

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

Test Report

Sample Number:

VEL/MSK/AA/01

Report No.:

VEL/AA/2303/14/001

Issue to:

M/s MSK (JV)

Format No.:

7.8 F-03

S-571, Greater Kailash Part- II, New Delhi-110048 Party Reference No.:

NIL

Name & address of

Project:

Stone Mine of AtelaKalan, Village- AtelaKalan,

Reporting Date:

18/03/2023

Tehsil- Charkhi Dadri, District- Bhiwani (HR).

Period of Analysis:

14/03/2023 to 18/03/2023

Receipt Date:

14/03/2023

Sample Description:

Ambient Air Quality Monitoring

General Information:-

Sample collected by

: Vardan Enviro Lab Representative

Sampling Location

: Near Mine Site

Instrument Used Instrument Code

: RDS and FPS: VEL/RDS/FPS/05

Instrument Calibration Status

Calibrated Clear Sky

Meteorological condition during monitoring

13/03/2023 to 14/03/2023

Date of Monitoring
Time of Monitoring

09:30 AM to 09:30 AM

Ambient Temperature (°C)

Min.18.0°C, Max. 30.0°C

Surrounding Activity

: Human & Vehicular Activities

Scope of Monitoring

: Regulatory Requirement

Control measure if Any

: IS: 5182 and CPCB Guidelines

Sampling & Analysis Protocol

: As per Work Order

TEST RESULTS

S. No.	Parameter	Test Method	Result	Unit	NAAQS*
1.	Particulate Matter (PM _{2.5})	IS 5182 (P-24), Gravimetric Method	63.07	μg/m ³	60
2.	Particulate Matter (PM ₁₀)	IS 5182 (P-23), Gravimetric Method	128.05	μg/m ³	100
3.	Nitrogen Dioxide (NO ₂)	IS 5182 (P-6), Jacob & Hochheiser	20.15	μg/m ³	80
4.	Sulphur Dioxide (SO ₂)	IS 5182 (P-2), Modified West and Geake	11.75	μg/m ³	80
5.	Carbon Monoxide (CO)	IS 5182 (P-10), NDIR Method	0.81	mg/m^3	4

[®]NAAQS – National Ambient Air Quality Standards; Schedule-VII, [Rule 3 (3B)], [Part-II-sec.-3(i)] 18.11.2009

*Limit of CO for one hour monitoring.







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

Test Report

Sample Number:

VEL/MSK/AA/02

Report No.:

VEL/AA/2303/14/002

Issue to:

M/s MSK (JV)

Format No.:

7.8 F-03

NIL

S-571, Greater Kailash Part- II,

New Delhi-110048

Reporting Date:

Party Reference No.:

18/03/2023

Name & address of

Project:

Stone Mine of AtelaKalan , Village- AtelaKalan, Tehsil- Charkhi Dadri, District- Bhiwani (HR).

Period of Analysis:

14/03/2023 to 18/03/2023

Receipt Date:

14/03/2023

Sample Description :

Ambient Air Quality Monitoring

General Information:-

Sample collected by

. Vardan Enviro Lab Representative

Sampling Location

Loading Area

Instrument Used

: RDS and FPS

Instrument Code

VEL/RDS/FPS/04 Calibrated

Instrument Calibration Status

Meteorological condition during monitoring

Clear Sky

Date of Monitoring

13/03/2023 to 14/03/2023

Time of Monitoring

: 09:30 AM to 09:30 AM

 $\boldsymbol{Ambient\ Temperature\ (^{\circ}C)}$

Min.18.0°C, Max. 30.0°C

Surrounding Activity
Scope of Monitoring

Control measure if Any

: Regulatory Requirement: IS: 5182 and CPCB Guidelines

Human & Vehicular Activities

Sampling & Analysis Protocol

As per Work Order

TEST RESULTS

S. No.	Parameter Test Method		Result	Unit	NAAQS*
1.	Particulate Matter (PM _{2.5})	IS 5182 (P-24), Gravimetric Method	70.60	μg/m ³	60
2.	Particulate Matter (PM ₁₀)	IS 5182 (P-23), Gravimetric Method	136.19	μg/m ³	100
3.	Nitrogen Dioxide (NO ₂)	IS 5182 (P-6), Jacob & Hochheiser	24.80	μg/m ³	80
4.	Sulphur Dioxide (SO ₂)	IS 5182 (P-2), Modified West and Geake	10.16	μg/m ³	80
5.	Carbon Monoxide (CO)	IS 5182 (P-10), NDIR Method	0.82	mg/m ³	4

[®]NAAQS – National Ambient Air Quality Standards; Schedule-VII, [Rule 3 (3B)], [Part-II-sec.-3(i)] 18.11.2009

*Limit of CO for one hour monitoring.







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

Test Report

Sample Number:

VEL/MSK/AA/03

New Delhi-110048

Report No.:

VEL/AA/2303/14/003

Issue to:

M/s MSK (JV)

Format No.:

7.8 F-03

S-571, Greater Kailash Part- II,

Party Reference No.:

NIL

Name & address of

Stone Mine of AtelaKalan, Village- AtelaKalan,

Reporting Date:

18/03/2023

Project:

Tehsil- Charkhi Dadri, District- Bhiwani (HR).

Period of Analysis: **Receipt Date:**

14/03/2023 to 18/03/2023 14/03/2023

Sample Description:

Ambient Air Quality Monitoring

General Information:-

Sample collected by

Vardan Enviro Lab Representative

Sampling Location

100 mtr from mine site

Instrument Used

RDS and FPS

Instrument Code

VEL/RDS/FPS/02

Instrument Calibration Status

Calibrated

Meteorological condition during monitoring

Clear Sky

Date of Monitoring

13/03/2023 to 14/03/2023

Time of Monitoring

09:30 AM to 09:30 AM

Ambient Temperature (°C)

Min.18.0°C, Max. 30.0°C

Surrounding Activity Scope of Monitoring

Regulatory Requirement

Control measure if Any

IS: 5182 and CPCB Guidelines

Human & Vehicular Activities

Sampling & Analysis Protocol

As per Work Order

TEST RESULTS

S. No.	Parameter	Test Method	Result	Unit	NAAQS*
1.	Particulate Matter (PM _{2.5})	IS 5182 (P-24), Gravimetric Method	63.06	μg/m ³	60
2.	Particulate Matter (PM ₁₀)	IS 5182 (P-23), Gravimetric Method	121.85	μg/m ³	100
3.	Nitrogen Dioxide (NO ₂)	IS 5182 (P-6), Jacob & Hochheiser	17.36	μg/m ³	80
4.	Sulphur Dioxide (SO ₂)	IS 5182 (P-2), Modified West and Geake	10.96	μg/m ³	80
5.	Carbon Monoxide (CO)	IS 5182 (P-10), NDIR Method	0.71	mg/m^3	4

[®]NAAQS – National Ambient Air Quality Standards; Schedule-VII, [Rule 3 (3B)], [Part-II-sec.-3(i)] 18.11.2009

*Limit of CO for one hour monitoring.







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

Test Report

Sample Number:

VEL/MSK/AA/04

New Delhi-110048

Report No.:

VEL/AA/2303/14/004

Issue to:

M/s MSK (JV)

Format No.:

7.8 F-03

issue to .

S-571, Greater Kailash Part- II,

Party Reference No.:

NIL

Name & address of

Project:

Stone Mine of AtelaKalan , Village- AtelaKalan,

Reporting Date:

18/03/2023

Tehsil- Charkhi Dadri, District- Bhiwani (HR).

