

Ref: REL/Talabira/EMD/MoEF/EC/116/11/21

Date: 23.11.2021

To,

Additional Principal Chief Conservator of Forest (APCCF) Ministry of Environment and Forest & Climate Change

Regional Office (EZ), A/3, Chandersekharpur,

Bhubaneswar, Odisha-751 023

Sub: Submission of six monthly Environment Clearance (EC) compliance status for Talabira I Opencast Coal Mine Project at village Khinda, Tehsil Rengali, District Sambalpur, Odisha for the period of April'2021 to September'2021.

Ref: Environment clearance vide letter no. J-11015/58/2009-IA.II (M) dated 16th April 2015 and its subsequent transfers vide letter dated 10.06.2015 & 22.10.2020

Dear Sir,

With reference to the above, please find herewith enclosed Six monthly Environment Clearance (EC) compliance status report along with Environmental monitoring reports for the period of **April 2021 to September 2021** for Talabira I Opencast Coal Mine Project at village Khinda, Tehsil Rengali, District Sambalpur, Odisha in hard and soft copy (e-mail).

This is for your kind information and record please.

Thanking You,

Yours faithfully,

for, Raipur Energen Limited

(R N Shukla)

Environment and Forest

Encl.: as above

CC:

Member Secretary, Central Pollution Control Board, Parivesh Bhavan, East Arjun Nagar, New Delhi – 110 032

Regional Officer
Odisha State Pollution Control Board
Sambalpur, Plot No.1070 Hospital Road,
Modipara, Sambalpur – 768 002

Member Secretary,
Odisha State Pollution Control Board
Paribesh Bhawan, A/118, Nilakantha Nagar,
Unit – VIII, Bhubaneswar – 751 O12, Odisha

Raipur Energen Limited (Formerly Known as GMR Chhattisgarh Energy Limited) Adani Corporate House Shantigram, S G Highway Ahmedabad 382 421

Gujarat India CIN : U40108KA2008PLC047974 Tel +91 79 2555 7022 Fax +91 79 2555 7177 env.power@adani.com www.adani.com

SIX MONTHLY COMPLIANCE REPORT OF ENVIRONMENT CLEARANCE (EC)

for

TALABIRA OPENCAST COAL MINE PROJECT

At

Village Khinda, Tehsil Rengali, District Sambalpur, Odisha

Submitted to:

Integrated Regional Office

Ministry of Environment, Forest and Climate Change,

Central Pollution Control Board, New Delhi &

Odisha State Pollution Control Board, Bhubaneswar



Submitted by:

Environment Management Department

Raipur Energen Limited

Adani Corporate House, Shantigram SG Highway, Ahmedabad- 382 421

Period: April'2021 - September'2021

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1	Introduction			
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INTRODUCTION

M/s Hindalco Industries Ltd. had obtained an Environmental Clearance (EC) for expansion of Talabira-I Opencast Coal mine Project (1.5 MTPA to 3.0 MTPA) in an area of 170.30 Ha. at village Khinda, Tehsil Rengali, District Sambalpur, Odisha vide letter No. J-11015/58/2009-IA.II (M) dated 08th November, 2011.

The Supreme Court in pursuant to its order dated 25th August, 2014 read with its order dated 24th September, 2014, and Ministry of Coal in accordance with provisions of the Coal Mines (Special Provisions) Second Ordinance, 2014 and the Coal Mines (Special Provisions) Rules 2014, the nominated authority completed the auction of the deallocated mines.

In this regards, Ministry of Coal vide Vesting Order under clause (b) of sub-rule (2) of rule 7 and sub-rule (1) of rule 13 and Order no. 104/2/2015/NA dated 23rd March, 2015 allocated Talabira-I Coal Mines to M/s GMR Chhattisgarh Energy Limited, as successful bidder.

M/s GMR Chhattisgarh Energy Limited obtained transfer of Environmental Clearance vide MoEF&CC letter no. J-11015/58/2009-IA.II (M) dated 16.04.2015.

The name of the company has been changed from M/s GMR Chhattisgarh Energy Limited to Raipur Energen Limited with effect from 20th August 2019 and it is to note that Raipur Energen Limited is 100% subsidiary of Adani Power Limited.

Raipur Energen Limited has also obtained EC transfer from MoEF&CC for Talabira-I Opencast Coal Mine vide letter no. **J-11015/58/2009-IA.II (M) dated 04.11.2020.**Currently, Talabira-I Opencast Coal Mine is **not operational**.

Raipur Energen Limited

Talabira I Opencast Coal Mine Project Village Khinda, Tehsil Rengali, District Sambalpur, Odisha

Compliance Status of Environmental Clearance granted for Talabira Coal Mine Vide letter no. J-11015/58/2009-IA. II (M) dated 16th April 2015 and its subsequent transfers Vide letter dated 10.06.2015 & 22.10.2020

SI. No	Conditions	Compliance status			
A.	Specific Conditions		Compliance Cocco		
(i)	Production of coal shall not exceed 3.0	Coal production is nil during the pe		uring the period of	
	MTPA. The project proponent shall obtain	April'2021 to September'2021.		·'2021.	
	prior EC for expansion in production	SI.	Financial Year	Coal Production	
	beyond 3.0 MTPA.	No		(Million Metric	
				Tonne)	
		1.	2015-2016	0.560	
		2.	2016-2017	0.151	
		3.	2017-2018	0.270	
		4.	2019-2020	0.00	
		5.	2020-2021	0.00	
		6.	2021-2022	0.00	
(ii)	No coal washery shall be established	Compl			
	without prior EC from this MOEF.			stablished at Mine	
4		site till date.			
(iii)	No fly ash shall be dumped into the de-				
	coaled voids without prior approval of the			sh will be dumped	
/:. A	MOEF.		ut prior approval f		
(iv)	The embankment shall be stabilised with	•			
	stone pitching on the reservoir side and compacted and plantation using a mix of		•	ed activities have	
	native species shall be developed.			by the prior Mine	
	Additional safety and protection measures			under the guidance	
	including continued operation of high		VR, Odisha.	street the goldenot	
	capacity pumps shall be in operation to			.92 Km length and	
	prevent mine inundation. Prior approval of			vide at the top and	
	disaster management plan shall be	3 m al	bove the HFL of	Hirakud Reservoir.	
	obtained.	The er	nbankment has b	een stabilised with	
		side-sl	oping on either s	ide and plantation	
		using a	a mix of native spe	ecies is developed.	
			•	igh-capacity pump	
				aster management	
		'	is in place ar		
()	<u> </u>		orate of Mines Saf	ety also.	
(v)	Top soil, if generated, should be properly	Compl		h ha/ 0445	
	stacked with proper slope at earmarked		-	lines by M/s GMR	
	dump site (S) with adequate measures and shall be used for reclamation and			imited, topsoil of	
	shall be used for reclamation and development of green belt and for			been spread over e to facilitate Bio-	
	reclamation of back filled quarry should be			Cubic Meter has	
	used for reclamation and rehabilitation of				
	03e0 TOLLEGIGINGCION GNO TENGUNICACION OF	been conserved in external Top soil dump			

SI. No	Conditions	Compliance status
	mined out areas within a year of generation.	and 8,925 Cubic meter has been preserved and properly stacked in internal top soil dump up to 31st March 2018. Reclamation of back filled quarry and rehabilitation of mined out area will be done as per approved mine closure plan. No generation of topsoil from mine since April' 2018 as mining operations were
(vi)	The entire OB generated in the expansion project shall be back filled and reclaimed and stabilized with plantation using a mix of species found in the reserve forests in the buffer zone. Monitoring and management of the existing reclaimed dump site shall continue until the vegetation becomes self-sustaining and no dumping of OB on reclaimed dumps shall be permitted. Compliance status shall be submitted to the Ministry of Environment & Forests and its Regional Office located at Bhubaneswar on yearly basis.	suspended. OB generated by prior allottee was stacked in three external dumps (Dump- 1, Dump- 2 & Dump- 3). Mine closure activities such as back filling, reclamation & stabilization with plantation will be done as per approved Mine Plan & Mine closure plan and status of compliances will be submitted to the Ministry of Environment & Forests and its Regional Office located at Bhubaneswar on yearly basis.
A	Catch drains and siltation ponds 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 mine area, roads, green belt development etc. The drains shall be regularly de - silted and maintained properly. Garland drains (Size, Gradient & Length) and sump capacity shall be designed keeping 50% safety margin over & above the peek sudden rain fall and maximum discharge in the area adjoining the mine site. Sump capacity also provide adequate retention period to allow proper settling of silt material.	Being Complied. Catch drains of average width 2.5 m and length 2.9 Km had been constructed and maintained along the toe of OB dumps. Water is collected in mine sump which is being utilized for water spraying in mine area, roads, green belt development etc. The drains are cleaned before every monsoon and maintained properly. Garland drains & sump capacity are designed by taking factor of safety 2.0 to deal with the sudden rain fall. There are no adjoining mines.
(viii)	Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check the run-off and siltation shall be based on the rain fall data.	Complied. Retaining wall at the toe of the dumps and OB benches within the mine to check the run-off and siltation is done by prior allottee. Maintenance & periodic repair of retaining wall has been undertaken by

SI. No	Conditions	Compliance status
		Raipur Energen Limited (Erstwhile, GMR
		Chhattisgarh Energy Limited).
(ix)	Mist type water sprinkling system shall be provided to check fugitive emissions from conveyor system, haulage roads, transfer points etc. Water sprinkling (Fixed & Mist type, mobile) shall be regularly carried out along the main haul roads.	There is no conveyor system in Talabira-1 mine. Mine operations are temporarily suspended/ hold. During mine operation, mist type mobile tankers are used for water sprinkling along haul roads, stock yards, transfer points etc.
(x)	No blasting shall be carried out.	Complied. No blasting practice is adopted in mine.
(xi)	A feasibility plan for transportation of coal to the railway siding by closed overhead conveyors shall be prepared and furnished to the MOEF within 6 months.	Feasibility plan for transport of coal to railway siding by closed overhead conveyor has been submitted by M/s REL after taking over the mine in April, 2015.
(xii)	Area brought under afforestation shall not be less than 137.905 Ha which includes reclaimed external OB dump area (45 Ha), backfilled area (60 Ha), along ML boundary, green belt (28.905 Ha) and top soil dump area (6.0 Ha) by using a mix of species found in the natural forests in the buffer zone in consultation with the local DFO / Agricultural department. The density of the trees shall be around 2500 plants per Ha.	37940 No's of additional saplings were planted by REL in addition to Green belt area developed. Total 33.79 Ha within mining lease area is covered with plantation. Back filling, Reclamation & plantation work will be carried out as per approved mine plan & mine closure plan after exhaustion of coal in mine.
(xiii)	A progressive mine closure plan shall be implemented and OB generated during the balance life of the mine shall be concurrently back filled and the area reclaimed with a mix of native species and at the end of mine life the balance area 24.4 Ha of de-coaled void shall also be reclaimed with the OB and the entire worked out area shall be back filled up to ground level. There shall be no water bod created at the post – mining stage.	Back filling in de-coaled void, reclamation & plantation work will be carried out as per approved mine plan & mine closure plan. Revised Mining plan and mine closure plan submitted in October'2016 was not approved. The existing mine plan & mine closure plan is already expired on 31.03.2018. As on date, company is not authorized to take any activity related to mining in mine, without approved mining plans from Ministry of Coal for Talabira-1 mine.
(xiv)	A conservation plan comprising for in-situ and ex-situ conservation of schedule I and II, Fauna found within the core & buffer zone shall be implemented in consultation with the State Govt. for the balance life of the project and include a plan for habitat restoration at the post mining stage and	Complied. Conservation plan including plan for habitat restoration at post mining stage has been prepared which is duly approved by Chief Wildlife Warden (CWLW). Approved amount of Rs.257 Lacs has been deposited with PCCF, Orissa for

SI. No	Conditions	Compliance status		
	which also includes a plan for development of 150 Ha of grass lands for the elephants visiting the area. The activities there under along with status of implementation (including expenditure) shall be regularly reported as part of the compliance reports furnished to MOEF RO, Bhubaneswar and also uploaded on the company website.	implementation of above conservation plan. Conservation plan and status of implementation were submitted to RO MOEFC, Bhubaneswar and also uploaded on our website. https://adanipower.com/Downloads Approved plan, Approval letter of conservation plan, payment letter for implementation of conservation plan, Screenshot of the web link was submitted with previous compliance report.		
(xv)	Regular monitoring of ground water level on the quality shall be carried out by establishing a network of existing wells and construction of new piezometers. The monitoring for quantity shall be done four times in a year pre-monsoon (May), monsoon (August), Post- Monson (November) and winter (January) seasons and for quality in May. Monitoring of heavy metals including mercury shall be carried out and data furnished as part of the compliance report. Data, thus collected shall be submitted to the Ministry of Environment & Forests and to the central Pollution Control board quarterly and regularly uploaded on the company website.	A NABL accredited testing agency has been appointed for monthly monitoring of the ground water. It is being collected from the existing wells at the nearby villages and also from piezometer installed in front of site office of Talabira-1 mine. Analysis of ground water is being done by NABL certified lab and report is being submitted on half yearly basis to the office. Environmental monitoring report for the period of April'21 to September'21 is enclosed as Annexure I . Six month compliance report including environmental monitoring report has been uploaded on the company website. https://adanipower.com/Downloads		
(xvi)	The extent of use of water in the mining operations shall be reduced by recycling and reuse. The company shall put up artificial ground water recharge measures for augmentation of water resource if the water table shows a declining trend. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine. Mine water to be discharged into the Hirakud reservoir shall be treated to prescribed standards before discharge.	Only stagnated water in the sump of mine is being used for mining operations and plantation. Water is contained in the pits within ML, which facilitates recharging the ground water. Hirakud reservoir backwater is adjacent to the mine. Hence, ground Water table varies according to the level of Hirakud reservoir back water. REL is supplying water to nearby villages by 6 no's of water tankers throughout the year. No water from mine is being discharged to Hirakud Reservoir.		

SI. No	Conditions	Compliance status			
(xvii)	Besides carrying out regular periodic	Being Complied.			
	health check-up of their workers, 10% of	Periodic health check- up including			
	the workers identified from workforce	occupational disease and hearing			
	engaged in active mining operations shall	impairment was done as per Rule 29 (b) of			
	be subjected to health check-up for	Mining Rules, 1955. There was no			
	occupational diseases and hearing	occupational disease and hearing			
	impairment, if any through any	impairment to any workers.			
	local/regional health institutions and the				
	results reported to the this ministry and to				
	DGMS.				
(xviii)	For monitoring land use pattern and for	The land use analysis based on satellite			
	post mining land use, time series of land	imagery for core zone of the mine including			
	use maps, based on satellite imagery (on a	the land use of 10 km buffer zone has been			
	scale of 1:5000) of the core zone and	done for 2015 and 2018 and the same was			
	buffer zone, from the start of the project,	submitted.			
	until the end of the mine life shall be				
	prepared once in three years (for any one				
	particular season which is consistent in the				
	time series), and the report submitted to				
	MOEF and its regional office at				
	Bhubaneswar.				
(xix)	A detailed Final Mine Closure Plan along	All the provisions of mine closure plan will			
	with details of corpus fund submitted to	be implemented after the approval of mine			
	the Ministry of Environment & Forest	plan and mine closure plan as previous plan			
	which shall be implemented from 2017-18.	is expired on 1 st April, 2018.			
	The time period for reclamation shall be				
	completed within a year of completion of				
	project. The plan for habitat restoration				
	plan for a minimum period of five years				
	(under the MMDR Act) shall be under taken				
	after completion of reclamation in				
	consultation with and a joint inspection				
(444)	carried with the state forest department.	Complied assured			
(xx)	CSR would be implemented in 8 villages – Talabira, Nua Khinda, Purana Khinda,	Complied assured.			
	Lapanga, Bhudiapalli, Matul Camp, Behara	Budgetary provision of @ Rs 10/ Ton of coal			
	Munda and Mundapara. Budgetary	was kept.			
	provisions at @ Rs. 10 per tonne of Coal	Mine operation are temporarily suspended			
	should be made for CSR activities. The	since 1 st April 2018. Preliminary report on socio-economic			
	socio-economic development of the	development of the villages has been			
	villages shall be monitored over the life of the project using UNDP. Human	Prepared and submitted with previous			
	development indices and reported as part	compliance report.			
	of the report submitted to MOEF RO,	Socio economic development assessment			
	Bhubaneswar.	in the area every three years after the			
	III the area every three years after the				

SI. No	Conditions	Compliance status
		approval of revised mining plan will be
		implemented.
B.	General Conditions	
(i)	No change in mining technology and scope	Complied.
	of working shall be made without prior	There is no change in mining technology in
	approval of the Ministry of Environment	mines.
	and Forest.	
(ii)	No change in the calendar plan including	Complied.
	excavation, quantum of mineral coal and	Adhered to the mine plan.
	waste shall be made.	
(iii)	Four ambient air quality monitoring	Being Complied.
	stations shall be established in the core	Five numbers Ambient air quality
	zone as well as in the buffer zone for	monitoring stations are established in core
	monitoring PM10, PM 2.5, SO2, NOx and	zone as well as in the buffer zone for
	heavy metals such as Hg, Pb, Cr, As etc.	monitoring PM10, PM 2.5, SO2, NOx and
	Location of the stations shall be decided	heavy metals such as Hg, Pb, Cr by external
	based on Meteorological data,	agency (Approved by MOEFC / NABL) and
	topographical features and	report is being submitted to MOEFC,
	environmentally and ecologically sensitive	Bhubaneswar on quarterly basis.
	targets in consultation with the state	Environmental monitoring report is
	pollution control board.	enclosed as Annexure – I.
(iv)	Data on ambient air quality (PM10, PM 2.5,	Being Complied.
	SO2, NOx and heavy metals such as Hg, Pb,	Data on ambient air quality (PM10, PM 2.5,
	Cr, As etc.) shall be regularly submitted to	SO2, NOx and heavy metals such as Hg, Pb,
	the ministry including its regional office at	Cr, As etc.) is being monitored on quarterly
	Bhubaneswar and to the State Pollution	basis by external agency (Approved by
	Control Board and Central pollution	MoEFCC / NABL) engaged for this purpose
	Control Board once in Six Months.	and reports are being submitted to the
		concerned authorities. Environmental
		monitoring report is enclosed as Annexure
		– 1.

SI. No	Conditions	Compliance status
(v)	Fugitive dust emissions quality (PM10, PM 2.5 and heavy metals such as Hg, Pb, Cr, As etc.) from all the sources shall be controlled regularly monitored and data recorded properly. Water spraying arrangement on haul road, wagon loading and dump trucks (Loading & un loading) points shall be provided and properly maintained.	Being Complied. Fugitive dust emissions quality (PM ₁₀ PM _{2.5} and heavy metals such as Hg, Pb, Cr, As etc.) from all the sources are being monitored by external agency (Approved by MOEFC / NABL) and reports are being submitted. During mine operation, water spraying arrangement on haul road, wagon loading and dump trucks (Loading & unloading) points were provided and maintained. Environmental monitoring report is enclosed as Annexure – I .
	Adequate measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc. shall be provided with ear plugs/muffs.	Noise level is well below the stipulated norms. Ear plugs/muffs are also issued to HEMM operators. No drilling & blasting is practiced in mine.
(vii)	Industrial waste water (workshop and waste water from the mine) shall be properly collected, treated so as to confirm to the standards prescribed under GSR 422 (E) dated 19 th May 1993 and 31 st December 1993 or as amended from time to time before discharge. Oil and grease trap shall be installed before discharge of workshop effluents.	Grease and Oil Trap has been provided in the workshop to treat the wastewater. The treated water is being stored and reused for water spraying and cleaning of vehicles in the wash bay.
(viii)	Vehicular emissions shall be kept under control and regularly monitored.	Being Complied. During the mine operation, regular maintenance of vehicles was being done to control the vehicular emissions.
(ix)	Environmental laboratory shall be established with adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board.	Environmental monitoring and analysis is being carried out by external agency (approved by MOEFC / NABL) engaged for this purpose. Environmental monitoring report is enclosed as Annexure – I.
(x)	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	Dust masks were issued to all employees working in dusty environment. Initial & refresher training was imparted to contractual employees as per Mines Vocational Rules 1966,

SI. No	Conditions	Compliance status
	surveillance programme of worker shall be	Periodical Medical Examination of 140 no's
	undertaken periodically to observe any contractions due to exposure to dust and	of employees were conducted to observe any contractions due to exposure to dust.
	to take corrective measures, if needed. A	any contractions due to exposure to dust.
	separate environmental management cell	
	with suitable qualified personnel shall be	
	set up under the control of senior	
	executive, who will report directly to the	
	Head of the company.	
(xi)	The funds earmarked for environmental	Being Complied
	protection measures shall be kept in	REL has earmarked a separate budget for
	separate account and shall not be diverted	environmental protection measures.
	to other purpose. Year-wise expenditure	Mine operations are temporarily
	shall be reported to this Ministry and its	suspended since 1 st April' 2018.
(xii)	Regional Office at Bhubaneswar. A copy of the environmental clearance	This EC was originally issued to M/s
(211)	shall be marked to concerned Panchayat /	Hindalco in 2011 and in 2015 the EC was
	local NGO, if any, from whom any	transferred to M/s REL (Formerly GMR
	suggestion/representation has been	Chhattisgarh Energy Ltd).
	received while processing the proposal.	Copy of the Environmental Clearance (EC)
		and Public Notice Advertisements in
		Newspapers related to EC have been
		displayed in Panchayat Office, Khinda and
		Sambalpur.
(xiii)	State Pollution Control Board shall display	Complied.
	a copy of clearance letter at the Regional	
	Office, District Industry Centre and	
	Collectors Office/ Tehsil Office for 30 days.	
(xiv)	The project authorities shall advertise at	Advertisements have been published in
	least in two local newspapers widely	two local newspapers of Odisha state
	circulated around the projects, one of	namely Samay (Dt.01.10.2016, Odia news
	which shall be in the vernacular language	paper) and in Dainik Jagaran
	of the locality concerned within seven days	(Dt.01.10.2016, Hindi newspaper).
	of the clearance letter informing that the	Data on monitoring of environmental
	project has been accorded environmental	quality (air, water & noise) and status of
	clearance and a copy of clearance letter is	compliance have been uploaded in the
	available with State Pollution Control	company's website.
	Board and may also been seen at the website of the Ministry of Environment &	https://adanipower.com/Downloads
	Forrest at http://envfor.nic.in . The	
	compliance status including data on	
	monitoring of environmental quality (air,	
	water and noise) shall also be uploaded by	
	and halde, and also be aproceed by	

SI. No	Conditions	Compliance status
	the project authorities in their website and	
	also at their main gate of project premises	
	and office so as to bring the same in the	
	public domain.	
(3)	The Ministry or any other competent	Noted and agreed
	authority may stipulate any further	
	condition for environmental protection.	
(4)	Failure to comply with any of the	Noted
	conditions mentioned above may result in	
	withdrawal of this clearance and attract	
	the provisions of the Environment	
	(Protection) Act, 1986.	
(5)	The above conditions will be enforced	Noted and agreed
	inter-alia, under the provisions of the Water	
	(Prevention & Control of Pollution) Act,	
	1974, the Air (Prevention & Control of	
	Pollution) Act, 1981, the Environment	
	(Protection) Act, 1986 and the Public	
	Liability Insurance Act, 1991 along with	
	their amendments and Rules. The	
	proponent shall ensure to undertake and	
	provide for costs incurred for taking up	
	remedial measures in case of soil	
	contamination, contamination of	
	groundwater and surface water and	
	occupation and other diseases due to the	
	mining operations.	
	sferred / Amendment dated 16.04.2015	
(i)	(i) Any change in scope of work will attract	Noted and agreed.
	the provisions of Environment Protection	
	Act (EPA), 1986 and Environmental Impact	
	Assessment Notification, 2006 in	
	conjunction with the subsequent	
(1)	amendments / circular.	
(ii)	All conditions stipulated in the EC Letter	Noted & compliance assured
	no. J-11015/58/2009-IA.II (M) dated 08th	
	November,2011 shall remain unchanged	
(iii)	The successful bidder shall be liable, if any,	As per the para no (3) of Section 14 of The
	for any act of violation of the EPA 1986/	Coal Mines (Special Provisions) Act, 2015,
	EIA Notification 2006 / subsequent	"Every liability of any prior allottee in
	amendments and circulars which it has inherited during the transfer.	relation to a Schedule I coal mine in respect of any period prior to the vesting
	milences soring the donorer.	order or allotment order, shall be the
	I .	

SI. No	Conditions	Compliance status		
		liability of such prior allottee and shall be enforceable against it and not against the successful bidder or allottee or the Central Government".		
(iv)	Successful bidder shall be liable for compliance of all court directions, if any.	Noted & compliance assured.		

Annexure-I

April 2021







Test Report

Sample Number:

VEL/REL/AA/01

Name & Address of the Party

: M/s Raipur Energen Limited Village: Raikheda, Block-Tilda Dist. Raipur -493225

(CG)Talabira Mines

Format No

Party Reference No

Report Date

Period of Analysis

: 28/04/2021-06/05/202

Sample Description

General Information

Sampling Location

Latitude

Longitude

Ambient Temperature (

Surrounding Activity

Scope of Monitoring

Parameter Required

Report No.

