OMNIBUS SWORN STATEMENT OF COMMITMENT OF THE PROPONENT

By the authority vested in me by the <u>Helix Mining and Development</u> <u>Corporation</u>, as <u>President</u>, 1 hereby commit to perform avoidance, mitigation, rehabilitation, and compensatory activities for the environmental impact caused by the <u>Limestone Mining Project</u>.

I hereby bind myself to answer any penalty that may be imposed arising from any misrepresentation or failure to abide and conform to pertinent provisions of applicable Philippine environmental laws.

In witness whereof, I hereby se at	t my hand this0 8 FEB 2023 day of
FENATO Aff	A. BAJA
SUBSCRIBED AND SWORN TO before me this exhibiting his/her Passport ID/License Plag 25-15/A issued at OF March 2018	e ID/Community Tax Certificate No.
Doc No. 37 Page No. 4 Book No. 8 Series of 2023	ATTY. CARLOS M. CARLOS NOTARY PUBLIC - PARATHOUE CITY COMM. NO. 242 - UNTIL TET. 31 223 ROLL NO. 43969 IBP. 2010 03088 - HTETIME MEMBER PTR NO. 319328 - TTO3/22 POUE CITY MCLE VI. 0024256 - 08/20/2020 UNIT 155. VALLEY I. BRCY SAN ANTONIO SUCAT, PARANAQUE CITY

ACCOUNTABILITY STATEMENT OF PROJECT PROPONENT

This is to certify that all information in the submitted **Project Monitoring and Audit Prioritization Scheme (PEMAPS) Questionnaire** of <u>Helix Mining ang Development Corporation</u> located <u>at Maasim, Sarangani</u> is true, accurate and complete. Should I learn of any information, which makes this inaccurate, I shall bring said information to the appropriate Environmental Management Bureau Regional Office.

In witness whereof, I hereby set out my hands this FLB Maday of 2023 at ______

Project Proponent

SUBSCRIBED AND SWORN to before me th	is 14 FLB 113
day of 2023 at ANGONO, RIZAL	. Affiant exhibiting
to me his/her Passport No.	issued on

Dec Ma	449	
Doc. No.	0	
Page No.	<u>'ll</u>	
Book No	χ√[])	
- · · · ·	000	

Series of 2023

ULA. CPA ATT

Notary Public Until December 31, 2023 PTR No. 027756/ 03-08-2022 IBP LMR No. 0179-18/ O.R. #013272 Roll No. 59304 MCLE Comp. No. VII-0004880/04-14-2022 Angono, Rizal

ACCOUNTABILITY STATEMENT

This is to certify that all information and commitments in this Environmental Impact Statement (EIS) Report are accurate and complete. Should we learn of any information which would make this EIS inaccurate. I/We shall bring said information to the attention of this appropriate EMB-DENR Regional Office.

We hereby bind ourselves jointly and solidarity to any penalty that may be imposed arising from any misrepresentation of failure to state materials information in this EIS Report.

ln	witness	whereof,	I	hereby	set	my	hand	this	14 FLB 2023	_,	2023	at
	ANGON	O, RIZAL										
				N	M	TO A	MAJA	Ń				

President – Helix Mining and Development Corporation Proponent

ACKNOWLEDGEMENT

BEFORE ME this <u>14 FLB 10.3</u>, 2023 at <u>ANGONO, RIZEL</u> personally appeared with Passport No.P6325151A issued on March 7, 2018 at DFA, Manila in his capacity as the Proponent and acknowledged to me that this EIS is his voluntary act and deed, and voluntary ace and deed of the entity he/she represents. This document which consists of <u>pages</u>, including the page of which this acknowledgement is an Environmental Impact Statement.

Witness my hand and seal on the place and date above written.

Doc. No. <u>450</u> Page No. <u>22</u> Book No. <u>XVIII</u> Series of 2003.

ATT ADULA, CPA

-

Notary Public Until December 31, 2023 PTR No. 027756/ 03-08-2022 IBP LMR No. 017948/ O.R. #013272 Roll No. 59304 MCLE Comp. No. VII-0004880/04-14-2022 Angono, Rizal

SWORN STATEMENT OF ACCOUNTABILITY OF PREPARERS

This is to certify that all information in this Environmental Impact Statement (EIS) for the <u>Limestone Mining Project</u> are accurate and complete to the best of our knowledge, and that an objective and thorough assessment of the Project was undertaken in accordance with the dictates of professional and reasonable judgement. Should we learn of any information which would make this **EIS Report** inaccurate, we shall immediately bring the said information to the attention of the DENR-EMB.

We hereby certify that no DENR-EMB personnel was directly involved in the preparation of this <u>Limestone Mining Project</u> other than to provide procedural and technical advice consistent with the guidelines in the DAO 03-30 Revised Procedural Manual.

We hereby bind ourselves jointly and solidarity to answer any penalty that may be imposed arising from any misrepresentation or failure to state material information in this EIS Report.

In witness whereof, we hereby set our hands this ____ day of

Name	Expertise	Signature
Silverio Magallon, Jr, Ph.D.	Project Leader/ Social Expert	TTT
Carmelita P. Martinez, MSETM, PhD	Environmental Specialist, Water Quality	Gromentican
Ana P. Ocenar, PhD	Biologist, Freshwater Ecology, Marine Biology	pour
For. Rosemarie Pidut	Forester, Terrestrial Flora and Fauna, Soil Quality	(tulina
Mark John S. Pag-alaman	Mining Engineer	- Solar
Engr. Ryan Taguiam	Air Quality	Jufsi

0 9 FEB 2023

at

SUBSCRIBE AND SWORN to before me this _____ day of _____, 2022 at _____, affiants exhibiting their Passport/ Community Tax Certificate/License Information as follows:

	Proof of Identification						
Name	Passport/CTC/License	Place of Issue	Date of Issue/Availability				
Silverio V. Magallon, Jr.	M07-18-005821	Davao City	05/01/2018				
Carmelita P. Martinez	LO6-96-048088	Davao City	07/16/2022				
Ana P. Ocenar, PhD	CRN-006-0015-0674-3	Davao City	01/13/2017				
For. Rosemarie Pidut	PRC-FOR- 0004728		12/24/2024				
Mark John Pag-alaman	PRC-MELE-0003090	Davao City	09/17/2013				
Mr. Ryan Taguiam	N25-11-004988	Caloocan City					

 Doc No.
 706

 Page No.
 62

 Book No.
 64

 Series of 2023

P. LANDERO 1, 2023 1/2023 FOR. CITY 2020, GSC VI-0030347 1, 2020 IEY NO. 31310 4

ANNEX 2-21 PRO-FORMA SWORN STATEMENT OF ACCOUNTABILITY OF PROPONENT

SWORN STATEMENT OF ACCOUNTABILITY OF THE PROPONENT*

This is to certify that all the information and commitments in this Environmental Impact Study for the HELIX MINING AND DEVELOPMENT CORPORATION located Maasim, Sarangani Province are accurate and complete to the best of our knowledge, and that an objective and thorough assessment of the Project was undertaken in accordance with the dictates of professional and reasonable judgment. Should I/we learn of any information, which would make this EIS REPORT inaccurate, I shall immediately bring the said information to the attention of DENR-EMB.

I hereby certify that no DENR-EMB personnel was directly involved in the preparation of this EIS REPORT other than to provide procedural and technical advice consistent with the guidelines in the DAO 03-30 Revised Procedural Manual.

I hereby bind myself to answer any penalty that may be imposed arising from any misrepresentation or failure to state material information in this E/S REPORT.

2 Jap JEEB 2023 SURALLAR, SOUTH COTABATO at 2 0 FEB 2023 200_, SUBSCRIBED AND SWORN TO before me this _____ day of _____ affiant exhibiting bis/her Community Tax Certificate No. issued on at HNNY P, LANDERO NOTARY PUBLIC UNITY DECEMBER 31, 2023 PTR NO. 4767687-01/03/2023 KOR. CITY IBP NO. 115835-01/10/2020, GSC MCLE Compliance No. VI-0030347 Issued on February 3, 2020 ROLL OF ATTORNEY NO. 31310, TIN: 180-668-825-000 Doc. No. Page No. Ðf Book No. 202 Series of



-	-	Tel. Fax (083) 2281072 • Tel. Fax (083) 2281072 • Tel. Fax address: embyii/dyal	el No. (083)	er Hill, Ko 2281071	REAU XII oronadal Cit	y		A	JA	UKAS UKAS STITUS
		AMBIENT AIR QUAI S A M P I	LITY MONI	TORING	SAMPLING ESU	REPOR	т			
SAMPL	ING STATION	HELIX MINING AND					OUR DATA S	AMPLE		
LOCAT							HOUR DATA SA			
COORE	DINATES					. Ц				
	5	SAMPLE C	OLL	ECT	ION	DA	ТА			
The second se	_	CONDITIONS				SAMI	PLING C	ONDITI	ONS	
WIND VISIBILI						V No u	nusual conditi	••	Sand/Dust	
SKY	CLEAR					Fire r	vearby		Sampler Mal	function
HUMIDI		MODERATE HUMID	R	any		Cons	truction Neart	" 🗖	Rain	
						Farm	ing operation		Others	
PARTICUL	ATE MATTER	J PM 10 PM 25					100 710.7		in the second se	12
SAMPLER: E-BAN	r PLUS-9800		The second of the second		BAB 08/05/		CALIBRA	TION DATE	: MET 31/	08/2021
STATION #	DATE	RESUL Geographical	T OF ConcRT	ConcHR	PLINC		um (Dad	ATIM	RH (%)	BP
	and the second second	Coordinates	(ug/m3)	(ug/m3)	Flow (lpm)			1.1.1		(mmHg)
Station 1 Station 2	09/08/2022	5.885431, 125.076914	28	30	16.4	2.1	131	32.9	61 59	754 753
Station 2	09/10/2022	5.911911, 125.087711 5.931293, 125.093644	15 23	18 13	16.6 16.7	2	129 133	33.4 32.9	61	753
Station 4	09/11/2022	5.9241672, 125.06751	11	29	16.7	2.5	132	32.8	62	753
							1.			1.2.4
ъ.,	LOCATIO	N			CENTRATIC		CONC	ENTRATIC (150 p		DARDS
Station 1	Barangay Hali	Tinoto	28			Passed				
Station 2	Pacman Beach	h Resort	15				Passed			
Station 3	Lantew Resto	and Beach Resort	23			Passed				
Statin 4	Mirabueno Ra	inch		1	1	•		Pas	sed	1.000
REMARKS:	Result rela	tes only as samples as co	llected							
SS, AAQMU	A L FONTANILI		LEOMARI EMS I, AM Noted In: ENGR. PH- Chief, AM		EGORYE	BIBOSO		Attested ENGR. Chief, E	RONIE	L SALMO

CS Scanned with CamScanner

Effectivity : NRY 15, 2019 Page : 1 of 1



Main Office: Mach Union Building, 335 Alabang-Zapote Road, Talon 3, 1740 Las Pines City, Philippines Extension Office: ANFRA Bldg., FMC-LTO Cmpd., 314 Alabang-Zapote Road, Talon 1, 1740 Las Pines City Tel. No.: (02)8553-8382/ (02)8553-8386/ (02)8553-8875/ (02)8550-2576 Fax No.: (02) 8553-8878 Email: info@machunion.com • Website: www.machunion.com • http://www.facebook.com/MachUnion Accredited: Philippine Accreditation Bureau (DTI-PAB) • Department of Health • Food & Drug Administration Recognized: Department of Environment & Natural Resources (DENR-EMB) • Bureau of Animal Industry (DA-BAI)

		CERTIFICATE OF	ANALYSIS	
Job Number	: MU22026090	Laboratory Number:	MU22026090-001	Date Reported: 09/19/2022
Client ID	: R12SJO-00091			
CUSTOMER	HELIX MINING AND DEVELOPMENT CORP.			
Attention :	: Randy Rodriguez 09198004592 roynelysoriano@gmail.com			
PROJECT DETAILS:	HELIX MINING AND DEVELOPMENT CORP. Brgy. Tinoto, Maasim, Sarangani			
		SAMPLE INFORM	IATION	
1 11	- Ambient MDC AIR QUALITY MONITORING			Storage Condition : Ambient
Description : Air	r Ambient Sample in Filter Paper			
Collection Date and Tir	me : 09/08/2022 10:34 AM			Received Date and Time 09/13/2022 08:00 AM
Collected by : C	CUSTOMER			Analyzed Start Date and Time : 09/14/2022 02:00 PM
				Analyzed End Date and Time : 09/19/2022 09:15 AM

Comments:

1. All sample information stated herein are based on the details provided by the client. The results in this certificate of testing relates only to the samples submitted to and tested by the laboratory.



Main Office: Mach Union Building, 335 Alabang-Zapote Road, Talon 3, 1740 Las Pirias City, Philippines Extension Office: ANFRA Bldg., FMC-LTO Cmpd., **314** Alabang-Zapote Road, Talon 1, 1740 Las Pinas City Tel. No.: (02)8553-8381/ (02)8553-8382/ (02)8553-8879/ (02)8550-2573 Fax No.: (02) 8553-8878 Email: info@machunion.com • Website: www.machunion.com • http://www.facebook.com/MachUnion Accredited: Philippine Accreditation Bureau (DTI-PAR) • Department of Health • Food & Drug Administration Recognized: Department of Environment & Natural Resources (DENR-EMB) • Bureau of Animal Industry (DA—BAI)

CERTIFICATE OF ANALYSIS

Job Number: CUSTOMER:	MU22026090 Helix Mining and Development Corp.	Laboratory Number:	MU22026090-001	Date Re	ported: 09/19/2022	2		
Sample Source	HMDC AIR QUALITY MONITORING							
	LABORATORY TEST RESULTS							

SAMPLE ID	PARAMETER	TEST METHOD	UNIT	RESULT
A1 BRGY. HALL TINOTO (24HRS)	Arsenic	Electrothermal AAS	ug	0.65
A1 BRGY. HALL TINOTO (24HRS)	Cadmium	Flame AAS	ug	< 0.2
A1 BRGY. HALL TINOTO (24HRS)	Chromium	Flame AAS	ug	4.96
A1 BRGY. HALL TINOTO (24HRS)	Lead	Flame AAS	ug	3.70
A1 BRGY. HALL TINOTO (24HRS)	Mercury .	Cold Vapor - AAS	ug	< 0.01

DRIGHNAL GDPY

Test Method Reference:

Compendium of Methods for the Determination of Inorganics Compound in Amblent Air. US EPA. 1999 Lodge, James P. Jr., Methods of Air Sampling and Analysis. ISC 3rd Edition.

Checked by:

ictor Gregory Jude D. Garcia, RCh Chemist III PRC#: 0013349

MU22026086_FINAL_220709 0848H

Certified by: WMAL

Marisa T. Manaor, RCh Supervising Chemist PRC#: 0005465

Approved for Release by: Aladino M. Abulencia, ChE ~ Technical Manager PRC License No. 0008351

Page 2 of 2



Main Office: Mach Union Building, 335 Alabang-Zapote Road, Talon 3, 1740 Las Pifias City, Philippines Extension Office: ANFRA Bldg., FMC-LTO Cmpd., 314 Alabang-Zapote Road, Talon 1, 1740 Las Pirias City Tel. No.: (02)8553-8381 / (02)8553-8879 (02)8553-8879 (02)8553-8878 (02)8553-8878 Email: info@machunion.com • Website: www.machunion.com • http://www.facebook.com/MachUnion Accredited: Philippine Accreditation Bureau (DTI-PAB) • Department of Health • Food & Drug Administration Recognized: Department of Environment & Natural Resources (DENR-EMB) • Bureau of Animal Industry (DA—BAI)

		CERTIFICATE OF	ANALYSIS		
Job Number	: MU22026091	Laboratory Number:	MU22026090-002	Date	Reported: 09/19/2022
Client ID	: R12SJO-00091				
CUSTOMER	:HELIX MINING AND DEVELOPMENT CORP.				
Attention	: Randy Rodriguez 09198004592 roynelysoriano@gmail.com				
PROJECT DETAILS	: HELIX MINING AND DEVELOPMENT CORP. Brgy. Tinoto, Maasim, Sarangani				
		SAMPLE INFORM	IATION		
1 31	r Ambient MDC AIR QUALITY MONITORING			Storage Condition : Ambie	nt
Description : Air	r Ambient Sample in Filter Paper				
Collection Date and T	ime : 09/09/2022 09:30 AM			Received Date and Time	09/13/2022 08:00 AM
Collected by :	CUSTOMER			Analyzed Start Date and Time	09/14/2022 02:00 PM
				Analyzed End Date and Time :	09/19/2022 09:15 AM

Comments:

1. All sample information stated herein are based on the details provided by the client. The results in this certificate of testing relates only to the samples submitted to and tested by the laboratory.



Main Office: Mach Union Building, 335 Alabang-Zapote Road, Talon 3, 1740 Las Pines City, Philippines Extension Office: ANFRA Bldg., FMC-LTO Cmpd., 314 Alabang-Zapote Road, Talon 1, 1740 Las Pines City Tel. No.: (02)8553-8381 / (02)8553-8382 / (02)8553-8879 (02)8550-2573 Fax No.: (02) 8553-8878 Email: info@machunion.com • Website: www.machunion.com • http://www.facebook.com/MachUnion Accredited: Philippine Accreditation Bureau (DTI-PAB) • Department of Health • Food & Drug Administration Recognized: Department of Environment & Natural Resources (DENR-EMB) • Bureau of Animal Industry (DA—BAI)

CERTIFICATE OF ANALYSIS

Job Number: MU22026071

Laboratory Number:

: MU22026071-002

Date Reported: 09/19/2022

CUSTOMER : HELIX MINING AND DEVELOPMENT CORP.

Sample Source: HMDC AIR QUALITY MONITORING

LABORATORY TEST RESULTS								
SAMPLE ID	PARAMETER		TEST METHOD	UNIT	RESULT			
A2 PACMAN BEACH RESORT (24HRS)	Arsenic		Electrothermal AAS	ug	0.29			
A2 PACMAN BEACH RESORT (24HRS)	Cadmium		Flame AAS	ug	< 0.2			
A2 PACMAN BEACH RESORT (24HRS)	Chromium	Page 2 o 2	Flame AAS	ug	3.45			
A2 PACMAN BEACH RESORT (24HRS)	Lead		Flame AAS	ug	2.41			
A2 PACMAN BEACH RESORT (24HRS)	Mercury		Cold Vapor - AAS	ug	< 0.01			

OMIGANAA, NOPAY

Test Method Reference:

Compendium of Methods for the Determination of Inorganics Compound in Ambient Air. US EPA. 1999 Lodge, James P. Jr., Methods of Air Sampling and Analysis. ISC 3rd Edition.

Checked by:

Chemist III Jude Garcia, RCh PRC#: 0013349

MU22026086_FINAL_220709 0848H

Certified by: Marisa T. Manaor, RCh Supervising Chemist

PRC#: 0005465

Approved for Release by: Aladino M. Abulencia, ChE Technical Manager PRC License No. 0008351

Page 2 of 2



Main Office: Mach Union Building, 335 Alabang-Zapote Road, Talon 3, 1740 Las Piiias City, Philippines Extension Office: ANFRA Bldg., FMC-LTO Cmpd., 314 Alabang-Zapote Road, Talon 1, 1740 Las Pines City Tel. No.: (02)8553-8381 / (02)8553-8382 / (02)8553-8879 (02)8550-2573 Fax No.: (02) 8553-8878 Email: info@machunion.com • Website: www.machunion.com • http://www.facebook.com/MachUnion Accredited: Philippine Accreditation Bureau (DTI-PAB) • Department of Health • Food & Drug Administration Recognized: Department of Environment & Natural Resources (DENR-EMB) • Bureau of Animal Industry (DA—BAI)

CERTIFICATE OF ANALYSIS

				_	
Job Number	: MU22026092	Laboratory Number:	MU22026090-003	Da	ate Reported: 09/19/2022
Client ID	: R12SJO-00091				
CUSTOMER	HELIX MINING AND DEVELOPMENT CORP.				
Attention	: Randy Rodriguez 09198004592 roynelysoriano@gmail.com				
PROJECT DETA	ILS: HELIX MINING AND DEVELOPMENT CORP.				
	Brgy. Tinoto, Maasim, Sarangani				
		SAMPLE INFOR	MATION		
Sample Type :	Air Ambient			Storage Condition : Ar	nbient
Identification :	HMDC AIR QUALITY MONITORING				
Description :	Air Ambient Sample in Filter Paper				
Collection Date an	d Time : 09/10/2022 10:50 AM			Received Date and Time	09/13/2022 08:00 AM
Collected by :	CUSTOMER			Analyzed Start Date and Time	e 09/14/2022 02:00 PM
				Analyzed End Date and Time	e: 09/19/2022 09:15 AM

Comments:

1. All sample information stated herein are based on the details provided by the client. The results in this certificate of testing relates only to the samples submitted to and tested by the laboratory.