Period of Analysis:

14/03/2023 to 18/03/2023

Receipt Date:

14/03/2023

Sample Description:

Ambient Air Quality Monitoring

General Information:-

Sample collected by

. Vardan Enviro Lab Representative

Sampling Location

100 mtr from mine site

Instrument Used

: RDS and FPS

Instrument Code

: VEL/RDS/FPS/03

Instrument Calibration Status

Calibrated

:

Meteorological condition during monitoring Date of Monitoring Clear Sky 13/03/2023 to 14/03/2023

Time of Monitoring

09:30 AM to 09:30 AM

Ambient Temperature (°C)

Min.18.0°C, Max. 30.0°C

Surrounding Activity

: Human & Vehicular Activities

IS: 5182 and CPCB Guidelines

Scope of Monitoring

Regulatory Requirement

Control measure if Any

Sampling & Analysis Protocol

: As per Work Order

TEST RESULTS

S. No.	Parameter	Test Method	Result	Unit	NAAQS*
1.	Particulate Matter (PM _{2.5})	IS 5182 (P-24), Gravimetric Method	58.01	μg/m ³	60
2.	Particulate Matter (PM ₁₀)	IS 5182 (P-23), Gravimetric Method	117.20	μg/m ³	100
3.	Nitrogen Dioxide (NO ₂)	IS 5182 (P-6), Jacob & Hochheiser	21.85	μg/m ³	80
4.	Sulphur Dioxide (SO ₂)	IS 5182 (P-2), Modified West and Geake	9.10	μg/m ³	80
5.	Carbon Monoxide (CO)	IS 5182 (P-10), NDIR Method	0.74	mg/m ³	4

[®]NAAQS – National Ambient Air Quality Standards; Schedule-VII, [Rule 3 (3B)], [Part-II-sec.-3(i)] 18.11.2009

(Checked By)

(Approved By)





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^{*}Limit of CO for one hour monitoring.



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

Test Report

Sample Number:

VEL/MSK/AA/05

New Delhi-110048

Report No.:

VEL/AA/2303/14/005

Issue to:

M/s MSK (JV)

Format No.:

7.8 F-03

S-571, Greater Kailash Part- II,

Party Reference No.:

NIL

Name & address of

Project:

Stone Mine of AtelaKalan , Village- AtelaKalan,

Reporting Date:

18/03/2023

Tehsil- Charkhi Dadri, District- Bhiwani (HR).

Period of Analysis:

14/03/2023 to 18/03/2023

Receipt Date:

14/03/2023

Sample Description:

Ambient Air Quality Monitoring

General Information:-

Sample collected by

. Vardan Enviro Lab Representative

Sampling Location

Village- Atela Kalan

Instrument Used

RDS and FPS

Instrument Code

VEL/RDS/FPS/06

Instrument Calibration Status

Calibrated

 ${\bf Meteorological\ condition\ during\ monitoring}$

Clear Sky 13/03/2023 to 14/03/2023

Date of Monitoring
Time of Monitoring

09:30 AM to 09:30 AM

Ambient Temperature (°C)

Min.18.0°C, Max. 30.0°C

Surrounding Activity

: Human & Vehicular Activities

IS: 5182 and CPCB Guidelines

Scope of Monitoring

Regulatory Requirement

As per Work Order

Control measure if Any

Sampling & Analysis Protocol

TEST RESULTS

S. No.	Parameter	Test Method	Result	Unit	NAAQS*
1.	Particulate Matter (PM _{2.5})	IS 5182 (P-24), Gravimetric Method	52.09	μg/m ³	60
2.	Particulate Matter (PM ₁₀)	IS 5182 (P-23), Gravimetric Method	110.85	μg/m ³	100
3.	Nitrogen Dioxide (NO ₂)	IS 5182 (P-6), Jacob & Hochheiser	22.47	μg/m ³	80
4.	Sulphur Dioxide (SO ₂)	IS 5182 (P-2), Modified West and Geake	9.07	μg/m ³	80
5.	Carbon Monoxide (CO)	IS 5182 (P-10), NDIR Method	0.60	mg/m ³	4

[®]NAAQS – National Ambient Air Quality Standards; Schedule-VII, [Rule 3 (3B)], [Part-II-sec.-3(i)] 18.11.2009

*Limit of CO for one hour monitoring.







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

Test Report

Sample Number:

VEL/MSK/AA/06

New Delhi-110048

Report No.:

VEL/AA/2303/14/006

Issue to:

M/s MSK (JV)

Format No.:

7.8 F-03

Party Reference No.:

NIL

Name & address of

Project:

Stone Mine of AtelaKalan , Village- AtelaKalan,

Reporting Date:

18/03/2023

Tehsil- Charkhi Dadri, District- Bhiwani (HR).

Period of Analysis:

14/03/2023 to 18/03/2023

Receipt Date:

14/03/2023

Sample Description :

Ambient Air Quality Monitoring

S-571, Greater Kailash Part- II,

General Information:-

Sample collected by

. Vardan Enviro Lab Representative

Sampling Location

: Village-Bilawal

Instrument Used

RDS and FPS

Instrument Code

VEL/RDS/FPS/07

Meteorological condition during monitoring

Calibrated
Clear Sky

Date of Monitoring

: 13/03/2023 to 14/03/2023

Time of Monitoring

Instrument Calibration Status

: 09:30 AM to 09:30 AM

Ambient Temperature (°C)

: Min.18.0°C, Max. 30.0°C

Surrounding Activity

: Human & Vehicular Activities

Scope of Monitoring

: Regulatory Requirement

IS: 5182 and CPCB Guidelines

Control measure if Any

Sampling & Analysis Protocol

As per Work Order

TEST RESULTS

S. No.	Parameter Test Method		Result	Unit	NAAQS*
1.	Particulate Matter (PM _{2.5})	IS 5182 (P-24), Gravimetric Method	54.90	μg/m ³	60
2.	Particulate Matter (PM ₁₀)	IS 5182 (P-23), Gravimetric Method	114.53	μg/m ³	100
3.	Nitrogen Dioxide (NO ₂)	IS 5182 (P-6), Jacob & Hochheiser	17.47	μg/m ³	80
4.	Sulphur Dioxide (SO ₂)	IS 5182 (P-2), Modified West and Geake	6.81	μg/m ³	80
5.	Carbon Monoxide (CO)	IS 5182 (P-10), NDIR Method	0.48	mg/m ³	4

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*Limit of CO for one hour monitoring.







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

Test Report

Sample Number:

VEL/MSK/AA/07

New Delhi-110048

Report No.:

VEL/AA/2303/14/007

Issue to:

M/s MSK (JV)

Format No.:

7.8 F-03

S-571, Greater Kailash Part- II,

Party Reference No.:

NIL

Name & address of

S

Stone Mine of AtelaKalan, Village- AtelaKalan,

Reporting Date:

18/03/2023

Project:

Tehsil- Charkhi Dadri, District- Bhiwani (HR).

Period of Analysis:

14/03/2023 to 18/03/2023

Receipt Date:

14/03/2023

Sample Description:

Ambient Air Quality Monitoring

General Information:-

Sample collected by

: Vardan Enviro Lab Representative

Sampling Location

Village-Atela Khurd

Instrument Used

RDS and FPS

Instrument Code

VEL/RDS/FPS/09

Instrument Calibration Status

Calibrated Clear Sky

 ${\bf Meteorological\ condition\ during\ monitoring}$

: 13/03/2023 to 14/03/2023

Date of Monitoring
Time of Monitoring

09:30 AM to 09:30 AM

Ambient Temperature (°C)

: Min.18.0°C, Max. 30.0°C

Surrounding Activity

Human & Vehicular Activities

Scope of Monitoring

: Regulatory Requirement

Control measure if Any

: IS: 5182 and CPCB Guidelines

Sampling & Analysis Protocol

As per Work Order

TEST RESULTS

S. No.	Parameter	Test Method	Result	Unit	NAAQS*
1.	Particulate Matter (PM _{2.5})	IS 5182 (P-24), Gravimetric Method	52.08	μg/m ³	60
2.	Particulate Matter (PM ₁₀)	IS 5182 (P-23), Gravimetric Method	116.43	μg/m ³	100
3.	Nitrogen Dioxide (NO ₂)	IS 5182 (P-6), Jacob & Hochheiser	19.84	μg/m ³	80
4.	Sulphur Dioxide (SO ₂)	IS 5182 (P-2), Modified West and Geake	8.72	μg/m ³	80
5.	Carbon Monoxide (CO)	IS 5182 (P-10), NDIR Method	0.51	mg/m ³	4

®NAAQS – National Ambient Air Quality Standards; Schedule-VII, [Rule 3 (3B)], [Part-II-sec.-3(i)] 18.11.2009

*Limit of CO for one hour monitoring.







