



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

DATED: 31-05-2018

REF: GM/TASRA/18/55

To,  
The Additional Director(s),  
EI Division,  
Ministry of Environment, Forest and Climate Change,  
Paryavaran Bhawan, CGO Complex, Lodhi Road,  
New Delhi - 110003

Sub: Six Monthly Status of Compliance to the Conditions stipulated in the EC granted by MoEF  
and Climate Change of Tasra Coal Mining Project (EC granted vide letter no. J- 11015/122/2007-  
IA-II(M) dated 13th October 2009) for the period ending 31st March 2018.

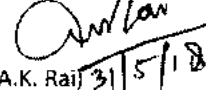
Dear Sir,

Please find enclosed herewith the updated six monthly compliance report for the period ending 31st March 2018 with respect to the conditions stipulated in the Environmental Clearance granted by Ministry of Environment, Forest and Climate Change, New Delhi vide letter no. J-11015/122/2007-IA-II(M) dated 13th October 2009 for Tasra Coal Mining Project of M/s Steel Authority of India Limited for your kind perusal.

Hard Copy and Soft Copy of the report is enclosed.

Thanking you,

Yours faithfully,

  
(A.K. Rai) 31/5/18  
GM (Tasra)

Encl: As above.

Cc:

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|--|---|
| 1. The Additional Director(s)<br>Ministry of Environment Forest and Climate Change<br>Regional Office,<br>Bungalow No. A-2, Shyamali Colony,<br>Doranda - 834002, Ranchi (Jharkhand) | 4. J.S.P.C.B<br>Regional Office,<br>Dhanbad (Jharkhand) |
| 2. The Member Secretary<br>Central Pollution Control Board,<br>Parivesh Bhawan, CBD-cum-Office Complex,<br>East Arjun Nagar, Delhi - 110032  |   |
| 3. The Member Secretary<br>Jharkhand State Pollution Control Board,<br>H.E.C. Dhurwa, Ranchi - 834004 (Jharkhand)  |   |



**Status of Compliance to the Condition stipulated in the Environmental Clearance granted by MoEF for Tasra Coal Mining Project (4 MTPA) for the period October-17 to March-18 (EC granted vide Ref. No. J-1105/122/2007-IA-II(M) dated 13<sup>th</sup> October, 2009)**

**(A) Specific Conditions:-**

<b>Cond. No.</b>	<b>Conditions Imposed</b>	<b>Status as on March' 2018</b>
(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.	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.
(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.	Environmental Clearance 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.	<p>Tasra Coal Mining Project has been planned maintaining a minimum distance of 100m between river Damodar and the Quarry edge. Embankment will be constructed on northern bank of River Damodar, adjoining to the quarry as per the conditions specified in the Environmental Clearance granted by MoEF.</p> <p>This will be strictly adhered to when the project take off. As per the approved Mining Plan a minimum barrier of 100m (including space for embankment) has been considered between the mine boundary and Damodar River.</p>
(iv)	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	As per the mining schedule of Tasra OCP, the diversion and realignment of Domohani Jore and Cilatu Jore is planned beyond 10 <sup>th</sup> Year commencement of the project operations. All diversion of jores will be carried out in consultation and approval of the concerned authorities.

2



	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.	Design of diversion canal will be finalized based on the peak flow of the water.
(v)	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.	Mining operation in Tasra OCP started in a very small patch from old quarry, previously worked by BCCL. Top soil is being collected since opening of mine i.e. Dec-2017 and stacked in a separate stock pile near OB dump and will be used for reclamation purpose and development of green belt.
(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</p>	<p>As per approved mining plan and EIA/EMP submitted to MoEF&amp;CC, OB is being stacked at earmarked location outside mining lease area of Tasra OCP. Presently the height of dump is 25 meter only and will be restricted to maximum height of 90m of three bench of 30m each as per stipulated condition mentioned in the Environmental Clearance.</p> <p>Toe wall is being constructed around the OB dump to arrest the silt flow. In due course garland drain will also be constructed all around the dump to arrest surface runoff of rain water during monsoon and to stabilize the inactive slope of OB Dump plantation will be carried out.</p> <p>Compliance status will be submitted to MoEF and its regional office located at Ranchi as directed.</p>



	yearly basis.	
(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>As the mining operation in Tasra OCP started from a very small patch, catch drains, garland drains, siltation pond, sump etc will be constructed in due course with the expansion of area. However, at later stage, the storm water run-off from the mining area will be diverted to the sedimentation dams/siltation ponds to arrest the suspended solids through garland drains from around the mine, dump yards, stock piles. The water so collected will be utilized for water spraying in the mining area, roads for dust suppression, green belt development etc. The drains will be regularly de-silted and maintained properly. Garland drains and sump capacity will be designed keeping safety margins over and above the peak sudden rainfall and maximum discharge in the area adjoining the mining site.</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>While construction of the retaining wall, all technical parameters viz. peak rainfall of the area, stability of the wall etc is being considered. Retaining wall along toe of OB dump with adequate dimension (1.5 meter x 2.0 meter) is being maintained.</p>
(ix)	<p>The approach road shall be blacked topped. A three tire avenue plantation 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.</p> <p>The railway siding shall be provided with Silo rapid loading system.</p>	<p>As the mine is in initial development phase, temporary approach road is being maintained. 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.(through rapid loading system)</p>
(x)	Drills shall be wet operated only.	It is being complied.
(xi)	<p>Controlled blasting shall be practised with the use of delay detonators. The mitigative measures for control of ground vibration and to arrest the fly rocks and boulders shall be implemented.</p>	<p>Control blasting is being practiced as per DGMS norms and guidelines of CIMFR based on scientific study conducted. Appropriate pattern and maximum charge per delay with the use of NONEL is being followed to keep ground vibration under</p>



		control and prevent any flying fragment.
(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.	There is regular Water sprinkling with the help of 3 nos. water tankers of 16 KL each to check fugitive emission from operation, haulage roads, transfer points etc. Hopper of the Coal crushing units and washery unit will be fitted with high efficiency dust extraction system with bag filters and mist spray. Water sprinkling system will be installed and operated effectively at all times of operation to check fugitive emission.
(xiii)	No ground water (bore well) shall be used for mining operations. Additional 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	No ground water (bore well) is being used for mining operations.  Required water for dust suppression is being met from old mine pit.
(xiv)	Regular monitoring of ground water level and quality shall be carried out by establishing a network of existing wells and construction of new piezometer. 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.	At present our mining activity is limited to old abandoned quarry previously worked by BCCL. As such there is no depletion of ground water resources. However regular monitoring of ground water (existing wells and hand pumps) quality is being carried out in both core and buffer zone, and all the parameters are well within the prescribed limit by CPCB and JSPCB.
(xv)	The project authorities shall meet water requirement of nearby villages in case of village well goes dry due to dewatering of mine.	Under CSR scheme, SAIL has initiated efforts to meet the water requirements of nearby villages and this will be complied regularly.
(xvi)	Sewage treatment plant of adequate capacity shall be installed in the colony. ETP shall also be provided for workshop and CHP wastewater. Treated wastewater	An R&R colony is under construction for displaced persons of the project area with the provision for setting of sewage treatment plant in the colony. ETP at workshop area is under construction. Treated wastewater (meeting prescribed



	meeting prescribed norms only shall be recycled for mining operations to the extent possible and permitted to be discharged in to the natural water courses only if it meets the prescribed standards.	norms only) will be recycled for mining operations to the extent possible and permitted to be discharged in to the natural water courses only if it meets the prescribed standards.
(xvii)	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 external OB dump (168.47 ha.), backfilled area (276.02 ha.) along ML 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.	After completion of mining operations Mine closure will be done as per approved Mine Closure Plan. Plantation will be carried out in consultation with Local DFO/Agriculture Department.
(xviii)	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 water reservoir shall be gently sloped and the upper benches of the reservoir shall be terraced and stabilized with plantation. Only native species shall be used for plantation.	Will be complied accordingly as per approved Mine Closure Plan.

2



(xix)	<p>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, Ahmedabad within a period of 1 year and the results reported to this ministry and to DGMS.</p>	<p>As per DGMS norms Initial Medical Examination &amp; Periodical Medical Examination of the workers engaged in the project is being undertaken periodically for permanent and outsider employees along with the pre-medical examination of persons employed, who are engaged in the process of mining &amp; are likely exposed to dust to observe any contractions due to exposure to dust. This is being carried as per in compliance to Mines Act 1952 &amp; rules 1956 and amendments there to. The various tests include PFT, X-Ray, and lung spirometry etc.</p> <p>Workers are provided with protective respiratory devices &amp; time to time training on safety &amp; health aspects is being provided. A full time qualified Occupational health doctor with provision of Occupational Health center has been provided near the mines area.</p>
(xx)	<p>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>	<p>An amount of Rs. 600.60/- lakhs as capital cost has been earmarked for environment protection measures. Provision of Rs. 35/- lakhs will be made towards annual recurring cost as directed.</p>
(xxi)	<p>A detailed R&amp;R plan for the life of the project comprising land losers, homestead losers, and landless including tribal to be displaced from 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</p>	<p>A detailed R&amp;R plan has been prepared for the life of the project, comprising land losers, homestead losers, and land and homestead losers, and land less including tribal to be displaced from the project area in line with Govt. policies and the same has been approved by the SAIL board.</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.</p> <p>R&amp;R activities related to the project including establishment of R&amp;R colony, if required shall be taken up as per the R&amp;R Plan as approved by concerned Authority.</p>

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	<p>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>However, due to enactment of "THE RIGHT TO FAIR COMPENSATION AND TRANSPERANCY IN LAND ACQUISITION REHABILITATION AND RESETTLEMENT ACT 2013" (LARR ACT 2013) w.e.f. January 2014 by Govt. of India, R&amp;R Plan may need to be revised as per the provision of LARR Act 2013.</p> <p>In addition to this it may also be noted that R&amp;R scheme for the Project Affected Families (PAF) has been prepared by the District Administration in terms of new LARR Act, 2013 and Public Hearing was successfully conducted by the District Administrator R&amp;R on 18.02.2016 for the same.</p> <p>The R&amp;R Scheme prepared by District Administration has been approved.</p>
(xxii)	<p>Peripheral village of Parasbania, Chattabad, Orbeta, Kurtand, SindriBasti, Manohartand, Chasnalabasti, 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>VDC will be constituted as directed.</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</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.</p> <p>Fresh socio-economic survey will be carried out based on the UNDP Human Development Report and quality life parameters to monitor the socio-economic status.</p>



	which shall be uploaded on the company's web site every year. A post of GM to exclusively look after R&R & CSR shall be created.	
(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.	Satellite imagery of the core and buffer zone has been done before pre-mining activity i.e. on 2007 and land use map based on the satellite imagery has been prepared and submitted to MoEF. Further land use maps will be prepared and submitted as directed during the operation.
(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.	A Final Mine Closure Plan along with details of Corpus Fund will be submitted to MoEF, 5 year in advance of the final Mine Closure for approval as directed.

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**General Conditions:-**

Cond. No.	Conditions Imposed	Status as on March' 2018
(i)	No change in technology and scope of work shall be made without prior approval of the Ministry of Environment and Forest	Noted.
(ii)	No change in the calendar plan including quantum of mineral coal and waste being produced shall be made.	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, So <sub>2</sub> and NO <sub>x</sub> . Locations of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in 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	The Project has established four Ambient Air Quality monitoring stations in the core zone at villages Rohraband, Tasra, Kandra & Chasnalla and Four Ambient Air Quality Monitoring stations in the buffer zone at villages Amlabad, Baghmara, jharia and Johradih for monitoring PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , NO <sub>x</sub> . Monitoring of AAQ is being carried out twice in a week. Monitoring of heavy metals i.e Hg, As, Ni, Cd, Cr, is also done on quarterly basis. The monitoring report reveals that all the parameter are well within the norm as per NAAQs notifications made by the CPCB. Environmental monitoring for AAQ is being monitored through M/s Enviro Tech Services (NABL and MoEF&CC Accredited lab).
(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 Bhubneshwar 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 recognised under the E (P) Rules, 1986 shall be furnished as part of compliance.	Air quality data for the period of October 2017 to March 2018 is placed in <b>Annexure – I</b>
(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.	Noise level is being maintained below 85 dBA and person engaged in drilling and blasting operation is provided with ear muffs. The noise limit is well within prescribed limit. The report is attached as

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	shall be provided with ear plugs/muffs.	<b>Annexure -II</b>
(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.	There is no process effluent. However, the industrial waste water from the workshop will be collected & treated to conform to the standards prescribed. So, in this regard effluent treatment Plant with the provision of Oil and Grease Trap with sedimentation pit for treatment of workshop effluent is under construction. The photograph of the same is enclosed as <b>Annexure -III</b>
(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.	We are regularly monitoring the emission of the vehicle to ascertain whether the vehicle meet the Pollution norms. The PUC Certificate of the vehicle is attached as Vehicle transporting coal will be optimally loaded and covered with tarpaulins.
(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 Control Board and data got analysed through a laboratory recognised under EP Rules, 1986.	Environmental Monitoring is being done through NABL/MoeF Accredited Lab. The Certificate of lab is attached as <b>Annexure - IV</b>
(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.	Persons working in dusty areas are using protective respiratory devices and they are being provided with adequate training and information on safety and health aspects. Occupational Health Surveillance Programme of the worker is being 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 Organisation.	Separate Environmental Management Department has been set up and headed by Asst. General Manager, 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

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		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
(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 suggestion/representation has been received while processing the proposal. A copy of the clearance letter also to be displayed on the company's website.	Compliance has been done as per the EC condition. A copy of clearance letter has also been displayed on the company's web site.
(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	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







	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.	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.
(xvi)	The project proponent shall submit six monthly report 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.	Full Co-operation will be extended by SAIL to State and Central Govt. Authorities as required.
(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.	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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# ENVIRO-TECH SERVICES

An Environmental Analytical Laboratory

Environmental Monitoring, Testing and Services

(An ISO 9001:2015, 14001:2015 and OHSAS 18001:2007 Certified Company)

Recognised by MoEF (Govt. of India), Accredited by ISO/IEC-17025:2005 (NABL) & UPPCB

G-232, M.G. Road Industrial Area, Hapur-Ghaziabad. (U.P.)-201015

email : etslab2012@gmail.com | Website : www.etslab.asia | Ph.: 9811736063, 9911516076



ISO 9001:2015/OHSAS 18001  
Acc. No. - M31112041M

## AMBIENT AIR QUALITY MONITORING AND ANALYSIS SUMMARY REPORT

### MONTH OF MARCH 2018

Name And Address of Customer : M/s. TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

VILLAGE ROHRABANDH (AAQ-C21)					VILLAGE TASRA (AAQ-C22)				
Sampl. Date	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	Sampl. Date	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>
05-03-18	71.30	45.50	9.10	15.50	05-03-18	74.30	42.50	12.60	21.80
08-03-18	72.20	45.20	10.60	19.80	08-03-18	76.60	40.50	12.20	21.90
12-03-18	72.80	44.40	10.20	18.40	12-03-18	73.20	41.50	11.00	19.80
15-03-18	75.20	43.80	12.20	22.30	15-03-18	71.40	40.60	11.80	21.50
19-03-18	76.50	44.40	11.50	19.60	19-03-18	75.40	45.50	12.50	24.00
22-03-18	71.40	42.10	10.50	23.80	22-03-18	75.50	40.20	12.60	23.10
26-03-18	74.60	41.90	11.30	19.20	26-03-18	76.60	40.10	11.90	21.60
29-03-18	75.30	45.00	10.50	19.20	29-03-18	78.70	44.50	12.10	22.70
Minimum	71.3	41.9	9.1	15.5	Minimum	71.4	40.1	11.0	19.8
Maximum	76.50	45.50	12.20	23.80	Maximum	78.70	45.50	12.60	24.00
Average	73.71	43.97	10.72	19.71	Average	75.18	42.10	12.03	22.02
VILLAGE KANDRA (AAQ-C23)					VILLAGE CHASNAL (AAQ-C24)				
Sampl. Date	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	Sampl. Date	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>
05-03-18	75.40	40.00	12.20	20.40	05-03-18	65.60	41.20	8.90	17.50
08-03-18	72.90	42.30	10.20	21.10	08-03-18	72.50	40.60	10.80	17.50
12-03-18	73.30	39.20	13.70	24.50	12-03-18	70.40	42.80	8.90	19.50
15-03-18	73.10	42.10	11.70	22.00	15-03-18	71.60	40.90	11.30	23.50
19-03-18	71.20	41.30	10.60	22.50	19-03-18	73.10	41.10	9.50	20.80
22-03-18	70.60	40.80	15.30	30.90	22-03-18	69.70	39.40	9.20	18.60
26-03-18	71.80	38.70	10.60	25.00	26-03-18	69.70	39.00	10.30	21.60
29-03-18	73.60	40.20	10.50	23.50	29-03-18	72.40	44.30	11.50	19.60
Minimum	70.6	38.7	10.2	20.4	Minimum	65.6	39.0	8.9	17.5
Maximum	75.40	42.30	15.30	30.90	Maximum	73.10	44.30	11.50	23.50
Average	72.79	40.56	12.03	24.12	Average	70.37	41.26	10.08	19.96

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



For Enviro-Tech Services  
AUTHORIZED SIGNATORY

Md. Humraj  
Dy. Quality manager

#### Notes:-

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ISO 9001:2015/OHSAS 18001  
Acc. No.: 831112841N

## AMBIENT AIR QUALITY MONITORING AND ANALYSIS SUMMARY REPORT

### MONTH OF MARCH 2018

Name And Address of Customer : M/s. TASRA COAL MINING PROJECT  
M/s. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

VILLAGE AMLABAD (AAQ-B21)					VILLAGE BAGHMARA (AAQ-B22)				
Sampl. Date	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	Sampl. Date	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>
05-03-18	67.20	36.10	7.90	10.80	05-03-18	66.30	32.80	7.70	11.50
08-03-18	63.30	37.60	8.00	14.90	08-03-18	67.80	33.70	8.20	14.50
12-03-18	68.40	39.60	8.80	16.20	12-03-18	68.30	34.60	11.40	20.10
15-03-18	65.20	38.40	13.70	25.20	15-03-18	62.50	35.20	12.50	21.30
19-03-18	69.30	35.50	9.60	18.90	19-03-18	67.30	38.30	12.90	25.80
22-03-18	68.60	39.30	9.70	20.10	22-03-18	65.90	33.80	8.40	15.00
26-03-18	69.70	32.80	13.80	25.30	26-03-18	62.10	30.50	12.60	22.20
29-03-18	69.50	35.00	8.20	10.60	29-03-18	68.30	35.50	8.50	14.50
Minimum	63.3	32.8	7.9	10.6	Minimum	62.1	30.5	7.7	11.5
Maximum	69.70	39.60	13.80	25.30	Maximum	68.30	38.30	12.90	25.80
Average	67.42	36.67	10.14	17.79	Average	65.89	34.32	10.28	18.22
Tasra Coal Mine SAIL					Tasra Coal Mine SAIL				
VILLAGE JHARIA (AAQ-B23)					VILLAGE JORADIH (AAQ-B24)				
February-18					February-18				
Date	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	Date	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>
05-03-18	66.80	32.60	7.80	13.20	05-03-18	64.30	23.50	6.60	12.30
08-03-18	64.90	30.80	9.30	17.60	08-03-18	66.50	28.70	8.50	13.70
12-03-18	69.30	34.70	12.50	22.60	12-03-18	69.10	32.30	9.90	17.20
15-03-18	68.30	32.70	15.50	28.10	15-03-18	69.50	29.40	9.40	29.10
19-03-18	69.80	34.60	12.80	24.40	19-03-18	67.50	28.00	9.60	16.10
22-03-18	70.50	32.20	10.60	20.50	22-03-18	67.20	29.30	11.50	23.10
26-03-18	67.50	33.80	8.80	15.70	26-03-18	63.90	28.10	10.30	19.00
29-03-18	67.30	32.50	8.40	13.20	29-03-18	63.30	25.10	8.00	11.50
Minimum	64.9	30.8	7.8	13.2	Minimum	63.3	23.5	6.6	11.5
Maximum	70.50	34.70	15.50	28.10	Maximum	69.50	32.30	11.50	29.10
Average	67.98	32.94	10.90	19.66	Average	66.41	28.02	9.19	18.26