Main Office: Mach Union Building, 335 Alabang-Zapote Road, Talon 3, 1740 Las Pifias City, Philippines Extension Office: ANFRA Bldg., FMC-LTO Cmpd., 314 Alabang-Zapote Road, Talon 1, 1740 Las Pinas City Tel. No.: (02)8553-8381 (02)8553-8382 / (02)8553-8379 (02)8550-2573 Fax No.: (02) 8553-8378 Email: info@machunion.com • Website: www.machunion.com • http://www.facebook.com/MachUnion Accredited: Philippine Accreditation Bureau (DTI-PAB) • Department of Health • Food & Drug Administration Recognized: Department of Environment & Natural Resources (DENR-EMB) • Bureau of Animal Industry (DA—BAI)

CERTIFICATE OF ANALYSIS

Job Number: MU22026072 Laboratory Number: MU22026071-003 Date Reported: 09/19/2022 CUSTOMER : HELIX MINING AND DEVELOPMENT CORP. Sample Source: HMDC AIR QUALITY MONITORING LABORATORY TEST RESULTS SAMPLE ID UNIT RESULT TEST METHOD PARAMETER 0.36 A3 LANTEW RESORT (24HRS) Electrothermal AAS ug Arsenic A3 LANTEW RESORT (24HRS) Flame AAS < 0.2 Cadmium ug A3 LANTEW RESORT 24HRS) Chromium Flame AAS 3.73 ug A3 LANTEW RESORT 24HRS) Lead Flame AAS 2.39 ug A3 LANTEW RESORT (24HRS) Cold Vapor - AAS < 0.01 Mercury ug

OMIGANAL COPY

Test Method Reference: Compendium of Methods for the Determination of Inarganics Compound in Ambient Air. US EPA. 1999 Lodge, James P. Jr., Methods of Air Sampling and Analysis. ISC 3rd Edition.

Checked by: stor Gregor Jude Garcia, RCh Chemist III PRC#: 0013349

MU22026086_FINAL_220709 0848H

Certified by: Marisa T. Manaor, RCh

Marisa T. Manaor, RCh Supervising Chemist PRC#: 0005465

Approved for Release by: Aladino M. Abulencia, ChE Technical Manager PRC License No. 0008351

Page 2 of 2



Main Office: Mach Union Building, 335 Alabang-Zapote Road, Talon 3, 1740 Las Piiias City, Philippines Extension Office: ANFRA Bldg., FMC-LTO Cmpd., 314 Alabang-Zapote Road, Talon 1, 1740 Las Pifias City Tel. No.: (02)8553-8381/ (02)8553-8382/ (02)8553-8879/ (02)8550-2573 Fax No.: (02) 8553-8878 Email: info@machunion.com • Website: www.machunion.com • http://www.facebook.com/MachUnion Accredited: Philippine Accreditation Bureau (DTI-PAB) • Department of Health • Food & Drug Administration Recognized: Department of Environment & Natural Resources (DENR-EMB) • Bureau of Animal Industry (DA—BAI)

		CERTIFICATE OF	ANALYSIS		
Job Number	: MU22026093	Laboratory Number:	MU22026090-004	Da	te Reported: 09/19/2022
Client ID	: R12SJO-00091				
CUSTOMER	:HELIX MINING AND DEVELOPMENT CORP.				
Attention	: Randy Rodriguez 09198004592 roynelysoriano@gmail.com				
PROJECT DETAILS	HELIX MINING AND DEVELOPMENT CORP. Brgy. Tinoto, Maasim, Sarangani				
		SAMPLE INFORM	IATION		
1 51	ir Ambient IMDC AIR QUALITY MONITORING			Storage Condition : An	nbient
Description : A	ir Ambient Sample in Filter Paper				
Collection Date and T	ime : 09/11/2022 10:50 AM			Received Date and Time	09/13/2022 08:00 AM
Collected by :	CUSTOMER			Analyzed Start Date and Time Analyzed End Date and Time	

Comments:

1. All sample information stated herein are based on the details provided by the client. The results in this certificate of testing relates only to the samples submitted to and tested by the laboratory.



Main Office: Mach Union Building, 335 Alabang-Zapote Road, Talon 3, 1740 Las Pines City, Philippines Extension Office: ANFRA Bldg., FMC-LTO Cmpd., 314 Alabang-Zapote Road, Talon 1, 1740 Las Pines City Tel. No.: (02)8553-883(1/02)8553-8879 (02)8553-8879 (02)8553-2573 Fax No.: (02) 8553-8878 Email: info@machunion.com • Website: www.machunion.com • http://www.facebook.com/MachUnion Accredited: Philippine Accreditation Bureau (DTI-PAB) • Department of Health • Food & Drug Administration Recognized: Department of Environment & Natural Resources (DEINF-EMB) • Bureau of Animal Industry (DA—BAI)

CERTIFICATE OF ANALYSIS

Job Number: MU22026073		Laboratory Number:	MU22026071-004	Date Reported:	09/19/2022	
CUSTOMER : HELIX MINING AND DEVELO	CUSTOMER : HELIX MINING AND DEVELOPMENT CORP.					
Sample Source: HMDC AIR QUALITY MONITORI	NG					
		LABORATORY TEST	r results			
SAMPLE ID	PARAMETER		TEST METHOD	U	INIT	RESULT
A4 MIRABUENO RANCH (24HRS)	Arsenic	Electrother	nal AAS	I	ug	1.0
A4 MIRABUENO RANCH (24HRS)	Cadmium	Flame AAS		l.	ug	< 0.2
A4 MIRABUENO RANCH (24HRS)	Chromium	Flame AAS		1	ug	3.90
A4 MIRABUENO RANCH (24HRS)	Lead	Flame AAS			ug	2.80
A4 MIRABUENO RANCH (24HRS)	Mercury	Cold Vapor	- AAS		ug	< 0.01

DRIGANAL COPY

Test Method Reference:

Compendium of Methods for the Determination of Inorganics Compound in Ambient Air. US EPA. 1999 Lodge, James P. Jr., Methods of Air Sampling and Analysis. ISC 3rd Edition.

Checked by:

ctor Gregory Jude D. Garcia, RCh ist III PRC#: 0013349

MU22026086_FINAL_220709 0848H

Certified by:

Marisa T. Manaor, RCh Supervising Chemist PRC#: 0005465

Approved for Release by: Aladino M. Abulencia, ChE Technical Manager PRC License No. 0008351

Page 2 of 2



Republic of the Philippines Province of Sarangani MUNICIPAL PLANNING & DEVELOPMENT OFFICE Municipality of Maasim



January 17, 2022

JOEL G. BADANG Mining and Operations Manager Holeim Mining & Development Corporation Km. 21, Budbud, Bunawas, Davao City

Sir:

This has reference to your letter dated December 27, 2021 requesting this office for a zoning certification of a certain area of around 425.1146 hectares in barangay Tinoto, this municipality, for your proposed limestone extraction project which was already issued by our Zoning Officer though the area is zoned as parks and recreation zone while the nature or type of the project is mining/quarying, thus, the project is non-confirming as to land use or zone.

Nonetheless, we will consider your area to be reclassified into mining/quarryiag zone in the revision of our Comprehensive Land use Plan (CLUP) which is now ongoing and wish to be approved by the third quarter of this year.

Hope we have clucidated your good end on this matter.

Thank you and more power.

Very truly yours,

RONALD L. ORBITA, EnP. Municipal Planning & Development Coordinator



Environmental Impact Statement HMDC Proposed Limestone Mining Brgy. Tinoto, Municipality of Maasim, Sarangani Province



Sth Floor, One Campus Place, Tower B 1080 Campus Avenue, McKinley Town Center Fort Bonilado, Teguig City, Philippines 1634

+63 02 4659 565

April 23, 2021

HON. ZYREX C. PACQUIAO Local Chief Executive Maasim, Sarangani Province

Thru:

LOCAL ZONING REVIEW COMMITTEE (LZRC)

Re: <u>Reclassification of Land – From Parks and Recreational to Industrial</u> Identified Areas of Kamanga and Tinoto, Maasim, Sarangani Province

Dear-Sir;

GREETINGSI

Our company Holcim Mining and Development Corporation (HMDC) has signified our intention to undertake Limestone Extraction Project to the Municipality of Maasim. The project was designated by the Mines and Geo-Sciences Bureau as MPSA 274-2008-XII Parcel 4 covering an area of 425.1146 hectares.

Currently, the whole area where the planned Limestone Extraction Project will be located is classified as Parks and Recreational Land. The area has not been cultivated for more than 20 years already and had been left idle and undeveloped since HMDC's presence. Premises considered, we are most respectfully requesting for a reclassification of mining claim areas of HMDC (maps and locations are attached) from "PARKS AND RECREATIONAL" to "INDUSTRIAL" land use.

The company had already obtained support from the two barangays (Kamanga and Tinoto) through their endorsements that interpose no objection to the project. The reclassification would enable HMDC to pursue its' ECC Application while getting the support of MAASIM MLGU Officials. It would also mean additional investment for Maasim in an adjunct to your impetus for the sustainable economic growth. HMDC aims to support the growth by providing quality business partnerships at par with country's best

Your favourable accommodation of our request will be most appreciated. Thank you very much.

Respectfully yours,

ENGR. JOEL G. BADANG Mining Operations Manager

Realized by 9-1-2021



Malngan; Lot No. 77, Gss-12-000520-D covered by OCT No. CARP2014000096 registered in the name of Estanislao J. Aguanta; Lot No. 80, Gss-12-000520-D covered by OCT No. CARP2014000384 registered in the name of Everatt Mark E. Adre; Lot No. 55, Gss-12-000520-D covered by OCT No. CARP2014000385 registered in the name of Nestor Villaver; Lot No. 99, Gss-12-000520-D covered by OCT No. CARP2014000386 registered in the name of lan Rex S. Pontejo; Lot No. 59, Gss-12-000520-D covered by OCT No. CARP2014000389 registered in the name of Elvin Villarico; Lot No. 100, Gss-12-000520-D covered by OCT No. CARP2014000410 registered in the name of Felaciano Amonsot; Lot No. 102, Gss-12-000520-D covered by OCT No. CARP2014000461 registered in the name of Karl Nixon S. Pontejo; Lot. No. 98, Gss-12-000520-D covered by OCT No. CARP2014000486 registered in the name of Rogelio B. Pontejo; Lot 82, Gss-12-000520-D covered by OCT No. CARP2014000678 registered in the name of Robilyn Pabilona; Lot No. 84, Gss-12-000520-D covered by OCT No. CARP2014001264 registered in the name of Candy H. Mirabuenc; Lot 101, Gss-12-000520-D covered by OCT No. CARP 2014001335 registered in the name of Archer M. Akbat; Lot No. 94, Gss-12-000520-D covered by OCT No. CARP2014000487 registered in the name of Josephine Tuplano: Lot No. 93, Gss-12-000520-D covered by OCT No. CARP2014000390 registered in the name of Ma. Victoria Mirabueno; Lot No. 51, Gss-12-000407, Parcel 2 covered by CCT No. P-16009 registered in the name of Jumaira M. Esmael; Lot No. 44, Gss-12-000407, Parcel 2 covered by OCT No. P-16078 registered in the name of Faisal S. Plang; Lot No. 45, Gss-12-000407, Parcel 1 covered by OCT No. P-16076 registered in the name of Artamio M. Abdulbali; Lot No. 8, Gss-12-000407, Parcel 1 covered by OCT No. P-16066 registered in the name of Noorvaiza M. Esmael; Lot No. 45, Gss-12-000407, Parcel 2 covered by OCT No. P-16110 registered in the name of Cris ibrahim; Lot No. 3, Gss-12-000407, Parcel 2 covered by OCT No. P-15296 registered in the name of Abdul M. Wahani; Lot No. 50, Gss-12-000407, Parcel 1 covered by OCT No. P-16508 registered in the name of Abdulrajan S. Kamid; Lot 52, Gss-12-000407, Parcel 1 covered by OCT No. P-16772 registered in the name of Miguel D. Escobar; Lct No. 50, Gss-12-000407, P-2 covered by OCT No. P-17392 registered in the name of Glenn B. Pasawijan; Lot No. 53, Gss-12-000407, P-2 covered by OCT No. P-17383 registered in the name of Alex G. Vergara; Lot No. 49, Gss-12-000407, Parcel 2 covered by OCT No. P-17384 registered in the name of Eona Grace T. Rondina; Lot No. 13, Gss-12-000407, P-1 covered by OCT No. P-17387 registered in the name of Susan L. Asibal; Lot No. 47, Gss-12-000407, Parcel 1 covered by OCT No. CARP2014000845 registered in the name of Baina A. Sahak; Lot No. 48, Gss-12-000407, Parcel 2 covered by OCT No. CARP2014000958 registered in the name of Hadja Rohaima Akong, all are located in Barangay Tinoto, Maasim, Sarangani.

THIS IS TO CERTIFY FURTHER that the Proponent undertakes to comply with the requirements of Free and Prior informed Consent (FPIC) should it be found later that there is, in fact, an overlap in whole or in part.

THIS CERTIFICATION is issued based on the findings of the Field Based Investigation (FBI) conducted on December 3, 2020 with MR. LUCIANO B. LUMANCAS as the Team Leader in accordance with Section 15 of NCIP Administrative Order No. 3, Series of 2012.

THIS OFFICE, however, reserves whatever action needed to be undertaken to protect the rights and interests of the Indigenous Cultural Communities/Indigenous Peoples (ICCs/IPs) concerned, including the cancellation/revocation of this certification, as the case may be.

Done this 05th day of August, 2021 at Koronadal City, South Cotabato, Philippines.

FILE NO. CNO OSO Conception of the Regional Director NCIP XII Control No. RXII-GNO-21-08-0600

Concurred by:

LIMPAYEN JENNIFER PIA SIBUG-LAS Ethnographic Commissioner Republic of the Philippines Province of Sarangani Municipality of Maasim

BARANGAY KAMANGA

OFFICE OF THE SANGGUNIANG BARANGAY

EXCERPT FROM THE MINUTES OF THE 8th REGULAR SESSION OF THE SANGGUNIANG BARANGAY OF KAMANGA, MAASIM, THIS MUNICIPALITY, HELD ON AUGUST 01, 2018, KAMANGA, MAASIM SARANGANI PROVINCE.

PRESENT:

HON. ROSADELIMA N. MANGELEN HON. DAISY C. ISHMAEL HON. MOHMEN J. MANGELEN HON. TOMAS M. TANGCONG HON. AURELIA D. MACAGCALAT HON. ISRAEL M. BUGHAW HON. JOEL A. AMADORA HON. PAULO JAMES I. REPOLIDO HON. ANJOE BATUAN HON. ANGELITO A. PIANG

-PUNONG BARANGAY/PRESIDING -BARANGAY COUNCILOR -BARANGAY COUNCILOR -BARANGAY COUNCILOR -BARANGAY COUNCILOR -BARANGAY COUNCILOR -BARANGAY COUNCILOR -SK CHAIRMAN -BARANGAY COUNCILOR

ABSENT-NONE

Son

RESOLUTION 2018-013

A BARANGAY RESOLUTION INTERPOSING NO OBJECTION OF THE HOLCIM MINING AND DEVELOPMENT CORPORATION FOR THE LIMESTONE QUARRY PROJECT, LOCATED AT BARANGAY KAMANGA, MAASIM, SARANGANI PROVINCE.

Authored and Sponsored by HON. JOEL A. AMADORA

WHEREAS, the HOLCIM MINING AND DEVELOPMENT CORPORATION - a recognized business incorporators, duly registered by the Security and Exchange Commission (SEC) with SEC Reg. No. CS 144982, as adopted on October 26, 2015 (as per copy of S.E.C Certificate of filing amended Articles of Incorporation).

WHEREAS, the HOLCIM MINING AND DEVELOPMENT CORPORATION with business address at KM.21, Budbud, Brgy. Bunawan, Bunawan District and holding a Business License with Permit No. B-13823-1, issued by the Business Permit and License Division-Office of the City Mayor at the City of Davao, Province of Davao Del Sur.

WHEREAS, the operation of Limestone Quarry Project having a total of 425.1146 hectares of hand.

NOW THEREFORE, after careful and thorough deliberation by the Sangguniang Barangay and upon motion by Hon. JOEL A. AMADORA, duly seconded by all barangay members officially present, it was;

RESOLVED AS IT IS HEREBY RESOLVED, to pass a Barangay Resolution interposing NO OBJECTION of HOLCIM MINING AND DEVELOPMENT CORPORATION for the development and operation of a LIMESTONE QUARRY PROJECT under MPSA 274-2008-XI-Parcel 4, located at Barangay Kamanga and Tinoto Maasim, Sarangani Province.

UNANIMOUSLY APPROVED August 01, 2018

I HEREBY CERTIFY, to the correctness of the foregoing barangay resolution which was duly adopted by the Sangguniang Barangay during its 8th regular session on August 01, 2018.

Certified correct: NATHALINN, MACAGCALAT Barangay Secretary

Attested by:

HON. ROSADELINIA N. MANGELEN



Republic of the Philippines PROVINCE OF SARANGGANI Municipality of Maasim Barangay Tinoto

OFFICE OF THE SANGGUNIANG BARANGAY

EXCERPTS FROM THE MINUTES OF INAUGURAL REGULAR SESSION OF THE SANGGUNIANG BARANGAY OF TINOTO, MUNICIPALITY OF MAASIM PROVINCE OF SARANGGANI HELD ON JULY 30, 2018 AT THE SANGGUNIANG BARANGAY SESSION HALL.

Present: HON. RAJIK A. KUDARAT HON. BABY S. ISHMAEL HON. ALANO M. WAHANI HON. DAMSALI M. SAPPAYANI HON. DAMSALI M. SAPPAYANI HON. URIK L. MANGGOT HON. ISNURI I. HUNDANI HON. ROY M. TIO HON. PERLA B. MUSA HON. ABRAEL YAM W. KABE FULONG TEDDY I. PIANG

Punong Barangay/ Presiding Officer Barangay Kagawad Sk Chairman IP Representative

RESOLUTION NO. 5, Series of 2018

A BARANGAY RESOLUTION INTERPOSING NO OBJECTION OF THE HOLCIM MINING AND DEVELOPMENT CORPORATION. FOR THE LIMESTONE QUARRY PROJECT, LOCATED AT BARANGAY TINOTO, MAASIM, SARANGANI PROVINCE.

Authored and Sponsored by HON. ROY TIO

WHEREAS, the HOLCIM MINING AND DEVELOPMENT CORPORATION - a recognized business incorporators, duly registered by the Security and Exchange Commission (SEC) with SEC Reg. No. CS 144982, as adopted on October 26, 2015 (as per copy of S.E.C Certificate of filing amended Articles of Incorporation).

WHEREAS, the HOLCIM MINING AND DEVELOPMENT CORPORATION with business address at KM.21, Budbud,Brgy. Bunawan, Bunawan District and holding a Business License with Permit No. B-13823-1, issued by the Business Permit and License Division-Office of the City Mayor at the City of Davao, Province of Davao Del Sur.

WHEREAS, the operation of Limestone Quarry Project having a total of 425.1146 hectares of land.

NOW THEREFORE, after careful and thorough deliberation by the Sangguniang Barangay and upon motion by Hon. ROY TIO, duly seconded by all barangay members officially present, it was: **RESOLVED AS IT IS HEREBY RESOLVED**, to pass a Barangay Resolution interposing NO OBJECTION of HOLCIM MINING AND DEVELOPMENT CORPORATION for the development and operation of a LIMESTONE QUARRY PROJECT under MPSA 274-2008-XI-Parcel 4, located at Barangay Kamanga and Tinoto Maasim, Sarangani Province.

UNANIMOUSLY APPROIVED July 30, 2018

I HEREBY CERTIFY, to the correctness of the foregoing barangay resolution which was duly adopted by the Sangguniang Barangay during its 1st regular session on July 30, 2018.