Receipt Date

. 28/04/2021

Sample Collected by

Sampling Equipment used

Instrument Code

Instrument Calibration Status

Meteorological condition during monitoring

Date of Monitoring

Time of Monitoring

Sampling & Analysis Protoco

Sampling Duration

: AMBIENT AIR

Rest Shelter 1.5 KM in SE From the Mine

VEL Team

RDS/FPS

VEL/JAI/RDS/22/FPS/2

Calibrated

Clear Sky

19/04/2021 To 20/04/2

10.00 to 10.00 Hrs.

Min 22 Max 36

Human, Vehicular & Plant Activ

Regulatory Requirement

24 Hrs.

S.No.	Parameters and an EnviroLab Variation Lab Variation EnviroLab Variation EnviroLab Variation Lab Vari	Test Method	Results	Units	Limit as per CPCB
1	Particulate Matter (as PM -10)	IS:5182 (P- 23)-2006,RA. 2017	77.79	μg/m³	100
2	Particulate Matter (as PM - 2.5)	IS:5182 (P- 24)-2019	36.96	μg/m³	60
3	Nitrogen Dioxides (as NO2)	IS:5182 (P- 6)-2006 RA.2017	23.75	μg/m³	80
4	Sulphur Dioxide (as SO2)	IS:5182 (P- 2)-2001, RA. 2017	10.84	μg/m³	80
5	Lead (as Pb)	IS 5182 (P-22) : 2004 RA.2014	BDL (*DL 0.02 µg/m³)	μg/m³	1.0
6	Arsenic (as As)	Methods of air sampling and analysis,3rd ed.,1988, Method No.302	BDL (*DL1.0 ng/m³)	ng/m³	6.0
7	Chromium as Cr	Methods of air sampling and analysis, 3rd Ed, 1988, Method No.807:1988	BDL(DL 1.0)	µg/m³	Jan EnwroLa EnviroLab Va

BDL- Below Detection Limit, **DL- Detection Limit

*End of Report

VIJENDRA KUMAR (Checked By)

TECHNICAL MANAGER

(Authorized Signatory)

www.vardan.co.in

Note: Terms & conditions refer on backside of test report.





Laboratory: Plot No. 24 & 25, Narayan Vihar, B-Block, Jaipur (Rajasthan) 302020

MoEF & CC Recognized | ISO 9001 | ISO 45001

Test Report

Sample Number: VEL/REL/AA/01

Name & Address of the Party : M/s Raipur Energen Limited

Village: Raikheda, Block-Tilda Dist. Raipur -493225

(CG)Talabira Mines

Format No : 7.8 F-01

Party Reference No : NIL

Report Date : 06/05/2021

: 28/04/2021-06/05/202

Receipt Date

Sample Description : AMBIENT AIR

General Information

Sampling Location

Sample Collected by Sampling Equipment used

Instrument Code

Instrument Calibration Status

Latitude

Longitude

Meteorological condition during monitoring

Date of Monitoring

Time of Monitoring

Ambient Temperature (°C)

Surrounding Activity

Scope of Monitoring

Sampling & Analysis Protocol Sampling Duration

Parameter Required

Report No.

Period of Analysis

VEL/A/2104280001/B

- 28/04/2021

Rest Shelter 1.5 KM in SE From the Mine

VEL Team

RDS/FPS

VEL/JAI/RDS/22/FPS/2

Calibrated

Clear Sky

19/04/2021 To 20/04/202

10.00 to 10.00 Hrs.

Min 22 Max 36

Human, Vehicular & Plant Activity

Regulatory Requirement

IS:5182

24 Hrs.

As Per Work Order

S.No.	Parameters And Enviro	Test Method and an invito Lab Vario	Results	Units	Limit as per CPCB
rqan n Emy rol a	Mercury (Hg)	Methods of air sampling and analysis,3rd ed.,1988, Method No.317	BDL (*DL1.0 ng/m³)	µg/m³	Envirolab Va

^{*}BDL- Below Detection Limit, **DL- Detection Limit

VIJENDRA KUMAR (Checked By)

TECHNICAL MANAGER

(Authorized Signatory)

www.vardan.co.in

Note: Terms & conditions refer on backside of test report.

Ph: 0141-2983404, 9810355569, 9953147268 E-mail: jaipur@vardanenvironet.com

Page No. 1/1







Test Report

Sample Number: VEL/REL/AA/02

Name & Address of the Party : M/s Raipur Energen Limited

Village: Raikheda, Block-Tilda Dist. Raipur -493225

(CG)Talabira Mines

Report No.

Format No Party Reference No

Report Date

Period of Analysis

: 28/04/2021-06/05/202

Receipt Date

: 28/04/2021

Sample Description

: AMBIENT AIR

General Information

Sampling Location

Sample Collected by Sampling Equipment used

Instrument Code

Instrument Calibration Status

Latitude

Longitude

Meteorological condition during monitoring

Date of Monitoring

Time of Monitoring

Ambient Temperature (

Surrounding Activity

Scope of Monitoring

Sampling & Analysis Protoc Sampling Duration

Parameter Required

R&R Colony 3.2 Km in NE From the Mine

VEL Team

RDS/FPS

VEL/JAI/RDS/23/FPS/2

Calibrated

Clear Sky

20/04/2021 To 21/04/

11.00 to 11.00 Hrs.

Min 23 Max 36

Human, Vehicular & Plant Activit

Regulatory Requirement

24 Hrs.

S.No.	Parameters	Test Method	Results	Units	Limit as per CPCB
1	Particulate Matter (as PM -10)	IS:5182 (P- 23)-2006,RA. 2017	72.59	µg/m³	100
2	Particulate Matter (as PM - 2.5)	IS:5182 (P- 24)-2019	32.31	μg/m³	60
3	Nitrogen Dioxides (as NO2)	IS:5182 (P- 6)-2006 RA.2017	18.86	μg/m³	80
4	Sulphur Dioxide (as SO2)	IS:5182 (P- 2)-2001, RA. 2017	10.28	μg/m³	80
5	Lead (as Pb)	IS 5182 (P-22) : 2004 RA.2014	BDL (*DL 0.02 µg/m³)	μg/m³	1.0 V
6	Arsenic (as As)	Methods of air sampling and analysis,3rd ed.,1988, Method No.302	BDL (*DL1.0 ng/m³)	ng/m³	6.0
7	Chromium as Cr	Methods of air sampling and analysis, 3rd Ed, 1988, Method No. 807:1988	BDL(DL 1.0)	µg/m³	dan Erwirola Envirolab V

*BDL- Below Detection Limit, **DL- Detection Limit

End of Report

VIJENDRA KUMAR

(Checked By)

TECHNICAL MANAGER

(Authorized Signatory)

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Test Report

Sample Number:

VEL/REL/AA/02

Report No.

VEL/A/2104280002/B

: 28/04/2021-06/05/202

Name & Address of the Party

: M/s Raipur Energen Limited

Format No

: 7.8 F-01

Village: Raikheda, Block-Tilda Dist. Raipur -493225

Party Reference No

Period of Analysis

(CG)Talabira Mines

Report Date

: 06/05/2021

Receipt Date

· 28/04/2021

Sample Description

: AMBIENT AIR

General Information

Sampling Location

Sample Collected by

Sampling Equipment used

Instrument Code

Instrument Calibration Status

Latitude

Longitude

Meteorological condition during monitoring

Date of Monitoring

Time of Monitoring Ambient Temperature (°C)

Surrounding Activity

Scope of Monitoring

Sampling & Analysis Protocol Sampling Duration

Parameter Required

R&R Colony 3.2 Km in NE From the Mine

VEL Team

RDS/FPS

VEL/JAI/RDS/23/FPS/23

Calibrated

Clear Sky

20/04/2021 To 21/04/202

11.00 to 11.00 Hrs.

Min 23 Max 36

Human, Vehicular & Plant Activity

Regulatory Requirement

IS:5182

24 Hrs.

As Per Work Order

S.No.	Parameters	Test Method	Results	Units	Limit as per CPCB
1	Mercury (Hg)	Methods of air sampling and analysis,3rd ed.,1988, Method No.317	BDL (*DL1.0	μg/m³	InviroLab Var

^{*}BDL- Below Detection Limit, **DL- Detection Limit

End of Report'

TECHNICAL MANAGER

(Authorized Signatory)

Page No. 1/1

www.vardan.co.in







Test Report

Sample Number: VEL/REL/AA/03

Name & Address of the Party

: M/s Raipur Energen Limited

Village: Raikheda, Block-Tilda Dist. Raipur -493225

(CG)Talabira Mines

Report Date

Report No.

Format No 7.8 F-01 Party Reference No

: 06/05/2021

Period of Analysis : 28/04/2021-06/05/202

Receipt Date

28/04/2021

Sample Description : AMBIENT AIR

General Information

Sampling Location

Sample Collected by Sampling Equipment used

Instrument Code

Instrument Calibration Status

Latitude

Longitude

Meteorological condition during monitoring

Date of Monitoring

Time of Monitoring Ambient Temperature (°C'

Surrounding Activity

Scope of Monitoring

Sampling & Analysis Protoco

Sampling Duration

In From of the Mine office

VEL Team

RDS/FPS

VEL/JAI/RDS/24/FPS/24

Calibrated

Clear Sky

21/04/2021 To 22/04/2

12.00 to 12.00 Hrs.

Min 22 Max 36

Human, Vehicular & Plant Activit

Regulatory Requirement

IS:5182

24 Hrs.

Parameter Required As Per Work Order

S.No.	Parameters Can EnviroLab Vardan EnviroLab Vardan EnviroLab Vardan EnviroLab Vardan	Test Method	Results	Units	Limit as per CPCB
1	Particulate Matter (as PM -10)	IS:5182 (P- 23)-2006,RA. 2017	70.12	μg/m³	100
2	Particulate Matter (as PM - 2.5)	IS:5182 (P- 24)-2019	32.25	μg/m³	60
3	Nitrogen Dioxides (as NO2)	IS:5182 (P- 6)-2006 RA.2017	16.28	μg/m³	80 rda
4	Sulphur Dioxide (as SO2)	IS:5182 (P- 2)-2001, RA. 2017	9.36	μg/m³	80

VIJENDRA KUMAR (Checked By)

(Authorized)Signatory)

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Note: Terms & conditions refer on backside of test report.

Page No. 1/





Test Report

Sample Number: VEL/REL/AA/04

Name & Address of the Party : M/s Raipur Energen Limited

Village: Raikheda, Block-Tilda Dist. Raipur -493225

(CG)Talabira Mines

Report No.

VEL/A/2104280004/B

Format No

7.8 F-01

Party Reference No

· NII

Report Date

: 06/05/2021

Period of Analysis

: 28/04/2021-06/05/202

Receipt Date

: 28/04/2021

Sample Description

: AMBIENT AIR

General Information

Sampling Location

Sample Collected by Sampling Equipment used

Instrument Code

Instrument Calibration Status

Latitude

Longitude

Meteorological condition during monitoring

Date of Monitoring

Time of Monitoring

Ambient Temperature (°C Surrounding Activity

Scope of Monitoring

Sampling & Analysis Protoco

Sampling Duration

Parameter Required

A1 Down Wind point of talabira mine Area

VEL Team

RDS/VOC

VEL/JAI/RDS/25/VOC/0

Calibrated

Clear Sky

22/04/2021 To 23/04/202

13.00 to 13.00 Hrs.

Min 22 Max 37

Human, Vehicular & Plant Activity

Regulatory Requirement

IS:5182

24 Hrs.

As Per Work Order

S.No.	Parameters / and an Enviro Lab V	Test Method	Results	Units	Limit as per CPCB
Env	Volatile Organic Compound (as BTX)	IS:5182 (P-11) :2006, RA 2017	BDL (*DL1.0 µg/m³)	μg/m³	dan Envirota Envirotab Va stab Vardan
	Polycyclic Aromatic Hydrocarbon (as PAH)	IS:5182 (P-12):2004	*BDL(**DL-5.0ng/ m³)	ng/m³	roLab Varda

^{*}BDL- Below Detection Limit, **DL- Detection Limit

TECHNICAL MANAGER

RAJ KUMAR YADAV

LAR OPERATION

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Note: Terms & conditions refer on backside of test report.







Test Report

Sample Number:

Name & Address of the Party

: M/s Raipur Energen Limited

Village: Raikheda, Block-Tilda Dist. Raipur -493225

(CG)Talabira Mines

Report No.

Format No

7.8 F-01

Party Reference No

Period of Analysis

: NIL

Report Date

: 06/05/2021

: 28/04/2021-06/05/202

Receipt Date

: 28/04/2021

Sampling Date

: 24/04/202

Sampling Quantity

: 2 Ltr.

Sampling Type

Sample Collected by

: R&R Colony (Open Well : VEL Team

Preservation

Location

: Suitable Preservation

: GROUND WATER

Sampling and Analysis

Sample Description

: IS 10500 -2012

Protocol

S.No.	Parameters	Protocols	Results	Units	b vard IS:1	0500-2012
ocar an Er zirol	oviroLab Vardan Envirol b Vardan EnviroLab Va	iah EnviroLan Vardan EnviroLa Lah Vardan EnviroLah Vardan E Indan EnviroLah Vardan Envirol	nviroLab Varda Lab Vardan Env	n Environde Totab V	Acceptable Limits	Permissible Limits
E1V	pH.ab Wardan EnviroLa	IS 3025 (P-11): 1983 Reaff. 2017	7.48	DVIEDE	6.5 to 8.5	No Relaxation
2	Total Dissolved Solids	IS 3025 (P-16): 1984 Reaff 2017	266.0	mg/l	500	2000
3	Total Alkalinity (as CaCO3)	IS: 3025 (Part 23): 1986, Reaff. 2019	Var 133.32 Vino	mg/l	200	600
4	Total Hardness (as CaCO3)	IS: 3025 (Part 21): 2009, Reaff. 2019	179.40	mg/l	200	600
5	Nitrate (as NO3)	IS: 3025 (Part 34): 1988, Reaff. 2019	3.15	mg/l	45	No Relaxation
6	Chloride (as CI)	IS: 3025 (Part 32): 1988, Reaff. 2019	59.34	mg/l	250	1000
oLat	Sulphate (as SO4)	IS: 3025 (Part 24): 1986, Reaff. 2019 Turbidity Method	13.10	mg/l	200	400
8	Calcium (as Ca)	IS: 3025 (Part 40): 1991 Reaff. 2019	62.69	mg/l	75	200
9	Magnesium (as Mg)	IS: 3025 (Part 46): 1994, Reaff. 2009 (EDTA method)	5.59	mg/l	30	100
10	Fluorides (as F)	APHA 23rd Edition 2017, 4500 FD	0.23	mg/l	1.0	1.5
from I	Phenolic Compound (as C6H5OH)	APHA 23rd Edition 2017, 5530C	*BDL(**DL-0.001)	mg/I	0.001	0.002
12	Total Iron (as Fe)	IS 3025(P-53): 2003 Reaffirm 2019	*BDL(*DL- 0.1)	mg/l	0.3	No Relaxation
13	Arsenic (as As)	APHA (23rd edition-2017), 3114 C	*BDL(**DL-0.005)	mg/l	0.01	0.05
14	Mercury (as Hg)	APHA (23rd edition-2017), 3114C	*BDL(**DL-0.0005)	mg/l	0.001	No Relaxation
15	Lead (as Pb)	APHA (23rd edition-2017), 3030D, 3113 B	*BDL(**DL-0.005)	mg/l	0.01	No Relaxation
16	Cadmium (as Cd)	APHA (23rd edition-2017), 3030D, 3113 B	*BDL(**DL-0.002)	mg/l	0.003	No Relaxation
17 (Chromium (as Cr)	APHA 23rd Edition Year 2017 Method No. 3113 B	*BDL(**DL-0.02)	mg/l	0.05	No Relaxation
8 (Copper (as Cu)	APHA 23rd Edition Year 2017 Method No. 3111B	*BDL(**DL-0.02)	mg/l	0.05	an Er 1.5 oLab
9 2	Zinc (as Zn)	APHA (23rd edition-2017), 3030D, 3113 B	*BDL(**DL-0.20)	mg/l	5.0	15
0 S	Selenium (as Se)	APHA (23rd edition-2017), 3114C	*BDL(**DL-0.005)	mg/l	D 0.01 V 1 18	NoRelaxation

VI. ENDRA KUMAR







Test Report

Sample Number:

VEL/REL/W/01

Report No.

: VEL/W/2104280002//

S.No.	Parameters	ers I an Easteal ab Uardan Emerocols Indan Ind	Results	Units	IS:10500-2012	
	rollab Vardan Envirolat Vardan Envirolah Vard		rotab Vardan E Vardan Envirot		Acceptable Limits	Permissible Limits
21	Turbidity Environment	IS 3025 (Part 10): 1984, Ref: 2017, (Nephelometeric Method)	*BDL(**DL 1.0)	NTU	rdan Enviro	Lab V 5 dan
22	Aluminium Vandan Envi	IS 3025 (Part-55): 2003, Reaff. 2019	*BDL(**DL-0.03)	mg/l	0.03	0.2
23	Manganese (as Mn)	IS: 3025 (Part 46): 1994, Reaff. 2019 (EDTA method)	*BDL(**DL-0.05)	mg/l	0.1	16 Va 0.3
24	Boron (as B)	APHA 23rd Edition Year 2017 Method No. 4500B	*BDL(**DL-0.2)	mg/l	0.5	1.0
25	Free Residual Chlorine	IS: 3025 (Part 26): 1986 RA 2019	*BDL(**DL-0.2)	mg/l	0.2	ulcot 1 Vac

*BDL- Below Detection Limit, **DL- Detection Limit

JUENDRA KUMAR

(Checked By)

End of Report

RAJ KUMAR YADAN

(Authorized Signatory)

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Note: Terms & conditions refer on backside of test report.

Page No. 2/2





Test Report

Sample Number:

Name & Address of the Party

: M/s Raipur Energen Limited

Village: Raikheda, Block-Tilda Dist. Raipur -493225

(CG)Talabira Mines

Report No.

Format No

7.8 F-01

Party Reference No

Report Date

: 06/05/2021

Period of Analysis

: 28/04/2021-06/05/202

Receipt Date

: 28/04/2021

Sampling Date

: 24/04/2021

Sampling Quantity Sampling Type

: 2 Ltr.

Sample Collected by

: VEL Team

Preservation

Location

: Suitable Preservation

: GROUND WATER

: R&R Colony (Open Well)

Sampling and Analysis

Sample Description

: IS 10500 -2012

Protocol

S.No.	Parameters	Protocols	Results	Units	Varda IS:10	500-2012
m En iroLa	vardan EnviroLab Varda viroLab Vardan EnviroLa b Vardan EnviroLab Vard) Vardan EnviroLab Vardan EnviroLab) Vardan EnviroLab Vardan En an EnviroLab Vardan EnviroL	Vardan Enviro viroLab Vardan b Vardan Envi	Lab Vard Enviro pLab Va	Acceptable Limits	Permissible Limits
dan I Envir Eab Lab n En	Total Coliform (By MPN Method)	ab Vardan EnviroLab Var	Absent	MPN/10 0 ml	Shall not be Detectable in any 100 ml sample	n EnviroLab iviroLab Vardab Vardab Vardan Er EnviroLab Va
2	E-Coli	ardan Envirolati Vardan Envi	Absent	per 100 ml	Absent/100 ml	Absent/100 ml
3	Cyanide (as CN)	APHA 23rd Edition 2017, 4500CN D	*BDL(**DL-0.05)	mg/l	0.05	No Relaxation
4	Colour HinviroLab Varda Houab Vardan EnviroLa	IS 3025: 1983 (P-4) RA 2017	V*BDL(**DL 1.0)	Hazen Unit	lan E 5 virot. ab Vardan	ab Var 15 in Er EnviroLab Va
5	Odour Vardan EnviroLab V	IS 3025 (P-5): RA. 2018	Agreeable	Qualitat ive	Agreeable	Agreeable
6	Taste Vardan EnviroLab Vardan EnviroLab Vardan	IS 3025(P-8):1984 RA. 2017	Agreeable	Qualitat ive	Agreeable	Agreeable
7	Anionic Surface Active Agent	APHA 23rd Edition 2017, 5540C	*BDL(**DL-0.05)	mg/l	0.2	1.0

*BDL- Below Detection Limit, **DL- Detection Limit

www.vardan.co.in







Test Report

Sample Number:

Sample Description

Name & Address of the Party

VEL/REL/AN/01

: M/s Raipur Energen Limited

Village: Raikheda, Block-Tilda Dist. Raipur -493225

(CG)Talabira Mines

: Ambient Noise

Scope of Monitoring : Regulatory Requiremen

Protocol Used : IS 9989: IS 9876

Instrument Used

Instrument Code

Date of Monitoring

Surrounding Activity

Parameter Required

Report No.

Format No

: 7.8 F-01

Party Reference No

: NIL

Report Date

: 06/05/202

Receipt Date

: 28/04/2021

Sampling Duration

24 Hrs.

Sample Collected by

: VEL Team

Calibration Statu

General Information

Sampling Location

Meteorological condition during monitoring

Time of Monitoring Ambient Temperature (°C)

In Front of the mine

VEL/JAI/SLM/05

Clear Sky

21/04/2021 To 22/04/202

06.00 to 06.00 Hrs

Min 22 Max 36

Human, Vehicular & Plant Activity

As Per Work Order

S.No. Test Parameters	est Parameters Lab Vandam Er Protocol Protocol	Test Result dB(A)	
iroLab Vandan EnviroLab Varc	ian InviroLab Vardan EnviroLab	Ardan Day Time b Vard	Night Time
1 Leg rotab Vardan Envirol	IS 9989 - 1981	63.74	48.12

Category of Zones	dan Envirol ah Vardan Envirol ah VLG	eq in dB(A)
riroLab Vardan EnviroLab Vardan Er	w roLab Vardan Env Day ab Vardan E	nv oLab Vard Night / oLab Varda
Industrial	arian EnviroLab Var. 75 EnviroLab V	70 and Envirola
Commercial Variation Environmental Variation	n EnviroLab Vardan 65 viroLab Varda	an EnviroLab Va 55 in EnviroLab Va
Residential	55 Valuation 55	45
Silence Zone	v roLab Vardan Envi50 Lab Vardan E	ny roLab Varda 40 nyiroLab Varda

- 1. Day Time is from 6.00 AM to 10.00 PM.
- 2: Night Time is reckoned between 10.00 PM to 6.00 AM
- 3. SilenceZone is defined as an area up to 100m around premises of Hospitals, Educational Institutions and Courts. Use of vehicle horn ludspeaker and bursting of crackers is banned in these zones

Note: Mixed categories of areas be declared as one of the four above mentioned categories by the competent Authority and the corresponding standards shall apply

***End of Report*

TECHNICAL MANAGE

(Authorized Signatory

LAR OPERATION

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Note: Terms & conditions refer on backside of test report.

Page No. 1/







Test Report

Sample Number:

Sample Description

Scope of Monitoring

Name & Address of the Party

VEL/REL/AN/02

: M/s Raipur Energen Limited

Village: Raikheda, Block-Tilda Dist. Raipur -493225

(CG)Talabira Mines

: Ambient Noise

IS 9989: IS 9876

: Regulatory Requirement

Format No Party Reference No 7.8 F-01

Report Date

Report No

Receipt Date

. 06/05/202

28/04/2021

Sampling Duration

24 Hrs.

Sample Collected by : VEL Team

Instrument

: Calibrated

Calibration Status

Protocol Used Instrument Used

General Information

Sampling Location

Instrument Code

Meteorological condition during monitoring

Date of Monitoring

Time of Monitoring

Ambient Temperature (

Surrounding Activity Parameter Required

Near Petrol Pump

VEL/JAI/SLM/06

Clear Sky

22/04/2021 To 23/04/202

06.00 to 06.00 Hrs

Min 23 Max 37

Human, Vehicular & Plant Activity

As Per Work Order

S.No.	Test Parameters	Protocol	Test Result dB(A)		
roLa	Vardan EnviroLab Vardan EnviroLab Vardan EnviroLab Vardan EnviroLab Vardan I		Day Time	Night Time	
1	Leq	IS 9989 - 1981	62.32	46.25	

Catagony of Zonos	ar EnviroLab Vardan EnviroLab Va Leo	q in dB(A) I als Vardan EnviroLals
Category of Zones	Day	Night
Industrial and Vandan EnviroLab Van	d n EnviroLab Vard 75 EnviroLab Var	den EnviroLab 70 rdan EnviroLa
Commercial	UnoLab Vardan 65 OLab Vardan	EliviroLab Var 55 i EriviroLab V
Residential	Envirotab Varda, 55	45
Silence Zone	ir bLab Vardan Envir 60 b Vardan Env	iroLab Vardan 40 viroLab Varda

- 1. Day Time is from 6.00 AM to 10.00 PM.
- 2: Night Time is reckoned between 10.00 PM to 6.00 AM
- 3. SilenceZone is defined as an area up to 100m around premises of Hospitals, Educational Institutions and Courts. Use of vehicle horn, ludspeaker and bursting of crackers is banned in these zones

Note: Mixed categories of areas be declared as one of the four above mentioned categories by the competent Authority and the corresponding standards shall apply

VIJENDRA KUMAR

MICAL MANAGER

(Autorized Signatory)

LAB OPERATIO

Page No. 1/

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Test Report

Sample Number:

VEL/REL/AN/03

Name & Address of the Party M/s Raipur Energen Limited

Village: Raikheda, Block-Tilda Dist. Raipur -493225

(CG)Talabira Mines

Sample Description

: Ambient Noise

Scope of Monitoring

: Regulatory Requirement

Protocol Used

: IS 9989: IS 9876

Instrument Used

General Information

Instrument Code

Date of Monitoring

Ambient Temperature (°C)

Surrounding Activity

Parameter Required

Report No.