\*\*\*\*End of Test Report\*\*\*\*



Page 1 of 1

For Enviro-Tech Services  
AUTHORIZED SIGNATORY  
Md. Humraj  
Dy. Quality manager

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JAS-ANZ



ISO 9001:2015/OHSAS 18001  
Acc. No.: M31112841N

## AMBIENT AIR QUALITY MONITORING AND ANALYSIS SUMMARY REPORT

MONTH OF FEB. 2018

Name And Address of Customer

: M/s. TASRA COAL MINING PROJECT

M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,

DHANBAD, JHARKHAND, INDIA

VILLAGE AMLABAD (AAQ-821)					VILLAGE BAGHMARA (AAQ-822)				
Sampling Date	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	Sampling Date	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>
01-02-18	63.80	37.00	7.00	9.60	01-02-18	60.30	33.20	6.60	11.50
05-02-18	65.60	38.00	7.20	9.80	05-02-18	63.30	34.80	7.00	12.00
08-02-18	65.70	38.10	7.20	9.90	08-02-18	63.80	35.10	7.00	12.10
12-02-18	61.40	35.60	6.80	9.20	12-02-18	58.30	32.10	6.40	11.10
15-02-18	61.00	35.40	6.70	9.20	15-02-18	58.50	32.20	6.40	11.10
19-02-18	66.00	38.30	7.30	9.90	19-02-18	62.30	34.30	6.90	11.80
22-02-18	60.80	35.30	6.70	9.10	22-02-18	57.90	31.80	6.40	11.00
26-02-18	61.70	35.80	6.80	9.30	26-02-18	59.10	32.50	10.60	11.20
Minimum	60.8	35.3	6.7	9.1	Minimum	57.9	31.8	6.4	11.0
Maximum	66.00	38.30	7.30	9.90	Maximum	63.80	35.10	10.60	12.10
Average	63.28	36.71	6.97	9.50	Average	60.52	33.29	7.43	11.49

VILLAGE JHARIA (AAQ-823)					VILLAGE JORADIH (AAQ-824)				
Sampling Date	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	Sampling Date	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>
01-02-18	64.30	30.90	7.10	14.10	01-02-18	61.30	25.10	5.50	10.40
05-02-18	63.80	30.60	7.00	14.00	05-02-18	62.10	25.50	5.60	10.60
08-02-18	66.20	31.80	7.30	14.60	08-02-18	63.00	25.80	5.70	10.70
12-02-18	61.90	29.70	6.80	13.60	12-02-18	59.30	24.30	5.30	10.10
15-02-18	61.90	29.70	6.80	13.60	15-02-18	59.50	24.40	5.40	10.10
19-02-18	65.80	31.60	11.80	18.40	19-02-18	63.50	26.00	7.60	12.10
22-02-18	61.50	29.50	8.60	13.50	22-02-18	59.20	24.30	7.10	10.10
26-02-18	62.10	29.80	6.80	13.70	26-02-18	58.90	24.10	5.30	10.00
Minimum	61.5	29.5	6.8	13.5	Minimum	58.9	24.1	5.3	10.0
Maximum	66.20	31.80	11.80	18.40	Maximum	63.50	26.00	7.60	12.10
Average	63.52	30.49	8.08	14.74	Average	60.92	24.96	6.04	10.62

\*\*\*End of Test Report\*\*\*

Page 1 of 1



For Enviro-Tech Services

AUTHORIZED SIGNATORY  
Md. Humraj  
Dy. Quality manager

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ISO 9001:2015/OHSAS 18001  
Acc. No. B31152041N

## AMBIENT AIR QUALITY MONITORING AND ANALYSIS SUMMARY REPORT

MONTH OF FEB. 2018

Name And Address of Customer : M/s. TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

VILLAGE ROHRABANDH (AAQ-C21)					VILLAGE TASRA (AAQ-C22)				
Sampling Date	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	Sampling Date	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>
01-02-18	72.30	47.00	9.40	17.40	01-02-18	75.20	43.60	11.30	20.30
05-02-18	73.60	47.80	9.60	17.70	05-02-18	77.10	44.70	11.60	20.80
08-02-18	74.20	48.20	9.60	17.80	08-02-18	77.40	44.90	11.60	20.90
12-02-18	70.30	45.70	9.10	16.90	12-02-18	73.20	42.50	11.00	19.80
15-02-18	70.50	45.80	9.20	16.90	15-02-18	73.40	42.60	11.00	19.80
19-02-18	74.50	48.40	9.70	17.90	19-02-18	77.40	44.90	13.90	20.90
22-02-18	69.90	45.40	9.10	16.80	22-02-18	72.80	42.20	13.10	19.70
26-02-18	70.60	45.90	9.20	16.90	26-02-18	72.60	42.10	10.90	19.60
Minimum	69.9	45.4	9.1	16.8	Minimum	72.6	42.1	10.9	19.6
Maximum	74.50	48.40	9.70	17.90	Maximum	77.40	44.90	13.90	20.90
Average	72.03	46.80	9.37	17.30	Average	74.91	43.45	11.92	20.23

VILLAGE KANDRA (AAQ-C23)					VILLAGE CHASNAL (AAQ-C24)				
Sampling Date	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	Sampling Date	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>
01-02-18	71.00	41.20	9.90	20.60	01-02-18	69.40	42.30	9.70	18.00
05-02-18	72.40	42.00	10.10	21.00	05-02-18	69.60	43.20	9.70	18.10
08-02-18	72.90	42.30	10.20	21.10	08-02-18	71.30	44.20	10.00	18.50
12-02-18	69.30	40.20	9.70	20.10	12-02-18	67.40	41.80	9.40	17.50
15-02-18	69.10	40.10	9.70	20.00	15-02-18	67.60	41.90	9.50	17.60
19-02-18	73.20	43.20	13.20	21.20	19-02-18	71.10	44.10	8.50	18.50
22-02-18	68.60	39.80	12.30	19.90	22-02-18	66.70	41.40	8.00	17.30
26-02-18	68.80	42.70	9.60	20.00	26-02-18	67.70	42.00	10.80	17.60
Minimum	68.6	39.8	9.6	19.9	Minimum	66.7	41.4	8.0	17.3
Maximum	73.20	43.20	13.20	21.20	Maximum	71.30	44.20	10.80	18.50
Average	70.71	41.45	10.75	20.50	Average	68.88	42.65	9.44	17.89

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



For Enviro-Tech Services  
AUTHORIZED SIGNATORY  
Md. Humraj  
Dy. Quality manager

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email : etslab2012@gmail.com | Website : www.etslab.asia | Ph.: 9811736063, 9911516076



## TEST REPORT

TEST REPORT NO : ETS/279-13/01/2018

DATE OF REPORT :24-01-2018

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S, STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 18-01-2018

Analysis Start Date : 21-01-2018

Analysis End Date : 22-01-2018

Duration Of Sampling : 18-01-2018 To 19-01-2018 24.0 HOURS

Sample ID No : 279-13/01

Sampling Done By : ETS STAFF

Sampling Location : TASRA (AAQ-CZ2)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 16.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	80.1	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	48.5	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	12.0	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.64	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	22.4	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O3)	µg/m <sup>3</sup>	28.0	For 8 Hrs.=100/ For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH3)	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C6H6)	µg/m <sup>3</sup>	1.04	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



Format no ETS /LAB/TR-01 Issue No 04 dt 01/08/2016 Rev No 03 dt 01/08/2016

Note:-

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For Enviro-Tech Services

AUTHORIZED SIGNATORY  
By: Quality manager





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ISO 9001/14001/OHSAS 18001  
Acc. No.: M31112041N

## TEST REPORT

TEST REPORT NO : ETS/279-12/01/2018

DATE OF REPORT : 24-01-2018

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S, STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 18-01-2018

Analysis Start Date : 21-01-2018

Analysis End Date : 22-01-2018

Duration Of Sampling : 18-01-2018 To 19-01-2018 24.0 HOURS

Sample ID No : 279-12/01

Sampling Done By : ETS STAFF

Sampling Location : ROHRABANDH (AAQ-CZ1)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR

Ambient Temperature : 16.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	81.4	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	52.9	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	9.0	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.57	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	17.9	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	26.9	For 8 Hrs.=100/ For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	1.22	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



Format no ETS /LAB/TR-01 Issue No 04 dt 01/08/2016 Rev No 03 dt 01/06/2016

For Enviro-Tech Services

AUTHORIZED SIGNATORY  
By: Quality manager

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G-232, M.G. Road Industrial Area, Hapur-Ghaziabad. (U.P.)-201015

email : etslab2012@gmail.com | Website : www.etslab.asia | Ph.: 9811736063, 9911516076



## TEST REPORT

TEST REPORT NO : ETS/279-15/01/2018

DATE OF REPORT :24-01-2018

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S, STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 18-01-2018

Analysis Start Date : 21-01-2018

Analysis End Date : 22-01-2018

Duration Of Sampling : 18-01-2018 To 19-01-2018 24.0 HOURS

Sample ID No : 279-15/01

Sampling Done By : ETS STAFF

Sampling Location : CHASNALA (AAQ-C24)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 16.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	74.5	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	46.2	For 24 Hrs.=80	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	10.4	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.67	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	17.1	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O3)	µg/m <sup>3</sup>	28.3	For 8 Hrs.=100/ For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH3)	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C6H6)	µg/m <sup>3</sup>	1.27	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=08	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*



Page 1 of 1

For Enviro-Tech Services

*Md. Humraj*  
AUTHORIZED SIGNATORY  
Dy. Quality manager

Note:-

Format no ETS /LAB/TR-01 Issue No 04 dt 01/06/2016 Rev No 03 dt 01/06/2016

1. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.
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## TEST REPORT

TEST REPORT NO : ETS/279-14/01/2018

DATE OF REPORT : 24-01-2018

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 18-01-2018

Analysis Start Date : 21-01-2018

Analysis End Date : 22-01-2018

Duration Of Sampling : 18-01-2018 To 19-01-2018 24.0 HOURS

Sample ID No : 279-14/01

Sampling Done By : ETS STAFF

Sampling Location : KANDRA (AAQ-CZ3)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 16.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	75.9	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	44.0	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	10.6	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.72	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	20.5	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	28.8	For 8 Hrs.=100/ For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	1.29	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=05	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*



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For Enviro-Tech Services

AUTHORIZED SIGNATORY  
Dy. Quality manager

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## TEST REPORT

TEST REPORT NO : ETS/279-17/01/2018

DATE OF REPORT : 24-01-2018

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 18-01-2018

Analysis Start Date : 21-01-2018

Analysis End Date : 22-01-2018

Duration Of Sampling : 18-01-2018 To 19-01-2018 24.0 HOURS

Sample ID No : 279-17/01

Sampling Done By : ETS STAFF

Sampling Location : BAGHMARA (AAQ-B22)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 16.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	69.9	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	38.4	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	7.7	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.52	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	18.2	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O3)	µg/m <sup>3</sup>	16.1	For 8 Hrs.=100/ For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH3)	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C6H6)	µg/m <sup>3</sup>	1.26	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*



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For Enviro-Tech Services

Md. Humraj  
AUTHORIZED SIGNATORY  
By: Quality manager

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ISO 9001:2015/OHSAS 18001  
Acc. No. - M31112041N

## TEST REPORT

TEST REPORT NO : ETS/279-16/01/2018

DATE OF REPORT : 24-01-2018

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 18-01-2018

Analysis Start Date : 21-01-2018

Analysis End Date : 22-01-2018

Duration Of Sampling : 18-01-2018 To 19-01-2018 24.0 HOURS

Sample ID No : 279-16/01

Sampling Done By : ETS STAFF

Sampling Location : AMLABAD (AAQ-BZ1)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 16.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	71.9	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	41.7	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	7.9	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.65	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	13.7	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	29.5	For 8 Hrs.=100/ For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	0.72	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=08	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



For Enviro-Tech Services

AUTHORIZED SIGNATORY  
By. Quality manager

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## TEST REPORT

TEST REPORT NO : ETS/279-19/01/2018

DATE OF REPORT : 24-01-2018

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 18-01-2018

Analysis Start Date : 21-01-2018

Analysis End Date : 22-01-2018

Duration Of Sampling : 18-01-2018 To 19-01-2018 24.0 HOURS

Sample ID No : 279-19/01

Sampling Done By : ETS STAFF

Sampling Location : JORADIH (AAQ-BZ4)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 16.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	70.9	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	38.3	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	6.4	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.39	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	13.5	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O3)	µg/m <sup>3</sup>	19.1	For 8 Hrs.=100/ For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH3)	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C6H6)	µg/m <sup>3</sup>	0.71	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=08	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1

For Enviro-Tech Services



Format no ETS /LAB/TR-01 Issue No 04 dt 01/06/2016 Rev No 03 dt 01/06/2016

Md. Humraj  
AUTHORIZED SIGNATORY  
By. Quality manager

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## TEST REPORT

TEST REPORT NO : ETS/279-18/01/2018

DATE OF REPORT : 24-01-2018

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S, STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 18-01-2018

Analysis Start Date : 21-01-2018

Analysis End Date : 22-01-2018

Duration Of Sampling : 18-01-2018 To 19-01-2018 24.0 HOURS

Sample ID No : 279-18/01

Sampling Done By : ETS STAFF

Sampling Location : JHARIA (AAQ-BZ3)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR

Ambient Temperature : 16.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	72.6	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	34.8	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	8.0	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.44	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	18.2	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=4.0	IS: 5182 (Part-22)
7.	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	20.3	For 8 Hrs.=100/ For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	0.73	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=05	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*



Page 1 of 1

For Enviro-Tech Services

  
AUTHORIZED SIGNATORY  
By: Quality manager

Notes:-

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## TEST REPORT

TEST REPORT NO : ETS/46/195-02/10/2017

DATE OF REPORT : 31-01-2018

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S, STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 22-01-2018

Analysis Start Date : 25-01-2018

Analysis End Date : 27-01-2018

Duration Of Sampling : 22-01-2018 To 23-01-2018 24.0 HOURS

Sample ID No : 195-02/10

Sampling Done By : ETS STAFF

Sampling Location : TASRA (AAQ-CZ2)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 17.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	77.4	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	44.9	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	11.8	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.62	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	21.7	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	27.1	For 8 Hrs.=100/ For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	1.01	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*End of Test Report\*\*\*



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For Enviro-Tech Services

AUTHORIZED SIGNATORY  
By: Quality manager

#### Notes:-

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## TEST REPORT

TEST REPORT NO : ETS/46/195-01/10/2017

DATE OF REPORT : 31-01-2018

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S, STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 22-01-2018

Analysis Start Date : 25-01-2018

Analysis End Date : 27-01-2018

Duration Of Sampling : 22-01-2018 To 23-01-2018 24.0 HOURS

Sample ID No : 195-01/10

Sampling Done By : ETS STAFF

Sampling Location : ROHRABANDH (AAQ-CZ1)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 17.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	78.7	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	51.2	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	8.7	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.55	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	17.3	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O3)	µg/m <sup>3</sup>	26.0	For 8 Hrs.=100/ For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH3)	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C6H6)	µg/m <sup>3</sup>	1.18	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*End of Test Report\*\*\*

Page 1 of 1

For Enviro-Tech Services



Format no ETS /LAB/TR-01 Issue No 04 dt 01/06/2016 Rev No 03 dt 01/06/2016

Notes:-

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2. The samples received shall be destroyed after one month from the date of test report issued.
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4. Our liability is limited to invoice value only.

*[Signature]*  
**AUTHORIZED SIGNATORY**  
 By: Quality manager





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## TEST REPORT

TEST REPORT NO : ETS/46/195-04/10/2017

DATE OF REPORT : 31-01-2018

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 22-01-2018

Analysis Start Date : 25-01-2018

Analysis End Date : 27-01-2018

Duration Of Sampling : 22-01-2018 To 23-01-2018 24.0 HOURS

Sample ID No : 195-04/10

Sampling Done By : ETS STAFF

Sampling Location : CHASNALA (AAQ-CZ4)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 17.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	71.8	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	44.5	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	10.1	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.65	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	16.5	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O3)	µg/m <sup>3</sup>	27.3	For 8 Hrs.=100/ For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH3)	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C6H6)	µg/m <sup>3</sup>	1.22	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=08	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



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For Enviro-Tech Services

AUTHORIZED SIGNATORY  
Dy. Quality manager

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## TEST REPORT

TEST REPORT NO : ETS/46/195-03/10/2017

DATE OF REPORT : 31-01-2018

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S, STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 22-01-2018

Analysis Start Date : 25-01-2018

Analysis End Date : 27-01-2018

Duration Of Sampling : 22-01-2018 To 23-01-2018 24.0 HOURS

Sample ID No : 195-03/10

Sampling Done By : ETS STAFF

Sampling Location : KANDRA (AAQ-CZ3)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 17.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	73.2	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	42.5	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	10.2	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.70	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	19.8	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	27.8	For 8 Hrs.=100/ For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	1.24	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



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For Enviro-Tech Services

AUTHORIZED SIGNATORY  
By: Quality manager

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## TEST REPORT

TEST REPORT NO : ETS/46/195-06/10/2017

DATE OF REPORT : 31-01-2018

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S, STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 22-01-2018

Analysis Start Date : 25-01-2018

Analysis End Date : 27-01-2018

Duration Of Sampling : 22-01-2018 To 23-01-2018 24.0 HOURS

Sample ID No : 195-06/10

Sampling Done By : ETS STAFF

Sampling Location : BAGHMARA (AAQ-BZZ)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 17.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	67.2	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	37.0	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	7.4	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.50	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	17.5	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	15.5	For 8 Hrs.=100/ For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	1.21	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*



Page 1 of 1

For Enviro-Tech Services

  
Md. Humayun  
AUTHORIZED SIGNATORY  
By: Quality manager

**Notes:-**

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## TEST REPORT

TEST REPORT NO : ETS/46/195-05/10/2017

DATE OF REPORT : 31-01-2018

## AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer

: TASRA COAL MINING PROJECT

M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,

DHANBAD, JHARKHAND, INDIA

Date of Sampling

: 22-01-2018

Analysis Start Date

: 25-01-2018

Analysis End Date

: 27-01-2018

Duration Of Sampling

: 22-01-2018 To

23-01-2018 24.0 HOURS

Sample ID No

: 195-05/10

Sampling Done By

: ETS STAFF

Sampling Location

: AMLABAD (AAQ-BZ1)

Sampling Method

: ETS/STP/AIR-01

Sampling Machine Placed At Height

: 3.5 mtr.