CERTIFIED CORRECT:

IOCELYN D.GAMPAL Barangay Secretary

ATTESTED AND APPROVED:

HON. RAHKA. KUDARAT Punong Barangay



Republic of the Philippines9 DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

Sarangani Bay Protected Seascape PROTECTED AREA MANAGEMENT BOARD PENRO XII-3, Alabel, Sarangani province

Tel. No. (083) 504-2009

CERTIFICATION

TO WHOM IT MAY CONCERN:

THIS IS TO CERTIFIFY that MR. JOEL G. BADANG proponent of HOLCIN MADGED THE DEVELOPMENT CORPORATION located at Brgy. Tinoto, Maasim, Satangari Province B. Jolici Si PAMB Clearance pursuant to DAO 2007-17 as amended by DAO 2018-05 dated March 15, 2018 consistent with the provisions of R.A 7586 as amended by R.A 11038 or the Expanded National Integrated Protected Area System (E-NIPAS) Act of 2018.

This certifies further that the proposent has submitted its application documents and has been deliberated by the PAMB Technical Working Committee and DENR Technical Working Group with the following findings and recommendation:

- 1. That the proposed activity/project is outside the area of Sarangani Bay Protected Seascape;
- 2. That the proponent is not required to apply for Special Use Agreement in Protected Area,
- 3. That the issuance of this certification does not exempt the proponent from securing PAMB Clearance if the they wish to undertake activities within SBPS area including the utilization or extraction of natural resources.

Certifying, furthermore, that this is issued to the effect only of the lawfulness of the development project to be carried out is accordance with the provisions of Presidential Proclamation 756, Republic Act No. 7586 (NIPAS Act of 1992) as amended by RA 11038 (Expanded NIPAS Act of 2018), Republic Act No. 9275 (The Clean Water Act of 2004), Republic Act No. 8749 (The Clean Air Act of 1999), PD 1586 (The Environmental Impact Statement System) and **all other applicable environment** and natural resources laws and all their Implementing Rules and Regulations.

This certification shall not be construed an authority to manually change the specified use without any permit therefor from the PAMB and shall support their application for an issance of Environmental Compliance Certificate (ECC) at the EMB Region XII, Kernnadal City putsuan to SBPS-PAMB Resolution No. 2017-020, series of 2017

Issued this 27 Hiday of AUGUST SBPS, PENRO Alabel, Sarangani Province

, 2020 at the Protected Management Office of

SBPS

alone A OLOGUIN Supervising EMS/PA Superintendent

Certification Fee P100.00 Documentary Stump: P30.00 Official Receipt No. 2156325 Date Issued: 05/23/2010 Issued at: P05. ACABE+, GRANGAN Meynete

ANNEX K- REGISTERED EXPANSION ORDER

. 1	Republic of the P Department of Environment a	ind Natural Resources
BALLAN .	Visayas Avenue, Diliman, Qu Tul Noa. (632) 929-68-26 to 29	ezon City, 1100 • (632) 929-62-52
	929-66-20 • 929-66- 929-70-41 to	
	IN RE: APPLICATION OF HOLCIM PHILIPPINES, II FOR AREA EXPANSION INVOLVING MINER PRODUCTION SHARING AGREEMENT I 274-2008-XI AND APPLICATIONS F MINERAL PRODUCTION SHARI AGREEMENT DENOMINATED AS API 000107-XI AND APSA-032-XII-1997	NO. NG
	x	X
	ORDER	
	WHEREAS, Section 7 of Department of Environment a Administrative Order (DAO) No. 2012-07, the Impleme Executive Order (EO) No. 79, provides that 'No new	nting Rules and Regulations of
•	entered into until a legislation rationalizing existing a mechanisms shall have taken effect: Provided, that an areas shall not exceed the maximum hectarage per	revenue sharing schemes and y expansion of existing contract
	Mining Act of 1995:;*	
	WHEREAS, the Mining Industry Coordinating Counce March 4, 2015 transferring from its Technical Wor	
	Protection and Legislation to DENR-Mines and Geos	ciences Bureau the function of
	validating applications for expansion of existing min verification and subsequent approval of the pertinent ap	
	WHEREAS, thru the Letters of May 24, 2013 and May	y 11, 2015, Holcim Philippines,
	Inc. applied for the expansion of the area under Mineral (MPSA) No. 274-2008-XI covering 642.1537 hectar annexing the areas covered by its MPSA applications of XI and APSA-032-XII-1997 covering 339.3021 and 425. City and Maasim, Sarangani, respectively, pursuant to	es located in Davao City by denominated as APSA-000107- 1146 hectares located in Davao
	No. 79 and its Implementing Rules and Regulations;	the pertition provisions of 20
	WHEREAS. HPI has substantially complied with the p expansion, including the required validation, pursuant to	pertinent requirements for area
•	No. 79 and its Implementing Rules and Regulations;	o the percentaric provisions of CO
	WHEREFORE, the foregoing premises considered, the Agreement No. 274-2008-XI granted to Holcim Philippin annexing the areas covered by the applications for Agreement denominated as APSA-000107-XI and APSA terms and conditions provided for under Mineral Prot 274-2008-XI and the existing applicable laws, rules and	hes, Inc. is hereby expanded by or Mineral Production Sharing A-032-XII-1997, under the same Juction Sharing Agreement No.
	SO ORDERED.	
	1.4 JUL 2015	
	Quezon City, Philippines,	
-	By Authority of the Secretary:	
11500 A	by nationly of the obsidiary.	
e ge	lu: Dignh	CERTIFIED TRUE COPY
	LEO L. JASARENO	(p)
	Director P	EDGARDO D. CASTILLO
	Mines and Geosciences Bureau	NINING TENENENTS MANAGEMENT DIVISI
	Let's Go Greent	

Groundwater Analysis

PHOTOS TAKEN DURING INTERVIEW FOR FLORAL BASELINE GATHERING



















UNIVERSITY OF THE IMMACULATE CONCEPTION SCIENCE RESOURCE CENTER

UIC-SRC Form No. 7 Revision No. 01 10.01.2018

TEST REPORT

NAME OF CUSTOMER	HELIX MINING DEVELOPMENT CORPORATION	CONTROL NO:	22-1267C.1
ADDRESS:	TINOTO, MAASIM, SARANGANI PROVINCE	DATE REPORTED:	08/23/2022
SAMPLE:	WATER (01)	DATE ANALYSIS STARTED:	07/07/2022
DATE SAMPLED :	07/06/2022	DATE SAMPLE RECEIVED:	07/07/2022

RESULTS OF ANALYSIS:

Lab. No.	W22-2701	
Description	Pacman	
Ammoniacal-Nitrogen, mg/L	0.332	
Arsenic, mg/L	<0.002	
Cadmium, mg/L	0.072	
Chromium (hexavalent), mg/L	<0.010	
Chromium (total), mg/L	0.217	
Lead, mg/L	0.31	
Manganese, mg/L	0.054	
Mercury, mg/L	<0.002	
Nickel, mg/L	0.768	
	Nothing follows	

REMARKS: 1. Results relate only to sample as submitted and tested.

- 2. Methods used are in accordance with the Standard Methods for the Examination of Water & Wastewater, 23rd ed.
- 3. Estimation of Measurement Uncertainty (MU) may be available upon request.
- 4. This test report may not be reproduced unless in full.

ANALYZED BY

JONEL JOHN F. ZABALA PRC License No. 13880

Junior Analyst I Junior Analyst II

CERTIFIED BY:

mAmin

LUDIVINA M. PORTICOS, MBA, MS PRC License No. 6237 Director

Father Selga Street Davao City 8000 Philippines

SHEENA MARIE B. CRUZ RUSSELL CAESAR P. ENOC JUDY S. MANLIGUIS

PRC License No. 13309 PRC License No. 12653 Junior Analyst II

lunin

PRC License No. 8700 Junior Analyst III

EVELYN D. AUSAN PRC License No. 1232

Senior Analyst III

msoffice/water/srr2022-1267 Fax Number: (6382) 226-2676 Tel. Numbers: (6382) 221-8090 / 221-8181 227-8144 / 227-4543 Local 133 Email Address: src@uic.edu.ph

Page 1 of 1



UNIVERSITY OF THE IMMACULATE CONCEPTION SCIENCE RESOURCE CENTER

UIC-SRC Form No. 7 Revision No. 01 10.01.2018

TEST REPORT

NAME OF CUSTOMER:	HELIX MINING DEVELOPMENT CORPORATION	CONTROL NO:	22-1267C.2
ADDRESS:	TINOTO, MAASIM, SARANGANI PROVINCE	DATE REPORTED:	08/23/2022
SAMPLE:	WATER (01)	DATE ANALYSIS STARTED:	07/07/2022
DATE SAMPLED :	07/06/2022	DATE SAMPLE RECEIVED:	07/07/2022

RESULTS OF ANALYSIS:

Lab. No.	W22-2702	
Description	Sea Water 2	
Ammoniacal-Nitrogen, mg/L	<0.007	
Arsenic, mg/L	<0.002	
Cadmium, mg/L	0.058	
Chromium (hexavalent), mg/L	<0.010	
Chromium (total), mg/L	0.195	
Lead, mg/L	0.27	
Manganese, mg/L	0.043	
Mercury, mg/L	<0.002	
Nickel, mg/L	0.650	
	Nothing follows	

REMARKS: 1. Results relate only to sample as submitted and tested.

- 2. Methods used are in accordance with the Standard Methods for the Examination of Water & Wastewater, 23rd ed.
- 3. Estimation of Measurement Uncertainty (MU) may be available upon request.
- 4. This test report may not be reproduced unless in full.

ANALYZED BY:

JONEL JOHN F. ZABALA

PRC License No. 13880 Junior Analyst I

PRC License No. 13309 Junior Analyst II

SHEENA MARIE B. CRUZ RUSSELL CAESAR P. ENOC JUDY S. MANLIGUIS

PRC License No. 12653 Junior Analyst II

lumm

PRC License No. 8700 Junior Analyst III

EVELYN D. AUSAN PRC License No. 1232

Senior Analyst III

CERTIFIED BY:

mome

LUDIVINA M. PORTICOS, MBA, MS PRC License No. 6237 Director

Father Selga Street Davao City 8000 Philippines

msoffice/water/srr2022-1267 Fax Number: (6382) 226-2676 Tel. Numbers: (6382) 221-8090 / 221-8181 227-8144 / 227-4543 Local 133 Email Address: src@uic.edu.ph

Page 1 of 1


UIC-SRC Form No. 7 Revision No. 01 10.01.2018

TEST REPORT

NAME OF CUSTOMER	HELIX MINING DEVELOPMENT CORPORATION	CONTROL NO:	22-1267C.3
ADDRESS:	TINOTO, MAASIM, SARANGANI PROVINCE	DATE REPORTED:	08/23/2022
SAMPLE:	WATER (01)	DATE ANALYSIS STARTED:	07/07/2022
DATE SAMPLED :	07/06/2022	DATE SAMPLE RECEIVED:	07/07/2022

RESULTS OF ANALYSIS:

Lab. No.	W22-2703	
Description	Sea Water 3	
Ammoniacal-Nitrogen, mg/L	0.109	
Arsenic, mg/L	<0.002	
Cadmium, mg/L	0.063	
Chromium (hexavalent), mg/L	<0.010	
Chromium (total), mg/L	0.228	
Lead, mg/L	0.33	
Manganese, mg/L	0.024	
Mercury, mg/L	< 0.002	
Nickel, mg/L	0.738	
	Nothing follows	

REMARKS: 1. Results relate only to sample as submitted and tested.

- 2. Methods used are in accordance with the Standard Methods for the Examination of Water & Wastewater, 23rd ed.
- 3. Estimation of Measurement Uncertainty (MU) may be available upon request.
- 4. This test report may not be reproduced unless in full.

ANALYZED BY:

JONEL JOHN F. ZABALA

PRC License No. 13880 Junior Analyst I

Junior Analyst II

PRC License No. 13309

SHEENA MARIE B. CRUZ RUSSELL CAESAR P. ENOC JUDY S. MANLIGUIS PRC License No. 12653

Junior Analyst II

Rumm

PRC License No. 8700 Junior Analyst III

EVELYN D. AUSAN PRC License No. 1232

Senior Analyst III

CERTIFIED BY:

mon

LUDIVINA M. PORTICOS, MBA, MS PRC License No. 6237 Director

Father Selga Street Davao City 8000 Philippines

Page 1 of 1

msoffice/water/srr2022-1267 Fax Number: (6382) 226-2676 Tel. Numbers: (6382) 221-8090 / 221-8181 227-8144 / 227-4543 Local 133 Email Address: src@uic.edu.ph



UIC-SRC Form No. 7 Revision No. 01 10.01.2018

TEST REPORT

NAME OF CUSTOMER	: HELIX MINING DEVELOPMENT CORPORATION	CONTROL NO:	22-1267C.4
ADDRESS:	TINOTO, MAASIM, SARANGANI PROVINCE	DATE REPORTED:	08/23/2022
SAMPLE:	WATER (01)	DATE ANALYSIS STARTED:	07/07/2022
DATE SAMPLED :	07/06/2022	DATE SAMPLE RECEIVED:	07/07/2022

RESULTS OF ANALYSIS:

Lab. No.	W22-2704	
Description	Mirabueno Farm	
Ammoniacal-Nitrogen, mg/L	5.71	
Arsenic, mg/L	<0.002	
Cadmium, mg/L	< 0.003	
Chromium (hexavalent), mg/L	<0.010	
Chromium (total), mg/L	0.057	
Lead, mg/L	<0.01	
Manganese, mg/L	<0.002	
Mercury, mg/L	< 0.002	
Nickel, mg/L	<0.006	
	Nothing follows	

REMARKS: 1. Results relate only to sample as submitted and tested.

- 2. Methods used are in accordance with the Standard Methods for the Examination of Water & Wastewater, 23rd ed.
- 3. Estimation of Measurement Uncertainty (MU) may be available upon request.
- 4. This test report may not be reproduced unless in full.

ANALYZED BY:

JONEL JOHN F ZABALA

PRC License No. 13880 Junior Analyst I

PRC License No. 13309 Junior Analyst II

CERTIFIED BY:

momm

LUDIVINA M. PORTICOS, MBA, MS PRC License No. 6237 Director

Father Selga Street Davao City 8000 Philippines

PRC License No. 12653 Junior Analyst II

Rumin SHEENA MARIE B. CRUZ RUSSELL CAESAR P. ENOC JUDY S. MANLIGUIS

PRC License No. 8700 Junior Analyst III

EVELYN D. AUSAN

PRC License No. 1232 Senior Analyst III

msoffice/water/srr2022-1267

Fax Number: (6382) 226-2676 Tel. Numbers: (6382) 221-8090 / 221-8181 227-8144 / 227-4543 Local 133 Email Address: src@uic.edu.ph



UIC-SRC Form No. 7 Revision No. 01 10.01.2018

TEST REPORT

NAME OF CUSTOMER:	HELIX MINING DEVELOPMENT CORPORATION	CONTROL NO:	22-1267C.5
ADDRESS:	TINOTO, MAASIM, SARANGANI PROVINCE	DATE REPORTED:	08/23/2022
SAMPLE:	WATER (01)	DATE ANALYSIS STARTED:	07/07/2022
DATE SAMPLED :	07/06/2022	DATE SAMPLE RECEIVED:	07/07/2022

RESULTS OF ANALYSIS:

Lab. No.	W22-2705	
Description	Mirabueno Farm 2	-
Ammoniacal-Nitrogen, mg/L	<0.007	
Arsenic, mg/L	<0.002	
Cadmium, mg/L	< 0.003	
Chromium (hexavalent), mg/L	<0.010	
Chromium (total), mg/L	<0.001	
Lead, mg/L	<0.01	
Manganese, mg/L	0.580	
Mercury, mg/L	<0.002	
Nickel, mg/L	<0.006	
	Nothing follows	

REMARKS: 1. Results relate only to sample as submitted and tested.

- 2. Methods used are in accordance with the Standard Methods for the Examination of Water & Wastewater, 23rd ed.
- 3. Estimation of Measurement Uncertainty (MU) may be available upon request.
- 4. This test report may not be reproduced unless in full.

ANALYZED BY:

JONEL JOHN F. ZABAL

PRC License No. 13880 Junior Analyst I

PRC License No. 13309 Junior Analyst II

SHEENA MARIE B. CRUZ RUSSELL CAESAR P. ENOC JUDY S. MANLIGUIS

PRC License No. 12653 Junior Analyst II

Runn

PRC License No. 8700 Junior Analyst III

EVELYN D. AUSAN PRC License No. 1232

Senior Analyst III

CERTIFIED BY:

monun

LUDIVINA M. PORTICOS, MBA, MS PRC License No. 6237 Director

Father Selga Street Davao City 8000 Philippines

Page 1 of 1

msoffice/water/srr2022-1267 Fax Number: (6382) 226-2676 Tel. Numbers: (6382) 221-8090 / 221-8181 227-8144 / 227-4543 Local 133 Email Address: src@uic.edu.ph



UIC-SRC Form No. 7 Revision No. 01 10.01.2018

TEST REPORT

NAME OF CUSTOMER:	HELIX MINING DEVELOPMENT CORPORATION	CONTROL NO:	22-1267C.6
ADDRESS:	TINOTO, MAASIM, SARANGANI PROVINCE	DATE REPORTED:	08/23/2022
SAMPLE:	WATER (01)	DATE ANALYSIS STARTED:	07/07/2022
DATE SAMPLED :	07/06/2022	DATE SAMPLE RECEIVED:	07/07/2022

RESULTS OF ANALYSIS:

Lab. No.	W22-2706	
Description	Siguel River 1	
Ammoniacal-Nitrogen, mg/L	<0.007	
Arsenic, mg/L	<0.002	
Cadmium, mg/L	<0.003	
Chromium (hexavalent), mg/L	<0.010	
Chromium (total), mg/L	0.058	
Lead, mg/L	<0.01	
Manganese, mg/L	0.031	
Mercury, mg/L	<0.002	
Nickel, mg/L	<0.006	
	Nothing follows	

REMARKS: 1. Results relate only to sample as submitted and tested.

- 2. Methods used are in accordance with the Standard Methods for the Examination of Water & Wastewater, 23rd ed.
- 3. Estimation of Measurement Uncertainty (MU) may be available upon request.
- 4. This test report may not be reproduced unless in full.

ANALYZED BY:

JONEL JOHN F. ZABA PRC License No. 13880

Junior Analyst I

PRC License No. 13309 Junior Analyst II

Rumm SHEENA MARIE B. CRUZ RUSSELL CAESAR P. ENOC JUDY

PRC License No. 12653 Junior Analyst II

S. MANLIGUIS PRC License No. 8700 Junior Analyst III

EVELYN D. AUSAN

PRC License No. 1232 Senior Analyst III

msoffice/water/srr2022-1267

CERTIFIED BY:

monn

LUDIVINA M. PORTICOS, MBA, MS PRC License No. 6237 Director

Father Selga Street Davao City 8000 Philippines

Fax Number: (6382) 226-2676 Tel. Numbers: (6382) 221-8090 / 221-8181 227-8144 / 227-4543 Local 133 Email Address: src@uic.edu.ph



UIC-SRC Form No. 7 Revision No. 01 10.01.2018

TEST REPORT

NAME OF CUSTOMER:	HELIX MINING DEVELOPMENT CORPORATION	CONTROL NO:	22-1267C.7
ADDRESS:	TINOTO, MAASIM, SARANGANI PROVINCE	DATE REPORTED:	08/23/2022
SAMPLE:	WATER (01)	DATE ANALYSIS STARTED:	07/07/2022
DATE SAMPLED :	07/06/2022	DATE SAMPLE RECEIVED:	07/07/2022

RESULTS OF ANALYSIS:

Lab. No.	W22-2707	
Description	Siguel River 2	
Ammoniacal-Nitrogen, mg/L	<0.007	
Arsenic, mg/L	< 0.002	
Cadmium, mg/L	< 0.003	
Chromium (hexavalent), mg/L	<0.010	
Chromium (total), mg/L	<0.001	
Lead, mg/L	<0.01	
Manganese, mg/L	0.015	
Mercury, mg/L	< 0.002	
Nickel, mg/L	< 0.006	
	Nothing follows	

REMARKS: 1. Results relate only to sample as submitted and tested.

- 2. Methods used are in accordance with the Standard Methods for the Examination of Water & Wastewater, 23rd ed.
- 3. Estimation of Measurement Uncertainty (MU) may be available upon request.
- 4. This test report may not be reproduced unless in full.

