



Shivalik Solid Waste Management Limited

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GSTIN: 02AAJCS7647D1ZE CIN:U33130HP2005PLC028806

Ref. No. SSWML/25R/EIA/23-24/17260

Dated 5/12/2023

To
The Director,
Regional Office, Government of India
Ministry of Environment, Forest, and Climate Change
25, Subhash Road, Dehradun-248001.

Subject: - Submission of Six-monthly EC Compliance Report of “Shivalik Solid Waste Management Limited”, Tehsil- Nalagarh, Distt.- Solan, Himachal Pradesh for Dec-2023

Sir,

This is in response to the EC letter No. EC22A032HP155908 issued on dated 25.03.2022, We are hereby submitting the six monthly “compliance report” (period ending 30.09.2023) for **Common Hazardous Waste Treatment, Storage and Disposal Facility (TSDF) at Survey No. 1244/1, 1437/1, 1438/1, 1510/1 Village- Majra, P.O.- Dhabota, Tehsil- Nalagarh, Distt.- Solan, Himachal Pradesh** for your kind perusal.

Thanks & Regards


Authorized Signatory

CEO
Shivalik Solid Waste Management

CC:

1. Principal Secretary, State Environment Assessment Authority Department of Environment, Science & Technology, Paryavaran Bhawan, Near US Club, Shimla, Himachal Pradesh-171001.
2. Member Secretary, Himachal State Pollution Control Board, Phase III, Shimla.
3. Himachal Pradesh State Pollution Control Board, Regional Office, Baddi, Solan H.P.

Enclosures: -

1. Compliance Report
2. Environmental Monitoring Report



SIX MONTHLY COMPLIANCE REPORT

OF

CHWTSDF



Project By:



SHIVALIK SOLID WASTE MANAGEMENT LTD.

**Vill. Majra, P.O. Dabhota, Tehsil Nalagarh, Distt. Solan,
Himachal Pradesh**

Dec-2023

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CHAPTER-1

INTRODUCTION:

1.1 BRIEF OF THE PROJECT: -

Shivalik Solid Waste Management Ltd. is a TSDF Landfill facility located at Survey No. 1244/1, 1437/1, 1438/1, 1510/1, Village-Majra, P.O. Dabhota, Tehsil Nalagarh, Distt. Solan, Himachal Pradesh. The environment clearance letter for the project was granted by Ministry of Environment, Forests & Climate Change, Government of India vide **EC22A032HP155908** dated **25.03.2022** which is attached along as **Annexure-I**.

1.1.1 SALIENT FEATURE OF THE PROJECT: -

File No.	21-112/2021-IA-III
Project type	Category 7(d) <i>i.e.</i> , Common hazardous waste treatment, storage, and disposal facilities of EIA notification, 2006.
Project Location	Village-Majra, P.O. Dabhota, Tehsil Nalagarh, Distt. Solan, Himachal Pradesh.
Total Plot Area	35 acres (1,44,032 sq. m)
Green Area	50,032 sq. m <i>i.e.</i> , 35%
Processing Capacity of Landfill Waste	20,00,00 MT/year
Total Number of cells	13 SLF Cells
Manpower	80
Source of Electricity	HP, State Electricity Board
D.G Sets	1Nos capacity (100 kVA)
Source of Water	Tube well
Validity period of EC	7 years from date of issue
Total Project Cost	Rs. 22 Cr.

1.2 PURPOSE OF THE REPORT: -

As per the “Sub Para (ii)” of “Para 10” of EIA Notification 2006, it is stated that “It shall be mandatory for the project management to submit half-yearly compliance reports in respect of the stipulated prior environmental clearance terms and conditions in hard and soft copies to the regulatory authority concerned, on 1st June and 1st December of each calendar year” and as per compliance of condition mentioned in Environment Clearance Letter, Six monthly compliance reports should be submitted to the Himachal Pradesh State Pollution Control Board and Regional Office; MoEF, GoI, Northern Region; and a copy to the Environment Regulatory Authority of Himachal Pradesh.

It is mandatory to submit a Six-Monthly Compliance Report to show the status & compliance of all the Conditions mentioned in Environment clearance Letter, along with monitoring of various Environmental Parameters (as per CPCB Norms). The regulatory authorities in this case are Himachal State Pollution Control Board; Regional Office-MoEF (Dehradun) and SEIAA, H.P. Based on the Specific and General Conditions mentioned in the EC Letter, a Compliance Report was prepared and is detailed in chapter 2.

1.3 Current Status of the Project: Operational Phase.

CHAPTER-2**COMPLIANCE REPORT**

All the Statutory Compliance Conditions as per the Environmental Clearance (Attached as **Annexure-I**) of TSDF site situated at Village – Majra, P.O.- Dhabota, Tehsil- Nalagarh, District - Solan, Himachal Pradesh have been covered in this chapter.

2.1 POINT WISE COMPLIANCE OF THE CONDITIONS IMPOSED IN ENVIRONMENT CLEARANCE:

Sr.no.	Condition Of Environment Clearances	Compliance
A. Specific Condition		
i	The Proponent should ensure that the project fulfill all the provisions of Hazardous and other wastes(Management and Trans Boundary Movement) Rules, 2016 and the “Protocol for Performance Evolution and Monitoring” for the same as Published by CPCB including collection, transportation, design <i>etc.</i>	Agreed. We are complying with all the provisions of hazardous waste (Management and Trans Boundary Movement) Rules- 2016 as well as CPCB Protocol for Performance Evolution and Monitoring.
ii	Guidelines for secured landfill issued by CPCB shall be followed.	Complied.
iii	Necessary Provision shall be made for firefighting facilities within the complex.	Complied. Firefighting facilities are available within the project site.
iv	Project Proponent should prepare and implement an on-site Emergency management plan.	Complied. on-site Emergency management plan has been submitted at the time of Final EIA report.
v	Employees shall be provided work specific PPE such as helmets, safety shoes, masks <i>etc.</i>	Agreed. Employees and Workers are provided with work specific PPE such as Helmets, safety shoes, masks <i>etc.</i>
vi	Project Proponent should develop green belt all along the periphery of the TSDF with plant species that are significant and used for the pollution abatement. Total green area of 50,032 sqm (@35% of plot area)and	Agreed. Green belt has been developed around the periphery of the TSDF site.

	10,006 trees shall be maintained as proposed. The tree species shall be selected as secured to site condition in consultation with concerned forest department.	
vii	Fresh water requirement shall not exceed 12KLD during operational phase. Abstraction of ground water shall be subject to the permission of central groundwater authority (CGWA).	Agreed, Freshwater requirement will not exceed 12 KLD.
viii	Gas generated in the landfill should be Properly collected, monitored and flared.	This is Secure landfill facility; Proper venting system for gas release has been provided. Monitoring of gas vents is done for parameters like Ammonia and Hydrogen Sulphide.
ix	Sufficient Number of Piezo meter wells shall be installed in and around the project site to monitor the ground water quality in consultation with the state pollution control Board/CPCB. Trend analysis of ground water quality shall be carried out each season and information shall be submitted to the SPCB and the Reginal office of MoEF & CC	5 No. monitoring wells have been provided at site. Test report attached as Annexure-II
x	The depth of the landfill site shall be decided based on the ground water table at the site	Agreed. Depth of landfill site is in accordance with ground water table.
xi	PP Shall ensure proper handling of all spillages by introducing spill control procedures for various chemicals.	Agreed. All the chemicals are handled with adequate safety procedure to avoid spillage.
xii	Wastewater generated from process including leachates arising from premises shall be treated in MEE of 20KLD Capacity. Treated water shall be reused within the Project. Toxicity characteristic Leaching procedure (TCLP) test to be performed on leachates.	Agreed. Toxicity characteristic Leaching procedure test conducted on regular basis and record maintained for the same.
xiii	Rainwater runoff from the landfill area and	Agreed.

	other hazardous waste management area shall be collected and treated in an effluent treatment plant.	During rainy season landfill operations are suspended and the open cells are temporary covered using HDPE sheets. Rainwater runoff is collected through storm water drain and is taken to MEE for treatment.
xiv	The PP shall install continuous effluent monitoring system with respect to standards prescribed in Environment Protection Rules 1986 and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment Protection Act, 1986 or NABL accredited laboratories.	Not applicable as we are operating as Zero liquid discharge unit.
xv	Any Waste from construction and demolition activities related therefore shall be managed so as to strictly conform to the Construction and demolition waste management rule, 2016	Noted.
xvi	No non-hazardous wastes, as defined under the hazardous and other waste (Management and Trans- Boundary Movement) Rules, 2016. A certificate from the competent authority handling municipal solid wastes should be obtained, indicating the existing civic capacities of handling and their adequacy to cater to the MSW generated from Project.	Agreed. SSWML is only handling hazardous waste from the industries.
xvii	Project should ensure that the site is properly cordoned off from general movement and no unauthorized person or goods permitted to enter the premises. Necessary Security provision should be made as a condition in the authorization under the Hazardous and other wastes(Management and Transboundary Movement) Rules, 2016 to Prevent unwanted access.	Agreed. The site is maintained properly. No unauthorized person or goods are allowed to enter the Site Premises without permission.

xviii	Traffic congestion near the entry and exit points from the roads adjoining the project site shall be avoided. Parking should be fully internalized, and no public space should be utilized.	Agreed. There is no traffic congestion in the entry and exit points of the project site and no public space is being utilized.
xix	A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of services of the roads within a 2 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 2kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the state urban development department and the PWD/Component authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.	Traffic management plan submitted at the time of Final EIA report.
xx	The Environment clearance to the project is primarily under provision of EIA Notification, 2006. The Project Proponent is under obligation to obtain approvals/clearances under any other Acts/ Regulation or statutes as applicable to the project.	Agreed. Project proponent has obtained all the applicable approvals/ clearance.
B. STANDARD CONDITIONS :		
I.	STATUTORY COMPLIANCES	
i	The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1980, in case of the diversion of forest land for non-forest purpose involved in the project.	Not Applicable, as there is no forest land involved.
ii	The project proponent shall obtain clearance from the National Board for	Not Applicable.

	Wildlife, if applicable.	
iii	The project proponent shall prepare a Site-Specific Conservation plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendation of the approved Site-Specific Conservation Plan/Wildlife Management Plan shall be implemented in consultation with the state forest department. The implementation report shall be furnished along with the six-monthly compliance report (In case of the presence of schedule-I species in the study area).	Conservation plan for Schedule-I species submitted at the time of Final EIA report.
iv	The project proponent shall obtain Consent to Establish/Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/Committee. A copy of same shall be submitted to State Environment Impact Assessment Authority (SEIAA) before start of any construction work at the site.	Consent to Establish/Operate has been obtained from Himachal Pradesh Pollution Control Board.
v	The PP should ensure that the TSDF fulfils all the provisions of Hazardous and other wasted (Management and Transboundary Movement) Rules, 2016.	Agreed. We are fulfilling all the provision of Hazardous and other wasted (Management and Transboundary Movement) Rules, 2016.
vi	The PP shall adhere to all conditions as prescribed in the protocol for performance Evaluation and Monitoring of the Common Hazardous waste Treatment, storage and disposal facilities Published by CPCB in May 2010.	Agreed. Conditions as prescribed in the protocol are being complied.
vii	Incinerator shall be designed as per CPCB guidelines. Energy shall be recovered from incinerator.	Not applicable as this is a secure landfill facility without incinerator.
viii	The project proponent shall obtain necessary prior permission from the Central Ground Water Authority, in case of drawl of	Agreed.

	ground water/ from the competent authority concerned in case of drawl of surface water required for the project.	
ix	A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.	Agreed. NOC obtained from the department and same attached as Annexure VI.
x	All other statutory clearances such as the approvals for storage of diesel from the Chief Controller of Explosives, Fire Department, Civil Aviation Department shall be obtained, as applicable, by project proponents from the respective competent authorities.	All applicable statutory clearances are in place.
II. AIR QUALITY MONITORING AND PRESERVATION :		
i.	The Project Proponent shall install 24*7 Continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in environment (Protection) Rules 1986 and Connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognised under Environment Protection Act, 1986 or NABL Accredited Laboratories.	Not Required, because this is SLF. Stack monitoring is done on regular basis for Boiler.
ii.	The PP shall monitor fugitive emission in the plant premises at least once in every quarter through labs recognized under Environment (Protection) Act, 1986.	Agreed. Monitoring reports attached as Annexure-II .
iii.	The project proponent shall install system to carry out Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutant released (e.g., PM ₁₀ and PM _{2.5} in reference to PM emission, and SO ₂ and NO _x emission) within the outside the project area at least at four locations (one within and three outside the project area at the angle of 120° each), covering upwind direction.	Ambient Air Quality Monitoring is being conducted on regular basis. Monitoring reports are attached as Annexure-II
iv.	Sampling facility at process stacks and at	Agreed, all required sampling

	quenching towers shall be provided as per CPCB guidelines for manual of emission.	facilities have been provided.
v.	The PP shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality/fugitive emission to Regional office of Mo EF&CC, Zonal office of CPCB and Regional office of SPCB along with six-monthly monitoring report.	Agreed, the reports are being submitted to the concerned authorities as and when asked for.
vi	Appropriate air pollution control (As Proposed, air pollution control device viz gas quencher, treatment with mixture of hydrated lime and activated powder for adsorption of partial acidity and VOCs(if any) bag filters/ESP for removal of particulate matter, venturi scrubber followed by packed bed scrubber with caustic circulation to neutralize the acidic vapours in flue gas, and demister column for arresting water carry over will be provided to the incinerator system shall be provided for all the dust generating points system shall be provided for all the dust generating points including fugitive dust from all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.	No incinerator has been provided at site. However wet scrubber as APCD has been provided with the boiler and fume hood over stabilization pit. Monitoring reports are attached as Annexure-II
vii	The Periodical monitoring of Dioxin and Furans in the stack emission shall be carried out. Analysis of Dioxins and Furans shall be done through CSIR-National Institute for interdisciplinary science and Technology (NIIST), Thiruvananthapuram or equivalent NABL accredited Laboratory.	NA, as there is no incinerator installed at site.
viii	Gas generated in the land fill should be properly collected monitored and flared.	Ammonia and hydrogen sulfide are being produced and are monitored in house on regular basis. Test report attached as Annexure II
ix	A detailed traffic management and traffic	This facility is located 2 km away

	decongestion plan shall be drawn up to ensure that the current level of services of the roads within a 02 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 02 kms radius of the site in different scenarios of space and time and the certified by the state urban Development department and the P.W.D/Competent authority for road augmentation of components of the plan which involve the participation of these department.	from the Road so there is no congestion on the roads.
III. WATER QUALITY MONITORING AND PRESERVATION:		
i.	The project proponent shall install effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules, 1986 and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.	NA, as project is being operated on Zero liquid discharge and wastewater generated is being treated in MEE installed at site.
ii.	Sufficient number of Piezometer wells shall be installed in and around the project site to monitor the ground water quality in consultation with the SPCB/CPCB. Trend analysis of ground water quality shall be carried out each season and information shall be submitted to SPCB and the reginal office of MoEF& CC.	Agreed. 5 nos. of Piezometer wells are installed. Monitoring reports attached as Annexure-II .
iii	The PP shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to Regional office of Mo EF&CC, Zonal office of CPCB and Reginal office of SPCB along	The test reports are being submitted to concerned authorities through various platforms as and when required.

	with six-monthly monitoring report.	
iv	No discharge in near river(s)/ pond(s)	Agreed and Noted.
v	The depth of the land fill site shall be decided based on the ground water table at the site.	Height of landfill above ground level is around 15 to 20 m based on the ground water table.
vi	The company shall ensure proper handling of all spillages by introducing spill control procedures of various chemicals.	Agreed.
vii	All leachates arising from premises should be collected and treated in the ETP followed by RO, RO rejects shall be evaporated in MEE. Toxicity Characteristic leaching procedure (TCLP) test to be performed on leachets.	Leachate generated is treated in MEE Plant. Leachate test report attached as Annexure-IV
viii	The company shall review the unit operations provided for the treatment of effluents, especially the sequencing of MEE after tertiary treatment, the source of permeate when no R.O. is recommended and the treatment of MEE condensate. The scheme for treatment of effluent shall be as permitted by the pollution control board/committee under the provisions of consent to establish.	Wastewater generated is being treated in MEE installed at site.
ix	Scrubber water, leachate water or wheel wash effluent shall be treated in the effluent treatment plant followed by RO to achieve zero liquid discharge.	MEE is provided to treat the scrubber water, leachate water or wheel wash effluent. The condensate is recycled.
x	Total freshwater use shall not exceed the proposed requirement as provided in the project details, prior permission from competent authority shall be obtained for the use of fresh water.	Agreed.
xi	Sewage Treatment plant shall be provided to treat the wastewater generated from the project. Treated water shall be reused within the project.	STP of 20 KLD has been installed at site.
xii	A certificate from the competent authority for discharging treated effluent/ untreated effluents into the public	Not Applicable, as this is a ZLD unit.

	sewer/disposal/drainage system along with the final disposal point should be obtained.	
xiii	Rainwater runoff from hazardous waste storage area shall be collected and treated in the effluent treatment plant.	Rainwater runoff from HW storage area is collected separately and treated.
IV. NOISE MONITORING AND PREVENTION:		
i	Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Office of the Ministry as a part of six-monthly compliance report.	Agreed. Monitoring reports of the same are attached as Annexure-II
ii	The ambient noise levels should conform the standards prescribed under Environment (Protection) Act and Rules, 1986 viz. 75 dB(A) during daytime and 70 dB(A) during nighttime.	Agreed. Noise levels are within prescribed limits during daytime and nighttime i.e., 75 dB (A) and 70 dB (A)
iii	Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.	Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel is being implemented. Test Report attached as Annexure-II
V. ENERGY CONSERVATION MEASURES :		
i	Energy conservation measures like installation of LED/CFLs/TFLs for the lightning the areas outside the building should be integral part of the project design and should be in place before project commissioning.	Agreed. Solar lights, LED/CFLs/TFLs are used for energy conservation measures.
VI. WASTE MANAGEMENT :		
i	The TSDF should only handle the waste generated from the member units.	Agreed
ii	Periodical soil monitoring to check the contamination in and around the site shall be carried out.	Agreed. Monitoring reports of the same is attached as Annexure-II .
iii	No non-hazardous wastes, as defined under the Hazardous and Other Wastes (Management and Trans boundary Movement) Rules, 2016, shall be handled in the premises.	Agreed.
iv	The Project proponent shall not store the Hazardous Wastes more than the quantity	Agreed. Hazardous waste is being stored

	that has been permitted by the CPCB/SPCB.	within the limit as permitted by CPCB/SPCB.
v	The solid wastes shall be segregated, managed and disposed as per the norms of the Solid Waste Management Rules, 2016.	Agreed. Solid waste is being segregated, managed and disposed as per the norms of the Solid Waste Management Rules, 2016.
vi	The certificate from the competent authority handling municipal solid waste should be obtained, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W, generated from project.	Municipal solid waste is being managed as per the Solid Waste Management Rules, 2016.
vii	Any waste from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.	Noted.
VII. GREEN BELT		
i	Green belt shall be developed in an area as provided in project details, with native tree species in accordance with Forest Department. The greenbelt shall inter alia cover the entire periphery of the project site.	Agreed.
ii	Topsoil shall be separately stored and used in the development of green belt.	Topsoil stored separately and used for green belt development.
VIII. PUBLIC HEARING AND HUMAN HEALTH ISSUES		
I	Traffic congestion near the entry and exit points from the roads adjoining the project site shall be avoided. Parking should be fully internalized, and no public space should be utilized.	Agreed. Parking is fully internalized and there is no public space utilized.
ii	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.	Agreed, same has been submitted at the time of Final EIA Report.
iii	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health	We are hiring local workers for the same, so there is no need to provide housing. Safe drinking water and Toilet facilities Provided to all.

	care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	
iv	Occupational health surveillance of the workers shall be done on a regular basis.	Health Checkup of the workers is done periodically, and records are maintained for the same.
IX. MISCELLANEOUS		
i	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the district or state, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's web site permanently.	Complied. It was advertised in local newspaper.
ii	The copies of the environment clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.	Submitted.
iii	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their web site and update the same on half-yearly basis.	Agreed
iv	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the Ministry of Environment, Forest & Climate Change on environment clearance portal.	Agreed.
v	The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks	Agreed.

	and balances and to bring into focus any infringements/deviation/violation of the environmental/forest/wildlife norms/conditions. The company shall have defined system reporting infringements/deviation/violation of environmental/forest/wildlife norms/conditions and/ or shareholders/stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.	
vi	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.	Agreed.
vii	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report.	Complied.
viii	Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.	Noted.
ix	The project proponent shall submit the environmental statement for each financial year to the concerned State Pollution Control Board as prescribed under Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company with a copy to	Agreed and Noted.

	SEIAA.	
x	The criteria pollutant levels namely; PM _{2.5} , PM ₁₀ , SO ₂ , NO _x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	Agreed. It is being displayed at the entry gate of the company in the public domain.
xi	The project proponent shall inform the Regional Office as well as SEIAA the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.	Agreed.
xii	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.	Agreed.
xiii	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee	Agreed and complied.
xiv	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).	Agreed and Noted.
xv	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.	Noted.
xvi	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Noted.
xvii	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall	Noted.

	implement these conditions.	
xviii	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.	Agreed, full support is extended to the visiting officers.
xix	The above conditions shall be enforced, 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, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts/NGT and any other Court of Law relating to the subject matter.	Agreed.
xx	Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	No such appeal was made against the EC granted to the project.

ENVIRONMENTAL
CLEARANCE

Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

To,

The CEO

SHIVALIK SOLID WASTE MANAGEMENT LTD

Village Majra, PO Dabhota, Tehsil Nalagarh, Distt Solan, Himachal Pradesh, 174101, Solan, Himachal Pradesh-174101

Subject: Grant of Environmental Clearance (EC) to the proposed Project Activity under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the Ministry vide proposal number IA/HP/MIS/239636/2018 dated 02 Dec 2021. The particulars of the environmental clearance granted to the project are as below.

- | | |
|--|---|
| 1. EC Identification No. | EC22A032HP155908 |
| 2. File No. | 21-112/2021-IA-III |
| 3. Project Type | New |
| 4. Category | A |
| 5. Project/Activity including Schedule No. | 7(d) Common hazardous waste treatment, storage and disposal facilities (TSDFs) |
| 6. Name of Project | Capacity Enhancement of Secured Landfill Facility (SLF) from 10 Lac MT to 20 Lac MT at Common Hazardous Waste Treatment, Storage and Disposal Facility (TSDF) |
| 7. Name of Company/Organization | SHIVALIK SOLID WASTE MANAGEMENT LTD |
| 8. Location of Project | Himachal Pradesh |
| 9. TOR Date | N/A |

The project details along with terms and conditions are appended herewith from page no 2 onwards.

Date: 25/03/2022

(e-signed)
Dharmendra Gupta
Scientist F
IA - (INFRA-2 sector)

Note: A valid environmental clearance shall be one that has EC identification number & E-Sign generated from PARIVESH. Please quote identification number in all future correspondence.