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

Test Report

Sample Number:

VEL/MSK/AA/08

Report No.:

VEL/AA/2303/14/008

Issue to:

M/s MSK (JV)

Format No.:

7.8 F-03

S-571, Greater Kailash Part- II, New Delhi-110048

Party Reference No.:

NIL

Name & address of

Stone Mine of AtelaKalan, Village- AtelaKalan,

Reporting Date:

Receipt Date:

18/03/2023

14/03/2023

Project:

Tehsil- Charkhi Dadri, District- Bhiwani (HR).

Period of Analysis:

14/03/2023 to 18/03/2023

Sample Description:

Ambient Air Quality Monitoring

Vardan Enviro Lab Representative

Sampling Location

Sample collected by

General Information:-

Village-Dohka Moji

Instrument Used

RDS and FPS

Instrument Code

VEL/RDS/FPS/10

Instrument Calibration Status

Calibrated Clear Sky

Meteorological condition during monitoring

13/03/2023 to 14/03/2023

Date of Monitoring Time of Monitoring

09:30 AM to 09:30 AM

Ambient Temperature (°C)

Min.18.0°C, Max. 30.0°C

Surrounding Activity

Human & Vehicular Activities

Scope of Monitoring

Regulatory Requirement

Control measure if Any

IS: 5182 and CPCB Guidelines

Sampling & Analysis Protocol

As per Work Order

TEST RESULTS

S. No.	Parameter Test Method		Result	Unit	NAAQS*
1.	Particulate Matter (PM _{2.5})	IS 5182 (P-24), Gravimetric Method	49.36	μg/m ³	60
2.	Particulate Matter (PM ₁₀)	IS 5182 (P-23), Gravimetric Method	105.14	μg/m ³	100
3.	Nitrogen Dioxide (NO ₂)	IS 5182 (P-6), Jacob & Hochheiser	19.39	μg/m ³	80
4.	Sulphur Dioxide (SO ₂)	IS 5182 (P-2), Modified West and Geake	7.11	μg/m ³	80
5.	Carbon Monoxide (CO)	IS 5182 (P-10), NDIR Method	0.56	mg/m ³	4

NAAQS – National Ambient Air Quality Standards; Schedule-VII, [Rule 3 (3B)], [Part-II-sec.-3(i)] 18.11.2009

*Limit of CO for one hour monitoring.







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

Test Report

Sample Number:

VEL/MSK/AN/01

Report No.:

VEL/AN/2303/14/001

Issue to:

M/s MSK (JV)

Format No.: **Party Reference No.:** 7.8 F-03

NIL

S-571, Greater Kailash Part- II, New Delhi-110048.

Reporting Date:

18/03/2023

Stone Mine of AtelaKalan, Village-

Receipt Date:

14/03/2023

Name & Address of Project:

AtelaKalan, Tehsil- Charkhi Dadri,

District- Bhiwani (HR).

Sample Description:

Ambient Noise Level Monitoring

General Information:-

Sample Collected By

Vardan Envirolab Representative

Near Mine Site

Sampling Location Sampling Instrument Used

Sound Level Meter

Instrument Code

: VEL/SLM/03

Instrument Calibration Status

: Calibrated

Meteorological condition during monitoring

Clear Sky

Date of Monitoring

13/03/2023 to 14/03/2023 06:00 AM to 06:00 AM

Time of Monitoring Surrounding Activity

Human & Vehicular Activities

Scope of Monitoring

Regulatory Requirement

Control measure if Any

No any

Sampling & Analysis Protocol **Sampling Duration**

IS-9989 24.0 Hours

Parameter Required

As per Work Order

TEST RESULTS

			Test Re		
S. No.	Parameters	Test Method	Day Time (6:00 am to 10:00 pm)	Night Time (10:00 pm to 06:00 am)	Unit
1.	L _{Max}	IS 9989	72.6	64.1	dB(A)
2.	L_{Min}	IS 9989	55.8	42.6	dB(A)
3.	L_{eq}	IS 9989	71.05	56.80	dB(A)
4.	*DGMS Limits in dB(*A) Leq (Mining Area)	-	75.0	70.0	dB(A)

Note *A "decibel" is a unit in which noise is measured.

End of Report







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

Test Report

Sample Number:

VEL/MSK/AN/02

Report No.:

VEL/AN/2303/14/002

Issue to:

M/s MSK (JV)

Delhi-110048.

Format No.:

7.8 F-03

issue to .

S-571, Greater Kailash Part- II, New

Party Reference No.:

NIL

Stone Mine of AtelaKalan , Village-

Reporting Date:

18/03/2023

Name & Address of Project:

AtelaKalan, Tehsil- Charkhi Dadri,

Receipt Date:

14/03/2023

Sample Description:

Ambient Noise Level Monitoring

District- Bhiwani (HR).

General Information:-

Sample Collected By

Sampling Location

Sampling Instrument Used

Instrument Code

Instrument Calibration Status Meteorological condition during monitoring

Data of Manitaring

Date of Monitoring Time of Monitoring

Surrounding Activity
Scope of Monitoring

Control measure if Any Sampling & Analysis Protocol

Sampling Duration

Parameter Required

: Vardan Envirolab Representative

Loading Area

: Sound Level Meter

VEL/SLM/01

: Calibrated

Clear Sky

13/03/2023 to 14/03/2023

06:00 AM to 06:00 AM

Human & Vehicular Activities

Regulatory Requirement

No any

: IS-9989

24.0 Hours

As per Work Order

TEST RESULTS

			Test Re		
S. No.	Parameters	Test Method	Day Time (6:00 am to 10:00 pm)	Night Time (10:00 pm to 06:00 am)	Unit
1.	L _{Max}	IS 9989	78.1	62.4	dB(A)
2.	L_{Min}	IS 9989	54.9	41.8	dB(A)
3.	L_{eq}	IS 9989	72.60	56.17	dB(A)
4.	*DGMS Limits in dB(*A) Leq (Mining Area)	-	75.0	70.0	dB(A)

Note *A "decibel" is a unit in which noise is measured.

End of Report







Test Report

Sample Number:

VEL/MSK/AN/03

Report No.:

VEL/AN/2303/14/003

Issue to:

M/s MSK (JV)

Format No.:

7.8 F-03

Party Reference No.:

NIL

Delhi-110048.

Reporting Date:

18/03/2023

Name & Address of Project:

Stone Mine of AtelaKalan, Village-

Receipt Date:

Vardan Envirolab Representative

14/03/2023

AtelaKalan, Tehsil- Charkhi Dadri,

S-571, Greater Kailash Part- II, New

District- Bhiwani (HR).

Sample Description:

Ambient Noise Level Monitoring

General Information:-

Parameter Required

Sample Collected By

100 mtr from mine site **Sampling Location Sampling Instrument Used** Sound Level Meter

Instrument Code VEL/SLM/05 **Instrument Calibration Status** Calibrated

Meteorological condition during monitoring : Clear Sky

Date of Monitoring 13/03/2023 to 14/03/2023 06:00 AM to 06:00 AM **Time of Monitoring Surrounding Activity** Human & Vehicular Activities **Scope of Monitoring** Regulatory Requirement

Control measure if Any No any Sampling & Analysis Protocol IS-9989 24.0 Hours **Sampling Duration**

: As per Work Order

TEST RESULTS

			Test Re		
S. No.	Parameters	Test Method	Day Time (6:00 am to 10:00 pm)	Night Time (10:00 pm to 06:00 am)	Unit
1.	L _{Max}	IS 9989	74.8	64.2	dB(A)
2.	L_{Min}	IS 9989	53.6	41.8	dB(A)
3.	L_{eq}	IS 9989	66.01	54.04	dB(A)
4.	*DGMS Limits in dB(*A) Leq (Mining Area)	-	75.0	70.0	dB(A)

Note *A "decibel" is a unit in which noise is measured.