ANALYZED BY:

JONEL JOHN F. ZABAL

PRC License No. 13880 Junior Analyst I

PRC License No. 13309 Junior Analyst II

SHEENA MARIE B. CRUZ RUSSELL CAESAR P. ENOC JUDY S. MANLIGUIS

PRC License No. 12653 Junior Analyst II

lunin

PRC License No. 8700 Junior Analyst III

EVELYN D. AUSAN PRC License No. 1232

Senior Analyst III

CERTIFIED BY:

monin

LUDIVINA M. PORTICOS, MBA, MS PRC License No. 6237 Director

Father Selga Street Davao City 8000 Philippines

office/water/srr2022-1267 Fax Number: (6382) 226-2676 Tel. Numbers: (6382) 221-8090 / 221-8181 227-8144 / 227-4543 Local 133 Email Address: src@uic.edu.ph



UIC-SRC Form No. 7 Revision No. 01 10.01.2018

TEST REPORT

NAME OF CUSTOMER:	HELIX MINING DEVELOPMENT CORPORATION	CONTROL NO:	22-1267C.8
ADDRESS:	TINOTO, MAASIM, SARANGANI PROVINCE	DATE REPORTED:	08/23/2022
SAMPLE:	WATER (01)	DATE ANALYSIS STARTED:	07/07/2022
DATE SAMPLED :	07/06/2022	DATE SAMPLE RECEIVED:	07/07/2022

RESULTS OF ANALYSIS:

Lab. No.	W22-2708	
Description	Siguel River 3	
Ammoniacal-Nitrogen, mg/L	0.229	
Arsenic, mg/L	<0.002	
Cadmium, mg/L	<0.003	
Chromium (hexavalent), mg/L	<0.010	
Chromium (total), mg/L	0.020	
Lead, mg/L	<0.01	
Manganese, mg/L	0.030	
Mercury, mg/L	<0.002	
Nickel, mg/L	<0.006	
	Nothing follows	

REMARKS: 1. Results relate only to sample as submitted and tested.

- 2. Methods used are in accordance with the Standard Methods for the Examination of Water & Wastewater, 23rd ed.
- 3. Estimation of Measurement Uncertainty (MU) may be available upon request.
- 4. This test report may not be reproduced unless in full.

ANALYZED BY:

JONEL JOHN ZABALA PRC License No. 13880 Junior Analyst I

SHEENA MARIE B. CRUZ RUSSELL CAESAR P. ENOC JUDY PRC License No. 13309

Junior Analyst II

Rumm

PRC License No. 12653 Junior Analyst II

PRC License No. 8700 Junior Analyst III

EVELYN D. AUSAN

PRC License No. 1232 Senior Analyst III

msoffice/water/srr2022-1267

CERTIFIED BY:

momen

LUDIVINA M. PORTICOS, MBA, MS PRC License No. 6237 Director

Father Selga Street Davao City 8000 Philippines

Page 1 of 1

Fax Number: (6382) 226-2676 Tel. Numbers: (6382) 221-8090 / 221-8181 227-8144 / 227-4543 Local 133 Email Address: src@uic.edu.ph



Republic of the Philippines Province of Sarangani MUNICIPAL PLANNING & DEVELOPMENT OFFICE Municipality of Maasim



January 17, 2022

JOEL G. BADANG Mining and Operations Manager Holeim Mining & Development Corporation Km. 21, Budbud, Bunawas, Davao City

Sir:

This has reference to your letter dated December 27, 2021 requesting this office for a zoning certification of a certain area of around 425.1146 hectares in barangay Tinoto, this municipality, for your proposed limestone extraction project which was already issued by our Zoning Officer though the area is zoned as parks and recreation zone while the nature or type of the project is mining/quarrying, thus, the project is non-confirming as to land use or zone.

Nonetheless, we will consider your area to be reclassified into mining/quarrylag zone in the revision of our Comprehensive Land ase Plan (CLUP) which is now ongoing and wish to be approved by the third quarter of this year.

Hope we have elucidated your good end on this matter.

Thank you and more power.

Very traly yours,

RONALD L. ORBITA, EnP. Municipal Planning & Development Coordinator



Republic of the Philippines Province of Sarangani MUNICIPAL PLANNING & DEVELOPMENT OFFICE Municipality of Maasim



January 17, 2022

JOEL G. BADANG Mining and Operations Manager Holeim Mining & Development Corporation Km. 21, Budbud, Bunawas, Davao City

Sir:

This has reference to your letter dated December 27, 2021 requesting this office for a zoning certification of a certain area of around 425.0146 hectares in barangay Tinoto, this municipality, for your proposed limestone extraction project which was already issued by our Zoning Officer though the area is zoned as parks and recreation zone while the nature or type of the project is mining/quarying, thus, the project is non-confirming as to land use or zone.

Nonetheless, we will consider your area to be reclassified into mining/quarrylag zone in the revision of our Comprehensive Land ase Plan (CLUP) which is now ongoing and wish to be approved by the third quarter of this year.

Hope we have clucidated your good end on this matter.

Thank you and more power.

Very traly yours,

RONALD L. ORBITA, EnP. Municipal Planning & Development Coordinator

Holcim Mining & Development Corporation

Environmental Impact Statement HMDC Proposed Limestone Mining Brgy. Tinoto, Municipality of Maasim, Sarangani Province



Sth Floor, One Campus Piace, Tower B 1080 Campus Avenue, McKinley Town Center Fort Bonifado, Teguig City, Philippines 1634

+63 02 4659 585

April 23, 2021

HON. ZYREX C. PACQUIAO Local Chief Executive Maasim, Sarangani Province

Thru:

LOCAL ZONING REVIEW COMMITTEE (LZRC)

Re: <u>Reclassification of Land – From Parks and Recreational to Industrial</u> Identified Areas of Kamanga and Tinoto, Maasim, Sarangani Province

Dear-Sir;

GREETINGSI

Our company Holcim Mining and Development Corporation (HMDC) has signified our intention to undertake Limestone Extraction Project to the Municipality of Maasim. The project was designated by the Mines and Geo-Sciences Bureau as MPSA 274-2008-XII Parcel 4 covering an area of 425.1146 hectares.

Currently, the whole area where the planned Limestone Extraction Project will be located is classified as Parks and Recreational Land. The area has not been cultivated for more than 20 years already and had been left idle and undeveloped since HMDC's presence. Premises considered, we are most respectfully requesting for a reclassification of mining claim areas of HMDC (maps and locations are attached) from "PARKS AND RECREATIONAL" to "INDUSTRIAL" land use.

The company had already obtained support from the two barangays (Karnanga and Tinoto) through their endorsements that interpose no objection to the project. The reclassification would enable HMDC to pursue its' ECC Application while getting the support of MAASIM MLGU Officials. It would also mean additional investment for Maasim in an adjunct to your impetus for the sustainable economic growth. HMDC aims to support the growth by providing quality business partnerships at par with country's best

Your favourable accommodation of our request will be most appreciated. Thank you very much.

Respectfully yours,

ENGR. JOEL G. BADANG Mining Operations Manager

Reaived by 9-1-2021



Malngan; Lot No. 77, Gss-12-000520-D covered by OCT No. CARP2014000096 registered in the name of Estanislao J. Aguania; Lot No. 80, Gss-12-000520-D covered by OCT No. CARP2014000384 registered in the name of Everatt Mark E. Adre; Lot No. 55, Gss-12-000520-D covered by OCT No. CARP2014000385 registered in the name of Nestor Villaver; Lot No. 99, Gss-12-000520-D covered by OCT No. CARP2014000386 registered in the name of lan Rex S. Pontejo; Lot No. 59, Gss-12-000520-D covered by OCT No. CARP2014000389 registered in the name of Elvin Villarico; Lot No. 100, Gss-12-000520-D covered by OCT No. CARP2014000410 registered in the name of Felaciano Amonsot; Lot No. 102, Gss-12-000520-D covered by OCT No. CARP2014000461 registered in the name of Karl Nixon S. Pontejo; Lot. No. 98, Gss-12-000520-D covered by OCT No. CARP2014000486 registered in the name of Rogelio B. Pontejo; Lot 82, Gss-12-000520-D covered by OCT No. CARP2014000678 registered in the name of Robilyn Pabilona; Lot No. 84, Gss-12-000520-D covered by OCT No. CARP2014001264 registered in the name of Candy H. Mirabueno; Lot 101, Gss-12-000520-D covered by OCT No. CARP 2014001335 registered in the name of Archer M. Akbat; Lot No. 94, Gss-12-000520-D covered by OCT No. CARP2014000487 registered in the name of Josephine Tuplano; Lot No. 93, Gss-12-000520-D covered by OCT No. CARP2014000390 registered in the name of Ma. Victoria Mirabueno; Lot No. 51, Gss-12-000407, Parcel 2 covered by CCT No. P-16009 registered in the name of Jumaira M. Esmael; Lot No. 44, Gss-12-000407, Parcel 2 covered by OCT No. P-16078 registered in the name of Faisal S. Plang; Lot No. 45, Gss-12-000407, Parcel 1 covered by OCT No. P-16076 registered in the name of Artamio M. Abdulbali; Lot No. 8, Gss-12-000407, Parcel 1 covered by OCT No. P-16066 registered in the name of Noorvaiza M. Esmael; Lot No. 45, Gss-12-000407, Parcel 2 covered by OCT No. P-16110 registered in the name of Cris ibrahim; Lot No. 3, Gss-12-000407, Parcel 2 covered by OCT No. P-16296 registered in the name of Abdul M. Wahani; Lot No. 50, Gss-12-000407, Parcel 1 covered by OCT No. P-16508 registered in the name of Abdulrajan S. Kamid; Lot 52, Gss-12-000407, Parcel 1 covered by OCT No. P-16772 registered in the name of Miguel D. Escobar; Lot No. 50, Gss-12-000407, P-2 covered by OCT No. P-17382 registered in the name of Glenn B. Pasawilan; Lot No. 53, Gss-12-000407, P-2 covered by OCT No. P-17383 registered in the name of Alex G. Vergara; Lot No. 49, Gss-12-000407, Parcel 2 covered by OCT No. P-17384 registered in the name of Eona Grace T. Rondina; Lot No. 13, Gss-12-000407, P-1 covered by OCT No. P-17387 registered in the name of Susan L. Asibal; Lot No. 47, Gss-12-000407, Parcel 1 covered by OCT No. CARP2014000845 registered in the name of Baina A. Sahak; Lot No. 48, Gss-12-000407, Parcel 2 covered by OCT No. CARP2014000958 registered in the name of Hadja Rohaima Akong, all are located in Barangay Tinoto, Maasim, Sarangani.

THIS IS TO CERTIFY FURTHER that the Proponent undertakes to comply with the requirements of Free and Prior Informed Consent (FPIC) should it be found later that there is, in fact, an overlap in whole or in part.

THIS CERTIFICATION is issued based on the findings of the Field Based Investigation (FBI) conducted on December 3, 2020 with MR. LUCIANO B. LUMANCAS as the Team Leader in accordance with Section 15 of NCIP Administrative Order No. 3, Series of 2012.

THIS OFFICE, however, reserves whalever action needed to be undertaken to protect the rights and interests of the Indigenous Cultural Communities/Indigenous Peoples (ICCs/IPs) concerned, including the cancellation/revocation of this certification, as the case may be.

Done this 05th day of August, 2021 at Koronadal City, South Cotabato, Philippines.

FILE NO. CNO OSO Con Office of the Regional Director NCIP XII Control No. RXII-CNO-21-08-6600

Concurred by:

LIMPAYEN JENNIFER PIA SIBUG-LAS Ethnographic Commissioner



Don Mariano Santos Avenue Barangay San Isidro Angono, Rizal 1930

e-mail: hmdc-op@hmdcph.com

(Formerly Holcim Mining and Development Corporation)

February 20, 2023

Engr. William P. Cuñado Director Department of Environment and Natural Resources ENVIRONMENTAL MANAGEMENT BUREAU DENR Compound, Visayas Avenue, Diliman, Quezon City

> Attention: Engr. Esperanza A. Sajul Chief, Environmental Impact Assessment Management Division

SUBJECT: Amendment of Proponent's Name for the Proposed Limestone Mining Project in Maasim, Sarangani

Dear Dir. Cuñado,

Greetings!

We are writing to inform you that our company, previously known as Holcim Mining and Development Corporation, has changed its name to Helix Mining and Development Corporation. With this, we would like to inform you that the proponent of our proposed limestone mining project in Maasim, Sarangani will be changed from Holcim Mining and Development Corporation to Helix Mining and Development Corporation.

Attached in this letter is a copy of our Amended Articles of Incorporation filed under Securities and Exchange Commission, for your kind reference. We hope you find everything in order. For concerns, please feel free to contact me at darlene.mata@hmdcph.com

Thank you very much.

Very truly yours.

Darlene B. Mata Environment Officer

Noted by Engr. Čílor

Operations Head



REPUBLIC OF THE PHILIPPINES SECURITIES AND EXCHANGE COMMISSION Ground Floor. Secretariat Building, PICC City Of Pasay, Metro Manila CUTITIES and

COMPANY REG.

CERTIFICATE OF FILIN

AMENDED ARTICLES OF INCORPORATION

KNOW ALL PERSONS BY THESE PRESENTS:

This is to certify that the amended articles of incorporation of the

HELIX MINING AND DEVELOPMENT CORPORATION (Formerly: HOLCIM MINING AND DEVELOPMENT CORPORATION) (Amending Articles I & III thereof)

copy annexed, adopted on June 17, 2021 by majority vote of the Board of Directors and by the vote of the stockholders owning or representing at least two-thirds of the outstanding capital stock, and certified under oath by the Corporate Secretary and a majority of the Board of Directors of the corporation was approved by the Commission on this date pursuant to the provision of Section 15 of the Revised Corporation Code of the Philippines, Republic Act No. 11232, which took effect on February 23, 2019, and copies thereof are filed with the Commission.

Unless this corporation obtains or already has obtained the appropriate Secondary License from this Commission, this Certificate does not authorize it to undertake business activities requiring a Secondary License from this Commission such as, but not limited to acting as: broker or dealer in securities, government securities eligible dealer (GSED), investment adviser of an investment company, close-end or open-end investment company, investment house, transfer agent, commodity/financial futures exchange/broker/merchant, financing/lending company and time shares/club shares/membership certificates issuers or selling agents thereof; nor to operate a fiat money to virtual currency exchange. Neither does this Certificate constitute as permit to undertake activities for which other government agencies require a license or permit.

IN WITNESS WHEREOF, I have set my hand and caused the seal of this Commission to be fixed to this Certificate at Pasay City, Metro Manila, Philippines, this day of January, Twenty Twenty Two.

NIELAGABUYO

DANIEL/I GABUYO Assistant Director SO Order 1188 Series of 2018.

ED/qba



PAYMENT ASSESSMENT FORM

No. 20220110-4651800

DATE 01/10/2022		RESPONSIBILITY CENTER CRMD					
	LCIM MINING AND DEVELOPMENT C	ORPORATION					

NATURE OF COLLECTION	QUANTITY	ACCOUNT CODE	AMOUNT					
Amended Articles of Incorporation		4020102000 (606)	1,000.00					
Name Verification		4020199099 (678)	200.00					
Legal Research Fee (A0823)		2020105000 (131)	10.00					
Documentary Stamp Tax	1	4010401000 (4010401)	30.00					
NOTHIN	NOTHING FOLLOWS							
TOTAL AMOUNT TO BE PAID			Php 1,240.00					
Assessed by: esdorende		Amount in words: ONE THOUSAND TWO HUNDRED FORTY PESOS AND 00/100						
Remarks: ES.DORENDEZ CONCURD-6								

Paymont Options

- 1. Online payment thru SEC Payment Portal
- https://www.sec.gov.ph/apps/payment-portal
- 2. Over the Counter Payments - SEC Casttler Office
 - Selected Landbank Branches

SEC Londbank Accounto

Lendbonk Region/Area	SEC Clearing Account	SEC Account		
Region II, II-A, II-B, IV, Area IV- A, AREA IV-8, and Region VIII	3402-2319-20	Head Office / Tartec		
Region J	3402-2319-38	Вадию		
Region V	3402-2319-48	Legaspi		
Region VI	3402-2319-54	Bola / Becolod		
Region VII	3402-2319-62	Cebu		
Region IX	3402-2319-70	Zamboanga		
Region X	3402-2319-80	Cagayen Da Oro		
Region XI & XII	3402-2319-07	Dovao		

For National Capital Region (NCR), payments are only cllowed thru the fl. Landbank branches:

Namo of Branch	SEC Clearing Account
Edsa Greenhills	22
Edsa Congressional	
Araneta E.O.	8
YMCA	3402-2319-20
DOTC	3402-2310-20
Ortigas E.O.	
Muntinlupa	
North Avenue	

Breakdown Summar

Breakdown Summbry		
FUND ACCOUNT	AMOUNT	ACCOUNT #
BTR Account - DST	30.00	see SEC clearing accounts
SEC RCC Current Account	1,200.00	3752-1001-43
BTR Account - LRF	10.00	see SEC clearing accounts
TOTAL	Php 1,240.00	

Notes:

A. This form is valid for forty-five (45) calendar days from the date of Payment Assessment Form (PAF)

B. Accepted modes of payment at SEC Main Office, Pasay City:

1. Cash 2. Manager's/Cashier's Check 3. Postal Money Order

C. Accepted modes of payment at selected Landbank branches:

1. Cash 2. Manager's/Cashier's Check payable to the Securities and Exchange Commission

D. For check payment, please prepare separate checks per fund account as indicated on the breakdown summary. <u>All checks must be peyable to Securities and Exchange</u> <u>Commission</u>

E. For over the counter payment at LandBank, preparation of oncoll payment or deposit slip shall be per fund account as indicated on the breakdown summary.

If fund code is STR, use an oncoll payment slip.

If fund code is SRC or RCC, use a regular deposit slip.

Send through email the copy of the machine-validated oncoll payment slip / deposit slip to the issuer of this PAF to confirm that payment has been made.

F. ANY ALTERATIONS WILL INVALIDATE THIS FORM

							~~~	MD			-		for	A	ilac	cati	on	s at	<b>b</b> .				-								
<b>W</b>			M	-		-11-			A	NY RI	-61	214	ALI	UN	AN	UM	UN		RIN		SE	AR									
ର ଅ	t (	8	n.		END!	-	ation									1				П	4	4	9	8	gistr 2	ation	Numl	ber			1
പ്പ		4							-				Fo	rme	Cor	npan	v Na	ma					hn		<del>55</del>	10	h		<u> </u>	-	1
. r	н	0	L	c	1		Ч	M	T	IN	1	N	G		A	N								o p		V E		Γ			]
0 W	D	E	V	E	L	T		M	T	EN	Τ		c	0	R	P	0	R	A	Т	1	0	N			 					]
G۲ آ				1	Γ	Г			T		Γ	J 										1									]
Image: Second																															
60 E	н	Е	L	I	X		М	1		NI	N	G		A	N	D								K.						N.	]
[	D	E	V	E	L	C	P	м	T	EN	Т		с	0	R	Р	o	R	A	Ţ	1	0	N								]
		1																													]
		-								P	rincip	al Off	ice ( N	o./St	reet/E	laran	jay/C	City/To	own)P	rovir	109)										
	7	Т	Н		F	l		0		<b>R</b> ,	Т	W	0		w	0	R	L	D		S	Q	U	A	R	E,					
[	Μ	С	К	I	N	L	. E	Y		Н	1	L	L,		F	0	R	Т		B	0	N	1	F	A	c	1	O,	CODE		]
[	Т	A	G	U	1	C	3	С		IT	Y	,	Р	Н		L	I	P	Ρ	1	N	E	S			]	1	6	3	4	]
	lean.	-2		Com	bany E	mai	Addres	\$				r				phone						_		N	tobile	Numb	er			1	
																-									_	-			_	]	
	fri .								Th	e designate	ed perso		ONTA	Directo	Trust	e/Partr				-											
Г	6î U	1		Nam	e of Co	onta	ct Perso	n			٦	<b>—</b>		Ema	all Add	lress			1		Telept	ione N	umber	/5	1	<b></b>	Mob	Re Nu	mber		1
L	Sec. al																		]		_			-	J					.287	J
ſ	lecos.	le d				-					_		Co	ntac	t Pers	:00 ¹ 5 /	Addr	855	_											V	1
L		nod	Prov	cesso							۲	o be	accoi	mpli	sfied	by C	RMI	) Per	sonn Date					124		Sign	ature				-
	naail	Juen		6330	" <u> </u>				1				-							_			_							ŕ	
									2				•		,								-						-	-	
	Do	cum	ent	I.D.					_																						
					ate Fil	ing	and Re	cord	s C	)Ivision (	(CFRE	<b>)</b> }									-		•					_		-	
	orw	arde		Cor Gre	en La	ine	Unit			Registr		Divis	ion													_			•	1040	
		1928 		Lice	ensing	y Ur	nit			dit Divisi															~					1	
D	at	e:	2	022	npliar 2 – 0	3-	Monito -25	ring l Ti	Div .m	vision le: (	08:	18	52	A	М					C	12.0	Us	eri	Tan	ne:	RU RU	asa	60	P	6	illo
																					a <b>ge</b> :	d bys	7_e R_	6 -	29		ege Fan	Č,	2.8.		R_7090

•

. . . .