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F. No. 21-112/2021-IA-III
Government of India
Ministry of Environment, Forest and Climate Change
(IA.III Section)

Indira Paryavaran Bhawan,
Jor Bagh Road, New Delhi - 110003

22nd March, 2022

To,

Shri Ashok Sharma, CEO
M/s Shivalik Solid Waste Management Ltd.
Village Majra, PO Dabhota,
Tehsil Nalagarh, Distt. Solan,
Himachal Pradesh-174101
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Subject: **Environmental Clearance for Capacity enhancement of Secured Landfill Facility (SLF) from 10 to 20 lacs MT at Common Hazardous Waste Treatment, Storage and Disposal Facilities (TSDF) at Survey No. 1244/1, 1437/1, 1430/1 & 1510/1, Village Majra, P.O. Dabhota, Tehsil Nalagarh, Solan District, Himachal Pradesh by M/s Shivalik Solid Waste Management Ltd-Regarding.**

Sir,

This has reference to your Application/Proposal No. IA/HP/MIS/239636/2018; received on 22nd November, 2021 through Parivesh Portal for Environmental Clearance (EC) for Proposed Capacity enhancement of Secured Landfill Facility (SLF) from 10 to 20 lacs MT at Common Hazardous Waste Treatment, Storage and Disposal Facilities (TSDF) at Survey No. 1244/1, 1437/1, 1430/1 & 1510/1, Village Majra, P.O. Dabhota, Tehsil Nalagarh, Solan District, Himachal Pradesh by M/s Shivalik Solid Waste Management Ltd.

2. As per the provisions of the Environment Impact Assessment (EIA) Notification, 2006; as amended and notified under the Environment (Protection) Act, 1986 (29 of 1986), the above-mentioned project/activity is covered under category 'B' of item 7(d) 'Common hazardous waste treatment, storage and disposal facilities (TSDFs)' of the Schedule to the EIA Notification, 2006 and its subsequent amendments. However, General Condition is applicable and the project falls under Category 'A' since the interstate boundary of Himachal Pradesh and Punjab falls within 2.47 km (Aerial Distance) and 4.5 km (Road distance) from the proposed site. Therefore, it requires appraisal at Central level by sectoral EAC.

3. Accordingly, the abovementioned proposal for Environmental Clearance has been examined by the Expert Appraisal Committee (Infra-2) first in its 78th meeting held during 14-15th December, 2021, thereafter in its 80th meeting held during 20-21st January, 2022 and in its 82nd meeting held on 16th February, 2022.

4. The details of the project, as per the application and documents submitted by the project proponent, and also as informed during the above-mentioned meetings of EAC (Infra-2) are as under:

- i. The project is located at Khasra No. 1244/1, 1437/1, 1430/1, 1510/1, Village Majra, P.O. Dabhota, Tehsil Nalagarh, Distt. Solan, Himachal Pradesh.
- ii. The project is an 'Expansion'.
- iii. The project was granted Terms of Reference vide letter no. 10-73/2018-IA-III dated 30.11.2018 for capacity enhancement of existing Secured Landfill Facility (SLF) from 10 to 20 lacs MT.
- iv. The consent to establish (CTE) for the unit was applied in 2005 under Air Act 1981 and Water Act 1974 and in accordance to Hazardous Wastes (Management and Handling) Amendment Rules, 2003 under rule 8-Para 5 (before the enforcement of EIA Notification 2006 dated 14th September, 2006). Before setting up the facility, Himachal Pradesh State Pollution Control Board (HPSPCB) conducted Public Hearing on 29.03.06 at the project site as per requirements of HW Rules and the State Government thereafter notified the site for development of Common Hazardous Waste Treatment Storage and Disposal Facility vide notification no. Ind. A(F)15-4/2003-II dated 07.03.2007. The TSDF site has been operational since June 2008 after obtaining Consent to Operate (CTO) from HP Pollution Control Board. Compliance to the conditions of CTO has been obtained from HPPCB and submitted on the Parivesh Portal.
- v. The salient features of the project are given as follows:

S. No.	Particulars	Unit	Details
1	Plot area	sqm.	35 Acre (144,032 sqm.)
2	Green Area	sqm.	50,032 (35% of plot area)
3	Processing Capacity of Landfill Waste	MT/year	Existing- 50,000 Proposed- 50,000 Total= 10,00,00
4	Total no. of cells	No	13 SLF Cells
5	Manpower	Nos.	80
6	Source of Electricity Supply	-	Himachal Pradesh State Electricity Board.
7	Total Power Requirement	KW	373

8	DG Sets (Backup)	kVA	1 × 100
9	Fuel Requirement	L/hour	8-10 (Diesel) for DG set and 20-25 (Bio-Diesel) for Boiler
10	Source of Water	-	01 Tubewell (Permission for 15 KLD obtained)
12	Fresh Water Requirement	KLD	12
13	Wastewater Generation	KLD	10
14	Capacity of ETP/MEE	KLD	20
15	Total Vehicles at site	Numbers	58
16	Life of Landfill estimated	Years	25

- vi. Existing Secured Landfill cells (13nos. in total) have been designed as per the recommendations of design of Indian Institute of Technology, Delhi (IIT-D) and till date two cells are capped and two are in operation. Now, enhancement in the capacity of SLF is proposed through change in the height of heap of the SLF and change in slope from 1:5 to 1:4 which results in increase of capacity from 10 Lac MT to 20 Lac MT. This change is proposed under the guidance from IIT-D. Details of proposed expansion are given as follows:

Details	Existing	Proposed
Capacity of Landfill	10 lac MT	20 Lac MT
Total Height	10m (Below the ground)+ 20m (Above the ground) = 30 m	9m (Below the ground)+ 25m (Above the ground) = 34 m
Slope	1:5	1:4
Area	72000 sqm.	77000 sqm.

- vii. It is also proposed to expand the annual processing capacity of the unit as below:

S. No.	Category of Hazardous Waste	Type of Hazardous waste	Unit	Quantity of Hazardous waste (Tons/Annum)			Mode of Disposal
				Existing	Proposed	Total after Expansion	
1	Schedule-1 & schedule-2 of HWR 2016	Land fillable waste	MTPA	50,000	50,000	100,000	Landfill at TSDF
2	5.1	Collection/ transportation of used oil	KL/ Year	600	600	1,200	To be sent for recycling to authorized recyclers
3	A4160	Collection/ transportation of used batteries	MTPA	600	600	1,200	To be sent for recycling to authorized recyclers
4	33.1	Collection/tra	Nos/	48,000	0	48,000	Utilization as

		transportation of discarded containers	year				per Rule 9 of HOWR, 2016
5	-	Pre-processing of Hazardous wastes for co-processing in cement kiln	MTPA	4,000	4,000	8,000	To be sent for co-processing in Cement Kilns in Himachal Pradesh

- viii. Project is located on land measuring 35 Acres (1,44,032 sqm.) given on lease by HPSPCB. As per the land lease, proposed project site is registered for industrial use. The land use distribution for the unit as proposed is given as follows:

Particulars	Total area (sqm.)	% Area
Green Area	50,032	34.7
Landfill Area	77,000	53.5
Total Infrastructure Area	17,000	11.8
Total Area	144,032	100.00

- ix. Total water requirement for the project will be 26.2 KLD during non-monsoon period and 22 KLD during monsoon period. The ultimate source of water will be tube well (1 no.). Fresh water demand for the project will be 12 KLD during non-monsoon period and 9 KLD during monsoon period. The remaining water demand will be met by treated water from MEE Condensate of 9 KLD and from collected rainwater reuse (5.2 KLD during non-monsoon period and 4 KLD during monsoon period) from onsite 1100 KL pond. Wastewater of 8 KLD generated from domestic use will be disposed to septic tank via soak pits, 10 KLD of wastewater generated from the processes will be treated in MEE of 20 KLD capacity. 9 KLD of treated water will be generated which will be utilized in wheel washing (3 KLD), scrubber (3 KLD) & boiler makeup (3 KLD).
- x. There is use of approx. 19 no of vehicles daily for transportation purposes. For the proposed expansion, total parking space for 58 no. vehicles is earmarked for parking of trucks and cars within the facility premises.
- xi. Total 12 kg/day of Municipal Solid Waste is being generated from 80 no. of workers out of which 7 kg/day is treated in existing biogas plant and 5 kg/day is recyclable waste which is treated within the site.
- xii. The total power requirement will be 373 kW which will be met by Himachal Pradesh State Electricity Board. DG set (1× 100 KVA) will be provided for power backup. Adequate stack height of 7.6 m from roof level shall be maintained.
- xiii. There is use of approx. 19 no of vehicles daily for transportation purposes. For the proposed expansion, total parking space for 58 no.

- vehicles is earmarked for parking of trucks and cars within the facility premises.
- xiv. Solar cells will be installed after total capping of the landfill. Tentative proposal for solar power installation is of 130 KW. Total Energy savings will be 34.8 % of the power load. 11 Solar Street lights of 7 watts have been installed within project premises in 2011.
 - xv. 2 Nos of rain water collection tanks are installed. One tank of 1100 KL capacity having catchment of nearby hilly terrain and second tank of 6 KL capacity collecting rooftop rainwater of laboratory block. The collected rainwater shall be reused within the facility for gardening on non-rainy days and cooling tower/lab water makeup. During the rainy season, a flexible geo-membrane cover shall be placed over the uncapped area of the landfill to minimize infiltration of rainfall into the landfill and the rainwater shall be diverted to join the surface water drains.
 - xvi. Public Hearing was conducted at the project site on 09.01.2020 at 11.30 AM. Major issues raised during the public hearing and response in the form of implementable action plan have been submitted.
 - xvii. Total capital cost towards EMP will be ₹ 2200 lakhs and recurring cost will be ₹ 19.2 lakhs per year.
 - xviii. Baseline study was conducted in the winter season from December 2018- February 2019 at 9 locations & revalidated baseline study was carried out for from 10th Oct- 10th Nov, 2021 at 9 no. of locations.
 - xix. The project is not located in a Critically Polluted area.
 - xx. The project is not located within 10 km of Eco Sensitive Zone. NBWL Clearance is not required.
 - xxi. Forest Clearance is not required.
 - xxii. There is a litigation pending on this project in the High Court of Himachal Pradesh (Case No. CWPIIL No. 45 of 2021). The court Order dated 14.10.2021 states that the concerned authority to carry out necessary inspection and take further action in accordance with law and also to submit an action taken report. The inspection was carried out by NPC and the report was submitted to SDM, Solan and HPSPCB.
 - xxiii. Green belt is developed along most of the periphery of the project area as well as along roads. Total of 50,032 sqm. (35% of plot area) shall be developed as green area. No tree cutting is involved in the project. About 10,006 no. of trees are proposed at site out of which 8000 no. of trees have already been planted.
 - xxiv. Investment/Cost of the total project is ₹ 22 crores.
 - xxv. Employment potential- About 33 persons during construction phase and 80 persons during operation phase.
 - xxvi. Benefits of the project-There are 3,078 numbers of hazardous waste generating industries in industrial area of Himachal Pradesh. This industrial growth has led to continuous increase in generation of Hazardous Waste. Hazardous waste and its related environmental problems have been recognized by HPSPCB. There is only one common secured landfill facility i.e. M/s Shivalik Solid Waste Management Ltd. Distt. Solan in Himachal Pradesh. Capacity

Enhancement of Secured Landfill Facility (SLF) from 10 Lacs to 20 Lac MT and processing capacity of landfill waste will also be increased from 50,000 TPA to 100,000 TPA at existing Facility. Thus the project will cater to the treatment of the increasing Hazardous waste in the entire state of Himachal Pradesh. The project will create direct and indirect employment for local people for which skilled and unskilled manpower will be needed. It promotes the proper disposal of hazardous waste in the state of Himachal Pradesh.

5. The EAC (Infra 2), based on information and clarifications provided by the project proponent and detailed discussions held on the issues, has recommended granting environment clearance to the project. The aforesaid recommendation of EAC (Infra-2) is subject to certain specific conditions, as stipulated during its 82nd meeting held on 16th February, 2022.

6. Based on recommendations of EAC (Infra-2), the Ministry of Environment, Forest and Climate Change hereby accords Environmental Clearance to the project for Proposed Capacity enhancement of Secured Landfill Facility (SLF) from 10 to 20 lacs MT at Common Hazardous Waste Treatment, Storage and Disposal Facilities (TSDF) at Survey No. 1244/1, 1437/1, 1430/1 & 1510/1, Village Majra, P.O. Dabhota, Tehsil Nalagarh, Solan District, Himachal Pradesh by M/s Shivalik Solid Waste Management Ltd, under the provisions of the EIA Notification, 2006 and amendments/circulars issued thereon, and subject to the following specific and standard conditions:

A. Specific Conditions:

- i. The proponent should ensure that the project fulfil all the provisions of Hazardous and other Wastes (Management and Trans boundary Movement) Rules, 2016 and the 'Protocol for Performance Evaluation and Monitoring' for the same as published by the CPCB including collection, transportation, design etc.
- ii. Guidelines for Secured Landfill issued by CPCB shall be followed.
- iii. Necessary provision shall be made for fire fighting facilities within the complex.
- iv. Project proponent should prepare and implement an on-site Emergency Management Plan.
- v. Employees shall be provided work specific PPE such as helmets, safety shoes, masks etc.
- vi. Project proponent should develop green belt all along the periphery of the TSDF with plant species that are significant and used for the pollution abatement. Total green area of 50,032 sqm. (@ 35% of plot area) and 10,006 trees shall be maintained as proposed. The tree species shall be selected as suited to site conditions in consultation with concerned forest department.
- vii. Fresh water requirement shall not exceed 12 KLD during operational phase. Abstraction of ground water shall be subject to the permission of Central Ground Water Authority (CGWA).

- viii. Gas generated in the Landfill should be properly collected, monitored and flared.
- ix. Sufficient number of Piezometer wells shall be installed in and around the project site to monitor the ground water quality in consultation with the State Pollution Control Board/CPCB. Trend analysis of ground water quality shall be carried out each season and information shall be submitted to the SPCB and the Regional Office of MoEF&CC.
- x. The depth of the landfill site shall be decided based on the ground water table at the site.
- xi. PP shall ensure proper handling of all spillages by introducing spill control procedures for various chemicals.
- xii. Wastewater generated from the process including leachates arising from premises shall be treated in MEE of 20 KLD capacity. Treated water shall be reused within the project. Toxicity Characteristic Leaching Procedure (TCLP) test to be performed on leachates.
- xiii. Rain water runoff from the landfill area and other hazardous waste management area shall be collected and treated in an effluent treatment plant.
- xiv. The project proponent shall install continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 and connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- xv. Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Waste Management Rules, 2016.
- xvi. No non-hazardous wastes, as defined under the Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016, shall be handled in the premises. The solid wastes shall be segregated, managed and disposed as per the norms of the Solid Waste Management Rules, 2016. A certificate from the competent authority handling municipal solid wastes should be obtained, indicating the existing civic capacities of handling and their adequacy to cater to the MSW generated from project.
- xvii. Project should ensure that the site is properly cordoned off from general movement and no unauthorized person or goods permitted to enter the premises. Necessary security provision should be made as a condition in the Authorization under the Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016 to prevent unwanted access.
- xviii. Traffic congestion near the entry and exit points from the roads adjoining the project site shall be avoided. Parking should be fully internalized and no public space should be utilized.
- xix. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 2 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being

carried out or proposed to be carried out by the project or other agencies in this 2 kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the PWD/Competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.

- xx. The Environmental Clearance to the project is primarily under provisions of EIA Notification, 2006. The Project Proponent is under obligation to obtain approvals/clearances under any other Acts/Regulations or Statutes as applicable to the project.

B. Standard Conditions:

I. Statutory compliance:

- i. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1980, in case of the diversion of forest land for non-forest purpose involved in the project.
- ii. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- iii. The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan/Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report (in case of the presence of schedule-I species in the study area)
- iv. The project proponent shall obtain Consent to Establish/Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/Committee.
- v. The Project proponent should ensure that the TSDF fulfils all the provisions of Hazardous and other Wastes (Management and Trans-boundary Movement) Rules, 2016.
- vi. The project proponents shall adhere to all conditions as prescribed in the Protocol for Performance Evaluation and Monitoring of the Common Hazardous waste treatment, storage and disposal facilities' published by the CPCB in May, 2010.
- vii. Incinerator shall be designed as per CPCB guidelines. Energy shall be recovered from incinerator.
- viii. The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water/from the competent authority concerned in case of drawl of surface water required for the project.

- ix. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.
- x. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department shall be obtained, as applicable by project proponents from the respective competent authorities

II. Air quality monitoring and preservation:

- i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 and connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognised under Environment (Protection) Act, 1986.
- iii. The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g., PM₁₀ and PM_{2.5} in reference to PM emission, and SO₂ and NO_x in reference to SO₂ and NO_x emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions.
- iv. Sampling facility at process stacks and at quenching towers shall be provided as per CPCB guidelines for manual monitoring of emissions.
- v. The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
- vi. Appropriate Air Pollution Control (As proposed, air pollution control device viz. gas quencher; treatment with mixture of hydrated lime and activated powder for adsorption of partial acidity and VOCs (if any); bag filter/ESP for removal of particulate matter; venturi scrubber followed by packed bed scrubber with caustic circulation to neutralize the acidic vapours in flue gas; and demister column for arresting water carry over will be provided to the incinerator) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
- vii. The periodical monitoring of Dioxins and Furans in the Stack emissions shall be carried out. Analysis of Dioxins and Furans shall be done through CSIR-National Institute for Interdisciplinary

- Science and Technology (NIIST), Thiruvananthapuram or equivalent NABL Accredited laboratory
- viii. Gas generated in the Land fill should be properly collected, monitored and flared
 - ix. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 02 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 02 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.

III. Water quality monitoring and preservation:

- i. The project proponent shall install continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 and connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. Sufficient number of Piezometer wells shall be installed in and around the project site to monitor the ground water quality in consultation with the State Pollution Control Board/CPCB. Trend analysis of ground water quality shall be carried out each season and information shall be submitted to the SPCB and the Regional Office of MoEF&CC.
- iii. The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
- iv. No discharge in nearby river(s)/pond(s).
- v. The depth of the land fill site shall be decided based on the ground water table at the site.
- vi. The Company shall ensure proper handling of all spillages by introducing spill control procedures for various chemicals.
- vii. All leachates arising from premises should be collected and treated in the ETP followed by RO. RO rejects shall be evaporated in MEE. Toxicity Characteristic Leaching Procedure (TCLP) test to be performed on leachates.
- viii. The Company shall review the unit operations provided for the treatment of effluents, specially the sequencing of MEE after

tertiary treatment, the source of permeate when no R.O. is recommended and the treatment of MEE condensate. The scheme for treatment of effluents shall be as permitted by the Pollution Control Board/Committee under the provisions of consent to establish.

- ix. Scrubber water, leachate water or wheel wash effluent shall be treated in the effluent treatment plant followed by RO to achieve zero liquid discharge.
- x. Total fresh water use shall not exceed the proposed requirement as provided in the project details. Prior permission from competent authority shall be obtained for use of fresh water.
- xi. Sewage Treatment Plant shall be provided to treat the wastewater generated from the project. Treated water shall be reused within the project.
- xii. A certificate from the competent authority for discharging treated effluent/ untreated effluents into the Public sewer/ disposal/drainage systems along with the final disposal point should be obtained.
- xiii. Rain water runoff from hazardous waste storage area shall be collected and treated in the effluent treatment plant.

IV. Noise monitoring and prevention:

- i. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
- ii. The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.
- iii. Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.

V. Energy Conservation measures:

- i. Energy conservation measures like installation of LED/CFLs/TFLs for the lighting the areas outside the building should be integral part of the project design and should be in place before project commissioning.

VI. Waste management:

- i. The TSDF should only handle the waste generated from the member units.
- ii. Periodical soil monitoring to check the contamination in and around the site shall be carried out.
- iii. No non-hazardous wastes, as defined under the Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016, shall be handled in the premises.

- iv. The Project proponent shall not store the Hazardous Wastes more than the quantity that has been permitted by the CPCB/SPCB.
- v. The solid wastes shall be segregated, managed and disposed as per the norms of the Solid Waste Management Rules, 2016.
- vi. A certificate from the competent authority handling municipal solid wastes should be obtained, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project.
- vii. Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.

VII. Green Belt:

- i. Green belt shall be developed in an area as provided in project details, with native tree species in accordance with Forest Department. The greenbelt shall inter alia cover the entire periphery of the project site.
- ii. Top soil shall be separately stored and used in the development of green belt.

VIII. Public hearing and Human health issues:

- i. Traffic congestion near the entry and exit points from the roads adjoining the project site shall be avoided. Parking should be fully internalized and no public space should be utilized.
- ii. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- iii. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- iv. Occupational health surveillance of the workers shall be done on a regular basis.

IX. Miscellaneous:

- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats

- and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
 - iv. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
 - v. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental/forest/wildlife norms/conditions. The company shall have defined system of reporting infringements /deviation/violation of the environmental/forest/wildlife norms /conditions and/or shareholder's/stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
 - vi. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.
 - vii. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
 - viii. Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
 - ix. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
 - x. The criteria pollutant levels namely; PM_{2.5}, PM₁₀, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
 - xi. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the

- project by the concerned authorities, commencing the land development work and start of production operation by the project.
- xii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
 - xiii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
 - xiv. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
 - xv. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
 - xvi. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
 - xvii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
 - xviii. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data/information/monitoring reports.
 - xix. The above conditions shall be enforced, 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, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Honble Supreme Court of India/High Courts/NGT and any other Court of Law relating to the subject matter.
 - xx. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010

7. The Environmental Clearance is being granted to M/s Shivalik Solid Waste Management Ltd, for Proposed Capacity enhancement of Secured Landfill Facility (SLF) from 10 to 20 lacs MT at Common Hazardous Waste Treatment, Storage and Disposal Facilities (TSDF) at Survey No. 1244/1, 1437/1, 1430/1 & 1510/1, Village Majra, P.O. Dabhota, Tehsil Nalagarh, Solan District, Himachal Pradesh.

8. This issues with the approval of the Competent Authority.


(Dr. Dharmendra Kumar Gupta)
Director (S)

Copy to:

1. Principal Secretary, Department of Environment, Science and Technology, Paryavaran Bhawan, Near US Club, Shimla Himachal Pradesh-171001.
2. Regional Officer, Ministry of Environment, Forest and Climate Change, Integrated Regional Office, Shimla 1st & 2nd Floor, C.G.O. Complex, Longwood, Shimla - 171001.
3. Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110032.
4. Member Secretary, H.P. State Pollution Control Board, Head office, Him Parivesh, Phase-III, New Shimla-171009, H.P.,
5. Monitoring Cell, MoEF&CC, Indira Paryavaran Bhavan, New Delhi.
6. Guard File/ Record File/ Notice Board/ MoEF&CC website.



(Dr. Dharmendra Kumar Gupta)
Director (S)



CHANDIGARH POLLUTION TESTING LABORATORY

(Environmental Monitoring, EIA, NOC, ETP, STP)

NABET Accredited EIA Consultant



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E-mail : cptle126@gmail.com ; lab@cptl.co.in

Website : www.cptl.co.in



TEST CERTIFICATE

REPORT No. CPTL/H.P/2023/10/44a(W)

Format No. CPTLF7.8-I(W)

REPORTING DATE:11.11.2023

NAME OF INDUSTRY: M/s. SHIVALIK SOLID WASTE MANAGEMENT LTD.,
VILL.-MAJRA, P.O.- DABHOTA, TEH.- NALAGARH,
DIST.- SOLAN (H.P.).