(From Ground)

Weather Condition

: CLEAR

Ambient Temperature

: 17.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	69.2	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	40.1	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	7.6	For 24 Hrs.=60	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.62	For 8 Hrs.=0.2 / For 1 Hrs.=0.4	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	13.1	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O3)	µg/m <sup>3</sup>	28.4	For 8 Hrs.=100 / For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH3)	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C6H6)	µg/m <sup>3</sup>	0.69	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*



FOR ENVIRO-TECH SERVICES

Page 1 of 1

For Enviro-Tech Services

AUTHORIZED SIGNATORY  
By: Quality Manager

Format no ETS/LAB/IR-01 Issue No 04 of 01/06/2016 Rev No 03 of 01/08/2016

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## TEST REPORT

TEST REPORT NO : ETS/46/195-08/10/2017

DATE OF REPORT : 31-01-2018

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S, STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 22-01-2018

Analysis Start Date : 25-01-2018

Analysis End Date : 27-01-2018

Duration Of Sampling : 22-01-2018 To 23-01-2018 24.0 HOURS

Sample ID No : 195-08/10

Sampling Done By : ETS STAFF

Sampling Location : JORADIH (AAQ-BZ4)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 17.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	68.2	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	28.0	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	6.1	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.38	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	13.0	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	18.4	For 8 Hrs.=100 / For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	0.68	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1

For Enviro-Tech Services

AUTHORIZED SIGNATORY  
Dy. Quality manager

Note:-

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## TEST REPORT

TEST REPORT NO : ETS/46/195-07/10/2017

DATE OF REPORT : 31-01-2018

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 22-01-2018  
Analysis Start Date : 25-01-2018  
Analysis End Date : 27-01-2018  
Duration Of Sampling : 22-01-2018 To 23-01-2018 24.0 HOURS  
Sample ID No : 195-07/10

Sampling Done By : ETS STAFF  
Sampling Location : JHARIA (AAQ-BZ3)  
Sampling Method : ETS/STP/AIR-01  
Sampling Machine Placed At Height : 3.5 mtr. (From Ground)  
Weather Condition : CLEAR

Ambient Temperature : 17.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	69.9	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	33.6	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	7.7	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.42	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	17.5	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	19.6	For 8 Hrs.=100/ For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	0.70	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=08	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



Format no ETS /LAB/TR-01 Issue No 04 dt 01/06/2016 Rev No 03 dt 01/06/2016

For Enviro-Tech Services

AUTHORIZED SIGNATORY  
Dy. Quality manager

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## TEST REPORT

TEST REPORT NO : ETS/46/195-10/10/2017

DATE OF REPORT : 31-01-2018

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 27-01-2018

Analysis Start Date : 30-01-2018

Analysis End Date : 31-01-2018

Duration Of Sampling : 27-01-2018 To 28-01-2018 24.0 HOURS

Sample ID No : 195-10/10

Sampling Done By : ETS STAFF

Sampling Location : TASRA (AAQ-CZ2)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 16.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	76.7	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	44.5	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	11.5	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.61	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	21.5	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	26.8	For 8 Hrs.=100/ For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	1.00	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



Format no ETS /LAB/TR-01 Issue No 04 dt 01/09/2016 Rev No 03 dt 01/09/2016

Notes:-

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For Enviro-Tech Services

AUTHORIZED SIGNATORY  
By. Quality manager





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## TEST REPORT

TEST REPORT NO : ETS/46/195-09/10/2017

DATE OF REPORT : 31-01-2018

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 27-01-2018

Analysis Start Date : 30-01-2018

Analysis End Date : 31-01-2018

Duration Of Sampling : 27-01-2018 To 28-01-2018 24.0 HOURS

Sample ID No : 195-09/10

Sampling Done By : ETS STAFF

Sampling Location : ROHRABANDH (AAQ-CZ1)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 16.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	78.0	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	50.7	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	8.6	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.55	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	17.2	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O3)	µg/m <sup>3</sup>	25.7	For 8 Hrs.=100/ For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH3)	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C6H6)	µg/m <sup>3</sup>	1.17	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=08	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



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## TEST REPORT

TEST REPORT NO : ETS/46/195-12/10/2017

DATE OF REPORT : 31-01-2018

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S, STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 27-01-2018

Analysis Start Date : 30-01-2018

Analysis End Date : 31-01-2018

Duration Of Sampling : 27-01-2018 To 28-01-2018 24.0 HOURS

Sample ID No : 195-12/10

Sampling Done By : ETS STAFF

Sampling Location : CHASNALA (AAQ-CZ4)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 16.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	71.1	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	44.1	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	10.0	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.64	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	16.4	For 24 Hrs.=80	IS: 5182 (Part-8)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	27.0	For 8 Hrs.=100/ For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	1.21	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



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## TEST REPORT

TEST REPORT NO : ETS/46/195-11/10/2017

DATE OF REPORT : 31-01-2018

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S, STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 27-01-2018

Analysis Start Date : 30-01-2018

Analysis End Date : 31-01-2018

Duration Of Sampling : 27-01-2018 To 28-01-2018 24.0 HOURS

Sample ID No : 195-11/10

Sampling Done By : ETS STAFF

Sampling Location : KANDRA (AAQ-C23)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 16.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	72.5	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	42.1	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	10.2	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.69	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	19.6	For 24 Hrs.=80	IS: 5182 (Part-8)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O3)	µg/m <sup>3</sup>	27.6	For 8 Hrs.=100/ For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH3)	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C6H6)	µg/m <sup>3</sup>	1.23	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



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By. Quality manager





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## TEST REPORT

TEST REPORT NO : ETS/46/195-14/10/2017

DATE OF REPORT : 31-01-2018

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 27-01-2018

Analysis Start Date : 30-01-2018

Analysis End Date : 31-01-2018

Duration Of Sampling : 27-01-2018 To 28-01-2018 24.0 HOURS

Sample ID No : 195-14/10

Sampling Done By : ETS STAFF

Sampling Location : BAGHMARA (AAQ-BZ2)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR

Ambient Temperature : 18.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	66.5	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	36.6	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	7.3	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.50	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	17.3	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O3)	µg/m <sup>3</sup>	15.3	For 8 Hrs.=100/ For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH3)	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C6H6)	µg/m <sup>3</sup>	1.20	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=08	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



Format no ETS /LAB/TR-01 Issue No 04 dt 01/06/2016 Rev No 03 dt 01/06/2018

For Enviro-Tech Services

AUTHORIZED SIGNATORY  
Dy. Quality manager

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## TEST REPORT

TEST REPORT NO : ETS/46/195-13/10/2017

DATE OF REPORT :31-01-2018

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S, STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 27-01-2018

Analysis Start Date : 30-01-2018

Analysis End Date : 31-01-2018

Duration Of Sampling : 27-01-2018 To 29-01-2018 24.0 HOURS

Sample ID No : 195-13/10

Sampling Done By : ETS STAFF

Sampling Location : AMLABAD (AAQ-BZ1)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 16.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	68.5	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	39.7	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	7.5	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.62	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	13.0	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O3)	µg/m <sup>3</sup>	28.1	For 8 Hrs.=100/ For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH3)	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C6H6)	µg/m <sup>3</sup>	0.69	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*



Formet no ETS /LAB/TR-01 Issue No 04 dt 01/08/2016 Rev No 03 dt 01/06/2016

Page 1 of 1

For Enviro-Tech Services

AUTHORIZED SIGNATORY  
By. Quality manager

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## TEST REPORT

TEST REPORT NO : ETS/46/195-16/10/2017

DATE OF REPORT : 31-01-2018

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 27-01-2018

Analysis Start Date : 30-01-2018

Analysis End Date : 31-01-2018

Duration Of Sampling : 27-01-2018 To 28-01-2018 24.0 HOURS

Sample ID No : 195-16/10

Sampling Done By : ETS STAFF

Sampling Location : JORADIH (AAQ-BZ4)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 16.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	67.5	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	36.5	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	6.1	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.37	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	12.6	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	18.2	For 8 Hrs.=100/ For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	0.68	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*



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For Enviro-Tech Services

AUTHORIZED SIGNATORY  
By. Quality manager

Note:-

Format no ETS /LAB/TR-01 Issue No 04 dt 01/06/2016 Rev No 03 dt 01/06/2016

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## TEST REPORT

TEST REPORT NO : ETS/46/195-15/10/2017

DATE OF REPORT : 31-01-2018

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S, STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 27-01-2018

Analysis Start Date : 30-01-2018

Analysis End Date : 31-01-2018

Duration Of Sampling : 27-01-2018 To 28-01-2018 24.0 HOURS

Sample ID No : 195-15/10

Sampling Done By : ETS STAFF

Sampling Location : JHARIA (AAQ-BZ3)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 16.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	69.2	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	33.2	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	7.6	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.42	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	17.3	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	19.4	For 8 Hrs.=100/ For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	0.69	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1

For Enviro-Tech Services



Format no ETS /LAB/TR-01 Issue No 04 dt 01/06/2016 Rev No 03 dt 01/06/2016

Md. Humraj  
AUTHORIZED SIGNATORY  
By: Quality Manager

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ISO 9001:2015/OHSAS 18001  
Acc. No.: M3112041N

## TEST REPORT

TEST REPORT NO : ETS/100-08/12/2017

DATE OF REPORT : 19-12-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S, STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 11-12-2017

Analysis Start Date : 14-12-2017

Analysis End Date : 15-12-2017

Duration Of Sampling : 11-12-2017 To 12-12-2017 24.0 HOURS

Sample ID No : 100-08/12

Sampling Done By : ETS STAFF

Sampling Location : JORADIH (AAQ-824)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 20.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	66.5	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	27.3	For 24 Hrs.=80	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	5.0	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	11.3	For 24 Hrs.=80	IS: 5182 (Part-6)

\*\*\*\*End of Test Report\*\*\*\*

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For Enviro-Tech Services  
AUTHORIZED SIGNATORY

Md. Humayun  
Div. Quality Control

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## TEST REPORT

TEST REPORT NO : ETS/100-09/12/2017

DATE OF REPORT : 19-12-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S, STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 14-12-2017

Analysis Start Date : 17-12-2017

Analysis End Date : 18-12-2017

Duration Of Sampling : 14-12-2017 To 15-12-2017 24.0 HOURS

Sample ID No : 100-09/12

Sampling Done By : ETS STAFF

Sampling Location : ROHRABANDH (AAQ-CZ1)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 18.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	76.3	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	49.6	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	9.9	For 24 Hrs.=60	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	18.3	For 24 Hrs.=80	IS: 5182 (Part-6)

\*\*\*End of Test Report\*\*\*

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Md. Humraj

Dy. Quality manager

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ISO 9001:2015/OHSAS 18001  
Acc. No. - M31112041N

## TEST REPORT

TEST REPORT NO : ETS/100-06/12/2017

DATE OF REPORT : 19-12-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANSAD, JHARKHAND, INDIA

Date of Sampling : 11-12-2017

Analysis Start Date : 14-12-2017

Analysis End Date : 15-12-2017

Duration Of Sampling : 11-12-2017 To 12-12-2017 24.0 HOURS

Sample ID No : 100-06/12

Sampling Done By : ETS STAFF

Sampling Location : BAGHMARA (AAQ-BZ2)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 20.0 °C

S. No.	Test Parameters	Unit	Result	Specifications/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	65.5	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	36.0	For 24 Hrs.=80	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	7.2	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	12.4	For 24 Hrs.=80	IS: 5182 (Part-6)

\*\*\*\*End of Test Report\*\*\*\*

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Md. Humraj

Dy. Quality Manager

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## TEST REPORT

TEST REPORT NO : ETS/100-11/12/2017

DATE OF REPORT : 19-12-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 14-12-2017

Analysis Start Date : 17-12-2017

Analysis End Date : 18-12-2017

Duration Of Sampling : 14-12-2017 To 15-12-2017 24.0 HOURS

Sample ID No : 100-11/12

Sampling Done By : ETS STAFF

Sampling Location : KANDRA (A.A.Q-C23)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 18.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	70.8	For 24 Hrs. =100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	41.1	For 24 Hrs. =60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	9.9	For 24 Hrs. =80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	20.5	For 24 Hrs. =80	IS: 5182 (Part-8)

\*\*\*\*End of Test Report\*\*\*\*

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Dy. Quality Manager

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## TEST REPORT

TEST REPORT NO : ETS/100-04/12/2017

DATE OF REPORT : 19-12-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 11-12-2017

Analysis Start Date : 14-12-2017

Analysis End Date : 15-12-2017

Duration Of Sampling : 11-12-2017 To 12-12-2017 24.0 HOURS

Sample ID No : 100-04/12

Sampling Done By : ETS STAFF

Sampling Location : CHASNALA (AAQ-C24)

Sampling Method : ETS-STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 20.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	70.1	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	43.5	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	9.8	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	18.2	For 24 Hrs.=80	IS: 5182 (Part-5)

\*\*\*\*End of Test Report\*\*\*\*

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Md. Humraj

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Acc. No.: M31112041N

## TEST REPORT

TEST REPORT NO : ETS/100-13/12/2017

DATE OF REPORT : 19-12-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S, STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 14-12-2017

Analysis Start Date : 17-12-2017

Analysis End Date : 18-12-2017

Duration Of Sampling : 14-12-2017 To 15-12-2017 24.0 HOURS

Sample ID No : 100-13/12

Sampling Done By : ETS STAFF

Sampling Location : AMLABAD (AAQ-BZ1)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 18.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	66.8	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	38.7	For 24 Hrs.=80	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	7.3	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	10.0	For 24 Hrs.=80	IS: 5182 (Part-6)

\*\*\*End of Test Report\*\*\*

Page 1 of 1



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 Md. Humraj  
 Dy. Quality Manager





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## TEST REPORT

TEST REPORT NO : ETS/100-02/12/2017

DATE OF REPORT : 19-12-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 11-12-2017

Analysis Start Date : 14-12-2017

Analysis End Date : 15-12-2017

Duration Of Sampling : 11-12-2017 To 12-12-2017 24.0 HOURS

Sample ID No : 100-02/12

Sampling Done By : ETS STAFF

Sampling Location : TASRA (AAQ-C23)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 20.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	75.7	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	43.9	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	11.4	For 24 Hrs.=60	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	20.4	For 24 Hrs.=80	IS: 5182 (Part-6)

\*\*\*End of Test Report\*\*\*

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For Enviro-Tech Services  
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## TEST REPORT

TEST REPORT NO : ETS/100-15/12/2017

DATE OF REPORT : 19-12-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 14-12-2017

Analysis Start Date : 17-12-2017

Analysis End Date : 18-12-2017

Duration Of Sampling : 14-12-2017 To 15-12-2017 24.0 HOURS

Sample ID No : 100-15/12

Sampling Done By : ETS STAFF

Sampling Location : JHARIA (AAQ-BZ3)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 18.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	67.5	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	32.4	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	7.4	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	14.9	For 24 Hrs.=80	IS: 5182 (Part-6)

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



For Enviro-Tech Services

AUTHORIZED SIGNATORY

Md. Humraj

Dy. Quality manager

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## TEST REPORT

TEST REPORT NO : ETS/100-16/12/2017

DATE OF REPORT : 19-12-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 14-12-2017

Analysis Start Date : 17-12-2017

Analysis End Date : 18-12-2017

Duration Of Sampling : 14-12-2017 To 15-12-2017 24.0 HOURS

Sample ID No : 100-16/12

Sampling Done By : ETS STAFF

Sampling Location : JORADIH (AAQ-BZ4)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 18.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	65.8	For 24 Hrs. = 100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	27.0	For 24 Hrs. = 80	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	5.9	For 24 Hrs. = 80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	11.2	For 24 Hrs. = 80	IS: 5182 (Part-5)

\*\*\*\*End of Test Report\*\*\*\*

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For Enviro-Tech Services

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Md. Humraj

Dy. Quality Manager

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ISO 9001:2015/OHSAS 18001  
Acc. No.: 531112041N

## TEST REPORT

TEST REPORT NO : ETS/100-01/12/2017

DATE OF REPORT : 19-12-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 11-12-2017

Analysis Start Date : 14-12-2017

Analysis End Date : 15-12-2017

Duration Of Sampling : 11-12-2017 To 12-12-2017 24.0 HOURS

Sample ID No : 100-01/12

Sampling Done By : ETS STAFF

Sampling Location : ROHRABANDH (AAQ-CZ1)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 20.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	77.0	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	50.1	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	10.0	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	18.5	For 24 Hrs.=80	IS: 5182 (Part-6)

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1

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AUTHORIZED SIGNATORY

Md. Humraj

Dy. Quality manager

Notes:-

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ISO 9001:2015/OHSAS 18001  
Acc. No. - M31112045N

## TEST REPORT

TEST REPORT NO : ETS/100-14/12/2017

DATE OF REPORT : 19-12-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TABRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 14-12-2017

Analysis Start Date : 17-12-2017

Analysis End Date : 18-12-2017

Duration Of Sampling : 14-12-2017 To 15-12-2017 24.0 HOURS

Sample ID No : 100-14/12

Sampling Done By : ETS STAFF

Sampling Location : BAGHMARA (AAQ-B23)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 18.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	64.8	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	35.8	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	7.1	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	12.3	For 24 Hrs.=80	IS: 5182 (Part-6)

\*\*\*End of Test Report\*\*\*

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Md. Humraj

Dy. Quality manager

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ISO 9001:2015/CHSAS 18001  
Acc. No. - N01152041N



## TEST REPORT

TEST REPORT NO : ETS/100-03/12/2017

DATE OF REPORT : 19-12-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S, STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 11-12-2017

Analysis Start Date : 14-12-2017

Analysis End Date : 15-12-2017

Duration Of Sampling : 11-12-2017 To 12-12-2017 24.0 HOURS

Sample ID No : 100-03/12

Sampling Done By : ETS STAFF

Sampling Location : KANDRA (AAQ-CZ3)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 20.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	71.5	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	41.5	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	10.0	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	20.7	For 24 Hrs.=80	IS: 5182 (Part-6)

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1

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Md. Hameed

Dy. Q. No. 10/11/2017





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ISO 9001:2015/14001:2015/OHSAS 18001:2007  
Acc. No.: M31112041N

## TEST REPORT

TEST REPORT NO : ETS/100-12/12/2017

DATE OF REPORT : 19-12-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 14-12-2017

Analysis Start Date : 17-12-2017

Analysis End Date : 18-12-2017

Duration Of Sampling : 14-12-2017 To 15-12-2017 24.0 HOURS

Sample ID No : 100-12/12

Sampling Done By : ETS STAFF

Sampling Location : CHASNALA (AAD-C24)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 18.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	69.4	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	43.0	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	9.7	For 24 Hrs.=60	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	18.0	For 24 Hrs.=60	IS: 5182 (Part-6)

\*\*\*\*End of Test Report\*\*\*\*

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AUTHORIZED SIGNATORY

Md. Humraj

Quality Manager

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ISO 9001:2015/14001:2015/OHSAS 18001:2007  
Acc. No. - 831112041N

## TEST REPORT

TEST REPORT NO : ETS/100-05/12/2017

DATE OF REPORT : 19-12-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 11-12-2017

Analysis Start Date : 14-12-2017

Analysis End Date : 15-12-2017

Duration Of Sampling : 11-12-2017 To 12-12-2017 24.0 HOURS

Sample ID No : 100-05/12

Sampling Done By : ETS STAFF

Sampling Location : AMLABAD (AAQ-BZ1)

Sampling Method : ETS/STP/AIR-01

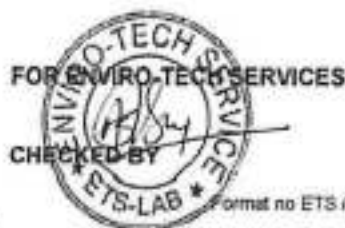
Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 20.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	67.5	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	39.2	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	7.4	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	10.1	For 24 Hrs.=80	IS: 5182 (Part-6)

\*\*\*End of Test Report\*\*\*

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**AUTHORIZED SIGNATORY**

Md. Humraj  
Dr. Qasim Saigoo

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## TEST REPORT

TEST REPORT NO : ETS/100-10/12/2017

DATE OF REPORT : 19-12-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 14-12-2017

Analysis Start Date : 17-12-2017

Analysis End Date : 18-12-2017

Duration Of Sampling : 14-12-2017 To 15-12-2017 24.0 HOURS

Sample ID No : 100-10/12

Sampling Done By : ETS STAFF

Sampling Location : TASRA (AAQ-CZ2)

Sampling Method : ETS/GTP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 18.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	75.0	For 24 Hrs. = 100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	43.5	For 24 Hrs. = 60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	11.3	For 24 Hrs. = 80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	20.3	For 24 Hrs. = 80	IS: 5182 (Part-6)

\*\*\*\*End of Test Report\*\*\*\*

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Dy. Quality manager

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ISO 9001:2015/OHSAS 18001  
Acc. No. - M31112041N

## TEST REPORT

TEST REPORT NO : ETS/100-07/12/2017

DATE OF REPORT : 19-12-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S, STEEL AUTHORITY OF INDIA LIMITED, PO-GHASNALA,  
DHANBAD, JHARKHAND, INDIA.