,

# AMENDED ARTICLES OF INCORPORATION CUTITIES and

Exchange

Commission

# HELIX MINING AND DEVELOPMENT CORPORATIONN E S

## (Formerly Holcim Mining and Development Corporation)

OF

# KNOW ALL MEN BY THESE PRESENTS:

That WE, all of legal age, citizens and residents of the Republic of the Philippines, have this day voluntarily associated ourselves together for the purpose of forming a corporation under the laws of the Republic of the Philippines.

AND WE HEREBY CERTIFY:

### FIRST - That the name of the said corporation shall be:

### HELIX MINING AND DEVELOPMENT CORPORATION

## (As amended on June 17, 2021)

**SECOND** – That the purposes which the corporation is formed are:

## PRIMARY PURPOSE

To carry on the business of operating, prospecting, exploring, mining, quarrying and excavating mines and mineral claims containing lime, limestone, shale, silica, gypsum, marble, granite, coal and all other cement material or building stone and clay, and of prospecting, exploration and of mining, concentrating, converting, smelting, treating, refining, preparing for market, manufacturing, buying, selling, exchanging and otherwise producing and dealing in all other kinds of minerals, and minerals, hydrocarbons, acids and chemicals, and in the products and by-products of every kind and description and by whatsoever process, the same can be or may hereafter be produced, processed or acquired of leasing or sub-leasing of real and other kinds of property, and of providing tolling services or entering into arrangements for the provision of tolling services with respect to the foregoing, primarily and on a priority basis, to provide support to, and address the business requirements of the Holcim Philippines, Inc. and any of its affiliates, as well as any other entity with interests not adverse to Holcim Philippines, Inc. and any of its affiliates (As amended on October 26, 2015).

## SECONDARY PURPOSE

I. To purchase, develop, locate, or otherwise acquire, "own, exchange, sell, or otherwise dispose of, pledge, mortgage, execute deeds in trust, hypothecate, and deal in mines, mining claims, mineral lands, real estate of all kinds, including but not limited to mineral

Username: Kasandra	Dallo
CERTIFIED TRUE COPY	( and
Page 24 24 Parger 8 MAR	2022
Arthod by R. ANTONIO Manufactures	2

lands, coal lands, and timber lands, water and water rights, and other kinds property; (As omended on July 24, 2014).

2. To purchase, acquire, own, sell and convey buildings, factories and warehouse and machineries, equipment and other personal properties as may be necessary or incidental to the conduct of the corporate business, and to pay in cash, shares of its capital stock, debentures and other evidences of indebtedness, or other securities, las may be deemed expedient, for any business or property acquired by the corporation, (As amended on October 26, 2015).

3. To borrow or raise money necessary to meet the financial requirements of its business by the issuance of bonds, promissory notes and other evidences of indebtedness, and to secure the repayment thereof by mortgage, pledge, deed of trust or lien upon the properties of the corporation or to issue pursuant to law shares of its capital stock, debentures and other evidences of indebtedness in payment for properties acquired by the corporation or for money borrowed in the prosecution of its lawful business;

4. To invest and deal with the moneys and properties of the corporation in such manner as may from time to time be considered wise or expedient for the advancement of its interests and all to sell, dispose of or transfer the business, properties and good will of the corporation or any part thereof for such consideration and under such terms as it shall see fit to accept;

5. To aid any manner any corporation, association, or trust estate, domestic or foreign, or any firm or individual, any shares of stock in which or any bonds, debentures, notes, securities, evidences of indebtedness, contract, or obligations of which are held by or for this corporation, directly or indirectly or through other corporations or otherwise;

6. To enter into any lawful arrangement for sharing profits, union of interest, unitization or farm-out agreement, reciprocal concession, or cooperation with any corporation, association, partnership, syndicate, entity, person or government, municipal or public authority, domestic or foreign, in the carrying on of any business or transaction deemed necessary, convenient, or incidental to carrying out any of the purposes of this corporation;

7. To acquire or obtain from any government authority, national, provincial, municipal or otherwise, or any corporation, company or partnership or person, such charter, contracts, franchise, privileges, exemption, licenses and concessions as may be conducive to any of the objects of the corporation;

8. To establish and operate one or more offices or agencies and to carry on any of all of its operations and business without any restrictions as to place or amount including THE right to hold, purchase, or otherwise acquire, lease, mortgage, pledge and convey or otherwise

deal in and with real and personal property anywhere within the Philippines;

9. To distribute the surplus profits of the corporation to the stockholders thereof in kind, namely, properties of the corporation, particularly any shares of stock, debentures or securities of other companies belonging to this corporation; and

Username: Kasandra Dallo CERTIFIED ASSE SUPY Tor / 24 100 2 R MAR 20272 Verified that D AMERICA

10. To conduct and transact any and all lawful business, and to do or cause to be done any one or more of the acts and things herein set forth as its purposes, with or without the Philippines, and in any and all foreign countries, and to do everything necessary, desirable or incidental to the accomplishment of the purposes or the exercise of any one or more of the powers herein enumerated, or which shall at any time apart conductive to be expedient for the protection or benefit of this corporation.

THIRD – That the place where the principal office of the corporation is located at <u>7th Floor, Two World Square, McKinley Hill, Fort Bonifacio, Taguig City 1634, Philippines (As amended on June 17, 2021).</u>

**FOURTH** – That the term for which said corporation is to exist is Fifty (50) years from and after the date of incorporation.

**FIFTH** – That the names, nationalities and residences of the incorporations of said corporation are as follows:

	<b>Nationality</b>	Residence
Benjamin Vera Cruz	Filipino	46 Francisco Cruz St., BF Homes, Paranaque, MM
Fe Vera Cruz	Filipino	46 Francisco Cruz St., BF Homes, Paranaque, MM
Paterno de Guzman	Filipino	31 Riverdale St., St. Ignatius Village, Q.C.
Danilo M. Celestial	Filipino	42 Fordham Street, St. Ignatius Village, Q.C.
Ber Juan Bernabe	Filipino	198 Dr. Natividad Ave., Ibayo-Tipas, Taguig, MM

**SIXTH** – That the number of directors of said corporation shall be <u>Seven (7)</u> and that the names, nationalities and residences of the directors who are to serve until their successors are elected and qualified as provided by the By-Laws, are as follows (As amended on October 5, 2017).

	<b>Nationality</b>	Residence
Benjamin Vera Cruz	Filipino	46 Francisco Cruz St., BF Homes, Paranaque, MM
Fe Vera Cruz	Filipino	46 Francisco Cruz St., BF Homes, Paranaque, MM
Paterno de Guzman	Filipino	31 Riverdale St., St. Ignatius Village, Q.C.
Danilo M. Celestial	Filipino	42 Fordham Street, St. Ignatius Village, Q.C.
Ber Juan Bernabe	Filipino	198 Dr. Natividad Ave., Ibayo-Tipas, Taguig, MM

**SEVENTH** – That the capital stock of the Corporation is ONE BILLION FIVE HUNDRED NINETY MILLION PESOS (#1,590,000,000.00), Philippine currency, and said capital stock is divided as follows (As amended on October 26, 2015 and on December 2, 2016):

I. Twenty Five Million (25,000,000) Class A Common Shares with a par value of Ten Pesos (\$10.00) per share;

2. Ten Million Five Hundred Thousand (10,500,000) Class B Common Shares with a par value of Ten Pesos (P10.00) per share;

3. Fifty Thousand (50,000) shares of Class A Redeemable Preferred Shares with par value of Two Hundred Pesos (\$200.00) per share;

Date: 2022-03-25 Time: 08:18:52 AM

Page 28 MAR 2022 Vertical by R. ANTONIO Derphanels 4. Seven Hundred Thousand (700,000) shares of Class B Redeemable Preferred Shares with par value of One Thousand Pesos (P1000.00) per share; and (As amended on March 14, 2014) Commission

5. Twenty Six Million Two Hundred Fifty Thousand (26,250,000) shares of Class C Redeemable Preferred Shares with par value of Twenty Pesos (P20.00) per share (As amended on October 26, 2015).

That the Class A Redeemable Preferred Shares, Class B Redeemable Preferred Shares and Class C Redeemable Preferred Shares (collectively, the "Redeemable Preferred Shares") shall have the following features.

#### (a) Voting Rights

All common shares and Redeemable Preferred Shares shall be entitled to vote.

(b) Dividends

The amount equivalent to at least seventy percent (70%) of the corporation's unrestricted retained earnings arising from the after-tax profits of the Company, after provision for any amounts required to be set aside or maintained for reserves of the corporation under the law, and after provision for self-funding as may be required under and approved investment or business plan, will be distributed to the stockholders as dividends based on appropriations approved by the Board of Directors in a meeting duly called for such purpose, in accordance with the shareholder's agreement or similar covenants entered into by the corporation and the stockholders, on the respective terms of the various classes of the shares of the Corporation, the By-Laws, and the Law (As amended on December 2, 2016).

Further, the Parties hereby agree as follows:

(i) A holder of any of Class A Redeemable Preferred Shares and Class B Redeemable Preferred Shares shall be entitled to receive out of the unrestricted retained earnings derived from the Operating Income of the corporation, when and as declared by the Board of Directors, annual dividends thereon at the minimum rate of five percent (5%) per annum of the aggregate par value of such stock or such other rate as may be agreed upon in writing by a holder of the Class A Redeemable Preferred Shares and Class B Redeemable Referred Shares. The Board of Directors may decide to increase the rate if deemed appropriate and reasonable. Dividends on the Class A Redeemable Preferred Shares and Class B Redeemable B Redeemable B Redeemable Preferred shares shall be cumulative.

(ii) After the dividends (including cumulated dividends) payable to the Class A Redeemable Preferred Shares and Class B Redeemable Preferred Shares under subparagraph (b)(i) above shall have been paid, the holders of the Redeemable Preferred Shares and common shares shall be entitled to receive dividends out of the unrestricted retained earnings of the corporation, when and as declared by the Board of Directors, their prorate share in such earnings, provided that:

Date: 2022-03-25 Time: 08:18:52 AM

Username: Kasandra Dallo

(1) the holders of common shares shall be entitled to participate from dividends declared out of the unrestricted retained earnings of the corporation, whether or not such earnings be derived from the Operating Net Income after tax or Non-Operating Net Income after tax, of the corporation.

PHILIPPINES

(2) the holders of Class A Redeemable Preferred Shares and Class B Redeemable Preferred Shares shall be entitled to participate from dividends declared out of unrestricted retained earnings arising or derived from the Non-Operating Net Income after tax of the corporation, but not from unrestricted earnings arising or derived from the Operating Net Income after tax of the corporation;

(3) the holders of Classic C Redeemable Preferred Shares shall be entitled to participate from dividends declared out of unrestricted retained earnings arising or derived from the Operating Income after tax, but not from those arising from the Non-Operating Net Income after tax, of the corporation, provided that for purposes of calculating the dividends payable to the holders of Class C Redeemable Preferred Shares, any Operating Net Income after tax of the corporation shall not be reduced or diminished by losses, financing costs, expenses and other deficit that may arise from the conduct of activities to generate the Non-Operating Income after tax of the corporation. In the event that dividends cannot be declared and paid to any holder of Class C Redeemable Preferred Shares because of the reduction to or limitation in retained earnings of the corporation due to losses, financing costs, expenses and other deficit that may arise from or be incurred because of the conduct of activities to generate the Non-Operating Income after tax of the corporation, any such unpaid amount shall be cumulated and accrued, and paid in subsequent periods, subject to limitations provided by law.

For the purpose of these provisions, the following terms shall have the meanings set out below:

"Operating Net Income after tax" means the net income which may be generated by the corporation in the ordinary operating activities as specified in the primary purpose of the corporation, after deductions of appropriate income tax attributable to this net income before tax. This includes, but is not limited to, the net income generated from the following: (i) raw materials supply, (ii) land foreshore leasing, (iii) tolling arrangements, and (iv) earthmoving activities. This net income shall not be reduced or diminished by loses, financing costs, expenses and other deficit that may arise from or incurred because of the conduct of activities to generate the Non-Operating Net Income after tax of the corporation.

"Non-Operating Net Income after tax" means the net which may be generated by the corporation in the conduct of non-operating activities as stated in the corporation's secondary purposes, after deduction of appropriate income taxes attributable to this net income before tax. This includes, but not limited to, the sale, exchange or disposition of any of the Material Assets,

Username: Kasandra Pallo

2-8 MAR

Dates haunde

24

ANTONIO

enhled bys R.

Date: 2022-03-25 Time: 08:18:52 AM

S

6

69

(9) 日

.

 $\odot$ 

 ${ }$ 

W ©

.

 $\Theta$ 

602

including those generated from the development and sale of developed land. This net income shall not be reduced or diminished by losses, financing costs, expenses and other deficit that may arise from or incurred because of the conduct of activities to generate the Operating Net Income after tax of the corporation. For this purpose, "Material Assets" means the mining rights and other real properties which the Corporation Hand/or any of Nits affiliates presently own and may subsequently acquire, including but not limited to those acquired or may be acquire from Holcim Philippines, Inc. (HPI), or any entity belonging to the HPI group.

## (c) Redemption

(i) The corporation shall have the option to redeem all or any portion of the Class A Redeemable Preferred Shares and Class B Redeemable Preferred at a redemption price equivalent to the sum of (1) the original issue price (less any unpaid subscription), and (2) all dividends in arrears (or amounts corresponding to the agreed annual dividends, but which amounts have not been paid, declared or accrued as dividends) and all accrued dividends in respect of such Redeemable Preferred Shares.

(ii) The corporation shall have the option to redeem all or any portion of the Class A Redeemable Preferred Shares and Class B Redeemable Preferred at a redemption price equivalent to the sum of (1) the original issue price (less any unpaid subscription), and (2) all dividends in arrears (or amounts corresponding to the agreed dividends, but which amounts have not been paid, declared or accrued as dividends) and all accrued dividends in respect of such Redeemable Preferred Shares, and (3) amounts corresponding to their share in any undeclared unrestricted retained earnings of the corporation arising out of the Operating Net Income after tax of the corporation, not reduced or diminished by losses, financing costs, expenses and other deficit that may arise from the conduct of activities to generate the Non-Operating Net Income after tax of the Corporation.

Within ninety (90) days from the occurrence of any Trigger Event (as (iii) defined below) (the "Notice Period"), the holders of the Redeemable Preferred Shares shall have the option to require the corporation to redeem such Redeemable Preferred Shares held by such holder by paying therefor in cash an amount (the "Mandatory Redemption Price") equal to: (1) in respect of the Class A Redeemable Preferred Shares and Class B Redeemable Preferred Shares, the issue price (less any unpaid subscription), including all dividends in arrears (or amount corresponding to the annual dividends but which amounts have not been paid, declared or accrued as dividends) in respect of such Redeemable Preferred Share and all accrued dividends thereon; and (2) in respect of the Class C Redeemable Preferred Shares, the sum of (A) the original issue price (less any paid subscription), (B) all dividends in arrears (or amounts corresponding to the agreed dividends, but which amounts have not been paid, declared or accrued as dividends) and all accrued dividends in respect of such Redeemable Preferred Shares, and (C) amounts corresponding to their share in any undeclared unrestricted retained earnings of the corporation arising out of the Operating Net Income after tax of the corporation, not reduced or diminished by losses, financing costs, expenses and other deficit that may arise from the conduct of activities to generate the Non-Operating Net Income after tax of the corporation. The written notice requiring the corporation to redeem the shares (the "Notice of

RTUSERAMEN Kasandra Dallo

per 8 MAR

Data lagrant

May

led by R. ANTONIO

Redemption") shall be sent to the corporate secretary of the corporation within the notice period or such longer period as the corporation may allow. Any notice of redemption may be revoked by delivery of written notice of such revocation not later than five (5) days prior to the scheduled date of redemption. Subject to applicable law and regulations, the corporation shall pay the holder of the Redeemable Preferred Shares the mandatory redemption price within fifteen (15) days from receipt of the notice of redemption. If less than all the shares of the Redeemable Preferred Shares represented by any certificate are required to be redeemed, the holder thereof shall be entitled to receive new Redeemable Preferred Shares certificate representing the shares which are not required to be redeemed. Redeemable Preferred Shares redeemed shall be deemed cancelled and may not be reissued as new shares or sold as treasury shares.

For purposes of the foregoing paragraph, a "Trigger Event" shall mean the occurrence of any or all of the following events:

(1) It becomes illegal or unlawful for the stockholder to continue owning or holding all or a portion of the Redeemable Preferred Shares, but without prejudice to any agreement among the stockholders to undertake any other in order to address any such illegality; or

The corporation becomes insolvent or commits or permits any (2) act of bankruptcy, which term shall include (i) the filing of a petition in any bankruptcy, winding-up, liquidation, corporate rehabilitation, dissolution, receivership or other proceeding analogous in purposes or effect and the failure by the corporation, as the case may be, to have any such petition discharged within forty five (45) days from notice thereof, (ii) the application for, consent to or failure to consent in a timely and reasonably appropriate manner, the appointment of a receiver, trustee or similar official acting for the benefit of creditors for the bankruptcy, winding-up or liquidation of the corporation or of a substantial portion of its respective properties or assets, (iii) the making by the corporation of a general assignment for the benefit of its creditors, (iv) the admission in writing by the corporation of its inability to pay its debts generally, (v) the passing of a resolution by the corporation approving any winding-up liquidation of, or of a substantial portion of its properties or assets, (vi) the entry of any court order or judgement confirming the bankruptcy or insolvency of the corporation or of a substantial portion of its properties or assets, (vii) any creditor of the corporation exercises a contractual right to assume the financial management of the corporation, (viii) the corporation is unable to pay its debts, stops, suspends or threatens to stop or suspend payment of all or substantially all of its indebtedness, (ix) the corporation begins negotiations for the rescheduling or other readjustment of all substantially all of its indebtedness, or (x) the taking of any corporate action for the purpose of effecting any of the foregoing.

(d) Preference in Liquidation

(i) In the event of any dissolution or liquidation or winding-up, whether voluntarily, of the Corporation, except in connection with a merger or consolidation, the holders of Class A Redeemable Preferred Shares and Class B Redeemable

ER Usernamen Kasandra Dallo

24

d by RANTONIO

pages 8 MAR 2022

Dete teeroon

Date: 2022-03-25 Time: 08:18:52 AM

Ø

Preferred Shares shall be entitled to be paid in full, or ratably insofar as the assets of the Corporation will permit, amounts equivalent to the issue price (less any unpaid subscription) of each such Redeemable Preferred Shares including all dividends in arrears (or amounts corresponding to the agreed annual dividends, but which amounts have not been paid, declared or accrued as dividends) and all accrued dividends in respect of such Redeemable Preferred Shares before any distribution shall be made to the holders of the Class C Redeemable Preferred Shares and the common shares.

(ii) After the amounts due to the Class A Redeemable Preferred Shares and Class B Redeemable Preferred Shares shall have been paid in accordance with the preceding paragraph, the holders of the Class C Redeemable Preferred Shares shall be entitled to be paid in full, or ratably insofar as the assets of the corporation will permit the sum of (1) amounts equivalent to the issue price (less any unpaid subscription) of such Redeemable Preferred Shares, (2) all dividends in arrears (or amounts corresponding to the agreed dividends, but which amount have not been paid, declared or accrued as dividends) and all accrued dividends in respect of such Redeemable Preferred Shares, and (3) amounts corresponding to their share in any undeclared unrestricted retained earnings of the corporation arising out of the Operating Net Income after tax of the corporation, not reduced or diminished by losses, financing costs, expenses and other deficit that may arise from or be incurred because of the conduct of activities to generate the Non-Operating Income after tax of the corporation.

