

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Jharkhand - 828107  
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Mobile : 09471358492  
09431512608

## TEST REPORT OF NOISE (AMBIENT) LEVEL MONITORING

Ref. No. & Date				NAME AND ADDRESS OF THE CLIENT					
ARDS/23-24/975 Date: 25.08.2023				TASRA COAL MINING PROJECT, COLLIERIES DIVISION, STEEL AUTHORITY OF INDIA LTD. CHASNALLA – 828135, DIST. - DHANBAD					
Date of Monitoring									
16.08.2023 TO 17.08.2023				Avg. Ambient Temperature (°C)	Average Humldity (%)	Weather Condition	Status of the plant		
Work Order CD/CC/WO/2023-24/10 Dated- 25.05.2023				32	72	Cloudy	Running		
MONITORING RESULTS									
Sl. No	Place of Monitoring	Day Time (6 AM to 10 PM) Avg. dB(A)			Night Time (10 PM to 6 AM) Avg. dB(A)			Noise level (Ambient standard) for Industrial Area as per CPCB Noise Pollution (Regulation and Control) (Amendment) Rules , 2000 notified vide S.O. 1046(E) Dt. 22.11.2020 Limit in dB(A) Leq	
		MAX	MIN	AVG. dB(A) Leq	MAX	MIN	AVERAGE dB(A) Leq	Day Time	Night Time
LOCATION		MAX	MIN	AVG. dB(A) Leq	MAX	MIN	AVERAGE dB(A) Leq	Industrial Area	Industrial Area
CORE ZONE									
1.	Tasra (Near Mine Site)	73.76	69.86	72.23	63.64	59.80	62.13	75	70
2.	Weigh Bridge	70.84	68.95	70.00	60.26	56.89	58.89		
BUFFER ZONE								Residential Area	Residential Area
1.	KD Colony Rohrabandh	49.90	43.76	47.84	39.30	36.92	38.27	55	45
2.	Near BIT Main Gate.	52.53	47.72	50.76	42.98	40.15	41.79		
3.	GM OFFICE, Chasnala	47.68	42.53	45.83	40.33	38.65	39.57		
4.	NEAR ARYA SAMAJ	50.94	48.49	49.89	40.16	38.60	39.45		

*S. D. Singh*  
Sr. Chemist  
Aditi R&D Services



*[Signature]*  
Technical Manager  
Aditi R&D Services, Sindri

*[Signature]*  
**Kr. Upendra Singh**  
Manager, Tasra Colliery  
SAIL-Collieries Division





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AN ISO 9001:2008 and OHSAS 18001:2007 Certified Company

Plot No. - I-B-17 (P)  
Sindri, Industrial Area,  
P.O.- Domgarh, Dist.- Dhanbad  
Jharkhand - 828107  
Phone : 0326-2952377  
Mobile : 09471358492  
09431512608