End of Report







Test Report

Sample Number:

VEL/MSK/AN/04

Report No.:

VEL/AN/2303/14/004

Issue to:

M/s MSK (JV)

Format No.:

7.8 F-03

Party Reference No.:

NIL

S-571, Greater Kailash Part- II, New Delhi-110048.

Stone Mine of AtelaKalan, Village-

Reporting Date:

18/03/2023

Name & Address of Project:

AtelaKalan, Tehsil- Charkhi Dadri,

Receipt Date:

14/03/2023

District- Bhiwani (HR).

Sample Description:

Ambient Noise Level Monitoring

General Information:-

Sample Collected By

Vardan Envirolab Representative

Sampling Location

Haul Road

Sampling Instrument Used Instrument Code

Sound Level Meter : VEL/SLM/03

Instrument Calibration Status

: Calibrated

Meteorological condition during monitoring

Clear Sky

Date of Monitoring Time of Monitoring 13/03/2023 to 14/03/2023 06:00 AM to 06:00 AM

Human & Vehicular Activities

Surrounding Activity Scope of Monitoring

Regulatory Requirement

Control measure if Any

No any

Sampling & Analysis Protocol

IS-9989

Sampling Duration

24.0 Hours

Parameter Required

: As per Work Order

TEST RESULTS

			Test Re		
S. No.	Parameters	Test Method	Day Time (6:00 am to 10:00 pm)	Night Time (10:00 pm to 06:00 am)	Unit
1.	L _{Max}	IS 9989	72.7	62.7	dB(A)
2.	L_{Min}	IS 9989	43.8	41.6	dB(A)
3.	L_{eq}	IS 9989	69.10	54.27	dB(A)
4.	*DGMS Limits in dB(*A) Leq (Mining Area)	-	75.0	70.0	dB(A)

Note *A "decibel" is a unit in which noise is measured.

End of Report





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

Test Report

Sample Number:

VEL/MSK/AN/05

Report No.:

VEL/AN/2303/14/005

Issue to:

M/s MSK (JV)

Format No.:

7.8 F-03

S-571, Greater Kailash Part- II, New

Party Reference No.:

NIL

Delhi-110048.

Reporting Date:

18/03/2023

Name & Address of Ductock

Stone Mine of AtelaKalan, Village-

Receipt Date:

14/03/2023

Name & Address of Project:

AtelaKalan, Tehsil- Charkhi Dadri,

District- Bhiwani (HR).

Sample Description:

Ambient Noise Level Monitoring

General Information:-

Sample Collected By Sampling Location

: Vardan Envirolab Representative

: Village-Atela Kalan

Sampling Instrument Used

Sound Level Meter

Instrument Code

VEL/SLM/03

Instrument Calibration Status

: Calibrated

Meteorological condition during monitoring

: Clear Sky

Date of Monitoring

13/03/2023 to 14/03/2023 06:00 AM to 06:00 AM

Time of Monitoring Surrounding Activity

: Human & Vehicular Activities

Surrounding Activity Scope of Monitoring

Regulatory Requirement

Control measure if Any

No any

Sampling & Analysis Protocol

IS-9989

Sampling Duration Parameter Required 24.0 HoursAs per Work Order

TEST RESULTS

			Test Re	esult dB (A)	Unit dB(A) dB(A)
S. No.			Day Time (6:00 am to 10:00 pm)	Night Time (10:00 pm to 06:00 am)	Unit
1.	L _{Max}	IS 9989	62.8	51.5	dB(A)
2.	L_{Min}	IS 9989	43.7	36.2	dB(A)
3.	L_{eq}	IS 9989	51.06	43.16	dB(A)
4.	*DGMS Limits in dB(*A) Leq (Mining Area)	-	75.0	70.0	dB(A)

Note *A "decibel" is a unit in which noise is measured.

End of Report







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

Test Report

Sample Number:

VEL/MSK/AN/06

Report No.:

VEL/AN/2303/14/006

Issue to:

M/s MSK (JV)

Format No.:

7.8 F-03

S-571, Greater Kailash Part- II, New

Party Reference No.:

NIL

Delhi-110048.

Reporting Date:

18/03/2023

Stone Mine of AtelaKalan, Village-

Receipt Date:

14/03/2023

Name & Address of Project:

AtelaKalan, Tehsil- Charkhi Dadri, District- Bhiwani (HR).

Sample Description:

Ambient Noise Level Monitoring

General Information:-

Sample Collected By

Vardan Envirolab Representative

Sampling Location Sampling Instrument Used

Village-Bilawal : Sound Level Meter

: VEL/SLM/06

Instrument Code

: Calibrated

Instrument Calibration Status

Clear Sky

Meteorological condition during monitoring

13/03/2023 to 14/03/2023

Date of Monitoring Time of Monitoring

: 06:00 AM to 06:00 AM

Surrounding Activity

Human & Vehicular Activities Regulatory Requirement

Scope of Monitoring

No any

Control measure if Any Sampling & Analysis Protocol

IS-9989

Sampling Duration Parameter Required

24.0 Hours

As per Work Order TEST RESULTS

			Test Re	Unit	
S. No. Parameters		Test Method	Day Time (6:00 am to 10:00 pm)	Night Time (10:00 pm to 06:00 am)	Unit
1.	L_{Max}	IS 9989	64.6	52.8	dB(A)
2.	L_{Min}	IS 9989	42.1	33.7	dB(A)
3.	$L_{\rm eq}$	IS 9989	56.82	45.01	dB(A)
4.	*DGMS Limits in dB(*A) Leq (Mining Area)	-	75.0	70.0	dB(A)

Note *A "decibel" is a unit in which noise is measured.

End of Report







Test Report

Sample Number:

VEL/MSK/AN/07

Report No.:

VEL/AN/2303/14/007

Issue to:

M/s MSK (JV)

Format No.:

7.8 F-03

issue to .

S-571, Greater Kailash Part- II, New

Party Reference No.:

NIL

Delhi-110048.

Stone Mine of AtelaKalan, Village-

Reporting Date: Receipt Date: 18/03/2023 14/03/2023

Name & Address of Project:

AtelaKalan, Tehsil- Charkhi Dadri,

District- Bhiwani (HR).

Sample Description:

Ambient Noise Level Monitoring

General Information:-

Sample Collected By Sampling Location

: Vardan Envirolab Representative

: Village- Atela Khurd

Sampling Instrument Used

Sound Level Meter

Instrument Code

VEL/SLM/08

Instrument Calibration Status

Calibrated

Meteorological condition during monitoring

: Clear Sky

Date of Monitoring

13/03/2023 to 14/03/2023 06:00 AM to 06:00 AM

Time of Monitoring Surrounding Activity

Human & Vehicular Activities

Scope of Monitoring

Regulatory Requirement

Control measure if Any Sampling & Analysis Protocol : No any

Sampling Duration

IS-9989 24.0 Hours

Parameter Required

As per Work Order

TEST RESULTS

			Test Re	esult dB (A)	Unit dB(A)
S. No.	Parameters	Test Method	Day Time (6:00 am to 10:00 pm)	Night Time (10:00 pm to 06:00 am)	Unit
1.	L _{Max}	IS 9989	65.8	51.7	dB(A)
2.	L_{Min}	IS 9989	41.7	35.1	dB(A)
3.	L_{eq}	IS 9989	54.82	42.94	dB(A)
4.	*DGMS Limits in dB(*A) Leq (Mining Area)	-	75.0	70.0	dB(A)

Note *A "decibel" is a unit in which noise is measured.