(iii) After all the amounts due to the holders of the Redeemable Preferred Shares and Class B Redeemable Preferred Shares shall have been paid in accordance with the sub-paragraphs (i) and (ii) above, the holders of the common shares, Class A Redeemable Preferred Shares and Class B Redeemable Preferred Shares shall be entitled to be paid ratably their pro-rata share (based on the par value of such shares) of any remaining or surplus assets of the corporation left after such payments, without any further participation from the holders of the Class C Redeemable Preferred Shares.

# (e) Pre-emptive Rights

(i) The corporation will not issue (i) any additional shares, or (ii) any instrument which by its terms would entitle the holder to participate in the profits of the corporation or in its net assets (after payment and satisfaction of all of its debts and obligations and after returning all fixed amounts payable in respect of the capital of the corporation) upon its winding up, dissolution or any other termination of its corporate existence, other than shares issued in accordance with the provisions of this paragraph (d).

(ii) Except in transfers required by law, before any new shares, options to purchase shares or securities convertible into shares or a particular class of shares ("Additional Shares") may be issued, the corporation must first offer the Additional Shares to the stockholders holding the same class of shares as the Additional Shares by written notice, which notice will include the number of Additional Shares to be issued, and the purpose for which the capital raised by the subscription for the Additional Shares will be used. Each stockholder holding the same class of shares as

Usermane: Kasanara Dallo 2 8 MAR ZUZZ 20 od by R. ANTONIO Detro locueda

the Additional Shares will have the right to subscribe for a proportionate number of such particular class of Additional Shares, based upon the number of shares owned by a stockholder as at the date notice is given of the offer (As amended on December 2, 2016).

(iii) Any additional Shares not subscribed FbyHal stockholder pursuant to paragraph d(ii) will be proportionally offered to the other stockholders on the same terms and any remaining Additional Shares will be issued and paid up in accordance with those terms.

(iv) Payment in respect of any Additional Shares will be made in full by the subscribing stockholder on the date indicated in the subscription agreement.

If any stockholder is prevented by law from increasing its shareholding  $(\mathbf{v})$ in the corporation, it may, for purposes of exercising its rights under paragraph d(ii) od d(iii), designate as Affiliate or an Eligible Person but only, in the latter case, if required by the law, and with the prior written consent of HPI (if the stockholder is a member of the HPI RF Group) or HPI RF (if the stockholder is a member of the HPI Group) to acquire the Additional Shares. Any such Affiliate or Eligible Person will be required to become a party to any shareholder's agreement or similar covenants entered into by the corporation and the stockholders, by executing a deed of accession, and have similar rights and obligations as the nominating stockholder would have had with respect to such Additional Shares, and the nominating stockholder will remain jointly and severally liable with the Affiliate or Eligible Person for the due performance and observance of all obligations under any shareholder's agreement or similar covenants entered into by the corporation and the stockholders. Any subsequent Transfer of shares by the Affiliate or Eligible Person will be subject to the restrictions on Transfer contained in any shareholder's agreement or similar covenants entered into by the corporation and the stockholders.

(vi) If a stockholder, having committed to subscribe for Additional Shares to be issued by the corporation in accordance with this paragraph (d), fails to pay for the Additional Shares in accordance with the terms prescribed by the corporation, the provisions of the relevant subscription agreement, any shareholder's agreement or similar covenants entered into by the corporation and the stockholder's, and the law, the other stockholders will have the proportionate right, but not the obligation, to make the non-paying stockholder's payment and take the Additional Shares which would have been subscribed by such non-paying stockholder. (As amended on October 26, 2015).

**EIGHT** – That the amount of said capital stock has been actually subscribed is Two Hundred Fifty Thousand Pesos (P250,000.00) Philippine currency, and the following persons have subscribed for the number of shares and the amount of capital stock indicated opposite their respective names:

CERTUsername: Kasandra

Vertiled by R.ANTONIO

page 8 MAR

Ciste lacuedi

Dallo

<u>Name</u>	<u>Residence</u>	<u>No. of</u> <u>Shares</u>	Amount of Capital Stock Subscribed
Benjamin Vera Cruz	46 Francisco Cruz St., BF Homes, Paranaque, MM	Sterribed 12,500 Excha	ties _{P25;660.00} nge
Fe Bera Cruz	46 Francisco Cruz St., BF Homes, Paranaque, MM		<b>ission</b> PINE ^{25,000.00}
Paterno de Guzman	31 Riverdale St., St. Ignatius Village, Q.C.	7,500	75,000.00
Danilo M. Celestial	42 Fordham Street, St. Ignatius Village, Q.C.	1,250	12,500.00
Ber Juan Bernabe	198 Dr. Natividad Ave., Ibayo-Tipas, Taguig, MM	<u>1,250</u>	12,500.00
	Total	25.000	P250,000.00

als.

**NINTH** – That the following persons have paid on the shares of capital stock for which they have subscribed, the amounts set out after their respective names:

Name	<b>Nationality</b>	Amount Paid on
		Subscription
Benjamin Vera Cruz	Filipino	P 50,000.00
Fe Vera Cruz	Filipino	10,000.00
Paterno de Guzman	Filipino	30,000.00
Danilo M. Celestial	Filipino	5,000.00
Ber Juan Bernabe	Filipino	5,000.00
	Total	P100,000.00

**TENTH** – That no issuance or transfer of shares of stock of the corporation which would reduce the stock ownership of Filipino citizens to less than the minimum percentage of the outstanding capital stock required by law to be owned by Filipino citizens, shall be allowed or permitted to be recorded in the books of the corporation. This restriction shall be printed or indicated in all the certificates of stock to be issued by the corporation.

**ELEVENTH** – That Paterno De Guzman has been elected by the subscribers as Treasurer of the Corporation to act as such until his successor is duly elected and shall I have qualified in accordance with the by-Laws, and that as such Treasurer, he has been authorized to receive for the corporation, and to issue in its name Treasurer, he has been authorized to receive for the corporation, and to issue in its name receipts for, all subscriptions paid in by the subscribers.

Date: 2022-03-25 Time: 08:18:52 AM

CERYSPT	name: K	asang	jpag I	Dallo
CERUSPE Page 13	124	theisted. 8	MAR	2022
Verflad by R	/		aveda	and the set

UFI.

TWELFTH – The capital stock of said corporation shall be subject to the following restrictions:
Securities and

(a) General Restrictions

(1) No stockholder will Transfer any shares or rights in shares except as expressly permitted by and in accordance with the other provisions of Articles of Incorporation, the By-Laws, and any shareholder's agreement and similar covenants entered into by the corporation and the stockholders.

Exchange

(2) Any attempt Transfer by any shares, or rights in such shares, which is not in compliance with all of the provisions of the Shareholders Agreement, the Articles of Incorporation and/or the By-Laws and any shareholder's agreement or similar covenants entered into by the corporation and the stockholders will be null and void, and the corporation will not record the Transfer on its book and records.

### (b) Transfer of Shares to Eligible Affiliate

(1) Subject to the provisions of paragraph (b) below, each stockholder may, at any time, Transfer some or all of its shares to one of its Affiliates; provided that the transferring stockholder shall give notice to the other stockholders at least thirty (30) days prior to the Transfer and or prior to the effectivity of the Transfer, the Transferee executes and delivers to each stockholder and the corporation a deed of accession, and enters into such related agreements as HPI RF (if a member of the HP Group is the Transferor) or as HPI (if a member of the HPI RF Group is the Transferor) reasonably requires, and provided, further, that the Transferor remains a party to any shareholders agreement or similar arrangements executed by the Transferor with the corporation and the other stockholders, and will jointly and severally liable for the due performance and observance of the obligations of the Transferee under the terms of such shareholders agreement and arrangements, and all related agreements.

(2) Before the completion of any transaction as a result of which an Affiliate that owns shares will cease to be an Affiliate of the Transferor, the Shares Transferred to any such Affiliate will be Transferred back to the Transferor or to another Affiliate of the Transferor.

(c) Transfer of Shares to Third Parties and Right of First Refusal

(1) If any member of the HPI Group (the "Proposed Transferor") desires to Transfer all or any portion of its shares to another person (the "Proposed Transferee") other than to an Affiliate, HPI will immediately give notice in writing ("Transfer Notice") to HPI RF (the "Offeree") specifying the identity of the Proposed Transferee, the price at which all members of the HPI Group are willing to Transfer all of their shares to the Proposed Transferee, as well as the terms and conditions of the proposed Transfer.

Similarly, if any member of the HPI RF Group (the "Proposed Transferor") desires to Transfer all or any portion of its shares to a Proposed Transferee other than to an Affiliate, HPI RF will immediately give a Transfer Notice to HPI (the "Offeree"), specifying the identity of the Proposed Transferee, the price at which all members of

serrame: Kasandra Dallo Page Vertfied bys R. ANTONIO Date Issued

the HPI RF Group are willing to Transfer all of their shares to the Proposed Transferee, as well as the terms and conditions of the proposed Transfer

In each case mentioned in this paragraph (c)(1), the Offeree may require from the Proposed Transferor proof of a definite and binding offer from the Proposed Transferee and the provisions of paragraph (c)(2) and (3), below and paragraph (g) below will apply.

(2) Within a period of thirty (30) days following receipt of the Transfer Notice, the Offeree will have the right to elect to purchase all of the Proposed Transferor's Shares on the same terms and conditions as those to be entered into with the Proposed Transferee. If the Offeree exercises its right to purchase the shares, the Transfer to the Offeree will close within the next following thirty (30) days (unless extended by mutual agreement of the Proposed Transferor and the Offeree), subject to the provisions of paragraph (g) below. Failure of the Offeree to reply within the thirty (30)-day period referred to in the first sentence of this paragraph will be deemed as an implied approval of the transfer of the Shares from the Proposed Transferor to the Proposed Transferee.

(3) If the Offeree declines to exercise its right to purchase the Proposed Transferor's Shares as described above, the Proposed Transferor may Transfer the Shares to the Proposed Transferee, subject to the following conditions:

i. the terms and conditions of the Transfer are no more favorable to the Proposed Transferee than the terms and conditions stated in the Transfer Notice;

ii. the Proposed Transferee must be an Eligible Person that possesses all the minimum eligibility requirements as may be imposed by the Board; provided that if HPI or any member of the HPI Group shall not be qualified to hold directly the Proposed Transferor's Shares, HPI or any relevant member of the HPI Group shall be permitted to appoint or designate a qualified buyer or designee who shall become the Proposed Transferee for the purpose of this provision;

iii. subject to the provisions of paragraph (g) below, the Treasurer must close within ninety (90) days after the receipt by the Offeree of the Transfer Notice;

iv. the Transfer must be in accordance with all applicable laws;

v. the Proposed Transferee must execute and deliver to each other stockholder and the corporation a deed of accession; and

vi. the Proposed Transferor must use its best endeavors to ensure that the business will not be interrupted as a result of the Transfer.

CERTIFIED

artified the R. ANTONIO

ame: Kasandra Dallo

MAR 2022

# (d) Transfer Required by Law

If HPI and/or HPMC will be required by law to decrease its decrease its shareholding in the corporation. It will reduce its shareholding to the extent so required and may for this purpose designate an Affiliate on an Eligible Person to hold its shares or any portion thereof. Any such Affiliate or Eligible Person (as the case may be) will be required to become a party to any shareholders agreement or similar arrangements entered into by the corporation and the stockholders, by executing a deed of accession, and will have similar rights and obligations as the Transferring Shareholder would have had, and the Transferring stockholders will remain jointly and severally liable with such Affiliate or Eligible Person (as the case may be) for the due performance and observance of all obligations under such shareholders agreement or similar arrangements. Any subsequent Transfer of shares by the Affiliate or Eligible Person (as the case may be) will be subject to all restrictions on Transfer contained in any shareholders agreement or similar arrangement entered into by the corporation and the stockholders.

# (e) Pledge

No stockholder will, without the prior written consent of HPI (if such stockholder is a member of the HPI RF Group), or the prior written consent of HPI RF (if such stockholder is a member of the HPI RF Group, pledge, create any encumbrance, or agree to pledge or create any encumbrance, or otherwise use, or agree to use, its shares in any manner as collateral for any purpose, including by way of encumbrance, Such pledge or encumbrance or agreement to pledge or create any encumbrance will be null and void. Any stockholder making a pledge in violation of this paragraph will keep the other stockholders, its representatives, successors, and assigns, free and harmless from any and all suits and/or claims for damages arising from the pledge.

# (f) Endorsement of Share Certificates

Upon the execution of any shareholders agreement or similar covenants entered into by the corporation and the stockholders or as soon as possible under all applicable laws, all certificates evidencing the shares will be endorsed as follows:

ANY SALE, ASSIGNMENT, TRANSFER, PLEDGE OR OTHER DISPOSITION OF THE SHARES OF STOCK REPRESENTED BY THIS CERTIFICATE IS RESTRICTED BY AND SUBJECT TO THE FOLLOWING TERMS AND CONDITIONS:

and citing all of the provisions of paragraphs (c), (d), (e) mentioned above, as well as any other provisions required to be cited in such certificates by any shareholders agreement or similar covenants entered into by the corporation and the stockholders.

Date: 2022-03-25 Time: 08:18:52 AM

CERTIFIER: TRASS 1002 Dallo Vse plante: TRASS 1002 Dallo Page 1 % of 24 Vertiled by R. ANTONIO Dete Insued

# (g) Conditions to All Transfers

Any Transfer of shares or any rights in shares will be subject to all the terms and conditions of any shareholders agreement or similar covenants entered into by the corporation and the stockholders and the fulfillment of each of the following conditions at or prior to the completion of the Transfer: HILLIPPINES

(1) The Transferee will have adopted and agreed in writing to be bound by all of the terms and conditions of any shareholder's agreement or similar covenants entered into by the corporation and the stockholders, and agreed to pay all reasonable legal expenses incurred by the corporation in the preparation of all documents and instruments necessary to effect such transaction and to amend the such shareholders agreement, if required;

(2) The Transferee will have acknowledged and expressly agreed to assume all liabilities and obligations of the Transferor under any shareholders agreement or similar covenants entered into by the corporation and its other stockholders to the extent of the shares Transferred;

(3) Other than in the case of a Transfer of all of the shares to either the HPI Group or the HPI RF Group, the Transferor will remain bound by its obligations under the terms of any shareholders agreement or similar covenants entered into by the corporation and the other stockholders, and related agreements arising on or before the date of the Transfer;

(4) All approvals required by the stockholders and by all appropriate government authorities, under any contracts or related agreements, or pursuant to the law will have obtained;

(5) The Transfer will not violate or constitute or result in an event of default, or result in acceleration of any indebtedness, under any note, mortgage, loan, contract or similar instrument or document to which the corporation is a party; and

(6) The Transfer will not violate, and will be in full compliance with, the law any and orders of any governmental authority applicable to the corporation or any stockholder or prospective stockholder. No Transfer will be completed if the resulting ownership structure is in violation of applicable law, and no Transfer will become effective unless and until any and all required government approvals have been obtained in form and substance reasonably acceptable to the Parties. Whenever such government approval is required, the periods of time within the Transfer must close will be extended to the time at which such government approval is obtained or denied, provided that all other conditions precedent to the Transfer have been met on a timely basis.

### (h) Terms

For the purposes of these provisions, the following terms shall have the meanings set out below:

Username: Kasandra, Dallo

Detter incorned

2 8 MAR 2022

CERTIFIED ARUE COPY

ANTONIO

2

"Affiliate" means, in relation to any specified person, any other person that directly or indirectly controls is under the control of or is under common control with, that where "control" means either: (i) the ownership, either directly or indirectly, of more that fifty percent (50%) of the voting shares of a corporation or (ii) the right to elect the majority of the directors or other governing body of a corporation or other legal entity, where that control may be exercised without the consent of any third person.

"Conditions to All Transfers" means any Transfer of shares or any rights in shares will be subject to the terms and conditions of any existing shareholders agreement among the stockholders and the fulfillment of each of the following conditions at or prior to the completion of the Transfer:

a) The Transfer will have adopted and agreed in writing to be bound by all of the terms and conditions of any agreement among the stockholders and agreed to pay all reasonable legal expenses incurred by the corporation in the preparation of all documents and instruments necessary to effect such transaction and to amend any such stockholders agreement, if required;

b) The Transfer will have acknowledged and expressly agreed to assume all liabilities and obligations of the Transferor under existing shareholders agreement among the stockholders to the extent of the shares transferred;

c) All approvals required by the stockholders and by all appropriate government authorities, under any relevant contract, or pursuant to the law will have been obtained;

d) The Transfer will not violate or constitute or result in an event of default, or result in an acceleration of any indebtedness, under any note, mortgage, loan contract or similar instrument or documents to which the corporation is a party; and

e) The Transfer will not violate, and will be in full compliance with law and with any orders of any governmental authority to the corporation or any stockholder or prospective stockholder. No Transfer will be completed if the resulting ownership structure is in violation of applicable law, and no Transfer will become effective unless and until any and all required government approvals have been obtained. Whenever such government approval is required, the periods of time within which the Transfer must close will be extended to the time at which such government approval is obtained or denied, provided that all other conditions precedent to the Transfer have been met on a timely basis. (As amended on December 2, 2016).

"Eligible Person" means a person that (i) is, in the reasonable opinion of HPI RF (where the shares to be transferred are held by a member of the HPI Group) or in the reasonable opinion of HPI (where the shares to be transferred are held by a member of the HPI RF Group), financially sound; and (ii) is otherwise acceptable to HPI RF acting reasonably (where the Shares to be Transferred are held by a member of the HPI Group) or to HPI acting reasonably (where the shares to be transferred

CERTIFIUSername: Kasandra Dallo 18 704 28 MAR 2022 Verfied by: R. ANTONIO Date morante.

are held by a member of the HPI RF Group), and in all cases, legally qualified to hold Shares.

Exchange

Commission

"HPI" means Holcim Philippines, Inc.

"HPMC" means Holcim Philippines Manufacturing Corporation, NES

"HPI Group" means (i) HPI, (ii) HPI's and HPMC's Affiliates (but excluding HPI RF), and (iv) any Eligible Person to which any of the Persons referred to in (i), (ii) and (iii) has Transferred Shares.

"HPI-Related Agreements" means any one of the following agreements which the corporation or any of the corporation's Affiliates has entered into and/or may subsequently enter into with HPI Affiliates, or any third party service provider acceptable to HPI in furtherance of the business of the corporation, as such agreements may be amended from time to time.

"HPI RF" means Holcim Philippines, Inc. Retirement Fund

"Material Assets" means the mining rights and other real properties which the corporation and/or any of its Affiliates presently own and may acquire subsequently, including but not limited to those acquired or may be acquired from HPI, or any entity belonging to the HPI Group. "Material Assets" shall also include shares of the corporation's Affiliates.

"Transfer" means the sale, assignment, transfer, gift, pledge, hypothecation or Encumbrance of assets, or the permission or sufferance of the attachment of a security interest in such assets. The terms "Transferor" and "Transferee" have correlative meanings. (As amended on October 26, 2015).

IN WITNESS WHEREOF, we have hereunto set our hands, this 4th day of September, 1987 at Makati, Metro Manila, Philippines.

(SGD) BENJAMIN VERA CRUZ TAN V6267-K1037-A-O (SGD.) FE VERA CRUZ (Wife of Benjamin)

(SGD.) PATERNO DE GUZMAN TAN D2252-A0440-A-1 (SGD.) DANILO M. CELESTIAL TAN C4239-F2539-A-2

(SGD) BER JUAN BERNABE TAN B6513-G1725-A-9

「いいたいたいないないの	CERTINAME. Kasandra Dallo
State of the state	Page (9 2 Page A WAD 2022
	Verified bys R. ANTONIO Date lesued

# SIGNED IN THE PRESENCE OF:

(SGD.) LYDIA V. ROLDAN Securities and Exchages Commensee

# AKNOWLEDGMENT

REPUBLIC OF THE PHILIPPINES) METROPOLITAN MANILA )S.S.