## TEST REPORT OF DRINKING WATER FOR THE MONTH OF AUGUST 2023

TEST REPORT OF DRINKING WATER FOR THE MONTH OF AUGUST 2023				
Ref. No. & Date		NAME AND ADDRESS OF THE CLIENT		
ARDS/23-24/976 Dt. 25.08.2023		TASRA COAL MINING PROJECT, COLLIERIES DIVISION, STEEL AUTHORITY OF INDIA LTD. CHASNALLA – 828135, DIST. - DHANBAD		
P.O. NO. & Date		CD/CC/WO/2023-24/10 Dated- 25.05.2023		
Season		MONSOON		
Location of Sample		KD COLONY ROHARABAND (BUFFER ZONE)		
Sample Description		GROUND WATER		
Date of Sample Collection		17.08.2023	Analysis Started on	18.08.2023
Test Procedure		IS:3025		Analysis completed on 24.08.2023
TEST RESULT				
Sl. No.	Parameters	Value	IS: 10500: 2012	
			Accepted Limit	Permissible Limit
		2	5	15
1.	Colour Hazen units	Agreeable	Agreeable	Agreeable
2.	Odour	Agreeable	Agreeable	Agreeable
3.	Taste	NIL	1	5
4.	Turbidity NTU Max	645	500	2000
5.	Total Dissolved Solids mg/l, Max	7.5	6.5 to 8.5	6.5 to 8.5
6.	pH Value	336	200	600
7.	Total Hardness (as CaCO <sub>3</sub> ) mg/l, Max	99.2	75	200
8.	Calcium (as Ca) mg/l, Max	21.1	30	100
9.	Magnesium (as Mg)mg/l, Max	0.003	0.05	1.5
10.	Copper (as Cu) mg/l, Max	0.04	0.3	NR
11.	Iron (as Fe) mg/l Max	<0.001	0.1	0.3
12.	Manganese (as Mn) mg/l, Max	58	250	1000
13.	Chlorides (as Cl) mg/l, Max	61.5	200	400
14.	Sulphate (as SO <sub>4</sub> ) mg/l Max	8.8	45	NR
15.	Nitrate mg/l, (as NO <sub>3</sub> )	0.78	1.0	1.5
16.	Fluoride (as F) mg/l	-	0.001	0.002
17.	Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH) mg/l, Max	-	0.001	NR
18.	Mercury (as Hg)mg/l, Max	-	0.01	NR
19.	Cadmium (as Cd) mg/l, Max	-	0.01	NR
20.	Selenium (as Se mg/l, Max	<0.001	0.01	0.05
21.	Arsenic (as As) mg/l, Max	<0.001	0.05	NR
22.	Cyanide (as Cn) mg/l, Max	<0.001	0.05	NR
23.	Lead (As Pb) mg/l Max	-	0.01	NR
24.	Zinc (as Zn) mg/l Max	0.14	5.0	15
25.	Arionic detergents (as MBAS), mg/l, Max	-	0.2	1.0
26.	Chromium (as Cr <sup>+6</sup> ) mg/l	0.006	0.05	NR
27.	Mineral Oil mg/l, Max	-	0.01	NR
28.	Residual, free chlorine mg/l, Min	NIL	0.2	1.0

Remarks: All the parameters of samples tested are within the permissible limit of Drinking Water  
Standard IS - 10500 : 2012

NR- No Relaxation

Sr. Chemist  
Aditi R&D Services



Technical Manager  
Aditi R&D Services, Sindri

Kr. Upendra Singh  
Manager, Tasra Colliery  
SAIL-Collieries Division





# ADITI R&D SERVICES

Testing Laboratory

Recognised by Jharkhand State Pollution Control Board  
AN ISO 9001:2008 and OHSAS 18001:2007 Certified Company

Plot No. - 1-B-17 (F)  
Sindri, Industrial Area,  
P.O.- Domgarh, Dist.- Dhanbad  
Jharkhand - 828107  
Phone : 0326-2952377  
Mobile : 09471358492  
09431512608

## TEST REPORT OF DRINKING WATER FOR THE MONTH OF AUGUST 2023

Ref. No. & Date ARDS/23-24/977 Dt. 25.08.2023	NAME AND ADDRESS OF THE CLIENT TASRA COAL MINING PROJECT, COLLIERIES DIVISION, STEEL AUTHORITY OF INDIA LTD. CHASNALLA - 828135, DIST. - DHANBAD		
P.O. NO. & Date	CD/CC/WO/2023-24/10 Dated- 25.05.2023		
Season	MONSOON		
Location of Sample	DUBEY COLONY TASRA (CORE ZONE)		
Sample Description	Ground Water		
Date of Sample Collection		17.08.2023	Analysis Started on 18.08.2023
Test Procedure		IS:3025	Analysis completed on 24.08.2023