Date of Sampling : 11-12-2017

Analysis Start Date : 14-12-2017

Analysis End Date : 15-12-2017

Duration Of Sampling : 11-12-2017 To 12-12-2017 24.0 HOURS

Sample ID No : 100-07/12

Sampling Done By : ETS STAFF

Sampling Location : JHARIA (AAQ-BZ3)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 20.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	68.2	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	32.7	For 24 Hrs.=50	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	7.5	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	15.0	For 24 Hrs.=80	IS: 5182 (Part-6)

\*\*\*\*End of Test Report\*\*\*\*

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AUTHORIZED SIGNATORY

Md. Humraj

Dy. Quality manager

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ISO 9001:2015, 14001:2015, OHSAS 18001:2007

## TEST REPORT

TEST REPORT NO : ETS/90-12/12/2017

DATE OF REPORT : 12-12-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer

TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling

07-12-2017

Analysis Start Date

10-12-2017

Analysis End Date

11-12-2017

Duration Of Sampling

07-12-2017 To 08-12-2017 24.0 HOURS

Sample ID No

90-12/12

Sampling Done By

ETS STAFF

Sampling Location

CHASNALA (AAQ-CZ4)

Sampling Method

ETS/STP/AIR-01

Sampling Machine Placed At Height

3.5 mtr. (From Ground)

Weather Condition

CLEAR

Ambient Temperature 18.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	67.9	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	42.1	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	9.5	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	17.7	For 24 Hrs.=80	IS: 5182 (Part-6)

\*\*\*End of Test Report\*\*\*

Page 1 of 1



Envirotech Services  
AUTHORIZED SIGNATORY

Md. Humayun

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Acc. No. - 821112041N

## TEST REPORT

TEST REPORT NO : ETS/90-09/12/2017

DATE OF REPORT : 12-12-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 07-12-2017

Analysis Start Date : 10-12-2017

Analysis End Date : 11-12-2017

Duration Of Sampling : 07-12-2017 To 08-12-2017 24.0 HOURS

Sample ID No : 90-09/12

Sampling Done By : ETS STAFF

Sampling Location : ROHRABANDH (AAQ-CZ1)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 15.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	74.8	For 24 Hrs. = 100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	48.8	For 24 Hrs. = 80	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	9.7	For 24 Hrs. = 60	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	18.0	For 24 Hrs. = 80	IS: 5182 (Part-6)

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



For Enviro-Tech Services

AUTHORIZED SIGNATORY  
Md. Humayun

Dy. Quality manager

note:-

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## TEST REPORT

TEST REPORT NO : ETS/90-10/12/2017

DATE OF REPORT : 12-12-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer

: TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling

: 07-12-2017

Analysis Start Date

: 10-12-2017

Analysis End Date

: 11-12-2017

Duration Of Sampling

: 07-12-2017 To 08-12-2017 24.0 HOURS

Sample ID No

: 90-10/12

Sampling Done By

: ETS STAFF

Sampling Location

: TASRA (AAO-CZ2)

Sampling Method

: ETS/STP/AIR-01

Sampling Machine Placed At Height

: 3.5 mtr. (From Ground)

Weather Condition

: CLEAR

Ambient Temperature : 16.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	73.5	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	42.0	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	11.0	For 24 Hrs.=60	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	19.8	For 24 Hrs.=80	IS: 5182 (Part-6)

\*\*\*\*End of Test Report\*\*\*\*

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For Enviro-Tech Services

AUTHORIZED SIGNATORY

Md. Humraj

Dy. Quality Manager

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email : etslab2012@gmail.com | Website : www.etslab.asia | Ph.: 9811736063, 9911516076



ISO 9001:2015 CERTIFIED  
ACC. No. - MS1112041N

## TEST REPORT

TEST REPORT NO : ETS/90-11/12/2017

DATE OF REPORT : 12-12-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 07-12-2017

Analysis Start Date : 10-12-2017

Analysis End Date : 11-12-2017

Duration Of Sampling : 07-12-2017 To 08-12-2017 24.0 HOURS

Sample ID No : 90-11/12

Sampling Done By : ETS STAFF

Sampling Location : KANDRA (AAQ-CZ3)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 18.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	69.3	For 24 Hrs. = 100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	40.2	For 24 Hrs. = 60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	9.7	For 24 Hrs. = 80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	20.1	For 24 Hrs. = 80	IS: 5182 (Part-6)

\*\*\*End of Test Report\*\*\*

Page 1 of 1



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AUTHORIZED SIGNATORY  
MD. HUMRAJ  
Dy. Quality manager  
permission of the laboratory.

Format no ETS/LAB/TR-01 Issue No 04 dt 01/06/2016 Rev No 03 dt 01/06/2016

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ISO 9001:2015 OHSAS 18001  
Acc. No. - MS1112041N

## TEST REPORT

TEST REPORT NO : ETS/90-04/12/2017

DATE OF REPORT : 12-12-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 04-12-2017

Analysis Start Date : 07-12-2017

Analysis End Date : 08-12-2017

Duration Of Sampling : 04-12-2017 To 05-12-2017 24.0 HOURS

Sample ID No : 90-04/12

Sampling Done By : ETS STAFF

Sampling Location : CHASNALA (AAQ-CZ4)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR

Ambient Temperature : 20.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	68.6	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	42.5	For 24 Hrs.=80	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	9.8	For 24 Hrs.=60	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	17.8	For 24 Hrs.=80	IS: 5182 (Part-6)

\*\*\*End of Test Report\*\*\*

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AUTHORIZED SIGNATORY  
Md. Humayun  
Quality Manager

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ISO 9001:2015/OHSAS 18001  
Reg. No. - 821112541N

## TEST REPORT

TEST REPORT NO : ETS/90-05/12/2017

DATE OF REPORT : 12-12-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 04-12-2017

Analysis Start Date : 07-12-2017

Analysis End Date : 08-12-2017

Duration Of Sampling : 04-12-2017 To 05-12-2017 24.0 HOURS

Sample ID No : 90-05/12

Sampling Done By : ETS STAFF

Sampling Location : AMLABAD (AAQ-BZ1)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 20.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	66.0	For 24 Hrs. = 100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	38.3	For 24 Hrs. = 80	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	7.3	For 24 Hrs. = 80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	9.9	For 24 Hrs. = 80	IS: 5182 (Part-6)

\*\*\*\*End of Test Report\*\*\*\*

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Signature





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ISO 9001:2015/OHSAS 18001  
Acc. No. - MS1112045A

## TEST REPORT

TEST REPORT NO : ETS/80-02/12/2017

DATE OF REPORT : 12-12-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 04-12-2017

Analysis Start Date : 07-12-2017

Analysis End Date : 08-12-2017

Duration Of Sampling : 04-12-2017 To 05-12-2017 24.0 HOURS

Sample ID No : 80-02/12

Sampling Done By : ETS STAFF

Sampling Location : TASRA (AAQ-C22)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr (From Ground)

Weather Condition : CLEAR Ambient Temperature : 20.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	74.2	For 24 Hrs. = 100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	43.0	For 24 Hrs. = 60	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	11.1	For 24 Hrs. = 80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	20.0	For 24 Hrs. = 80	IS: 5182 (Part-5)

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



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AUTHORIZED SIGNATORY  
Md. Humraj

Note:-

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Md. Hossain





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Acc. No. - 831112043N

## TEST REPORT

TEST REPORT NO : ETS/90-16/12/2017

DATE OF REPORT : 12-12-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 07-12-2017

Analysis Start Date : 10-12-2017

Analysis End Date : 11-12-2017

Duration Of Sampling : 07-12-2017 To 08-12-2017 24.0 HOURS

Sample ID No : 90-16/12

Sampling Done By : ETS STAFF

Sampling Location : JORADIH (AAQ-B24)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR

Ambient Temperature : 18.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	64.3	For 24 Hrs. = 100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	25.4	For 24 Hrs. = 60	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	5.6	For 24 Hrs. = 80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	10.9	For 24 Hrs. = 80	IS: 5182 (Part-6)

\*\*\*End of Test Report\*\*\*

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AUTHORIZED SIGNATORY

Md. Humraj

Quality Manager

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Acc. No.: 8311120411N

## TEST REPORT

TEST REPORT NO : ETS/00-01/12/2017

DATE OF REPORT : 12-12-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 04-12-2017

Analysis Start Date : 07-12-2017

Analysis End Date : 08-12-2017

Duration Of Sampling : 04-12-2017 To 05-12-2017 24.0 HOURS

Sample ID No : 90-01/12

Sampling Done By : ETS STAFF

Sampling Location : ROHRABANDH (AAQ-CZ1)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 20.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	75.5	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	49.1	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	9.8	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	18.1	For 24 Hrs.=80	IS: 5182 (Part-6)

\*\*\*End of Test Report\*\*\*

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AUTHORIZED SIGNATORY  
Dy. Quality manager

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ISO 9001:2015/OHSAS 18001  
Acc. No.: M31112041N

TEST REPORT NO : ETS/90-14/12/2017

## TEST REPORT

DATE OF REPORT : 12-12-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S, STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 07-12-2017

Analysis Start Date : 10-12-2017

Analysis End Date : 11-12-2017

Duration Of Sampling : 07-12-2017 To 08-12-2017 24.0 HOURS

Sample ID No : 90-14/12

Sampling Done By : ETS STAFF

Sampling Location : BAGHMARA (AAQ-B22)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR

Ambient Temperature : 18.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	63.3	For 24 Hrs. = 100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	34.8	For 24 Hrs. = 60	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	7.0	For 24 Hrs. = 60	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	12.0	For 24 Hrs. = 60	IS: 5182 (Part-6)

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



For Enviro-Tech Services

AUTHORIZED SIGNATORY

Md. Humraj

Dy. Quality Manager

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ISO 9001/14001/OHSAS 18001  
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## TEST REPORT

TEST REPORT NO : ETS/00-15/12/2017

DATE OF REPORT : 12-12-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 07-12-2017

Analysis Start Date : 10-12-2017

Analysis End Date : 11-12-2017

Duration Of Sampling : 07-12-2017 To 08-12-2017 24.0 HOURS

Sample ID No : 90-15/12

Sampling Done By : ETS STAFF

Sampling Location : JHARIA (AAQ-BZ3)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR

Ambient Temperature : 18.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	66.0	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	31.7	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	7.3	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	14.5	For 24 Hrs.=80	IS: 5182 (Part-6)

\*\*\*\*End of Test Report\*\*\*\*

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AUTHORIZED SIGNATORY

Md. Humraj

Quality Manager

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ISO 9001:2015/OHSAS 18001  
Acc. No. - M31112041N

## TEST REPORT

TEST REPORT NO : ETS/90-05/12/2017

DATE OF REPORT : 12-12-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 04-12-2017

Analysis Start Date : 07-12-2017

Analysis End Date : 08-12-2017

Duration Of Sampling : 04-12-2017 To 05-12-2017 24.0 HOURS

Sample ID No : 90-05/12

Sampling Done By : ETS STAFF

Sampling Location : BAGHMARA (AAQ-BZZ)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 20.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	64.0	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	35.2	For 24 Hrs.=50	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	7.0	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	12.2	For 24 Hrs.=80	IS: 5182 (Part-8)

\*\*\*\*End of Test Report\*\*\*\*

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Md. Humraj

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ISO 9001:2015/OHSAS 18001  
Acc. No.: M31112041N

## TEST REPORT

TEST REPORT NO : ETS/00-13/12/2017

DATE OF REPORT : 12-12-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 07-12-2017

Analysis Start Date : 10-12-2017

Analysis End Date : 11-12-2017

Duration Of Sampling : 07-12-2017 To 08-12-2017 24.0 HOURS

Sample ID No : 90-13/12

Sampling Done By : ETS STAFF

Sampling Location : AMLABAD (AAQ-921)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 16.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	65.3	For 24 Hrs. = 100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	37.9	For 24 Hrs. = 60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	7.2	For 24 Hrs. = 80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	8.8	For 24 Hrs. = 80	IS: 5182 (Part-6)

\*\*\*\*End of Test Report\*\*\*\*

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For Enviro-Tech Services

AUTHORIZED SIGNATORY

Md. Humraj

Dy. Quality Manager

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email : etslab2012@gmail.com | Website : www.etslab.asia | Ph.: 9811736063, 9911516076



ISO 9001:2015/OHSAS 18001  
Acc. No. - M311129411

## TEST REPORT

TEST REPORT NO : ETS/90-08/12/2017

DATE OF REPORT :12-12-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S, STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 04-12-2017

Analysis Start Date : 07-12-2017

Analysis End Date : 08-12-2017

Duration Of Sampling : 04-12-2017 To 05-12-2017 24.0 HOURS

Sample ID No : 90-08/12

Sampling Done By : ETS STAFF

Sampling Location : JORADIH (AAQ-B24)

Sampling Method : ETS-STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 20.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	65.0	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	26.7	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	5.9	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	11.1	For 24 Hrs.=80	IS: 5182 (Part-6)

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1

FOR ENVIRO-TECH SERVICES

CHECKED BY



For Enviro-Tech Services

AUTHORIZED SIGNATORY

Md. Humraj  
Dy. Quality manager

Note:-

1. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.

2. The samples received shall be destroyed after one month from the date of test report issued.

3. The results indicated only refer to the tested samples and listed applicable parameters.

4. Our liability is limited to invoice value only.





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## TEST REPORT

TEST REPORT NO : ETS/90-07/12/2017

DATE OF REPORT : 12-12-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 04-12-2017

Analysis Start Date : 07-12-2017

Analysis End Date : 08-12-2017

Duration Of Sampling : 04-12-2017 To 05-12-2017 24.0 HOURS

Sample ID No : 90-07/12

Sampling Done By : ETS STAFF

Sampling Location : JHARIA (AAG-BZ3)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 20.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	86.7	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	32.0	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	7.3	For 24 Hrs.=60	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	14.7	For 24 Hrs.=80	IS: 5182 (Part-6)

\*\*\*\*End of Test Report\*\*\*\*



Page 1 of 1

For Enviro-Tech Services

AUTHORIZED SIGNATORY

Md. Humraj

#### Notes-

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2. The samples received shall be destroyed after one month from the date of test report issued.
3. The results indicated only refer to the tested samples and listed applicable parameters.
4. One Biddite is included in invoice when order

Format no ETS/LAB/TR-01 Issue No 04 dt 01/06/2016 Rev No 03 dt 01/06/2016





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ISO 9001:2015/OHSAS 18001  
Acc. No. - M31112841N

## TEST REPORT

TEST REPORT NO : ETS/74-45/11/2017

DATE OF REPORT : 28-11-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 20-11-2017

Analysis Start Date : 23-11-2017

Analysis End Date : 20-11-2017

Duration Of Sampling : 20-11-2017 To 21-11-2017 24.0 HOURS

Sample ID No : 74-45/11

Sampling Done By : ETS STAFF

Sampling Location : AMLABAD (AAQ-BZ1)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 25.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	69.0	For 24 Hrs. = 100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	40.0	For 24 Hrs. = 60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	7.5	For 24 Hrs. = 80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	10.4	For 24 Hrs. = 80	IS: 5182 (Part-6)

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



For Enviro-Tech Services

AUTHORIZED SIGNATURE  
Dy. Quality manager

Note:-

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ISO 9001:2015/OHSAS 18001  
Acc. No. - 03112041M

## TEST REPORT

TEST REPORT NO : ETS/30-13/11/2017

DATE OF REPORT : 14-11-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S, STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 06-11-2017

Analysis Start Date : 06-11-2017

Analysis End Date : 09-11-2017

Duration Of Sampling : 06-11-2017 To 07-11-2017 24.0 HOURS

Sample ID No : 30-13/11

Sampling Done By : ETS STAFF

Sampling Location : AMLABAD (AAQ-BZ1)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 24.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	67.6	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	39.2	For 24 Hrs.=80	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	7.4	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	10.1	For 24 Hrs.=80	IS: 5182 (Part-6)

\*\*\*\*End of Test Report\*\*\*\*



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AUTHORIZED SIGNATORY  
Dy. Quality manager

**Notes-**

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ISO 9001:2015/OHSAS 18001  
ACC. NO. - W31112081N

## TEST REPORT

TEST REPORT NO : ETS/74-44/11/2017

DATE OF REPORT : 26-11-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 20-11-2017

Analysis Start Date : 23-11-2017

Analysis End Date : 20-11-2017

Duration Of Sampling : 20-11-2017 To 21-11-2017 24.0 HOURS

Sample ID No : 74-44/11

Sampling Done By : ETS STAFF

Sampling Location : CHASNALA (AAO-CZ4)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 25.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	71.6	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	44.4	For 24 Hrs.=80	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	10.0	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	18.6	For 24 Hrs.=80	IS: 5182 (Part-6)

\*\*\*\*End of Test Report\*\*\*\*



Page 1 of 1

For Enviro-Tech Services

AUTHORIZED SIGNATORY:  
Md. Humra  
Dy. Quality manager

#### Notes:-

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ISO 9001:2015/OHSAS 18001  
Acc. No.: M31112941N

## TEST REPORT

TEST REPORT NO : ETS/30-14/11/2017

DATE OF REPORT : 14-11-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 06-11-2017

Analysis Start Date : 06-11-2017

Analysis End Date : 09-11-2017

Duration Of Sampling : 06-11-2017 To 07-11-2017 24.0 HOURS

Sample ID No : 30-14/11

Sampling Done By : ETS STAFF

Sampling Location : BAGHMARA (AAQ-BZ2)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 24.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	65.5	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	36.0	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	7.2	For 24 Hrs.=60	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	12.4	For 24 Hrs.=60	IS: 5182 (Part-6)

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



For Enviro-Tech Services

AUTHORIZED SIGNATORY  
Dy. Quality manager

Note:-

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ISO 9001:2015/OHSAS 18001  
Acc. No.: M31112541N

## TEST REPORT

TEST REPORT NO : ETS/74-43/11/2017

DATE OF REPORT : 28-11-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 20-11-2017

Analysis Start Date : 23-11-2017

Analysis End Date : 20-11-2017

Duration Of Sampling : 20-11-2017 To 21-11-2017 24.0 HOURS

Sample ID No : 74-43/11

Sampling Done By : ETS STAFF

Sampling Location : KANDRA (AAQ-CZ3)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 25.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	73.0	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	42.3	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	10.2	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	21.2	For 24 Hrs.=80	IS: 5182 (Part-6)

\*\*\*\*End of Test Report\*\*\*\*



Page 1 of 1

For Enviro-Tech Services

AUTHORIZED SIGNATORY  
By: Quality manager

#### Note:-

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ISO 9001:2015/OHSAS 18001  
Acc. No. - M31112041M

## TEST REPORT

TEST REPORT NO : ETS/30-15/11/2017

DATE OF REPORT : 14-11-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 08-11-2017

Analysis Start Date : 08-11-2017

Analysis End Date : 08-11-2017

Duration Of Sampling : 08-11-2017 To 07-11-2017 24.0 HOURS

Sample ID No : 30-15/11

Sampling Done By : ETS STAFF

Sampling Location : JHARIA (AAQ-BZ3)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 24.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	68.2	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	32.7	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	7.5	For 24 Hrs.=60	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	15.0	For 24 Hrs.=60	IS: 5182 (Part-6)

\*\*\*\*End of Test Report\*\*\*\*



FOR ENVIRO-TECH SERVICES

Page 1 of 1

For Enviro-Tech Services

AUTHORIZED SIGNATORY  
Dy. Quality manager

**Note:-**

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ISO 9001:2015/OHSAS 18001  
Acc. No. - M31112641N

## TEST REPORT

TEST REPORT NO : ETS/74-42/11/2017

DATE OF REPORT : 28-11-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S, STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 20-11-2017

Analysis Start Date : 23-11-2017

Analysis End Date : 20-11-2017

Duration Of Sampling : 20-11-2017 To 21-11-2017 24.0 HOURS

Sample ID No : 74-42/11

Sampling Done By : ETS STAFF

Sampling Location : TASRA (AAQ-C22)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 25.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	77.2	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	44.8	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	11.6	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	20.8	For 24 Hrs.=80	IS: 5182 (Part-6)