BEFORE ME a Notary Public and in Makati, Metro Manila, Philippines. This 4th day of September, 1987 personally appeared:

Name	Comm. Tax Cert. No.	Date & Placed Issued
Benjamin Vera Cruz	202081	04-09-87/Paranaque, MM
Fe Vera Cruz	-do-	-do-
Paterno de Guzman	2032129	04-14 <b>-87</b> /Makati, M. Mla
Danilo M. Celestial	6340217	03-03-87/Makati, M. Mla
Ben Juan Bernabe	7006617-F	02-27-87/Pasig, M. Mla.

all known to me and to me known to be the same persons who executed the foregoing Articles of Incorporation and they acknowledged to me that the same is their free and voluntary act and deed.

IN WITNESS WHEREOF, I have hereto set my hand and affixed my notarial seal on the date and place first above written.

Doc. No. 456; Page No. 93; Book No. 1; Series of 1987. (SGD.) NAPOLEON R. RAMOLETE Notary Public Expires Dec. 31, 1988 No. 007529 On February 6, 1987 At Makati, Metro manila



# DIRECTORS' CERTIFICATE OF AMENDMENTES AND EXCHANGE COMMISSION OF THE ARTICLES OF INCORPORATION

NED

Time:

# HOLCIM MINING AND DEVELOPMENT CORPOR

# KNOW ALL MEN BY THESE PRESENTS:

We, the undersigned, constituting a majority of the members of the Board of Directors and the Corporate Secretary of HOLCIM MINING AND DEVELOPMENT CORPORATION (the "Corporation"), a corporation duly organized and existing under Philippine laws, with Securities and Exchange Commission ("SEC") Registration No. 144982 and with business address at 7th Floor, Two World Square, McKinley Hill, Fort Bonifacio, Taguig City 1634, Philippines;

of

(1) The accompanying documents, attached as Annex "A" is a true and correct copy of the Amended Articles of Incorporation of the Corporation, embodying the amendment to the Articles I and III of its Articles of Incorporation to change the name and principal address of the Corporation.

(2) A joint annual meeting of the stockholders and organizational meeting of the members and the Board of Directors was held on June 17, 2021 through videoconference, for the purpose of approving the amendment to Articles I and III of the Articles of Incorporation of the Corporation.

(3) During the aforesaid joint meeting, all the members of the Board of Directors and stockholders of the Corporation were present either in person or by proxy.

(4) At the joint meeting, and upon motion duly made and seconded, the following resolutions were adopted by all members of the Board of Directors and stockholders of the Corporation:

"RESOLVED, That the Board of Directors and stockholders of HOLCIM MINING AND DEVELOPMENT CORPORATION ("Corporation") approve, as they hereby approve, the amendment to the Articles I and III of the Articles of Incorporation;

RESOLVED, FURTHER, That pursuant to the foregoing, the Article I of the Articles of Incorporation of the Corporation be amended as follows:

Date: 2022-03-25 Time: 08:18:52 AM

CERTIFIC TRUKASandra Dallo Username: Kasandra Dallo Pago 29 28 MAR 2022 Verified by: R. ANTONIO Data 2000

# FIRST - That the name of this corporation shall be:

Helix Mining and Development Corporation urifies and

RESOLVED, FURTHER, That pursuant to the foregoing the Article III of the Articles of Incorporation of the Corporation be amended as follows:

THIRD - That the principal office of the corporation is located at 7th Floor, Two World Square, McKinley Hill, Fort Bonifacio, Taguig City 1634, Philippines

RESOLVED FINALLY, That the officers of the Corporation be authorized to sign, execute and deliver any and all agreements and documents and perform all acts necessary and desirable, for and on behalf of the Corporation, in order to effectuate the foregoing resolution."

(5) This Certificate is issued for purposes of submission to the Securities and Exchange Commission for approval of the above-stated amendment to the Corporation's Amended Articles of Incorporation and for such other legal purposes it may serve.

[Signature page follows]

Date: 2022-03-25 Time: 08:18:52 AM 2

CERTIFIED TRUE COPY Username Kasandra Dallo Page y page Vertiled by R. ANTONIO Date heurod Attested by: Securities and UNEY MABIEJ: MATASPEREZ Corporate Secretary E S TIN: 154-208-556

IN WITNESS WHEREOF, we have hereunto set our hands this <u>day of</u> October 2021 in Makati City, Philippines.

ENATO A. Director

TIN: 913-995-151

ZOE M. SIBALA Director

Director TIN: 182-480-229

LAMBERTO M. SANTOS, JR. Director

TIN: 107-042-660

ELIANA NIETO SANCHEZ Director TIN: 600-498-834

GERARD MARTIN F. ABAD Director TIN: 109-933-566

MICHAEL A.S. YUSON Director TIN: 189-483-152

HORIA C. ADRIAN Director TIN: 600-061-507

56891,0930,892

A

.

Date: 2022-03-25 Time: 08:18:52 AM 3

CERTIFIED TRUE Condita Dallo Username: Kasandra Dallo Page 2 2 2 2 2 8 NAR 2022 Verified by: R. ANTONIO Date Record

# ACKNOWLEDGMENT

Securities and

# **REPUBLIC OF THE PHILIPPINES** MAKATI CITY

) ) S.S.

Exchange SUBSCRIBED AND SWORN to before me this Com DEC 2020 at Makati City, Philippines, affiants exhibiting to me their identification cards as S competent proof of their identities:

Name	Competent Evidence of Identity	Date/Place Issued
Renato A. Baja	Driver's License No. M02-94- 024956	Valid until July 14, 2022; Land Transportation Office
Gerard Martin F. Abad	Driver's License No. N02-87- 072922	Valid until November 16, 2021; Land Transportation Office
Michael A.S. Yuson	Voter's ID No. 7602-0281B- F0271MAY10000-B	Commission on Elections, Makati
Zoe M. Sibala	Philippine Passport No. P8570603A	September 1, 2018; DFA Manila
Lambert M. Santos	Tax Identification Number 107- 042-660	
Horia C. Adrian	Romanian Passport No. 056390642	August 22, 2018; Romania
Eliana Nieto Sanchez	Republic of Colombia Passport No. AU876069	June 11, 2018; Republic of Colombia
Euney Marie J. Mata-Perez	Philippine Passport No. P4379278B	January 12, 2020; DFA NCR South

Doc. No. 423; Page No. 86; Book No. T; Series of 2021.

A HA

Appointment No. M-256 Netary Public for Makati City Until December 31, 2021 Unit 15A, ACT Tower, 135 H.V. Dela Costa St., Salcedo Village, Makati City 1226 Roll of Attomeys No. 72146 IBP No. 141170/PPLM /01-04-2021 PTR No. 8531111/Makati City/01-04-2021

Dallo

£

B

Date loour

Date: 2022-03-25 Time: 08:18:52 AM

Page

Verified by R. ANTONIO


1220

1 miles

Ī

Republic of the Philippines Department of Environment and Natural Resources Visayas Avenue, Diliman, Quezoa City Tet Nos. (632) 829-66-26 to 29 • (632) 929-62-52 829-66-20 • 829-66-33 to 35 629-70-41 to 43

IN RE : December 16, 2013 Deed of Assignment with Subscription Agreement and October 27, 2015 Amendment to the Deed of Assignment with Subscription Agreemeent Executed By and Between Holcim Philippines, Inc. and Holcim Mining and Development Corporation Involving Mineral Production Sharing Agreement No. 274-2008-XI (Amended)

#### ORDER

WHEREAS, on November 27, 2008, the Philippine Government, thru the Department of Environment and Natural Resources (DENR), and Holcim Philippines, Inc. (HPI) executed Mineral Production Sharing Agreement (MPSA) No. 274-2008-XI covering the contract area of 642.1537 hectares situated in Davao City;

WHEREAS, the said MPSA grants HPI the exclusive right to explore, develop and commercially utilize limestone, shale and other associated mineral deposits that may be discovered within the contract area for a term of 25 years and renewable for another term not exceeding 25 years;

WHEREAS, on December 16, 2013, the Deed of Assignment with Subscription Agreement (DoA) was executed by and between HPI and Holcim Mining and Development Corporation (HMDC) wherein the former assigns to the latter all its rights and interest in MPSA No. 274-2008-XI and MPSA applications denominated as APSA-000107-XI and APSA-032-XII-1997, among others;

WHEREAS, on June 26, 2014, the said DoA was registered in MGB Regional Office (RO) No. XI;

WHEREAS, on May 24, 2013 and May 11, 2015, HPI applied for the expansion of the area of MPSA No. 274-2008-XI by annexing the areas of APSA-000107-XI and APSA-032-XII-1997 covering 339,3021 and 425,1146 hectares located in Davao City and Massim, Sarangani, respectively, pursuant to the pertinent provisions of Executive Order No. 79 and its Implementing Rules and Regulations;

WHEREAS, on July 14, 2016, the said area expansion of MPSA No. 274-2008-XI was approved by the DENR and, consequently, the said MPSA was redominated as MPSA No. 274-2008-XI (Amended);

WHEREAS, on November 11, 2015, the Amendment was registered in MGB RO No. XI;

WHEREAS, Section 46 of DENR Administrative Order (DAO) No. 2010-21¹ provides that any assignment of rights and obligations under any Mineral Agreement shall be subject to the approval of the Secretary upon the recommendation of the MGB Director;

Ravised Implementing Rules and Regulations of R. A. No. 7942, otherwise known as the Philippine Mining Act of 1995.

Let's Go Green

w-11-782

WHEREAS, MGB RO No. XI, thru its Memorandum dated November 26, 2015, forwarded to the MGB Central Office the DoA and Amendment, for approval, pursuant to the provisions of Section 46 of DAO No. 2010-21;

WHEREAS, the MGB Director has recommended the approval of the assignment of MPSA No. 274-2008-XI (Amended) from HPI to HMDC pursuant to the DoA and Amendment, thru the Memorandum dated December 7, 2015;

WHEREAS, the verification of pertinent records shows that:

- The DoA and Amendment includes the proviso that the Assignee shall assume all the Assignor's obligations under the MPSA;
- HMDC is a Filipino corporation duly organized and existing under and by virtue of the laws of the Republic of the Philippines, and is duly registered in the Securities and Exchange Commission on October 5, 1987;
- HMDC meets the eligibility requirements as Assignee of MPSA No. 274-2008-XI (Amended) pursuant to the pertinent provisions of DAO No. 2010-21;
- HMDC conforms to the condition that the MPSA shall automatically terminate upon field verification in case of violation(s) of any of the terms and conditions thereof; and
- MGB RO No. XI, thru the Certification issued on November 25, 2015, attests that "there has been no dispute nor opposition filed with this Office against the transfer/assignment of the foregoing MPSAs as of todate;"

WHEREAS, the execution of the DoA and Amendment, and the subsequent endorsement thereof by the MGB Director are in accordance with the provisions of DAO No. 2010-21, and other applicable provisions of Republic Act No. 7942, the Philippine Mining Act of 1995;

WHEREFORE, the foregoing premises considered, the assignment of the Mineral Production Sharing Agreement No. 274-2008-XI (Amended) by Holcim Philippines, Inc. to Holcim Mining and Development Corporation pursuant to the Deed of Assignment with Subscription Agreement dated December 16, 2013 and Amendment to the Deed of Assignment with Subscription Agreement dated October 27, 2015 is hereby APPROVED. Consequently, Mineral Production Sharing Agreement No. 274-2005-XI (Amended) shall now be recorded in the name of Holcim Mining and Development Corporation.

SO ORDERED.

Quezon City, Philippines. 17 DEC 2015

By Authority of the Secretary:

LEO L. JASARENO Director Mines and Geosciences Bureau Mines and Geosciences Bureau El 715-4465

Page 2 of 2



Republic of the Philippines9 DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

Sarangani Bay Protected Seascape PROTECTED AREA MANAGEMENT BOARD PENRO XII-3, Alabel, Sarangani province

Tel. No. (083) 504-2009

CERTIFICATION

#### TO WHOM IT MAY CONCERN:

THIS IS TO CERTIFIFY that MR. JOEL G. BADANG propended of HOLCIS MANDGEDED DEVELOPMENT CORPORATION located at Brgy. Tinoto, Massim, Satangari Provinced Journal Policital PAMB Clearance pursuant to DAO 2007-17 as amended by DAO 2018-05 dated March 15, 2018 consistent with the provisions of R.A 7586 as amended by R.A 11038 or the Expanded National Integrated Protected Area System (E-NIPAS) Act of 2018.

This certifies further that the proponent has submitted its application documents and has been deliberated by the PAMB Technical Working Committee and DENR Technical Working Group with the following findings and recommendation:

- 1. That the proposed activity/project is outside the area of Sarangani Bay Protected Seascape;
- 2. That the proponent is not required to apply for Special Use Agreement in Protected Area,
- That the issuance of this certification does not exempt the proponent from securing PAMB Clearance if the they wish to undertake activities within SBPS area including the utilization or extraction of natural resources.

Certifying, furthermore, that this is issued to the effect only of the lawfulness of the development project to be carried out in accordance with the provisions of Presidential Proclamation 756, Republic Act No 7586 (NIPAS Act of 1992) as amended by RA 11038 (Expanded NIPAS Act of 2018), Republic Act No 9275 (The Clean Water Act of 2004), Republic Act No. 8749 (The Clean Air Act of 1999), PD 1586 (The Environmental Impact Statement System) and **all other applicable environment** and natural resources laws and all their Implementing Rules and Regulations.

This certification shall not be construed an authority to manually change the specified use without any permit therefor from the PAMB and shall support their application for an issance of Environmental Compliance Certificate (ECC) at the EMB Region XII, Kernnadal City putness to SBPS-PAMB desolution No. 2017-020, series of 2017

Issued this 27th day of AUGUST SBPS, PENRO Alabel, Sarangani Province.

2010 at the Protected Management Office of

SBPS

olone A OLOGUIN Supervising EMS/PA Superintendent

Certification Fee: P100.00 Documentary Stump: P30.00 Official Receipt No. 21%6325 /3166320 Date Issued: 0%/23/2010 Issued at: P08. ACABE+: GRANDAN Maynet

## **Photo Documentation:**

## Station 1



# Station 2



## Station 3



## Station 4





**Cs** Scanned with CamScanner

		Department of Environment a Visavas Avenue, Diliman, Qu Tel Non. (632) 929-66-26 to 29	iezon City, 1100			
	, "	929-66-20 • 929-66- 929-70-41 to	-33 to 35			
		IN RE: APPLICATION OF HOLCIM PHILIPPINES, I FOR AREA EXPANSION INVOLVING MINER PRODUCTION SHARING AGREEMENT I 274-2008-XI AND APPLICATIONS F MINERAL PRODUCTION SHARI AGREEMENT DENOMINATED AS AP 000107-XI AND APSA-032-XII-1997	RAL NO. FOR DOT 15 DCT 2015			
		ORDER				
			and National Reserves (DENR)			
		WHEREAS, Section 7 of Department of Environment a Administrative Order (DAO) No. 2012-07, the Implement				
		Executive Order (EO) No. 79, provides that 'No new				
	•	entered into until a legislation rationalizing existing mechanisms shall have taken effect: Provided, that an	y expansion of existing contract			
		areas shall not exceed the maximum hectarage per Mining Act of 1995:;"	province set by the Philippine			
		energia mana antici a presidente a second	I invest Development No. 5 and			
		WHEREAS, the Mining Industry Coordinating Count March 4, 2015 transferring from its Technical Wor	rking Group on Environmental			
		Protection and Legislation to DENR-Mines and Geosciences Bureau the function of				
		validating applications for expansion of existing min verification and subsequent approval of the pertinent ap				
		WHEREAS, thru the Letters of May 24, 2013 and Ma	y 11, 2015, Holcim Philippines,			
		Inc. applied for the expansion of the area under Mineral (MPSA) No. 274-2008-XI covering 642.1537 hectar annexing the areas covered by its MPSA applications XI and APSA-032-XII-1997 covering 339.3021 and 425. City and Maasim, Sarangani, respectively, pursuant to No. 79 and its Implementing Rules and Regulations;	res located in Davao City by denominated as APSA-000107- .1146 hectares located in Davao			
		WHEREAS, HPI has substantially complied with the	pertinent requirements for area			
55	•	expansion, including the required validation, pursuant to No. 79 and its Implementing Rules and Regulations;	o the pertinent provisions of EO			
		WHEREFORE, the foregoing premises considered, to Agreement No. 274-2008-XI granted to Holcim Philippin annexing the areas covered by the applications for Agreement denominated as APSA-000107-XI and APS terms and conditions provided for under Mineral Prot 274-2008-XI and the existing applicable laws, rules and	nes, Inc. is hereby expanded by or Mineral Production Sharing A-032-XII-1997, under the same duction Sharing Agreement No.			
		SO ORDERED.				
Mines and Goosciencies Bureau Only of the Dream		Quezon City, Philippines, 1 4 JUL 2015				
Control of						
Geost		By Authority of the Secretary:				
es and	6 8 C	la: Diemi	CERTIFIED TRUE COPY			
N.		LEO L. JASARENO	( p			
29		Director Mines and Geosciences Bureau	EDGAIRDO D. CASTILLO OFFICER-IN-CHARGE A			
8F						

Republic of the Philippines Province of Sarangani Municipality of Maasim

BARANGAY KAMANGA

### OFFICE OF THE SANGGUNIANG BARANGAY

EXCERPT FROM THE MINUTES OF THE 8th REGULAR SESSION OF THE SANGGUNIANG BARANGAY OF KAMANGA, MAASIM, THIS MUNICIPALITY, HELD ON AUGUST 01, 2018, KAMANGA, MAASIM SARANGANI PROVINCE.

PRESENT:

HON. ROSADELIMA N. MANGELEN HON. DAISY C. ISHMAEL HON. MOHMEN J. MANGELEN HON. TOMAS M. TANGCONG HON. AURELIA D. MACAGCALAT HON. ISRAEL M. BUGHAW HON. JOEL A. AMADORA HON. PAULO JAMES I. REPOLIDO HON. ANJOE BATUAN HON. ANGELITO A. PIANG

-PUNONG BARANGAY/PRESIDING -BARANGAY COUNCILOR -BARANGAY COUNCILOR -BARANGAY COUNCILOR -BARANGAY COUNCILOR -BARANGAY COUNCILOR -BARANGAY COUNCILOR -SK CHAIRMAN -BARANGAY COUNCILOR

ABSENT-NONE

500



A BARANGAY RESOLUTION INTERPOSING NO OBJECTION OF THE HOLCIM MINING AND DEVELOPMENT CORPORATION FOR THE LIMESTONE QUARRY PROJECT, LOCATED AT BARANGAY KAMANGA, MAASIM, SARANGANI PROVINCE.

Authored and Sponsored by HON. JOEL A. AMADORA

WHEREAS, the HOLCIM MINING AND DEVELOPMENT CORPORATION - a recognized business incorporators, duly registered by the Security and Exchange Commission (SEC) with SEC Reg. No. CS 144982, as adopted on October 26, 2015 (as per copy of S.E.C Certificate of filing amended Articles of Incorporation).

WHEREAS, the HOLCIM MINING AND DEVELOPMENT CORPORATION with business address at KM.21, Budbud, Brgy. Bunawan, Bunawan District and holding a Business License with Permit No. B-13823-1, issued by the Business Permit and License Division- Office of the City Mayor at the City of Davao, Province of Davao Del Sur.

WHEREAS, the operation of Limestone Quarry Project having a total of 425.1146 hectares of land. NOW THEREFORE, after careful and thorough deliberation by the Sangguniang Barangay and upon motion by Hon. JOEL A. AMADORA, duly seconded by all barangay members officially present, it was;

**RESOLVED AS IT IS HEREBY RESOLVED**, to pass a Barangay Resolution interposing NO OBJECTION of HOLCIM MINING AND DEVELOPMENT CORPORATION for the development and operation of a LIMESTONE QUARRY PROJECT under MPSA 274-2008-XI-Parcel 4, located at Barangay Kamanga and Tinoto Maasim, Sarangani Province.

#### **UNANIMOUSLY APPROVED August 01, 2018**

I HEREBY CERTIFY, to the correctness of the foregoing barangay resolution which was duly adopted by the Sangguniang Barangay during its 8th regular session on August 01, 2018.

Certified correct: NATHALINN, MACAGCALAT Barangay Secretary

Attested by:

HON. ROSADELINIA N. MANGELEN



Republic of the Philippines PROVINCE OF SARANGGANI Municipality of Maasim Barangay Tinoto

#### OFFICE OF THE SANGGUNIANG BARANGAY

EXCERPTS FROM THE MINUTES OF INAUGURAL REGULAR SESSION OF THE SANGGUNIANG BARANGAY OF TINOTO, MUNICIPALITY OF MAASIM PROVINCE OF SARANGGANI HELD ON JULY 30, 2018 AT THE SANGGUNIANG BARANGAY SESSION HALL.