### TEST RESULT

Sl. No.	Parameters	Value	IS: 10500: 2012	
			Accepted Limit	Permissible Limit
1.	Colour Hazen units	1	5	15
2.	Odour	Agreeable	Agreeable	Agreeable
3.	Taste	Agreeable	Agreeable	Agreeable
4.	Turbidity NTU Max	NIL	1	5
5.	Total Dissolved Solids mg/l, Max	870	500	2000
6.	pH Value	6.9	6.5 to 8.5	6.5 to 8.5
7.	Total Hardness (as CaCO <sub>3</sub> ) mg/l, Max	484	200	600
8.	Calcium (as Ca) mg/l, Max	147.2	75	200
9.	Magnesium (as Mg) mg/l, Max	27.8	30	100
10.	Copper (as Cu) mg/l, Max	0.002	0.05	1.5
11.	Iron (as Fe) mg/l, Max	0.14	0.3	NR
12.	Manganese (as Mn) mg/l, Max	<0.001	0.1	0.3
13.	Chlorides (as Cl) mg/l, Max	104	250	1000
14.	Sulphate (as SO <sub>4</sub> ) mg/l, Max	68.8	200	400
15.	Nitrate mg/l, (as NO <sub>3</sub> )	8.9	45	NR
16.	Fluoride (as F) mg/l	0.88	1.0	1.5
17.	Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH) mg/l, Max	-	0.001	0.002
18.	Mercury (as Hg) mg/l, Max	-	0.001	NR
19.	Cadmium (as Cd) mg/l, Max	-	0.01	NR
20.	Selenium (as Se) mg/l, Max	-	0.01	NR
21.	Arsenic (as As) mg/l, Max	<0.001	0.01	0.05
22.	Cyanide (as Cn) mg/l, Max	<0.001	0.05	NR
23.	Lead (As Pb) mg/l, Max	0.007	0.05	NR
24.	Zinc (as Zn) mg/l, Max	0.012	5.0	15
25.	Anionic detergents (as MBAS), mg/l, Max	-	0.2	1.0
26.	Chromium (as Cr <sup>6+</sup> ) mg/l	0.009	0.05	NR
27.	Mineral Oil mg/l, Max	-	0.01	NR
28.	Residual, free chlorine mg/l, Min	NIL	0.2	1.0

Remarks: All the parameters of samples tested are within the permissible limit of Drinking Water  
Standard IS - 10500 : 2012

NR- No Relaxation  
S. D. Singh  
Sr. Chemist  
Aditi R&D Services



Technical Manager  
Aditi R&D Services, Sindri

Kr. Upendra Singh  
Manager, Tasra Colliery  
SAIL-Collieries Division





# ADITI R&D SERVICES

Testing Laboratory

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AN ISO 9001:2008 and OHSAS 18001:2007 Certified Company

Plot NO. - I-B-17 (F)  
Sindri, Industrial Area,  
P.O.- Domgarh, Dist.- Dhanbad  
Jharkhand - 828107  
Phone : 0326-2952377  
Mobile : 09471358492  
09431512608