\*\*\*\*End of Test Report\*\*\*\*



Page 1 of 1

For Enviro-Tech Services

AUTHORIZED SIGNATORY  
Dy. Quality manager

Note:-

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ISO 9001:2015/OHSAS 18001  
Acc. No.: 801112041N

## TEST REPORT

TEST REPORT NO : ETS/30-16/11/2017

DATE OF REPORT : 14-11-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 06-11-2017

Analysis Start Date : 08-11-2017

Analysis End Date : 09-11-2017

Duration Of Sampling : 06-11-2017 To 07-11-2017 24.0 HOURS

Sample ID No : 30-16/11

Sampling Done By : ETS STAFF

Sampling Location : JORADIH (AAQ-B24)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 24.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	66.5	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	27.3	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	6.0	For 24 Hrs.=60	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	11.3	For 24 Hrs.=80	IS: 5182 (Part-6)

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



For Enviro-Tech Services

AUTHORIZED SIGNATORY  
By. Quality manager

#### Notes:-

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ISO 9001/14001/OHSAS 18001  
Acc. No. - M31112041W

## TEST REPORT

TEST REPORT NO : ETS/74-41/11/2017

DATE OF REPORT : 28-11-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 20-11-2017

Analysis Start Date : 23-11-2017

Analysis End Date : 20-11-2017

Duration Of Sampling : 20-11-2017 To 21-11-2017 24.0 HOURS

Sample ID No : 74-41/11

Sampling Done By : ETS STAFF

Sampling Location : ROHRABANDH (AAQ-CZ I)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 25.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	78.5	For 24 Hrs. = 100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	51.0	For 24 Hrs. = 60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	10.2	For 24 Hrs. = 80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	18.8	For 24 Hrs. = 80	IS: 5182 (Part-6)

\*\*\*\*End of Test Report\*\*\*\*

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AUTHORIZED SIGNATORY  
Dy. Quality Manager

#### Notes-

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ISO 9001/14001/OHSAS 18001  
Acc. No. - M31113541N

## TEST REPORT

TEST REPORT NO : ETS/51-41/11/2017

DATE OF REPORT : 21-11-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-DHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 13-11-2017

Analysis Start Date : 16-11-2017

Analysis End Date : 17-11-2017

Duration Of Sampling : 13-11-2017 To 14-11-2017 24.0 HOURS

Sample ID No : 51-41/11

Sampling Done By : ETS STAFF

Sampling Location : KANDRA (AAQ-CZ3)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 24.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	74.0	For 24 Hrs. = 100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	42.9	For 24 Hrs. = 60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	10.4	For 24 Hrs. = 80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	21.5	For 24 Hrs. = 80	IS: 5182 (Part-8)

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



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AUTHORIZED SIGNATORY  
By: Quality manager

Notes:

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ISO 9001:2015/14001:2015/18001:2007  
ACC. NO.: N31112041H

## TEST REPORT

TEST REPORT NO : ETS/51-42/11/2017

DATE OF REPORT : 21-11-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
W/S, STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 13-11-2017

Analysis Start Date : 16-11-2017

Analysis End Date : 17-11-2017

Duration Of Sampling : 13-11-2017 To 14-11-2017 24.0 HOURS

Sample ID No : 51-42/11

Sampling Done By : ETS STAFF

Sampling Location : CHASNALA (AAQ-CZ4)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 24.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	72.6	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	45.0	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	10.2	For 24 Hrs.=60	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	13.9	For 24 Hrs.=80	IS: 5182 (Part-6)

\*\*\*\*End of Test Report\*\*\*\*

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AUTHORIZED SIGNATORY  
By: Quality manager

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Acc. No. - M3112541N

## TEST REPORT

TEST REPORT NO : ETS/51-40/11/2017

DATE OF REPORT : 21-11-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 13-11-2017

Analysis Start Date : 16-11-2017

Analysis End Date : 17-11-2017

Duration Of Sampling : 13-11-2017 To 14-11-2017 24.0 HOURS

Sample ID No : 51-40/11

Sampling Done By : ETS STAFF

Sampling Location : TASRA (AAQ-CZ2)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 24.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	78.2	For 24 Hrs. = 100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	45.4	For 24 Hrs. = 60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	11.7	For 24 Hrs. = 80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	21.1	For 24 Hrs. = 80	IS: 5182 (Part-6)

\*\*\*\*End of Test Report\*\*\*\*

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AUTHORIZED SIGNATORY  
Dy. Quality manager

Notes:-

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ISO 9001:2015 OHSAS 18001  
Acc. No.: M21112041N

## TEST REPORT

TEST REPORT NO : ETS/51-39/11/2017

DATE OF REPORT : 21-11-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 13-11-2017

Analysis Start Date : 16-11-2017

Analysis End Date : 17-11-2017

Duration Of Sampling : 13-11-2017 To 14-11-2017 24.0 HOURS

Sample ID No : 51-39/11

Sampling Done By : ETS STAFF

Sampling Location : ROHRABANDH (AAQ-C21)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr (From Ground)

Weather Condition : CLEAR Ambient Temperature : 24.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	79.5	For 24 Hrs. = 100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	51.7	For 24 Hrs. = 60	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	10.3	For 24 Hrs. = 80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	19.1	For 24 Hrs. = 80	IS: 5182 (Part-8)

\*\*\*\*End of Test Report\*\*\*\*



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AUTHORIZED SIGNATURE  
By, Quality manager

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ISO 9001/14001/OHSAS 18001  
Acc. No. - M21112041N

## TEST REPORT

TEST REPORT NO : ETS/51-54/11/2017

DATE OF REPORT : 21-11-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer

: TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling

: 16-11-2017

Analysis Start Date

: 17-11-2017

Analysis End Date

: 18-11-2017

Duration Of Sampling

: 16-11-2017 To 17-11-2017 24.0 HOURS

Sample ID No

: 51-54/11

Sampling Done By

: ETS STAFF

Sampling Location

: JORADIH (AAQ-SZ4)

Sampling Method

: ETS/STP/AIR-01

Sampling Machine Placed At Height

: 3.5 mtr. (From Ground)

Weather Condition

: CLEAR

Ambient Temperature

: 22.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	88.3	For 24 Hrs. = 100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	28.0	For 24 Hrs. = 60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	6.1	For 24 Hrs. = 80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	11.8	For 24 Hrs. = 80	IS: 5182 (Part-6)

\*\*\*\*End of Test Report\*\*\*\*



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For Enviro-Tech Services

Md. Humraj  
AUTHORIZED SIGNATORY  
By: Quality Manager

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ISO 9001/14001/OHSAS 18001  
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## TEST REPORT

TEST REPORT NO : ETS/51-53/11/2017

DATE OF REPORT : 21-11-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 16-11-2017

Analysis Start Date : 17-11-2017

Analysis End Date : 18-11-2017

Duration Of Sampling : 16-11-2017 To 17-11-2017 24.0 HOURS

Sample ID No : 51-53/11

Sampling Done By : ETS STAFF

Sampling Location : JHARIA (AAQ-BZ3)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 22.6 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	70.0	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	33.6	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	7.7	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	15.4	For 24 Hrs.=80	IS: 5182 (Part-6)

\*\*\*\*End of Test Report\*\*\*\*



Page 1 of 1

For Enviro-Tech Services

Authorized Signatory  
By: Md. Humayun

Formal no ETS/LAB/TR-01 Issue No 04 dt 01/09/2016 Rev No 03 dt 01/06/2016

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ISO 9001:2015/OHSAS 18001  
Acc. No. - M31112041N

## TEST REPORT

TEST REPORT NO : ETS/51-51/11/2017

DATE OF REPORT : 21-11-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 16-11-2017

Analysis Start Date : 17-11-2017

Analysis End Date : 18-11-2017

Duration Of Sampling : 16-11-2017 To 17-11-2017 24.0 HOURS

Sample ID No : 51-51/11

Sampling Done By : ETS STAFF

Sampling Location : AMLABAD (AAQ-BZ1)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 22.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	89.3	For 24 Hrs. = 100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	40.2	For 24 Hrs. = 60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	7.6	For 24 Hrs. = 80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	10.4	For 24 Hrs. = 80	IS: 5182 (Part-5)

\*\*\*End of Test Report\*\*\*



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For Enviro-Tech Services

AUTHORIZED SIGNATORY  
By: Quality manager

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JAS-ANZ



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Acc. No. - M31112041N

## TEST REPORT

TEST REPORT NO : ETS/51-52/11/2017

DATE OF REPORT : 21-11-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 16-11-2017

Analysis Start Date : 17-11-2017

Analysis End Date : 18-11-2017

Duration Of Sampling : 16-11-2017 To 17-11-2017 24.0 HOURS

Sample ID No : 51-52/11

Sampling Done By : ETS STAFF

Sampling Location : BAGHMARA (AAQ-BZZ)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 22.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	67.3	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	37.0	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	7.4	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	12.8	For 24 Hrs.=80	IS: 5182 (Part-6)

\*\*\*\*End of Test Report\*\*\*\*

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FOR ENVIRO-TECH SERVICES

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For Enviro-Tech Services

AUTHORIZED SIGNATORY  
By: Quality manager

Note:-

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ISO 9001:2015/14001:2015  
Acc. No. - M3111204314

## TEST REPORT

TEST REPORT NO : ETS/51-47/11/2017

DATE OF REPORT : 21-11-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 16-11-2017

Analysis Start Date : 17-11-2017

Analysis End Date : 18-11-2017

Duration Of Sampling : 16-11-2017 To 17-11-2017 24.0 HOURS

Sample ID No : 51-47/11

Sampling Done By : ETS STAFF

Sampling Location : ROHRABANDH (AAQ-CZ1)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 22.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	78.8	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	51.2	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	10.2	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	18.9	For 24 Hrs.=80	IS: 5182 (Part-6)

\*\*\*\*End of Test Report\*\*\*\*



Page 1 of 1

For Enviro-Tech Services

AUTHORIZED SIGNATORY  
By: Quality Manager

#### Notes:-

Form No ETS/LAB/TR-01 Issue No 04 dt 01/06/2016 Rev No 03 dt 01/06/2016

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Environmental Monitoring, Testing and Services

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## TEST REPORT

TEST REPORT NO : ETS/51-48/11/2017

DATE OF REPORT : 21-11-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 18-11-2017

Analysis Start Date : 17-11-2017

Analysis End Date : 18-11-2017

Duration Of Sampling : 16-11-2017 To 17-11-2017 24.0 HOURS

Sample ID No : 51-48/11

Sampling Done By : ETS STAFF

Sampling Location : TASRA (AAQ-C22)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 22.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	77.5	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	45.0	For 24 Hrs.=80	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	11.0	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	20.9	For 24 Hrs.=80	IS: 5182 (Part-6)

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1

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AUTHORIZED SIGNATORY  
By: Quality Manager

Signature of the Quality Manager

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Acc. No. - N21112041N

## TEST REPORT

TEST REPORT NO. ETS/51-49/11/2017

DATE OF REPORT : 21-11-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
NVS, STEEL AUTHORITY OF INDIA LIMITED, PO-CHASHALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 16-11-2017

Analysis Start Date : 17-11-2017

Analysis End Date : 18-11-2017

Duration Of Sampling : 16-11-2017 To 17-11-2017 24.0 HOURS

Sample ID No : 51-49/11

Sampling Done By : ETS STAFF

Sampling Location : KANDRA (AAQ-GZ3)

Sampling Method : ETS-STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 22.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	73.3	For 24 Hrs. = 100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	42.5	For 24 Hrs. = 60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	10.3	For 24 Hrs. = 80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	21.3	For 24 Hrs. = 80	IS: 5182 (Part-6)

\*\*\*\*End of Test Report\*\*\*\*

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AUTHORIZED SIGNATORY  
By: Quality Manager

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## TEST REPORT

TEST REPORT NO : ETS/51-50/11/2017

DATE OF REPORT : 21-11-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 16-11-2017

Analysis Start Date : 17-11-2017

Analysis End Date : 18-11-2017

Duration Of Sampling : 16-11-2017 To 17-11-2017 24.0 HOURS

Sample ID No : 51-50/11

Sampling Done By : ETS STAFF

Sampling Location : CHASNALA (AAQ-CZ4)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr (From Ground)

Weather Condition : CLEAR Ambient Temperature : 22.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	71.9	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	44.6	For 24 Hrs.=80	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	10.1	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	18.7	For 24 Hrs.=80	IS: 5182 (Part-6)

\*\*\*\*End of Test Report\*\*\*\*

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Format no ETS/LAB/IR-01 Issue No 04 dt 01/09/2016 Rev No 03 dt 01/09/2016

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AUTHORIZED SIGNATORY  
By: Quality manager

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ISO 9001:2015/OHSAS 18001  
Acc. No. - M31112041N

## TEST REPORT

TEST REPORT NO : ETS/46/120-10/10/2017

DATE OF REPORT : 18-10-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 12-10-2017

Analysis Start Date : 15-10-2017

Analysis End Date : 16-10-2017

Duration Of Sampling : 12-10-2017 To 13-10-2017 24.0 HOURS

Sample ID No : 120-10/10

Sampling Done By : ETS STAFF

Sampling Location : TASRA (AAQ-G22)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 25.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	78.5	For 24 Hrs. =100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	45.5	For 24 Hrs. =60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	11.8	For 24 Hrs. =80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.63	For 8 Hrs. =02 / For 1 Hrs. =04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	22.0	For 24 Hrs. =80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs. =1.0	IS: 5182 (Part-22)
7.	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	27.5	For 8 Hrs. =100 / For 1 Hrs. =160	IS: 5182 (Part-9)
8.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	NIL	For 24 Hrs. =400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual =01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual =20	IS: 5182 (Part-22)
11.	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	1.02	For 24 Hrs. =5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual =06	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*

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Dy. Quality manager

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## TEST REPORT

TEST REPORT NO : ETS/46/120-09/10/2017

DATE OF REPORT : 18-10-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 12-10-2017

Analysis Start Date : 15-10-2017

Analysis End Date : 16-10-2017

Duration Of Sampling : 12-10-2017 To 13-10-2017 24.0 HOURS

Sample ID No : 120-09/10

Sampling Done By : ETS STAFF

Sampling Location : ROHRABANDH (AAQ-CZ1)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 25.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	79.8	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	51.9	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	8.8	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.56	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	17.6	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O3)	µg/m <sup>3</sup>	26.3	For 8 Hrs.=100/ For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH3)	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C6H6)	µg/m <sup>3</sup>	1.20	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*End of Test Report\*\*\*

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AUTHORIZED SIGNATURE  
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Envirotech no ETS/46/120-09/10/2017 Issue No 04 dt 01/08/2016 Rev No 03 dt 01/06/2016





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ISO 9001:2015/OHSAS 18001  
Acc. No. - M31112041N

## TEST REPORT

TEST REPORT NO : ETS/45/120-12/10/2017

DATE OF REPORT : 18-10-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S, STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 12-10-2017

Analysis Start Date : 15-10-2017

Analysis End Date : 16-10-2017

Duration Of Sampling : 12-10-2017 To 13-10-2017 24.0 HOURS

Sample ID No : 120-12/10

Sampling Done By : ETS STAFF

Sampling Location : CHASNALA (AAQ-CZ4)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 25.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per GPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	72.9	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	45.2	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	10.2	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.66	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	16.6	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O3)	µg/m <sup>3</sup>	21.7	For 8 Hrs.=100/ For 1 Hrs.=150	IS: 5182 (Part-9)
8.	Ammonia (NH3)	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C6H6)	µg/m <sup>3</sup>	1.24	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*

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## TEST REPORT

TEST REPORT NO : ETS/46/120-11/10/2017

DATE OF REPORT : 18-10-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 12-10-2017

Analysis Start Date : 15-10-2017

Analysis End Date : 16-10-2017

Duration Of Sampling : 12-10-2017 To 13-10-2017 24.0 HOURS

Sample ID No : 120-11/10

Sampling Done By : ETS STAFF

Sampling Location : KANDRA (AAQ-CZ3)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 25.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	74.3	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	43.1	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	10.4	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.71	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	20.1	For 24 Hrs.=80	IS: 5182 (Part-9)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	28.2	For 8 Hrs.=100 / For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	1.26	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*

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AUTHORIZED SIGNATORY  
Dy. Quality Manager

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ISO 9001:2015/OHSAS 18001  
Acc. No. - M21112041N

## TEST REPORT

TEST REPORT NO.: ETS/46/120-13/10/2017

DATE OF REPORT: 16-10-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S, STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 12-10-2017

Analysis Start Date : 15-10-2017

Analysis End Date : 16-10-2017

Duration Of Sampling : 12-10-2017 To 13-10-2017 24.0 HOURS

Sample ID No : 120-13/10

Sampling Done By : ETS STAFF

Sampling Location : BAGHMARA (AAQ-B22)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 25.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	68.3	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	37.6	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	7.5	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.51	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	17.6	For 24 Hrs.=80	IS: 5182 (Part-8)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	15.7	For 8 Hrs.=100/ For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	1.23	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1

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AUTHORIZED SIGNATURE  
Dy. Quality manager

Notes:-

Format no ETS /LAB/TR-01 Issue No 04 dt 01/06/2016 Rev No 03 dt 01/06/2016

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email : etslab2012@gmail.com | Website : www.etslab.org | Ph.: 9811736063, 9911516076



ISO 9001:2015/OHSAS 18001  
Acc. No. - M31112541N

## TEST REPORT

TEST REPORT NO : ETS/46/120-12/10/2017

DATE OF REPORT : 18-10-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 12-10-2017

Analysis Start Date : 15-10-2017

Analysis End Date : 18-10-2017

Duration Of Sampling : 12-10-2017 To 13-10-2017 24.0 HOURS

Sample ID No : 120-12/10

Sampling Done By : ETS STAFF

Sampling Location : AMLABAD (AAQ-BZ1)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 25.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	70.3	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	40.8	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	7.7	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.83	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	13.4	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	28.8	For 8 Hrs.=100 / For 1 Hrs.=160	IS: 5182 (Part-9)
8.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	0.70	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*

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Dy. Quality manager

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ISO 9001/14001/OHSAS 18001  
Reg. No. - 831112041N

## TEST REPORT

TEST REPORT NO : ETS/46/120-15/10/2017

DATE OF REPORT : 18-10-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S, STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 12-10-2017

Analysis Start Date : 15-10-2017

Analysis End Date : 16-10-2017

Duration Of Sampling : 12-10-2017 To 13-10-2017 24.0 HOURS

Sample ID No : 120-15/10

Sampling Done By : ETS STAFF

Sampling Location : JORADIH (AAQ-BZ4)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 25.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	89.3	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	37.4	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	6.2	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.38	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	13.2	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	16.7	For 8 Hrs.=100/ For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	0.89	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*

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By. Quality manager

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## TEST REPORT

TEST REPORT NO : ETS/46/120-14/10/2017

DATE OF REPORT : 18-10-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 12-10-2017

Analysis Start Date : 15-10-2017

Analysis End Date : 18-10-2017

Duration Of Sampling : 12-10-2017 To 13-10-2017 24.0 HOURS

Sample ID No : 120-14/10

Sampling Done By : ETS STAFF

Sampling Location : JHARIA (AAQ-823)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr (From Ground)

Weather Condition : CLEAR Ambient Temperature : 25.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	71.0	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	34.1	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	7.8	For 24 Hrs.=60	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.43	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	17.8	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	19.9	For 8 Hrs.=100/ For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	0.71	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*End of Test Report\*\*\*

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By: Quality manager

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ISO 9001:2015/OHSAS 18001  
Acc. No. M211120419

## TEST REPORT

TEST REPORT NO : ETS/46/120-02/10/2017

DATE OF REPORT : 18-10-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S, STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 09-10-2017

Analysis Start Date : 12-10-2017

Analysis End Date : 13-10-2017

Duration Of Sampling : 09-10-2017 To 10-10-2017 24.0 HOURS

Sample ID No : 120-02/10

Sampling Done By : ETS STAFF

Sampling Location : TASRA (AAQ-C22)