SAMPLE PARTICULARS

Date of Sample Collection	30.10.2023
Date of Sample Received in Lab	30.10.2023
Type of Sample	Ground Water (Grab)
Sampling Plan Ref. No.	CPTLF7.3-I
Sampling Method	CPTL/SM/01
Environmental Conditions	Normal
Point of Sample Collection	Tube well Near Time Office (Inside Premises-Downstream)
Quantity & Packaging	2.0 liters in Plastic Bottle+1.0 Ltrs in Glass bottle
Sample Identification no.	CPTL/H.P/2023/10/44(W)
Analysis Duration	30.10.2023 to 11.11.2023
Sample Collected By	Daljeet Singh & Team
Visual Observation	Colorless liquid with suspended solids

TEST RESULTS

S. No.	Parameters	Results	Acceptable Limit	Permissible Limit	Test Method
1.	pH	7.66	6.5-8.5	No relaxation	IS:3025 (P-11): 2022
2.	Specific Conductance, $\mu\text{S}/\text{cm}$	542	-	-	IS:3025 (P-14): 2013 (RA-2019)
3.	Turbidity, NTU	1.8	1	5	IS:3025 (P-10): 1984 (RA-2017)
4.	Total Dissolved Solids, mg/l	282	500	2000	IS:3025 (P-16): 1999 (RA-2019)
5.	Total Suspended Matter, mg/l	2.8	-	-	IS:3025 (P-17): 2022
6.	Total Hardness (as CaCO_3), mg/l	260	200	600	IS:3025 (P-21): 2009 (RA-2019)
7.	Calcium (as Ca^{++}), mg/l	24.0	75	200	IS:3025 (P-40): 2004
8.	Magnesium (as Mg^{++}), mg/l	10.8	30	100	IS:3025 (P-46): 1994 (RA-2019)
9.	Total Alkalinity (as CaCO_3), mg/l	300	200	600	IS:3025 (P-23): 2006
10.	Chloride (as Cl), mg/l	17.4	250	1000	IS:3025 (P-32): 1998 (RA-2019)
11.	Sulphate (as SO_4), mg/l	4.5	200	400	IS:3025 (P-24): 2022
12.	Iron (as Fe), mg/l	ND (DL-0.1)	1.0	No relaxation	IS: 3025 (P-53): 2003 & C/1, 10 Phenanthroline Method (RA-2019)
13.	Hexavalent Chromium, (as Cr^{6+}), mg/l	ND (DL-0.1)	-	-	IS:3025 (P-52): 2003 (RA-2019)
14.	Zinc (as Zn), mg/l	ND (DL-0.5)	5	15	IS:3025 (P-49): 1994 (RA-2019)
15.	Nitrate (as NO_3), mg/l	ND (DL-1.0)	45	No relaxation	IS:3025 (P-34): 2022
16.	Chromium (as Cr), mg/l	ND (DL-0.04)	0.05	No relaxation	IS:3025 (P-52): 2003 (RA-2019)
17.	Fluoride (as F), mg/l	0.18	1.0	1.5	IS:3025 (P-60): 2008



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E-mail : cptl126@gmail.com ; lab@cptl.co.in
Website : www.cptl.co.in

Type of Sample	Ground Water (Grab)
Date of Sample Received in Lab	30.10.2023
Sample Identification no.	CPTL/(HP)/2023/10/44(W)

S. No.	Parameters	Results	Acceptable Limit	Permissible Limit	Test Method
18.	Manganese (as Mn), mg/l	ND (DL-0.09)	0.1	0.3	IS:3025 (P-59): 2006
19.	Lead (as Pb), mg/l	ND (DL-0.01)	0.01	No relaxation	IS:3025 (P-47): 1994 (RA-2019)
20.	Copper (as Cu), mg/l	ND (DL-0.04)	0.05	1.5	IS:3025 (P-42): 1992 (RA-2019)
21.	Nickel (as Ni), mg/l	ND (DL-0.01)	0.02	No relaxation	IS:3025 (P-54): 2003 (RA-2019)
22.	Boron (as B), mg/l	ND (DL-0.1)	0.5	1.0	IS:3025 (P-57): 2021
23.	Cadmium (as Cd), mg/l	ND (DL-0.001)	0.003	No relaxation	IS:3025 (P-41):1992 (RA-2019)
24.	Arsenic (as As), mg/l	ND (DL-0.01)	0.01	No relaxation	IS:3025 (P-37): 2022
25.	Phenol (as C ₆ H ₅ OH), mg/l	ND (DL-0.001)	0.001	0.002	IS:3025 (P-43): 2022
26.	BOD (at 27°C for 3 Days), mg/l	ND (DL-2.0)	-	-	IS:3025 (P-44) 1993 (RA-2003)
27.	Chemical Oxygen Demand, mg/l	ND (DL-5.0)	-	-	IS:3025 (P-58): 2006 (RA-2017)
28.	Oil & Grease, mg/l	ND (DL-1.0)	-	-	IS:3025 (P-39): 2021

ND-Not Detected
DL- Detection Limit

(Chemist In-Charge)

Date:

11/11/23

Sital Singh (CEO)
(Authorized Signatory)

Date:

11/11/2023

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END OF REPORT

Page 2 of 2



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TEST CERTIFICATE

REPORT No. CPTL/H.P/2023/10/44b(W)

Format No. CPTLF7.8-I(W)

REPORTING DATE: 11.11.2023

NAME OF INDUSTRY: M/s. SHIVALIK SOLID WASTE MANAGEMENT LTD.,
VILL.-MAJRA, P.O.- DABHOTA, TEH.- NALAGARH,
DISTT.- SOLAN (H.P.).

SAMPLE PARTICULARS

Date of Sample Collection	30.10.2023
Date of Sample Received in Lab	30.10.2023
Type of Sample	Ground Water (Grab)
Sampling Plan Ref. No.	CPTLF7.3-I
Sampling Method	CPTL/SM/01
Environmental Conditions	Normal
Point of Sample Collection	Tube well Near Time Office (Inside Premises-Downstream)
Quantity & Packaging	2.0 liters in Plastic Bottle+1.0 Ltrs in Glass bottle
Sample Identification no.	CPTL/H.P/2023/10/44(W)
Analysis Duration	30.10.2023 to 11.11.2023
Sample Collected By	Daljeet Singh & Team
Visual Observation	Colorless liquid with suspended solids

TEST RESULTS

S. No.	Parameters	Results	Acceptable Limit	Permissible Limit	Test Method
1.	Cyanide (as CN ⁻), mg/l	ND (DL-0.02)	0.05	No relaxation	IS:3025 (P-27): 2022
2.	Anionic detergents (as MB mg/l)	ND (DL-0.05)	0.2	1.0	IS:13428 (Annex-k): 2022
3.	Mineral Oil, mg/l	ND (DL-0.5)	0.5	No relaxation	IS:3025 (P-39): 2021 Clause 6
4.	Sulphide (as S), mg/l	ND (DL-0.01)	0.05	No relaxation	IS:3025 (P-29): 1986 (RA-2017)
5.	Barium (as Ba), mg/l	ND (DL-0.03)	0.7	No relaxation	IS:15302:2003 (RA-2018)
6.	Aluminum (as Al), mg/l	ND (DL-0.002)	0.03	0.2	IS:3025 (P-55): 2003 (RA-2019)
7.	Mercury (as Hg), mg/l	ND (DL-0.001)	0.001	No relaxation	IS:3025:P-48:1994:RA-2003

ND-Not Detected

DL-Detection Limit

(Chemist In-Charge)
Date: 11/11/23

Sital Singh (CEO)
Date: 11/11/2023

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TEST CERTIFICATE

REPORT No. CPTL/H.P/2023/10/45a(W)

Format No. CPTLF7.8-I(W)

REPORTING DATE:11.11.2023

NAME OF INDUSTRY: M/s. SHIVALIK SOLID WASTE MANAGEMENT LTD.,
VILL.-MAJRA, P.O.- DABHOTA, TEH.- NALAGARH,
DISTT.- SOLAN (H.P.).

SAMPLE PARTICULARS

Date of Sample Collection	30.10.2023
Date of Sample Received in Lab	30.10.2023
Type of Sample	Ground Water (Grab)
Sampling Plan Ref. No.	CPTLF7.3-I
Sampling Method	CPTL/SM/01
Environmental Conditions	Normal
Point of Sample Collection	Tubewell Near Landfill-PAPA Vatika (Inside Premises- Upstream)
Quantity & Packaging	2.0 liters in Plastic Bottle+1.0 Ltrs in Glass bottle
Sample Identification no.	CPTL/H.P/2023/10/45(W)
Analysis Duration	30.10.2023 to 11.11.2023
Sample Collected By	Daljeet Singh & Team
Visual Observation	Colorless liquid with suspended solids

TEST RESULTS

S. No.	Parameters	Results	Acceptable Limit	Permissible Limit	Test Method
1.	pH	7.66	6.5-8.5	No relaxation	IS:3025 (P-11): 2022
2.	Specific Conductance, $\mu\text{S}/\text{cm}$	532	-	-	IS:3025 (P-14): 2013 (RA-2019)
3.	Turbidity, NTU	3.6	1	5	IS:3025 (P-10): 1984 (RA-2017)
4.	Total Dissolved Solids, mg/l	354	500	2000	IS:3025 (P-16): 1999 (RA-2019)
5.	Total Suspended Matter, mg/l	2.4	-	-	IS:3025 (P-17): 2022
6.	Total Hardness (as CaCO_3), mg/l	260	200	600	IS:3025 (P-21): 2009 (RA-2019)
7.	Calcium (as Ca^{++}), mg/l	40.0	75	200	IS:3025 (P-40): 2004
8.	Magnesium (as Mg^{++}), mg/l	20.4	30	100	IS:3025 (P-46): 1994 (RA-2019)
9.	Total Alkalinity (as CaCO_3), mg/l	385	200	600	IS:3025 (P-23): 2006
10.	Chloride (as Cl), mg/l	17.4	250	1000	IS:3025 (P-32): 1998 (RA-2019)
11.	Sulphate (as SO_4), mg/l	8.8	200	400	IS:3025 (P-24): 2022
12.	Iron (as Fe), mg/l	ND (DL-0.1)	1.0	No relaxation	IS: 3025 (P-53): 2003 & C/I, 10 Phenanthroline Method (RA-2019)
13.	Hexavalent Chromium, (as Cr^{6+}), mg/l	ND (DL-0.1)	-	-	IS:3025 (P-52): 2003 (RA-2019)
14.	Zinc (as Zn), mg/l	ND (DL-0.5)	5	15	IS:3025 (P-49): 1994 (RA-2019)
15.	Nitrate (as NO_3), mg/l	ND (DL-1.0)	45	No relaxation	IS:3025 (P-34): 2022
16.	Chromium (as Cr), mg/l	ND (DL-0.04)	0.05	No relaxation	IS:3025 (P-52): 2003 (RA-2019)
17.	Fluoride (as F), mg/l	0.28	1.0	1.5	IS:3025 (P-60): 2008



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TC-6728

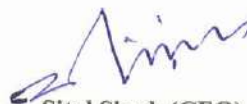
Type of Sample	Ground Water (Grab)
Date of Sample Received in Lab	30.10.2023
Sample Identification no.	CPTL/HP/2023/10/45(W)

S. No.	Parameters	Results	Acceptable Limit	Permissible Limit	Test Method
18.	Manganese (as Mn), mg/l	ND (DL-0.09)	0.1	0.3	IS:3025 (P-59): 2006
19.	Lead (as Pb), mg/l	ND (DL-0.01)	0.01	No relaxation	IS:3025 (P-47): 1994 (RA-2019)
20.	Copper (as Cu), mg/l	ND (DL-0.04)	0.05	1.5	IS:3025 (P-42): 1992 (RA-2019)
21.	Nickel (as Ni), mg/l	ND (DL-0.01)	0.02	No relaxation	IS:3025 (P-54): 2003 (RA-2019)
22.	Boron (as B), mg/l	ND (DL-0.1)	0.5	1.0	IS:3025 (P-57): 2021
23.	Cadmium (as Cd), mg/l	ND (DL-0.001)	0.003	No relaxation	IS:3025 (P-41):1992 (RA-2019)
24.	Arsenic (as As), mg/l	ND (DL-0.01)	0.01	No relaxation	IS:3025 (P-37): 2022
25.	Phenol (as C ₆ H ₅ OH), mg/l	ND (DL-0.001)	0.001	0.002	IS:3025 (P-43): 2022
26.	BOD (at 27°C for 3 Days), mg/l	ND (DL-2.0)	-	-	IS:3025 (P-44) 1993 (RA-2003)
27.	Chemical Oxygen Demand, mg/l	ND (DL-5.0)	-	-	IS:3025 (P-58): 2006 (RA-2017)
28.	Oil & Grease, mg/l	ND (DL-1.0)	-	-	IS:3025 (P-39): 2021

ND-Not Detected

DL- Detection Limit


(Chemist In-Charge)
Date: 11/11/23


Sital Singh (CEO)
(Authorized Signatory)
Date: 11/11/23

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TEST CERTIFICATE

REPORT No. CPTL/H.P/2023/10/45b(W)

Format No. CPTLF7.8-I(W)

REPORTING DATE: 11.11.2023

NAME OF INDUSTRY: M/s. SHIVALIK SOLID WASTE MANAGEMENT LTD.,
VILL.-MAJRA, P.O.- DABHOTA, TEH.- NALAGARH,
DIST.- SOLAN (H.P.).

SAMPLE PARTICULARS

Date of Sample Collection	30.10.2023
Date of Sample Received in Lab	30.10.2023
Type of Sample	Ground Water (Grab)
Sampling Plan Ref. No.	CPTLF7.3-I
Sampling Method	CPTL/SM/01
Environmental Conditions	Normal
Point of Sample Collection	Tubewell Near Landfill-PAPA Vatika (Inside Premises- Upstream)
Quantity & Packaging	2.0 liters in Plastic Bottle+1.0 Ltrs in Glass bottle
Sample Identification no.	CPTL/(H.P)/2023/10/45(W)
Analysis Duration	30.10.2023 to 11.11.2023
Sample Collected By	Daljeet Singh & Team
Visual Observation	Colorless liquid with suspended solids

TEST RESULTS

S. No.	Parameters	Results	Acceptable Limit	Permissible Limit	Test Method
1.	Cyanide (as CN ⁻), mg/l	ND (DL-0.02)	0.05	No relaxation	IS:3025 (P-27): 2022
2.	Anionic detergents (as MBAS), mg/l	ND (DL-0.05)	0.2	1.0	IS:13428 (Annex-k): 2022
3.	Mineral Oil, mg/l	ND (DL-0.5)	0.5	No relaxation	IS:3025 (P-39): 2021 Clause 6
4.	Sulphide (as S), mg/l	ND (DL-0.01)	0.05	No relaxation	IS:3025 (P-29): 1986 (RA-2017)
5.	Barium (as Ba), mg/l	ND (DL-0.03)	0.7	No relaxation	IS:15302:2003 (RA-2018)
6.	Aluminum (as Al), mg/l	ND (DL-0.002)	0.03	0.2	IS:3025 (P-55): 2003 (RA-2019)
7.	Mercury (as Hg), mg/l	ND (DL-0.001)	0.001	No relaxation	IS:3025:P-48:1994:RA-2003

ND-Not Detected

DL-Detection Limit

(Chemist In-Charge)
Date: 11/11/23

Sital Singh (CEO)
Date: 11/11/23

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TG-8728



TEST CERTIFICATE

REPORT No. CPTL/H.P/2023/10/46a (W)

Format No. CPTLF7.8-I(W)

REPORTING DATE: 11.11.2023

NAME OF INDUSTRY: M/s. SHIVALIK SOLID WASTE MANAGEMENT LTD.,
VILL.-MAJRA, P.O.- DABHOTA, TEH.- NALAGARH,
DISTT.- SOLAN (H.P.).

SAMPLE PARTICULARS

Date of Sample Collection	30.10.2023
Date of Sample Received in Lab	30.10.2023
Type of Sample	Ground Water (Grab)
Sampling Plan Ref. No.	CPTLF7.3-I
Sampling Method	CPTL/SM/01
Environmental Conditions	Normal
Point of Sample Collection	Borewell Behind Laboratory- Near Nursery (Inside Premises-Downstream)
Quantity & Packaging	2.0 liters in Plastic Bottle+1.0 Ltrs in Glass bottle
Sample Identification no.	CPTL/(H.P)/2023/10/46(W)
Analysis Duration	30.10.2023 to 11.11.2023
Sample Collected By	Daljeet Singh & Team
Visual Observation	Clear & Colorless

TEST RESULTS

S. No.	Parameters	Results	Acceptable Limit	Permissible Limit	Test Method
1.	pH	7.88	6.5-8.5	No relaxation	IS:3025 (P-11): 2022
2.	Specific Conductance, $\mu\text{S}/\text{cm}$	644	-	-	IS:3025 (P-14): 2013 (RA-2019)
3.	Turbidity, NTU	BDL (DL=0.5)	1	5	IS:3025 (P-10): 1984 (RA-2017)
4.	Total Dissolved Solids, mg/l	336	500	2000	IS:3025 (P-16): 1999 (RA-2019)
5.	Total Suspended Matter, mg/l	ND (DL-1.0)	-	-	IS:3025 (P-17): 2022
6.	Total Hardness (as CaCO_3), mg/l	150	200	600	IS:3025 (P-21): 2009 (RA-2019)
7.	Calcium (as Ca^{++}), mg/l	40.0	75	200	IS:3025 (P-40): 2004
8.	Magnesium (as Mg^{++}), mg/l	22.8	30	100	IS:3025 (P-46): 1994 (RA-2019)
9.	Total Alkalinity (as CaCO_3), mg/l	240	200	600	IS:3025 (P-23): 2006
10.	Chloride (as Cl), mg/l	34.9	250	1000	IS:3025 (P-32): 1998 (RA-2019)
11.	Sulphate (as SO_4), mg/l	35.3	200	400	IS:3025 (P-24): 2022
12.	Iron (as Fe), mg/l	ND (DL-0.1)	1.0	No relaxation	IS: 3025 (P-53): 2003 & C/1, 10 Phenanthroline Method (RA-2019)
13.	Hexavalent Chromium, (as Cr^{6+}), mg/l	ND (DL-0.1)	-	-	IS:3025 (P-52): 2003 (RA-2019)
14.	Zinc (as Zn), mg/l	ND (DL-0.5)	5	15	IS:3025 (P-49): 1994 (RA-2019)
15.	Nitrate (as NO_3), mg/l	ND (DL-1.0)	45	No relaxation	IS:3025 (P-34): 2022
16.	Chromium (as Cr), mg/l	ND (DL-0.04)	0.05	No relaxation	IS:3025 (P-52): 2003 (RA-2019)
17.	Fluoride (as F), mg/l	0.22	1.0	1.5	IS:3025 (P-60): 2008



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E-mail : cptle126@gmail.com ; lab@cptl.co.in
Website : www.cptl.co.in

Type of Sample	Ground Water (Grab)
Date of Sample Received in Lab	30.10.2023
Sample Identification no.	CPTL/HP/2023/10/46(W)

S. No.	Parameters	Results	Acceptable Limit	Permissible Limit	Test Method
18.	Manganese (as Mn), mg/l	ND (DL-0.09)	0.1	0.3	IS:3025 (P-59): 2006
19.	Lead (as Pb), mg/l	ND (DL-0.01)	0.01	No relaxation	IS:3025 (P-47): 1994 (RA-2019)
20.	Copper (as Cu), mg/l	ND (DL-0.04)	0.05	1.5	IS:3025 (P-42): 1992 (RA-2019)
21.	Nickel (as Ni), mg/l	ND (DL-0.01)	0.02	No relaxation	IS:3025 (P-54): 2003 (RA-2019)
22.	Boron (as B), mg/l	ND (DL-0.1)	0.5	1.0	IS:3025 (P-57): 2021
23.	Cadmium (as Cd), mg/l	ND (DL-0.001)	0.003	No relaxation	IS:3025 (P-41):1992 (RA-2019)
24.	Arsenic (as As), mg/l	ND (DL-0.01)	0.01	No relaxation	IS:3025 (P-37): 2022
25.	Phenol (as C ₆ H ₅ OH), mg/l	ND (DL-0.001)	0.001	0.002	IS:3025 (P-43): 2022
26.	BOD (at 27°C for 3 Days), mg/l	ND (DL-2.0)	-	-	IS:3025 (P-44) 1993 (RA-2003)
27.	Chemical Oxygen Demand, mg/l	ND (DL-5.0)	-	-	IS:3025 (P-58): 2006 (RA-2017)
28.	Oil & Grease, mg/l	ND (DL-1.0)	-	-	IS:3025 (P-39): 2021

ND-Not Detected
DL- Detection Limit
BDL-Below Detection Limit

(Signature)
(Chemist In-Charge)
Date: 11/11/2023

(Signature)
Sital Singh (CEO)
(Authorized Signatory)
Date: 11/11/2023

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END OF REPORT



CHANDIGARH POLLUTION TESTING LABORATORY

(Environmental Monitoring, EIA, NOC, ETP, STP)

NABET Accredited EIA Consultant

H.O. : #372, Sector 15-A, Chandigarh-160 015

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Lab : E-126, Phase-VII, Indl. Area, Mohali - 160055

Phone : 0172-5090312

E-mail : cptle126@gmail.com ; lab@cptl.co.in

Website : www.cptl.co.in



TEST CERTIFICATE

REPORT No. CPTL/H.P/2023/10/46b(W)

Format No. CPTLF7.8-I(W)

REPORTING DATE:11.11.2023

NAME OF INDUSTRY: M/s. SHIVALIK SOLID WASTE MANAGEMENT LTD.,
VILL.-MAJRA, P.O.- DABHOTA, TEH.- NALAGARH,
DISTT.- SOLAN (H.P.).

SAMPLE PARTICULARS

Date of Sample Collection	30.10.2023
Date of Sample Received in Lab	30.10.2023
Type of Sample	Ground Water (Grab)
Sampling Plan Ref. No.	CPTLF7.3-I
Sampling Method	CPTL/SM/01
Environmental Conditions	Normal
Point of Sample Collection	Borewell Behind Laboratory- Near Nursery (Inside Premises-Downstream)
Quantity & Packaging	2.0 liters in Plastic Bottle+1.0 Ltrs in Glass bottle
Sample Identification no.	CPTL/H.P/2023/10/46(W)
Analysis Duration	30.10.2023 to 11.11.2023
Sample Collected By	Daljeet Singh & Team
Visual Observation	Clear & Colorless

TEST RESULTS

S. No.	Parameters	Results	Acceptable Limit	Permissible Limit	Test Method
1.	Cyanide (as CN ⁻), mg/l	ND (DL-0.02)	0.05	No relaxation	IS:3025 (P-27): 2022
2.	Anionic detergents (as MB mg/l)	ND (DL-0.05)	0.2	1.0	IS:13428 (Annex-k): 2022
3.	Mineral Oil, mg/l	ND (DL-0.5)	0.5	No relaxation	IS:3025 (P-39): 2021 Clause 6
4.	Sulphide (as S), mg/l	ND (DL-0.01)	0.05	No relaxation	IS:3025 (P-29): 1986 (RA-2017)
5.	Barium (as Ba), mg/l	ND (DL-0.03)	0.7	No relaxation	IS:15302:2003 (RA-2018)
6.	Aluminum (as Al), mg/l	ND (DL-0.002)	0.03	0.2	IS:3025 (P-55): 2003 (RA-2019)
7.	Mercury (as Hg), mg/l	ND (DL-0.001)	0.001	No relaxation	IS:3025:P-48:1994:RA-2003

ND-Not Detected

DL-Detection Limit

(Chemist In-Charge)
Date: 11/11/23

Sital Singh (CEO)
Date: 11/11/23

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CHANDIGARH POLLUTION TESTING LABORATORY

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Website : www.cptl.co.in



TEST CERTIFICATE

REPORT No. CPTL/H.P/2023/10/47a(W)

Format No. CPTLF7.8-I(W)

REPORTING DATE: 11.11.2023

NAME OF INDUSTRY: M/s. SHIVALIK SOLID WASTE MANAGEMENT LTD.,
VILL.-MAJRA, P.O.- DABHOTA, TEH.- NALAGARH,
DISTT.- SOLAN (H.P.).