## TEST REPORT OF DRINKING WATER FOR THE MONTH OF AUGUST 2023

TEST REPORT OF DRINKING WATER FOR THE MONTH OF AUGUST 2023				
Ref. No. & Date		NAME AND ADDRESS OF THE CLIENT		
ARDS/23-24/978 Dt. 25.08.2023		TASRA COAL MINING PROJECT, COLLIERIES DIVISION, STEEL AUTHORITY OF INDIA LTD. CHASNALLA – 828135, DIST. - DHANBAD		
P.O NO. & Date		CD/CC/VO/2023-24/10 Dated- 25.05.2023		
Season		MONSOON		
Location of Sample		ARYA SAMAJ, SINDRI (BUFFER ZONE)		
Sample Description		Ground Water		
		Analysis Started on		18.08.2023
Date of Sample Collection		17.08.2023	Analysis completed on	24.08.2023
Test Procedure		IS:3025		
TEST RESULT				
Sl. No.	Paramotors	Value	IS: 10500: 2012	
			Accepted Limit	Permissible Limit
1.	Colour Hazon units	1	5	15
2.	Odour	Agreeable	Agreeable	Agreeable
3.	Taste	Agreeable	Agreeable	Agreeable
4.	Turbidity NTU Max	1	1	5
5.	Total Dissolved Solids mg/l, Max	856	500	2000
6.	pH Value	7.0	6.5 to 8.5	6.5 to 8.5
7.	Total Hardness (as CaCO <sub>3</sub> ) mg/l, Max	532	200	600
8.	Calcium (as Ca) mg/l, Max	153.6	75	200
9.	Magnesium (as Mg)mg/l, Max	35.5	30	100
10.	Copper (as Cu) mg/l, Max	0.003	0.05	1.5
11.	Iron (as Fe) mg/l Max	0.12	0.3	NR
12.	Manganese (as Mn) mg/l, Max	0.01	0.1	0.3
13.	Chlorides (as Cl) mg/l, Max	83.7	250	1000
14.	Sulphate (as SO <sub>4</sub> ) mg/l Max	70	200	400
15.	Nitrate mg/l, (as NO <sub>3</sub> )	4.8	45	NR
16.	Fluoride (as F) mg/l	0.79	1.0	1.5
17.	Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH) mg/l, Max	-	0.001	0.002
18.	Mercury (as Hg)mg/l, Max	-	0.001	NR
19.	Cadmium (as Cd) mg/l, Max	-	0.01	NR
20.	Selenium (as Se mg/l, Max	-	0.01	NR
21.	Arsenic (as As) mg/l, Max	<0.001	0.01	0.05
22.	Cyanide (as Cn) mg/l, Max	<0.001	0.05	NR
23.	Lead (As Pb) mg/l Max	0.015	0.05	NR
24.	Zinc (as Zn) mg/l Max	0.04	5.0	15
25.	Arionic detergents (as MBAS), mg/l, Max	-	0.2	1.0
26.	Chromium (as Cr <sup>+6</sup> ) mg/l	0.018	0.05	NR
27.	Mineral Oil mg/l, Max	-	0.01	NR
28.	Residual, free chlorine mg/l, Min	NIL	0.2	1.0

Remarks: All the parameters of samples tested are within the permissible limit of Drinking Water  
Standard IS - 10500 : 2012

NR- No Relaxation

Sr. Chemist  
Aditi R&D Services



Technical Manager  
Aditi R&D Services, Sindri

Aditya

Kr. Upendra Singh  
Manager, Tasra Colliery  
SAIL-Collieries Division





# ADITI R&D SERVICES

Testing Laboratory

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AN ISO 9001:2008 and OHSAS 18001:2007 Certified Company

Plot No. - I-B-17 (P)  
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P.O.- Domgarh, Dist.- Dhanbad  
Jharkhand - 828107  
Phone : 0326-2952377  
Mobile : 09471358492  
09431512608

## TEST REPORT OF SURFACE WATER FOR THE MONTH OF AUGUST 2023

Ref. No. & Date		NAME AND ADDRESS OF THE CLIENT	
ARDS/23-24/979 Dt. 25.08.2023		TASRA COAL MINING PROJECT, COLLIERIES DIVISION, STEEL AUTHORITY OF INDIA LTD. CHASNALLA - 828135, DIST. - DHANBAD	
P.O NO. & Date		CD/CC/WO/2023-24/10 Dated- 25.05.2023	
Season		PRE MONSOON	
Location of Sample		Analysis Started on	18.08.2023
DAMODAR RIVER DOWNSTREAM OF MINE SITE (BUFFER ZONE)		Analysis completed on	24.08.2023
Date & Time Sample Collection	17.08.2023/ 02:40 PM		
Test Procedure	IS:3025		
TEST RESULT			
Sl. No.	Parameters	Value	(IS :2296) Surface Water Class "C" Tolerance Limit
1.	Colour Hazen units	2	300
2.	Dissolved Oxygen, mg/l	4.8	4
3.	B.O.D. (3 days at 27°C)	1.8	3
4.	Total Dissolved Solids mg/l, Max	245	1500
5.	pH Value	7.4	6.5 - 8.5
6.	Total Hardness (as CaCO <sub>3</sub> ) mg/l, Max	132	NS
7.	Calcium (as Ca) mg/l, Max	28.8	NS
8.	Magnesium (as Mg) mg/l, Max	14.4	NS
9.	Copper (as Cu) mg/l, Max	0.003	1.5
10.	Iron (as Fe) mg/l Max	0.45	50
11.	Manganese (as Mn) mg/l, Max	<0.001	NS
12.	Chlorides (as Cl) mg/l, Max	19	600
13.	Sulphate (as SO <sub>4</sub> ) mg/l Max	41.5	400
14.	Nitrate mg/l, (as NO <sub>3</sub> )	10.1	50
15.	Fluoride (as F) mg/l	0.72	1.5
16.	Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH) mg/l, Max	<0.001	0.005
17.	Cadmium (as Cd) mg/l, Max	<0.001	0.01
18.	Oil and grease, mg/l	BDL	0.1
19.	Arsenic (as As) mg/l, Max	<0.001	0.2
20.	Sodium (as Na) mg/l, Max	4.8	NS
21.	Lead (As Pb) mg/l Max	0.002	0.1
22.	Zinc (as Zn) mg/l Max	0.18	15
23.	Potassium as K)	1.4	NS
24.	Hexavalent Chromium (as Cr <sup>6+</sup> ) mg/l, Max	<0.001	0.05
25.	C.O.D., mg/l	47	-
26.	Total Suspended Solids, mg/l	25	-