Sampling Method : ETS/STP/AJR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 27.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	79.2	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	45.9	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	11.9	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.63	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	22.2	For 24 Hrs.=80	IS: 5182 (Part-8)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O3)	µg/m <sup>3</sup>	27.7	For 8 Hrs.=100/ For 1 Hrs.=160	IS: 5182 (Part-9)
8.	Ammonia (NH3)	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C6H6)	µg/m <sup>3</sup>	1.03	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*

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Dy. Quality manager

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## TEST REPORT

TEST REPORT NO : ETS/46/120-01/10/2017

DATE OF REPORT : 18-10-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 09-10-2017  
Analysis Start Date : 12-10-2017  
Analysis End Date : 13-10-2017  
Duration Of Sampling : 09-10-2017 To 10-10-2017 24.0 HOURS  
Sample ID No : 120-01/10  
Sampling Done By : ETS STAFF  
Sampling Location : ROHRABANDH (AAQ-CZ1)  
Sampling Method : ETS/STP/AIR-01  
Sampling Machine Placed At Height : 3.5 mtr. (From Ground)  
Weather Condition : CLEAR Ambient Temperature : 27.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	80.5	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	52.3	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	8.9	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.56	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	17.7	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O3)	µg/m <sup>3</sup>	26.6	For 8 Hrs.=100/ For 1 Hrs.=160	IS: 5182 (Part-9)
8.	Ammonia (NH3)	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C6H6)	µg/m <sup>3</sup>	1.21	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*



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For Enviro-Tech Services

Md. Humraj  
Authorized Signatory  
By, Quality manager

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ISO 9001:2015 OHSAS 18001  
Acc. No. - M31112041M

## TEST REPORT

TEST REPORT NO : ETS/46/120-04/10/2017

DATE OF REPORT : 18-10-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 09-10-2017

Analysis Start Date : 12-10-2017

Analysis End Date : 13-10-2017

Duration Of Sampling : 09-10-2017 To 10-10-2017 24.0 HOURS

Sample ID No : 120-04/10

Sampling Done By : ETS STAFF

Sampling Location : CHASNALA (AAQ-CZ4)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 27.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	73.6	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	45.6	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	10.3	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.66	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	16.9	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	28.0	For 8 Hrs.=100 / For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	1.25	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*End of Test Report\*\*\*

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MD. HUMRAJ  
Dy. Quality manager

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## TEST REPORT

TEST REPORT NO : ETS/46/120-03/10/2017

DATE OF REPORT : 16-10-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
CHANBAD, JHARKHAND, INDIA

Date of Sampling : 09-10-2017

Analysis Start Date : 12-10-2017

Analysis End Date : 13-10-2017

Duration Of Sampling : 09-10-2017 To 10-10-2017 24.0 HOURS

Sample ID No : 120-03/10

Sampling Done By : ETS STAFF

Sampling Location : KANDRA (AAQ-CZ3)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 27.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	75.0	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	43.5	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	10.5	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.71	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	20.3	For 24 Hrs.=80	IS: 5182 (Part-8)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O3)	µg/m <sup>3</sup>	28.5	For 8 Hrs.=100 / For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH3)	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C6H6)	µg/m <sup>3</sup>	1.28	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*End of Test Report\*\*\*

Page 1 of 1

For Enviro-Tech Services

FOR ENVIRO-TECH SERVICES

CHECKED BY

AUTHORIZED SIGNATURE  
Dy. Quality manager

Format no ETS/LAB/TR-01 Issue No 04 dt 01/05/2016 Rev No 03 dt 01/05/2016

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email : etslab2012@gmail.com | Website : www.etslab.asia | Ph: 9811736063, 9911516075



ISO 9001:2015/OHSAS 18001  
Acc. No. - M21112041N

## TEST REPORT

TEST REPORT NO : ETS/46/120-06/10/2017

DATE OF REPORT : 18-10-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 09-10-2017

Analysis Start Date : 12-10-2017

Analysis End Date : 13-10-2017

Duration Of Sampling : 09-10-2017 To 10-10-2017 24.0 HOURS

Sample ID No : 120-06/10

Sampling Done By : ETS STAFF

Sampling Location : BAGHMARA (AAQ-BZ2)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 27.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	69.0	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	38.0	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	7.6	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.52	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	17.9	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	15.9	For 8 Hrs.=100 / For 1 Hrs.=160	IS: 5182 (Part-9)
8.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	1.24	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*

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AUTHORIZED SIGNATORY  
Dy. Quality manager

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## TEST REPORT

TEST REPORT NO : ETS/46/120-05/10/2017

DATE OF REPORT : 18-10-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S, STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 09-10-2017  
Analysis Start Date : 12-10-2017  
Analysis End Date : 13-10-2017  
Duration Of Sampling : 09-10-2017 To 10-10-2017 24.0 HOURS  
Sample ID No : 120-05/10  
Sampling Done By : ETS STAFF  
Sampling Location : AMLABAD (AAQ-BZ1)  
Sampling Method : ETS/STP/AIR-01  
Sampling Machine Placed At Height : 3.5 mtr. (From Ground)  
Weather Condition : CLEAR Ambient Temperature : 27.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	71.0	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	41.2	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	7.8	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.64	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	13.5	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	29.1	For 8 Hrs.=100 / For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	0.71	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1

For Enviro-Tech Services



Md. Humrai  
By: Quality manager

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ISO 9001:2015/OHSAS 18001  
Acc. No. - M31112041H

## TEST REPORT

TEST REPORT NO : ETS/46/120-08/10/2017

DATE OF REPORT : 18-10-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 09-10-2017

Analysis Start Date : 12-10-2017

Analysis End Date : 13-10-2017

Duration Of Sampling : 09-10-2017 To 10-10-2017 24.0 HOURS

Sample ID No : 120-08/10

Sampling Done By : ETS STAFF

Sampling Location : JORADIH (AAQ-B24)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 27.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	70.0	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	28.7	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	6.3	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.39	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	13.3	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O3)	µg/m <sup>3</sup>	18.9	For 8 Hrs.=100 / For 1 Hrs.=160	IS: 5182 (Part-9)
8.	Ammonia (NH3)	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C6H6)	µg/m <sup>3</sup>	0.84	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*



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AUTHORIZED SIGNATURE  
Dy. Quality manager

**Notes:-**

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ISO 9001:2015 OHSAS 18001  
Acc. No. - M31112041N

## TEST REPORT

TEST REPORT NO : ETS/46/88-10/10/2017

DATE OF REPORT : 11-10-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S, STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 05-10-2017

Analysis Start Date : 09-10-2017

Analysis End Date : 10-10-2017

Duration Of Sampling : 05-10-2017 To 07-10-2017 24.0 HOURS

Sample ID No : 88-10/10

Sampling Done By : ETS STAFF

Sampling Location : TASRA (AAQ-CZ2)

Sampling Method : ETS/STP/AJR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 26.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	77.0	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	44.7	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	11.6	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.82	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	21.0	For 24 Hrs.=80	IS: 5182 (Part-5)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	27.0	For 8 Hrs.=100/ For 1 Hrs.=150	IS: 5182 (Part-9)
8.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	1.00	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*End of Test Report\*\*\*

Page 1 of 1



For Enviro-Tech Services

AUTHORIZED SIGNATORY  
Dy. Quality manager

Note:-

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JAS-ANZ



ISO 9001:2015/OHSAS 18001  
Acc. No. - 931112045H

## TEST REPORT

TEST REPORT NO : ETS/46/86-09/10/2017

DATE OF REPORT : 11-10-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 08-10-2017

Analysis Start Date : 09-10-2017

Analysis End Date : 10-10-2017

Duration Of Sampling : 08-10-2017 To 07-10-2017 24.0 HOURS

Sample ID No : 88-09/10

Sampling Done By : ETS STAFF

Sampling Location : ROHRABANDH (AAG-CZ1)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 26.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	78.3	For 24 Hrs. = 100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	50.9	For 24 Hrs. = 60	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	8.6	For 24 Hrs. = 80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.55	For 8 Hrs. = 02 / For 1 Hrs. = 04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	17.2	For 24 Hrs. = 80	IS: 5182 (Part-5)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs. = 1.0	IS: 5182 (Part-22)
7.	Ozone (O3)	µg/m <sup>3</sup>	25.8	For 8 Hrs. = 100 / For 1 Hrs. = 180	IS: 5182 (Part-9)
8.	Ammonia (NH3)	µg/m <sup>3</sup>	NIL	For 24 Hrs. = 400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual = 01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual = 20	IS: 5182 (Part-22)
11.	Benzene (C6H6)	µg/m <sup>3</sup>	1.17	For 24 Hrs. = 5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual = 06	IS: 5182 (Part-22)

\*\*\*End of Test Report\*\*\*



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For Enviro-Tech Services

AUTHORIZED SIGNATORY  
By: Quality manager

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Acc. No. - M31112341N

## TEST REPORT

TEST REPORT NO : ETS/46/86-12/10/2017

DATE OF REPORT : 11-10-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 08-10-2017

Analysis Start Date : 09-10-2017

Analysis End Date : 10-10-2017

Duration Of Sampling : 06-10-2017 To 07-10-2017 24.0 HOURS

Sample ID No : 88-12/10

Sampling Done By : ETS STAFF

Sampling Location : CHASNALA (AAQ-CZ4)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 26.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	71.4	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	44.3	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	10.0	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.64	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	16.4	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O3)	µg/m <sup>3</sup>	27.1	For 8 Hrs.=100/ For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH3)	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C6H6)	µg/m <sup>3</sup>	1.21	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



For Enviro-Tech Services

AUTHORIZED SIGNATORY  
Dy. Quality manager

Notes:-

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## TEST REPORT

TEST REPORT NO : ETS/46/88-11/10/2017

DATE OF REPORT : 11-10-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 06-10-2017

Analysis Start Date : 09-10-2017

Analysis End Date : 10-10-2017

Duration Of Sampling : 06-10-2017 To 07-10-2017 24.0 HOURS

Sample ID No : 88-11/10

Sampling Done By : ETS STAFF

Sampling Location : KANDRA (AAQ-CZ3)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 26.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	72.8	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	42.2	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	10.2	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.69	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	19.7	For 24 Hrs.=80	IS: 5182 (Part-8)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	27.7	For 8 Hrs.=100 / For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	1.24	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



For Enviro-Tech Services

AUTHORIZED SIGNATORY  
Dy. Quality manager

Format no ETS/LAB/TR-01 Issue No 04 dt 01/06/2016 Rev No 03 dt 01/06/2016

Notes:-

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email : etslab2012@gmail.com | Website : www.etslab.asia | Ph.. 9811736063, 9911516076



ISO 9001:2015/OHSAS 18001  
Acc. No.: M31112041N

## TEST REPORT

TEST REPORT NO : ETS/46/88-14/10/2017

DATE OF REPORT : 11-10-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 06-10-2017

Analysis Start Date : 09-10-2017

Analysis End Date : 10-10-2017

Duration Of Sampling : 06-10-2017 To 07-10-2017 24.0 HOURS

Sample ID No : 88-14/10

Sampling Done By : ETS STAFF

Sampling Location : BAGHMARA (AAQ-BZ2)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 26.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	66.8	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	36.7	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	7.3	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.50	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	17.4	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O <sub>3</sub> )	ppb/m <sup>3</sup>	15.4	For 8 Hrs.=100 / For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	1.20	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



For Enviro-Tech Services

AUTHORIZED SIGNATORY  
By. Quality manager

Note:-

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ISO 9001:2015/OHSAS 18001  
Acc. No. - M21112041N

## TEST REPORT

TEST REPORT NO : ETS/46/88-13/10/2017

DATE OF REPORT : 11-10-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 06-10-2017

Analysis Start Date : 09-10-2017

Analysis End Date : 10-10-2017

Duration Of Sampling : 06-10-2017 To 07-10-2017 24.0 HOURS

Sample ID No : 68-13/10

Sampling Done By : ETS STAFF

Sampling Location : AMLABAD (AAQ-BZ1)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 26.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	68.8	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	39.9	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	7.6	For 24 Hrs.=60	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.62	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	13.1	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O3)	µg/m <sup>3</sup>	26.2	For 8 Hrs.=100/ For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH3)	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C6H6)	µg/m <sup>3</sup>	0.69	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



For Enviro-Tech Services

AUTHORIZED SIGNATORY  
By: Quality manager

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ISO 9001:2015/OHSAS 18001  
Acc. No. - N31112941N

## TEST REPORT

TEST REPORT NO : ETS/46/86-16/10/2017

DATE OF REPORT : 11-10-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TABRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 06-10-2017

Analysis Start Date : 09-10-2017

Analysis End Date : 10-10-2017

Duration Of Sampling : 06-10-2017 To 07-10-2017 24.0 HOURS

Sample ID No : 88-16/10

Sampling Done By : ETS STAFF

Sampling Location : JORADIH (AAQ-B24)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 26.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	67.8	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	36.6	For 24 Hrs.=80	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	6.1	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.37	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	12.9	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	18.3	For 8 Hrs.=100/ For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	0.88	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



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AUTHORIZED SIGNATURE  
Dy. Quality manager

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## TEST REPORT

TEST REPORT NO : ETS/46/88-15/10/2017

DATE OF REPORT : 11-10-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 06-10-2017

Analysis Start Date : 08-10-2017

Analysis End Date : 10-10-2017

Duration Of Sampling : 06-10-2017 To 07-10-2017 24.0 HOURS

Sample ID No : 88-15/10

Sampling Done By : ETS STAFF

Sampling Location : JHARIA (AAQ-BZ3)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 26.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	69.5	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	33.4	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	7.6	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.42	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	17.4	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	19.5	For 8 Hrs.=100/ For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	0.70	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



For Enviro-Tech Services

AUTHORIZED SIGNATORY  
Dy. Quality manager

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ISO 9001:2015 OHSAS 18001  
Acc. No. - M21112941N

## TEST REPORT

TEST REPORT NO : ETS/46/88-02/10/2017

DATE OF REPORT : 11-10-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 03-10-2017

Analysis Start Date : 06-10-2017

Analysis End Date : 07-10-2017

Duration Of Sampling : 03-10-2017 To 04-10-2017 24.0 HOURS

Sample ID No : 88-02/10

Sampling Done By : ETS STAFF

Sampling Location : TASRA (AAQ-C23)

Sampling Method : ETS/GTP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 28.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	77.7	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	45.1	For 24 Hrs.=80	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	11.7	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.62	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	21.8	For 24 Hrs.=80	IS: 5182 (Part-8)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O3)	µg/m <sup>3</sup>	27.2	For 8 Hrs.=100 / For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH3)	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C6H6)	µg/m <sup>3</sup>	1.01	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



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AUTHORIZED SIGNATURE  
By. Quality manager





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ISO 9001:2015 OHSAS 18001  
ACC. No. - MS1112041N

## TEST REPORT

TEST REPORT NO : ETS/46/88-01/10/2017

DATE OF REPORT : 11-10-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TABRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 03-10-2017

Analysis Start Date : 05-10-2017

Analysis End Date : 07-10-2017

Duration Of Sampling : 03-10-2017 To 04-10-2017 24.0 HOURS

Sample ID No : 88-01/10

Sampling Done By : ETS STAFF

Sampling Location : ROHRABANDH (AAQ-CZ1)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 28.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	79.0	For 24 Hrs. = 100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	51.4	For 24 Hrs. = 60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	8.7	For 24 Hrs. = 80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.55	For 8 Hrs. = 02 / For 1 Hrs. = 04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	17.4	For 24 Hrs. = 80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs. = 1.0	IS: 5182 (Part-22)
7.	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	28.1	For 8 Hrs. = 100 / For 1 Hrs. = 180	IS: 5182 (Part-9)
8.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	NIL	For 24 Hrs. = 400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual = 01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual = 20	IS: 5182 (Part-22)
11.	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	1.19	For 24 Hrs. = 5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual = 00	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



For Enviro-Tech Services

Md. Humraj  
Authorized Signatory  
By: Quality manager

Format no ETS/LAB/TR-01 Issue No 04 dt 01/08/2016 Rev No 03 dt 01/06/2016

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ISO 9001:2015/OHSAS 18001  
Acc. No.: M31112041N

## TEST REPORT

TEST REPORT NO : ETS/46/88-04/10/2017

DATE OF REPORT : 11-10-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 03-10-2017

Analysis Start Date : 06-10-2017

Analysis End Date : 07-10-2017

Duration Of Sampling : 03-10-2017 To 04-10-2017 24.0 HOURS

Sample ID No : 88-04/10

Sampling Done By : ETS STAFF

Sampling Location : CHASNALA (AAQ-CZ4)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 28.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	72.1	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	44.7	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	10.1	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.65	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	16.6	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	27.4	For 8 Hrs.=100/ For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	1.23	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=05	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*



Page 1 of 1

For Enviro-Tech Services

AUTHORIZED SIGNATORY  
By. Quality manager

Notes:-

Format no ETS/LAB/TR-01 Issue No 04 dt 01/06/2016 Rev No 03 dt 01/05/2016

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JAS-ANZ



ISO 9001:2015/OHSAS 18001  
Acc. No. - M31111041M

## TEST REPORT

TEST REPORT NO : ETS/46/88-03/10/2017

DATE OF REPORT : 11-10-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 03-10-2017

Analysis Start Date : 06-10-2017

Analysis End Date : 07-10-2017

Duration Of Sampling : 03-10-2017 To 04-10-2017 24.0 HOURS

Sample ID No : 88-03/10

Sampling Done By : ETS STAFF

Sampling Location : KANDRA (AAQ-CZ3)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 28.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	73.5	For 24 Hrs. = 100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	42.6	For 24 Hrs. = 60	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	10.3	For 24 Hrs. = 80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.70	For 8 Hrs. = 02 / For 1 Hrs. = 04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	19.8	For 24 Hrs. = 80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs. = 1.0	IS: 5182 (Part-22)
7.	Ozone (O3)	µg/m <sup>3</sup>	27.9	For 8 Hrs. = 100 / For 1 Hrs. = 180	IS: 5182 (Part-9)
8.	Ammonia (NH3)	µg/m <sup>3</sup>	NIL	For 24 Hrs. = 400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual = 01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual = 20	IS: 5182 (Part-22)
11.	Benzene (C6H6)	µg/m <sup>3</sup>	1.25	For 24 Hrs. = 5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual = 06	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*



ENVIRO-TECH SERVICES

Page 1 of 1

For Enviro-Tech Services

Md. Humraj  
AUTHORIZED SIGNATORY  
By: Quality manager

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ISO 9001:2015/OHSAS 18001  
Acc. No.: M21112041N

## TEST REPORT

TEST REPORT NO : ETS/46/88-06/10/2017

DATE OF REPORT : 11-10-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S, STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 03-10-2017

Analysis Start Date : 08-10-2017

Analysis End Date : 07-10-2017

Duration Of Sampling : 03-10-2017 To 04-10-2017 24.0 HOURS

Sample ID No : 88-06/10

Sampling Done By : ETS STAFF

Sampling Location : BAGHMARA (AAQ-B22)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 28.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	67.5	For 24 Hrs. =100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	37.1	For 24 Hrs. =60	Gravimetric Method
3.	Sulphur Dioxide (SO2)	µg/m <sup>3</sup>	7.4	For 24 Hrs. =80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.51	For 8 Hrs. =02 / For 1 Hrs. =04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO2)	µg/m <sup>3</sup>	17.6	For 24 Hrs. =80	IS: 5182 (Part-8)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs. =1.0	IS: 5182 (Part-22)
7.	Ozone (O3)	µg/m <sup>3</sup>	15.5	For 8 Hrs. =100/ For 1 Hrs. =180	IS: 5182 (Part-9)
8.	Ammonia (NH3)	µg/m <sup>3</sup>	NIL	For 24 Hrs. =400	Indophenol Blue Method
9.	Benzo (a) Pynne (BaP)	ng/m <sup>3</sup>	N.D.	For Annual =01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual =20	IS: 5182 (Part-22)
11.	Benzene (C6H6)	µg/m <sup>3</sup>	1.22	For 24 Hrs. =5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual =06	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*