SAMPLE PARTICULARS

Date of Sample Collection	30.10.2023
Date of Sample Received in Lab	30.10.2023
Type of Sample	Ground Water (Grab)
Sampling Plan Ref. No.	CPTLF7.3-I
Sampling Method	CPTL/SM/01
Environmental Conditions	Normal
Point of Sample Collection	Tubewell Behind Temple (Inside Premises- Downstream)
Quantity & Packaging	2.0 liters in Plastic Bottle+1.0 Ltrs in Glass bottle
Sample Identification no.	CPTL/(H.P)/2023/10/47(W)
Analysis Duration	30.10.2023 to 11.11.2023
Sample Collected By	Daljeet Singh & Team
Visual Observation	Colorless liquid with suspended solids

TEST RESULTS

S. No.	Parameters	Results	Acceptable Limit	Permissible Limit	Test Method
1.	pH	7.63	6.5-8.5	No relaxation	IS:3025 (P-11): 2022
2.	Specific Conductance, $\mu\text{S}/\text{cm}$	640	-	-	IS:3025 (P-14): 2013 (RA-2019)
3.	Turbidity, NTU	3.3	1	5	IS:3025 (P-10): 1984 (RA-2017)
4.	Total Dissolved Solids, mg/l	480	500	2000	IS:3025 (P-16): 1999 (RA-2019)
5.	Total Suspended Matter, mg/l	3.6	-	-	IS:3025 (P-17): 2022
6.	Total Hardness (as CaCO_3), mg/l	255	200	600	IS:3025 (P-21): 2009 (RA-2019)
7.	Calcium (as Ca^{++}), mg/l	64.0	75	200	IS:3025 (P-40): 2004
8.	Magnesium (as Mg^{++}), mg/l	28.8	30	100	IS:3025 (P-46): 1994 (RA-2019)
9.	Total Alkalinity (as CaCO_3), mg/l	380	200	600	IS:3025 (P-23): 2006
10.	Chloride (as Cl), mg/l	59.9	250	1000	IS:3025 (P-32): 1998 (RA-2019)
11.	Sulphate (as SO_4), mg/l	29.4	200	400	IS:3025 (P-24): 2022
12.	Iron (as Fe), mg/l	ND (DL-0.1)	1.0	No relaxation	IS: 3025 (P-53): 2003 & C/I, 10 Phenanthroline Method (RA-2019)
13.	Hexavalent Chromium, (as Cr^{6+}), mg/l	ND (DL-0.1)	-	-	IS:3025 (P-52): 2003 (RA-2019)
14.	Zinc (as Zn), mg/l	ND (DL-0.5)	5	15	IS:3025 (P-49): 1994 (RA-2019)
15.	Nitrate (as NO_3), mg/l	4.8	45	No relaxation	IS:3025 (P-34): 2022
16.	Chromium (as Cr), mg/l	ND (DL-0.04)	0.05	No relaxation	IS:3025 (P-52): 2003 (RA-2019)
17.	Fluoride (as F), mg/l	0.28	1.0	1.5	IS:3025 (P-60): 2008



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Website : www.cptl.co.in

TC-6728

Type of Sample	Ground Water (Grab)
Date of Sample Received in Lab	30.10.2023
Sample Identification no.	CPTL/(H.P)/2023/10/47(W)

S. No.	Parameters	Results	Acceptable Limit	Permissible Limit	Test Method
18.	Manganese (as Mn), mg/l	ND (DL-0.09)	0.1	0.3	IS:3025 (P-59): 2006
19.	Lead (as Pb), mg/l	ND (DL-0.01)	0.01	No relaxation	IS:3025 (P-47): 1994 (RA-2019)
20.	Copper (as Cu), mg/l	ND (DL-0.04)	0.05	1.5	IS:3025 (P-42): 1992 (RA-2019)
21.	Nickel (as Ni), mg/l	ND (DL-0.01)	0.02	No relaxation	IS:3025 (P-54): 2003 (RA-2019)
22.	Boron (as B), mg/l	ND (DL-0.1)	0.5	1.0	IS:3025 (P-57): 2021
23.	Cadmium (as Cd), mg/l	ND (DL-0.001)	0.003	No relaxation	IS:3025 (P-41):1992 (RA-2019)
24.	Arsenic (as As), mg/l	ND (DL-0.01)	0.01	No relaxation	IS:3025 (P-37): 2022
25.	Phenol (as C ₆ H ₅ OH), mg/l	ND (DL-0.001)	0.001	0.002	IS:3025 (P-43): 2022
26.	BOD (at 27°C for 3 Days), mg/l	ND (DL-2.0)	-	-	IS:3025 (P-44) 1993 (RA-2003)
27.	Chemical Oxygen Demand, mg/l	ND (DL-5.0)	-	-	IS:3025 (P-58): 2006 (RA-2017)
28.	Oil & Grease, mg/l	ND (DL-1.0)	-	-	IS:3025 (P-39): 2021

ND-Not Detected

DL- Detection Limit

(Chemist In-Charge)
Date:

Sital Singh (CEO)
(Authorized Signatory)
Date: 11/11/2023

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END OF REPORT



CHANDIGARH POLLUTION TESTING LABORATORY

(Environmental Monitoring, EIA, NOC, ETP, STP)

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Website : www.cptl.co.in



TEST CERTIFICATE

REPORT No. CPTL/H.P/2023/10/47b(W)

Format No. CPTLF7.8-I(W)

REPORTING DATE: 11.11.2023

NAME OF INDUSTRY: M/s. SHIVALIK SOLID WASTE MANAGEMENT LTD.,
VILL.-MAJRA, P.O.- DABHOTA, TEH.- NALAGARH,
DISTT.- SOLAN (H.P.).

SAMPLE PARTICULARS

Date of Sample Collection	30.10.2023
Date of Sample Received in Lab	30.10.2023
Type of Sample	Ground Water (Grab)
Sampling Plan Ref. No.	CPTLF7.3-I
Sampling Method	CPTL/SM/01
Environmental Conditions	Normal
Point of Sample Collection	Tubewell Behind Temple (Inside Premises- Downstream)
Quantity & Packaging	2.0 liters in Plastic Bottle+1.0 Ltrs in Glass bottle
Sample Identification no.	CPTL/(H.P)/2023/10/47(W)
Analysis Duration	30.10.2023 to 11.11.2023
Sample Collected By	Daljeet Singh & Team
Visual Observation	Colorless liquid with suspended solids

TEST RESULTS

S. No.	Parameters	Results	Acceptable Limit	Permissible Limit	Test Method
1.	Cyanide (as CN ⁻), mg/l	ND (DL-0.02)	0.05	No relaxation	IS:3025 (P-27): 2022
2.	Anionic detergents (as MB mg/l)	ND (DL-0.05)	0.2	1.0	IS:13428 (Annex-k): 2022
3.	Mineral Oil, mg/l	ND (DL-0.5)	0.5	No relaxation	IS:3025 (P-39): 2021 Clause 6
4.	Sulphide (as S), mg/l	ND (DL-0.01)	0.05	No relaxation	IS:3025 (P-29): 1986 (RA-2017)
5.	Barium (as Ba), mg/l	ND (DL-0.03)	0.7	No relaxation	IS:15302:2003 (RA-2018)
6.	Aluminum (as Al), mg/l	ND (DL-0.002)	0.03	0.2	IS:3025 (P-55): 2003 (RA-2019)
7.	Mercury (as Hg), mg/l	ND (DL-0.001)	0.001	No relaxation	IS:3025:P-48:1994:RA-2003

ND-Not Detected

DL-Detection Limit

(Chemist in Charge)
Date: 11/11/23

Sital Singh (CEO)
Date: 11/11/2023

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Website : www.cptl.co.in



TEST CERTIFICATE

Format No. CPTLF7.8-I(W)

REPORT No. CPTL/H.P/2023/10/48a(W)

REPORTING DATE: 11.11.2023

NAME OF INDUSTRY:	M/s. SHIVALIK SOLID WASTE MANAGEMENT LTD., VILL.-MAJRA, P.O.- DABHOTA, TEH.- NALAGARH, DISTT.- SOLAN (H.P.).
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SAMPLE PARTICULARS

Date of Sample Collection	30.10.2023
Date of Sample Received in Lab	30.10.2023
Type of Sample	Ground Water (Grab)
Sampling Plan Ref. No.	CPTLF7.3-I
Sampling Method	CPTL/SM/01
Environmental Conditions	Normal
Point of Sample Collection	Tube well Behind Landfill Site (Inside Premises-Upstream)
Quantity & Packaging	2.0 liters in Plastic Bottle+1.0 Ltrs in Glass bottle
Sample Identification no.	CPTL/(H.P)/2023/10/48(W)
Analysis Duration	30.10.2023 to 11.11.2023
Sample Collected By	Daljeet Singh & Team
Visual Observation	Colorless liquid with suspended solids

TEST RESULTS

S. No.	Parameters	Results	Acceptable Limit	Permissible Limit	Test Method
1.	pH	7.74	6.5-8.5	No relaxation	IS:3025 (P-11): 2022
2.	Specific Conductance, $\mu\text{S}/\text{cm}$	552	-	-	IS:3025 (P-14): 2013 (RA-2019)
3.	Turbidity, NTU	2.8	1	5	IS:3025 (P-10): 1984 (RA-2017)
4.	Total Dissolved Solids, mg/l	324	500	2000	IS:3025 (P-16): 1999 (RA-2019)
5.	Total Suspended Matter, mg/l	4.4	-	-	IS:3025 (P-17): 2022
6.	Total Hardness (as CaCO_3), mg/l	275	200	600	IS:3025 (P-21): 2009 (RA-2019)
7.	Calcium (as Ca^{++}), mg/l	34.0	75	200	IS:3025 (P-40): 2004
8.	Magnesium (as Mg^{++}), mg/l	25.2	30	100	IS:3025 (P-46): 1994 (RA-2019)
9.	Total Alkalinity (as CaCO_3), mg/l	275	200	600	IS:3025 (P-23): 2006
10.	Chloride (as Cl), mg/l	9.9	250	1000	IS:3025 (P-32): 1998 (RA-2019)
11.	Sulphate (as SO_4), mg/l	10.8	200	400	IS:3025 (P-24): 2022
12.	Iron (as Fe), mg/l	ND (DL-0.1)	1.0	No relaxation	IS: 3025 (P-53): 2003 & C/1, 10 Phenanthroline Method (RA-2019)
13.	Hexavalent Chromium, (as Cr^{6+}), mg/l	ND (DL-0.1)	-	-	IS:3025 (P-52): 2003 (RA-2019)
14.	Zinc (as Zn), mg/l	ND (DL-0.5)	5	15	IS:3025 (P-49): 1994 (RA-2019)
15.	Nitrate (as NO_3), mg/l	4.6	45	No relaxation	IS:3025 (P-34): 2022
16.	Chromium (as Cr), mg/l	ND (DL-0.04)	0.05	No relaxation	IS:3025 (P-52): 2003 (RA-2019)
17.	Fluoride (as F), mg/l	0.28	1.0	1.5	IS:3025 (P-60): 2008



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Website : www.cptl.co.in

TC-6728

Type of Sample	Ground Water (Grab)
Date of Sample Received in Lab	30.10.2023
Sample Identification no.	CPTL/(H P)/2023/10/48(W)

S. No.	Parameters	Results	Acceptable Limit	Permissible Limit	Test Method
18.	Manganese (as Mn), mg/l	ND (DL-0.09)	0.1	0.3	IS:3025 (P-59): 2006
19.	Lead (as Pb), mg/l	ND (DL-0.01)	0.01	No relaxation	IS:3025 (P-47): 1994 (RA-2019)
20.	Copper (as Cu), mg/l	ND (DL-0.04)	0.05	1.5	IS:3025 (P-42): 1992 (RA-2019)
21.	Nickel (as Ni), mg/l	ND (DL-0.01)	0.02	No relaxation	IS:3025 (P-54): 2003 (RA-2019)
22.	Boron (as B), mg/l	ND (DL-0.1)	0.5	1.0	IS:3025 (P-57): 2021
23.	Cadmium (as Cd), mg/l	ND (DL-0.001)	0.003	No relaxation	IS:3025 (P-41):1992 (RA-2019)
24.	Arsenic (as As), mg/l	ND (DL-0.01)	0.01	No relaxation	IS:3025 (P-37): 2022
25.	Phenol (as C ₆ H ₅ OH), mg/l	ND (DL-0.001)	0.001	0.002	IS:3025 (P-43): 2022
26.	BOD (at 27°C for 3 Days), mg/l	ND (DL-2.0)	-	-	IS:3025 (P-44) 1993 (RA-2003)
27.	Chemical Oxygen Demand, mg/l	ND (DL-5.0)	-	-	IS:3025 (P-58): 2006 (RA-2017)
28.	Oil & Grease, mg/l	ND (DL-1.0)	-	-	IS:3025 (P-39): 2021

ND-Not Detected

DL- Detection Limit

[Signature]

(Chemist In-Charge)

Date: 11/11/2023

[Signature]

Sital Singh (CEO)

(Authorized Signatory)

Date: 11/11/2023

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TEST CERTIFICATE

Format No. CPTLF7.8-I(W)

REPORTING DATE: 11.11.2023

REPORT No. CPTL/H.P/2023/10/48b(W)

NAME OF INDUSTRY: M/s. SHIVALIK SOLID WASTE MANAGEMENT LTD.,
VILL.-MAJRA, P.O.- DABHOTA, TEH.- NALAGARH,
DISTT.- SOLAN (H.P.).

SAMPLE PARTICULARS

Date of Sample Collection	30.10.2023
Date of Sample Received in Lab	30.10.2023
Type of Sample	Ground Water (Grab)
Sampling Plan Ref. No.	CPTLF7.3-I
Sampling Method	CPTL/SM/01
Environmental Conditions	Normal
Point of Sample Collection	Tube well Behind Landfill Site (Inside Premises-Upstream)
Quantity & Packaging	2.0 liters in Plastic Bottle+1.0 Ltrs in Glass bottle
Sample Identification no.	CPTL/(H.P)/2023/10/48(W)
Analysis Duration	30.10.2023 to 11.11.2023
Sample Collected By	Daljeet Singh & Team
Visual Observation	Colorless liquid with suspended solids

TEST RESULTS

S. No.	Parameters	Results	Acceptable Limit	Permissible Limit	Test Method
1.	Cyanide (as CN ⁻), mg/l	ND (DL-0.02)	0.05	No relaxation	IS:3025 (P-27): 2022
2.	Anionic detergents (as MBAS), mg/l	ND (DL-0.05)	0.2	1.0	IS:13428 (Annex-k): 2022
3.	Mineral Oil, mg/l	ND (DL-0.5)	0.5	No relaxation	IS:3025 (P-39): 2021 Clause 6
4.	Sulphide (as S), mg/l	ND (DL-0.01)	0.05	No relaxation	IS:3025 (P-29): 1986 (RA-2017)
5.	Barium (as Ba), mg/l	ND (DL-0.03)	0.7	No relaxation	IS:15302:2003 (RA-2018)
6.	Aluminum (as Al), mg/l	ND (DL-0.002)	0.03	0.2	IS:3025 (P-55): 2003 (RA-2019)
7.	Mercury (as Hg), mg/l	ND (DL-0.001)	0.001	No relaxation	IS:3025:P-48:1994:RA-2003

ND-Not Detected

DL-Detection Limit

[Signature]
(Chemist in-Charge)
Date: 11/11/2023

[Signature]
Sital Singh (CEO)
Date: 11/11/2023

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TEST CERTIFICATE

REPORT No. CPTL/H.P/2023/10/49a(W)

Format No. CPTLF7.8-I(W)

REPORTING DATE: 11.11.2023

NAME OF INDUSTRY: M/s. SHIVALIK SOLID WASTE MANAGEMENT LTD.,
VILL.-MAJRA, P.O.- DABHOTA, TEH.- NALAGARH,
DISTT.- SOLAN (H.P.).

SAMPLE PARTICULARS

Date of Sample Collection	30.10.2023
Date of Sample Received in Lab	30.10.2023
Type of Sample	Ground Water (Grab)
Sampling Plan Ref. No.	CPTLF7.3-I
Sampling Method	CPTL/SM/01
Environmental Conditions	Normal
Point of Sample Collection	Tubewell at House of Sh. Balwinder-Majra (Outside Premises-Downstream)
Quantity & Packaging	2.0 liters in Plastic Bottle+1.0 Ltrs in Glass bottle
Sample Identification no.	CPTL/(H.P)/2023/10/49(W)
Analysis Duration	30.10.2023 to 11.11.2023
Sample Collected By	Daljeet Singh & Team
Visual Observation	Clear & Colorless liquid

TEST RESULTS

S. No.	Parameters	Results	Acceptable Limit	Permissible Limit	Test Method
1.	pH	7.59	6.5-8.5	No relaxation	IS:3025 (P-11): 2022
2.	Specific Conductance, $\mu\text{S}/\text{cm}$	554	-	-	IS:3025 (P-14): 2013 (RA-2019)
3.	Turbidity, NTU	BDL (DL=0.5)	1	5	IS:3025 (P-10): 1984 (RA-2017)
4.	Total Dissolved Solids, mg/l	336	500	2000	IS:3025 (P-16): 1999 (RA-2019)
5.	Total Suspended Matter, mg/l	ND (DL-1.0)	-	-	IS:3025 (P-17): 2022
6.	Total Hardness (as CaCO_3), mg/l	140	200	600	IS:3025 (P-21): 2009 (RA-2019)
7.	Calcium (as Ca^{++}), mg/l	42.0	75	200	IS:3025 (P-40): 2004
8.	Magnesium (as Mg^{++}), mg/l	8.4	30	100	IS:3025 (P-46): 1994 (RA-2019)
9.	Total Alkalinity (as CaCO_3), mg/l	250	200	600	IS:3025 (P-23): 2006
10.	Chloride (as Cl), mg/l	24.9	250	1000	IS:3025 (P-32): 1998 (RA-2019)
11.	Sulphate (as SO_4), mg/l	12.0	200	400	IS:3025 (P-24): 2022
12.	Iron (as Fe), mg/l	ND (DL-0.1)	1.0	No relaxation	IS: 3025 (P-53): 2003 & C/1, 10 Phenanthroline Method (RA-2019)
13.	Hexavalent Chromium, (as Cr^{6+}), mg/l	ND (DL-0.1)	-	-	IS:3025 (P-52): 2003 (RA-2019)
14.	Zinc (as Zn), mg/l	ND (DL-0.5)	5	15	IS:3025 (P-49): 1994 (RA-2019)
15.	Nitrate (as NO_3), mg/l	ND (DL-1.0)	45	No relaxation	IS:3025 (P-34): 2022
16.	Chromium (as Cr), mg/l	ND (DL-0.04)	0.05	No relaxation	IS:3025 (P-52): 2003 (RA-2019)
17.	Fluoride (as F), mg/l	0.28	1.0	1.5	IS:3025 (P-60): 2008



CHANDIGARH POLLUTION TESTING LABORATORY

(Environmental Monitoring, EIA, NOC, ETP, STP)

NABET Accredited EIA Consultant



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Phone : 0172-5090312
E-mail : cptle126@gmail.com ; lab@cptl.co.in
Website : www.cptl.co.in

Type of Sample	Ground Water (Grab)
Date of Sample Received in Lab	30.10.2023
Sample Identification no.	CPTL/(H.P)/2023/10/49(W)

S. No.	Parameters	Results	Acceptable Limit	Permissible Limit	Test Method
18.	Manganese (as Mn), mg/l	ND (DL-0.09)	0.1	0.3	IS:3025 (P-59): 2006
19.	Lead (as Pb), mg/l	ND (DL-0.01)	0.01	No relaxation	IS:3025 (P-47): 1994 (RA-2019)
20.	Copper (as Cu), mg/l	ND (DL-0.04)	0.05	1.5	IS:3025 (P-42): 1992 (RA-2019)
21.	Nickel (as Ni), mg/l	ND (DL-0.01)	0.02	No relaxation	IS:3025 (P-54): 2003 (RA-2019)
22.	Boron (as B), mg/l	ND (DL-0.1)	0.5	1.0	IS:3025 (P-57): 2021
23.	Cadmium (as Cd), mg/l	ND (DL-0.001)	0.003	No relaxation	IS:3025 (P-41):1992 (RA-2019)
24.	Arsenic (as As), mg/l	ND (DL-0.01)	0.01	No relaxation	IS:3025 (P-37): 2022
25.	Phenol (as C ₆ H ₅ OH), mg/l	ND (DL-0.001)	0.001	0.002	IS:3025 (P-43): 2022
26.	BOD (at 27°C for 3 Days), mg/l	ND (DL-2.0)	-	-	IS:3025 (P-44) 1993 (RA-2003)
27.	Chemical Oxygen Demand, mg/l	ND (DL-5.0)	-	-	IS:3025 (P-58): 2006 (RA-2017)
28.	Oil & Grease, mg/l	ND (DL-1.0)	-	-	IS:3025 (P-39): 2021

ND-Not Detected

DL- Detection Limit

BDL-Below Detection Limit

(Chemist In-Charge)
Date: 11/11/23

Sital Singh (CEO)
(Authorized Signatory)
Date: 11/11/2023

- The results are related to test items only.
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END OF REPORT



CHANDIGARH POLLUTION TESTING LABORATORY

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TEST CERTIFICATE

REPORT No. CPTL/H.P/2023/10/49b(W)

Format No. CPTLF7.8-I(W)

REPORTING DATE: 11.11.2023

NAME OF INDUSTRY:

M/s. SHIVALIK SOLID WASTE MANAGEMENT LTD.,
VILL.-MAJRA, P.O.- DABHOTA, TEH.- NALAGARH,
DISTT.- SOLAN (H.P.).

SAMPLE PARTICULARS

Date of Sample Collection	30.10.2023
Date of Sample Received in Lab	30.10.2023
Type of Sample	Ground Water (Grab)
Sampling Plan Ref. No.	CPTLF7.3-I
Sampling Method	CPTL/SM/01
Environmental Conditions	Normal
Point of Sample Collection	Tubewell at House of Sh. Balwinder-Majra (Outside Premises-Downstream)
Quantity & Packaging	2.0 liters in Plastic Bottle+1.0 Ltrs in Glass bottle
Sample Identification no.	CPTL/H.P/2023/10/49(W)
Analysis Duration	30.10.2023 to 11.11.2023
Sample Collected By	Daljeet Singh & Team
Visual Observation	Clear & Colorless liquid

TEST RESULTS

S. No.	Parameters	Results	Acceptable Limit	Permissible Limit	Test Method
1.	Cyanide (as CN ⁻), mg/l	ND (DL-0.02)	0.05	No relaxation	IS:3025 (P-27): 2022
2.	Anionic detergents (as MBAS), mg/l	ND (DL-0.05)	0.2	1.0	IS:13428 (Annex-k): 2022
3.	Mineral Oil, mg/l	ND (DL-0.5)	0.5	No relaxation	IS:3025 (P-39): 2021 Clause 6
4.	Sulphide (as S), mg/l	ND (DL-0.01)	0.05	No relaxation	IS:3025 (P-29): 1986 (RA-2017)
5.	Barium (as Ba), mg/l	ND (DL-0.03)	0.7	No relaxation	IS:15302:2003 (RA-2018)
6.	Aluminum (as Al), mg/l	ND (DL-0.002)	0.03	0.2	IS:3025 (P-55): 2003 (RA-2019)
7.	Mercury (as Hg), mg/l	ND (DL-0.001)	0.001	No relaxation	IS:3025:P-48:1994:RA-2003

ND-Not Detected
DL-Detection Limit

(Chemist In-Charge)

Date: 11/11/23

Sital Singh (CEO)

Date: 11/11/23

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END OF REPORT

Page 1 of 1



CHANDIGARH POLLUTION TESTING LABORATORY

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Website : www.cptl.co.in



TEST CERTIFICATE

REPORT No. CPTL/H.P/2023/10/50a(W)

Format No. CPTLF7.8-I(W)

REPORTING DATE: 11.11.2023

NAME OF INDUSTRY:

M/s. SHIVALIK SOLID WASTE MANAGEMENT LTD.,
VILL.-MAJRA, P.O.- DABHOTA, TEH.- NALAGARH,
DISTT.- SOLAN (H.P.).