Format No

7.8 F-01

Party Reference No

: NIL

Report Date

: 06/05/202

Receipt Date

28/04/2021

Sampling Duration

24 Hrs.

Sample Collected by

: VEL Team

Instrument

: Calibrated

Calibration Status

Sampling Location

Meteorological condition during monitoring

Time of Monitoring

Near Weight Bridge

VEL/JAI/SLM/06 Clear Sky

21/04/2021 To 22/04/20 06.00 to 06.00 Hrs

Min 22 Max 36

Human, Vehicular & Plant Activity

As Per Work Order

S.No.	Test Parameters	est Parameters Protocol	Test Result dB(A)		
	b Vardan EnviroLab Vard	an EnviroLab Vardan EnviroLab Vardan EnviroLab Vardan EnviroLab Vardan EnviroL	Day Time	Night Time	
1	Leq	IS 9989 - 1981	56.37	42.57	

Category of Zones	ar EnviroLab Vardan EnviroLab VaLed	in dB(A) oLab Vardan EnviroLab
Category of Zories	Day	Night
Industrial	re an EnviroLab Vard75 EnviroLab Var	rd an EnviroLal 70 ardan EnviroLa
Commercial	65 65	55
Residential	Enulrolah Varda 55 wirotah Vard	EnviroLab (45 dan EnviroLab
Silence Zone	vi otab Vardan Envi 50 ab Vardan Env	dioLab Vardan40 WiroLab Varda

- 1. Day Time is from 6.00 AM to 10.00 PM.
- 2: Night Time is reckoned between 10.00 PM to 6.00 AM
- 3. SilenceZone is defined as an area up to 100m around premises of Hospitals, Educational Institutions and Courts. Use of vehicle horn ludspeaker and bursting of crackers is banned in these zones.

Note: Mixed categories of areas be declared as one of the four above mentioned categories by the competent Authority and the corresponding standards shall apply

End of Report

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Test Report

Sample Number:

Name & Address of the Party

: M/s Raipur Energen Limited

Village: Raikheda, Block-Tilda Dist. Raipur -493225

(CG)Talabira Mines

: Regulatory Requirement

Ambient Noise

Format No

Report No.

7.8 F-01

Party Reference No

Report Date

: 06/05/2021

Receipt Date

. 28/04/2021

Sampling Duration

: 24 Hrs.

Sample Collected by

: VEL Team

Instrument **Calibration Status** : Calibrated

Protocol Used Instrument Used

Sample Description

Scope of Monitoring

General Information

Sampling Location

Instrument Code

Meteorological condition during monitoria

Date of Monitoring

Time of Monitoring

Ambient Temperature (°C

Surrounding Activity Parameter Required

IS 9989: IS 9876

R&R Colony 3.2 km. in NE From The mine

VEL/JAI/SLM/05

Clear Sky

22/04/2021 To 23/04/202

06.00 to 06.00 Hrs

Min 22 Max 37

Human, Vehicular & Plant Activity

As Per Work Order

S.No.	est Parameters Protocol Protocol		Lab Vardan En Test Result dB(A)		
	ab Vardan EnviroLab Varda roLab Vardan EnviroLab V	an EnviroLab Vardan EnviroLab ardan EnviroLab Vardan Enviro	Day Time	Night Time	
1	Leq ab Vardan EnviroLab V	IS 9989 - 1981	60.24	44.58	

Category of Zones	Legal Environment Legal Environment Legal	q in dB(A)
Arotan Vardan Envirol ab Varda	mulrot ab vardam Day rot ab Varda	nviroLab V Night EnviroLab
Industrial FoLab Vardan EnviroLab V	ar fan EnviroLab Var 75 EnviroLab Va	an EnviroLa 70 ardan Enviro
Commercial	65 Vardan Envil	re Lab Vardan 55 viro Lab Varda
Residential Andread EnviroLab Var	dan EnviroLab Varda 55 nviroLab Vard	dan EnviroLab 45 dan EnviroLa
Silence Zone	50 50	40

- 1. Day Time is from 6.00 AM to 10.00 PM.
- 2: Night Time is reckoned between 10.00 PM to 6.00 AM
- 3. SilenceZone is defined as an area up to 100m around premises of Hospitals, Educational Institutions and Courts. Use of vehicle horn ludspeaker and bursting of crackers is banned in these zones.

Note: Mixed categories of areas be declared as one of the four above mentioned categories by the competent Authority and the corresponding standards shall apply

End of Report

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Test Report

Sample Number:

Sample Description

Location

Name & Address of the Party : M/s Raipur Energen Limited

Village: Raikheda, Block-Tilda Dist. Raipur -493225

(CG)Talabira Mines

: Near Field Hostal

Report No

Format No

Party Reference No

Report Date

: 06/05/2021

Period of Analysis

: 28/04/2021-06/05/202

Receipt Date

: 28/04/2021

: 23/04/2021

Sampling Date Sampling Quantity

: 2 Kg.

Sampling Type

: Composite

Packing Status

: Temp. Sealed

Sample Collected by	: VEL Team
Parameter Required	: As Per Work Order
Sampling and Analysis Protocol	: IS 2720, APHA & USDA
S.No. Parameters	an EnviroLab Vardan Envir an EnviroLab Vardan E nviroLab Vardan Envir

S.No	Parameters Vardan EnviroLab Vardan Envir	Test Method OLab Vardan Envirol Vardan Envirolab	Results	Units b Vardan
1	pH (at 25°C)	IS : 2720 (P- 26): 1987,RA: 2016	o Vardan Env	rivoLab Va
2	Electrical Conductivity	IS 14767: 2000 RA:2016	3.82 0.162	mS/cm
3	Bulk density	USDA:1954 (Page-121) RA: 2014	1.32	gm/cc
4	Chloride In EnviroLab Vardan EnviroL	USDA:1954 Method 13 (Page-98) RA: 2010	236.12	mg/kg
5	Calcium (as Ca)	Lab SOP no. VEL/STP/01: 2018	224.18	mg/kg
6	Sodium (as Na) EnviroLab Vardan Env	USDA:1954 Method 10A (Page-96) RA: 2010	138.45	mg/kg
7	Potassium (as K)	Lab SOP no. VEL/STP/01: 2018	83.29	kg/hec.
8	Organic Matter WiroLab Vardan Envirol	IS 2720 (P-22) 1972 RA:2015	0.36	%
9	Magnesium (as Mg)	Lab SOP no. VEL/STP/01: 2018	171.75	mg/kg
	Available Nitrogen (as N)	IS : 14684,1999 RA: 2015	258.11	kg. /hec.
11	Available Phosphorus	Lab SOP no. VEL/STP/01: 2018	36.25	kg. /hec.
12	Total Zinc (as Zn)	USEPA 3050 B: 1996	43.21	mg/kg
13	Total Manganese (as Mn)	USEPA 3050	170.28	mg/kg
-	Total Lead (as Pb)	USEPA 3050 B: 1996	13.48	mg/kg
	Total Cadmium (as Cd)	USEPA 3050	10.21	mg/kg
16	Total Copper (as Cu)	USEPA 3050 B: 1996	12.73	mg/kg

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Note: Terms & conditions refer on backside of test report.



Vardan EnviroLab



Laboratory: Plot No. 24 & 25, Narayan Vihar, B-Block, Jaipur (Rajasthan) 302020 MoEF & CC Recognized | ISO 9001 | ISO 45001

Test Report

Sample Number:

Sample Description

Sample Collected by

Parameter Required

VEL/S0/01

Name & Address of the Party

: M/s Raipur Energen Limited

Village: Raikheda, Block-Tilda Dist. Raipur -493225

(CG)Talabira Mines

: SOIL

: VEL Team

Report No.

: VEL/S0/2104280001/B

Format No

: 7.8 F-01

Party Reference No

: NIL

Report Date

: 06/05/2021

Period of Analysis

: 28/04/2021-06/05/202

Receipt Date

: 28/04/2021

Sampling Date

: 23/04/2021

Sampling Quantity

: 2 Kg.

Sampling Type

: Composite

Packing Status

: Temp. Sealed

Sampling and Analysis Protocol

Location

: As Per Work Order : IS 2720, APHA & USDA

: Near Field Hostal

S.No	Parameters and an EnviroLab Vardan Envi	Test Method	Results	Units
	b Vardan EnviroLab Vardan EnviroLab I viroLab Vardan EnviroLab Vardan En	Vardan EnviroLab Vardan EnviroLab V	ardan EnviroLab	Vardan B
rol.	b Vardan EnviroLab Vardan EnviroL	b Vardan Envirol ab Vardan Envirol ab ol ab Vardan Envirol ab Vardan Enviro	Vardan EnviroLa Lab Vardan Envir	b Vardan oLab Var
2	Water holding capacity	USDA:1954-Reaffirmed,2010	Grey	nviroLat
100	the state of the second state of the	USDA:1954-Reaffirmed,2010	22.14	%
3	Total Chromium (as Cr)	USEPA 3050 B:1996	6.12 En	mg/kg
4	Soil Texture	IS:2720 (P-4) RA:2006	Silty Clay	- Vot sizi

VIJENDRA KUMAR

roLab Vardan Enviro

RAJ KUMAR YADAV

(Authorized Signatory)

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Note: Terms & conditions refer on backside of test report.

Page No. 1/1







Test Report

Sample Number: VEL/REL/WW/01

Name & Address of the Party : M/s Raipur Energen Limited

Village: Raikheda, Block-Tilda Dist. Raipur -493225

(CG)Talabira Mines

: Waste Water

: STP Outlet

: VEL Team

: As Per Work Orde

Format No

Report No.

: 7.8 F-01

Party Reference No

Report Date

: 06/05/2021

Period of Analysis

: 28/04/2021-06/05/202

Receipt Date

: 28/04/2021

Sampling Date

: 24/04/2021

Sampling Quantity

: 2 Ltr.

Sampling Type

: Grab

Protocol

Location

Sample Description

Sample Collected by

Parameter Required

Sampling and Analysis

: IS 3025

Packing Status

: Temp. Sealed

S.No.	Test Parameters	Test Method	Result	Unit	Prescribed Limit
	virolah Vardan EnviroLah	EnviroLab Vardan EnviroLab Vardan Vardan EnviroLab Vurdan EnviroLab		dan Enviro Lab Varda	eLab Vardan EnviroLab Var
1	pHah yardan EnviroLab Va	IS 3025 (P-11): 1983 RA2017	7.47	Varcan I	5.5 - 9.0
2	Total Suspended Solids	IS: 3025 (Part 17): 1984, RA2017	22.6	mg/l	100.0
3	Oil & Grease	IS 3025(P-39):1991 RA 2019	0.6	mg/l	10.0
4	BOD (3 days @ 27°C)	IS: 3025 (Part-44): 1993, RA: 2019	14.0	mg/l	30.0
5	COD	IS: 3025 (Part 58): 2006 RA: 2017	42.4	mg/l	250.0

VI. ENDRA KUMAR

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Note: Terms & conditions refer on backside of test report.

May 2021







Test Report

Sample Number:

Name & Address of the Party : M/s Raipur Energen Limited

(CG)Talabira Mines

Village: Raikheda, Block-Tilda Dist. Raipur -493225

Report Date

Report No.

Format No 7.8 F-01 Party Reference No

: 02/06/2021

Period of Analysis

Receipt Date

: 28/05/2021-02/06/202 · 28/05/2021

Sample Description

: AMBIENT AIR

General Information Sampling Location

Sample Collected by

Sampling Equipment used

Instrument Code

Instrument Calibration Status

Latitude

Longitude

Meteorological condition during monitoring

Date of Monitoring

Time of Monitoring

Ambient Temperature (°C

Surrounding Activity

Scope of Monitoring

Sampling & Analysis Protoco Sampling Duration

Parameter Required

Rest Shelter 1.5 KM in SE From the Mine

VEL Team

RDS/FPS

VEL/JAI/RDS/22/FPS/22

Calibrated

Clear Sky

21/05/2021 To 22/05/2

10.00 to 10.00 Hrs.

Min 23 Max 38

Human, Vehicular & Plant Activi

Regulatory Requirement

IS:5182

24 Hrs.

As per Work Orde

S.No.	Parameters and an Envirol ab Vardan Envirol ab V	Test Method	Results	Units	Limit as per CPCB
1	Particulate Matter (as PM -10)	IS:5182 (P- 23)-2006,RA. 2017	76.50	µg/m³	100
2	Particulate Matter (as PM - 2,5)	IS:5182 (P- 24)-2019	35.26	μg/m³	60
3	Nitrogen Dioxides (as NO2)	IS:5182 (P- 6)-2006 RA.2017	22.54	μg/m³	80
4	Sulphur Dioxide (as SO2)	IS:5182 (P- 2)-2001, RA. 2017	Vard 9.99	μg/m³	80
5	Lead (as Pb)	IS 5182 (P-22) : 2004 RA.2014	*BDL(**DL-0.02 µg/m3)	µg/m³	Envir 1.0 ab V
6	Arsenic (as As)	Methods of air sampling and analysis,3rd ed.,1988, Method No.302	*BDL(**DL-1.0 ng/m3)	ng/m³	6.0
7	Chromium as Cr	Methods of air sampling and analysis, 3rd Ed, 1988, Method No. 807:1988	*BDL(**DL 1.0 µg/m³)	µg/m³	dan Esvirol

BDL-Below Detection Limit, **DL-Detection

End of Report

DIMESTAPALSANIYA (Checked By)

DY TECHNICAL MANAGER

RAJ KUMARRAD

(Authorized Signatory)

G M LAB OPERATION

Page No. 1/1

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Test Report

Sample Number: VEL/REL/AA/01

Name & Address of the Party : M/s Raipur Energen Limited

Village: Raikheda, Block-Tilda Dist. Raipur -493225

(CG)Talabira Mines

Party Reference No

VEL/A/2105280007/B

Format No

· 7.8 F-01

Report Date

Report No.

: 02/06/2021

Period of Analysis

Receipt Date

: 28/05/2021-02/06/2021 : 28/05/2021

Sample Description

General Information

Sampling Location

Sample Collected by Sampling Equipment used

Instrument Code

Instrument Calibration Status

Latitude

Longitude

Meteorological condition during monitoring

Date of Monitoring

Time of Monitoring Ambient Temperature (°C)

Surrounding Activity

Scope of Monitoring

Sampling & Analysis Protoco

Sampling Duration Parameter Required

: AMBIENT AIR

Rest Shelter 1.5 KM in SE From the Mine

VEL Team

RDS/FPS

VEL/JAI/RDS/22/FPS/22

Clear Sky

21/05/2021 To 22/05/202

10.00 to 10.00 Hrs.

Min 23 Max 38

Human, Vehicular & Plant Activity

Regulatory Requirement

IS:5182

24 Hrs.

As per Work Order

S.No.	Parameters Envirol a	Test Method Envirolation Olaboration	Results	Units	Limit as per CPCB
n Ln	Mercury (Hg)	Methods of air sampling and analysis,3rd ed.,1988, Method No.317	*BDL(**DL-1.0 ug/m3)	μg/m³	dan EnviroLa Enviro L ab Va oLab Vardan

End of Report*

RAJ KUMAR YADAV (Authorized Signatory)

LAB OPERATION

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Note: Terms & conditions refer on backside of test report.

Page No. 1/1







Test Report

Sample Number:

Name & Address of the Party : M/s Raipur Energen Limited

(CG)Talabira Mines

Village: Raikheda, Block-Tilda Dist. Raipur -493225

Party Reference No

Report No.

Format No

Report Date

Period of Analysis : 28/05/2021-02/06/202

Receipt Date

- 28/05/2021

Sample Description

General Information Sampling Location

Sample Collected by Sampling Equipment used

Instrument Code

Instrument Calibration Status

Latitude

Longitude

Meteorological condition during monitoring

Date of Monitoring

Time of Monitoring

Ambient Temperature (°C

Surrounding Activity

Scope of Monitoring

Sampling & Analysis Protoco Sampling Duration Parameter Required

: AMBIENT AIR

R&R Colony 3.2 KM. in NE From the Mine

VEL Team

VEL/JAI/RDS/22/FPS/22

Calibrated

Clear Sky

22/05/2021 To 23/05/2

11.00 to 11.00 Hrs.

Min 23 Max 38

Human, Vehicular & Plant Activity

Regulatory Requirement

24 Hrs.

As per Work Order

S.No.	Parameters and an Enviro Lab Vardan Enviro Lab V	Test Method	Results	Units	Limit as per CPCB
1	Particulate Matter (as PM -10)	IS:5182 (P- 23)-2006,RA. 2017	71.02	μg/m³	100
2	Particulate Matter (as PM - 2.5)	IS:5182 (P- 24)-2019	31.75	µg/m³	OLAD 60 dat
3	Nitrogen Dioxides (as NO2)	IS:5182 (P- 6)-2006 RA.2017	18.53	µg/m³	80
4	Sulphur Dioxide (as SO2)	IS:5182 (P- 2)-2001, RA. 2017	Vard 9.37	μg/m³	80
5	Lead (as Pb)	IS 5182 (P-22) : 2004 RA.2014	*BDL(**DL-0.02 µg/m3)	µg/m³	Envi 1.0 ab v
6	Arsenic (as As)	Methods of air sampling and analysis,3rd ed.,1988, Method No.302	*BDL(**DL-1.0 ng/m3)	ng/m³	viroLab Vard
7	Chromium as Cr	Methods of air sampling and analysis, 3rd Ed, 1988, Method No.807:1988	*BDL(**DL 1.0 µg/m³)	μg/m³	rdan Emvirot Envirotab V

^{*}BDL- Below Detection Limit, **DL- Detection Lim

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Page No. 1/1

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Test Report

Sample Number: VEL/REL/AA/02

Name & Address of the Party : M/s Raipur Energen Limited

Village: Raikheda, Block-Tilda Dist. Raipur -493225

(CG)Talabira Mines

Report No. : VEL/A/2105280008/B

Format No : 7.8 F-0

Party Reference No : NIL

Report Date : 02/06/20

Receipt Date

Period of Analysis : 28/05/2021-02/06/2021

28/05/2021

Sample Description : AMBIENT AIR

General Information

Sampling Location

Sample Collected by Sampling Equipment used

Instrument Code

Instrument Calibration Status

Latitude

Longitude

Meteorological condition during monitoring

Date of Monitoring Time of Monitoring

Ambient Temperature (°C)

Surrounding Activity

Scope of Monitoring Sampling & Analysis Protocol

Sampling Duration

Parameter Required

: R&R Colony 3.2 KM. in NE From the Mine

VEL Team

VLL I Calli

RDS/FPS

VEL/JAI/RDS/22/FPS/22

Calibrated

Vardan

Clear Sky

: 22/05/2021 To 23/05/202

11.00 to 11.00 Hrs.

Min 23 Max 38

Human, Vehicular & Plant Activity

Regulatory Requirement

IS:5182

: 24 Hrs.

. 24 Hrs.

: As per Work Order

S.No.	Parameters	Test Method	Results	Units	Limit as per CPCB
1	Mercury (Hg)	Methods of air sampling and analysis,3rd ed.,1988, Method No.317	*BDL(**DL-1.0 ug/m3)	μg/m³	dan Envirota Enviro-ab V

^{*}BDL- Below Detection Limit, **DL- Detection Limit

End of Report

DANESH PALSANIYA

(Checked By)

OV TECHNICAL MANAGER

RAJ KUMAR BADAV
(Authorized Signatory)

WALL THE PREDATION

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Laboratory: Plot No. 24 & 25, Narayan Vihar, B-Block, Jaipur (Rajasthan) 302020 MoEF & CC Recognized | ISO 9001 | ISO 45001

Test Report

Sample Number:

Name & Address of the Party : M/s Raipur Energen Limited

Village: Raikheda, Block-Tilda Dist. Raipur -493225

(CG)Talabira Mines

Party Reference No

Report No.

Format No 7.8 F-01

Report Date

: 02/06/2021 Period of Analysis : 28/05/2021-02/06/202

Receipt Date

28/05/2021

Sample Description : AMBIENT AIR

> **General Information** Sampling Location

In Front of the Mine Office Sample Collected by **VEL Team** Sampling Equipment used RDS/FPS

Instrument Code VEL/JAI/RDS/22/FPS/22

Instrument Calibration Status

Latitude Longitude

Meteorological condition during monitoring Clear Sky

Date of Monitoring 23/05/2021 To 24/05/20

Time of Monitoring 12.00 to 12.00 Hrs. Ambient Temperature (°C) Min 23 Max 39

Surrounding Activity Human, Vehicular & Plant Activity

Scope of Monitoring Regulatory Requirement

Sampling & Analysis Protoco IS:5182 **Sampling Duration** 24 Hrs.

Parameter Required As per Work Order

S.No.	Parameters	Test Method	Results	Units ab Vardan	Limit as per CPCB
1	Particulate Matter (as PM -10)	IS:5182 (P- 23)-2006,RA. 2017	69.14	µg/m³	100
2	Particulate Matter (as PM - 2.5)	IS:5182 (P- 24)-2019	31.83	μg/m³	60
3	Nitrogen Dioxides (as NO2)	IS:5182 (P- 6)-2006 RA.2017	16.10	μg/m³	80
4	Sulphur Dioxide (as SO2)	IS:5182 (P- 2)-2001, RA. 2017	Varda 8.96 VIIIO	µg/m³	Enviro 80 b Va

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Laboratory: Plot No. 24 & 25, Narayan Vihar, B-Block, Jaipur (Rajasthan) 302020 MoEF & CC Recognized | ISO 9001 | ISO 45001

Test Report

Sample Number: VEL/REL/AA/04

Name & Address of the Party : M/s Raipur Energen Limited

Village: Raikheda, Block-Tilda Dist. Raipur -493225

(CG)Talabira Mines

Report No. VEL/A/2105280010/B

Format No · 7.8 F-01

Party Reference No

Report Date

: 02/06/2021 Period of Analysis : 28/05/2021-02/06/202

Receipt Date : 28/05/2021

Sample Description

: AMBIENT AIR

General Information Sampling Location

Sample Collected by

Sampling Equipment used

Instrument Code

Instrument Calibration Status

Latitude

Longitude

Meteorological condition during monitoring

Date of Monitoring

Time of Monitoring Ambient Temperature (°C)

Surrounding Activity

Scope of Monitoring

Sampling & Analysis Protoco Sampling Duration

Parameter Required

A1 Down Wind point of talabira mine area

VEL Team

RDS/FPS

VEL/JAI/RDS/22/FPS/22

Calibrated

Clear Sky

24/05/2021 To 25/05/202

12.00 to 12.00 Hrs.

Min 23 Max 39

Human, Vehicular & Plant Activity

Regulatory Requirement

IS:5182

24 Hrs.

As per Work Order

S.No.	Parameters Vardan EnviroLab Vardan Envir	Test Method	Results	Units	Limit as per CPCB
iroL	Volatile Organic Compound (as BTX)	IS:5182 (P-11) :2006, RA 2017	*BDL(**DL-1.0ng/ m³)	μg/m³	Envirotab Va oLab Vardan
	Polycyclic Aromatic Hydrocarbon (as PAH)	IS:5182 (P-12):2004	*BDL(**DL-5.0ng/ m³)	ng/m³	in EnviroLab iroLab Varda

*BDL- Below Detection Limit, **DL- Detection Limit

End of Report

(Checked By)

(Authorized Signatory)

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Laboratory: Plot No. 24 & 25, Narayan Vihar, B-Block, Jaipur (Rajasthan) 302020 MoEF & CC Recognized | ISO 9001 | ISO 45001

Test Report

Sample Number :

VEL/REL/W/01

Name & Address of the Party

: M/s Raipur Energen Limited

Village: Raikheda, Block-Tilda Dist. Raipur -493225

(CG)Talabira Mines

Report No.

VEL/W/2105280001/A

Format No

: 7.8 F-01

Party Reference No

: NIL

Report Date

: 02/06/2021

Period of Analysis

: 28/05/2021-02/06/202

Receipt Date

00/07/0004

Keceipt Date

: 28/05/2021

Sampling Date

: 24/05/2021

Sampling Quantity

: 2 Ltr.