End of Report





Test Report

Sample Number:

VEL/MSK/AN/08

Report No.:

VEL/AN/2303/14/008

Issue to:

M/s MSK (JV)

Format No.:

7.8 F-03

S-571, Greater Kailash Part- II, New

Party Reference No.:

NIL

Delhi-110048.

Reporting Date:

18/03/2023

Name & Address of Project:

Stone Mine of AtelaKalan, Village-AtelaKalan, Tehsil- Charkhi Dadri, **Receipt Date:**

14/03/2023

District- Bhiwani (HR).

Sample Description:

Ambient Noise Level Monitoring

General Information:-

Sample Collected By

Vardan Envirolab Representative

Sampling Location

Village- Dohka Moji

Sampling Instrument Used

Sound Level Meter

Instrument Code

VEL/SLM/08

Instrument Calibration Status

: Calibrated

Meteorological condition during monitoring

: Clear Sky

Date of Monitoring Time of Monitoring 13/03/2023 to 14/03/2023 06:00 AM to 06:00 AM

Surrounding Activity

Human & Vehicular Activities

Scope of Monitoring

Regulatory Requirement

Control measure if Any

No any

Sampling & Analysis Protocol

IS-9989

Sampling Duration

24.0 Hours

Parameter Required

: As per Work Order

TEST RESULTS

			Test Re	esult dB (A)	Unit dB(A) dB(A) dB(A)
S. No.	No. Parameters Test Method		Day Time (6:00 am to 10:00 pm)	Night Time (10:00 pm to 06:00 am)	Unit
1.	L _{Max}	IS 9989	66.9	58.1	dB(A)
2.	L_{Min}	IS 9989	43.3	34.9	dB(A)
3.	L_{eq}	IS 9989	57.81	48.02	dB(A)
4.	*DGMS Limits in dB(*A) Leq (Mining Area)	-	75.0	70.0	dB(A)

Note *A "decibel" is a unit in which noise is measured.

End of Report







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

Test Report

Sample Number:

VEL/MSK/W/01

Report No.:

VEL/W/2211/17/001

Name & Address of the Project:

M/s MSK (JV)

Format No.:

7.8 F-03

S-571, Greater Kailash Part- II, New Delhi-

Party Reference No.:

NIL

110048

Reporting Date:

21/11/2022

17/11/2022

Period of Analysis:

Receipt Date:

17/11/2022 to 21/11/2022

Name & Address of Project

Stone Mine of Atela Kalan ,Village-

AtelaKalan, Tehsil- Charkhi Dadri, District-

Bhiwani (HR).

Ground Water

Sampling Date:

16/11/2022

Sample Description: Sample Location:

Near Mine site

Sampling Quantity:

5.0 Liter + 250 ml

Sample Collected by:

Vardan Envirolab Representative

Sampling Type:

Grab

Preservation:

Ice Box

Parameter Required:

As per work order

Sampling and Analysis Protocol:

APHA 23rd Edition 2017 & IS 3025

					Limits of IS	:10500 -2012
S. No.	Parameter	Test-Method	Result	Unit	Requirement (Acceptable Limit)	Permissible limit in the Absence of Alternate Source
1.	pH (at 25 °C)	IS3025 (P-11)	7.60		6.5 to 8.5	No Relaxation
2.	Colour	IS3025 (P-4)	BLQ(LOQ-1.0)	Hazen	5	15
3.	Turbidity	IS3025 (P-10)	BLQ(LOQ-1.0)	NTU	1	5
4.	Odour	IS3025 (P-5)	Agreeable		Agreeable	Agreeable
5.	Taste	IS3025 (P-8)	Agreeable		Agreeable	Agreeable
6.	Total Hardness (as CaCO ₃)	IS3025 (P-21)	213.07	mg/l	200	600
7.	Calcium (as Ca)	IS3025 (P-40)	58.26	mg/l	75	200
8.	Alkalinity (as CaCO ₃)	IS3025 (P-23)	176.18	mg/l	200	600
9.	Chloride (as Cl)	IS 3025 (P-32)	58.47	mg/l	250	1000
10.	Cyanide (as CN)	IS 3025 (P-27)	BLQ(LOQ-0.02)	mg/l	0.05	No Relaxation
11.	Magnesium (as Mg)	IS3025 (P-46)	16.45	mg/l	30	100
12.	Total Dissolved Solids	IS3025 (P-16)	378.00	mg/l	500	2000
13.	Sulphate(as SO ₄)	IS3025 (P-24)	32.85	mg/l	200	400
14.	Fluoride (as F)	IS 3025 (P-60)	0.38	mg/l	1.0	1.5
15.	Nitrate (as NO ₃)	IS3025 (P-34)	10.13	mg/l	45	No Relaxation
16.	Iron (as Fe)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	0.39	mg/l	1.0	No relaxation
17.	Aluminum (as Al)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	BLQ(LOQ-0.002)	mg/l	0.03	0.2
18.	Boron	VEL/STP/ICP/W-01, Issue No01, 01/11/21	BLQ(LOQ-0.01)	mg/l	0.5	2.4
19.	Total Chromium (as Cr)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	BLQ(LOQ-0.01)	mg/l	0.05	No Relaxation







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

Test Report

Sample	No.: VEL/MSK/W/01				Report No: VEL	/W/2211/17/001
				Limits of IS:10500-20		
S. No	Parameter	Test-Method	Result	Unit	Requirement (Acceptable) Limit	Permissible limit in the Absence of Alternate Source
20.	Phenolic Compounds	IS3025 (P-43)	BLQ(LOQ-0.0005)	mg/l	0.001	0.002
21.	Mineral Oil	IS 3025 (P-39)	BLQ(LOQ-0.1)	mg/l	1.0	No Relaxation
22.	Anionic Detergents (as MBAS)	IS3025 (P-68)	BLQ(LOQ-0.05)	mg/l	0.2	1.0
23.	Zinc (as Zn)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	1.14	mg/l	5	15
24.	Copper (as Cu)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	0.08	mg/l	0.05	1.5
25.	Manganese (as Mn)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	BLQ(LOQ-0.01)	mg/l	0.1	0.3
26.	Cadmium (as Cd)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	BLQ(LOQ-0.002)	mg/l	0.003	No Relaxation
27.	Lead (as Pb)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	BLQ(LOQ-0.002)	mg/l	0.01	No Relaxation
28.	Selenium (as Se)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	BLQ(LOQ-0.001)	mg/l	0.01	No Relaxation
29.	Arsenic (as As)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	BLQ(LOQ-0.005)	mg/l	0.01	No Relaxation
30.	Mercury (as Hg)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	BLQ(LOQ-0.0005)	mg/l	0.001	No Relaxation
31.	Total Coliform	IS 15185	Absent	/100ml	Shall not be de 100 ml	sample
32.	E. coli	IS 15185	Absent	/ 100ml	Shall not be de 100 ml	•

Note:-This Report Complies as per IS: 10500:2012 (RA: 2018)

*BLQ-Below Limit of Quantification, **LOQ- Limit of Quantification.

*Amendment No.1 in June 2015 (Limits of Iron & Arsenic) and Amendment No.2 in Sept. 2018 (Limit of Boron & IS method of Total Coliform & E.Coli) & Amendment No.3 in Feb. 2021 (Limit of Mineral Oil).

End of Report







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

Test Report

Sample Number:

VEL/MSK/W/02

Name & Address of the Project:

Name & Address of Project

M/s MSK (JV)

S-571, Greater Kailash Part- II, New Delhi-

110048

Report No.:

VEL/W/2211/17/002

Format No.:

7.8 F-03

Reporting Date:

Receipt Date:

NIL 21/11/2022

Period of Analysis:

Party Reference No.:

17/11/2022 to 21/11/2022

Stone Mine of Atela Kalan ,Village-

AtelaKalan, Tehsil- Charkhi Dadri, District-

Bhiwani (HR).