Remarks: All the parameters of samples tested are within the permissible limit of General standard.  
BDL - Below Detection Limit

NS - Not Specified  
S.D. Singh  
Sr. Chemist  
Aditi R&D Services



Technical Manager  
Aditi R&D Services, Sindri

Ali m

Kr. Upendra Singh  
Manager, Tasra Colliery  
SAIL Collieries Division



# ADITI R&D SERVICES

Testing Laboratory

Recognised by Jharkhand State Pollution Control Board  
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Plot No. - I-B-17 (P)  
Sindri, Industrial Area,  
P.O. - Domgarh, Dist. - Dhanbad  
Jharkhand - 828107  
Phone : 0326-2952377  
Mobile : 09471358492  
09431512608

## TEST REPORT OF SURFACE WATER FOR THE MONTH OF AUGUST 2023

Ref. No. & Date		NAME AND ADDRESS OF THE CLIENT	
ARDS/23-24/980 Dt. 25.08.2023		TASRA COAL MINING PROJECT, COLLIERIES DIVISION, STEEL AUTHORITY OF INDIA LTD. CHASNALLA – 828135, DIST. - DHANBAD	
P.O NO & Date		CD/CC/WO/2023-24/10 Dated- 25.05.2023	
Season		PRE MONSOON	
Location of Sample		Analysis Started on	18.08.2023
DAMODAR RIVER UPSTREAM OF MINE SITE (BUFFER ZONE)			
Date & Time Sample Collection	17.08.2023/ 02:40PM	Analysis completed on	24.08.2023
Test Procedure		IS:3025	
TEST RESULT			
Sl. No.	Parameters	Value	(IS :2296) Surface Water Class "C" Tolerance Limit
1.	Colour Hazen units	1	300
2.	Dissolved Oxygen, mg/l	4.6	4
3.	B.O.D. (3 days at 27°C)	2.1	3
4.	Total Dissolved Solids mg/l, Max	214	1500
5.	pH Value	7.6	6.5 – 8.5
6.	Total Hardness (as CaCO <sub>3</sub> ) mg/l, Max	136	NS
7.	Calcium (as Ca) mg/l, Max	30.4	NS
8.	Magnesium (as Mg)mg/l, Max	14.4	NS
9.	Copper (as Cu) mg/l, Max	0.003	1.5
10.	Iron (as Fe) mg/l Max	0.3	50
11.	Manganese (as Mn) mg/l, Max	<0.001	NS
12.	Chlorides (as Cl) mg/l, Max	20.5	600
13.	Sulphate (as SO <sub>4</sub> ) mg/l Max	48.6	400
14.	Nitrate mg/l, (as NO <sub>3</sub> )	9.4	50
15.	Fluoride (as F) mg/l	0.70	1.5
16.	Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH) mg/l, Max	<0.001	0.005
17.	Cadmium (as Cd) mg/l, Max	<0.001	0.01
18.	Oil and grease, mg/l	BDL	0.1
19.	Arsenic (as As) mg/l, Max	<0.001	0.2
20.	Sodium (as Na) mg/l, Max	7.5	NS
21.	Lead (As Pb) mg/l Max	<0.001	0.1
22.	Zinc (as Zn) mg/l Max	0.16	15
23.	Potassium as K)	1.2	NS
24.	Hexavalent Chromium (as Cr6 <sup>+</sup> ) mg/l, Max	<0.001	0.05
25.	C.O.D., mg/l	39	-
26.	Total Suspended Solids , mg/l	23	-