Sampling Type

· Crob

Sample Collected by

Sample Description

: VEL Team

Preservation

: Suitable Preservation

: R&R Colony (Open Well)

Sampling and Analysis

: IS 10500 -2012

_	200	4 -	1	-1	
	ro				

Location

rotoco S.No.	Parameters	Ameters Protocols Results Varian EnviroLab Varian EnviroLab Varian EnviroLab Varian EnviroLab Varian EnviroLab	Results	Units	IS:10500-2012	
iroL dan	ab Vardan EnviroLab Var EnviroLab Vardan Enviro		ab Vardan Envi EnviroLab Vard Jah Vardan En		Acceptable Limits	Permissible Limits
1	pHoLab Vardan EnviroL	IS 3025 (P-11): 1983 Reaff. 2017	virol. 7.41 ardan	Enwiro	6.5 to 8.5	No Relaxation
2	Total Dissolved Solids	IS 3025 (P-16): 1984 Reaff 2017	354.1	mg/l	500	2000
3	Total Alkalinity (as CaCO3)	IS: 3025 (Part 23): 1986, Reaff. 2019	138.04	mg/l	200	600
	Total Hardness (as CaCO3)	IS: 3025 (Part 21): 2009, Reaff. 2019	165.6	mg/l	200 and	an En 600 Lab
4	Nitrate (as NO3)	IS: 3025 (Part 34): 1988, Reaff. 2019	4.75	mg/l	45	No Relaxation
5	Chloride (as CI)	IS: 3025 (Part 32): 1988, Reaff. 2019	63.17 Va	mg/l	250	1000
7	Sulphate (as SO4)	IS: 3025 (Part 24): 1986, Reaff. 2019 Turbidity Method	ab Varoan Envi	mg/l	200	oLab Vardan
8	Calcium (as Ca)	IS: 3025 (Part 40): 1991 Reaff. 2019	55.31	mg/l	Var 75 Em	200
9	Magnesium (as Mg)	IS: 3025 (Part 46): 1994, Reaff. 2009 (EDTA method)	n Envirol ab Va	mg/l	viroLab Va	dan EnviroL
10	Fluorides (as F)	APHA 23rd Edition 2017, 4500 FD	0.25	mg/l	1.0	oLab 1.5
11	Phenolic Compound (as C6H5OH)	APHA 23rd Edition 2017, 5530C	BDL(*DL0.001)	mg/l	Vardan Em	roLab Vard
12	Total Iron (as Fe)	IS 3025(P-53): 2003 Reaffirm 2019	BDL(*DL0.1)	mg/l	0.3	No Relaxation
13	Arsenic (as As)	APHA (23rd edition-2017), 3114 C	BDL(*DL0.005)	mg/l	ab 0.01 day	Envi 0.05 b V
14	Mercury (as Hg)	APHA (23rd edition-2017), 3114C	BDL(*DL0.0005)	mg/l	0.001	No Relaxation
15	Lead (as Pb)	APHA (23rd edition-2017), 3030D, 3113 B	BDL(*DL0.005)	mg/l	Var 0.01 Em	No Relaxation
16	Cadmium (as Cd)	APHA (23rd edition-2017), 3030D, 3113 B	BDL(*DL0.002)	mg/l	0.003	No Relaxation
17	Chromium (as Cr)	APHA 23rd Edition Year 2017 Method No. 3113 B	BDL(*DL0.02)	mg/l	Vandan En	No Relaxation
18	Copper (as Cu)	APHA 23rd Edition Year 2017 Method No. 3111B	BDL(*DL0.02)	mg/l	0.05	dan E 1.5
19	Zinc (as Zn)	APHA (23rd edition-2017), 3030D, 3113 B	BDL(*DL0.2)	mg/l	5.0 Ni	oLab (15 dan an EnviroLat
20	Selenium (as Se)	APHA (23rd edition-2017), 3114C	BDL(*DL0.005)	mg/l	0.01	No Relaxation

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Note: Terms & conditions refer on backside of test report.

RAJKBMAR YADAV Page No. 1/2

GM LAB OPERATION

Ph: 0141-2983404, 9810355569, 9953147268 E-mail: jaipur@vardanenvironet.com







Laboratory: Plot No. 24 & 25, Narayan Vihar, B-Block, Jaipur (Rajasthan) 302020 MoEF & CC Recognized | ISO 9001 | ISO 45001

Test Report

		(2020)		COMPANY	
Cam	nla	Ni	HP2	hor	
Sam	DIE	140	4111	Dei	

/FL/REL/W/01

Report No.

VEL/W/2105280001/A

S.No.	Parameters	dan Environ Vardan Protocols Vardan E	Results	Units	IC:10500-2012	
	n EnviroLab Vardan En viroLab Vardan Enviro ab Varrian EnviroLab V	nvi otab Vardan Envirotab Vardan Envirotab Vardan Envirotab Vardan Envirotab Vardan Envirot		ndan Er n Enviro noLab V	Acceptable Limits	Permissible Limits
21	Turbidity	IS 3025 (Part 10): 1984, Ref: 2017, (Nephelometeric Method)	BDL(*DL1.0)	NTU	Vardan En	in Env5 ola
22	Aluminium	IS 3025 (Part-55): 2003, Reaff. 2019	BDL(*DL0.03)	mg/l	0.03	0.2
23	Manganese (as Mn)	IS: 3025 (Part 46): 1994, Reaff. 2019 (EDTA method)	BDL(*DL0.05)	mg/l	Lab 0.1 rdar ardan Envir	Envir0.3 ab V oLab Varda
24	Boron (as B)	APHA 23rd Edition Year 2017 Method No. 4500B	BDL(*DL0.2)	mg/l	0.5	iroLa1.0 arc
25	Free Residual Chlorine	IS: 3025 (Part 26): 1986 RA 2019	BDL(*DL0.2)	mg/l	0.2	dan Envirol

*BDL-Below Detection Limit, **DL-Detection Limit

End of Report

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THE THE PART AND A CEP

RAJ KUMBRYADA

(Authorized Signatory)

A LAB OPERATION

Page No. 2/2

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Laboratory: Plot No. 24 & 25, Narayan Vihar, B-Block, Jaipur (Rajasthan) 302020

MoEF & CC Recognized | ISO 9001 | ISO 45001

Test Report

Sample Number: Name & Address of the Party

VEL/REL/W/01

: M/s Raipur Energen Limited

Village: Raikheda, Block-Tilda Dist. Raipur -493225

(CG)Talabira Mines

Report No.

: 28/05/2021-02/06/202

Format No

: 7.8 F-01

Party Reference No

: NIL

Report Date

: 02/06/2021

Period of Analysis Receipt Date

: 28/05/2021

Sampling Date

: 24/05/2021

Sampling Quantity

: 2 Ltr.

Sampling Type

Sample Collected by

Sample Description

: VEL Team

Preservation

: Suitable Preservation

: GROUND WATER

: R&R Colony (Open Well)

Sampling and Analysis

: IS 10500 -2012

Protocol

Location

S.No.	Parameters	Protocols	Results	Units	IS:10500-2012	
	ib Vardan EnviroLab Vardan EnviroLab Vardan EnviroLab Vardan Enviro	ian EnviroLab Vardan EnviroL ab Vardan EnviroLab Vardan		iroLab V dan Envi	Acceptable Limits	Permissible Limits
arda an Er	Total Coliform (By MPN Method)	Vardan IS:1622 Vardan E. OLah Vardan E. Vardan E. Vardan E. Vardan E. Ian EnviroLah Vardan EnviroL	Absent In Francisco Variation Francisco Variat	MPN/10 0 ml	Shall not be Detectable in any 100 ml sample	Envir NA b Va dan Enviro La Enviro Lab Va o Lab Vardan
2	E-Coli ardan EnviroLab V	dan Envir IS:1622 dan Envir	Absent	per 100	Absent/100	Absent/100 ml
3	Cyanide (as CN)	APHA 23rd Edition 2017, 4500CN D	BDL(*DL0.05)	mg/l	0.05	No Relaxation
4	Colour dan EnviroLab Var	IS 3025: 1983 (P-4) RA 2017	BDL(*DL1.0)	Hazen Unit	ardai ⁵ Envi roLab Varc	oLab \15-dan an Envirol.ab
5	Odour Nardan EnviroLa	IS 3025 (P-5): RÀ. 2018	Agreeable	Qualitat ive	Agreeable	Agreeable
6	Taste ab Vardan EnviroLa wardan EnviroLab Var	IS 3025(P-8):1984 RA. 2017	Agreeable	Qualitat	Agreeable	Agreeable
7	Anionic Surface Active Agent	APHA 23rd Edition 2017, 5540C	BDL(*DL0.05)	mg/I	0.2	1.0

*BDL-Below Detection Limit, **DL-Detection Limit

(Checked By)

(Authorized Signatory)

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Laboratory: Plot No. 24 & 25, Narayan Vihar, B-Block, Jaipur (Rajasthan) 302020 MoEF & CC Recognized | ISO 9001 | ISO 45001

Test Report

Sample Number: VEL/REL/AN/01

Name & Address of the Party : M/s Raipur Energen Limited

Village: Raikheda, Block-Tilda Dist. Raipur -493225

(CG)Talabira Mines

Sample Description

: Ambient Noise Scope of Monitoring : Regulatory Requireme Protocol Used : IS 9989: IS 9876

Instrument Used

General Information Sampling Location

Instrument Code Meteorological condition during monitoring

Time of Monitoring Ambient Temperature (*

Surrounding Activity

Date of Monitoring

Parameter Required

Report No.

VEL/N/2105280001/A

Format No Party Reference No

7.8 F-01 NIL

Report Date 02/06/202 Receipt Date 28/05/2021 Sampling Duration 24 Hrs.

Sample Collected by Instrument

: VEL Team : Calibrated

Calibration St

VEL/JAI/SLM/05 Clear Sky

21/05/2021 To 22/05/202

06.00 to 06.00 Hrs

Min 23 Max 38

Human, Vehicular & Plant Activity

As Per Work Order

S.No. Test Parameters	Protocol wiroLab	V rdan EnviroLa Test Result dB(A)	
viroLab Vardan EnviroLab Vardan EnviroLab Vardan EnviroLab Vardan EnviroLab Vardan	lar EnviroLab Vardan EnviroLa	Vardan Day Time	Night Time
1 Leg ViroLab Vardan Enviro	10,0000, 4004	o ab Vardan EnviroLab	Vardan Envitora
TETWINGSAID Vondon Crowled also	IS 9989 - 1981	64.12	49.25

Category of Zones	rdan Enviros als Vardan Enviros als Led	g in dB(A)
iviroLab Vardan EnviroLab Vardan E	n riroLab Vardan EnDay Lab Vardan E	Night wolab V
Industrial	Ardan EnviroLab Vardar 75	an EnviroLab v 70
Commercial - Vardam EnviroLab Vard	EnviroLab Varda 65 WroLab Vard	valcian Envirouse Vaccian Envi
Residential	Ultral als Vandani Empire I - I V	ar EnviroLab \55 dan EnviroLa
Silence Zone	55 40 Vardan En	45
ndrot at werdan EnviroLab Vardan E	nviroLab Vardan En 50 oLab Vardan E	nyirotab Vard 40 Envirotab Va

- 1. Day Time is from 6.00 AM to 10.00 PM.
- 2: Night Time is reckoned between 10.00 PM to 6.00 AM
- 3. SilenceZone is defined as an area up to 100m around premises of Hospitals, Educational Institutions and Courts. Use of vehicle horn. ludspeaker and bursting of crackers is banned in these zones.

Note: Mixed categories of areas be declared as one of the four above mentioned categories by the competent Authority and the corresponding standards shall apply

End of Report



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: VEL/N/2105280002/A

28/05/2021

24 Hrs.

: VEL Team

: Calibrated



Laboratory: Plot No. 24 & 25, Narayan Vihar, B-Block, Jaipur (Rajasthan) 302020 MoEF & CC Recognized | ISO 9001 | ISO 45001

Test Report

Report No.

Party Reference No

Sampling Duration

Calibration State

Sample Collected by

Format No.

Report Date Receipt Date

Sample Number: VEL/REL/AN/02

Sample Description

Name & Address of the Party : M/s Raipur Energen Limited

(CG)Talabira Mines

Village: Raikheda, Block-Tilda Dist. Raipur -493225

Scope of Monitoring : Regulatory Requirement

Protocol Used : IS 9989: IS 9876

Instrument Used

General Information Sampling Location

Instrument Code

Meteorological condition during monitoring

Date of Monitoring

Time of Monitoring

Ambient Temperature (

Surrounding Activity Parameter Required

: Ambient Noise

VEL/JAI/SLM/05

Clear Sky

22/05/2021 To 23/05/202

06.00 to 06.00 Hrs

Min 23 Max 38

Human, Vehicular & Plant Activity

As Per Work Order

S.No. Test Parameters	Protocol	Test Result dB(A)	
viro Lab Vardan Enviro Lab Vard Enviro Lab Vardan Enviro Lab V	an EnviroLab Vardan EnviroLal	Vardan Day Time ab Var	an En Night Time
1 Leq Mardan Envirol	IS 9989 - 1981	61.58	45.36

Category of Zones	rdan Envirol ab Vardan Envirol ab Le	eq in dB(A)
viroLan Vardan EnviroLab Vardan I	inviroLab Vardan En DayLab Vardan E	m rotal Var Night virotal Vard
Industrial	Val dan Enviror sk va 75	70 The InvitoLab V
Commercial Wardan EnviroLab Vard	ar EnviroLab Vardan 65 viroLab Vard	an EnviroLab V 55 an EnviroLab V
Residential	VI OLAB VARDAN ENVI 55	45
Silence Zone	TO SET THE PARTY AND SOUTH FLAMEST OF AST	Envirol 140 day Envirol 1
THE SECTION OF THE PROPERTY OF	in JiroLab Vardan Env50 Lab Vardan E	myiroLab Vard 40 Envirol ab Vard

- 1. Day Time is from 6.00 AM to 10.00 PM.
- 2: Night Time is reckoned between 10.00 PM to 6.00 AM
- 3. SilenceZone is defined as an area up to 100m around premises of Hospitals, Educational Institutions and Courts. Use of vehicle horn ludspeaker and bursting of crackers is banned in these zones.

Note: Mixed categories of areas be declared as one of the four above mentioned categories by the competent Authority and the corresponding standards shall apply

"*End of Report"

(Authorized Signatory)

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Laboratory: Plot No. 24 & 25, Narayan Vihar, B-Block, Jaipur (Rajasthan) 302020 MoEF & CC Recognized | ISO 9001 | ISO 45001

Test Report

Sample Number:

Name & Address of the Party

: M/s Raipur Energen Limited

Village: Raikheda, Block-Tilda Dist. Raipur -493225

(CG)Talabira Mines

Report No.

VEL/N/2105280003/A

Format No

7.8 F-01

Party Reference No

: NIL

Report Date

02/06/2021

Receipt Date

28/05/2021

Sampling Duration

24 Hrs.

Sample Collected by

Calibration Statu

Instrument

: VEL Team Calibrated

Ambient Noise

Protocol Used Instrument Used

Sample Description

Scope of Monitoring

General Information

Sampling Location

Meteorological condition during monitoring

Date of Monitoring

Time of Monitoring

Ambient Temperature (°C

Surrounding Activity Parameter Required

: Regulatory Requirement : IS 9989: IS 9876

VEL/JAI/SLM/05

Clear Sky

23/05/2021 To 24/05/202

06.00 to 06.00 Hrs

Min 23 Max 38

Human, Vehicular & Plant Activity

As Per Work Order

S.No.	Test Parameters	Protocol	Test Result dB(A)	
viro ab Vardan EnviroLab Vardan EnviroLab Vardan EnviroLab Var		Day Time	Night Time	
1	Leq Various Faviories Val	IS 9989 - 1981	58.21	43.53

Category of Zones	den EnviroLab Vardan EnviroLab (Leo	in dB(A)
viroLab vardan EnviroLab Verdan E	miroLab Vardan Em DayLab Vardan Er	WroLab Vard Night WroLab Var
Industrial	75	THINITOLAB V 70 AM ENVIROLAB
Commercial Vardan EnviroLab Varda	in EnviroLab Vardan 65 wiroLab Varda	n EnviroLab V 55 an EnviroLab
Residential	55	DLab Vardan 45 VII oLab Varda
Silence Zone	iroLab Vardan Env50 Lab Vardan En	Wrol ab Vard 40 pylind ab Var

- 1. Day Time is from 6.00 AM to 10.00 PM.
- 2: Night Time is reckoned between 10.00 PM to 6.00 AM
- 3. SilenceZone is defined as an area up to 100m around premises of Hospitals, Educational Institutions and Courts. Use of vehicle horn, ludspeaker and bursting of crackers is banned in these zones.

Note: Mixed categories of areas be declared as one of the four above mentioned categories by the competent Authority and the corresponding standards shall apply

(Checked By)

(Authorized Signatory

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Note: Terms & conditions refer on backside of test report.

Ph: 0141-2983404, 9810355569, 9953147268 E-mail: jaipur@vardanenvironet.com







Laboratory: Plot No. 24 & 25, Narayan Vihar, B-Block, Jaipur (Rajasthan) 302020 MoEF & CC Recognized | ISO 9001 | ISO 45001

Test Report

Sample Number : VEL/REL/AN/04

Name & Address of the Party : M/s Raipur Energen Limited

Village: Raikheda, Block-Tilda Dist. Raipur -493225

(CG)Talabira Mines

Report No.

VEL/N/2105280004/A

Format No

Party Reference No

NII

Report Date

: 02/06/2021

Receipt Date

28/05/2021

Sampling Duration Sample Collected by

24 Hrs.

Instrument

: VEL Team

Calibration Statu

: Calibrated

Protocol Used Instrument Used

Sample Description

Scope of Monitoring

General Information Sampling Location

Instrument Code

Meteorological condition during monitoring

Date of Monitoring Time of Monitoring

Ambient Temperature (

Surrounding Activity

Parameter Required

: Ambient Noise

: Regulatory Requiremen : IS 9989: IS 9876

VEL/JAI/SLM/05

Clear Sky

24/05/2021 To 25/05/202

06.00 to 06.00 Hrs

Min 23 Max 38

Human, Vehicular & Plant Activity

As Per Work Order

S.No.	Test Parameters	Protocol Protocol	Test Result dB(A)		
nviroLab Vardan EnviroLab Varda		Vardan Day Time	Night Time		
1 1	Leq WiroLab Vardan EnviroLa	IS 9989 - 1981	r of of ah United Envirolati	vardan EnviroLa	
1 5111	ritrollab Varden Envirolab Va	13 9909 - 1961	61.47	45.84	

Leq in dB(A)				
Lab Vardan Er Day Lab Vardan E	In IroLab Var Night wiroLab var			
Fovirot ab vardar 75	EnviroLab 70			
droLab Varda 65 nviroLab Vard	EnviroLab 55 dan EnviroLab			
by Warrison Considers on the Constant	Bit of an Warrian Andreas Andreas			
TIVE CLOST FOR USINE INVITOLISH VO	45			
	ab Vardan Er Day Lab Vardan I			

- 1. Day Time is from 6.00 AM to 10.00 PM.
- 2: Night Time is reckoned between 10.00 PM to 6.00 AM
- 3. SilenceZone is defined as an area up to 100m around premises of Hospitals, Educational Institutions and Courts. Use of vehicle horn, ludspeaker and bursting of crackers is banned in these zones.

Note: Mixed categories of areas be declared as one of the four above mentioned categories by the competent Authority and the corresponding standards shall apply

End of Report

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June 2021







Laboratory: Plot No 24 & 25, Narayan Vihar, B-Block, Jaipur(Rajasthan)-302020 MoEF& CC Recognized | ISO 9001 | ISO 45001 |

Test Report

Sample Number:

VEL/REL/AA/01

Name & Address of the Party : M/s Raipur Energen Limited

Village: Raikheda, Block-Tilda Dist. Raipur -493225

(CG)Talabira Mines

Report No.

: VEL/A/2106240001/A

Format No

· 7.8 F-01

Party Reference No : NIL

Report Date

: 29/06/2021

Period of Analysis

: 24/06/2021-29/06/2021

Receipt Date

. 24/06/2021

Sample Description

: AMBIENT AIR

General Information

Sampling Location

Sample Collected by

Sampling Equipment used

Instrument Code

Instrument Calibration Status

Latitude

Longitude

Meteorological condition during monitoring

Date of Monitoring

Time of Monitoring

Ambient Temperature (°C)

Surrounding Activity

Scope of Monitoring

Sampling & Analysis Protocol

Sampling Duration

Rest Shelter 1.5 KM in SE From the Mine

VEL Team

RDS/FPS

VEL/JAI/RDS/22/FPS/22

Calibrated

Clear Sky

15/06/2021 To 16/06/2021 09.00 to 09.00 Hrs.

Min 24 Max 39

Human, Vehicular & Plant Activity

Regulatory Requirement

IS:5182

24 Hrs.

Parameter Required : As Per Work Order

S.No.	Parameters	Test Method	Results	Units	Limit as per CPCB
1	Particulate Matter (as PM -10)	IS:5182 (P- 23)-2006,RA. 2017	74.41	μg/m³	100
2	Particulate Matter (as PM - 2.5)	IS:5182 (P- 24)-2019	37.38	μg/m³	60
3	Nitrogen Dioxides (as NO2)	IS:5182 (P- 6)-2006 RA.2017	27.15	μg/m³	80
4	Sulphur Dioxide (as SO2)	IS:5182 (P- 2)-2001, RA. 2017	11.02	μg/m³	80
5	Lead (as Pb)	IS 5182 (P-22) : 2004 RA.2014	*BDL(**DL-0.02)	μg/m³	1.0
6	Arsenic (as As)	Methods of air sampling and analysis,3rd ed.,1988, Method No.302	BDL (*DL1.0)	ng/m³	6.0
7	Chromium as Cr	Methods of air sampling and analysis, 3rd Ed, 1988, Method No. 807:1988	BDL(DL 1.0)	μg/m³	-

^{**}BDL(Below Detection Limit), **DL(Detection Limit)

End of Report

TECHNICAL MANAGER

G M LAB OPERATION

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Note: Terms & conditions refer on backside of test report.





Laboratory: Plot No 24 & 25, Narayan Vihar, B-Block, Jaipur(Rajasthan)-302020 MoEF& CC Recognized | ISO 9001 | ISO 45001 |

Test Report

Sample Number: VEL/REL/AA/01

Name & Address of the Party : M/s Raipur Energen Limited

(CG)Talabira Mines

Village: Raikheda, Block-Tilda Dist. Raipur -493225

Format No

Report No.

: VEL/A/2106240001/B · 7.8 F-01

Party Reference No : NIL

Report Date

: 29/06/2021

- 24/06/2021

Receipt Date

Period of Analysis : 24/06/2021-29/06/2021

Sample Description

: AMBIENT AIR

General Information

Sampling Location

Sample Collected by Sampling Equipment used

Instrument Code

Instrument Calibration Status

Latitude

Longitude

Meteorological condition during monitoring

Date of Monitoring

Time of Monitoring

Ambient Temperature (°C)

Sampling & Analysis Protocol

Surrounding Activity

Scope of Monitoring

Sampling Duration

Parameter Required

: Rest Shelter 1.5 KM in SE From the Mine

VEL Team

: RDS/FPS

VEL/JAI/RDS/22/FPS/22

Calibrated

: Clear Sky

: 15/06/2021 To 16/06/2021

: 09.00 to 09.00 Hrs.

Min 24 Max 39

: Human, Vehicular & Plant Activity

: Regulatory Requirement

: IS:5182

: 24 Hrs.

: As Per Work Order

S.No.	Parameters	Test Method	Results	Units	Limit as per CPCB
1	Mercury (Hg)	Methods of air sampling and analysis,3rd ed.,1988, Method No.317	BDL (*DL1.0)	µg/m³	**

^{**}BDL(Below Detection Limit), **DL(Detection Limit)

End of Report

NDRA KUMAR (Checked By)

TECHNICAL MANAGER

www.vardan.co.in

Note: Terms & conditions refer on backside of test report.







Laboratory: Plot No 24 & 25, Narayan Vihar, B-Block, Jaipur(Rajasthan)-302020 MoEF& CC Recognized | ISO 9001 | ISO 45001|

Test Report

Sample Number:

VEL/REL/AA/02

Name & Address of the Party : M/s Raipur Energen Limited

Village: Raikheda, Block-Tilda Dist. Raipur -493225

(CG)Talabira Mines

Report No.

: VEL/A/2106240002/A

· 7.8 F-01

Period of Analysis

Receipt Date

: 24/06/2021-29/06/2021

Sample Description

: AMBIENT AIR

General Information

Sampling Location

Sample Collected by

Sampling Equipment used

Instrument Code

Instrument Calibration Status

Latitude

Longitude

Meteorological condition during monitoring

Date of Monitoring

Time of Monitoring

Ambient Temperature (°C)

Surrounding Activity

Scope of Monitoring

Sampling & Analysis Protocol Sampling Duration

Parameter Required

Format No

Party Reference No : NIL

Report Date

: 29/06/2021

. 24/06/2021

: R&R Colony 3.2 KM in NE From The mine

VEL Team

RDS/FPS

VEL/JAI/RDS/22/FPS/22

Calibrated

Clear Sky

16/06/2021 To 17/06/2021

10.00 to 10.00 Hrs.

Min 23 Max 38

Human, Vehicular & Plant Activity

Regulatory Requirement : IS:5182

: 24 Hrs.