Sample Description:

Ground Water

Sample Location: Sample Collected by:

Preservation:

Village -Bilawal

Vardan Envirolab Representative

Sampling Date:

16/11/2022

17/11/2022

Sampling Quantity:

5.0 Liter + 250 ml

Sampling Type: Grab **Parameter Required:**

As per work order

Sampling and Analysis Protocol:

APHA 23rd Edition 2017 & IS 3025

					Limits of IS:10500 -2012	
S. No.	Parameter	Test-Method	Result	Unit	Requirement (Acceptable Limit)	Permissible limit in the Absence of Alternate Source
1.	pH (at 25 °C)	IS3025 (P-11)	7.51		6.5 to 8.5	No Relaxation
2.	Colour	IS3025 (P-4)	BLQ(LOQ-1.0)	Hazen	5	15
3.	Turbidity	IS3025 (P-10)	BLQ(LOQ-1.0)	NTU	1	5
4.	Odour	IS3025 (P-5)	Agreeable		Agreeable	Agreeable
5.	Taste	IS3025 (P-8)	Agreeable		Agreeable	Agreeable
6.	Total Hardness (as CaCO ₃)	IS3025 (P-21)	269.02	mg/l	200	600
7	Calcium (as Ca)	IS3025 (P-40)	84 14	/1	75	200

۷.	Coloui	133023 (1 -4)	BLQ(LOQ-1.0)	Hazen	3	13
3.	Turbidity	IS3025 (P-10)	BLQ(LOQ-1.0)	NTU	1	5
4.	Odour	IS3025 (P-5)	Agreeable		Agreeable	Agreeable
5.	Taste	IS3025 (P-8)	Agreeable		Agreeable	Agreeable
6.	Total Hardness (as CaCO ₃)	IS3025 (P-21)	269.02	mg/l	200	600
7.	Calcium (as Ca)	IS3025 (P-40)	84.14	mg/l	75	200
8.	Alkalinity (as CaCO ₃)	IS3025 (P-23)	242.73	mg/l	200	600
9.	Chloride (as Cl)	IS 3025 (P-32)	76.91	mg/l	250	1000
10.	Cyanide (as CN)	IS 3025 (P-27)	BLQ(LOQ-0.02)	mg/l	0.05	No Relaxation
11.	Magnesium (as Mg)	IS3025 (P-46)	14.36	mg/l	30	100
12.	Total Dissolved Solids	IS3025 (P-16)	478.00	mg/l	500	2000
13.	Sulphate(as SO ₄)	IS3025 (P-24)	40.15	mg/l	200	400
14.	Fluoride (as F)	IS 3025 (P-60)	0.43	mg/l	1.0	1.5
15.	Nitrate (as NO ₃)	IS3025 (P-34)	15.90	mg/l	45	No Relaxation
16.	Iron (as Fe)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	0.22	mg/l	1.0	No relaxation
17.	Aluminum (as Al)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	BLQ(LOQ-0.002)	mg/l	0.03	0.2
18.	Boron	VEL/STP/ICP/W-01, Issue No01, 01/11/21	BLQ(LOQ-0.01)	mg/l	0.5	2.4
19.	Total Chromium (as Cr)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	BLQ(LOQ-0.01)	mg/l	0.05	No Relaxation







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

Test Report

Sample	No.: VEL/MSK/W/02				Report No: VEL	/W/2211/17/002
					Limits of IS	:10500-2012
S. No	Parameter	Test-Method	Result	Unit	Requirement (Acceptable) Limit	Permissible limit in the Absence of Alternate Source
20.	Phenolic Compounds	IS3025 (P-43)	BLQ(LOQ-0.0005)	mg/l	0.001	0.002
21.	Mineral Oil	IS 3025 (P-39)	BLQ(LOQ-0.1)	mg/l	1.0	No Relaxation
22.	Anionic Detergents (as MBAS)	IS3025 (P-68)	BLQ(LOQ-0.05)	mg/l	0.2	1.0
23.	Zinc (as Zn)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	1.24	mg/l	5	15
24.	Copper (as Cu)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	0.15	mg/l	0.05	1.5
25.	Manganese (as Mn)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	BLQ(LOQ-0.01)	mg/l	0.1	0.3
26.	Cadmium (as Cd)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	BLQ(LOQ-0.002)	mg/l	0.003	No Relaxation
27.	Lead (as Pb)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	BLQ(LOQ-0.002)	mg/l	0.01	No Relaxation
28.	Selenium (as Se)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	BLQ(LOQ-0.001)	mg/l	0.01	No Relaxation
29.	Arsenic (as As)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	BLQ(LOQ-0.005)	mg/l	0.01	No Relaxation
30.	Mercury (as Hg)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	BLQ(LOQ-0.0005)	mg/l	0.001	No Relaxation
31.	Total Coliform	IS 15185	Absent	/100ml	Shall not be de 100 ml	sample
32.	E. coli	IS 15185	Absent	/ 100ml	Shall not be de 100 ml	•

Note:-This Report Complies as per IS: 10500:2012 (RA: 2018)

**BLQ-Below Limit of Quantification, **LOQ- Limit of Quantification.

**Amendment No.1 in June 2015 (Limits of Iron & Arsenic) and Amendment No.2 in Sept. 2018 (Limit of Boron & IS method of Total Coliform & E.Coli) & Amendment No.3 in Feb. 2021 (Limit of Mineral Oil).

End of Report







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

Test Report

Sample Number:

VEL/MSK/W/01

Name & Address of the Project:

M/s MSK (JV)

S-571, Greater Kailash Part- II, New Delhi-

110048

Report No.:

VEL/W/2301/20/001 7.8 F-03

Format No.: Party Reference No.:

NIL

Reporting Date:

24/01/2023

Period of Analysis:

Receipt Date:

20/01/2023-24/01/2023

Name & Address of Project

Stone Mine of Atela Kalan, Village-

AtelaKalan, Tehsil- Charkhi Dadri, District-

Bhiwani (HR)

Sample Description: Sample Location: Sample Collected by:

Preservation:

Ground Water

Near Mine site

Ice Box

Vardan Envirolab Representative

Sampling Date:

19/01/2023

20/01/2023

Sampling Quantity:

5.0 Liter + 250 ml

Sampling Type: Parameter Required: Grab

As per work order

Sampling and Analysis Protocol:

APHA 23rd Edition 2017 & IS 3025

					Limits of IS	:10500 -2012
S. No.	Parameter	Test-Method	Result	Unit	Requirement (Acceptable Limit)	Permissible limit in the Absence of Alternate Source
1.	pH (at 25 °C)	IS3025 (P-11)	7.54		6.5 to 8.5	No Relaxation
2.	Colour	IS3025 (P-4)	BLQ(LOQ-1.0)	Hazen	5	15
3.	Turbidity	IS3025 (P-10)	BLQ(LOQ-1.0)	NTU	1	5
4.	Odour	IS3025 (P-5)	Agreeable		Agreeable	Agreeable
5.	Taste	IS3025 (P-8)	Agreeable		Agreeable	Agreeable
6.	Total Hardness (as CaCO ₃)	IS3025 (P-21)	232.06	mg/l	200	600
7.	Calcium (as Ca)	IS3025 (P-40)	75.10	mg/l	75	200
8.	Alkalinity (as CaCO ₃)	IS3025 (P-23)	194.06	mg/l	200	600
9.	Chloride (as Cl)	IS 3025 (P-32)	61.59	mg/l	250	1000
10.	Cyanide (as CN)	IS 3025 (P-27)	BLQ(LOQ-0.02)	mg/l	0.05	No Relaxation
11.	Magnesium (as Mg)	IS3025 (P-46)	10.86	mg/l	30	100
12.	Total Dissolved Solids	IS3025 (P-16)	402.00	mg/l	500	2000
13.	Sulphate(as SO ₄)	IS3025 (P-24)	33.08	mg/l	200	400
14.	Fluoride (as F)	IS 3025 (P-60)	0.40	mg/l	1.0	1.5
15.	Nitrate (as NO ₃)	IS3025 (P-34)	11.60	mg/l	45	No Relaxation
16.	Iron (as Fe)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	0.24	mg/l	1.0	No relaxation
17.	Aluminum (as Al)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	BLQ(LOQ-0.002)	mg/l	0.03	0.2
18.	Boron	VEL/STP/ICP/W-01, Issue No01, 01/11/21	BLQ(LOQ-0.01)	mg/l	0.5	2.4
19.	Total Chromium (as Cr)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	BLQ(LOQ-0.01)	mg/l	0.05	No Relaxation