Remarks: All the parameters of samples tested are within the permissible limit of General standard.  
BDL - Below Detection Limit

NS - Not Specified  
Sr. Chemist  
Aditi R&D Services



Technical Manager  
Aditi R&D Services, Sindri

Atty

Kr. Upendra Singh  
Manager, Tasra Colliery  
SAIL-Collieries Division





# ADITI R&D SERVICES

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Plot No. - I-B-17 (P)  
Sindri, Industrial Area,  
P.O. - Domgarh, Dist. - Dhanbad  
Jharkhand - 828107  
Phone : 0326-2952377  
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09431512608

## TEST REPORT OF EFFLUENT WATER FOR THE MONTH OF AUGUST 2023

Ref. No. & Date	NAME AND ADDRESS OF THE CLIENT			
ARDS/23-24/981 Dt. 25.08.2023	TASRA COAL MINING PROJECT, COLLIERIES DIVISION, STEEL AUTHORITY OF INDIA LTD. CHASNALLA - 828135, DIST. - DHANBAD			
P.O. NO. & DATE	CD/CC/WO/2023-24/10 DATED- 25.05.2023			
SEASON	MONSOON			
Sample Description	Effluent Discharged			
Location of Sample	Pond Water Tasra Basti (CORE ZONE)	Analysis Started on	18.08.2023	
Date & Time Sample Collection	17.08.2023 01:40 PM	Analysis completed on	24.08.2023	
Test Procedure	IS:3025			
<b>TEST RESULT</b>				
Sl. No.	Parameters	Unit	Value	Effluent Water IS: 2490
1.	pH value	-	6.9	5.5 to 9.0
2.	Colour,	Hazen units,	(<5)	5
3.	Odour*	-	Agreeable	Annexure-1
4.	Conductivity, $\mu\text{S/cm}$	$\mu\text{S/cm}$	650	NS
5.	Turbidity (NTU)	NTU	7.3	NS
6.	Total Dissolved Solids mg/l	mg/l	429	2100
7.	Total Suspended Solids mg/l, max,	mg/l	29	100
8.	Dissolved Oxygen (DO)	mg/l	5.4	NS
9.	Oil and grease, mg/l	mg/l	0.4	10
10.	Phenolic compounds (as $\text{C}_6\text{H}_5\text{OH}$ ),	mg/l max	-	1.0
11.	B.O.D.	mg/l	11.7	30
12.	C.O.D.	mg/l	71	250

NS - Not Specified

*B. D. Singh*  
Sr. Chemist  
Aditi R&D Services



*[Signature]*  
Technical Manager  
Aditi R&D Services, Sindri

*[Signature]*

**Kr. Upendra Singh**  
Manager, Tasra Colliery  
SAIL-Collieries Division



# ADITI R&D SERVICES

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Plot No. - I-B-17 (P)  
Sindri, Industrial Area,  
P.O.- Domgarh, Dist.- Dhanbad  
Jharkhand - 828107  
Phone : 0326-2952377  
Mobile : 09471358492  
09431512608