: As Per Work Order

S.No.	Parameters	Test Method	Results	Units	Limit as per CPCB
1	Particulate Matter (as PM -10)	IS:5182 (P- 23)-2006,RA. 2017	73.27	μg/m³	100
2	Particulate Matter (as PM - 2.5)	IS:5182 (P- 24)-2019	33.87	μg/m³	60
3	Nitrogen Dioxides (as NO2)	IS:5182 (P- 6)-2006 RA.2017	16.22	μg/m³	80
4	Sulphur Dioxide (as SO2)	IS:5182 (P- 2)-2001, RA. 2017	10.1	μg/m³	80
5	Lead (as Pb)	IS 5182 (P-22) : 2004 RA.2014	BDL (*DL 0.02)	μg/m³	1.0
6	Arsenic (as As)	Methods of air sampling and analysis,3rd ed.,1988, Method No.302	BDL (*DL1.0)	ng/m³	6.0
7	Chromium as Cr	Methods of air sampling and analysis, 3rd Ed, 1988, Method No. 807:1988	BDL(DL 1.0)	µg/m³	=

*BDL- Below Detection Limit, **DL- Detection Limit

End of Report

DRA KUMAR

TECHNICAL MANAGER

Page No. 1/1

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Laboratory: Plot No 24 & 25, Narayan Vihar, B-Block, Jaipur(Rajasthan)-302020 MoEF& CC Recognized | ISO 9001 | ISO 45001 |

Test Report

Sample Number: VEL/REL/AA/02

Name & Address of the Party : M/s Raipur Energen Limited

Village: Raikheda, Block-Tilda Dist. Raipur -493225

(CG)Talabira Mines

Report No.

: VEL/A/2106240002/B

Format No

- 7.8 F-01

: 29/06/2021

Receipt Date

- 24/06/2021

Sample Description

: AMBIENT AIR

General Information

Sampling Location

Sample Collected by

Sampling Equipment used

Instrument Code

Instrument Calibration Status

Latitude

Meteorological condition during monitoring

Date of Monitoring

Time of Monitoring

Ambient Temperature (°C)

Surrounding Activity

Scope of Monitoring

Sampling & Analysis Protocol

Sampling Duration

Parameter Required

Party Reference No : NIL

Report Date

Period of Analysis : 24/06/2021-29/06/2021

: R&R Colony 3.2 KM in NE From The mine

: VEL Team

: RDS/FPS

: VEL/JAI/RDS/22/FPS/22

Calibrated

: Clear Sky

: 16/06/2021 To 17/06/2021

10.00 to 10.00 Hrs.

Min 23 Max 38

: Human, Vehicular & Plant Activity : Regulatory Requirement

: IS:5182

: 24 Hrs.

: As Per Work Order

S.No.	Parameters	Test Method	Results	Units	Limit as per CPCB
1	Mercury (Hg)	Methods of air sampling and analysis,3rd ed.,1988, Method No.317	BDL (*DL1.0)	µg/m³	22

*BDL- Below Detection Limit, **DL- Detection Limit

End of Report

VIJENDRA KUMAR

(Checked By) CAL MANAGER

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Note: Terms & conditions refer on backside of test report.







Laboratory: Plot No 24 & 25, Narayan Vihar, B-Block, Jaipur(Rajasthan)-302020 MoEF& CC Recognized | ISO 9001 | ISO 45001 |

Test Report

Sample Number:

VEL/REL/AA/03

Name & Address of the Party : M/s Raipur Energen Limited

Village: Raikheda, Block-Tilda Dist. Raipur -493225

(CG)Talabira Mines

Report No.

: VEL/A/2106240003/A

Format No Party Reference No : NIL

: 7.8 F-01

Report Date

: 29/06/2021

Period of Analysis

: 24/06/2021-29/06/2021

Receipt Date

- 24/06/2021

Sample Description

: AMBIENT AIR

General Information

Sampling Location

Sample Collected by

Sampling Equipment used

Instrument Code

Instrument Calibration Status

Latitude

Longitude

Meteorological condition during monitoring

Date of Monitoring

Time of Monitoring Ambient Temperature (°C)

Surrounding Activity

Scope of Monitoring

Sampling & Analysis Protocol Sampling Duration

Parameter Required

: In Front of the Mine Office

VEL Team

RDS/FPS

VEL/JAI/RDS/22/FPS/22

Calibrated

: Clear Sky

: 17/06/2021 To 18/06/2021

11.00 to 11.00 Hrs.

Min 24 Max 38

Human, Vehicular & Plant Activity

Regulatory Requirement

: IS:5182

24 Hrs.

: As Per Work Order

S.No.	Parameters	Test Method	Results	Units	Limit as per CPCB
1	Particulate Matter (as PM -10)	IS:5182 (P- 23)-2006,RA. 2017	67.84	μg/m³	100
	Particulate Matter (as PM - 2.5)	IS:5182 (P- 24)-2019	29.04	μg/m³	60
	Nitrogen Dioxides (as NO2)	IS:5182 (P- 6)-2006 RA.2017	14.54	μg/m³	80
	Sulphur Dioxide (as SO2)	IS:5182 (P- 2)-2001, RA. 2017	9.87	μg/m³	80

^{**}BDL(Below Detection Limit), **DL(Detection Limit)

End of Report

NDRA KUMAR

TECHNICAL MANAGER

Signatory)

G M LAB OPERATION

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Note: Terms & conditions refer on backside of test report.





Laboratory: Plot No 24 & 25, Narayan Vihar, B-Block, Jaipur(Rajasthan)-302020 MoEF& CC Recognized | ISO 9001 | ISO 45001 |

Test Report

Sample Number: VEL/REL/AA/04

Name & Address of the Party : M/s Raipur Energen Limited

Village: Raikheda, Block-Tilda Dist. Raipur -493225 (CG)Talabira Mines

Report No.

: VEL/A/2106240004/B

Format No

· 7.8 F-01

Report Date

Party Reference No : NIL

Period of Analysis : 24/06/2021-29/06/2021

Receipt Date

24/06/2021

: 29/06/2021

Sample Description

General Information

Sampling Location

Sample Collected by

Sampling Equipment used

Instrument Code

Instrument Calibration Status

Latitude

Meteorological condition during monitoring

Date of Monitoring

Time of Monitoring

Ambient Temperature (°C)

Surrounding Activity

Scope of Monitoring

Sampling & Analysis Protocol

Sampling Duration Parameter Required

: AMBIENT AIR

: A1 Down Wind point of talabira mine Area

VEL Team

: RDS/FPS

VEL/JAI/RDS/22/FPS/22

Calibrated

Clear Sky

18/06/2021 To 19/06/2021

12.00 to 12.00 Hrs.

: Min 24 Max 39

Human, Vehicular & Plant Activity

: Regulatory Requirement

: IS:5182

: 24 Hrs : As Per Work Order

S.No.	Parameters	Test Method	Results	Units	Limit as per CPCB
1	Volatile Organic Compound (as BTX)	IS:5182 (P-11) :2006, RA 2017	*BDL(**DL-1.0)	µg/m³	227
	Polycyclic Aromatic Hydrocarbon (as PAH)	IS:5182 (P-12):2004	*BDL(**DL-5.0)	ng/m³	5 54

^{**}BDL(Below Detection Limit), **DL(Detection Limit)

End of Report

NDRA KUMAR

(Checked By)

TECHNICAL MANAGER

OM LAB OPERATION

www.vardan.co.in

Note: Terms & conditions refer on backside of test report.







Laboratory: Plot No 24 & 25, Narayan Vihar, B-Block, Jaipur(Rajasthan)-302020 MoEF& CC Recognized | ISO 9001 | ISO 45001|

Test Report

Sample Number:

VEL/REL/W/01

Name & Address of the Party : M/s Raipur Energen Limited

Village: Raikheda, Block-Tilda Dist. Raipur -493225

(CG)Talabira Mines

Report No.

: VEL/W/2106240001/A

Format No

7.8 F-01

Party Reference No : NIL

Report Date

: 29/06/2021

Period of Analysis

: 24/06/2021-29/06/2021

Receipt Date

: 24/06/2021

Sampling Date

: 18/06/2021

Sampling Quantity Sampling Type

: 2 Ltr : Grab

: VEL Team

Preservation

: Suitable Preservation

: R&R Colony (Oper Well)

: GROUND WATER

Sampling and Analysis

Sample Description

Sample Collected by

: IS 10500 -2012

Protocol

Location

S.No.	Parameters	Protocols	Results	Units	IS:10)500-2012
					Acceptable Limits	Permissible Limits
1	рН	IS 3025 (P-11): 1983 Reaff. 2017	7.38		6.5 to 8.5	No Relaxation
2	Total Dissolved Solids	IS 3025 (P-16): 1984 Reaff 2017	410.0	mg/l	500	2000
3	Total Alkalinity (as CaCO3)	IS: 3025 (Part 23): 1986, Reaff. 2019	141.62	mg/l	200	600
4	Total Hardness (as CaCO3)	IS: 3025 (Part 21): 2009, Reaff. 2019	178.54	mg/l	200	600
5	Nitrate (as NO3)	IS: 3025 (Part 34): 1988, Reaff. 2019	5.51	mg/l	45	No Relaxation
6	Chloride (as CI)	IS: 3025 (Part 32): 1988, Reaff. 2019	58.56	mg/l	250	1000
7	Sulphate (as SO4)	IS: 3025 (Part 24): 1986, Reaff. 2019 Turbidity Method	26.32	mg/l	200	400
8	Calcium (as Ca)	IS: 3025 (Part 40): 1991 Reaff. 2019	45.29	mg/l	75	200
9	Magnesium (as Mg)	IS: 3025 (Part 46): 1994, Reaff. 2009 (EDTA method)	15.93	mg/l	30	100
10	Fluorides (as F)	APHA 23rd Edition 2017, 4500 FD	0.23	mg/l	1.0	1.5
11	Phenolic Compound (as C6H5OH)	APHA 23rd Edition 2017, 5530C	*BDL(**DL-0.001)	mg/l	0.001	0.002
12	Total Iron (as Fe)	IS 3025(P-53): 2003 Reaffirm 2019	*BDL(*DL- 0.1)	mg/l	0.3	No Relaxation
13	Arsenic (as As)	APHA (23rd edition-2017), 3114 C	*BDL(**DL-0.005)	mg/l	0.01	0.05
14	Mercury (as Hg)	APHA (23rd edition-2017), 3114C	*BDL(**DL-0.0005)	mg/l	0.001	No Relaxation
15	Lead (as Pb)	APHA (23rd edition-2017), 3030D, 3113 B	*BDL(**DL-0.005)	mg/l	0.01	No Relaxation
16	Cadmium (as Cd)	APHA (23rd edition-2017), 3030D, 3113 B	*BDL(**DL-0.02)	mg/l	0.003	No Relaxation
17	Chromium (as Cr)	APHA 23rd Edition Year 2017 Method No. 3113 B	*BDL(**DL-0.02)	mg/l	0.05	No Relaxation
18	Copper (as Cu)	APHA 23rd Edition Year 2017 Method No. 3111B	*BDL(**DL-0.02)	mg/l	0.05	1.5
19	Zinc (as Zn)	APHA (23rd edition-2017), 3030D, 3113 B	*BDL(**DL-0.20)	mg/l	5.0	15
20	Selenium (as Se)	APHA (23rd edition-2017), 3114C	*BDL(**DL-0.005)	mg/l	0.01	No Relaxation

VIJENDRAKUMAR

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Note: Terms & conditions refer on backside of test report.

GM LAB OPERATION







Laboratory: Plot No 24 & 25, Narayan Vihar, B-Block, Jaipur(Rajasthan)-302020 MoEF& CC Recognized | ISO 9001 | ISO 45001|

Test Report

Sample Number :

VEL/REL/W/01

Report No.

: VEL/W/2106240001/A

	Parameters	ameters Protocols Results	Results	Units	IS:10500-2012	
				Acceptable Limits	Permissible Limits	
21	Turbidity	IS 3025 (Part 10): 1984, Ref: 2017, (Nephelometeric Method)	BDL(*DL1.0)	NTU	1	5
22	Aluminium	IS 3025 (Part-55): 2003, Reaff. 2019	*BDL(**DL-0.03)	mg/l	0.03	0.2
23	Manganese (as Mn)	IS: 3025 (Part 46): 1994, Reaff. 2019 (EDTA method)	*BDL(**DL-0.05)	mg/l	0.1	0.3
24	Boron (as B)	APHA 23rd Edition Year 2017 Method No. 4500B	*BDL(**DL-0.2)	mg/l	0.5	1.0
25	Free Residual Chlorine	IS: 3025 (Part 26): 1986 RA 2019	*BDL(**DL-0.2)	mg/l	0.2	1

End of Report

VILENDRA KUMAR

Checked By)

TECHNICAL MANAGER

RAJ KUMBO YADAV

OM LAB OPERATION

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Note: Terms & conditions refer on backside of test report.





Laboratory: Plot No 24 & 25, Narayan Vihar, B-Block, Jaipur(Rajasthan)-302020 MoEF& CC Recognized | ISO 9001 | ISO 45001 |

Test Report

Sample Number :

VEL/REL/W/01

Name & Address of the Party : M/s Raipur Energen Limited

Village: Raikheda, Block-Tilda Dist. Raipur -493225

(CG)Talabira Mines

Report No.

: VEL/W/2106240001/B

Format No

· 7.8 F-01

Party Reference No : NIL

Report Date

: 29/06/2021

Period of Analysis

: 24/06/2021-29/06/2021

Receipt Date

: 24/06/2021

Sampling Date

: 18/06/2021

Sampling Quantity

: 2 Ltr.

Sampling Type

: Grab

Sample Collected by

Location

: VEL Team

Preservation

: Suitable Preservation

: R&R Colony (Oper Well)

: GROUND WATER

Sampling and Analysis

Sample Description

: IS 10500 -2012

Protocol

S.No.	Parameters Protocols	Protocols	Results	Units	IS:10500-2012	
					Acceptable Limits	Permissible Limits
1	Total Coliform (By MPN Method)	IS:1622	Absent	MPN/10 0 ml	Shall not be Detectable in any 100 ml sample	NA
2	E-Coli	IS:1622	Absent	per 100 ml	Absent/100 ml	Absent/100 ml
3	Cyanide (as CN)	APHA 23rd Edition 2017, 4500CN D	*BDL(**DL-0.05)	mg/l	0.05	No Relaxation
4	Colour	IS 3025: 1983 (P-4) RA 2017	BDL(*DL1.0)	Hazen Unit	5	15
5	Odour	IS 3025 (P-5): RA. 2018	Agreeable	Qualitat ive	Agreeable	Agreeable
6	Taste	IS 3025(P-8):1984 RA. 2017	Agreeable	Qualitat ive	Agreeable	Agreeable
7	Anionic Surface Active Agent	APHA 23rd Edition 2017, 5540C	*BDL(**DL-0.05)	mg/l	0.2	1.0

'End of Report'

TECHNICAL MANAGER

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Note: Terms & conditions refer on backside of test report.







Laboratory: Plot No 24 & 25, Narayan Vihar, B-Block, Jaipur(Rajasthan)-302020 MoEF& CC Recognized | ISO 9001 | ISO 45001|

Test Report

Sample Number: VEL/REL/AN/01

Name & Address of the Party : M/s Raipur Energen Limited

Village: Raikheda, Block-Tilda Dist. Raipur -493225

(CG)Talabira Mines

Sample Description

: Ambient Noise

Scope of Monitoring

: Regulatory Requirement

Protocol Used

: IS 9989: IS 9876

Instrument Used

: SLM

General Information

Sampling Location

Instrument Code

Meteorological condition during monitoring

Date of Monitoring

Time of Monitoring

Ambient Temperature (°C) Surrounding Activity

Parameter Required

Report No.

: VEL/N/2106240001/A

Format No

· 7.8 F-01

Party Reference No

: NIL

Report Date

: 29/06/2021

Receipt Date

. 24/06/2021

Sampling Duration

: 24 Hrs.

Sample Collected by : VEL Team

: Calibrated

Instrument

Calibration Status

: In front of mine office

VEL/JAI/SLM/05

Clear Sky

14/06/2021 To 15/06/2021

: 06.00 to 06.00 Hrs.

Min 24 Max 38

: Human, Vehicular & Plant Activity

: As Per Work Order

S.No.	No. Test Parameters	Protocol	Test Res	sult dB(A)
0.110.			Day Time	Night Time
		10,0000, 4094	66.02	48.20
1	Leq	IS 9989 - 1981	00.02	CALSTANA

50-90 1 d 1	Lec	q in dB(A)
Category of Zones	Day	Night
Industrial	75	70
Commercial	65	55
Residential	55	45
Silence Zone	50	40

1. Day Time is from 6.00 AM to 10.00 PM

2: Night Time is reckoned between 10.00 PM to 6.00 AM

3. SilenceZone is defined as an area up to 100m around premises of Hospitals, Educational Institutions and Courts. Use of vehicle horn, ludspeaker and bursting of crackers is banned in these zones

Note: Mixed categories of areas be declared as one of the four above mentioned categories by the competent Authority and the corresponding standards shall apply

End of Report

(Checked By)

TECHNICAL MANAGER

G M LAB OPERATION

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Report No.

Party Reference No

Sampling Duration

Calibration Status

Sample Collected by : VEL Team

Format No

Report Date

Receipt Date

Instrument

: VEL/N/2106240002/A

7.8 F-01

: 29/06/2021

: 24/06/2021

: Calibrated

: 24 Hrs

: NIL



Laboratory: Plot No 24 & 25, Narayan Vihar, B-Block, Jaipur(Rajasthan)-302020 MoEF& CC Recognized | ISO 9001 | ISO 45001|

Test Report

Sample Number: VEL/REL/AN/02

Name & Address of the Party : M/s Raipur Energen Limited

Village: Raikheda, Block-Tilda Dist. Raipur -493225

(CG)Talabira Mines

Sample Description

Scope of Monitoring

: Regulatory Requirement

Protocol Used

: IS 9989: IS 9876

Instrument Used

General Information

Sampling Location

Instrument Code

Meteorological condition during monitoring

Date of Monitoring

Time of Monitoring

Ambient Temperature (°C)

Surrounding Activity Parameter Required

: Ambient Noise

Near Petrol Pump

VEL/JAI/SLM/05

Clear Sky

15/06/2021 To 16/06/2021

: 06.00 to 06.00 Hrs.

Min 24 Max 39

Human, Vehicular & Plant Activity

As Per Work Order

	esult dB(A)
Day Time	Night Time
63.0	47.21
	63.0

(B. nel., 25 U.)	Leo	q in dB(A)
Category of Zones	Day	Night
Industrial	75	70
Commercial	65	55
Residential	55	45
Silence Zone	50	40

- 1. Day Time is from 6.00 AM to 10.00 PM
- 2: Night Time is reckoned between 10.00 PM to 6.00 AM
- 3. SilenceZone is defined as an area up to 100m around premises of Hospitals, Educational Institutions and Courts. Use of vehicle horn.

ludspeaker and bursting of crackers is banned in these zones Note: Mixed categories of areas be declared as one of the four above mentioned categories by the competent Authority and the corresponding standards shall apply

End of Report

(Checked By)

TECHNICAL MANAGER

Page No. 1/1

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Laboratory: Plot No 24 & 25, Narayan Vihar, B-Block, Jaipur(Rajasthan)-302020 MoEF& CC Recognized | ISO 9001 | ISO 45001 |

Test Report

Sample Number: VEL/REL/AN/03

Name & Address of the Party : M/s Raipur Energen Limited

Village: Raikheda, Block-Tilda Dist. Raipur -493225

(CG)Talabira Mines

Sample Description

: Ambient Noise

Scope of Monitoring

: Regulatory Requirement

Protocol Used

: IS 9989: IS 9876

Instrument Used

General Information

Sampling Location

Instrument Code

Meteorological condition during monitoring

Date of Monitoring

Time of Monitoring

Ambient Temperature (°C) Surrounding Activity

Parameter Required

Report No.

: VEL/N/2106240003/A

Format No

7.8 F-01

Party Reference No

: NIL

Report Date

: 29/06/2021

Receipt Date

: 24/06/2021

Sampling Duration

: 24 Hrs

Sample Collected by : VEL Team

Instrument

: Calibrated

Calibration Status

Near Weight Bridge

: VEL/JAI/SLM/05

Clear Sky

: 16/06/2021 To 17/06/2021

Human, Vehicular & Plant Activity

: 06.00 to 06.00 Hrs.

Min 24 Max 38

: As Per Work Order

	raidifictor resquires				
No.	Test Parameters	Protocol	Test Res	esult dB(A)	
.NO.	163t Furumotoro		Day Time	Night Time	
13		10 0000 4094	57.84	44.95	
1	Leq	IS 9989 - 1981	01.0.		

1 6/91 5	Leo	q in dB(A)
Category of Zones	Day	Night
	75	70
ndustrial	65	55
Commercial	55	45
Residential	VEN TO THE RESERVE TO	40
Silence Zone	50	10

1. Day Time is from 6.00 AM to 10.00 PM.

2: Night Time is reckoned between 10.00 PM to 6.00 AM

3. SilenceZone is defined as an area up to 100m around premises of Hospitals, Educational Institutions and Courts. Use of vehicle horn,

ludspeaker and bursting of crackers is banned in these zones Note: Mixed categories of areas be declared as one of the four above mentioned categories by the competent Authority and the corresponding standards shall apply

End of Report

TECHNICAL MANAGER

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Note: Terms & conditions refer on backside of test report.







Laboratory: Plot No 24 & 25, Narayan Vihar, B-Block, Jaipur(Rajasthan)-302020 MoEF& CC Recognized | ISO 9001 | ISO 45001|

Test Report

Sample Number: VEL/REL/AN/04

Name & Address of the Party : M/s Raipur Energen Limited

Village: Raikheda, Block-Tilda Dist. Raipur -493225

(CG)Talabira Mines

Sample Description

: Ambient Noise

Scope of Monitoring

: Regulatory Requirement

Protocol Used

: IS 9989: IS 9876

Instrument Used

: SLM

General Information

Sampling Location

Instrument Code

Meteorological condition during monitoring

Date of Monitoring

Time of Monitoring

Ambient Temperature (°C)

Surrounding Activity

Parameter Required

Report No.

: VEL/N/2106240004/A

Format No

7.8 F-01

Party Reference No

: NIL

Report Date

: 29/06/2021

Receipt Date

24/06/2021

Sampling Duration

: 24 Hrs.

Sample Collected by : VEL Team

Instrument

: Calibrated

Calibration Status

: R&R Colony 3.2 KM. in NE From the mine VEL/JAI/SLM/05

Clear Sky

17/06/2021 To 18/06/2021

: 06.00 to 06.00 Hrs.

Min 24 Max 39

: Human, Vehicular & Plant Activity

: As Per Work Order

S.No. Tes	No. Test Parameters	st Parameters Protocol	Test Result dB(A)	
2.110.			Day Time	Night Time
		IS 9989 - 1981	64.22	47.33
1 Le	q	15 9909 - 1901	V1	

	Lec	q in dB(A)
Category of Zones	Day	Night
Industrial	75	70
Commercial	65	55
Residential	55	45
Silence Zone	50	40

1. Day Time is from 6.00 AM to 10.00 PM

2: Night Time is reckoned between 10.00 PM to 6.00 AM

3. SilenceZone is defined as an area up to 100m around premises of Hospitals, Educational Institutions and Courts. Use of vehicle horn, ludspeaker and bursting of crackers is banned in these zones

Note: Mixed categories of areas be declared as one of the four above mentioned categories by the competent Authority and the corresponding standards shall apply

(Cheeked By)

TECHNICAL MANAGER

End of Report

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Note: Terms & conditions refer on backside of test report.

July 2021



Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana) ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:

VEL/REL/AA/01

Report No.:

VEL/A/2107290001

Name & Address of the

M/s Raipur Energen Limited. Village -Raikheda, Block-Tilda

Format No.:

7.8 F 01

Party

Dist, Raipur-493225 (CG) Talabira Mines

Party Reference No.:

NIL

Sample Description:

Ambient Air Quality Monitoring

Report Date:

05/08/2021

Period of Analysis:

30/07/2021-05/08/2021

Receipt Date

29/07/2021

General Information:-

Sampling Location

Sample collected by

Sampling Equipment used

Instrument Code

Instrument Calibration Status

Latitude

Longitude

Meteorological condition during monitoring

Date of Sampling

Time of Sampling

Ambient Temperature (°C)

Surrounding Activity

Scope of Monitoring

Sampling & Analysis Protocol

Sampling Duration

Parameter Required

: Rest Shelter 1.5 KM in SE From the Mine

: Vardan EnviroLab Representative

: RDS &FPS

: VEL/RDS/FPS/22

: Calibrated

: Clear sky

: 25/07/2021 to 26/07/2021

: 10:10 AM to 10:10 AM

: Min. 28°C, Max. 39 °C

: Human, Vehicular & Plant Activities

: Regulatory Requirement

: IS-5182 & CPCB Guidelines

: 24 hrs.