[®] Vardan EnviroLab

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

Test Report

Sample	No.: VEL/MSK/W/01				Report No: VEL	Permissible limit in the Absence of Alternate Source 0.002			
					Limits of IS	:10500-2012			
S. No	Parameter	Test-Method	Result	Unit	Requirement (Acceptable) Limit	limit in the Absence of Alternate			
20.	Phenolic Compounds	IS3025 (P-43)	BLQ(LOQ-0.0005)	mg/l	0.001	0.002			
21.	Mineral Oil	IS 3025 (P-39)	BLQ(LOQ-0.1)	mg/l	1.0	No Relaxation			
22.	Anionic Detergents (as MBAS)	IS3025 (P-68)	BLQ(LOQ-0.05)	mg/l	0.2	1.0			
23.	Zinc (as Zn)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	0.44	mg/l	5	15			
24.	Copper (as Cu)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	0.11	mg/l	0.05	1.5			
25.	Manganese (as Mn)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	BLQ(LOQ-0.01)	mg/l	0.1	0.3			
26.	Cadmium (as Cd)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	BLQ(LOQ-0.002)	mg/l	0.003	No Relaxation			
27.	Lead (as Pb)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	BLQ(LOQ-0.002)	mg/l	0.01	No Relaxation			
28.	Selenium (as Se)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	BLQ(LOQ-0.001)	mg/l	0.01	No Relaxation			
29.	Arsenic (as As)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	BLQ(LOQ-0.005)	mg/l	0.01	No Relaxation			
30.	Mercury (as Hg)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	BLQ(LOQ-0.0005)	mg/l	0.001	No Relaxation			
31.	Total Coliform	IS 15185	Absent	/100ml	Shall not be de 100 ml	sample			
32.	E. coli	IS 15185	Absent	/ 100ml	Shall not be de 100 ml	•			

Note:-This Report Complies as per IS: 10500:2012 (RA: 2018)

End of Report





^{*}BLQ-Below Limit of Quantification, **LOQ- Limit of Quantification.

[®] Amendment No.1 in June 2015 (Limits of Iron & Arsenic) and Amendment No.2 in Sept. 2018 (Limit of Boron & IS method of Total Coliform & E.Coli) & Amendment No.3 in Feb. 2021 (Limit of Mineral Oil).



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

Test Report

Sample Number:

VEL/MSK/W/02

Name & Address of the Project:

M/s MSK (JV)

S-571, Greater Kailash Part- II, New Delhi-

110048

Report No.:

VEL/W/2301/20/002

Format No.:

7.8 F-03

Party Reference No.:

NIL

Reporting Date:

24/01/2023

Period of Analysis:

20/01/2023-24/01/2023

Receipt Date:

20/01/2023

Name & Address of Project

Sampling and Analysis Protocol:

Stone Mine of Atela Kalan, Village-

AtelaKalan, Tehsil- Charkhi Dadri, District-

Bhiwani (HR)

Sample Description: Sample Location:

Preservation:

Sample Collected by:

Ground Water

Village -Bilawal

Vardan Envirolab Representative

Sampling Date:

19/01/2023

Sampling Quantity:

5.0 Liter + 250 ml

As per work order

Sampling Type: Parameter Required: Grab

APHA 23rd Edition 2017 & IS 3025

					Limits of IS	:10500 -2012
S. No.	Parameter	Test-Method	Result	Unit	Requirement (Acceptable Limit)	Permissible limit in the Absence of Alternate Source No Relaxation 15 5 Agreeable Agreeable 600 200 600 1000 No Relaxation 100 2000 400 1.5 No Relaxation No relaxation No relaxation 0.2 2.4 No Relaxation
1.	pH (at 25 °C)	IS3025 (P-11)	7.63		6.5 to 8.5	No Relaxation
2.	Colour	IS3025 (P-4)	BLQ(LOQ-1.0)	Hazen	5	15
3.	Turbidity	IS3025 (P-10)	BLQ(LOQ-1.0)	NTU	1	5
4.	Odour	IS3025 (P-5)	Agreeable		Agreeable	Agreeable
5.	Taste	IS3025 (P-8)	Agreeable		Agreeable	Agreeable
6.	Total Hardness (as CaCO ₃)	IS3025 (P-21)	226.05	mg/l	200	600
7.	Calcium (as Ca)	IS3025 (P-40)	61.84	mg/l	75	200
8.	Alkalinity (as CaCO ₃)	IS3025 (P-23)	158.18	mg/l	200	600
9.	Chloride (as Cl)	IS 3025 (P-32)	52.74	mg/l	250	1000
10.	Cyanide (as CN)	IS 3025 (P-27)	BLQ(LOQ-0.02)	mg/l	0.05	No Relaxation
11.	Magnesium (as Mg)	IS3025 (P-46)	17.44	mg/l	30	100
12.	Total Dissolved Solids	IS3025 (P-16)	486.00	mg/l	500	2000
13.	Sulphate(as SO ₄)	IS3025 (P-24)	31.07	mg/l	200	400
14.	Fluoride (as F)	IS 3025 (P-60)	0.30	mg/l	1.0	1.5
15.	Nitrate (as NO ₃)	IS3025 (P-34)	9.80	mg/l	45	No Relaxation
16.	Iron (as Fe)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	0.22	mg/l	1.0	No relaxation
17.	Aluminum (as Al)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	BLQ(LOQ-0.002)	mg/l	0.03	0.2
18.	Boron	VEL/STP/ICP/W-01, Issue No01, 01/11/21	BLQ(LOQ-0.01)	mg/l	0.5	2.4
19.	Total Chromium (as Cr)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	BLQ(LOQ-0.01)	mg/l	0.05	No Relaxation







[®] Vardan EnviroLab

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

Test Report

Sample No.: VEL/MSK/W/02			Report No: VEL/W/2301/20/002			
	Parameter	Test-Method	Result	Unit	Limits of IS:10500-2012	
S. No					Requirement (Acceptable) Limit	Permissible limit in the Absence of Alternate Source
20.	Phenolic Compounds	IS3025 (P-43)	BLQ(LOQ-0.0005)	mg/l	0.001	0.002
21.	Mineral Oil	IS 3025 (P-39)	BLQ(LOQ-0.1)	mg/l	1.0	No Relaxation
22.	Anionic Detergents (as MBAS)	IS3025 (P-68)	BLQ(LOQ-0.05)	mg/l	0.2	1.0
23.	Zinc (as Zn)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	0.84	mg/l	5	15
24.	Copper (as Cu)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	0.14	mg/l	0.05	1.5
25.	Manganese (as Mn)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	BLQ(LOQ-0.01)	mg/l	0.1	0.3
26.	Cadmium (as Cd)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	BLQ(LOQ-0.002)	mg/l	0.003	No Relaxation
27.	Lead (as Pb)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	BLQ(LOQ-0.002)	mg/l	0.01	No Relaxation
28.	Selenium (as Se)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	BLQ(LOQ-0.001)	mg/l	0.01	No Relaxation
29.	Arsenic (as As)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	BLQ(LOQ-0.005)	mg/l	0.01	No Relaxation
30.	Mercury (as Hg)	VEL/STP/ICP/W-01, Issue No01, 01/11/21	BLQ(LOQ-0.0005)	mg/l	0.001	No Relaxation
31.	Total Coliform	IS 15185	Absent	/100ml	Shall not be detectable in any 100 ml sample	
32.	E. coli	IS 15185	Absent	/ 100ml	Shall not be de 100 ml	•

Note:-This Report Complies as per IS: 10500:2012 (RA: 2018)

End of Report





^{*}BLQ-Below Limit of Quantification, **LOQ- Limit of Quantification.