SAMPLE PARTICULARS

Date of Sample Collection	30.10.2023
Date of Sample Received in Lab	30.10.2023
Type of Sample	Ground Water (Grab)
Sampling Plan Ref. No.	CPTLF7.3-I
Sampling Method	CPTL/SM/01
Environmental Conditions	Normal
Point of Sample Collection	Hand Pump at House of Sh. Gurubaksh-Majra (Outside Premises-Downstream)
Quantity & Packaging	2.0 liters in Plastic Bottle+1.0 Ltrs in Glass bottle
Sample Identification no.	CPTL/H.P/2023/10/50(W)
Analysis Duration	30.10.2023 to 11.11.2023
Sample Collected By	Daljeet Singh & Team
Visual Observation	Clear & Colorless liquid

TEST RESULTS

S. No.	Parameters	Results	Acceptable Limit	Permissible Limit	Test Method
1.	pH	7.69	6.5-8.5	No relaxation	IS:3025 (P-11): 2022
2.	Specific Conductance, $\mu\text{S}/\text{cm}$	632	-	-	IS:3025 (P-14): 2013 (RA-2019)
3.	Turbidity, NTU	ND (DL=0.5)	1	5	IS:3025 (P-10): 1984 (RA-2017)
4.	Total Dissolved Solids, mg/l	430	500	2000	IS:3025 (P-16): 1999 (RA-2019)
5.	Total Suspended Matter, mg/l	ND (DL-1.0)	-	-	IS:3025 (P-17): 2022
6.	Total Hardness (as CaCO_3), mg/l	305	200	600	IS:3025 (P-21): 2009 (RA-2019)
7.	Calcium (as Ca^{++}), mg/l	80.0	75	200	IS:3025 (P-40): 2004
8.	Magnesium (as Mg^{++}), mg/l	38.4	30	100	IS:3025 (P-46): 1994 (RA-2019)
9.	Total Alkalinity (as CaCO_3), mg/l	362	200	600	IS:3025 (P-23): 2006
10.	Chloride (as Cl), mg/l	32.4	250	1000	IS:3025 (P-32): 1998 (RA-2019)
11.	Sulphate (as SO_4), mg/l	20.0	200	400	IS:3025 (P-24): 2022
12.	Iron (as Fe), mg/l	ND (DL-0.1)	1.0	No relaxation	IS: 3025 (P-53): 2003 & C/1, 10 Phenanthroline Method (RA-2019)
13.	Hexavalent Chromium, (as Cr^{6+}), mg/l	ND (DL-0.1)	-	-	IS:3025 (P-52): 2003 (RA-2019)
14.	Zinc (as Zn), mg/l	ND (DL-0.5)	5	15	IS:3025 (P-49): 1994 (RA-2019)
15.	Nitrate (as NO_3), mg/l	ND (DL-1.0)	45	No relaxation	IS:3025 (P-34): 2022
16.	Chromium (as Cr), mg/l	ND (DL-0.04)	0.05	No relaxation	IS:3025 (P-52): 2003 (RA-2019)
17.	Fluoride (as F), mg/l	ND (DL-0.1)	1.0	1.5	IS:3025 (P-60): 2008



CHANDIGARH POLLUTION TESTING LABORATORY

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E-mail : cptle126@gmail.com ; lab@cptl.co.in
Website : www.cptl.co.in

Type of Sample	Ground Water (Grab)
Date of Sample Received in Lab	30.10.2023
Sample Identification no.	CPTL/HP/2023/10/50(W)

S. No.	Parameters	Results	Acceptable Limit	Permissible Limit	Test Method
18.	Manganese (as Mn), mg/l	ND (DL-0.09)	0.1	0.3	IS:3025 (P-59): 2006
19.	Lead (as Pb), mg/l	ND (DL-0.01)	0.01	No relaxation	IS:3025 (P-47): 1994 (RA-2019)
20.	Copper (as Cu), mg/l	ND (DL-0.04)	0.05	1.5	IS:3025 (P-42): 1992 (RA-2019)
21.	Nickel (as Ni), mg/l	ND (DL-0.01)	0.02	No relaxation	IS:3025 (P-54): 2003 (RA-2019)
22.	Boron (as B), mg/l	ND (DL-0.1)	0.5	1.0	IS:3025 (P-57): 2021
23.	Cadmium (as Cd), mg/l	ND (DL-0.001)	0.003	No relaxation	IS:3025 (P-41):1992 (RA-2019)
24.	Arsenic (as As), mg/l	ND (DL-0.01)	0.01	No relaxation	IS:3025 (P-37): 2022
25.	Phenol (as C ₆ H ₅ OH), mg/l	ND (DL-0.001)	0.001	0.002	IS:3025 (P-43): 2022
26.	BOD (at 27°C for 3 Days), mg/l	ND (DL-2.0)	-	-	IS:3025 (P-44) 1993 (RA-2003)
27.	Chemical Oxygen Demand, mg/l	ND (DL-5.0)	-	-	IS:3025 (P-58): 2006 (RA-2017)
28.	Oil & Grease, mg/l	ND (DL-1.0)	-	-	IS:3025 (P-39): 2021

ND-Not Detected

DL- Detection Limit

BDL-Below Detection Limit

(Chemist In-Charge)
Date: 11/11/23

Sital Singh (CEO)
(Authorized Signatory)
Date: 11/11/23

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END OF REPORT

Page 2 of 2



CHANDIGARH POLLUTION TESTING LABORATORY

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Website : www.cptl.co.in



TEST CERTIFICATE

REPORT No. CPTL/H.P/2023/10/50b(W)

Format No. CPTLF7.8-I(W)

REPORTING DATE: 11.11.2023

NAME OF INDUSTRY: M/s. SHIVALIK SOLID WASTE MANAGEMENT LTD.,
VILL.-MAJRA, P.O.- DABHOTA, TEH.- NALAGARH,
DISTT.- SOLAN (H.P.).

SAMPLE PARTICULARS

Date of Sample Collection	30.10.2023
Date of Sample Received in Lab	30.10.2023
Type of Sample	Ground Water (Grab)
Sampling Plan Ref. No.	CPTLF7.3-I
Sampling Method	CPTL/SM/01
Environmental Conditions	Normal
Point of Sample Collection	Hand Pump at House of Sh. Gurubaksh-Majra (Outside Premises-Downstream)
Quantity & Packaging	2.0 liters in Plastic Bottle+1.0 Ltrs in Glass bottle
Sample Identification no.	CPTL/H.P/2023/10/50(W)
Analysis Duration	30.10.2023 to 11.11.2023
Sample Collected By	Daljeet Singh & Team
Visual Observation	Clear & Colorless liquid

TEST RESULTS

S. No.	Parameters	Results	Acceptable Limit	Permissible Limit	Test Method
1.	Cyanide (as CN ⁻), mg/l	ND (DL-0.02)	0.05	No relaxation	IS:3025 (P-27): 2022
2.	Anionic detergents (as MBAS), mg/l	ND (DL-0.05)	0.2	1.0	IS:13428 (Annex-k): 2022
3.	Mineral Oil, mg/l	ND (DL-0.5)	0.5	No relaxation	IS:3025 (P-39): 2021 Clause 6
4.	Sulphide (as S), mg/l	ND (DL-0.01)	0.05	No relaxation	IS:3025 (P-29): 1986 (RA-2017)
5.	Barium (as Ba), mg/l	ND (DL-0.03)	0.7	No relaxation	IS:15302:2003 (RA-2018)
6.	Aluminum (as Al), mg/l	ND (DL-0.002)	0.03	0.2	IS:3025 (P-55): 2003 (RA-2019)
7.	Mercury (as Hg), mg/l	ND (DL-0.001)	0.001	No relaxation	IS:3025:P-48:1994:RA-2003

ND-Not Detected

DL-Detection Limit

(Chemist in Charge)
Date: 11/11/2023

Sital Singh (CEQ)
Date: 11/11/2023

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CHANDIGARH POLLUTION TESTING LABORATORY

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Website : www.cptl.co.in



TEST CERTIFICATE

REPORT No. CPTL/H.P/2023/10/51a(W)

Format No. CPTLF7.8-I(W)

REPORTING DATE: 11.11.2023

NAME OF INDUSTRY:

M/s. SHIVALIK SOLID WASTE MANAGEMENT LTD.,
VILL.-MAJRA, P.O.- DABHOTA, TEH.- NALAGARH,
DIST.- SOLAN (H.P.).

SAMPLE PARTICULARS

Date of Sample Collection	30.10.2023
Date of Sample Received in Lab	30.10.2023
Type of Sample	Ground Water (Grab)
Sampling Plan Ref. No.	CPTLF7.3-I
Sampling Method	CPTL/SM/01
Environmental Conditions	Normal
Point of Sample Collection	Tube well at house of Sh. Rana-Majra (Outside Premises-Downstream)
Quantity & Packaging	2.0 liters in Plastic Bottle+1.0 Ltrs in Glass bottle
Sample Identification no.	CPTL/H.P/2023/10/51(W)
Analysis Duration	30.10.2023 to 11.11.2023
Sample Collected By	Daljeet Singh & Team
Visual Observation	Clear & Colorless liquid

TEST RESULTS

S. No.	Parameters	Results	Acceptable Limit	Permissible Limit	Test Method
1.	pH	7.54	6.5-8.5	No relaxation	IS:3025 (P-11): 2022
2.	Specific Conductance, $\mu\text{S}/\text{cm}$	582	-	-	IS:3025 (P-14): 2013 (RA-2019)
3.	Turbidity, NTU	ND (DL=0.5)	1	5	IS:3025 (P-10): 1984 (RA-2017)
4.	Total Dissolved Solids, mg/l	405	500	2000	IS:3025 (P-16): 1999 (RA-2019)
5.	Total Suspended Matter, mg/l	ND (DL=1.0)	-	-	IS:3025 (P-17): 2022
6.	Total Hardness (as CaCO_3), mg/l	285	200	600	IS:3025 (P-21): 2009 (RA-2019)
7.	Calcium (as Ca^{++}), mg/l	80.0	75	200	IS:3025 (P-40): 2004
8.	Magnesium (as Mg^{++}), mg/l	28.8	30	100	IS:3025 (P-46): 1994 (RA-2019)
9.	Total Alkalinity (as CaCO_3), mg/l	385	200	600	IS:3025 (P-23): 2006
10.	Chloride (as Cl), mg/l	24.9	250	1000	IS:3025 (P-32): 1998 (RA-2019)
11.	Sulphate (as SO_4), mg/l	21.6	200	400	IS:3025 (P-24): 2022
12.	Iron (as Fe), mg/l	ND (DL-0.1)	1.0	No relaxation	IS: 3025 (P-53): 2003 & C/1, 10 Phenanthroline Method (RA-2019)
13.	Hexavalent Chromium, (as Cr^{6+}), mg/l	ND (DL-0.1)	-	-	IS:3025 (P-52): 2003 (RA-2019)
14.	Zinc (as Zn), mg/l	ND (DL-0.5)	5	15	IS:3025 (P-49): 1994 (RA-2019)
15.	Nitrate (as NO_3), mg/l	3.8	45	No relaxation	IS:3025 (P-34): 2022
16.	Chromium (as Cr), mg/l	ND (DL-0.04)	0.05	No relaxation	IS:3025 (P-52): 2003 (RA-2019)
17.	Fluoride (as F), mg/l	0.28	1.0	1.5	IS:3025 (P-60): 2008



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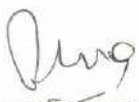
Type of Sample	Ground Water (Grab)
Date of Sample Received in Lab	30.10.2023
Sample Identification no.	CPTL/CHP/2023/10/51(W)

S. No.	Parameters	Results	Acceptable Limit	Permissible Limit	Test Method
18.	Manganese (as Mn), mg/l	ND (DL-0.09)	0.1	0.3	IS:3025 (P-59): 2006
19.	Lead (as Pb), mg/l	ND (DL-0.01)	0.01	No relaxation	IS:3025 (P-47): 1994 (RA-2019)
20.	Copper (as Cu), mg/l	ND (DL-0.04)	0.05	1.5	IS:3025 (P-42): 1992 (RA-2019)
21.	Nickel (as Ni), mg/l	ND (DL-0.01)	0.02	No relaxation	IS:3025 (P-54): 2003 (RA-2019)
22.	Boron (as B), mg/l	ND (DL-0.1)	0.5	1.0	IS:3025 (P-57): 2021
23.	Cadmium (as Cd), mg/l	ND (DL-0.001)	0.003	No relaxation	IS:3025 (P-41):1992 (RA-2019)
24.	Arsenic (as As), mg/l	ND (DL-0.01)	0.01	No relaxation	IS:3025 (P-37): 2022
25.	Phenol (as C ₆ H ₅ OH), mg/l	ND (DL-0.001)	0.001	0.002	IS:3025 (P-43): 2022
26.	BOD (at 27°C for 3 Days), mg/l	ND (DL-2.0)	-	-	IS:3025 (P-44) 1993 (RA-2003)
27.	Chemical Oxygen Demand, mg/l	ND (DL-5.0)	-	-	IS:3025 (P-58): 2006 (RA-2017)
28.	Oil & Grease, mg/l	ND (DL-1.0)	-	-	IS:3025 (P-39): 2021

ND-Not Detected

DL- Detection Limit

BDL-Below Detection Limit


(Chemist In Charge)
Date: 31/10/23


Sital Singh (CEO)
(Authorized Signatory)
Date: 31/10/23

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CHANDIGARH POLLUTION TESTING LABORATORY

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Website : www.cptl.co.in



TEST CERTIFICATE

REPORT No. CPTL/H.P/2023/10/51b(W)

Format No. CPTLF7.8-I(W)

REPORTING DATE: 11.11.2023

NAME OF INDUSTRY: M/s. SHIVALIK SOLID WASTE MANAGEMENT LTD.,
VILL.-MAJRA, P.O.- DABHOTA, TEH.- NALAGARH,
DISTT.- SOLAN (H.P.).

SAMPLE PARTICULARS

Date of Sample Collection	30.10.2023
Date of Sample Received in Lab	30.10.2023
Type of Sample	Ground Water (Grab)
Sampling Plan Ref. No.	CPTLF7.3-I
Sampling Method	CPTL/SM/01
Environmental Conditions	Normal
Point of Sample Collection	Tube well at house of Sh. Rana-Majra (Outside Premises-Downstream)
Quantity & Packaging	2.0 liters in Plastic Bottle+1.0 Ltrs in Glass bottle
Sample Identification no.	CPTL/H.P/2023/10/51(W)
Analysis Duration	30.10.2023 to 11.11.2023
Sample Collected By	Daljeet Singh & Team
Visual Observation	Clear & Colorless liquid

TEST RESULTS

S. No.	Parameters	Results	Acceptable Limit	Permissible Limit	Test Method
1.	Cyanide (as CN ⁻), mg/l	ND (DL-0.02)	0.05	No relaxation	IS:3025 (P-27): 2022
2.	Anionic detergents (as MBAS), mg/l	ND (DL-0.05)	0.2	1.0	IS:13428 (Annex-k): 2022
3.	Mineral Oil, mg/l	ND (DL-0.5)	0.5	No relaxation	IS:3025 (P-39): 2021 Clause 6
4.	Sulphide (as S), mg/l	ND (DL-0.01)	0.05	No relaxation	IS:3025 (P-29): 1986 (RA-2017)
5.	Barium (as Ba), mg/l	ND (DL-0.03)	0.7	No relaxation	IS:15302:2003 (RA-2018)
6.	Aluminum (as Al), mg/l	ND (DL-0.002)	0.03	0.2	IS:3025 (P-55): 2003 (RA-2019)
7.	Mercury (as Hg), mg/l	ND (DL-0.001)	0.001	No relaxation	IS:3025:P-48:1994:RA-2003

ND-Not Detected
DL-Detection Limit

(Chemist in-Charge)
Date: 11/11/2023

Sital Singh (CEO)
Date: 11/11/2023

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CHANDIGARH POLLUTION TESTING LABORATORY

(Environmental Monitoring, EIA, NOC, ETP, STP)

NABET Accredited EIA Consultant



H.O. : #372, Sector 15-A, Chandigarh-160 015

Phone : 0172-4669295

Lab : E-126, Phase-VII, Indl. Area, Mohali - 160055

Phone : 0172-5090312

E-mail : cptl126@gmail.com ; lab@cptl.co.in

Website : www.cptl.co.in



TEST CERTIFICATE

REPORT No. CPTL/H.P/2023/10/52a(W)

Format No. CPTLF7.8-I(W)

REPORTING DATE: 11.11.2023

NAME OF INDUSTRY: M/s. SHIVALIK SOLID WASTE MANAGEMENT LTD.,
VILL.-MAJRA, P.O.- DABHOTA, TEH.- NALAGARH,
DISTT.- SOLAN (H.P.).

SAMPLE PARTICULARS

Date of Sample Collection	30.10.2023
Date of Sample Received in Lab	30.10.2023
Type of Sample	Ground Water (Grab)
Sampling Plan Ref. No.	CPTLF7.3-I
Sampling Method	CPTL/SM/01
Environmental Conditions	Normal
Point of Sample Collection	Open well Out Side Main Gate-Near Pipal Tree (Outside Premises-Downstream)
Quantity & Packaging	2.0 liters in Plastic Bottle+1.0 Ltrs in Glass bottle
Sample Identification no.	CPTL/(H.P)/2023/10/52(W)
Analysis Duration	30.10.2023 to 11.11.2023
Sample Collected By	Daljeet Singh & Team
Visual Observation	Clear & Colorless liquid

TEST RESULTS

S. No.	Parameters	Results	Acceptable Limit	Permissible Limit	Test Method
1.	pH	7.68	6.5-8.5	No relaxation	IS:3025 (P-11): 2022
2.	Specific Conductance, $\mu\text{S}/\text{cm}$	307	-	-	IS:3025 (P-14): 2013 (RA-2019)
3.	Turbidity, NTU	BDL (DL=0.5)	1	5	IS:3025 (P-10): 1984 (RA-2017)
4.	Total Dissolved Solids, mg/l	158	500	2000	IS:3025 (P-16): 1999 (RA-2019)
5.	Total Suspended Matter, mg/l	2.8	-	-	IS:3025 (P-17): 2022
6.	Total Hardness (as CaCO_3), mg/l	155	200	600	IS:3025 (P-21): 2009 (RA-2019)
7.	Calcium (as Ca^{++}), mg/l	36.0	75	200	IS:3025 (P-40): 2004
8.	Magnesium (as Mg^{++}), mg/l	22.8	30	100	IS:3025 (P-46): 1994 (RA-2019)
9.	Total Alkalinity (as CaCO_3), mg/l	140	200	600	IS:3025 (P-23): 2006
10.	Chloride (as Cl), mg/l	22.4	250	1000	IS:3025 (P-32): 1998 (RA-2019)
11.	Sulphate (as SO_4), mg/l	7.1	200	400	IS:3025 (P-24): 2022
12.	Iron (as Fe), mg/l	ND (DL-0.1)	1.0	No relaxation	IS: 3025 (P-53): 2003 & C/1, 10 Phenanthroline Method (RA-2019)
13.	Hexavalent Chromium, (as Cr^{6+}), mg/l	ND (DL-0.1)	-	-	IS:3025 (P-52): 2003 (RA-2019)
14.	Zinc (as Zn), mg/l	ND (DL-0.5)	5	15	IS:3025 (P-49): 1994 (RA-2019)
15.	Nitrate (as NO_3), mg/l	2.8	45	No relaxation	IS:3025 (P-34): 2022
16.	Chromium (as Cr), mg/l	ND (DL-0.04)	0.05	No relaxation	IS:3025 (P-52): 2003 (RA-2019)
17.	Fluoride (as F), mg/l	ND (DL-0.1)	1.0	1.5	IS:3025 (P-60): 2008



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E-mail : cptle126@gmail.com ; lab@cptl.co.in

Website : www.cptl.co.in

TC-6728

Type of Sample	Ground Water (Grab)
Date of Sample Received in Lab	30.10.2023
Sample Identification no.	CPTL/(H.P)/2023/10/52(W)

S. No.	Parameters	Results	Acceptable Limit	Permissible Limit	Test Method
18.	Manganese (as Mn), mg/l	ND (DL-0.09)	0.1	0.3	IS:3025 (P-59): 2006
19.	Lead (as Pb), mg/l	ND (DL-0.01)	0.01	No relaxation	IS:3025 (P-47): 1994 (RA-2019)
20.	Copper (as Cu), mg/l	ND (DL-0.04)	0.05	1.5	IS:3025 (P-42): 1992 (RA-2019)
21.	Nickel (as Ni), mg/l	ND (DL-0.01)	0.02	No relaxation	IS:3025 (P-54): 2003 (RA-2019)
22.	Boron (as B), mg/l	ND (DL-0.1)	0.5	1.0	IS:3025 (P-57): 2021
23.	Cadmium (as Cd), mg/l	ND (DL-0.001)	0.003	No relaxation	IS:3025 (P-41):1992 (RA-2019)
24.	Arsenic (as As), mg/l	ND (DL-0.01)	0.01	No relaxation	IS:3025 (P-37): 2022
25.	Phenol (as C ₆ H ₅ OH), mg/l	ND (DL-0.001)	0.001	0.002	IS:3025 (P-43): 2022
26.	BOD (at 27°C for 3 Days), mg/l	ND (DL-2.0)	-	-	IS:3025 (P-44) 1993 (RA-2003)
27.	Chemical Oxygen Demand, mg/l	ND (DL-5.0)	-	-	IS:3025 (P-58): 2006 (RA-2017)
28.	Oil & Grease, mg/l	ND (DL-1.0)	-	-	IS:3025 (P-39): 2021

ND-Not Detected

DL- Detection Limit

BDL-Below Detection Limit

(Chemist In-Charge)

Date:

Sifal Singh (CEO)
(Authorized Signatory)

Date:

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CHANDIGARH POLLUTION TESTING LABORATORY

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Website : www.cptl.co.in



TEST CERTIFICATE

REPORT No. CPTL/H.P/2023/10/52b(W)

Format No. CPTLF7.8-I(W)

REPORTING DATE: 11.11.2023

NAME OF INDUSTRY:

M/s. SHIVALIK SOLID WASTE MANAGEMENT LTD.,
VILL.-MAJRA, P.O.- DABHOTA, TEH.- NALAGARH,
DIST.- SOLAN (H.P.).