: As Per Work Order

S. No.	Parameter	Protocol	Result	Unit	NAAQS* Limit
1.	Particulate Matter (PM _{2.5})	IS: 5182 (P-24), 2019	33.73	μg/m³	60
2.	Particulate Matter (PM ₁₀)	IS:5182 (P- 23)-2006,RA. 2017	68.42	$\mu g/m^3$	100
3.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-6)-2006 RA.2017	26.20	μg/m³	80
4.	Sulphur Dioxide (SO ₂)	IS:51 82 (P- 2)-2001, RA. 2017	10.54	$\mu g/m^3$	80
5.	Lead (as Pb)	IS:51 82 (P- 22)-2004, RA. 2014	BDL(DL 0.02)	$\mu g/m^3$	1.0
6.	Arsenic (as As)	IS:51 82 (P- 22)-2004, RA. 2014	BDL(DL 1.0)	ng/m³	6.0
7.	Chromium (as Cr)	Method Of air sampling and analysis,3rd 1988,Method No.302	BDL(DL 1.0)	$\mu g/m^3$	
8.	Mercury as (Hg)	Method Of air sampling and analysis,3rd 1988,Method No.317	BDL(DL-1.0)	$\mu g/m^3$	

Note :-*BDL-Below Detecation Limit ,**DL-Detecation Limit.

uchorized Signatory)



Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana) ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:

Party

Name & Address of the

VEL/REGL/AA/02

VEE/REGE/AA/02

M/s Raipur Energen Limited. Village -Raikheda, Block-Tilda

Dist, Raipur-493225 (CG) Talabira Mines

Report No.:

VEL/A/2107290002

Format No.:

7.8 F 01

Party Reference No.:

NIL

Report Date:

05/08/2021

Period of Analysis:

30/07/2021-05/08/2021

Receipt Date

29/07/2021

Sample Description:

Ambient Air Quality Monitoring

General Information:-

Sampling Location

Sample collected by

Sampling Equipment used

Instrument Code

Instrument Calibration Status

Latitude

Longitude

Meteorological condition during monitoring

Date of Sampling

Time of Sampling

Ambient Temperature (°C)

Surrounding Activity

Scope of Monitoring

Sampling & Analysis Protocol

Sampling Duration

Parameter Required

: R&R Colony 3.2KM in NE from the Mine

: Vardan EnviroLab Representative

: RDS &FPS

: VEL/RDS/FPS/22

: Calibrated

: --

: --

: Clear sky

: 26/07/2021 to 27/07/2021

: 10:30 AM to 10:30 AM

: Min. 25°C, Max. 37 °C

: Human, Vehicular & Plant Activities

: Regulatory Requirement

: IS-5182 & CPCB Guidelines

: 24 hrs.

: As Per Work Order

S. No.	Parameter	Protocol	Result	Unit	NAAQS* Limit
1.	Particulate Matter (PM _{2.5})	IS: 5182 (P-24), 2019	35.37	μg/m³	60
2.	Particulate Matter (PM ₁₀)	IS:5182 (P- 23)-2006,RA. 2017	71.33	μg/m³	100
3.	Nitrogen Dioxide (NO ₂)	IS:5182 (P-6)-2006 RA.2017	18.43	μg/m³	80
4.	Sulphur Dioxide (SO ₂)	IS:51 82 (P- 2)-2001, RA. 2017	8.58	$\mu g/m^3$	80
5.	Lead (as Pb)	IS:51 82 (P- 22)-2004, RA. 2014	BDL(DL 0.02)	$\mu g/m^3$	1.0
6.	Arsenic (as As)	IS:51 82 (P- 22)-2004, RA. 2014	BDL(DL 1.0)	ng/m³	6.0
7.	Chromium (as Cr)	Method Of air sampling and analysis,3rd 1988,Method No.302	BDL(DL 1.0)	μg/m³	
8.	Mercury as (Hg)	Method Of air sampling and analysis,3rd 1988,Method No.317	BDL(DL-1.0)	$\mu g/m^3$	

Note: **BDL-Below Detecation Limit, **DL-Detecation Limit.

(Checked By)

(Authorized Signatory)

A PSD -



Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana) ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:

VEL/REGL/AA/03

Report No.: Format No.: VEL/A/2107290003

Name & Address of the

M/s Raipur Energen Limited. Village -Raikheda, Block-Tilda

7.8 F 01

Party

Party Reference No.:

NIL

Dist, Raipur-493225 (CG) Talabira Mines

Report Date:

05/08/2021

Sample Description:

Ambient Air Quality Monitoring

Period of Analysis:

30/07/2021-05/08/2021

Receipt Date

29/07/2021

General Information:-

Sampling Location

Sample collected by

Sampling Equipment used

Instrument Code

Instrument Calibration Status

Latitude

Longitude

Meteorological condition during monitoring

Date of Sampling

Time of Sampling

Ambient Temperature (°C)

Surrounding Activity

Scope of Monitoring

Sampling & Analysis Protocol

Sampling Duration

Parameter Required

: In Front of the Mine Office

: Vardan EnviroLab Representative

: RDS &FPS

: VEL/RDS/FPS/22

: Calibrated

: Clear sky

: 27/07/2021 to 28/07/2021

: 11.20 AM to 11:20 AM

: Min. 26°C, Max. 37 °C

: Human, Vehicular & Plant Activities

: Regulatory Requirement

: IS-5182 & CPCB Guidelines

: 24 hrs.

: As Per Work Order

S. No.	Parameter	Protocol	Result	Unit	NAAQS* Limit
1.	Particulate Matter (PM _{2.5})	IS: 5182 (P-24), 2019	27.51	μg/m³	60
2.	Particulate Matter (PM ₁₀)	IS:5182 (P- 23)-2006,RA. 2017	64.45	μg/m³	100
3.	Nitrogen Dioxide (NO ₂)	IS:5182 (P- 6)-2006 RA.2017	15.47	$\mu g/m^3$	80
4.	Sulphur Dioxide (SO ₂)	IS:51 82 (P- 2)-2001, RA. 2017	9.12	μg/m³	80

Note :-*BDL-Bellow Detecation Limit ,**DL-Detecation Limit.

(Authorized Signatory)



Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana) ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:

Name & Address of the

Party

VEL/REGL/AA/04

M/s Raipur Energen Limited. Village -Raikheda, Block-Tilda

Dist, Raipur-493225 (CG) Talabira Mines

Report No.:

VEL/A/2107290004

Format No.:

7.8 F 01

Party Reference No.:

NIL

Report Date:

05/08/2021

Period of Analysis:

30/07/2021-05/08/2021

Receipt Date

29/07/2021

Sample Description:

Ambient Air Quality Monitoring

General Information:-

Sampling Location

Sample collected by

Sampling Equipment used

Instrument Code

Instrument Calibration Status

Latitude

Longitude

Meteorological condition during monitoring

Date of Sampling

Time of Sampling

Ambient Temperature (°C)

Surrounding Activity

Scope of Monitoring

Sampling & Analysis Protocol

Sampling Duration

Parameter Required

: A1 Down Wind Point of Talabira Mine area

: Vardan EnviroLab Representative

: RDS &FPS

: VEL/RDS/22

: Calibrated

: Clear sky

: 27/07/2021 to 28/07/2021

: 10:15 AM to 10:15 AM

: Min. 27°C, Max. 38 °C

: Human, Vehicular & Plant Activities

: Regulatory Requirement

: IS-5182 & CPCB Guidelines

: 24 hrs.

: As Per Work Order

S. No.	Parameter	Protocol	Result	Unit	NAAQS* Limit
1.	Volatile Organic Compounds(as BTX)	IS:51 82 (P- 11)-2006, RA. 2017	BDL(DL-1.0)	μg/m³	
2.	Polycyclic aromatic Hydrocarbon(as PAH)	IS:51 82 (P- 12)-2004	BDL(DL-1.0)	ng/m³	

Note :-*BDL-Below Detecation Limit ,**DL-Detecation Limit.

(Authorized Signatory)



Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana) ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:

Name & Address of Party:

Sample Description:

Sampling Location:

Sample Collected by

Sampling & Analysis Protocol:

Preservation:

VEL/REL/W/01

Ground Water

Refrigerated

IS-10500-2012

M/s Raipur Energen Limited. Village -Raikheda, Block-Tilda

R&R Colony(Open Well)

Dist,Raipur-493225 (CG)Talabira Mines

VardanEnviroLab Representative

Format No.: Party Reference No.:

Reporting Date: Period of Analysis:

Report No.:

Sampling Date: Sampling Type:

Receipt Date:

Sampling Quantity:

VEL/W/2107290001

7.8 F 01

NIL

05/08/2021 30-05/08/2021 29/07/2021 27/07/2021

Grab 2.0 Ltr.

TEST RESULTS

				Unit	Limits of IS:10500 -2012		
S. No.	Parameter	Test-Method	Result		Desirable limit (Max.)	Permissible limit in the Absence of Alternate Source (Max.)	
1.	pH (at 25 °C)	IS 3025(P-11):1983:RA.2017	7.44		6.5 to 8.5	No Relaxation	
2.	Colour	IS 3025(P-4):1983:RA.2017	BDL(DL 1 Hazen)	Hazen	5	15	
3.	Odour	IS 3025(P-5):RA.2018	Agreeable		Agreeable	Agreeable	
4.	Taste	IS 3025(P-8):1984:RA.2017	Agreeable	855	Agreeable	Agreeable	
5.	Turbidity	IS 3025(P-10):1984:RA.2017	BDL(DL 1.0)	NTU	1	5	
6.	Total Hardness as CaCO ₃	IS 3025(P-21):2009:RA.2019	168.56	mg/l	200	600	
7.	Calcium as Ca	IS 3025(P-40):1991:RA.2019	39.28	mg/l	75	200	
8.	Alkalinity as CaCO ₃	IS 3025(P-23):1986:RA.2019	130.6	mg/l	200	600	
9.	Chloride as Cl	IS 3025(P-32):1988:RA.2019	62.68	mg/l	250	1000	
10.	Residual free Chlorine	IS 3025(P-26):1986:RA.2019	BDL(DL 0.15)	mg/l	0.2	1	
11.	Magnesium as Mg	IS 3025(P-46):1994:RA.2019	17.10	mg/l	30	100	
12.	Total Dissolved Solids	IS 3025(P-16):1984:RA.2017	438	mg/l	500	2000	
13.	Sulphate as SO ₄	IS 3025(P-24):1986:RA.2019	22.23	mg/l	200	400	
14.	Fluoride as F	APHA 23 rd Edition,2017, 4500-F-D	0.21	mg/l	1.0	1.5	
15.	Nitrate as NO ₃	IS 3025 (P-34) 1988:RA.2019	4.0	mg/l	45	No Relaxation	
16.	Iron as Fe	IS 3025 (P-53)2003:RA.2019	0.18	mg/l	0.3	No relaxation	
17.	Aluminium as Al	IS 3025 (P-55)2003:RA.2019	BDL(DL 0.002)	mg/l	0.03	0.2	
18.	Boron	APHA 23rd Edition,2017,4500-B	BDL(DL 0.01)	mg/l	0.5	1	
19.	Phenolic Compounds	APHA 23rd Edition, 2017, 5530 C	BDL(DL 0.0004)	mg/l	0.001	0.002	

(Checked By)

(Authorized Signatory)

Agree



Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana) ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sampl	e No.: VEL/REL/W/01			Report		W/2107290001
					Limits of IS:10500 - 2012	
S. No.	Parameter	Test-Method	Result	Unit	Desirab le limit (Max.)	Permissible limit in the Absence of Alternate Source (Max.)
20.	Anionic Detergents as MBAS	APHA 23 rd Edition,2017, 5540 C	BDL(DL 0.05)	mg/I	0.2	1.0
21.	Cyanide as CN	APHA 4500CN-D	BDL(DL 0.02)	mg/l	0.05	No relaxation
22.	Zinc as Zn	APHA 23 rd Edition 2017, 3030D,3112B	BDL(DL 0.01)	mg/l	5	15
23.	Lead as Pb	APHA 23 rd Edition2017,3030D,3111B	BDL(DL 0.002)	mg/l	0.01	No relaxation
24.	Copper as Cu	APHA 23 rd Edition2017,3111B	BDL(DL 0.002)	mg/l	0.05	1.5
25.	Manganese as Mn	IS 3025 (P-46) 1994:RA.2019	BDL(DL 0.01)	mg/l	0.1	0.3
26.	Barium	APHA 31111B	BDL(DL 0.01)	mg/l	0.7	No relaxation
27.	Arsenic as As	APHA (23 rd Edition)3030D,3114C,2017	BDL(DL 0.002)	mg/l	0.01	0.05
28.	Selenium as Se	APHA (23rd Edition)3114C,2017	BDL(DL 0.001)	mg/l	0.01	No relaxation
29.	Cadmium (as Cd)	APHA (23 rd Edition)3030D,3113B	BDL(DL 0.002)	mg/l	0.003	No relaxation
30.	Mercury as Hg	APHA (23rd Edition)3114C,2017	BDL(DL 0.0005)	mg/l	0.001	No relaxation
31.	Total Coliform	IS 1622,1981(Reaffirmed 2003)	Absent	MPN/100ml	Shall Not Be detactab le in 100 ml Sample	NA
32.	E. Coli	IS 1622,1981(Reaffirmed 2003)	Absent	MPN/100ml	Absent/ 100ml	NA
33.	Fecal Coliform	IS:1622:2009	Absent	MPN/100ml	Shall Not Be detactab le in 100 ml Sample	NA

Note:- *BDL-Below Detection Limit, *DL- Detection Limit

(Checked By)

(Authorized Signatory)



Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana) ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:

Name & Address of the

Party:

Sample Description:

Scope of Monitoring Protocol Used:

Instrument Used

VEL/REL/AN/01

M/s Raipur Energen Limited. Village -Raikheda, Block-Tilda Dist,Raipur-493225 (CG)Talabira

Mines

Ambient Noise Level Monitoring

Regulatory Requirment

IS 9989: IS 9876

SLM

Report No.:

VEL/N/2107290001

Format No.:

Receipt Date:

7.8 F 01

NII.

Party Reference No.:

Reporting Date:

05/08/2021 29/07/2021

Sampling Duration

Sample Collected by

24 Hrs" VEL Team

Instrument

Calibration Status

Calibrated

Ambient Noise Level Monitoring Results

General Information:-

Sampling Location

Instrument Code

Meteorological condition during monitoring

Date of Monitoring

Time of Monitoring

Ambient Temperature (°C) Surrounding Activity

Parameter Required

: In front of Mine Office

: VEL/JAI/SLM/05

: Clear sky

: 25/07/2021 to 26/07/2021

: 06:00 AM to 06:00AM

: Min. 27°C, Max. 37 °C

: Human, Vehicular & Plant Activities

: As per Work Order

			Test Result dB(A)		
SL.No.	Test Parameter	Protocol	Day Time	Night Time	
1.	Leq	IS:9989,IS9876:1981	65.10	46.28	

Category of Zones	Leq	in dB (A)
category of Done	Day	Night
Industrial	75	70
Commercial	65	55
Residential	55	45
Silence Zone	50	40

Day Time is from 6.00 AM to 10.00 PM.

2. Night Time is reckoned between 10.00 PM to 6.00 AM.

3. Silence Zone is defined as an area up to 100 m around premises of Hospitals, Educational and Courts. Use of vehicle horn, Loudspeake and bursting of crackers is banned in these zones.

Note: Mixed categories of areas be declared as one of the four above mentioned categorise by the competent Authority and the corresponding standards shall apply

(Checked By)

45

(Authorized Signatory)



Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana) ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:

Name & Address of the

Party:

Sample Description:

Scope of Monitoring Protocol Used:

Instrument Used

VEL/REGL/AN/02

M/s Raipur Energen Limited. Village -Raikheda, Block-Tilda Dist,Raipur-493225 (CG)Talabira

Mines

Ambient Noise Level Monitoring

Regulatory Requirment

IS 9989: IS 9876

SLM

Report No .:

VEL/N/2107290002

Format No.:

7.8 F 01

Party Reference No.:

Reporting Date:

NIL 05/08/2021 29/07/2021

Receipt Date: Sampling Duration

24 Hrs"

Sample Collected by

VEL Team

Instrument

Calibration Status

Calibrated

Ambient Noise Level Monitoring Results

General Information:-

Sampling Location

Instrument Code

Meteorological condition during monitoring

Date of Monitoring

Time of Monitoring

Ambient Temperature (°C)

Surrounding Activity

Parameter Required

: Near Petrol Pump

: VEL/JAI/SLM/06

: Clear sky

: 26/07/2021 to 27/07/2021

: 06:00 AM to 06:00AM

: Min. 26°C, Max. 36 °C

: Human, Vehicular & Plant Activities

: As per Work Order

			Test Res	sult dB(A)
SL.No.	Test Parameter	Protocol	Day Time	Night Time
1.	Leq	IS:9989,IS9876:1981	62.54	44.58

Category of Zones	Leq	in dB (A)
	Day	Night
Industrial	75	70
Commercial	65	55
Residential	55	45
Silence Zone	50	40

Day Time is from 6.00 AM to 10.00 PM.

Night Time is reckoned between 10.00 PM to 6.00 AM.

Silence Zone is defined as an area up to 100 m around premises of Hospitals, Educational and Courts. Use of vehicle horn, Loudspeake and bursting of crackers is banned in these zones.

Note: Mixed categories of areas be declared as one of the four above mentioned categorise by the competent Authority and the corresponding standards shall apply

(Authorized Signatory)



Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana) ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number: Name & Address of the

Party:

Sample Description: Scope of Monitoring

Protocol Used:

Instrument Used

VEL/REGL/AN/03

M/s Raipur Energen Limited. Village -Raikheda, Block-Tilda Dist,Raipur-493225 (CG)Talabira

Mines

Ambient Noise Level Monitoring

Regulatory Requirment

IS 9989: IS 9876

SLM

Report No.:

VEL/N/2107290003

05/08/2021

Format No .:

7.8 F 01

NII.

Party Reference No.:

Reporting Date: Receipt Date:

29/07/2021

Sampling Duration

Sample Collected by

Instrument

Instrument Calibration Status VEL Team Calibrated

24 Hrs"

Ambient Noise Level Monitoring Results

General Information:-

Sampling Location

Instrument Code

Meteorological condition during monitoring

Date of Monitoring
Time of Monitoring

Ambient Temperature (°C)

Surrounding Activity

Parameter Required

: Near Weight Bridge

: VEL/JAI/SLM/06

: Clear sky

: 27/07/2021 to 28/07/2021

: 06:00 AM to 06:00AM

: Min. 26°C, Max. 38 °C

: Human, Vehicular & Plant Activities

: As per Work Order

			Test Result dB(A)		
SL.No.	Test Parameter	Protocol	Day Time	Night Time	
1.	Leg	IS:9989,IS9876:1981	55.63	43.57	

Category of Zones	Leq	in dB (A)
	Day	Night
Industrial	75	70
Commercial	65	55
Residential	55	45
Silence Zone	50	40

Day Time is from 6.00 AM to 10.00 PM.

8. Night Time is reckoned between 10.00 PM to 6.00 AM.

Silence Zone is defined as an area up to 100 m around premises of Hospitals, Educational and Courts. Use of vehicle horn, Loudspeake
and bursting of crackers is banned in these zones.

Note: Mixed categories of areas be declared as one of the four above mentioned categorise by the competent Authority and the corresponding standards shall apply

(Checked By)

(Authorized Signatory)



Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana) ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number: Name & Address of the

Party:

Sample Description:

Scope of Monitoring Protocol Used:

Instrument Used

VEL/REGL/AN/04

M/s Raipur Energen Limited. Village –Raikheda, Block-Tilda Dist, Raipur-493225 (CG) Talabira

Mines

Ambient Noise Level Monitoring

Regulatory Requirment

IS 9989: IS 9876

SLM

Report No .:

VEL/N/2107290004

Format No.:

7.8 F 01

NII

Party Reference No.:

Reporting Date:

Receipt Date:

Sampling Duration Sample Collected by

Instrument

Calibration Status

24 Hrs"

05/08/2021

29/07/2021

VEL Team

Calibrated

Ambient Noise Level Monitoring Results

General Information:-

Sampling Location

Instrument Code

Meteorological condition during monitoring

Date of Monitoring Time of Monitoring

Ambient Temperature (°C)

Surrounding Activity Parameter Required

: R&R Colony 3.2 KM in NE From the Mine

: VEL/JAI/SLM/05

: Clear sky

: 26/07/2021 to 27/07/2021

: 06:00 AM to 06:00AM : Min. 25°C, Max. 37 °C

: Human, Vehicular & Plant Activities

: As per Work Order

			Test Result dB(A)		
SL.No.	Test Parameter	Protocol	Day Time	Night Time	
1.	Leq	IS:9989,IS9876:1981	61.57	46.15	

Category of Zones	Leg	in dB (A)
	Day	Night
Industrial	75	70
Commercial	65	55
Residential	55	45
Silence Zone	50	40

10. Day Time is from 6.00 AM to 10.00 PM.

11. Night Time is reckoned between 10.00 PM to 6.00 AM.

12. Silence Zone is defined as an area up to 100 m around premises of Hospitals, Educational and Courts. Use of vehicle horn, Loudspeake and bursting of crackers is banned in these zones.

Note: Mixed categories of areas be declared as one of the four above mentioned categorise by the competent Authority and the corresponding standards shall apply

(Checked By

(Authorized Signatory)

August 2021



Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana) ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:

VEL/REL/AA/01

Name & Address of the Party

M/s Raipur Energen Limited. Village -Raikheda, Block-Tilda

Dist,Raipur-493225 (CG) Talabira Mines

Report No.:

VEL/A/2108300001

Format No.:

7.8 F 01

Party Reference No.:

NIL

Report Date:

31/08/2021

Period of Analysis:

30/08/2021-31/08/2021

Receipt Date

30/08/2021

Sample Description:

Ambient Air Quality Monitoring

General Information:-

Sampling Location

Sample collected by Sampling Equipment used

Instrument Code

Instrument Calibration Status

Latitude

Longitude

Meteorological condition during monitoring

Date of Sampling Time of Sampling

Ambient Temperature (°C)

Surrounding Activity

Scope of Monitoring

Sampling & Analysis Protocol

Sampling Duration

Parameter Required

: Rest Shelter 1.5 KM in SE From the Mine

: Vardan EnviroLab Representative

: RDS &FPS

: VEL/RDS/FPS/22

: Calibrated

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: Clear sky

: 25/08/2021 to 26/08/2021

: 10:30 to 10:30 Hrs.

: Min. 26°C, Max. 38 °C

: Human, Vehicular Activities

: Regulatory Requirement

: IS-5182 & CPCB Guidelines

: 24 hrs.

: As Per Work Order

S. No.	Parameter	Protocol	Result	Unit	NAAQS*
1.	Particulate Matter (PM _{2.5})	IS: 5182 (P-24), 2019	33.87	$\mu g/m^3$	60
2.	Particulate Matter (PM ₁₀)	IS:5182 (P- 23)-2006,RA. 2017	70.30	$\mu g/m^3$	100
3.	Nitrogen Dioxide (NO ₂)	IS:5182 (P- 6)-2006 RA.2017	25.76	$\mu g/m^3$	80
4.	Sulphur Dioxide (SO ₂)	IS:51 82 (P-2)-2001, RA. 2017	10.26	μg/m³	80
5.	Lead (as Pb)	IS:51 82 (P- 22)-2004, RA. 2014	BDL(DL 0.02)	μg/m³	1.0
6.	Arsenic (as As)	IS:51 82 (P- 22)-2004, RA. 2014	BDL(DL 1.0)	ng/m³	6.0
7.	Chromium (as Cr)	Method Of air sampling and analysis,3rd 1988,Method No.302	BDL(DL 1.0)	$\mu g/m^3$	
8.	Mercury as (Hg)	Method Of air sampling and analysis,3rd 1988,Method No.317	BDL(DL-1.0)	$\mu g/m^3$	

Note: -*BDL-Below Detecation Limit, **DL-Detecation Limit.

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(Authorized Signatory)



Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana) ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:

Party

VEL/REL/AA/02

Name & Address of the

M/s Raipur Energen Limited. Village -Raikheda, Block-Tilda

Dist,Raipur-493225 (CG)Talabira Mines

Report No.:

VEL/A/2108300002

Format No.:

7.8 F 01

Party Reference No.:

NIL

Report Date:

31/08/2021

Period of Analysis:

30/08/2021-31/08/2021

Receipt Date

30/08/2021

Sample Description :

Ambient Air Quality Monitoring

General Information:-

Sampling Location
Sample collected by

Sampling Equipment used

Instrument Code

Instrument Calibration Status

Latitude

Longitude

Meteorological condition during monitoring

Date of Sampling

Time of Sampling

Ambient Temperature (°C)

Surrounding Activity

Scope of Monitoring

Sampling & Analysis Protocol

Sampling Duration Parameter Required : R&R Colony 3.2KM in NE from the Mine

: Vardan EnviroLab Representative

: RDS &FPS

: VEL/RDS/FPS/22

: Calibrated

: --

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: Clear sky

: 26/08/2021 to 27/08/2021

: 10:15 to 10:15 Hrs.

: Min. 27°C, Max. 39 °C

: Human, Vehicular & Other Activities

: Regulatory Requirement

: IS-5182 & CPCB Guidelines

: 24 hrs.