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For Enviro-Tech Services

AUTHORIZED SIGNATORY  
By: Quality manager

Note:-

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## TEST REPORT

TEST REPORT NO : ETS/MS/BB-05/10/2017

DATE OF REPORT : 11-10-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S, STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 03-10-2017

Analysis Start Date : 06-10-2017

Analysis End Date : 07-10-2017

Duration Of Sampling : 03-10-2017 To 04-10-2017 24.0 HOURS

Sample ID No : 68-05/10

Sampling Done By : ETS STAFF

Sampling Location : AMLABAD (AAQ-BZ1)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 28.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per GPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	69.5	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	40.3	For 24 Hrs.=80	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	7.6	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.63	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	13.2	For 24 Hrs.=80	IS: 5182 (Part-5)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	28.5	For 8 Hrs.=100/ For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	0.70	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*

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For Enviro-Tech Services

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Dy. Quality manager

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ISO 9001:2015/OHSAS 18001  
Acc. No.: M21112041N

## TEST REPORT

TEST REPORT NO : ETS/46/58-06/10/2017

DATE OF REPORT : 11-10-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 03-10-2017

Analysis Start Date : 06-10-2017

Analysis End Date : 07-10-2017

Duration Of Sampling : 03-10-2017 To 04-10-2017 24.0 HOURS

Sample ID No : 88-08/10

Sampling Done By : ETS STAFF

Sampling Location : JORADIH (AAQ-BZ4)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 28.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	68.5	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	28.1	For 24 Hrs.=80	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	6.2	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.38	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	13.0	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	18.5	For 8 Hrs.=100/ For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	0.69	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



For Enviro-Tech Services

AUTHORIZED SIGNATORY  
Dy. Quality manager

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## TEST REPORT

TEST REPORT NO : ETS/46/88-07/10/2017

DATE OF REPORT : 11-10-2017

### AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Sampling : 03-10-2017

Analysis Start Date : 05-10-2017

Analysis End Date : 07-10-2017

Duration Of Sampling : 03-10-2017 To 04-10-2017 24 HOURS

Sample ID No : 88-07/10

Sampling Done By : ETS STAFF

Sampling Location : JHARIA (AAQ-823)

Sampling Method : ETS/STP/AIR-01

Sampling Machine Placed At Height : 3.5 mtr. (From Ground)

Weather Condition : CLEAR Ambient Temperature : 28.0 °C

S. No.	Test Parameters	Unit	Result	Specification/Limit (as Per CPCB)	Test Method
1.	Particulate Matter (PM10)	µg/m <sup>3</sup>	70.2	For 24 Hrs.=100	IS: 5182 (Part-23)
2.	Particulate Matter (PM2.5)	µg/m <sup>3</sup>	33.7	For 24 Hrs.=60	Gravimetric Method
3.	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	7.7	For 24 Hrs.=80	IS: 5182 (Part-2)
4.	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.42	For 8 Hrs.=02 / For 1 Hrs.=04	IS: 5182 (Part-10)
5.	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	17.6	For 24 Hrs.=80	IS: 5182 (Part-6)
6.	Lead (Pb)	µg/m <sup>3</sup>	N.D.	For 24 Hrs.=1.0	IS: 5182 (Part-22)
7.	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	19.7	For 8 Hrs.=100/ For 1 Hrs.=180	IS: 5182 (Part-9)
8.	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	NIL	For 24 Hrs.=400	Indophenol Blue Method
9.	Benzo (a) Pyrene (BaP)	ng/m <sup>3</sup>	N.D.	For Annual=01	IS: 5182 (Part-12)
10.	Nickel (Ni)	ng/m <sup>3</sup>	N.D.	For Annual=20	IS: 5182 (Part-22)
11.	Benzene (C <sub>6</sub> H <sub>6</sub> )	µg/m <sup>3</sup>	0.70	For 24 Hrs.=5	IS: 5182 (Part-11)
12.	Arsenic (As)	ng/m <sup>3</sup>	N.D.	For Annual=06	IS: 5182 (Part-22)

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



For Enviro-Tech Services

AUTHORIZED SIGNATURE  
Dy. Quality manager

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Annexure - II



ISO 9001:2015/14001:2015/OHSAS 18001  
Acc. No. - M21112041N

## NOISE MONITORING SUMMARY REPORT

MONTH OF MARCH 2018

Name And Address of Customer

: M/s. TASRA COAL MINING PROJECT

M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,

DHANBAD, JHARKHAND, INDIA

TASRA AMBIENT ( RESIDENTIAL)						
Sl. No .	Date	Description n noise level db(A)	Result		Standards (CPCB/Factor ies Act.)	
			Day	Night	Day	Night
1	08-03-18	Maximum	53.2	44.1	55	50
		Minimum	47.5	39.4		
		Leq db(A)	51.5	42.6		
2	29-03-18	Maximum	53.5	42.8	55	50
		Minimum	43.1	36.5		
		Leq db(A)	49.4	40.3		
KANDRA AMBIENT ( RESIDENTIAL)						
Sl. No .	Date	Description n noise level db(A)	Result		Standards (CPCB/Factor ies Act.)	
			Day	Night	Day	Night
1	08-03-18	Maximum	54.3	44.3	55	50
		Minimum	47.6	41.4		
		Leq db(A)	52.7	43		
	29-03-18	Maximum	51.4	41.6	55	50
		Minimum	44.5	36.7		
		Leq db(A)	48.5	40.3		
BAGHMARA AMBIENT ( RESIDENTIAL)						
Sl. No .	Date	Description n noise level db(A)	Result		Standards (CPCB/Factor ies Act.)	
			Day	Night	Day	Night
1	08-03-18	Maximum	54	42.4	55	50
		Minimum	48.3	40.1		
		Leq db(A)	52.3	42.8		
2	29-03-18	Maximum	53.8	44.2	55	50
		Minimum	47.5	37.8		
		Leq db(A)	51.8	42.1		

GOSALA AMBIENT ( RESIDENTIAL)						
Sl. No .	Date	Description noise level db(A)	Result		Standards (CPCB/Factor ies Act.)	
			Day	Night	Day	Night
1	08-03-18	Maximum	52.5	46.4	55	50
		Minimum	48.7	43.3		
		Leq db(A)	51.7	45.1		
2	29-03-18	Maximum	54.6	44.2	55	50
		Minimum	48.9	38.3		
		Leq db(A)	52.3	42.5		
ROHRABAND AMBIENT ( RESIDENTIAL)						
Sl. No .	Date	Description noise level db(A)	Result		Standards (CPCB/Factor ies Act.)	
			Day	Night	Day	Night
1	08-03-18	Maximum	53.5	43	55	50
		Minimum	50.3	41.9		
		Leq db(A)	52.3	43.5		
		Maximum	50.6	40.8	55	50
		Minimum	45.1	38.5		
		Leq db(A)	50.9	40.7		
BHOJUDIH AMBIENT ( RESIDENTIAL)						
Sl. No .	Date	Description noise level db(A)	Result		Standards (CPCB/Factor ies Act.)	
			Day	Night	Day	Night
1	08-03-18	Maximum	52.4	45.6	55	50
		Minimum	45.8	42.5		
		Leq db(A)	51.4	44.7		
2	29-03-18	Maximum	51.2	42.5	55	50
		Minimum	48.7	39.2		
		Leq db(A)	51.0	41.9		

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



For Enviro-Tech Services

AUTHORIZED SIGNATORY  
Md. Humraj  
Dy. Quality manager

### Note:-

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email : etslab2012@gmail.com | Website : www.etslab.asia | Ph.: 9811736063, 9911516076



ISO 9001:2015 OHSAS 18001  
Acc. No.: 831112041N

## NOISE MONITORING SUMMARY REPORT

MONTH OF MARCH 2018

Name And Address of Customer

: M/s. TASRA COAL MINING PROJECT

M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,

DHANBAD, JHARKHAND, INDIA

EXCAVATION AREA(WORK ZONE)							
Sl. No	Date	Description noise level db(A)	Result		Standards (CPCB/Factor ies Act.)		
1	07-03-18		Day	Night	75/90	70	
		Maximum	67.4	55.3			
		Minimum	59	50.6			
2	28-03-18	Leq db(A)	63.3	53.1	75/90	70	
		Maximum	65.5	54.7			
		Minimum	61.4	50.9			
		Leq db(A)	64.2	53.5			
WASTE DUMP,(WORK ZONE)							
Sl. No	Date	Description noise level db(A)	Result		Standards (CPCB/Factor ies Act.)		
1	07-03-18		Day	Night	75/90	70	
		Maximum	65.9	53.4			
		Minimum	54.3	50.6			
2	28-03-18	Leq db(A)	61.2	52.9	75/90	70	
		Maximum	65.3	53.6			
		Minimum	59.9	49.3			
		Leq db(A)	63.7	52.6			
WORK SHOP( WORK ZONE)							
Sl. No	Date	Description noise level db(A)	Result		Standards (CPCB/Factor ies Act.)		
1	07-03-18		Day	Night	75/90	70	
		Maximum	67.8	57.3			
		Minimum	61.2	50.6			
2	28-03-18	Leq db(A)	65.8	54.1	75/90	70	
		Maximum	68.2	56.3			
		Minimum	63.5	50.8			
		Leq db(A)	66	54.7			
HAUL ROAD (WORK ZONE)							
Sl. No	Date	Description noise level db(A)	Result		Standards (CPCB/Factor ies Act.)		
1	07-03-18		Day	Night	75/90	70	
		Maximum	69.1	58.5			
		Minimum	60.2	55.2			
2	28-03-18	Leq db(A)	65.8	57	75/90	70	
		Maximum	68.6	58.7			
		Minimum	62.3	50.5			
		Leq db(A)	66.6	55.7			
TOP SOIL DUMP(WORK ZONE)							
Sl. No	Date	Description noise level db(A)	Result		Standards (CPCB/Factor ies Act.)		
1	07-03-18		Day	Night	75/90	70	
		Maximum	64.2	54.7			
		Minimum	58.5	50			
2	28-03-18	Leq db(A)	62.5	53.1	75/90	70	
		Maximum	68.5	55.1			
		Minimum	56.2	49.7			
		Leq db(A)	63.3	52.8			
OFFICE AREA (WORK ZONE)							
Sl. No	Date	Description noise level db(A)	Result		Standards (CPCB/Factor ies Act.)		
1	07-03-18		Day	Night	75/90	70	
		Maximum	68.1	58			
		Minimum	62.7	52.3			
2	28-03-18	Leq db(A)	65.8	55.3	75/90	70	
		Maximum	68.6	58			
		Minimum	63.1	49.7			
		Leq db(A)	67.9	54.1			

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



For Enviro-Tech Services  
AUTHORIZED SIGNATORY  
Md. Humraj  
Dy. Quality manager

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ISO 9001/14001/OHSAS 18001  
Acc. No.: M3112641M

## NOISE MONITORING SUMMARY REPORT

MONTH OF FEB. 2018

Name And Address of Customer

: M/s. TASRA COAL MINING PROJECT

M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,

DHANBAD, JHARKHAND, INDIA

TASRA AMBIENT ( RESIDENTIAL )						
Sl. No	Date	Description n noise level db(A)	Result		Standards (CPCB/Factori es Act.)	
			Day	Night	Day	Night
1	07-02-18	Maximum	54.2	46.1	55	50
		Minimum	48.2	40.1		
		Leq db(A)	52.2	43.6		
2	22-02-18	Maximum	52.9	44.8	55	50
		Minimum	45.6	39.8		
		Leq db(A)	51	42.3		
KANDRA AMBIENT ( RESIDENTIAL )						
Sl. No	Date	Description n noise level db(A)	Result		Standards (CPCB/Factori es Act.)	
			Day	Night	Day	Night
1	07-02-18	Maximum	54.3	44.3	55	50
		Minimum	47.6	41.4		
		Leq db(A)	52.7	43		
2	22-02-18	Maximum	53	43.6	55	50
		Minimum	46.5	40.7		
		Leq db(A)	51.5	42.3		
BAGHMARA AMBIENT ( RESIDENTIAL )						
Sl. No	Date	Description n noise level db(A)	Result		Standards (CPCB/Factori es Act.)	
			Day	Night	Day	Night
1	07-02-18	Maximum	55.5	47.4	55	50
		Minimum	46.3	42.1		
		Leq db(A)	53.5	44.8		
2	22-02-18	Maximum	54.2	46.1	55	50
		Minimum	46.2	41.8		
		Leq db(A)	52.2	43.6		

GOSALA AMBIENT ( RESIDENTIAL )						
Sl. No	Date	Description n noise level db(A)	Result		Standards (CPCB/Factori es Act.)	
			Day	Night	Day	Night
1	07-02-18	Maximum	53.2	46.4	55	50
		Minimum	49.7	43.3		
		Leq db(A)	51.7	45.1		
2	22-02-18	Maximum	53.6	46.2	55	50
		Minimum	46.9	43.1		
		Leq db(A)	52	44.9		
ROHRABAND AMBIENT ( RESIDENTIAL )						
Sl. No	Date	Description n noise level db(A)	Result		Standards (CPCB/Factori es Act.)	
			Day	Night	Day	Night
1	07-02-18	Maximum	54.9	45	55	50
		Minimum	51.3	42.9		
		Leq db(A)	53.3	44.2		
2	22-02-18	Maximum	53.6	43.8	55	50
		Minimum	47.1	41.7		
		Leq db(A)	52.1	42.9		
BHOJUDIH AMBIENT ( RESIDENTIAL )						
Sl. No	Date	Description n noise level db(A)	Result		Standards (CPCB/Factori es Act.)	
			Day	Night	Day	Night
1	07-02-18	Maximum	53.4	45.6	55	50
		Minimum	47.8	42.5		
		Leq db(A)	52.4	44.7		
2	22-02-18	Maximum	52.2	44.3	55	50
		Minimum	48.7	40.9		
		Leq db(A)	51.2	43.5		

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



ENVIRO-TECH SERVICES

For Enviro-Tech Services

AUTHORIZED SIGNATORY

Md. Humraj

Dy. Quality manager

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JAS-ANZ



ISO 9001/14001/OHSAS 18001  
Acc. No. - MS1112041N

## NOISE MONITORING SUMMARY REPORT

MONTH OF FEB. 2018

Name And Address of Customer : M/s. TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

EXCAVATION AREA(WORK ZONE)						
Sl. No	Date	Description noise level db(A)	Result		Standards (CPCB/Factori es Act.)	
1	07-02-18		Day	Night	75/90	70
		Maximum	66.4	57.4		
		Minimum	60	53.6		
		Leq db(A)	64.5	55.8		
2	22-02-18	Maximum	65.1	56.7	75/90	70
		Minimum	60.8	52.9		
		Leq db(A)	63.2	55.1		
WASTE DUMP,(WORK ZONE)						
Sl. No	Date	Description noise level db(A)	Result		Standards (CPCB/Factori es Act.)	
1	07-02-18		Day	Night	75/90	70
		Maximum	63.9	55.4		
		Minimum	58.3	49.6		
		Leq db(A)	63.2	53.9		
2	22-02-18	Maximum	62.3	54.6	75/90	70
		Minimum	56.9	47.3		
		Leq db(A)	61.7	53		
WORK SHOP( WORK ZONE)						
Sl. No	Date	Description noise level db(A)	Result		Standards (CPCB/Factori es Act.)	
1	07-02-18		Day	Night	75/90	70
		Maximum	69.8	59.9		
		Minimum	65.2	55.9		
		Leq db(A)	67.8	58.7		
2	22-02-18	Maximum	68.8	57.2	75/90	70
		Minimum	64.2	51.8		
		Leq db(A)	66.8	56.1		

HAUL ROAD (WORK ZONE)						
Sl. No	Date	Description noise level db(A)	Result		Standards (CPCB/Factori es Act.)	
1	07-02-18		Day	Night	75/90	70
		Maximum	68.3	59.9		
		Minimum	61.2	54.2		
		Leq db(A)	67	58.8		
2	22-02-18	Maximum	67.6	59.7	75/90	70
		Minimum	60.6	51.8		
		Leq db(A)	66.4	58.6		
TOP SOIL DUMP(WORK ZONE)						
Sl. No	Date	Description noise level db(A)	Result		Standards (CPCB/Factori es Act.)	
1	07-02-18		Day	Night	75/90	70
		Maximum	65.2	54.7		
		Minimum	58	50		
		Leq db(A)	64	53.1		
2	22-02-18	Maximum	64.7	54.5	75/90	70
		Minimum	57.5	46.7		
		Leq db(A)	63.5	52.9		
OFFCIE AREA (WORK ZONE)						
Sl. No	Date	Description noise level db(A)	Result		Standards (CPCB/Factori es Act.)	
1	07-02-18		Day	Night	75/90	70
		Maximum	67.3	57		
		Minimum	61.7	54.3		
		Leq db(A)	63.5	55.3		
2	22-02-18	Maximum	65.6	55	75/90	70
		Minimum	60.1	48.7		
		Leq db(A)	61.9	53.4		

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



For Enviro-Tech Services  
AUTHORIZED SIGNATORY  
Md. Humraj  
Dy. Quality manager

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## TEST REPORT

TEST REPORT NO : ETS/90-01b/12/2017

DATE OF REPORT :12-12-2017

### NOISE MONITORING REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Monitoring : 04-12-2017

Monitoring Start Date : 04-12-2017

Monitoring End Date : 05-12-2017

Monitoring Done By : ETS STAFF

Monitoring Duration : 24.0 HOURS

Place Of Monitoring : TASRA (AAQ-CZ2)

Category Of Area : INDUSTRIAL AREA

Sampling Method : ETS/LAB/NOISE-01

S. No.	Description Noise Level dB(A)	Result		Ambient Noise Standards/Specification (CPCB/ Factories Act)	
		Day	Night	Day	Night
1	Average	65.0	57.1		
2	Maximum	66.9	60.6		
3	Minimum	61.8	54.2		
4	Leq dB (A)	67.6	59.4	75/90	70

Remark: Day time is reckoned in between 06.00 A.M. and 10.00 P.M.  
Night time is reckoned in between 10.00 P.M. and 06.00 A.M.

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



For Enviro-Tech Services

AUTHORIZED SIGNATORY  
Md. Humraj  
Dy. Quality manager

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Formet no ETS /LAB/TR-02 Issue No 04 dt 01/06/2016 Rev No 03 dt 01/06/2016





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## TEST REPORT

TEST REPORT NO : ETS/60-01a/12/2017

DATE OF REPORT : 12-12-2017

### NOISE MONITORING REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Monitoring : 04-12-2017

Monitoring Start Date : 04-12-2017

Monitoring End Date : 05-12-2017

Monitoring Done By : ETS STAFF

Monitoring Duration : 24.0 HOURS

Place Of Monitoring : ROHRABANDH (AAQ-CZ1)

Category Of Area : INDUSTRIAL AREA

Sampling Method : ETS/LAB/NOISE-01

S. No.	Description Noise Level dB(A)	Result		Ambient Noise Standards/Specification (CPCB/ Factories Act)	
		Day	Night	Day	Night
1.	Average	63.2	54.7		
2.	Maximum	68.4	57.4		
3.	Minimum	61.9	53.6		
4.	Leq dB (A)	64.5	55.8	75/90	70

Remark: Day time is reckoned in between 06.00 A.M. and 10.00 P.M.

Night time is reckoned in between 10.00 P.M. and 06.00 A.M.

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



For Enviro-Tech Services

AUTHORIZED SIGNATORY  
Md. Humraj  
Dy. Quality manager

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Acc. No.: M3111304EN

## TEST REPORT

TEST REPORT NO : ETS/90-01d/12/2017

DATE OF REPORT : 12-12-2017

### NOISE MONITORING REPORT

Name And Address of Customer

: TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Monitoring

: 04-12-2017

Monitoring Start Date

: 04-12-2017

Monitoring End Date

: 05-12-2017

Monitoring Done By

: ETS STAFF

Monitoring Duration

: 24.0 HOURS

Place Of Monitoring

: CHASNALA (AAQ-C24)

Category Of Area

: INDUSTRIAL AREA

Sampling Method

: ETS/LAB/NOISE-01

S. No.	Description Noise Level dB(A)	Result		Ambient Noise Standards/Specification (CPCB/ Factories Act)	
		Day	Night	Day	Night
1.	Average	61.2	52.9		
2.	Maximum	68.1	57.1		
3.	Minimum	58.8	50.8		
4.	Leq dB (A)	64.9	56.1	75/90	70

Remark: Day time is reckoned in between 06.00 A.M. and 10.00 P.M.  
Night time is reckoned in between 10.00 P.M. and 06.00 A.M.