SAMPLE PARTICULARS

Date of Sample Collection	30.10.2023
Date of Sample Received in Lab	30.10.2023
Type of Sample	Ground Water (Grab)
Sampling Plan Ref. No.	CPTLF7.3-I
Sampling Method	CPTL/SM/01
Environmental Conditions	Normal
Point of Sample Collection	Open well Out Side Main Gate-Near Pipal Tree (Outside Premises-Downstream)
Quantity & Packaging	2.0 liters in Plastic Bottle+1.0 Ltrs in Glass bottle
Sample Identification no.	CPTL/H.P/2023/10/52(W)
Analysis Duration	30.10.2023 to 11.11.2023
Sample Collected By	Daljeet Singh & Team
Visual Observation	Clear & Colorless liquid

TEST RESULTS

S. No.	Parameters	Results	Acceptable Limit	Permissible Limit	Test Method
1.	Cyanide (as CN ⁻), mg/l	ND (DL-0.02)	0.05	No relaxation	IS:3025 (P-27): 2022
2.	Anionic detergents (as MBAS), mg/l	ND (DL-0.05)	0.2	1.0	IS:13428 (Annex-k): 2022
3.	Mineral Oil, mg/l	ND (DL-0.5)	0.5	No relaxation	IS:3025 (P-39): 2021 Clause 6
4.	Sulphide (as S), mg/l	ND (DL-0.01)	0.05	No relaxation	IS:3025 (P-29): 1986 (RA-2017)
5.	Barium (as Ba), mg/l	ND (DL-0.03)	0.7	No relaxation	IS:15302:2003 (RA-2018)
6.	Aluminum (as Al), mg/l	ND (DL-0.002)	0.03	0.2	IS:3025 (P-55): 2003 (RA-2019)
7.	Mercury (as Hg), mg/l	ND (DL-0.001)	0.001	No relaxation	IS:3025:P-48:1994:RA-2003

ND-Not Detected

DL-Detection Limit

(Chemist In-Charge)

Date:

Sital Singh (CEO)

Date:

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END OF REPORT

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CHANDIGARH POLLUTION TESTING LABORATORY

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Website : www.cptl.co.in



TEST CERTIFICATE

REPORT No. CPTL/H.P/2023/10/53a(W)

Format No. CPTLF7.8-1(W)

REPORTING DATE: 11.11.2023

NAME OF INDUSTRY:

M/s. SHIVALIK SOLID WASTE MANAGEMENT LTD.,
VILL.-MAJRA, P.O.- DABHOTA, TEH.- NALAGARH,
DIST.- SOLAN (H.P.).

SAMPLE PARTICULARS

Date of Sample Collection	30.10.2023
Date of Sample Received in Lab	30.10.2023
Type of Sample	Ground Water (Grab)
Sampling Plan Ref. No.	CPTLF7.3-I
Sampling Method	CPTL/SM/01
Environmental Conditions	Normal
Point of Sample Collection	Supply Water IPH (Outsides Premises)
Quantity & Packaging	2.0 liters in Plastic Bottle+1.0 Ltrs in Glass bottle
Sample Identification no.	CPTL/(H.P)/2023/10/53(W)
Analysis Duration	30.10.2023 to 11.11.2023
Sample Collected By	Daljeet Singh & Team
Visual Observation	Clear & Colorless liquid

TEST RESULTS

S. No.	Parameters	Results	Acceptable Limit	Permissible Limit	Test Method
1.	pH	7.56	6.5-8.5	No relaxation	IS:3025 (P-11): 2022
2.	Specific Conductance, $\mu\text{S}/\text{cm}$	634	-	-	IS:3025 (P-14): 2013 (RA-2019)
3.	Turbidity, NTU	BDL (DL=0.5)	1	5	IS:3025 (P-10): 1984 (RA-2017)
4.	Total Dissolved Solids, mg/l	385	500	2000	IS:3025 (P-16): 1999 (RA-2019)
5.	Total Suspended Matter, mg/l	ND (DL-1.0)	-	-	IS:3025 (P-17): 2022
6.	Total Hardness (as CaCO_3), mg/l	125	200	600	IS:3025 (P-21): 2009 (RA-2019)
7.	Calcium (as Ca^{++}), mg/l	34.0	75	200	IS:3025 (P-40): 2004
8.	Magnesium (as Mg^{++}), mg/l	16.8	30	100	IS:3025 (P-46): 1994 (RA-2019)
9.	Total Alkalinity (as CaCO_3), mg/l	285	200	600	IS:3025 (P-23): 2006
10.	Chloride (as Cl), mg/l	52.4	250	1000	IS:3025 (P-32): 1998 (RA-2019)
11.	Sulphate (as SO_4), mg/l	33.0	200	400	IS:3025 (P-24): 2022
12.	Iron (as Fe), mg/l	ND (DL-0.1)	1.0	No relaxation	IS: 3025 (P-53): 2003 & C/1, 10 Phenanthroline Method (RA-2019)
13.	Hexavalent Chromium, (as Cr^{6+}), mg/l	ND (DL-0.1)	-	-	IS:3025 (P-52): 2003 (RA-2019)
14.	Zinc (as Zn), mg/l	ND (DL-0.5)	5	15	IS:3025 (P-49): 1994 (RA-2019)
15.	Nitrate (as NO_3), mg/l	3.6	45	No relaxation	IS:3025 (P-34): 2022
16.	Chromium (as Cr), mg/l	ND (DL-0.04)	0.05	No relaxation	IS:3025 (P-52): 2003 (RA-2019)
17.	Fluoride (as F), mg/l	ND (DL-0.1)	1.0	1.5	IS:3025 (P-60): 2008



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Phone : 0172-5090312
E-mail : cptle126@gmail.com ; lab@cptl.co.in
Website : www.cptl.co.in

Type of Sample	Ground Water (Grab)
Date of Sample Received in Lab	30.10.2023
Sample Identification no.	CPTL/ILP/2023/10/53(W)

S. No.	Parameters	Results	Acceptable Limit	Permissible Limit	Test Method
18.	Manganese (as Mn), mg/l	ND (DL-0.09)	0.1	0.3	IS:3025 (P-59): 2006
19.	Lead (as Pb), mg/l	ND (DL-0.01)	0.01	No relaxation	IS:3025 (P-47): 1994 (RA-2019)
20.	Copper (as Cu), mg/l	ND (DL-0.04)	0.05	1.5	IS:3025 (P-42): 1992 (RA-2019)
21.	Nickel (as Ni), mg/l	ND (DL-0.01)	0.02	No relaxation	IS:3025 (P-54): 2003 (RA-2019)
22.	Boron (as B), mg/l	ND (DL-0.1)	0.5	1.0	IS:3025 (P-57): 2021
23.	Cadmium (as Cd), mg/l	ND (DL-0.001)	0.003	No relaxation	IS:3025 (P-41):1992 (RA-2019)
24.	Arsenic (as As), mg/l	ND (DL-0.01)	0.01	No relaxation	IS:3025 (P-37): 2022
25.	Phenol (as C ₆ H ₅ OH), mg/l	ND (DL-0.001)	0.001	0.002	IS:3025 (P-43): 2022
26.	BOD (at 27°C for 3 Days), mg/l	ND (DL-2.0)	-	-	IS:3025 (P-44) 1993 (RA-2003)
27.	Chemical Oxygen Demand, mg/l	ND (DL-5.0)	-	-	IS:3025 (P-58): 2006 (RA-2017)
28.	Oil & Grease, mg/l	ND (DL-1.0)	-	-	IS:3025 (P-39): 2021

ND-Not Detected

DL- Detection Limit

BDL-Below Detection Limit

(Chemist In-Charge)
Date: 11/11/2023

Sital Singh (CEO)
(Authorized Signatory)
Date: 11/11/2023

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END OF REPORT

Page 2 of 2



CHANDIGARH POLLUTION TESTING LABORATORY

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TEST CERTIFICATE

REPORT No. CPTL/H.P/2023/10/53b(W)

Format No. CPTLF7.8-I(W)

REPORTING DATE: 11.11.2023

NAME OF INDUSTRY:

M/s. SHIVALIK SOLID WASTE MANAGEMENT LTD.,
VILL.-MAJRA, P.O.- DABHOTA, TEH.- NALAGARH,
DISTT.- SOLAN (H.P.).

SAMPLE PARTICULARS

Date of Sample Collection	30.10.2023
Date of Sample Received in Lab	30.10.2023
Type of Sample	Ground Water (Grab)
Sampling Plan Ref. No.	CPTLF7.3-I
Sampling Method	CPTL/SM/01
Environmental Conditions	Normal
Point of Sample Collection	Supply Water IPH (Outsides Premises)
Quantity & Packaging	2.0 liters in Plastic Bottle+1.0 Ltrs in Glass bottle
Sample Identification no.	CPTL/H.P/2023/10/53(W)
Analysis Duration	30.10.2023 to 11.11.2023
Sample Collected By	Daljeet Singh & Team
Visual Observation	Clear & Colorless liquid

TEST RESULTS

S. No.	Parameters	Results	Acceptable Limit	Permissible Limit	Test Method
1.	Cyanide (as CN ⁻), mg/l	ND (DL-0.02)	0.05	No relaxation	IS:3025 (P-27): 2022
2.	Anionic detergents (as MBAS), mg/l	ND (DL-0.05)	0.2	1.0	IS:13428 (Annex-k): 2022
3.	Mineral Oil, mg/l	ND (DL-0.5)	0.5	No relaxation	IS:3025 (P-39): 2021 Clause 6
4.	Sulphide (as S), mg/l	ND (DL-0.01)	0.05	No relaxation	IS:3025 (P-29): 1986 (RA-2017)
5.	Barium (as Ba), mg/l	ND (DL-0.03)	0.7	No relaxation	IS:15302:2003 (RA-2018)
6.	Aluminum (as Al), mg/l	ND (DL-0.002)	0.03	0.2	IS:3025 (P-55): 2003 (RA-2019)
7.	Mercury (as Hg), mg/l	ND (DL-0.001)	0.001	No relaxation	IS:3025:P-48:1994:RA-2003

ND-Not Detected
DL-Detection Limit

(Chemist In-Charge)
Date: 11/11/23

Sital Singh (CEO)
Date: 11/11/23

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Website : www.cptl.co.in



TEST CERTIFICATE

REPORT NO. CPTL/H.P/2023/10/06a(S)

Format No. CPTLF7.8-I(S)

NAME OF INDUSTRY:

M/s. SHIVALIK SOLID WASTE MANAGEMENT LTD.,
VILL-MAJRA, P.O.- DABHOTA, TEH.-NALAGARH,
DISTT.- SOLAN (H.P) 174101.

REPORTING DATE: 11-11-2023

SAMPLE PARTICULARS

Date of Sample Collected:	30-10-2023
Date of Sample Received:	30-10-2023
Type of Sample:	Soil
Sampling Plan Ref. No.	CPTLF7.3-I
Sampling Method	CPTL/SM/01
Environmental Conditions	Normal
Point of Sample Collection:	Composite Soil Sample Inside Premises
Quantity & Packaging:	1000 gm in plastic sealed bag
Sample Identification No.:	CPTL/H.P/2023/10/06(S)
Analysis Duration:	30-10-2023 to 11-11-2023
Sample Collected By:	Daljeet Singh & Team
Visual Observation:	Brown in color

TEST RESULTS

S. No.	Test Parameters	Unit	Results	Test method
1.	pH	--	7.62	IS 2720 (P-26): 1987) (RA-2021)
2.	Conductivity	mS/cm	0.242	IS 14767:2000
3.	Organic Matter	%	1.51	IS: 2720 (Part-22):2001
4.	Arsenic (as As)	mg/Kg	ND	USEPA-3050B: 1996
5.	Mercury (as Hg)	mg/Kg	(DL-0.5)	USEPA-3050B: 1996
6.	Lead (as Pb)	mg/Kg	(DL-0.2)	USEPA-3050B: 1996
7.	Chromium (as Cr)	mg/Kg	2.30	USEPA-3050B: 1996
8.	Copper (as Cu)	mg/Kg	2.16	USEPA-3050B: 1996
9.	Cadmium (as Cd)	mg/Kg	ND	USEPA-3050B: 1996
10.	Zinc (as Zn)	mg/Kg	(DL-0.5)	USEPA-3050B: 1996
11.	Nickel (as Ni)	mg/Kg	0.42	USEPA-3050B: 1996
12.	Manganese (as Mn)	mg/Kg	1.52	USEPA-3050B: 1996
			1.30	USEPA-3050B: 1996

ND-Not Detected
DL-Detection Limit

[Signature]
(Chemist In-Charge)
Date: 11/11/2023

[Signature]
Sital Singh (CEO)
(Authorized Signatory)
Date: 11/11/2023

- The results are related to test items only.
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- Sample will be destroyed after retention time unless otherwise specified.

END OF REPORT



CHANDIGARH POLLUTION TESTING LABORATORY

(Environmental Monitoring, EIA, NOC, ETP, STP)

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Website : www.cptl.co.in



TEST CERTIFICATE

REPORT NO. CPTL/H.P/2023/10/06b(S)

Format No. CPTLF7.8-I(S)

REPORTING DATE: 11-11-2023

NAME OF INDUSTRY:

M/s. SHIVALIK SOLID WASTE MANAGEMENT LTD.,
VILL-MAJRA, P.O.- DABHOTA, TEH.-NALAGARH,
DISTT.- SOLAN (H.P) 174101.

SAMPLE PARTICULARS

Date of Sample Collected:	30-10-2023
Date of Sample Received:	30-10-2023
Type of Sample:	Soil
Sampling Plan Ref. No.	CPTLF7.3-I
Sampling Method	CPTL/SM/01
Environmental Conditions	Normal
Point of Sample Collection:	Composite Soil Sample Inside Premises
Quantity & Packaging:	1000 gm in plastic bag
Sample Identification No.:	CPTL/(H.P)/2023/10/06(S)
Analysis Duration:	30-10-2023 to 11-11-2023
Sample Collected By:	Daljeet Singh & Team
Visual Observation:	Brown in color

TEST RESULTS

S. No.	Test Parameters	Unit	Results	Test method
1.	Colour	--	Brown	Visual
2.	Cyanide (as CN)	mg/Kg	ND (DL-0.5)	USEPA-3050B: 1996

ND-Not Detected
DL-Detection Limit

(Chemist In-Charge)
Date: 11/11/23

Sital Singh (CEO)
Date: 11/11/23

- The results are related to test items only.
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END OF REPORT



CHANDIGARH POLLUTION TESTING LABORATORY

(Environmental Monitoring, EIA, NOC, ETP, STP)

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E-mail : cptle126@gmail.com ; lab@cptl.co.in
Website : www.cptl.co.in



TEST CERTIFICATE

Format No. CPTLF7.8-I(S)

REPORTING DATE: 11-11-2023

REPORT NO. CPTL/H.P/2023/10/07a(S)

NAME OF INDUSTRY:

M/s. SHIVALIK SOLID WASTE MANAGEMENT LTD.,
VILL-MAJRA, P.O.- DABHOTA, TEH.-NALAGARH,
DISTT.- SOLAN (H.P) 174101.

SAMPLE PARTICULARS

Date of Sample Collected:	30-10-2023
Date of Sample Received:	30-10-2023
Type of Sample:	Soil
Sampling Plan Ref. No.	CPTLF7.3-I
Sampling Method	CPTL/SM/01
Environmental Conditions	Normal
Point of Sample Collection:	Composite Soil Sample Outside Premises
Quantity & Packaging:	1000 gm in plastic sealed bag
Sample Identification No.:	CPTL/(H.P)/2023/10/07(S)
Analysis Duration:	30-10-2023 to 11-11-2023
Sample Collected By:	Daljeet Singh & Team
Visual Observation:	Brown in color

TEST RESULTS

S. No.	Test Parameters	Unit	Results	Test method
1.	pH	--	7.49	IS 2720 (P-26): 1987 (RA-2021)
2.	Conductivity	mS/cm	0.259	IS 14767:2000
3.	Organic Matter	%	1.59	IS: 2720 (Part-22):2001
4.	Arsenic (as As)	mg/Kg	ND	USEPA-3050B: 1996
5.	Mercury (as Hg)	mg/Kg	(DL-0.5)	USEPA-3050B: 1996
6.	Lead (as Pb)	mg/Kg	ND	USEPA-3050B: 1996
7.	Chromium (as Cr)	mg/Kg	(DL-0.2)	USEPA-3050B: 1996
8.	Copper (as Cu)	mg/Kg	3.34	USEPA-3050B: 1996
9.	Cadmium (as Cd)	mg/Kg	2.23	USEPA-3050B: 1996
10.	Zinc (as Zn)	mg/Kg	ND	USEPA-3050B: 1996
11.	Nickel (as Ni)	mg/Kg	(DL-0.5)	USEPA-3050B: 1996
12.	Manganese (as Mn)	mg/Kg	0.51	USEPA-3050B: 1996
			1.76	USEPA-3050B: 1996
			1.55	USEPA-3050B: 1996

ND-Not Detected
DL-Detection Limit

(Chemist in-Charge)

Date:

Sital Singh (CEO)

(Authorized Signatory)

Date:

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END OF REPORT

Page 1 of 1



CHANDIGARH POLLUTION TESTING LABORATORY

(Environmental Monitoring, EIA, NOC, ETP, STP)

NABET Accredited EIA Consultant

H.O. : #372, Sector 15-A, Chandigarh-160 015
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Phone : 0172-5090312
E-mail : cptle126@gmail.com ; lab@cptl.co.in
Website : www.cptl.co.in



TEST CERTIFICATE

REPORT NO. CPTL/H.P/2023/10/07b(S)

Format No. CPTLF7.8-I(S)

REPORTING DATE: 11-11-2023

NAME OF INDUSTRY:

M/s. SHIVALIK SOLID WASTE MANAGEMENT LTD.,
VILL-MAJRA, P.O.- DABHOTA, TEH.-NALAGARH,
DISTT.- SOLAN (H.P) 174101.

SAMPLE PARTICULARS

Date of Sample Collected:	30-10-2023
Date of Sample Received:	30-10-2023
Type of Sample:	Soil
Sampling Plan Ref. No.	CPTLF7.3-I
Sampling Method	CPTL/SM/01
Environmental Conditions	Normal
Point of Sample Collection:	Composite Soil Sample Outside Premises
Quantity & Packaging:	1000 gm in plastic bag
Sample Identification No.:	CPTL/(H.P)/2023/10/07(S)
Analysis Duration:	30-10-2023 to 11-11-2023
Sample Collected By:	Daljeet Singh & Team
Visual Observation:	Brown in color

TEST RESULTS

S. No.	Test Parameters	Unit	Results	Test method
1.	Colour	--	Brown	Visual
2.	Cyanide (as CN)	mg/Kg	ND (DL-0.5)	USEPA-3050B: 1996

ND-Not Detected
DL-Detection Limit

(Chemist In-Charge)
Date: 11/11/2023

Sital Singh (CEO)
Date: 11/11/2023

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Website : www.cptl.co.in



TEST CERTIFICATE

REPORT NO. CPTL/H.P/2023/10/08a(S)

Format No. CPTLF7.8-I(S)

NAME OF INDUSTRY:

M/s. SHIVALIK SOLID WASTE MANAGEMENT LTD.,
VILL-MAJRA, P.O.- DABHOTA, TEH.-NALAGARH,
DISTT.- SOLAN (H.P) 174101.

REPORTING DATE: 11-11-2023

SAMPLE PARTICULARS

Date of Sample Collected:	30-10-2023
Date of Sample Received:	30-10-2023
Type of Sample:	Soil
Sampling Plan Ref. No.	CPTLF7.3-I
Sampling Method	CPTL/SM/01
Environmental Conditions	Normal
Point of Sample Collection:	Near Temporary Storage Shed
Quantity & Packaging:	1000 gm in plastic sealed bag
Sample Identification No.:	CPTL/(H.P)/2023/10/08(S)
Analysis Duration:	30-10-2023 to 11-11-2023
Sample Collected By:	Daljeet Singh & Team
Visual Observation:	Brown in color

TEST RESULTS

S. No.	Test Parameters	Unit	Results	Test method
1.	pH	--	7.66	IS 2720 (P-26): 1987 (RA-2021)
2.	Conductivity	mS/cm	0.249	IS 14767:2000
3.	Organic Matter	%	1.47	IS: 2720 (Part-22):2001
4.	Arsenic (as As)	mg/Kg	ND	USEPA-3050B: 1996
5.	Mercury (as Hg)	mg/Kg	ND	USEPA-3050B: 1996
6.	Lead (as Pb)	mg/Kg	(DL-0.2)	USEPA-3050B: 1996
7.	Chromium (as Cr)	mg/Kg	2.36	USEPA-3050B: 1996
8.	Copper (as Cu)	mg/Kg	2.26	USEPA-3050B: 1996
9.	Cadmium (as Cd)	mg/Kg	ND	USEPA-3050B: 1996
10.	Zinc (as Zn)	mg/Kg	(DL-0.5)	USEPA-3050B: 1996
11.	Nickel (as Ni)	mg/Kg	0.51	USEPA-3050B: 1996
12.	Manganese (as Mn)	mg/Kg	1.56	USEPA-3050B: 1996
			1.41	USEPA-3050B: 1996

ND-Not Detected
DL-Detection Limit

(Chemist In-Charge)
Date: 11/11/23

Sital Singh (CEO)
(Authorized Signatory)
Date: 11/11/2023

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CHANDIGARH POLLUTION TESTING LABORATORY

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TEST CERTIFICATE

REPORT NO. CPTL/H.P/2023/10/08b(S)

Format No. CPTLF7.8-I(S)

REPORTING DATE: 11-11-2023

NAME OF INDUSTRY:

M/s. SHIVALIK SOLID WASTE MANAGEMENT LTD.,
VILL-MAJRA, P.O.- DABHOTA, TEH.-NALAGARH,
DISTT.- SOLAN (H.P) 174101.

SAMPLE PARTICULARS

Date of Sample Collected:	30-10-2023
Date of Sample Received:	30-10-2023
Type of Sample:	Soil
Sampling Plan Ref. No.	CPTLF7.3-I
Sampling Method	CPTL/SM/01
Environmental Conditions	Normal
Point of Sample Collection:	Near Temporary Storage Shed
Quantity & Packaging:	1000 gm in plastic bag
Sample Identification No.:	CPTL/(H.P)/2023/10/08(S)
Analysis Duration:	30-10-2023 to 11-11-2023
Sample Collected By:	Daljeet Singh & Team
Visual Observation:	Brown in color

TEST RESULTS

S. No.	Test Parameters	Unit	Results	Test method
1.	Colour	--	Brown	Visual
2.	Cyanide (as CN)	mg/Kg	ND (DL-0.5)	USEPA-3050B: 1996

ND-Not Detected
DL-Detection Limit

(Chemist In-Charge)
Date: 11/11/2023

Sital Singh (CEO)
Date: 11/11/2023

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TEST CERTIFICATE

REPORT No. CPTL/HP/2023/10/26(N)

Format No. CPTLF7.8-I(N)

REPORTING DATE: 04-11-2023

NAME OF INDUSTRY:

M/s. SHIVALIK SOLID WASTE MANAGEMENT LTD.,
VILL.-MAJRA, P.O.- DABHOTA,
TEH.- NALAGARH, DISTT.- SOLAN (H.P.).

SAMPLE PARTICULARS

Sampling Plan Ref No.:	CPTLF 7.3-I	Type of Sample:	Ambient Noise
Sampling Method:	CPTL/SM/01	Point of Sample:	At different locations
Date of Monitoring.:	30-10-2023	Environmental Conditions:	Normal
Sample Identification No.:	CPTL/H.P/2023/10/26(N)	Sample Collected By:	Daljeet Singh & Team
Nature of Sample:	Noise Level Monitoring		

NOISE LEVEL

S. No.	Location	Value in dB(A) (Average) Day Time	Value in dB(A) (Average) Night Time	Test Method
01.	Near Main Gate	42.9	32.2	IS 9989:1981(Rev.2002)
02.	Near Utility Area	43.2	32.6	IS 9989:1981(Rev.2002)
03.	Near Landfill	42.6	32.2	IS 9989:1981(Rev.2002)
Prescribed Standard		75	70	--

Chemist In-Charge

Date:

4/11/23

Sital Singh (CEO)
(Authorized Signatory)

Date:

04/11/2023

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TEST CERTIFICATE

REPORT No. CPTL/HP/2023/10/35(A)

Format No. CPTLF7.8-I(A)

REPORTING DATE: 04-11-2023

NAME OF INDUSTRY: M/s. SHIVALIK SOLID WASTE MANAGEMENT LTD.,
VILL.-MAJRA, P.O.- DABHOTA,
TEH.- NALAGARH, DISTT.- SOLAN (H.P.).