: As Per Work Order

S. No.	Parameter	Protocol	Result	Unit	NAAQS* Limit
1.	Particulate Matter (PM _{2.5})	IS: 5182 (P-24), 2019	35.99	μg/m³	60
2.	Particulate Matter (PM ₁₀)	IS:5182 (P- 23)-2006,RA. 2017	72.3	$\mu g/m^3$	100
3.	Nitrogen Dioxide (NO ₂)	IS:5182 (P- 6)-2006 RA.2017	19.26	$\mu g/m^3$	80
4.	Sulphur Dioxide (SO ₂)	IS:51 82 (P- 2)-2001, RA. 2017	8.10	$\mu g/m^3$	80
5.	Lead (as Pb)	IS:51 82 (P- 22)-2004, RA. 2014	BDL(DL 0.02)	$\mu g/m^3$	1.0
6.	Arsenic (as As)	IS:51 82 (P- 22)-2004, RA. 2014	BDL(DL 1.0)	ng/m³	6.0
7.	Chromium (as Cr)	Method Of air sampling and analysis,3rd 1988,Method No.302	BDL(DL 1.0)	$\mu g/m^3$	- an -
8.	Mercury as (Hg)	Method Of air sampling and analysis,3rd 1988,Method No.317	BDL(DL-1.0)	$\mu g/m^3$	TE BULLETON

Note:-*BDL-Below Detecation Limit, **DL-Detecation Limit.

(Checked By)

(Authorized Signatory)

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Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana) ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:

Party

VEL/REL/AA/03

Name & Address of the

M/s Raipur Energen Limited. Village -Raikheda, Block-Tilda

Dist,Raipur-493225 (CG)Talabira Mines

Report No.:

VEL/A/2108300003

Format No.:

7.8 F 01

Party Reference No.:

NIL

Report Date:

31/08/2021

Period of Analysis:

30/08/2021-31/08/2021

Receipt Date

30/08/2021

Sample Description:

Ambient Air Quality Monitoring

General Information:-

Sampling Location

Sample collected by

Sampling Equipment used

Instrument Code

Instrument Calibration Status

Latitude

Longitude

Meteorological condition during monitoring

Date of Sampling

Time of Sampling

Ambient Temperature (°C)

Surrounding Activity

Scope of Monitoring

Sampling & Analysis Protocol

Sampling Duration Parameter Required : In Front of the Mine Office

: Vardan EnviroLab Representative

: RDS &FPS

: VEL/RDS/FPS/22

: Calibrated

: --

: --

: Clear sky

: 27/08/2021 to 28/08/2021

: 11.10 to 11:10 Hrs.

: Min. 26°C, Max. 38 °C

: Human, Vehicular Activities

: Regulatory Requirement

: IS-5182 & CPCB Guidelines

: 24 hrs.

: As Per Work Order

S. No.	Parameter	Protocol	Result	o Var Unit	NAAQS*
1.	Particulate Matter (PM _{2.5})	IS: 5182 (P-24), 2019	28.04	μg/m³	60
2.	Particulate Matter (PM ₁₀)	IS:5182 (P- 23)-2006,RA. 2017	66.30	$\mu g/m^3$	100
3.	Nitrogen Dioxide (NO ₂)	IS:5182 (P- 6)-2006 RA.2017	16.68	$\mu g/m^3$	80
4.	Sulphur Dioxide (SO ₂)	IS:51 82 (P- 2)-2001, RA. 2017	9.90	μg/m³	80

(Checked By)

(Authorized Signatory)



Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana) ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:

VEL/REL/AA/04

Name & Address of the Party

M/s Raipur Energen Limited. Village -Raikheda, Block-Tilda

Dist, Raipur-493225 (CG) Talabira Mines

Report No.:

VEL/A/2108300004

Format No.:

Party Reference No.:

NIL

Report Date:

Period of Analysis:

31/08/2021

30/08/2021-31/08/2021

Receipt Date

30/08/2021

Sample Description:

Ambient Air Quality Monitoring

General Information:-

Sampling Location Sample collected by

Sampling Equipment used

Instrument Code

Instrument Calibration Status

Latitude

Longitude

Meteorological condition during monitoring

Date of Sampling

Time of Sampling

Ambient Temperature (°C)

Surrounding Activity

Scope of Monitoring

Sampling & Analysis Protocol

Parameter Required

Sampling Duration

: A1 Down Wind Point of Talabira Mine area

: Vardan EnviroLab Representative

: RDS &FPS

: VEL/RDS/22

: Calibrated

: Clear sky

: 27/08/2021 to 28/08/2021

: 10:20 to 10:20 Hrs.

: Min. 26°C, Max. 37 °C

: Human, Vehicular Activities

: Regulatory Requirement

: IS-5182 & CPCB Guidelines

: 24 hrs.

: As Per Work Order

S. No.	Parameter	Protocol	Result	Unit	NAAQS*
1.	Volatile Organic Compounds(as BTX)	IS:51 82 (P- 11)-2006, RA. 2017	BDL(DL-1.0)	μg/m³	
2.	Polycyclic aromatic Hydrocarbon(as PAH)	IS:51 82 (P- 12)-2004	BDL(DL-1.0)	ng/m³	

Note :-*BDL-Below Detecation Limit ,**DL-Detecation Limit.



Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana) ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:

Name & Address of Party

VEL/REL/W/01

M/s Raipur Energen Limited. Village -Raikheda, Block-Tilda

Dist, Raipur-493225 (CG) Talabira Mines

Report No.:

Format No.:

Party Reference No.: Reporting Date:

Period of Analysis: Receipt Date:

Sampling Date: Sampling Type:

Sampling Type.

Sampling Quantity:

VEL/W/2108300003

7.8 F 01

NIL

31/08/2021 30-31/08/2021

30/08/2021

26/08/2021

Grab 2.0 Ltr.

Sample Description: Sampling Location: Sample Collected by

Preservation:

Sampling & Analysis Protocol:

Ground Water

R&R Colony(Open Well)

Vardan EnviroLab Representative

Refrigerated

IS-10500-2012

TEST RESULTS

MroLa	Vardan EnviroLab	ardan EnviroLab Vardan Env	roLab Vardan Em	firoLab '	Limits of IS:10500 -2012	
S. No.	Parameter	Test-Method	Result	Unit Control of Contro	Desirable limit (Max.)	Permissible limit in the Absence of Alternate Source (Max.)
1viro	pH (at 25 °C) EnviroLal	IS 3025(P-11):1983:RA.2017	wiroLa7.56 rdan E	nvireLa	6.5 to 8.5	No Relaxation
2.	Colour	IS 3025(P-4):1983:RA.2017	BDL(DL 1.0)	Hazen	5	15
3.	Odour	IS 3025(P-5):RA.2018	Agreeable	Envirol	Agreeable	Agreeable
4.	Tastedan EnviroLab V	IS 3025(P-8):1984:RA.2017	Agreeable	rirol-ab	Agreeable	Agreeable
5.	Turbidity and Variation	IS 3025(P-10):1984:RA.2017	BDL(DL 1.0)	NTU	1	5
6.	Total Hardness as CaCO ₃	IS 3025(P-21):2009:RA.2019	155.2	mg/l	200	600
7.	Calcium as Ca	IS 3025(P-40):1991:RA.2019	70Lab 34.2 an En	mg/l	75 En	200
8.	Alkalinity as CaCO ₃	IS 3025(P-23):1986:RA.2019	118.2	mg/l	200	600
9.	Chloride as Cl	IS 3025(P-32):1988:RA.2019	57.58	mg/l	250	1000
10.	Residual free Chlorine	IS 3025(P-26):1986:RA.2019	BDL(DL 0.15)	mg/l	0.2	mire 1
11.	Magnesium as Mg	IS 3025(P-46):1994:RA.2019	16.93	mg/l	30	100
12.	Total Dissolved Solids	IS 3025(P-16):1984:RA.2017	414.00	mg/l	500	2000
13.	Sulphate as SO ₄	IS 3025(P-24):1986:RA.2019	19.14	mg/l	200	400
14.	Fluoride as F	APHA 23 rd Edition,2017, 4500-F	Vardar 0.2 viroLa	mg/l	1.0	1.5
15.	Nitrate as NO ₃	IS 3025 (P-34) 1988:RA.2019	ab Var 3.32 nviro	mg/l	45	No Relaxation
16.	Iron as Fe	IS 3025 (P-53)2003:RA.2019	0.16	mg/l	0.3	No relaxation
17.	Aluminium as Al	IS 3025 (P-55)2003:RA.2019	BDL(DL 0.002)	mg/l	0.03	0.2
18.	Boron WroLab Vardar	APHA 23 rd Edition,2017,4500-B	BDL(DL 0.01)	mg/l	0.5	Varc1 = En
19.	Phenolic Compounds	APHA 23rd Edition, 2017, 5530 C	BDL(DL 0.0004)	mg/l	0.001	0.002

Checked By

(Authorized Signatory)

Daps





Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana) ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sampl	e No.: VEL/REL/W/01	dan sukundan kardan sukulo		Report	No.: VEL/	W/2108300003
eLab aviro	vardan EnviroLab V ab Vargan EnviroLa	rdan Enviro Lab Vardan Envir «Vardan Enviro Lab Vardan E	oLab Vardan Envi nviroLab Vardan E	roLab Vardan InviroLab Var	Limits of IS:10500 - 2012	
S. No.	Parameter Parameter	Test-Method	Result	Unit Unit	Desirab le limit (Max.)	Permissible limit in the Absence of Alternate Source (Max.)
20.	Anionic Detergents as MBAS	APHA 23 rd Edition,2017, 5540 C	BDL(DL 0.05)	mg/l	0.2	1.0
21.	Cyanide as CN	APHA 4500CN-D	BDL(DL 0.02)	mg/l	0.05	No relaxation
22.	Zinc as Zn	APHA 23 rd Edition 2017, 3030D,3112B	BDL(DL 0.01)	mg/l	5	15
23.	Lead as Pb	APHA 23 rd Edition2017,3030D,3111B	BDL(DL 0.002)	mg/l	0.01	No relaxation
24.	Copper as Cu	APHA 23rd Edition2017,3111B	BDL(DL 0.002)	mg/l	0.05	1.5
25.	Manganese as Mn	IS 3025 (P-46) 1994:RA.2019	BDL(DL 0.01)	Labmg/Idan	0.1	0.3
26.	Barium Can Envirole	APHA 31111B	BDL(DL 0.01)	mg/l	0.7	No relaxation
27.	Arsenic as As	APHA (23 rd Edition)3030D,3114C,2017	BDL(DL 0.002)	mg/l	0.01	0.05
28.	Selenium as Se	APHA (23rd Edition)3114C,2017	BDL(DL 0.001)	mg/l	0.01	No relaxation
29,	Cadmium (as Cd)	APHA (23 rd Edition)3030 D,3 113B	BDL(DL 0.002)	mg/l	0.003	No relaxation
30.	Mercury as Hg	APHA (23rd Edition)3114C,2017	BDL(DL 0.0005)	mg/l	0.001	No relaxation
31.	Total Coliform	IS 1622,1981 (Reaffirmed 2003)	ab Vardan Enviro Enviro Lab Varda OLab Absent Enviro Inviro Lab Vardan Enviro Lab Vardan Enviro Lab Vardan Enviro Lab Vardan Vard	MPN/100ml	Shall Not Be detactab le in 100 ml Sample	NA
32.	E. Coli EnviroLab VarioLab Vardan Enviro	IS 1622,1981(Reaffirmed 2003)	Absent	MPN/100ml	Absent/ 100ml	NA
33.	Fecal Coliform To ab Vardan Envirolation Envirolation Envirolation Vardan Enviro	IS:1622:2009 Environment IS:1622:2009 Environm	Absent	MPN/100ml	Shall Not Be detactab le in 100 ml Sample	NA

Note: - *BDL-Below Detection Limit, *DL- Detection Limit

(Checked By)

(Authorized Signatory)





Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana) ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number: Name & Address of the

Party:

VEL/REL/AN/01

M/s Raipur Energen Limited. Village -Raikheda, Block-Tilda

Sample Description:

Scope of Monitoring Protocol Used:

Instrument Used

Dist,Raipur-493225 (CG)Talabira

Ambient Noise Level Monitoring

Regulatory Requirment

IS 9989: IS 9876

SLM

Report No .:

VEL/N/2108300001

Format No.:

7.8 F 01

NII.

Party Reference No.:

Reporting Date:

31/08/2021 Receipt Date: 30/08/2021 Sampling Duration

Sample Collected by

Instrument

Calibration Status

24 Hrs"

VEL Team

Calibrated

Ambient Noise Level Monitoring Results

General Information:-

Sampling Location

Instrument Code

Meteorological condition during monitoring

Date of Monitoring Time of Monitoring

Ambient Temperature (°C)

Parameter Required

Surrounding Activity

: VEL/JAI/SLM/05 : Clear sky

: 25/08/2021 to 26/08/2021

: 06:00 AM to 06:00AM

: In front of Mine Office

: Min. 26°C, Max. 39 °C

: Human, Vehicular Activities

: As per Work Order

	escurring estimating		Test Result dB(A)	
Sr.No.	Test Parameter	Protocol	Day Time	Night Time
1.	Leq Divindan EnviroLab Va	IS:9989,IS9876:1981	64.26	45.24

Category of Zones	rdan EnviroLab Vardan EnviroLa Leg	in dB (A)
roLan Vardan EnviroLau Vardan	Day	Night
Industrial	75	70
Commercial	65	55
Residential	wheel als Varday 55 and als Varday Er	45
Silence Zone	rdan EnviroLab 50 dan EnviroLab Va	argan EnviroLah (40 an Enviro

Day Time is from 6.00 AM to 10.00 PM.

Night Time is reckoned between 10.00 PM to 6.00 AM. 2.

Silence Zone is defined as an area up to 100 m around premises of Hospitals, Educational and Courts. Use of vehicle horn, Loudspeake and bursting of crackers is banned in these zones.

Note: Mixed categories of areas be declared as one of the four above mentioned categorise by the competent Authority and the corresponding standards shall apply

(Authorized Signatory)







Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana) ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:

Party:

Name & Address of the

Sample Description:

Scope of Monitoring

Instrument Used

VEL/REL/AN/02

M/s Raipur Energen Limited.

Village -Raikheda, Block-Tilda Dist, Raipur-493225

(CG) Talabira Mines

Report No.:

VEL/N/2108300002

Format No.:

7.8 F 01

NIL.

Ambient Noise Level

Monitoring

Protocol Used:

Regulatory Requirment

IS 9989: IS 9876

Receipt Date:

Reporting Date:

Sampling Duration

Party Reference No.:

Sample Collected by

Instrument

24 Hrs"

31/08/2021

30/08/2021

VEL Team

Calibration Status

Calibrated

Ambient Noise Level Monitoring Results

General Information:-

Sampling Location

Instrument Code

Meteorological condition during monitoring

SLM

Date of Monitoring

Time of Monitoring

Ambient Temperature (°C)

Surrounding Activity

Parameter Required

: Near Petrol Pump

: VEL/JAI/SLM/06

: Clear sky

: 26/08/2021 to 27/08/2021

: 06:00 AM to 06:00AM

: Min. 26°C, Max. 38°C

: Human, Vehicular & Other Activities

: As per Work Order

ARREAS AND ENTRY OF SAFETY OF SAFETY OF SAFETY		an series and constraint	Test Result dB(A)	
Sr.No.	Test Parameter	Protocol	Day Time	Night Time
1.	Leq	IS:9989,IS9876:1981	61.06	43.14

Category of Zones	an EnviroLab Vardan EnviroLab Leg	in dB (A)
Lao Vardan Envigal ab Vardan Ed	wiroLab Varrian Day roLab Vardan Er	Night Night
Industrial	rdan EnviroLab 75 dan EnviroLab V	argan envirous 70
Commercial	65	55
Residential	Varian Environ a 55 perjan Environ ah	Vandan English 45
Silence Zone	an Envirol ab Va50 in Envirol ab Tan	dan EnviroLabilia 40

Day Time is from 6.00 AM to 10.00 PM. 1.

Night Time is reckoned between 10.00 PM to 6.00 AM.

Silence Zone is defined as an area up to 100 m around premises of Hospitals, Educational and Courts. Use of vehicle horn, Loudspeake and bursting of crackers is banned in these zones.

Note: Mixed categories of areas be declared as one of the four above mentioned categories by the competent Authority and the corresponding standards shall apply

(Checked By)

(Authorized Signatory)



Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana) ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:

VEL/REL/AN/03

Report No .:

VEL/N/2108300003

Name & Address of the

M/s Raipur Energen Limited. Village -Raikheda, Block-Tilda Dist, Raipur-493225

Format No.:

7.8 F 01

Party:

(CG) Talabira Mines

Party Reference No.:

NIL

Sample Description:

Ambient Noise Level

Reporting Date:

31/08/2021

Scope of Monitoring

Monitoring

Receipt Date:

30/08/2021 24 Hrs"

Protocol Used:

Regulatory Requirment IS 9989: IS 9876

Sampling Duration Sample Collected by

VEL Team

Instrument Used

Instrument

SLM

Calibration Status

Calibrated

Ambient Noise Level Monitoring Results

General Information:-

Sampling Location

Instrument Code

Meteorological condition during monitoring

Date of Monitoring Time of Monitoring

Ambient Temperature (°C)

Surrounding Activity Parameter Required

: Near Weight Bridge

: VEL/JAI/SLM/06

: Clear sky

27/08/2021 to 28/08/2021

: 06:00 AM to 06:00AM

: Min. 27°C, Max. 39 °C

: Human, Vehicular & Other Activities

: As per Work Order

		English the second	Test Result dB(A)	
Sr.No.	Test Parameter	Protocol	Day Time	Night Time
1.	Leq randan EnviroLab Vard	IS:9989,IS9876:1981	54.66	42.04

Category of Zones	Vandan Envirouals Vardan Enviro Leg	in dB (A)
nvirotab Vardan Envirotab Vard	an EnviroLab Day EnviroLab are	dan Envirol Might
Industrial	viroLab Vardan 175 IroLab Vardar Er	wiroLab Vardan E 70 CL so access
Commercial	65	andan EnviroLab V 55
Residential	55	45
Silence Zone	50	40

Day Time is from 6.00 AM to 10.00 PM. 1.

Night Time is reckoned between 10.00 PM to 6.00 AM.

Silence Zone is defined as an area up to 100 m around premises of Hospitals, Educational and Courts. Use of vehicle horn, Loudspeake and bursting of crackers is banned in these zones.

Note: Mixed categories of areas be declared as one of the four above mentioned categorise by the competent Authority and the corresponding standards shall apply

tchecked by

(Authorized Signatory)





Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana) ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:

Party:

VEL/REL/AN/04

Report No.:

VEL/N/2108300004

Name & Address of the

M/s Raipur Energen Limited. Village -Raikheda, Block-Tilda Dist, Raipur-493225

Format No.:

7.8 F 01

Ambient Noise Level

(CG) Talabira Mines

Reporting Date:

Party Reference No.:

NIL 31/08/2021

Sample Description:

Monitoring

Receipt Date:

30/08/2021

Scope of Monitoring

Regulatory Requirment

Sampling Duration

24 Hrs"

Protocol Used:

IS 9989: IS 9876

Sample Collected by

VEL Team

Instrument Used

SLM

Instrument **Calibration Status**

Calibrated

Ambient Noise Level Monitoring Results

General Information:-

Sampling Location

Instrument Code

Meteorological condition during monitoring

Date of Monitoring

Time of Monitoring Ambient Temperature (°C)

Surrounding Activity

Parameter Required

: R&R Colony 3.2 KM in NE From the Mine

: VEL/JAI/SLM/05

: Clear sky

: 26/08/2021 to 27/08/2021

: 06:00 AM to 06:00AM

: Min. 26°C, Max. 38 °C

: Human, Vehicular Activities

: As per Work Order

Exist A Favor Studio Co. Vondati		Barry All William Privile Leb	Test Result dB(A)	
Sr.No.	Test Parameter	Protocol	Day Time	Night Time
1.	Leq Variant Environ.	IS:9989,IS9876:1981	52.72	43.24

Category of Zones	vardan EnviroLab Vardan Enviro Leg	in dB (A)
aviroLab Vargan EnviroLab Varg	an EnviroLab Day EnviroLab are	Night Night
Industrial	VITOLAD VAIDAT 75 TOLAD VAIDAT EL	iviroLab Vardan 6-70
Commercial	65	55
Residential	55	45
Silence Zone	randam Emviros al 50 andam Emviros als	Vardan EnviroLat 40 man Envirol

Day Time is from 6.00 AM to 10.00 PM.

Night Time is reckoned between 10.00 PM to 6.00 AM.

Silence Zone is defined as an area up to 100 m around premises of Hospitals, Educational and Courts. Use of vehicle horn, Loudspeake and bursting of crackers is banned in these zones.

Note: Mixed categories of areas be declared as one of the four above mentioned categorise by the competent Authority and the corresponding standards shall apply

Checked By

(Authorized Signatory)

September 2021



Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana) ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:

Party

VEL/REL/AA/01

Name & Address of the

M/s Raipur Energen Limited. Village -Raikheda, Block-Tilda

Dist,Raipur-493225 (CG)Talabira Mines

Report No.:

VEL/A/2110010001

Format No.:

7.8 F 01

Party Reference No.:

NIL

Report Date:

06/10/2021

Period of Analysis:

01/10/2021-06/10/2021

Receipt Date

01/10/2021

Sample Description :

Ambient Air Quality Monitoring

General Information:

Sampling Location

Sample collected by

Sampling Equipment used

Instrument Code

Instrument Calibration Status

Latitude

Longitude

Meteorological condition during monitoring

Date of Sampling

Time of Sampling

Ambient Temperature (°C)

Surrounding Activity

Scope of Monitoring

Sampling & Analysis Protocol

Sampling Duration

Parameter Required

: Rest Shelter 1.5 KM in SE From the Mine

: VEL Team

: RDS &FPS

: VEL/RDS/FPS/22

: Calibrated

: --

: Clear sky

: 25/09/2021 to 26/09/2021

: 10:30 to 10:30 Hrs.

: Min. 25°C, Max. 36 °C

: Human, Vehicular & Plant Activities

: Regulatory Requirement

: IS-5182 & CPCB Guidelines

: 24 hrs.

: As Per Work Order

S. No.	Parameter	Protocol Protocol	Result	Unit	NAAQS*
1.	Particulate Matter (PM _{2.5})	IS: 5182 (P-24), 2019	31.26	$\mu g/m^3$	60
2.	Particulate Matter (PM ₁₀)	IS:5182 (P- 23)-2006,RA. 2017	69.69	$\mu g/m^3$	100
3.	Nitrogen Dioxide (NO ₂)	IS:5182 (P- 6)-2006 RA.2017	23.12	$\mu g/m^3$	80
4.	Sulphur Dioxide (SO ₂)	IS:51 82 (P- 2)-2001, RA. 2017	10.22	$\mu g/m^3$	80
5.	Lead (as Pb)	IS:51 82 (P- 22)-2004, RA. 2014	BDL(DL 0.02)	$\mu g/m^3$	1.0
6.	Arsenic (as As)	IS:51 82 (P- 22)-2004, RA. 2014	BDL(DL 1.0)	ng/m³	6.0
7.	Chromium (as Cr)	Method Of air sampling and analysis,3rd 1988,Method No.302	BDL(DL 1.0)	$\mu g/m^3$	
8.	Mercury as (Hg)	Method Of air sampling and analysis,3rd 1988,Method No.317	BDL(DL-1.0)	μg/m³	V roar-ErV

Note :-*BDL-Below Detecation Limit, **DL-Detecation Limit.

(Checked By)

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(Authorized Signatory)





Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana) ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:

VEL/REL/AA/02

Name & Address of the

Address of the

M/s Raipur Energen Limited. Village -Raikheda, Block-Tilda

Dist,Raipur-493225 (CG)Talabira Mines

Report No.:

VEL/A/2110010002

Format No.:

7.8 F 01

Party Reference No.:

NII.

Report Date:

06/10/2021

Period of Analysis:

01/10/2021-06/10/2021

Receipt Date

01/10/2021

Sample Description:

Ambient Air Quality Monitoring

General Information:-

Sampling Location

Sample collected by

Sampling Equipment used

Instrument Code

Instrument Calibration Status

Latitude

Longitude

Meteorological condition during monitoring

Date of Sampling

Time of Sampling

Ambient Temperature (°C)

Surrounding Activity

Scope of Monitoring

Sampling & Analysis Protocol

Sampling Duration

Parameter Required

: R&R Colony 3.2KM in NE from the Mine

: VEL Team

: RDS &FPS

: VEL/RDS/FPS/22

: Calibrated

: --

: --

: Clear sky

: 26/09/2021 to 27/09/2021

: 10:15 to 10:15Hrs.

: Min. 25°C, Max. 36 °C

: Human, Vehicular & Plant Activities

: Regulatory Requirement

: IS-5182 & CPCB Guidelines

: 24 hrs.