## TEST REPORT OF EFFLUENT WATER FOR THE MONTH OF AUGUST 2023

Ref. No. & Date	NAME AND ADDRESS OF THE CLIENT			
ARDS/23-24/982 Dt. 25.08.2023	TASRA COAL MINING PROJECT, COLLIERIES DIVISION, STEEL AUTHORITY OF INDIA LTD. CHASNALLA - 828135, DIST. - DHANBAD			
P.O. NO. & DATE	CD/CC/WO/2023-24/10 DATED- 25.05.2023			
SEASON	MONSOON			
Sample Description	MINE WATER			
Location of Sample	TASRA EXISTING MINE PIT, TASRA OCP (CORE ZONE)	Analysis Started on	18.08.2023	
Date & Time Sample Collection	17.08.2023 02:00 PM	Analysis completed on	24.08.2023	
Test Procedure	IS:3025			
<b>TEST RESULT</b>				
Sl. No.	Parameters	Unit	Value	Effluent Water IS: 2490
1.	pH value	-	7.2	5.5 to 9.0
2.	Colour,	Hazen units,	(<5)	5
3.	Odour*	-	Agreeable	Annexure-1
4.	Conductivity, $\mu\text{S/cm}$	$\mu\text{S/cm}$	870	NS
5.	Turbidity (NTU)	NTU	2.8	NS
6.	Total Dissolved Solids mg/l	mg/l	560	2100
7.	Total Suspended Solids mg/l, max,	mg/l	24	100
8.	Dissolved Oxygen (DO)	mg/l	6.1	NS
9.	Oil and grease, mg/l	mg/l	BDL	10
10.	Phenolic compounds (as $\text{C}_6\text{H}_5\text{OH}$ ),	mg/l max	-	1.0
11.	B.O.D.	mg/l	10.8	30
12.	C.O.D.	mg/l	78	250

NS - Not Specified

S. R. B. Singh  
Sr. Chemist  
Aditi R&D Services



Technical Manager  
Aditi R&D Services, Sindri

Alim

Kr. Upendra Singh  
Manager, Tasra Colliery  
SAIL-Collieries Division



## STATIC WATER LEVEL MONITORING REPORT

Location 1: The borewell at  
CISF ground, Tasra Project Area

GPS-Coordinates: 23.703954°

N, 86.408544 °S

Static Water Level : 6m bgl on

25/5/2023.

The Geo tag image of respective  
well is given



Location 2: The borewell at  
Rohrabad Basti , Tasra project  
area

GPS-Coordinates: 23.647261°N,

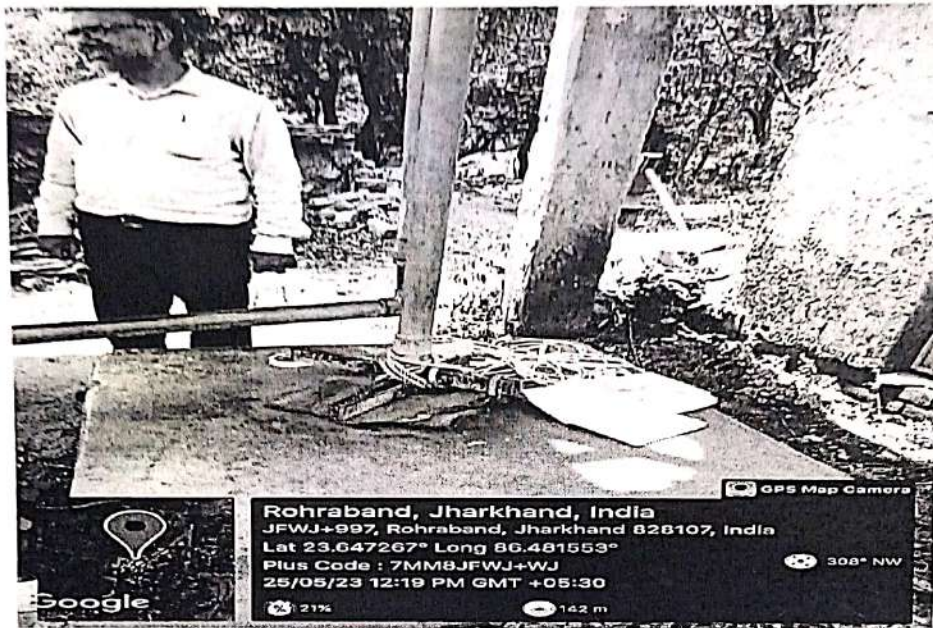
86.481553°S

*Signature*  
Mr. Upendra Singh  
Manager, Tasra Colliery  
SAIL-Collieries Division

Static Water Level: 3 m bgl on

25/5/2023.

The Geotag image of respective well is given



*R. Jayaprakasha*  
Jayaprakasha.R

Sr.Hydrogeologist

JP Geo Consulting Services