SAMPLE PARTICULARS

Sampling Plan Ref No.:	CPTLF 7.3-I	Type of Sample:	Ambient Air
Sampling Method:	CPTL/SM/01	Point of Sample:	Village- Bara Basot
Date of Sample Collection:	30-10-2023	Environmental Conditions:	Normal
Date of Sample Received in Lab.:	31-10-2023	Analysis Duration:	31-10-2023 to 04-11-2023
Sample Identification No.:	CPTL/HP/2023/10/35(A)	Sample Collected By:	Daljeet Singh & Team
Nature of Sample:	Air Sample		

TECHNICAL DATA

1.	Location of Sampling station	Village- Bara Basot
2.	Instrument used for Sampling	RDS, FPS, Benzene Sampler & Gaseous Attachment
3.	Time period for Sampling	1440 minutes

PARAMETERS	RESULTS	AS PER NAAQS- 2009 PRESCRIBED BY CPCB	TEST METHOD
Particulate Matter (PM ₁₀), µg/m ³	56.2	100	IS:5182 (P-23): 2006, (RA - 2012)
Particulate Matter (PM _{2.5}), µg/m ³	15.0	60	IS: 5182:(P-24):2019
Nitrogen Dioxide (NO ₂), µg/m ³	11.6	80	IS:5182 (P-6): 2006, (RA - 2012)
Sulphur dioxide (SO ₂), µg/m ³	5.5	80	IS:5182 (P-2): 2001, (RA-2012)
Ammonia (NH ₃), µg/m ³	ND (DL-20)	400	Indophenol Method, CPCB Guidelines (Vol. 1)
Ozone (O ₃), µg/m ³	ND (DL-10.0)	100	IS:5182 (P-9): 1974, (RA - 2012)
Benzene (C ₆ H ₆), µg/m ³	ND (DL-1.8)	05	IS:5182 (P-11): 2006
Benzo (a) Pyrene (BaP), ng/m ³	ND (DL-0.9)	01	IS:5182 (P-12): 2004
Carbon monoxide (CO), mg/m ³	ND (DL-0.5)	4	IS:5182 (Part-10): 1999, (RA - 2009)
Lead (Pb), µg/m ³	ND (DL-0.1)	1.0	IS:5182 (Part-22): 2004
Nickel (Ni), ng/m ³	ND (DL-5.0)	20	CPCB Guideline, Volume-1:2011
Arsenic (As), ng/m ³	ND (DL-0.7)	06	CPCB Guideline, Volume-1:2011

ND-Not Detected
DL-Detection Limit

Chemist In-Charge
Date:

Sital Singh (CEO)
(Authorized Signatory)
Date: 04/11/2023

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Website : www.cptl.co.in



TEST CERTIFICATE

Format No. CPTLF7.8-I(A)

REPORT No. CPTL/HP/2023/10/36(A)

REPORTING DATE: 04-11-2023

NAME OF INDUSTRY: M/s. SHIVALIK SOLID WASTE MANAGEMENT LTD.,
VILL.-MAJRA, P.O.- DABHOTA,
TEH.- NALAGARH, DISTT.- SOLAN (H.P.).

SAMPLE PARTICULARS

Sampling Plan Ref No.:	CPTLF 7.3-I	Type of Sample:	Ambient Air
Sampling Method:	CPTL/SM/01	Point of Sample:	At MEE Plant (Inside Premises)
Date of Sample Collection:	30-10-2023	Environmental Conditions:	Normal
Date of Sample Received in Lab.:	31-10-2023	Analysis Duration:	31-10-2023 to 04-11-2023
Sample Identification No.:	CPTL/HP/2023/10/36(A)	Sample Collected By:	Daljeet Singh & Team
Nature of Sample:	Air Sample		

TECHNICAL DATA

1.	Location of Sampling station	At MEE Plant (Inside Premises)	
2.	Instrument used for Sampling	RDS, FPS, Benzene Sampler & Gaseous Attachment	
3.	Time period for Sampling	1440 minutes	
PARAMETERS	RESULTS	AS PER NAAQS- 2009 PRESCRIBED BY CPCB	TEST METHOD
Particulate Matter (PM ₁₀), µg/m ³	52.1	100	IS 5182 (P-23): 2006, (RA - 2012)
Particulate Matter (PM _{2.5}), µg/m ³	14.5	60	IS: 5182:(P-24):2019
Nitrogen Dioxide (NO ₂), µg/m ³	12.2	80	IS 5182 (P-6): 2006, (RA - 2012)
Sulphur dioxide (SO ₂), µg/m ³	5.4	80	IS 5182 (P-2): 2001, (RA-2012)
Ammonia (NH ₃), µg/m ³	ND (DL-20)	400	Indophenol Method, CPCB Guidelines (Vol. 1)
Ozone (O ₃), µg/m ³	ND (DL-10.0)	100	IS 5182 (P-9): 1974, (RA - 2012)
Benzene (C ₆ H ₆), µg/m ³	ND (DL-1.8)	05	IS 5182 (P-11): 2006
Benzo (a) Pyrene (BaP), ng/m ³	ND (DL-0.9)	01	IS 5182 (P-12): 2004
Carbon monoxide (CO), mg/m ³	ND (DL-0.5)	4	IS 5182 (Part-10): 1999, (RA - 2009)
Lead (Pb), µg/m ³	ND (DL-0.1)	1.0	IS 5182 (Part-22): 2004
Nickel (Ni), ng/m ³	ND (DL-5.0)	20	CPCB Guideline, Volume-1:2011
Arsenic (As), ng/m ³	ND (DL-0.7)	06	CPCB Guideline, Volume-1:2011

ND-Not Detected

DL-Detection Limit

Chemist In-Charge

Date: 04/11/23

Sital Singh (CEO)

(Authorized Signatory)

Date: 04/11/23

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END OF REPORT



CHANDIGARH POLLUTION TESTING LABORATORY

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Website : www.cptl.co.in



TEST CERTIFICATE

REPORT No. CPTL/HP/2023/10/37(A)

Format No. CPTLF7.8-I(A)

REPORTING DATE: 04-11-2023

NAME OF INDUSTRY:

M/s. SHIVALIK SOLID WASTE MANAGEMENT LTD.,
VILL.-MAJRA, P.O.- DABHOTA,
TEH.- NALAGARH, DISTT.- SOLAN (H.P.).

SAMPLE PARTICULARS

Sampling Plan Ref No.:	CPTLF 7.3-I	Type of Sample:	Ambient Air
Sampling Method:	CPTL/SM/01	Point of Sample:	Roof Of Laboratory Office
Date of Sample Collection:	30-10-2023	Environmental Conditions:	Normal
Date of Sample Received in Lab.:	31-10-2023	Analysis Duration:	31-10-2023 to 04-11-2023
Sample Identification No.:	CPTL/HP/2023/10/37(A)	Sample Collected By:	Daljeet Singh & Team
Nature of Sample:	Air Sample		

TECHNICAL DATA

1.	Location of Sampling station	Roof Of Laboratory Office		
2.	Instrument used for Sampling	RDS, FPS, Benzene Sampler & Gaseous Attachment		
3	Time period for Sampling	1440 minutes		
<u>PARAMETERS</u>		<u>RESULTS</u>	<u>AS PER NAAQS- 2009 PRESCRIBED BY CPCB</u>	<u>TEST METHOD</u>
Particulate Matter (PM ₁₀), µg/m ³		52.8	100	IS: 5182 (P-23): 2006, (RA – 2012)
Particulate Matter (PM _{2.5}), µg/m ³		14.2	60	IS: 5182:(P-24):2019
Nitrogen Dioxide (NO ₂), µg/m ³		11.8	80	IS: 5182 (P-6): 2006, (RA – 2012)
Sulphur dioxide (SO ₂), µg/m ³		5.5	80	IS: 5182 (P-2): 2001, (RA-2012)
Ammonia (NH ₃), µg/m ³		ND (DL-20)	400	Indophenol Method, CPCB Guidelines (Vol. 1)
Ozone (O ₃), µg/m ³		ND (DL-10.0)	100	IS: 5182 (P-9): 1974, (RA – 2012)
Benzene (C ₆ H ₆), µg/m ³		ND (DL-1.8)	05	IS: 5182 (P-11): 2006
Benzo (a) Pyrene (BaP), ng/m ³		ND (DL-0.9)	01	IS: 5182 (P-12): 2004
Carbon monoxide (CO), mg/m ³		ND (DL-0.5)	4	IS: 5182 (Part-10): 1999, (RA – 2009)
Lead (Pb), µg/m ³		ND (DL-0.1)	1.0	IS: 5182 (Part-22): 2004
Nickel (Ni), ng/m ³		ND (DL-5.0)	20	CPCB Guideline,Volume-1:2011
Arsenic (As), ng/m ³		ND (DL-0.7)	06	CPCB Guideline,Volume-1:2011

ND-Not Detected
DL-Detection Limit

Chemist In Charge

Date: 4/11/2023

Sital Singh (CEO)

(Authorized Signatory)

Date: 04/11/2023

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END OF REPORT



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Website : www.cptl.co.in



TEST CERTIFICATE

Format No. CPTLF7.8-I(A)

REPORTING DATE: 04-11-2023

REPORT No. CPTL/HP/2023/10/38(A)

NAME OF INDUSTRY:

M/s. SHIVALIK SOLID WASTE MANAGEMENT LTD.,
VILL.-MAJRA, P.O.- DABHOTA,
TEH.- NALAGARH, DISTT.- SOLAN (H.P.).

SAMPLE PARTICULARS

Sampling Plan Ref No.:	CPTLF 7.3-I	Type of Sample:	Ambient Air
Sampling Method:	CPTL/SM/01	Point of Sample:	Village- Majra
Date of Sample Collection:	30-10-2023	Environmental Conditions:	Normal
Date of Sample Received in Lab.:	31-10-2023	Analysis Duration:	31-10-2023 to 04-11-2023
Sample Identification No.:	CPTL/HP/2023/10/38(A)	Sample Collected By:	Daljeet Singh & Team
Nature of Sample:	Air Sample		

TECHNICAL DATA

1.	Location of Sampling station	Village- Majra
2.	Instrument used for Sampling	RDS, FPS, Benzene Sampler & Gaseous Attachment
3.	Time period for Sampling	1440 minutes

PARAMETERS	RESULTS	AS PER NAAQS- 2009 PRESCRIBED BY CPCB	TEST METHOD
Particulate Matter (PM ₁₀), µg/m ³	55.8	100	IS:5182 (P-23): 2006, (RA - 2012)
Particulate Matter (PM _{2.5}), µg/m ³	14.6	60	IS: 5182:(P-24):2019
Nitrogen Dioxide (NO ₂), µg/m ³	11.8	80	IS:5182 (P-6): 2006, (RA - 2012)
Sulphur dioxide (SO ₂), µg/m ³	5.6	80	IS:5182 (P-2): 2001, (RA-2012)
Ammonia (NH ₃), µg/m ³	ND (DL-20)	400	Indophenol Method, CPCB Guidelines (Vol. 1)
Ozone (O ₃), µg/m ³	ND (DL-10.0)	100	IS:5182 (P-9): 1974, (RA - 2012)
Benzene (C ₆ H ₆), µg/m ³	ND (DL-1.8)	05	IS:5182 (P-11): 2006
Benzo (a) Pyrene (BaP), ng/m ³	ND (DL-0.9)	01	IS:5182 (P-12): 2004
Carbon monoxide (CO), mg/m ³	ND (DL-0.5)	4	IS:5182 (Part-10): 1999, (RA - 2009)
Lead (Pb), µg/m ³	ND (DL-0.1)	1.0	IS:5182 (Part-22): 2004
Nickel (Ni), ng/m ³	ND (DL-5.0)	20	CPCB Guideline, Volume-1:2011
Arsenic (As), ng/m ³	ND (DL-0.7)	06	CPCB Guideline, Volume-1:2011

ND-Not Detected

DL-Detection Limit

Chemist In-Charge

Date:

Sital Singh (CEO)

(Authorized Signatory)

Date:

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Website : www.cptl.co.in



TEST CERTIFICATE

REPORT No. CPTL/H.P/2023/10/39(A)

Format No. CPTLF7.8-I(A)
REPORTING DATE: 04-11-2023

NAME OF INDUSTRY: M/s. SHIVALIK SOLID WASTE MANAGEMENT LTD.,
VILL.-MAJRA, P.O.- DABHOTA,
TEH.- NALAGARH, DISTT.- SOLAN (H.P.).

SAMPLE PARTICULARS

Sampling Plan Ref No.:	CPTLF 7.3-I	Type of Sample:	Air Quality w.r.t work zone
Sampling Method:	CPTL/SM/01	Point of Sample:	Inside Temporary Storage Area
Date of Sample Collection:	30-10-2023	Environmental Conditions:	Normal
Date of Sample Received in Lab.:	31-10-2023	Analysis Duration:	31-10-2023 to 04-11-2023
Sample Identification No.:	CPTL/H.P/2023/10/39(A)	Sample Collected By:	Daljeet Singh & Team
Nature of Sample:	Air Sample		

TECHNICAL DATA

1.	Location of Sampling station	Inside Temporary Storage Area (Work Zone Air)
2.	Instrument used for Sampling	RDS, FPS & Gaseous Attachment
3.	Time period for Sampling	480 minutes

PARAMETERS	RESULTS	PRESCRIBED STANDARD AS PER FACTORY ACT.-1948, SCH.- II & SEC.41F	TEST METHOD
Particulate Matter (PM ₁₀), mg/m ³	0.324	5.0	IS:5182 (P-23): 2006, (RA - 2012)
Particulate Matter (PM _{2.5}), mg/m ³	0.048	-	IS:5182:(P-24):2019
Nitrogen Dioxide (NO ₂), mg/m ³	0.016	6.0	IS:5182 (P-6): 2006, (RA - 2012)
Sulphur dioxide (SO ₂), mg/m ³	0.022	5.0	IS:5182 (P-2): 2001, (RA-2012)
Carbon monoxide (CO), mg/m ³	ND (DL-1.0)	55.0	IS:5182 (Part-10): 1999, (RA - 2009)

PM₁₀- Standard is from OSHA

ND- Not Detected

DL- Detection Limit

Chemist In-Charge
Date: 04/11/23

Sital Singh (CEO)
(Authorized Signatory)
Date: 04/11/23

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END OF REPORT



CHANDIGARH POLLUTION TESTING LABORATORY

(Environmental Monitoring, EIA, NOC, ETP, STP)

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TEST CERTIFICATE

REPORT No. CPTL/HP/2023/10/42(A)

Format No. CPTLF7.8-I(A)

REPORTING DATE: 04-11-2023

NAME OF INDUSTRY:

M/s. SHIVALIK SOLID WASTE MANAGEMENT LTD.,
VILL.-MAJRA, P.O.- DABHOTA,
TEH.- NALAGARH, DISTT.- SOLAN (H.P.).

SAMPLE PARTICULARS

Sampling Plan Ref No.:	CPTLF 7.3-I	Type of Sample:	Stack Air Emission
Sampling Method:	CPTL/SM/01	Point of Sample:	From Port Hole On Stack
Date of Sample Collection:	31-10-2023	Environmental Conditions:	Normal
Date of Sample Received in Lab.:	31-10-2023	Analysis Duration:	31-10-2023 to 04-11-2023
Sample Identification No.:	CPTL/HP/2023/10/42(A)	Sample Collected By:	Daljeet Singh & Team
Nature of Sample:	Air Sample		

TECHNICAL DATA

1.	Name of Plant/Section	Fume Hood (Exhaust) Over Stabilization Pit
2.	Source of Emission	Process Emissions
3.	*Type Of Fuel/Quantity	NA
4.	Location of Sampling Point	As per Standard
5.	*Diameter of Stack	0.2m (Top) ; 0.2m (Bottom)
6.	*Height of Stack	7.0 meter from ground
7.	Sampling Time	35.0 minutes
8.	Ambient Air Temperature	31.4°C
9.	Stack Air Temperature	31.6°C
10.	Velocity of Flue Gases	9.83 m/sec
11.	*APCD	Wet Scrubber

PARAMETERS

RESULTS

PRESCRIBED STANDARD

TEST METHOD

Particulate Matter (PM), mg/Nm ³	26.4	150	IS:11255 (Part-1) (RA: 2009)
Nitrogen Dioxide (NO ₂), mg/Nm ³	11.4	-	IS:11255 (Part-7) 1988 (RA: 2012)
Sulphur Dioxide (SO ₂), mg/Nm ³	ND (DL-3.0)	-	IS:1255 (Part-2) 1985 (RA: 2012)
Carbon Monoxide (CO), %	ND (DL-0.2)	1.0	IS:13720: 1992

*represent the information provided by the customer.

ND- Not Detected

DL-Detection Limit

Chemist In-Charge
Date: 4/11/2023

Sital Singh (CEO)
(Authorized Signatory)
Date: 04/11/2023

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Page 1 of 1



CHANDIGARH POLLUTION TESTING LABORATORY

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TEST CERTIFICATE

REPORT No. CPTL/HP/2023/10/41(A)

Format No. CPTLF7.8-I(A)

NAME OF INDUSTRY:

REPORTING DATE: 04-11-2023

M/s. SHIVALIK SOLID WASTE MANAGEMENT LTD.,
VILL.-MAJRA, P.O.- DABHOTA,
TEH.- NALAGARH, DISTT.- SOLAN (H.P.).

SAMPLE PARTICULARS

Sampling Plan Ref No.:	CPTLF 7.3-I	Type of Sample:	Stack Air Emission
Sampling Method:	CPTL/SM/01	Point of Sample:	From Port Hole On Stack
Date of Sample Collection:	31-10-2023	Environmental Conditions:	Normal
Date of Sample Received in Lab.:	31-10-2023	Analysis Duration:	31-10-2023 to 04-11-2023
Sample Identification No.:	CPTL/HP/2023/10/41(A)	Sample Collected By:	Daljeet Singh & Team
Nature of Sample:	Air Sample		

TECHNICAL DATA

1.	Name of Plant/Section	Boiler @ 750kg/hr
2.	Source of Emission	Burning of Fuel
3.	* Type Of Fuel/Quantity	Bio Diesel @ 35.0ltr/hr
4.	Location of Sampling Point	As per Standard
5.	* Diameter of Stack	12" (Top) ; 12" (Median); 30" (Bottom)
6.	* Height of Stack	30 meter from ground level
7.	Sampling Time	70.0 min
8.	Ambient Air Temperature	31.6°C
9.	Stack Air Temperature	66.7°C
10.	Velocity of Flue Gases	7.37 m/sec
11.	* APCD	Wet Scrubber
12.	CO ₂ % (v/v)	5.2%

PARAMETERS	RESULTS	PRESCRIBED STANDARD	TEST METHOD
Particulate Matter (PM), at 3% O ₂ , mg/Nm ³	51.6	500	IS:11255 (Part-1) 1985 (RA: 2009)
Nitrogen Dioxide (NO ₂), at 3% O ₂ , mg/Nm ³	16.4	300	IS:11255 (Part-7) 1988 (RA: 2012)
Sulphur Dioxide (SO ₂), at 3% O ₂ , mg/Nm ³	ND (DL-3.0)	600	IS:11255 (Part-2) 1985 (RA: 2012)
Carbon Monoxide (CO), mg/Nm ³	18.8	--	IS:13720: 1992

*represent the information provided by the customer.

ND- Not Detected

DL-Detection Limit

Chemist In-Charge
Date: 04/11/23

Sital Singh (CEO)

(Authorized Signatory)

Date: 04/11/23

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TEST CERTIFICATE

REPORT No. CPTL/HP/2023/08/37a(A)

Format No. CPTLF7.8-I(A)

REPORTING DATE: 02-09-2023

NAME OF INDUSTRY:

M/s. SHIVALIK SOLID WASTE MANAGEMENT LTD.,
VILL.-MAJRA, P.O.- DABHOTA,
TEH.- NALAGARH, DISTT.- SOLAN (H.P.).

SAMPLE PARTICULARS

Sampling Plan Ref No.:	CPTLF 7.3-I	Type of Sample:	Stack Air Emission
Sampling Method:	CPTL/SM/01	Point of Sample:	From Port Hole On Stack
Date of Sample Collection:	28-08-2023	Environmental Conditions:	Normal
Date of Sample Received in Lab.:	29-08-2023	Analysis Duration:	29-08-2023 to 02-09-2023
Sample Identification No.:	CPTL/HP/2023/08/37(A)	Sample Collected By:	Daljeet Singh & Team
Nature of Sample:	Air Sample		

TECHNICAL DATA

1.	Name of Plant/Section	DG Set (100 KVA) (S. No. 62615938)
2.	Source of Emission	Burning of Fuel
3.	*Type Of Fuel/Quantity	Diesel@ 20.0 ltr/hr
4.	Location of Sampling Point	As per Standard
5.	*Diameter of Stack	0.1m (Top) ; 0.1m (Bottom)
6.	*Height of Stack	7.6 meter from Canopy
7.	Sampling Time	35 minutes
8.	Ambient Air Temperature	34.1°C
9.	Stack Air Temperature	163°C
10.	Velocity of Flue Gases	8.22 m/sec

PARAMETERS	RESULTS	PRESCRIBED STANDARD BY CPCB	TEST METHOD
Particulate Matter (PM), g/kw-hr	0.056	≤0.2	IS:11255 (Part-1) 1985 Reff 1988, (RA: 2009)
Nitrogen Dioxide (NO ₂) g/kw-hr	0.044	≤4.0	IS:11255 (Part-7) 1988 RA 2005 (RA: 2012)
Carbon Monoxide (CO) g/kw-hr	1.42	≤3.5	IS:13720: 1992
Sulphur Dioxide (SO ₂), mg/Nm ³	ND (DL-3.0)	----	IS:11255 (Part-2) 1985 RA 2005 (RA: 2012)

*represent the information provided by the customer

ND-Not Detected

DL-Detection Limit

Chemist In-Charge

Date: 2/9/23

Sital Singh (CEO)

(Authorized Signatory)

Date: 02/09/2023

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TEST CERTIFICATE

REPORT No. CPTL/HP/2023/08/37b(A)

Format No. CPTLF7.8-I(A)

REPORTING DATE: 02-09-2023

NAME OF INDUSTRY:

M/s. SHIVALIK SOLID WASTE MANAGEMENT LTD.,
VILL.-MAJRA, P.O.- DABHOTA,
TEH.- NALAGARH, DISTT.- SOLAN (H.P.).

SAMPLE PARTICULARS

Sampling Plan Ref No.:	CPTLF 7.3-I	Type of Sample:	Stack Air Emission
Sampling Method:	CPTL/SM/01	Point of Sample:	From Port Hole On Stack
Date of Sample Collection:	28-08-2023	Environmental Conditions:	Normal
Date of Sample Received in Lab.:	29-08-2023	Analysis Duration:	29-08-2023 to 02-09-2023
Sample Identification No.:	CPTL/HP/2023/08/37(A)	Sample Collected By:	Daljeet Singh & Team
Nature of Sample:	Air Sample		

TECHNICAL DATA

1.	Name of Plant/Section	DG Set (100 KVA) (S. No. 62615938)
2.	Source of Emission	Burning of Fuel
3.	*Type Of Fuel/Quantity	Diesel@ 20.0 ltr/hr
4.	Location of Sampling Point	As per Standard
5.	*Diameter of Stack	0.1m (Top) ; 0.1m (Bottom)
6.	*Height of Stack	7.6 meter from Canopy
7.	Sampling Time	35 minutes
8.	Ambient Air Temperature	34.1°C
9.	Stack Air Temperature	163°C
10.	Velocity of Flue Gases	8.22 m/sec

PARAMETERS	RESULTS	PRESCRIBED STANDARD	TEST METHOD
Hydrocarbon (as HC), mg/Nm ³	36.8	-	IS:11255 (Part-1) 1985 Reff 1988, (RA: 2009)

*represent the information provided by the customer

Chemist-In-Charge

Date: 2/9/23

Sital Singh (CEO)

Date: 02/09/2023

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Website : www.cptl.co.in



TEST CERTIFICATE

REPORT No. CPTL/HP/2023/08/28(N)

Format No. CPTLF7.8-I(N)

REPORTING DATE: 02-09-2023

NAME OF INDUSTRY:

M/s. SHIVALIK SOLID WASTE MANAGEMENT LTD.,
VILL-MAJRA, P.O.- DABHOTA, TEH.-NALAGARH,
DISTT.- SOLAN (H.P) 174101.