\*\*\*\*End of Test Report\*\*\*\*

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For Enviro-Tech Services

AUTHORIZED SIGNATORY

Md. Hamay

Dy. Quality Manager

Notes:-

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ISO 9001:2015, 14001:2015, OHSAS 18001:2007  
Acc. No.: 6211120413

TEST REPORT NO : ETS/90-01/12/2017

## TEST REPORT

DATE OF REPORT : 12-12-2017

Name And Address of Customer

### NOISE MONITORING REPORT

: TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Monitoring

: 04-12-2017

Monitoring Start Date

: 04-12-2017

Monitoring End Date

: 05-12-2017

Monitoring Done By

: ETS STAFF

Monitoring Duration

: 24.0 HOURS

Place Of Monitoring

: KANDRA (A/Q-C23)

Category Of Area

: INDUSTRIAL AREA

Sampling Method

: ETS/LAB/NOISE-01

S. No.	Description Noise Level dB(A)	Result		Ambient Noise Standards/Specification (CPCB Factories Act)	
		Day	Night	Day	Night
1.	Average	58.7	50.5		
2.	Maximum	61.5	52.0		
3.	Minimum	58.1	47.5		
4.	Leq dB (A)	62.1	52.5	75/90	70

Remark: Day time is reckoned in between 06.00 A.M. and 10.00 P.M.  
Night time is reckoned in between 10.00 P.M. and 06.00 A.M.

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



Format no ETS/LAB/TR-02 Issue No 04 dt 01/05/2015 Rev No 03 dt 01/06/2016

For Enviro-Tech Services

AUTHORIZED SIGNATORY

Md. Humayun

Dy. Quality manager

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ISO 9001:2015/OHSAS 18001  
Acc. No. - 8311120E1N

## TEST REPORT

TEST REPORT NO : ETS/00-01h/12/2017

DATE OF REPORT : 12-12-2017

### NOISE MONITORING REPORT

Name And Address of Customer

: TABRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Monitoring

: 04-12-2017

Monitoring Start Date

: 04-12-2017

Monitoring End Date

: 05-12-2017

Monitoring Done By

: ETS STAFF

Monitoring Duration

: 24.0 HOURS

Place Of Monitoring

: JORADIH (AAQ-EZ4)

Category Of Area

: RESIDENTIAL AREA

Sampling Method

: ETS/LAB/NOISE-01

S. No.	Description Noise Level dB(A)	Result		Ambient Noise Standards/Specification (CPCB/ Factories Act)	
		Day	Night	Day	Night
1.	Average	50.7	44.2		
2.	Maximum	53.2	48.4		
3.	Minimum	49.7	43.3		
4.	Leq dB (A)	51.7	42.0	55	45

Remark: Day time is reckoned in between 06.00 A.M. and 10.00 P.M.  
Night time is reckoned in between 10.00 P.M. and 06.00 A.M.

\*\*\*\*End of Test Report\*\*\*\*

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For Enviro-Tech Services

AUTHORIZED SIGNATORY

Dy. Quality manager

Note:-

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An Environmental Analytical Laboratory

Environmental Monitoring, Testing and Services

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email : etslab2012@gmail.com | Website : www.etslab.asia | Ph.: 9811736063, 9911516076



ISO 9001:2015, 14001:2015, OHSAS 18001:2007  
Acc. No.: 0321122411

## TEST REPORT

TEST REPORT NO : ETS/90-01e/12/2017

DATE OF REPORT : 12-12-2017

### NOISE MONITORING REPORT

Name And Address of Customer

TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Monitoring

04-12-2017

Monitoring Start Date

04-12-2017

Monitoring End Date

05-12-2017

Monitoring Done By

ETS STAFF

Monitoring Duration

24.0 HOURS

Place Of Monitoring

AMLABAD (AAQ-BZ1)

Category Of Area

RESIDENTIAL AREA

Sampling Method

ETS/LAB/NOISE-01

S. No.	Description Noise Level dB(A)	Result		Ambient Noise Standards/Specification (CPCB/ Factories Act)	
		Day	Night	Day	Night
1.	Average	53.4	43.9		
2.	Maximum	60.1	46.1		
3.	Minimum	52.3	43.0		
4.	Leq dB (A)	54.5	41.7	55	45

Remark: Day time is reckoned in between 06.00 A.M. and 10.00 P.M.  
Night time is reckoned in between 10.00 P.M. and 06.00 A.M.

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1

FOR ENVIRO-TECH SERVICES

CHECKED BY

For Enviro-Tech Services

AUTHORIZED SIGNATORY

Md. Humraj

Dy. Quality manager

Notes:-  
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ISO 9001:2015 OHSAS 18001  
Acc. No. - M31112041N

## TEST REPORT

TEST REPORT NO : ETS/90-01/12/2017

DATE OF REPORT : 12-12-2017

### NOISE MONITORING REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Monitoring : 04-12-2017

Monitoring Start Date : 04-12-2017

Monitoring End Date : 05-12-2017

Monitoring Done By : ETS STAFF

Monitoring Duration : 24.0 HOURS

Place Of Monitoring : BAGHMARA (AAQ-B22)

Category Of Area : RESIDENTIAL AREA

Sampling Method : ETS/LAB/NOISE-01

S. No.	Description Noise Level dB(A)	Result		Ambient Noise Standards/Specification (CPCB/ Factories Act)	
		Day	Night	Day	Night
1.	Average	50.7	43.2		
2.	Maximum	54.9	44.0		
3.	Minimum	50.2	42.8		
4.	Leq dB (A)	51.7	43.6	55	45

Remark: Day time is reckoned in between 06.00 A.M. and 10.00 P.M.  
Night time is reckoned in between 10.00 P.M. and 06.00 A.M.

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



For Enviro-Tech Services  
AUTHORIZED SIGNATORY

Md. Humraj

Dy. Quality manager

Note:-

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ISO 9001:2015/OHSAS 18001  
Reg. No. - MS112041N

## TEST REPORT

TEST REPORT NO : ETS/90-019/12/2017

DATE OF REPORT : 12-12-2017

### NOISE MONITORING REPORT

Name And Address of Customer

1. TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Monitoring

1. 04-12-2017

Monitoring Start Date

1. 04-12-2017

Monitoring End Date

1. 05-12-2017

Monitoring Done By

1. ETS STAFF

Monitoring Duration

1. 24.0 HOURS

Place Of Monitoring

1. JHARIA (AAQ-BZ3)

Category Of Area

1. RESIDENTIAL AREA

Sampling Method

1. ETS/LAB/NOISE-01

S. No.	Description Noise Level dB(A)	Result		Ambient Noise Standards/Specification (CPCB/ Factories Act)	
		Day	Night	Day	Night
1.	Average	50.2	42.7		
2.	Maximum	54.2	46.1		
3.	Minimum	48.2	41.0		
4.	Leq dB (A)	52.2	43.6	55	45

Remark: Day time is reckoned in between 06.00 A.M. and 10.00 P.M.  
Night time is reckoned in between 10.00 P.M. and 06.00 A.M.

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



For Enviro-Tech Services  
AUTHORIZED SIGNATORY

Md. Humraj  
By Quality Manager

Format No ETS/LAB/STR-02 Issue No 04 dt 01/06/2016 Rev No 03 dt 01/06/2016

This test report shall not be used in any advertising media or as evidence in the court of law without prior written permission of the Quality Manager.  
The sample received shall be destroyed after one month from the date of test report issued.  
The results indicated only refer to the tested samples and listed applicable parameters.  
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email : etslab2012@gmail.com | Website : www.etslab.asia | Ph : 9811736063, 9911516076



ISO 9001:2015/OHSAS 18001  
Acc. No. - 831112041N

## TEST REPORT

TEST REPORT NO : ETS/88-01b/10/2017

DATE OF REPORT : 11-10-2017

### NOISE MONITORING REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S, STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Monitoring : 03-10-2017

Monitoring Start Date : 03-10-2017

Monitoring End Date : 04-10-2017

Monitoring Done By : ETS STAFF

Monitoring Duration : 24.0 HOURS

Place Of Monitoring : TASRA (A/Q-C22)

Category Of Area : INDUSTRIAL AREA

Sampling Method : ETS/LAB/NOISE-01

S. No.	Description Noise Level dB(A)	Result		Ambient Noise Standards/Specification (CPCB/ Factories Act)	
		Day	Night	Day	Night
1.	Average	65.3	57.4		
2.	Maximum	69.2	60.8		
3.	Minimum	62.0	54.5		
4.	Leq dB (A)	67.9	59.7	75/90	70

Remark: Day time is reckoned in between 06.00 A.M. and 10.00 P.M.  
Night time is reckoned in between 10.00 P.M. and 06.00 A.M.

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1

FOR ENVIRO-TECH SERVICES

CHECKED BY



For Enviro-Tech Services

MD. HUMRAJ  
By. Quality manager

Notes:-

1. This test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.
2. The samples received shall be destroyed after one month from the date of test report issued.
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Format no ETS/LAB/IR-02 Issue No 04 dt 01/05/2015 Rev No 03 dt 01/06/2016





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ISO 9001:2015/OHSAS 18001  
Acc. No.: M31112041H

## TEST REPORT

TEST REPORT NO : ETS/88-01a/10/2017

DATE OF REPORT : 11-10-2017

### NOISE MONITORING REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S, STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Monitoring : 03-10-2017

Monitoring Start Date : 03-10-2017

Monitoring End Date : 04-10-2017

Monitoring Done By : ETS STAFF

Monitoring Duration : 24.0 HOURS

Place Of Monitoring : ROHRABANDH (AAQ-CZ1)

Category Of Area : INDUSTRIAL AREA

Sampling Method : ETS/LAB/NOISE-01

S. No.	Description Noise Level dB(A)	Result		Ambient Noise Standards/Specification (CPCB/ Factories Act)	
		Day	Night	Day	Night
1.	Average	63.5	55.0		
2.	Maximum	68.7	57.8		
3.	Minimum	62.2	53.9		
4.	Leq dB (A)	64.8	56.1	75/90	70

Remark: Day time is reckoned in between 06.00 A.M. and 10.00 P.M.  
Night time is reckoned in between 10.00 P.M. and 06.00 A.M.

\*\*\*\*End of Test Report\*\*\*\*



Page 1 of 1

For Enviro-Tech Services

AUTHORIZED SIGNATURE  
Dy. Quality manager

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ISO 9001:2015/OHSAS 18001  
Acc. No. : 831152041N

## TEST REPORT

TEST REPORT NO : ETS/88-01d/10/2017

DATE OF REPORT : 11-10-2017

### NOISE MONITORING REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Monitoring : 03-10-2017

Monitoring Start Date : 03-10-2017

Monitoring End Date : 04-10-2017

Monitoring Done By : ETS STAFF

Monitoring Duration : 24.0 HOURS

Place Of Monitoring : CHASNALA (AAQ-CZ4)

Category Of Area : INDUSTRIAL AREA

Sampling Method : ETS/LAB/NOISE-01

S. No.	Description Noise Level dB(A)	Result		Ambient Noise Standards/Specification (CPCB/ Factories Act)	
		Day	Night	Day	Night
1.	Average	61.5	53.2		
2.	Maximum	66.4	57.6		
3.	Minimum	59.0	51.1		
4.	Leq dB (A)	65.2	56.4	75/90	70

Remark: Day time is reckoned in between 06.00 A.M. and 10.00 P.M.  
Night time is reckoned in between 10.00 P.M. and 06.00 A.M.

\*\*\*\*End of Test Report\*\*\*\*



Page 1 of 1

For Enviro-Tech Services

AUTHORIZED SIGNATORY  
Dy. Quality manager

Notes:-

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ISO 9001:2015/OHSAS 18001  
ACC. No. - N3112049N

## TEST REPORT

TEST REPORT NO : ETS/88-01d/10/2017

DATE OF REPORT : 11-10-2017

### NOISE MONITORING REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Monitoring : 03-10-2017

Monitoring Start Date : 03-10-2017

Monitoring End Date : 04-10-2017

Monitoring Done By : ETS STAFF

Monitoring Duration : 24.0 HOURS

Place Of Monitoring : KANDRA (AAQ-CZ3)

Category Of Area : INDUSTRIAL AREA

Sampling Method : ETS/LAB/NOISE-01

S. No.	Description Noise Level dB(A)	Result		Ambient Noise Standards/Specification (CPCB/ Factories Act)	
		Day	Night	Day	Night
1.	Average	60.0	60.8		
2.	Maximum	61.8	62.3		
3.	Minimum	56.4	47.8		
4.	Leq dB (A)	62.4	52.8	75/90	70

Remark: Day time is reckoned in between 08.00 A.M. and 10.00 P.M.  
Night time is reckoned in between 10.00 P.M. and 06.00 A.M.

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



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For Enviro-Tech Services

AUTHORIZED SIGNATORY  
Dy. Quality manager

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JAS-ANZ



ISO 9001:2015/OHSAS 18001  
Acc. No. - M31112041N

## TEST REPORT

TEST REPORT NO : ETS/88-01/10/2017

DATE OF REPORT : 11-10-2017

### NOISE MONITORING REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Monitoring : 03-10-2017

Monitoring Start Date : 03-10-2017

Monitoring End Date : 04-10-2017

Monitoring Done By : ETS STAFF

Monitoring Duration : 24.0 HOURS

Place Of Monitoring : BAGHMARA (AAQ-BZ2)

Category Of Area : RESIDENTIAL AREA

Sampling Method : ETS/LAB/NOISE-01

S. No.	Description Noise Level dB(A)	Result		Ambient Noise Standards/Specification (CPCB/ Factories Act)	
		Day	Night	Day	Night
1.	Average	51.0	43.5		
2.	Maximum	55.1	45.2		
3.	Minimum	50.5	43.1		
4.	Leq dB (A)	52.0	43.9	55	45

Remark: Day time is reckoned in between 06.00 A.M. and 10.00 P.M.  
Night time is reckoned in between 10.00 P.M. and 06.00 A.M.

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



For Enviro-Tech Services

AUTHORIZED SIGNATURE  
Dy. Quality manager

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ISO 9001:2015/OHSAS 18001  
ACC. NO. - M31112041N

## TEST REPORT

TEST REPORT NO : ETS/B8-01e/10/2017

DATE OF REPORT : 11-10-2017

### NOISE MONITORING REPORT

Name And Address of Customer : TASRA COAL MINING PROJECT  
M/S. STEEL AUTHORITY OF INDIA LIMITED, PO-CHASNALA,  
DHANBAD, JHARKHAND, INDIA

Date of Monitoring : 03-10-2017

Monitoring Start Date : 03-10-2017

Monitoring End Date : 04-10-2017

Monitoring Done By : ETS STAFF

Monitoring Duration : 24.0 HOURS

Place Of Monitoring : AMLABAD (AAQ-BZ1)

Category Of Area : RESIDENTIAL AREA

Sampling Method : ETS/LAB/NOISE-01

S. No.	Description Noise Level dB(A)	Result		Ambient Noise Standards/Specification (CPCB/ Factories Act)	
		Day	Night	Day	Night
1.	Average	53.7	44.2		
2.	Maximum	56.4	46.4		
3.	Minimum	52.6	43.3		
4.	Leq dB (A)	54.8	42.0	55	45

Remark: Day time is reckoned in between 06.00 A.M. and 10.00 P.M.  
Night time is reckoned in between 10.00 P.M. and 06.00 A.M.

\*\*\*\*End of Test Report\*\*\*\*

Page 1 of 1



Format no ETS /LAB/TR-02 Issue No 04 dt 01/05/2016 Rev No 03 dt 01/05/2016

#### Notes:-

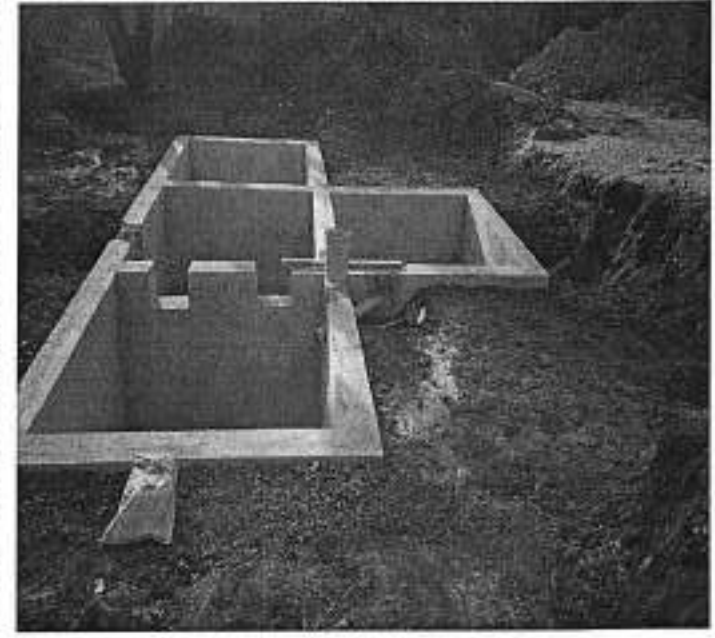
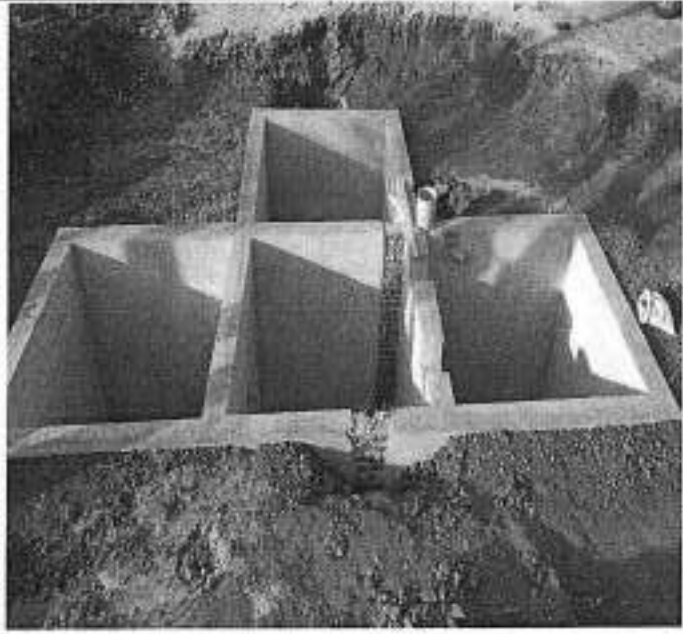
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For Enviro-Tech Services

AUTHORIZED SIGNATORY  
Dy. Quality manager



**EFFLUENT TREATMENT PLANT UNDER CONSTRUCTION**











**National Accreditation Board for  
Testing and Calibration Laboratories**  
(A Constituent Board of Quality Council of India)



## **CERTIFICATE OF ACCREDITATION**

# **ENVIRO-TECH SERVICES**

has been assessed and accredited in accordance with the standard

**ISO/IEC 17025:2005**

"General Requirements for the Competence of Testing & Calibration Laboratories"

for its facilities at

G-232, M.G. Road, Industrial Area, Hapur, Uttar Pradesh

in the field of

**TESTING**

**Certificate Number** TC-6250 (in lieu of T-3594)

**Issue Date** 24/09/2017

**Valid Until** 23/09/2019

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.

(To see the scope of accreditation of this laboratory, you may also visit NABL website [www.nabl-india.org](http://www.nabl-india.org))

Signed for and on behalf of NABL

N. Venkateswaran  
Program Director



89076979100030000192

Anil Relia  
Chief Executive Officer