: As Per Work Order

S. No.	Parameter	Protocol	Result	Unit	NAAQS* Limit
1.	Particulate Matter (PM _{2.5})	IS: 5182 (P-24), 2019	31.20	$\mu g/m^3$	60
2.	Particulate Matter (PM ₁₀)	IS:5182 (P- 23)-2006,RA. 2017	73.36	μg/m³	100
3.	Nitrogen Dioxide (NO ₂)	IS:5182 (P- 6)-2006 RA.2017	20.47	$\mu g/m^3$	80
4.	Sulphur Dioxide (SO ₂)	IS:51 82 (P-2)-2001, RA. 2017	8.56	μg/m³	80
5.	Lead (as Pb)	IS:51 82 (P- 22)-2004, RA. 2014	BDL(DL 0.02)	$\mu g/m^3$	1.0
6.	Arsenic (as As)	IS:51 82 (P- 22)-2004, RA. 2014	BDL(DL 1.0)	ng/m³	6.0
7.	Chromium (as Cr)	Method Of air sampling and analysis,3rd 1988,Method No.302	BDL(DL 1.0)	μg/m³	r lan J•viri
8.	Mercury as (Hg)	Method Of air sampling and analysis, 3rd 1988, Method No. 317	BDL(DL-1.0)	$\mu g/m^3$	V. Pena-

Note: *BDI Below Detecation Limit, **DL-Detecation Limit.

(Checked By)

(Authorized Signatory)

WELLER TO TRANSPORT



Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana) ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:

VEL/REL/AA/03

Name & Address of the

M/s Raipur Energen Limited. Village -Raikheda, Block-Tilda

Dist,Raipur-493225 (CG)Talabira Mines

Report No .:

VEL/A/2110010003

Format No.:

7.8 F 01

Party Reference No.:

NIL

Report Date:

06/10/2021

Period of Analysis:

01/10/2021-06/10/2021

Receipt Date

01/10/2021

Sample Description:

Ambient Air Quality Monitoring

General Information:

Sampling Location

Sample collected by

Sampling Equipment used

Instrument Code

Instrument Calibration Status

Latitude Longitude

Meteorological condition during monitoring

Date of Sampling

Time of Sampling

Ambient Temperature (°C)

Surrounding Activity

Scope of Monitoring

Sampling & Analysis Protocol

Sampling Duration

Parameter Required

: In Front of the Mine Office

: VEL Team

: RDS &FPS

: VEL/RDS/FPS/22

: Calibrated

: 27/09/2021 to 28/09/2021

: 11.10 to 11:10 Hrs.

: Min. 25°C, Max. 36 °C

: Human & Vehicular Activities

: Regulatory Requirement

: IS-5182 & CPCB Guidelines

: 24 hrs.

: As Per Work Order

S. No.	Parameter Parameter	Protocol	Result	Unit	NAAQS* Limit
1.	Particulate Matter (PM _{2.5})	IS: 5182 (P-24), 2019	27.52	μg/m³	60
2.	Particulate Matter (PM ₁₀)	IS:5182 (P- 23)-2006,RA. 2017	64.25	$\mu g/m^3$	100
3.	Nitrogen Dioxide (NO ₂)	IS:5182 (P- 6)-2006 RA.2017	16.10	$\mu g/m^3$	80
4.	Sulphur Dioxide (SO ₂)	IS:51 82 (P- 2)-2001, RA. 2017	8.61	μg/m³	80

(Checked By)

Cubod





Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana) ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:

Sample Description:

VEL/REL/AA/04

Name & Address of the

M/s Raipur Energen Limited. Village -Raikheda, Block-Tilda

Ambient Air Quality Monitoring

Dist,Raipur-493225 (CG)Talabira Mines

Report No .: Format No.: VEL/A/2110010004

7.8 F 01

Party Reference No.:

NII.

Report Date:

06/10/2021

Period of Analysis:

01/10/2021-06/10/2021

Receipt Date

01/10/2021

General Information: **Sampling Location**

Sample collected by

Sampling Equipment used

Instrument Code

Instrument Calibration Status

Latitude Longitude

Meteorological condition during monitoring

Date of Sampling

Time of Sampling

Ambient Temperature (°C)

Surrounding Activity

Scope of Monitoring

Sampling & Analysis Protocol

Parameter Required

Sampling Duration

: A1 Down Wind Point of Talabira Mine area

: VEL Team

: RDS &FPS

: VEL/RDS/22

: Calibrated

: 27/09/2021 to 28/09/2021

: 10:20 to 10:20 Hrs.

: Min. 24°C, Max. 35 °C

: Human & Vehicular Activities

: Regulatory Requirement

: IS-5182 & CPCB Guidelines

: 24 hrs.

: As Per Work Order

S. No.	Parameter	Protocol	Result	Unit	NAAQS* Limit
1.	Volatile Organic Compounds(as BTX)	IS:5182 (P- 11)-2006, RA. 2017	BDL(DL-1.0)	μg/m³	a / Tarnan // Glac*/ar
2.	Polycyclic aromatic Hydrocarbon(as PAH)	IS:5182 (P- 12)-2004 Vardar	BDL(DL-1.0)	ng/m³	m an E-wire

Note: -*BDL-Below Detecation Limit, **DL-Detecation Limit.

Cubod





Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana) ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:

VEL/REL/W/01

M/s Raipur Energen Limited.

Village -Raikheda, Block-Tilda

Dist,Raipur-493225 (CG)Talabira Mines

Report No.: VEL/W/2110010001

Format No.: 7.8 F 01

Party Reference No.: NIL
Report Date: 06/10/2021

Period of Analysis: 01
Receipt Date: 01

Sampling Date: 26/09, Sampling Type: Grab

Sampling Type: Sampling Quantity: 01-06/10/2021 01/10/2021 26/09/2021 Grab

2.0 Ltr.

Sample Collected by Preservation:

Name & Address of Party

Sample Description:

Sampling Location:

Sampling & Analysis Protocol:

Refrigerated IS-10500-2012

VEL Team

Ground Water

R&R Colony(Open Well)

TEST RESULTS

	o Vardan EnviroLab V	ardan EnviroLab Vardan Env	roLab Vardan En	viroLab '	Limits of IS:10500 -2012	
S. No.	Parameter Parameter	Test-Method ab Vardan EnviroLab Vardan Env	Result	Unit	Desirable limit (Max.)	Permissible limit in the Absence of Alternate Source (Max.)
1.	pH (at 25 °C)	IS 3025(P-11):1983:RA.2017	wiroLa7.52 rdan I	nvireLa	6.5 to 8.5	No Relaxation
2.	Colour	IS 3025(P-4):1983:RA.2017	BDL(DL 1.0)	Hazen	5	15
3.	Odour	IS 3025(P-5):RA.2018	Agreeable	Envirol	Agreeable	Agreeable
4.	Taste	IS 3025(P-8):1984:RA.2017	Agreeable	virolasb 1	Agreeable	Agreeable
5.	Turbidity	IS 3025(P-10):1984:RA.2017	BDL(DL 1.0)	NTU	Envirola	5
6.	Total Hardness as CaCO ₃	IS 3025(P-21):2009:RA.2019	156.7	mg/l	200	600
7.	Calcium as Ca	IS 3025(P-40):1991:RA.2019	70Lab 35.9 an Em	mg/l	75	200
8.	Alkalinity as CaCO ₃	IS 3025(P-23):1986:RA.2019	116.5	mg/l	200	600
9.	Chloride as Cl	IS 3025(P-32):1988:RA.2019	56.2	mg/l	250	1000
10.	Residual free Chlorine	IS 3025(P-26):1986:RA.2019	BDL(DL 0.15)	mg/l	0.2	1
11.	Magnesium as Mg	IS 3025(P-46):1994:RA.2019	16.93	mg/l	30	100
12.	Total Dissolved Solids	IS 3025(P-16):1984:RA.2017	412.00	mg/l	500	2000
13.	Sulphate as SO ₄	IS 3025(P-24):1986:RA.2019	18.56	mg/l	200	400
14.	Fluoride as F	APHA 23 rd Edition,2017, 4500-F-D	Varda 0.21 ViroLa	mg/l	1.0	1.5
15.	Nitrate as NO ₃	IS 3025 (P-34) 1988:RA.2019	3.12	mg/I	45	No Relaxation
16.	Iron as Fe	IS 3025 (P-53)2003:RA.2019	0.14	mg/l	0.3	No relaxation
17.	Aluminium as Al	IS 3025 (P-55)2003:RA.2019	BDL(DL 0.002)	mg/l	0.03	0.2
18.	Boron	APHA 23 rd Edition,2017,4500-B	BDL(DL 0.01)	mg/l	0.5	Var 1
19.	Phenolic Compounds	APHA 23rd Edition,2017, 5530 C	BDL(DL 0.0004)	mg/l	0.001	0.002

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(Authorized Signatory)

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Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana) ISO 9001 | ISO 14001 | ISO 45001

Test Report

Samp	le No.: VEL/REL/W/01	dan EnviroLab vardan Enviro.	ab yardan Envin	Report	No .: VEL	/W/211001000
	Vardan EnviroLab V Lab Vardan EnviroLa	rtan vardan EnviroLab Vardan Ardan EnviroLab Vardan Envir D Vardan EnviroLab Vardan E		iroLab Vardai EnviroLab Va	Limits	of IS:10500 - 2012
S. No.	Parameter	Test-Method	Result	Unit	Desirab le limit (Max.)	Permissible limit in the Absence of Alternate Source (Max.)
20.	Anionic Detergents as MBAS	APHA 23 rd Edition,2017, 5540 C	BDL(DL 0.05)	mg/l	0.2	1.0
21.	Cyanide as CN	APHA 4500CN-D	BDL(DL 0.02)	mg/I	0.05	No relaxation
22.	Zinc as Zn	APHA 23 rd Edition 2017, 3030D,3112B	BDL(DL 0.01)	mg/l	5	15
23.	Lead as Pb	APHA 23 rd Edition2017,3030D,3111B	BDL(DL 0.002)	mg/l	0.01	No relaxation
24.	Copper as Cu	APHA 23 rd Edition2017,3111B	BDL(DL 0.002)	mg/l	0.05	1.5
25.	Manganese as Mn	IS 3025 (P-46) 1994:RA.2019	BDL(DL 0.01)	mg/l	0.1	0.3
26.	Barium dan EnviroLa	APHA 31111B	BDL(DL 0.01)	mg/l	0.7	No relaxation
27.	Arsenic as As	APHA (23 rd Edition)3030D,3114C,2017	BDL(DL 0.002)	mg/l	0.01	0.05
28.	Selenium as Se	APHA (23rd Edition)3114C,2017	BDL(DL 0.001)	mg/l	0.01	No relaxation
29.	Cadmium (as Cd)	APHA (23 rd Edition)3030D,3113B	BDL(DL 0.002)	mg/l	0.003	No relaxation
30.	Mercury as Hg	APHA (23rd Edition)3114C,2017	BDL(DL 0.0005)	mg/l	0.001	No relaxation
31.	Total Coliform	IS 1622,1981(Reaffirmed 2003)	ab Vardan Enviro Enviro Lab Varda Lab Absent Enviro In Enviro Lab Vardan	MPN/100ml	Shall Not Be detactab le in 100 ml Sample	NA
32.	E. Coli Enviro Lab Vari	IS 1622,1981(Reaffirmed 2003)	Absent	MPN/100ml	Absent/ 100ml	NA NA
33. Envi	Fecal Coliform	IS:1622:2009	Absent	MPN/100ml	Shall Not Be detactab le in 100 ml Sample	NA NA

Note:- *BDL-Below Detection Limit, *DL- Detection Limit

(Checked By)





Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana) ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number: Name & Address of the

Party:

M/s Raipur Energen Limited.

Mines

Sample Description: Scope of Monitoring

Protocol Used:

Instrument Used

VEL/REL/AN/01

Village -Raikheda, Block-Tilda Dist, Raipur-493225 (CG) Talabira

Ambient Noise Level Monitoring

Regulatory Requirment IS 9989: IS 9876

SLM

Report No .:

VEL/N/2110010001

Format No.:

7.8 F 01

NII.

Party Reference No.:

Report Date: Receipt Date:

Sampling Duration Sample Collected by

Instrument **Calibration Status** 24 Hrs" **VEL Team**

06/10/2021

01/10/2021

Calibrated

Monitoring Results

General Information:

Sampling Location

Instrument Code Meteorological condition during monitoring

Date of Monitoring Time of Monitoring

Ambient Temperature (°C)

Surrounding Activity Parameter Required

In front of Mine Office

: VEL/SLM/05

Clear sky

: 25/09/2021 to 26/09/2021

: 06:00 AM to 06:00AM

: Min. 24°C, Max. 36 °C

: Human & Vehicular Activities

: As per Work Order

neave can envirage and continued to black on this public. Ve		Test Result dB(A)		sult dB(A)
Sr.No.	Test Parameter	Protocol	Day Time	Night Time
1.	Leg	IS:9989,IS9876:1981	63.20	44.86

Category of Zones	rdan EnviroLab Vardan EnviroLa Leg	in dB (A)
roLao Vardan EnviroLab Vardan	Day	Night
Industrial	75	70
Commercial	an Enviroush Va65 in Enviroush Vari	dan EnviroLab Var 55 : EnviroLab V
Residential	viroLab Vardan 55 iroLab Vardan Er	nviroLab Vardan E.45 roLab Var
Silence Zone	rdan EnviroLab 50 dan EnviroLab Va	ardan EnviroLab V 40 an Enviro La

Day Time is from 6.00 AM to 10.00 PM.

Night Time is reckoned between 10.00 PM to 6.00 AM. 2.

Silence Zone is defined as an area up to 100 m around premises of Hospitals, Educational and Courts. Use of vehicle horn, Loudspeake and bursting of crackers is banned in these zones.

Note: Mixed categories of areas be declared as one of the four above mentioned categorise by the competent Authority and the corresponding standards shall apply

(Checkedus)





Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana) ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:

VEL/REL/AN/02

VEL/N/2110010002 Report No .:

Name & Address of the

Village - Raikheda, Block-Tilda Dist, Raipur-493225

7.8 F 01 Format No .: Party Reference No.: NIL

Party:

(CG) Talabira Mines **Ambient Noise Level**

M/s Raipur Energen Limited.

06/10/2021 Report Date:

Sample Description:

Monitoring

01/10/2021

Scope of Monitoring

Regulatory Requirment

24 Hrs" Sampling Duration Sample Collected by

Protocol Used:

IS 9989: IS 9876

VEL Team

Instrument Used

SLM

Instrument **Calibration Status**

Receipt Date:

Calibrated

Ambient Noise Level Monitoring Results

General Information:-

Sampling Location

Instrument Code

Meteorological condition during monitoring

Date of Monitoring

Time of Monitoring Ambient Temperature (°C)

Surrounding Activity

Parameter Required

: Near Petrol Pump

: VEL/SLM/06

: Clear sky

: 26/09/2021 to 27/09/2021

: 06:00 AM to 06:00AM

: Min. 26°C, Max. 38°C

: Human, Vehicular & Other Activities

: As per Work Order

I BELLEVI			Test Result dB(A)	
Sr.No.	Test Parameter	Protocol Protocol	Day Time	Night Time
1.	Leq	IS:9989,IS9876:1981	60.16	44.11

Category of Zones	Lec	in dB (A)
an Envirol ab Vardan Envirol ab	Varrian Envirol Day rdan Envirol ab	Vardan Faulen - Night
Industrial Variant EnviroLab Varia	an EnviroLab Va75 in EnviroLab Var	dan EnviroLab Var 70 EnviroLan
Commercial	viroLab Vardan 65 IroLab Vardan Er	nviroLab Vardan E 55 oLab varsa
Residential	rdan EnviroLab 55 dan EnviroLab V	ardan EnviroLab V45 an Enviro
Silence Zone	50	40

Day Time is from 6.00 AM to 10.00 PM.

Night Time is reckoned between 10.00 PM to 6.00 AM.

Silence Zone is defined as an area up to 100 m around premises of Hospitals, Educational and Courts. Use of vehicle horn, Loudspeake and bursting of crackers is banned in these zones.

Note: Mixed categories of areas be declared as one of the four above mentioned categorise by the competent Authority and the corresponding standards shall apply

(Checked By)

(Authorized Signatory)





Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana) ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:

Party:

Name & Address of the

Sample Description:

VEL/REL/AN/03

M/s Raipur Energen Limited.

Village -Raikheda, Block-Tilda Dist, Raipur-493225

(CG) Talabira Mines **Ambient Noise Level**

Monitoring

Regulatory Requirment Scope of Monitoring

IS 9989: IS 9876

Instrument Used

Protocol Used:

SLM

Report No .:

Format No.:

Party Reference No.:

Report Date:

Receipt Date:

Sampling Duration

Sample Collected by

Instrument

Calibration Status

Ambient Noise Level Monitoring Results

VEL/N/2110010003

7.8 F 01 NIL

06/10/2021

01/10/2021

24 Hrs"

VEL Team

Calibrated

General Information:

Sampling Location

Instrument Code

Meteorological condition during monitoring

Date of Monitoring

Time of Monitoring

Ambient Temperature (°C)

Surrounding Activity

Parameter Required

: Near Weight Bridge

: VEL/SLM/06

: Clear sky

: 27/09/2021 to 28/09/2021

: 06:00 AM to 06:00AM

: Min. 25°C, Max. 36 °C

: Human, Vehicular & Other Activities

: As per Work Order

E NY	ALAD VALGAN EUROPEAN VAN	nizacinotan vensa i anviro al Evalua i Egito.		rdan zar nive ale versa njenvira i alekara ali i prikole b		sult dB(A)
Sr.No.	Test Parameter	Protocol	Day Time	Night Time		
nvir1.	Leq	IS:9989,IS9876:1981	54.01	43.22		

Category of Zones	Leq in dB (A)		
Hiving Lato Vandan EnviroLab Va	Day	Night	
Industrial	75 Fewirolah Vac	dan Envirous No. 70	
Commercial	viroLab Vardan (65 IroLab Vardan El	nviroLab Vardan E 55 ot als Vardan	
Residential Vardan EnviroLab Va	rdan EnviroLab 55 dan EnviroLab V	ardan EnviroLab V 45 an Emero, at	
Silence Zone	nviroLab Vardar50nviroLab Vardan	EnviroLab Vardan 40 viroLab Verna	

Day Time is from 6.00 AM to 10.00 PM. 1.

Night Time is reckoned between 10.00 PM to 6.00 AM. 2.

Silence Zone is defined as an area up to 100 m around premises of Hospitals, Educational and Courts. Use of vehicle horn, Loudspeake and bursting of crackers is banned in these zones.

Note: Mixed categories of areas be declared as one of the four above mentioned categorise by the competent Authority and the corresponding standards shall apply

(Checked By) 0

(Authorized Signatory)





Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana) ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:

VEL/REL/AN/04

VEL/N/2110010004 Report No.:

Name & Address of the

M/s Raipur Energen Limited. Village -Raikheda, Block-Tilda Dist,Raipur-493225

Format No.: Party Reference No.: Report Date:

7.8 F 01

Party:

(CG) Talabira Mines **Ambient Noise Level** 06/10/2021

Sample Description:

Monitoring

01/10/2021

NIL

Scope of Monitoring

Regulatory Requirment

Sampling Duration 24 Hrs"

Protocol Used:

IS 9989: IS 9876

Sample Collected by

VEL Team

Instrument Used

SLM

Instrument **Calibration Status**

Receipt Date:

Calibrated

Ambient Noise Level Monitoring Results

General Information:

Sampling Location

Instrument Code

Meteorological condition during monitoring

Date of Monitoring Time of Monitoring

Ambient Temperature (°C)

Surrounding Activity Parameter Required

R&R Colony 3.2 KM in NE From the Mine

: VEL/SLM/05

: Clear sky

: 26/09/2021 to 27/09/2021

: 06:00 AM to 06:00AM

: Min. 24°C, Max. 36 °C

: Human, Vehicular Activities

: As per Work Order

pinuis	Lab Yaran beyirdab yarda	a Chiliptal Pardan Environ	Test Result dB(A)		
Sr.No.	Test Parameter	Protocol	Day Time	Night Time	
1.	Leq dan environab vardan	IS:9989,IS9876:1981	51.47	42.67	

Category of Zones	In EnviroLab Vardan EnviroLab Var Leq in dB (A)		
nviroLab Vardan EnviroLab Vard	Day	Night	
Industrial	an Environ at 175	70	
Commercial	virol ab Vardan (65 irol ab Vardan E	nviroLab Vardan E 55 of ab Vardan E	
Residential Variantian Emilion	rdan EnviroLab 155 dan EnviroLab V	ardan EnviroLab V 45 an Enviro an Ver	
Silence Zone	nviroLab Vardar50 nviroLab Vardan	EnviroLab Vardan 40 viroLab Varrani e	

Day Time is from 6.00 AM to 10.00 PM.

Night Time is reckoned between 10.00 PM to 6.00 AM. 2.

Silence Zone is defined as an area up to 100 m around premises of Hospitals, Educational and Courts. Use of vehicle horn, Loudspeake and bursting of crackers is banned in these zones.

Note: Mixed categories of areas be declared as one of the four above mentioned categorise by the competent Authority and the corresponding standards shall apply

(Checked By)

(Authorized Signatory)



Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana) ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:

Sample Description:

Sample Collected By

Parameter Required

Sampling and

Analysis Protocol

Name & Address of the

Party:

Location

VEL/REL/S/01

Near Field Hostal

As per work order

IS 2720, APHA & USDA

SOIL

VEL Team

M/s Raipur Energen Limited Village -Raikheda, Block-Tilda

Dist, Raipur-493225 (CG) Talabira Mines

Report No.: Format No.: VEL/S0/2110010001

7.8 F 01

Party Reference No.:

NIL

Report Date:

06/10/2021

Period of Analysis:

01-06/10/2021

Receipt Date:

01/10/2021

Sampling Date:

26/09/2021

Sample Quantity: Sampling Type:

2 kg. Composite

Packing Status:

Temp. Sealed

S. No.	Parameters	TestMethod	Results	Units
1	pH(at 25°C)	IS: 2720 (P- 26): 1987,RA: 2016	8.54	Vand <u>a</u> n
2	Electrical Conductivity	rdan Emiro IS14767: 2000 RA:2016	0.182	mS/cm
3	Colour	USDA:1954-Reaffirmed,2010	Grey	Variation Fr
4	Bulkdensity	USDA:1954(Page-121) RA: 2014	1.31	gm/cc
5	Water holding capacity	USDA:1954-Reaffirmed,2010	23.25	%
6	Calcium(as Ca)	LabSOP no. VEL/STP/01: 2018	217.26	mg/kg
7	Magnesium(as Mg)	LabSOP no. VEL/STP/01: 2018	165.74	mg/kg
8	Sodium(as Na)	USDA:1954Method 10A (Page-96) RA: 2010	134.51	mg/kg
9	Potassium(as K)	LabSOP no. VEL/STP/01: 2018	81.20	Kg/hec.
10	Available Nitrogen (as N)	IS: 14684,1999 RA: 2015	241.25	Kg./hec
11	Total Zinc (as Zn)	USEPA3050 B: 1996	39.60	mg/kg
12	Manganese	EnviroLab Varda USEPA3050 Vardan EnviroL	164.32	mg/kg
13	Total Lead (as Pb)	USEPA3050 B: 1996	11.63	mg/kg
14	Total Chromium	USEPA3050 B: 1996	4.56	mg/kg
15	Total Copper (as Cu)	USEPA3050 dan EnviroLab	12.34	mg/kg
16.	Soil Texture	IS 2720 (P-4)RA:2006	Silty Clay	vical ab

End of Report***

(Checked By)

(Authorized Signatory)





Laboratory: Plot No. 82A, Sector - 5, IMT Manesar, Gurugram - 122051 (Haryana) ISO 9001 | ISO 14001 | ISO 45001

Test Report

Sample Number:

VEL /REL/WW/01

Name & Address of Party:

M/s Raipur Energen Limited.

Village -Raikheda, Block-Tilda Dist, Raipur-

493225 (CG)Talabira Mines

Sample Description: Sampling Location:

STP Outlet

Sample Collected by:

Waste Water

VEL Team

Report No.:

VEL/WW/2110010001

Format No.:

7.8 F-01

Party Reference No.: Report Date:

NIL

Receipt Date:

06/10/2021

Sampling Date:

01/10/2021 27/09/2021

Sample Quantity:

2 Ltr

Parameter Required:

As per Work Order

S.No.	Test Parameters	Test Method Vardan Enviro	Result	Unit	Prescribed Limit
virot.	ab Vardan EnviroLab V dan EnviroLab Vardan	ardan EnviroLab Vardan EnviroLab Vardan En EnviroLab Vardan EnviroLab Vardan EnviroL		rcian Env	
1 nvin	pH Vardan EnviroLab	APHA 4500 H+B Electrometric Method: 2017	7.41	lardan E Enviros	5.5-9.0
2	Total Suspended Solids	APHA 2540 D Gravimetric Method	20	mg/l	100.0
3	Oil & Grease	APHA 5520 B Partition Gravimetric Method:2017	0.5	mg/l	10.0
4 ab	BOD (3 Days @27 °C)	APHA 5210 C Ultimate BOD Test:2017	12.0	mg/l	30.0
5	COD	APHA 5220 B Open Reflux Method:2017	52.3	mg/l	250.0

Checked By