SAMPLE PARTICULARS

Sampling Plan Ref No.:	CPTLF 7.3-I	Type of Sample:	D.G Set Noise
Sampling Method:	CPTL/SM/01	Point of Sample:	1.0 meter from Canopy
Date of Monitoring.:	28-08-2023	Environmental Conditions:	Normal
Sample Identification No.:	CPTL/HP/2023/08/28(N)	Sample Collected By:	Daljeet Singh & Team
Nature of Sample:	Noise Level Monitoring		

TECHNICAL DATA

1.	Source of Noise Pollution	DG Set
2.	* Make of D.G. Set	Sudhir
3.	* Capacity of D.G. Set	100 KVA
4.	* S. No. of D. G. Set	62615938
5.	* Date of Manufacturing of D.G. Set	Dec.2007
6.	* Date of Installation of D.G. Set	2008

PARAMETERS	RESULTS dB(A)	PRESCRIBED STANDARD dB (A)	TEST METHOD
DG Set Off	41.1	--	IS 9989:1981(Rev.2002)
DG Set On (At 1.0 meter from enclosure surface)	68.2	Max. 75	IS 9989:1981(Rev.2002)

* represent the information provided by the customer.

Chemist In-Charge

Date:

Sital Singh (CEO)

(Authorized Signatory)

Date: 02/09/2023

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END OF REPORT



Shivalik Solid Waste Management Limited

(LABORATORY DIVISION)

Regd. Office : Village Majra, P.O. Dabhota, Teh. Nalagarh, Distt. Solan Himachal Pradesh-174 101

Telefax : 01795-260427, E-mail : rajeev.thakur@beil.co.in, Website : www.sswml.com

GSTIN : 02AAJCS7647D1ZE CIN:U33130HP2005PLC028806



TEST REPORT

F/7.8-01.A

Rev 01

Report No.:	SSWML/LAB/Dec., (23-24)/INH/VS/01	Dated:	13.12.2023	Pages	1/1
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To	M/s Shivalik Solid Waste Management Ltd., Vill. Majra, P.O. Dabhota, Tehsil Nalagrah, Distt. Solan H.P.-174101				
Customer Reference	----				
Date & Mode of Receipt of Sample:	11.12.2023, Sampled by SSWML				
Sample Marking/ Identity:	Received in plastic bottles, Air Emission [Vent Stack No.1 at Cell No.1]				
Sampling / Testing Protocol:	Lab SOP/OA/03 dtd.15.05.19				
Sampling Date	11.12.2023	Sampling Time	10:10 AM - 10:50 AM	Sampling Team	Mr. Sanjeev & Team
Period of Analysis	11.12.2023 – 13.12.2023				

Sampling Details:

1. Ambient air Temperature (°C) avg.	24	5. Stack height from the ground level;(m)	4
2. Stack Gas Temperature (°C) avg.	28	6. Stack Diameter (m)	0.15
3. Stack Gas Velocity avg. (m/Sec)	5.94	7. General Environmental Conditions	Clear Sky
4. Actual duration of sampling (Minutes)	40	8. Flow Rate (Nm ³ /hr)	373

S. No.	Test Parameters	Units	Results	Standard Limits	Test Method
1	Ammonia (NH ₃)	mg/Nm ³	ND(DL=1)	---	IS:11255(P-6):1999
2	Hydrogen Sulphide as H ₂ S	µg /m ³	ND(DL=1.0)	---	IS:5182(Part VII)-1973

Note:- 1. Where ND is Not Detected & DL is Detection Limit.

Reviewed By

ANURADHA

Authorized Signatory
SUMAN LATA

*****END OF REPORT *****

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Shivalik Solid Waste Management Limited

(LABORATORY DIVISION)

Regd. Office : Village Majra, P.O. Dabhota, Teh. Nalagarh, Distt. Solan Himachal Pradesh-174 101

Telefax : 01795-260427, E-mail : rajeev.thakur@beil.co.in, Website : www.sswml.com

GSTIN : 02AAJCS7647D1ZE CIN:U33130HP2005PLC028806



TEST REPORT

F/7.8-01.A

Rev 01

Report No.:	SSWML/LAB/ Dec., (23-24)/INH/VS/02	Dated:	13.12.2023	Pages	1/1
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To	M/s Shivalik Solid Waste Management Ltd., Vill. Majra, P.O. Dabhota, Tehsil Nalagrah, Distt. Solan H.P.-174101				
Customer Reference	-----				
Date & Mode of Receipt of Sample:	11.12.2022, Sampled by SSWML				
Sample Marking/ Identity:	Received in plastic bottles, Air Emission [Vent Stack No.2 at Cell No.1]				
Sampling / Testing Protocol:	Lab SOP/OA/03 dtd.15.05.19				
Sampling Date	11.12.2023	Sampling Time	10:55 AM - 11:47 AM	Sampling Team	Mr. Sanjeev & Team
Period of Analysis	11.12.2023 – 13.12.2023				

Sampling Details:

1.	Ambient air Temperature (°C) avg.	26	5.	Stack height from the ground level;(m)	4
2.	Stack Gas Temperature (°C) avg.	28	6.	Stack Diameter (m)	0.15
3.	Stack Gas Velocity avg. (m/Sec)	5.72	7.	General Environmental Conditions	Clear Sky
4.	Actual duration of sampling (Minutes)	42	8.	Flow Rate (Nm ³ /hr)	356

S. No.	Test Parameters	Units	Results	Standard Limits	Test Method
1	Ammonia (NH ₃)	mg/Nm ³	ND(DL=1)	---	IS:11255(P-6):1999
2	Hydrogen Sulphide as H ₂ S	µg /m ³	ND(DL=1.0)	---	IS:5182(Part VII)-1973

Note:- 1. Where ND is Not Detected & DL is Detection Limit.

Reviewed By

ANURADHA

Authorized Signatory

SUMAN LATA

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 GSTIN : 02AAJCS7647D1ZE CIN:U33130HP2005PLC028806



TEST REPORT

F/7.8-01.A
 Rev 01

Report No.:	SSWML/LAB/ Dec., (23-24)/INH/VS/03	Dated:	13.12.2023	Pages	1/1
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To	M/s Shivalik Solid Waste Management Ltd., Vill. Majra, P.O. Dabhota, Tehsil Nalagrah, Distt. Solan H.P.-174101				
Customer Reference	-----				
Date & Mode of Receipt of Sample:	11.12.2023, Sampled by SSWML				
Sample Marking/ Identity:	Received in plastic bottles, Air Emission [Vent Stack No.3 at Cell No.1]				
Sampling / Testing Protocol:	Lab SOP/OA/03 dtd.15.05.19				
Sampling Date	11.12.2023	Sampling Time	12:00 PM - 12:42 PM	Sampling Team	Mr Sanjeev & Team
Period of Analysis	11.12.2023 – 13.12.2023				

Sampling Details:

1. Ambient air Temperature (°C) avg.	25	5. Stack height from the ground level:(m)	4
2. Stack Gas Temperature (°C) avg.	27	6. Stack Diameter (m)	0.15
3. Stack Gas Velocity avg. (m/Sec)	5.64	7. General Environmental Conditions	Clear Sky
4. Actual duration of sampling (Minutes)	42	8. Flow Rate (Nm ³ /hr)	354

S. No.	Test Parameters	Units	Results	Standard Limits	Test Method
1	Ammonia (NH ₃)	mg/Nm ³	ND(DL=1)	---	IS:11255(P-6):1999
2	Hydrogen Sulphide as H ₂ S	µg /m ³	ND(DL=1.0)	---	IS:5182(Part VII)-1973

Note:- 1. Where ND is Not Detected & DL is Detection Limit.

Reviewed By

ANURADHA

Authorized Signatory

SUMAN LATA

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Shivalik Solid Waste Management Limited

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GSTIN : 02AAJCS7647D1ZE CIN:U33130HP2005PLC028806



TEST REPORT

F/7.8-01.A

Rev 01

Report No.:	SSWML/LAB/ Dec., (23-24)/INH/VS/04	Dated:	13.12.2023	Pages	1/1
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To	M/s Shivalik Solid Waste Management Ltd., Vill. Majra, P.O. Dabhota, Tehsil Nalagrah, Distt. Solan H.P.-174101				
Customer Reference	-----				
Date & Mode of Receipt of Sample:	11.12.2023, Sampled by SSWML				
Sample Marking/ Identity:	Received in plastic bottles, Air Emission [Vent Stack No.4 at Cell No.2]				
Sampling / Testing Protocol:	Lab SOP/OA/03 dtd.15.05.19				
Sampling Date	11.12.2023	Sampling Time	12:47 PM - 01:23 PM	Sampling Team	Mr. Sanjeev & Team
Period of Analysis	11.12.2023 - 13.12.2023				

Sampling Details:

1.	Ambient air Temperature (°C) avg.	24	5.	Stack height from the ground level;(m)	4
2.	Stack Gas Temperature (°C) avg.	26	6.	Stack Diameter (m)	0.15
3.	Stack Gas Velocity avg. (m/Sec)	5.80	7.	General Environmental Conditions	Clear Sky
4.	Actual duration of sampling (Minutes)	41	8.	Flow Rate (Nm ³ /hr)	386

S. No.	Test Parameters	Units	Results	Standard Limits	Test Method
1	Ammonia (NH ₃)	mg/Nm ³	ND(DL=1)	---	IS:11255(P-6):1999
2	Hydrogen Sulphide as H ₂ S	µg /m ³	ND(DL=1.0)	---	IS:5182(Part VII)-1973

Note:- 1. Where ND is Not Detected & DL is Detection Limit.


Reviewed By

ANURADHA


Authorized Signatory

SUMAN LATA

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(LABORATORY DIVISION)

Regd. Office : Village Majra, P.O. Dabhota, Teh. Nalagarh, Distt. Solan Himachal Pradesh-174 101

Telefax : 01795-260427, E-mail : rajeev.thakur@beil.co.in, Website : www.sswml.com

GSTIN : 02AAJCS7647D1ZE CIN:U33130HP2005PLC028806



TEST REPORT

F/7.8-01.A

Rev 01

Report No.:	SSWML/LAB/ Dec., (23-24)/INH/VS/05	Dated:	13.12.2023	Pages	1/1
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To	M/s Shivalik Solid Waste Management Ltd., Vill. Majra, P.O. Dabhota, Tehsil Nalagrah, Distt. Solan H.P.-174101				
Customer Reference	----				
Date & Mode of Receipt of Sample:	11.12.2023, Sampled by SSWML				
Sample Marking/ Identity:	Received in plastic bottles, Air Emission [Vent Stack No.5 at Cell No.2]				
Sampling / Testing Protocol:	Lab SOP/OA/03 dtd.15.05.19				
Sampling Date	11.12.2023	Sampling Time	03:33 PM - 04:13 PM	Sampling Team	Mr. Sanjeev & Team
Period of Analysis	11.12.2023 – 13.12.2023				

Sampling Details:

1.	Ambient air Temperature (°C) avg.	26	5.	Stack height from the ground level;(m)	4
2.	Stack Gas Temperature (°C) avg.	27	6.	Stack Diameter (m)	0.15
3.	Stack Gas Velocity avg. (m/Sec)	5.92	7.	General Environmental Conditions	Clear Sky
4.	Actual duration of sampling (Minutes)	40	8.	Flow Rate (Nm ³ /hr)	366

S. No.	Test Parameters	Units	Results	Standard Limits	Test Method
1	Ammonia (NH ₃)	mg/Nm ³	ND(DL=1)	---	IS:11255(P-6):1999
2	Hydrogen Sulphide as H ₂ S	µg /m ³	ND(DL=1.0)	---	IS:5182(Part VII)-1973

Note:- 1. Where ND is Not Detected & DL is Detection Limit.

Reviewed By

ANURADHA

Authorized Signatory
SUMAN LATA

*****END OF REPORT *****

Terms and conditions governing the test report issued

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TEST REPORT

F/7.8-01.A

Rev 01

Report No.:	SSWML/LAB/ Dec., (23-24)/INH/VS/06	Dated:	13.12.2023	Pages	1/1
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To	M/s Shivalik Solid Waste Management Ltd., Vill. Majra, P.O. Dabhota, Tehsil Nalagrah, Distt. Solan H.P.-174101				
Customer Reference	----				
Date & Mode of Receipt of Sample:	11.12.2023, Sampled by SSWML				
Sample Marking/ Identity:	Received in plastic bottles, Air Emission [Vent Stack No.6 at Cell No.2]				
Sampling / Testing Protocol:	Lab SOP/OA/03 dtd.15.05.19				
Sampling Date	11.12.2023	Sampling Time	04:22 PM - 05:03 PM	Sampling Team	Mr. Sanjeev & Team
Period of Analysis	11.12.2023 – 13.12.2023				

Sampling Details:

1.	Ambient air Temperature (°C) avg.	27	5.	Stack height from the ground level:(m)	4
2.	Stack Gas Temperature (°C) avg.	29	6.	Stack Diameter (m)	0.15
3.	Stack Gas Velocity avg. (m/Sec)	5.72	7.	General Environmental Conditions	Clear Sky
4.	Actual duration of sampling (Minutes)	41	8.	Flow Rate (Nm ³ /hr)	357

S. No.	Test Parameters	Units	Results	Standard Limits	Test Method
1	Ammonia (NH ₃)	mg/Nm ³	ND(DL=1)	---	IS:11255(P-6):1999
2	Hydrogen Sulphide as H ₂ S	µg /m ³	ND(DL=1.0)	---	IS:5182(Part VII)-1973

Note:- 1. Where ND is Not Detected & DL is Detection Limit.

Reviewed By

ANURADHA

Authorized Signatory

SUMAN LATA

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TEST REPORT

F/7.8-01

Rev 01

Report No.:	SSWML/INH/December,(23-24)/EM/ULC/01	Dated:	21.12.2023	Pages	1/1
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To	M/s Shivalik Solid Waste Management Ltd. Vill. Majra ,P.O. Dabhota , Tehsil Nalagarh, Distt. Solan H.P.-174101		
Customer Reference	----		
Date & Mode of Receipt of Sample:	15.12.2023, Sampled by SSWML		
Sample Marking/ Identity:	5Ltr., Received in plastic bottle, Waste Water [Untreated Leachate (composite)]		
Sampling / Testing Protocol:	Lab SOP		
Sampling Date:	15.12.2023	Sampling Team:	Mr. Satnam & Team
Period of Analysis:	15.12.2023– 21.12.2023		

S. No.	Test Parameters	Units	Results	Standard Limits	Test Method
1	pH	---	8.12	----	APHA ^{24th Ed.2023} 4500H+-B
2	Total Suspended Solids	mg/L	273	----	APHA ^{24th Ed.2023} 2540-D
3	Total Dissolved Solids	mg/L	7816	----	APHA ^{24th Ed.2023} 2540-C
4	Chemical Oxygen Demand	mg/L	3185	----	APHA ^{24th Ed.2023} 5220 B
5	Biochemical Oxygen Demand at 27 °C for 3 Days	mg/L	207	----	IS:3025 (Part-44)1993
6	Phenolic Compound as (C ₆ H ₅ OH)	mg/L	ND(DL=0.05)	----	IS:3025(Part-43)1992
7	Sulphate	mg/L	273	----	IS:3025 (Part-24):1986
8	Chloride as Cl ⁻¹	mg/L	2815	----	APHA ^{24th Ed.2023} 4500Cl-B
9	Hexavalent Chromium as Cr ⁺⁶	mg/L	ND(DL=0.1)	----	APHA ^{24th Ed.2023} 3500Cr B
10	Fluoride	mg/L	1.85	----	APHA ^{24th Ed.2023} 4500NH ₃ B&C
11	Iron as Fe	mg/L	2.38	----	APHA ^{24th Ed.2023} 4500-F- D
12	Chromium as Cr	mg/L	0.4	----	APHA ^{24th Ed.2023} 3111 B
13	Copper as Cu	mg/L	ND(DL=0.1)	----	APHA ^{24th Ed.2023} 3111 B
14	Lead as Pb	mg/L	0.14	----	APHA ^{24th Ed.2023} 3111 B
15	Cadmium as Cd	mg/L	ND(DL=0.1)	----	APHA ^{24th Ed.2023} 3111 B
16	Arsenic as As	mg/L	ND(DL=0.05)	----	APHA ^{24th Ed.2023} 3111 B
18	Mercury as Hg	mg/L	ND(DL=0.01)	----	APHA ^{24th Ed.2023} 3113 B
19	Nickel as Ni	mg/L	1.01	----	APHA ^{24th Ed.2023} 3112 B
20	Zinc as Zn	mg/L	1.40	----	APHA ^{24th Ed.2023} 3111 B

Remarks: Where ND is Not detected & DL is detection limit

Reviewed By

ANURADHA

Authorised Signatory

SUMAN LATA

*****END OF REPORT *****

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TEST REPORT

F/7.8-01
Rev 01

Report No.:	SSWML/INH/Dec., (23-24)/EM/ULC/PNA-01	Dated:	21.12.2023	Pages	1/1
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To	M/s Shivalik Solid Waste Management Ltd. Vill. Majra ,P.O. Dabhota , Tehsil Nalagarh, Distt. Solan H.P.-174101		
Customer Reference	----		
Date & Mode of Receipt of Sample:	15.12.2023, Sampled by SSWML		
Sample Marking/ Identity:	5Ltr., Received in plastic bottle, Waste Water [Untreated Leachate (composite)]		
Sampling / Testing Protocol:	Lab SOP		
Sampling Date:	15.12.2023	Sampling Team:	Mr. Satnam & Team
Period of Analysis:	15.12.2023– 21.12.2023		

S. No.	Test Parameters	Units	Results	Standard Limits	Test Method
1	Total hardness as CaCO ₃	mg/L	895	----	APHA ^{24th} Ed.2023 2340-C
2	Total Alkalinity	mg/L	4154	----	APHA ^{24th} Ed.2023 2320-B

Remarks: Where ND is Not detected & DL is detection limit


Reviewed By

ANURADHA

*****END OF REPORT *****


Verified By
(Technical Manager)
SUMAN LATA

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GSTIN : 02AAJCS7647D1ZE CIN:U33130HP2005PLC028806



TEST REPORT

F/7.8-01

Rev 01

Report No.:	SSWML/INH/Dec.(23-24)/EM/TLC/01	Dated:	21.12.2023	Pages	1/1
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To	M/s Shivalik Solid Waste Management Ltd. Vill. Majra ,P.O. Dabhota , Tehsil Nalagarh, Distt. Solan H.P.-174101		
Customer Reference	----		
Date & Mode of Receipt of Sample:	15.12.2023, Sampled by SSWML		
Sample Marking/ Identity:	5Ltr., Received in plastic bottle, Waste Water [Condensate Water from MEE]		
Sampling / Testing Protocol:	Lab SOP		
Sampling Date:	15.12.2023	Sampling Team:	Mr. Satnam & Team
Period of Analysis:	15.12.2023– 21.12.2023		

S. No.	Test Parameters	Units	Results	Standard Limits	Test Method
1	pH	---	7.68	5.5 to 9.0	APHA ^{24th Ed.2023} 4500H+-B
2	Total Suspended Solids	mg/L	4	100	APHA ^{24th Ed.2023} 2540-D
3	Total Dissolved Solids	mg/L	140	----	APHA ^{24th Ed.2023} 2540-C
4	Chemical Oxygen Demand	mg/L	192	250	APHA ^{24th Ed.2023} 5220 B
5	Biochemical Oxygen Demand at 27 °C for 3 Days	mg/L	19	30	IS:3025 (Part-44)1993
6	Phenolic Compound as (C ₆ H ₅ OH)	mg/L	ND(DL=0.05)	1.0	IS:3025(Part-43)1992
7	Sulphate	mg/L	48	----	IS:3025 (Part-24):1986
8	Chloride as Cl ⁻¹	mg/L	26	----	APHA ^{24th Ed.2023} 4500Cl-B
9	Hexavalent Chromium as Cr ⁺⁶	mg/L	ND(DL=0.1)	0.1	APHA ^{24th Ed.2023} 3500Cr B
10	Ammonical Nitrogen (as NH ₃ -N)	mg/L	35	50	APHA ^{24th Ed.2023} 4500NH ₃ B&C
11	Fluoride	mg/L	ND(DL=0.1)	2.0	APHA ^{24th Ed.2023} 4500-F- D
12	Iron as Fe	mg/L	ND(DL=0.1)	3.0	APHA ^{24th Ed.2023} 3111 B
13	Chromium as Cr	mg/L	ND(DL=0.1)	2.0	APHA ^{24th Ed.2023} 3111 B
14	Copper as Cu	mg/L	ND(DL=0.1)	3.0	APHA ^{24th Ed.2023} 3111 B
15	Lead as Pb	mg/L	ND(DL=0.05)	0.1	APHA ^{24th Ed.2023} 3111 B
16	Cadmium as Cd	mg/L	ND(DL=0.1)	2.0	APHA ^{24th Ed.2023} 3111 B
17	Arsenic as As	mg/L	ND(DL=0.05)	0.2	APHA ^{24th Ed.2023} 3113 B
18	Mercury as Hg	mg/L	ND(DL=0.01)	0.01	APHA ^{24th Ed.2023} 3112 B
19	Nickel as Ni	mg/L	ND(DL=0.1)	3.0	APHA ^{24th Ed.2023} 3111 B
20	Zinc as Zn	mg/L	ND(DL=0.1)	5.0	APHA ^{24th Ed.2023} 3111 B

Remarks: - Standard Limits* are General Standards* for Discharge of Environmental Pollutants on Inland Surface Water.
Where ND is Not detected & DL is detection limit

Reviewed By

ANURADHA

*****END OF REPORT *****

Authorised Signatory

SUMAN LATA

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F/7.8-01
Rev 01

Report No.:	SSWML/INH/Dec, (23-24)/EM/TLC/PNA-01	Dated:	21.12.2023	Pages	1/1
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To	M/s Shivalik Solid Waste Management Ltd. Vill. Majra ,P.O. Dabhota , Tehsil Nalagarh, Distt. Solan H.P.-174101		
Customer Reference	----		
Date & Mode of Receipt of Sample:	15.12.2023, Sampled by SSWML		
Sample Marking/ Identity:	5Ltr., Received in plastic bottle, Waste Water [Condensate Water from MEE]		
Sampling / Testing Protocol:	Lab SOP		
Sampling Date:	15.12.2023	Sampling Team:	Mr. Satnam & Team
Period of Analysis:	15.12.2023– 21.12.2023		

S. No.	Test Parameters	Units	Results	Standard Limits	Test Method
1	Total hardness as CaCO ₃	mg/L	20	----	APHA ^{24th Ed.2023} 2340-C
2	Total Alkalinity	mg/L	176	----	APHA ^{24th Ed.2023} 2320-B

Remarks: - Standard Limits* are General Standards* for Discharge of Environmental Pollutants on Inland Surface Water.
Where ND is Not detected & DL is detection limit

Reviewed By

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*****END OF REPORT*****

Verified By
(Technical Manager)

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