[®] Amendment No.1 in June 2015 (Limits of Iron & Arsenic) and Amendment No.2 in Sept. 2018 (Limit of Boron & IS method of Total Coliform & E.Coli) & Amendment No.3 in Feb. 2021 (Limit of Mineral Oil).



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

Test Report

Sample Number:

VEL/MSK/S/01

Issued To:

M/s MSK (JV)

S-571, Greater Kailash Part- II,

New Delhi-110048

Name & Address of Project:

Stone Mine of AtelaKalan, Village- AtelaKalan,

Tehsil- Charkhi Dadri, District- Bhiwani (HR).

Sample Description:

SOIL SAMPLE

Sample Location:

Near Mine Site

Sample Collected by:

Vardan Envirolab Representative

Sampling and Analysis Protocol: IS 2720 & STP

Parameter Required:

As per work order

Report No.:

VEL/S/2303/14/001

Format No.:

7.8 F-03

Party Reference No.:

NIL

Reporting Date: Period of Analysis: 18/03/2023

D 1 4 D 4

14/03/2023 to 18/03/2023

Receipt Date:

14/03/2023 13/03/2023

Sampling Date: Packing Status:

13/03/2023 Temp Sealed

Sampling Quantity:

2.0 Kg

Sampling Type:

Composite

S. No.	Parameter	Test-Method	Result	Unit
1.	pH (at 25 °C)	IS: 2720 (P-26)	7.51	
2.	Conductivity	IS:14767	0.259	mS/cm
3.	Soil Texture	VEL/STP/EN/64, Issue No 01, 01/11/2021	Sandy Loam	
4.	Color	VEL/STP/EN/67,Issue No 01, 01/11/2021	Yellowish Brown	
5.	Water holding capacity	VEL/STP/EN/86, Issue No 01, 01/11/2021	31.85	%
6.	Bulk density	VEL/STP/EN/59, Issue No 01, 01/11/2021	1.50	gm/cc
7.	Chloride as Cl	VEL/STP/EN/69, Issue No 01, 01/11/2021	34.16	mg/100kg
8.	Calcium as Ca	VEL/STP/EN/72, Issue No 01, 01/11/2021	21.03	mg/100kg
9.	Sodium as Na	VEL/STP/EN/62, Issue No 01, 01/11/2021	38.84	mg/kg
10.	Potassium as K	VEL/STP/EN/61, Issue No 01, 01/11/2021	110.94	kg./hec.
11.	Organic Matter	IS 2720 (P-22), Titrimetric Method	0.30	%
12.	Magnesium as Mg	VEL/STP/EN/72, Issue No. 01, 01/11/2021	10.48	mg/100kg
13.	Available Nitrogen as N	IS:14684 Distillation Method	119.17	kg./hec.
14.	Available Phosphorus	VEL/STP/EN/73,Issue No 01, 01/11/2021	16.85	kg./hec.
15.	Zinc (as Zn)	STP NO. VEL/STP/EN/165,Issue No 01, 20/06/22	0.99	mg/kg
16.	Manganese (as Mn)	STP NO. VEL/STP/EN/165,Issue No 01, 20/06/22	1.32	mg/kg
17.	Lead (as Pb)	STP NO. VEL/STP/EN/165,Issue No 01, 20/06/22	0.39	mg/kg
18.	Cadmium as Cd	STP NO. VEL/STP/EN/165,Issue No 01, 20/06/22	0.44	mg/kg
19.	Chromium (as Cr)	STP NO. VEL/STP/EN/165,Issue No 01, 20/06/22	0.32	mg/kg
20.	Copper (as Cu)	STP NO. VEL/STP/EN/165,Issue No 01, 20/06/22	0.75	mg/kg

Note- STP- Standard Testing Procedure.







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

Test Report

Sample Number:

VEL/MSK/S/02

Issued To:

M/s MSK (JV)

S-571, Greater Kailash Part- II,

New Delhi-110048

Name & Address of Project:

Stone Mine of AtelaKalan, Village- AtelaKalan,

Tehsil- Charkhi Dadri, District- Bhiwani (HR).

Sample Description:

SOIL SAMPLE

Sample Location:

Village -Bilawal

Sample Collected by:

Vardan Envirolab Representative

Sampling and Analysis Protocol: IS 2720 & STP Parameter Required:

As per work order

Report No.:

VEL/S/2303/14/002

Format No.:

7.8 F-03

Party Reference No.:

NIL

Reporting Date:

18/03/2023

Period of Analysis:

14/03/2023 to 18/03/2023

Receipt Date:

14/03/2023

Sampling Date: Packing Status:

13/03/2023 **Temp Sealed**

Sampling Quantity:

2.0 Kg

Sampling Type

Composite

Parameter Required: As		s per work order Sampling	pling Type: Composite		
S. No.	Parameter	Test-Method	Result	Unit	
1.	pH (at 25 °C)	IS: 2720 (P-26)	7.61		
2.	Conductivity	IS:14767	0.276	mS/cm	
3.	Soil Texture	VEL/STP/EN/64, Issue No 01, 01/11/2021	Sandy Loam		
4.	Color	VEL/STP/EN/67,Issue No 01, 01/11/2021	Yellowish Brown		
5.	Water holding capacity	VEL/STP/EN/86, Issue No 01, 01/11/2021	33.08	%	
6.	Bulk density	VEL/STP/EN/59, Issue No 01, 01/11/2021	1.44	gm/cc	
7.	Chloride as Cl	VEL/STP/EN/69, Issue No 01, 01/11/2021	42.81	mg/100kg	
8.	Calcium as Ca	VEL/STP/EN/72, Issue No 01, 01/11/2021	28.05	mg/100kg	
9.	Sodium as Na	VEL/STP/EN/62, Issue No 01, 01/11/2021	36.10	mg/kg	
10.	Potassium as K	VEL/STP/EN/61, Issue No 01, 01/11/2021	119.27	kg./hec.	
11.	Organic Matter	IS 2720 (P-22), Titrimetric Method	0.39	%	
12.	Magnesium as Mg	VEL/STP/EN/72, Issue No. 01, 01/11/2021	10.62	mg/100kg	
13.	Available Nitrogen as N	IS:14684 Distillation Method	146.84	kg./hec.	
14.	Available Phosphorus	VEL/STP/EN/73,Issue No 01, 01/11/2021	20.15	kg./hec.	
15.	Zinc (as Zn)	STP NO. VEL/STP/EN/165,Issue No 01, 20/06/22	0.95	mg/kg	
16.	Manganese (as Mn)	STP NO. VEL/STP/EN/165,Issue No 01, 20/06/22	1.40	mg/kg	
17.	Lead (as Pb)	STP NO. VEL/STP/EN/165,Issue No 01, 20/06/22	0.42	mg/kg	
18.	Cadmium as Cd	STP NO. VEL/STP/EN/165,Issue No 01, 20/06/22	0.50	mg/kg	
19.	Chromium (as Cr)	STP NO. VEL/STP/EN/165,Issue No 01, 20/06/22	0.28	mg/kg	
20.	Copper (as Cu)	STP NO. VEL/STP/EN/165,Issue No 01, 20/06/22	0.82	mg/kg	

Note- STP- Standard Testing Procedure.