Present: HON. RAJIK A. KUDARAT HON. BABY S. ISHMAEL HON. ALANO M. WAHANI HON. DAMSALI M. SAPPAYANI HON. URIK L. MANGGOT HON. ISNURI I. HUNDANI HON. ROY M. TIO HON. PERLA B. MUSA HON. ABRAEL YAM W. KABE FULONG TEDDY I. PIANG

Punong Barangay/ Presiding Officer Barangay Kagawad Sk Chairman IP Representative

### **RESOLUTION NO. 5, Series of 2018**

A BARANGAY RESOLUTION INTERPOSING NO OBJECTION OF THE HOLCIM MINING AND DEVELOPMENT CORPORATION. FOR THE LIMESTONE QUARRY PROJECT, LOCATED AT BARANGAY TINOTO, MAASIM, SARANGANI PROVINCE.

#### Authored and Sponsored by HON. ROY TIO

WHEREAS, the HOLCIM MINING AND DEVELOPMENT CORPORATION - a recognized business incorporators, duly registered by the Security and Exchange Commission (SEC) with SEC Reg. No. CS 144982, as adopted on October 26, 2015 (as per copy of S.E.C Certificate of filing amended Articles of Incorporation).

WHEREAS, the HOLCIM MINING AND DEVELOPMENT CORPORATION with business address at KM.21, Budbud,Brgy. Bunawan, Bunawan District and holding a Business License with Permit No. B-13823-1, issued by the Business Permit and License Division-Office of the City Mayor at the City of Davao, Province of Davao Del Sur.

WHEREAS, the operation of Limestone Quarry Project having a total of 425.1146 hectares of land.

NOW THEREFORE, after careful and thorough deliberation by the Sangguniang Barangay and upon motion by Hon. ROY TIO, duly seconded by all barangay members officially present, it was; **RESOLVED AS IT IS HEREBY RESOLVED**, to pass a Barangay Resolution interposing NO OBJECTION of HOLCIM MINING AND DEVELOPMENT CORPORATION for the development and operation of a LIMESTONE QUARRY PROJECT under MPSA 274-2008-XI-Parcel 4, located at Barangay Kamanga and Tinoto Maasim, Sarangani Province.

### UNANIMOUSLY APPROIVED July 30, 2018

I HEREBY CERTIFY, to the correctness of the foregoing barangay resolution which was duly adopted by the Sangguniang Barangay during its 1st regular session on July 30, 2018.

CERTIFIED CORRECT:

IOCELYN D. GAMPAL Barangay Secretary

ATTESTED AND APPROVED:

HON. RAILKA. KUDARAT Punong Barangay





January 17, 2022

JOEL G. BADANG Mining and Operations Manager Holcim Mining & Development Corporation Km. 21, Budbud, Bunawan, Davao City

Sir:

This has reference to your letter dated December 27, 2021 requesting this office for a zoning certification of a certain area of around 425.1146 hectares in barangay Tinoto, this municipality, for your proposed limestone extraction project which was already issued by our Zoning Officer though the area is zoned as parks and recreation zone while the nature or type of the project is mining/quarrying, thus, the project is non-confirming as to land use or zone.

Nonetheless, we will consider your area to be reclassified into mining/quarrying zone in the revision of our Comprehensive Land use Plan (CLUP) which is now ongoing and wish to be approved by the third quarter of this year.

Hope we have elucidated your good end on this matter.

Thank you and more power.

Very truly yours,

RONALD L. ORBITA, EnP Municipal Planning & Development Coordinator

Project Name:	Limestone Mining Project	
Project Location:	Brgy. Tinoto, Municipality of Maasim, Sara	ingani Province
ECC Reference No.:	None	
Proponent:	Hellx Mining Development Corporation	
Pollution Control Officer:	Dariene B. Mata	
Tel. No./Fax No./E-mail:	darlene.mata@hmdcph.com / joel.badang	@hmdcph.com / +639175779594
Project Type:	Resource Extractive	
Project Status:	Pre-construction Phase	
I. PROJECT CONSIDERA	ATIONS	
1.1 Size and Type		
1.1.1 Size based of	on number of employees	
Specify number of	of employees:	165 pax
1.1.2 Type:		
ECP (in either EC	CA or Non-ECA)	
Non-ECP but in E	ECA	
Non-ECP and No	on-ECA	$\checkmark$
1.2 Waste Generation an	d Management	

 Enumerate Waste Type and Specify Quantity of Wastes generated in your facility. (Identify /Enumerate)

Category	Waste		Туре	Quantity
outegoty		Hazardous	Non-Hazardous	,

	Waste 1 TSP/NOx/SOx	x		(units: MT/yr) 0.5 MT/yr (below CAA Imits)
	Waste 2	x		<1MT/yr
Air	PM10	Â		< mingi
	Waste N Noise		x	30-56 dBA
				(units: m ³ /yr)
	Sewage		x	<40,000 cu.m./Yr
Liquid				
	Solid waste	x	x	(units: tons/yr) <120 T/yr
Solid				

1.3 Pollution Control System (PCS)

1.3.1 Enumerate PCS or Waste Management Method Used in your facility.

(Identify /Enumerate)

Category	PCS/Waste Management Method Used	Remarks
Air	PCS 1 Use of low emission vehicle Dust suppression by sprinkling of water	Periodic conduct of ambient air
	PCS 2 Use of mufflers	Periodic conduct of noise monitoring

	PCS N	
	Primary	[
	Treatment and reuse of wastewater	
	Secondary	
Liquid	Practice rain harvesting for domestic use	
	Tertiary	
	renary	
	Implement RA 9003	
Solid	Segregate solid waste, re-use, and recycle	
	Coordinate with LGU for collection	
L	L	

#### П. PATHWAYS

2.1 Prevailing wind towards barrio or city? (mark the corresponding point) Yes No

2.2 Rainfall (impacts surface & groundwater pathways)

2.2.1	Average	annual	net	rainfall:
the state of the s	radigo	CH II POCH	1101	Contraction.

		Specify amount:		2.591 mm
	2.2.2	Maximum 24-hour rainfall:		
		Specify amount:		7 mm
2.3	Terrain	(select one and mark) Flat	St	teep 🖌
2.4	Is the fa	acility located in a flood-prone	e area? (sele	ect one and mark) Yes No 🖌
2.5	Ground	Water		

	PCS N	
	Primary Treatment and reuse of wastewater	
Liquid	Secondary Practice rain harvesting for domestic use	
	Tertiary	
	Implement RA 9003	
Solid	Segregate solid waste, re-use, and recycle	
	Coordinate with LGU for collection	

#### П. PATHWAYS

2.1 Prevailing wind towards barrio or city? (mark the corresponding point) Yes No

2.2 Rainfall (impacts surface & groundwater pathways)

2.2.1 Average annual net rainfall:

		Specify amount:	2.591 mm
	2.2.2	Maximum 24-hour rainfall:	
		Specify amount:	7 mm
2.3	Terrain	(select one and mark) Flat	Steep 🖌
2.4	Is the f	acility located in a flood-prone	e area? (select one and mark) Yes No
2.5	Ground	Water	

Ш.

	Depth of groundwater table (meter)	(select one and mark)
	0 to less than 3	
	3 to 10	
	Greater than 10	$\checkmark$
RECE	IVING MEDIA/RECEPTORS	
3.1 Air	(Distance to nearest community)	(select one and mark)
	0 to less than 0.5 km	
	0.5 to 1 km	
	Greater than 1 km	$\checkmark$
3.2 Red	eiving Surface Water Body	
3.2.	1 Distance to receiving surface water:	(select one and mark)
	0 to less than 0.5 km	
	0.5 to 1 km	
	Greater than 1 km	$\checkmark$
3.2.	2 Size of population using receiving surface w Specify number:	ater
3.2.		000
	3.2.3.1 Classification of fresh water:	(select one and mark)



SD	
3.2.4.2 Economic value of water use	e (may select more than one of the criteria below)
Fishery	$\checkmark$
Tourist zone or park	$\checkmark$
Recreational	$\checkmark$
Industrial	$\checkmark$
3.3 Ground Water	
3.3.1 Distance to nearest recharge area	(select one and mark)
0 to less than 0.5 km	
0.5 to 1 km	
Greater than 1 km	$\checkmark$
3.3.2 Distance to nearest well used	(select one and mark)
0 to less than 0.5 km	
0.5 to 1 km	
Greater than 1 km	$\checkmark$
3.3.3 Groundwater use within the nearest	well (may select more than one of the criteria below)
Drinking	

			1.5
		Industrial	
		Agricultural	
3.4	Land	t	
	3.4.1	Indicate current/actual land uses within 0.5	km radius: (may select more than one of the criteria below)
		Residential	$\checkmark$
		Commercial/Institutional	
		Industrial	
		Agricultural/Recreational	$\checkmark$
		Protected Area	
	3.4.2	Potential/proposed land uses within 0.5 km	(may select more than one of the criteria below)
		Residential	
		Commercial/Institutional	
		Industrial	$\checkmark$
		Agricultural/Recreational	$\checkmark$
		Protected Area	

3.4.3 Number of affected Environmentally Critical Areas within 1 km:

Specify number:	1
3.4.4 Distance to nearest ECA	(select one and mark)
0 to less than 0.5km	
0.5 to 1 km	
Greater than 1 km	$\checkmark$

### IV. ENVIRONMENTAL PERFORMANCE (FOR EXISTING PROJECTS FOR EXPANSION)

#### 3.5 Compliance (pls. take note that this will be double-checked with PCD files)

Law	Violation (check if	Type (pls. specif	Type of Admin	Additional Remarks/Status			
	any)	Emission/Effluent/ Discharge	Ambient	Human Impact	Admin/ ECC	Violation	of Compliance
RA 8749							
RA 9275							
RA 6969							
PD 1586							
RA 9003							

3.6 Number of Valid Complaints

3.6.1 Citizen and NGOs

### ACCOUNTABILITY STATEMENT OF PROJECT PROPONENT

This is to certify that all information in the submitted Project Monitoring and Audit Prioritization Scheme (PEMAPS) Questionnaire of <u>Helix Mining ang Development Corporation</u> located <u>at Maasim, Sarangani</u> is true, accurate and complete. Should I learn of any information, which makes this inaccurate, I shall bring said information to the appropriate Environmental Management Bureau Regional Office.

In witness whereof, I hereby set out my hands this FB Tay of 2023 at ______

Project Proponent

FEB MEB
ant exhibiting
_ issued on
10

Doc. No. Page No. Book No. Series of 2023

ATTY JOHLE PADULA CPA

Notary Public Unit December 31, 2023 PTR No. 027756/ 03-03-2022 IBP LMR No. 017948/ O.R. #013272 Roll No. 59304 MCLE Comp. No. VII-0104860/04-14-2022 Angono, Fizal



### UNIVERSITY OF THE IMMACULATE CONCEPTION SCIENCE RESOURCE CENTER

UIC-SRC Form No. 7 Revision No. 01 10.01.2018

### TEST REPORT

NAME OF CUSTOMER:	HELIX MINING DEVELOPMENT CORP.
ADDRESS:	TINOTO, MAASIM, SARANGANI PROVINCE
SAMPLE:	SOIL (02)

CONTROL NO: 22-1268C DATE REPORTED: 08/24/2022 DATE SAMPLE RECEIVED: 07/07/2022

### **RESULTS OF ANALYSIS (AIR DRY BASIS):**

Lab. No.	S22-093	S22-094
Description	Mirabueno Creek Site	Mirabueno Drill Site
pH @ 25.0°C (1:2.5 in H ₂ O)	7.8	7.6
Organic Matter, %	17.62	8.70
Nitrogen, %	0.78	0.35
Phosphorus, µg/g	600	325
Exch. Potassium, meq/100g	11.57	0.35
Exch. Calcium, meq/100g	8.62	9.25
Exch. Magnesium, meq/100g	6.59	0.96
Arsenic (leachable), µg/g	0.037	0.011
Cadmium, µg/g	0.41	0.20
Chromium, µg/g	26.36	38.90
Lead, µg/g	6.40	5.70
Mercury, µg/g	0.02	<0.02
	Noth	ing follows

REMARKS: 1. Results relate only to samples as submitted and tested.

2. Methods used:

-pH: Electrometric Method

-Organic Matter: Walkley Black Method

-Nitrogen: Automated Kjeldahl Method

-Phosphorus: Olsen's method.

-Potassium, calcium and magnesium: Ammonium Saturation, 0.1 N pH 7.0

-Arsenic (leachable): Prepared by leaching 10 g soil with 250 mL milliQ water overnight; followed by colorimetric determination in accordance with the Standard Methods for the Examination of Water & Wastewater, 23rd ed. -Cadmium, chromium, lead and mercury; in accordance with the Manual on Standard Analytical

- Procedures of the Mines & GeoSciences Bureau Laboratories.
- Estimation of Measurement Uncertainty (MU) may be available upon request.
- 4. This test report may not be reproduced unless in full.

ANALYZED BY:

JONEL JOHN #. ZABALA PRC License No. 13880 Junior Analyst I

KARL PRC License No. 3288 Junior Analyst I

PRC License No. 13309 Junior Analyst II

Rumm AND. ALOCADA SHEENA MARIE B. CRUZ RUSSELL CAESAR P. ENOC JUDY S. MANLIGUIS PRC License No. 12653

Junior Analyst II

PRC License No. 8700 Junior Analyst III

EVELYN D. AUSAN PRC License No. 1232 Senior Analyst III

msoffice/soil/srr2022-1268

CERTIFIED BY:

momen

LUDIVINA M. PORTICOS, MBA, MS PRC License No. 6237

Director Father Selga Street Davao City 8000 Philippines

Fax Number: (6382) 226-2676 Tel. Numbers: (6382) 221-8090 / 221-8181 227-8144 / 227-4543 Local 133 Email Address: src@uic.edu.ph

Page 1 of 1



### UNIVERSITY OF THE IMMACULATE CONCEPTION SCIENCE RESOURCE CENTER

UIC-SRC Form No. 7 Revision No. 01 10.01.2018

### TEST REPORT

NAME OF CUSTOMER	: HELIX MINING DEVELOPMENT CORP.	CONTROL NO:	22-1341C
ADDRESS:	MAASIM, SARANGANI PROVINCE	DATE REPORTED:	09/01/2022
SAMPLE:	SOIL (02)	DATE SAMPLE RECEIVED:	07/22/2022

#### **RESULTS OF ANALYSIS (AIR DRY BASIS):**

recorre of miniarolo (minibrit briefe).			
Lab. No.	S22-095	S22-096	
Description	Lawa Compound	Mirabueno 3	
pH @ 25.0°C (1:2.5 in H ₂ O)	7.4	7.9	
Organic Matter, %	5.63	5.33	
Nitrogen, %	0.27	0.12	
Phosphorus, µg/g	150	125	
Exch. Potassium, meq/100g	0.75	0.63	
Exch. Calcium, meq/100g	30.10	12.99	
Exch. Magnesium, meq/100g	2.27	0.73	
Exch. Sodium, meq/100g	0.03	0.02	
Arsenic (leachable), µg/g	0.083	0.056	
Cadmium, µg/g	0.32	0.40	
Chromium, µg/g	26.82	49.90	
Lead, µg/g	7.26	8.22	
Mercury, µg/g	< 0.02	<0.02	
DEMARKS: 1 Posulte relate only to samples as submitted and tests	h		

REMARKS: 1. Results relate only to samples as submitted and tested.

2. Methods used:

-pH: Electrometric Method

-Organic Matter: Walkley Black Method

-Nitrogen: Automated Kjeldahl Method

-Phosphorus: Olsen's method

-Potassium, calcium and magnesium: Ammonium Saturation, 0.1 N pH 7.0

-Arsenic (leachable): Prepared by leaching 10 g soil with 250 mL milliQ water overnight; followed by colorimetric determination in accordance with the Standard Methods for the Examination of Water & Wastewater, 23rd ed. -Cadmium, chromium, lead and mercury: in accordance with the Manual on Standard Analytical Procedures of the Mines & GeoSciences Bureau Laboratories.

- Estimation of Measurement Uncertainty (MU) may be available upon request.
- Estimation of Measurement officertainty (Mo) may be available.
   This test report may not be reproduced unless in full.

ANALYZED BY:

JONEL JOHN F. ZABALA PRC License No. 13880 Junior Analyst I

JAND. ALOCADA PRC License No. 3288 Junior Analyst I

Rumm

RUSSELL CAESAR P. ENOC PRC License No. 12653 Junior Analyst II

JUDY S. MANLIGUIS PRC License No. 8700 Junior Analyst III

EVELYN D. AUSAN PRC License No. 1232 Senior Analyst III

CERTIFIED BY:

LUDIVINA M. PORTICOS, MBA, MS PRC License No. 6237

Director Father Selga Street Davao City 8000 Philippines msoffice\soil\srr2022-1341 Fax Number: (6382) 226-2676 Tel. Numbers: (6382) 221-8090 / 221-8181 227-8144 / 227-4543 Local 133 Email Address: src@uic.edu.ph



Republic of the Philippines Department of Environment and Natural Resources ENVIRONMENTAL MANAGEMENT BUREAU XII Regional Center XII. Brgy. Carpenter Hill, Koronadal City Tel. Fax (083) 2281072 + Tel. No. (083) 2281071 Email address: subsaur onb gos pl

### REPORT OF ANALYSES

### (Physicochemical Test)

Client	: SIGUEL RIVER
Address	: Maasim, Sarangani Province
Source	: River Water
Sampled by	: April Patricia Fontanilla

SS/COC No. : 2022-0113W Date/Time Received : May 18, 2022/17:07 Date Reported : May 31, 2022

LABORATORY SAMPLE CODE	SAMPLE TYPE	DATE/TIME SAMPLED	SAMPLE IDENTIFICATION	
2022 05 0766 RW	River Water	May 18, 2022/14:39	Station 1	
2022 05 0767 RW	River Water	May 18, 2022/14:54	Station 2	
2022 05 0768 RW	River Water	May 18, 2022/15:02	Station 3	
2022 05 0769 RW	River Water	May 18, 2022/15:09	Station 4	
2022 05 0770 RW	River Water	May 18, 2022/15:16	Station 5	

	SAMPLE CODE				METHOD			
PARAMETER/S	UNIT	0766 RW	0767 RW	0768 RW	0769 RW	0770 RW	DATE/TIME ANALYZED	METHOD REFERENCE
Color, True	CU	5	5	5	5	5	May 19, 2022/08:00	SMEWW 2120-B
pН	xxx	8.37	8.59	8.46	8.53	8.51	May 18, 2022/17:30	SMEWW 4500-H* B
DO	mg/L	7.6	7.8	7.4	7.9	7.7	On Site	SMEWW 4500-0 G
BOD	mg/L	<1	<1	<1	<1	<1	May 18, 2022/17:30	SMEWW 5210-B
TSS	mg/L	297	178	151	133	139	May 23, 2022/09:00	SMEWW 2540-D
Temperature	°C	29.9	30.1	29.8	29.4	29.4	On Site	SMEWW 4500-H+ B

Remarks: Result relates only to the sample as received. Dissolved Oxygen and Temperature were measured onsite and other parameters were tested in the laboratory.

Notes

FORES SMEWW-Standard Methods for the Examination of Water and Wastewater, 23rd Edition, APEA/AWWA/WEF US EPA- United States Environmental Protection Agency 111-Nothing Follows

Analyzed by:

Ann Amor M. Alfaro, RCh. Environmental Management Specialist II PRC Reg. No. 0012169

Myllmar Calub, RCh. Chemist II PRC Reg. No. 0011937

Certified by:

ganay, RCb. Allen Joy B. Np. 0011745 PRC Reg

Noted by:

Engr. Omar MISDS

Director II **Regional Director** 

Protect Life...! Protect the Environment...! Kilos Abante Reliyon Dose...!

EMB XII Lab Result No: 2022-05-0055-W Doc. No.: INT-REL-FORM-033 Rev No.:01 Effectivity: May 03. 2022



Department of Environment and Natural Resources ENVIRONMENTAL MANAGEMENT BUREAU XII Regional Center XII, Brgy. Carpenter Hill, Koronadal City Tel. Fax (083) 2281072 • Tel. No. (083) 2281071 Email address: embxii/demb.aov.ph

### **REPORT OF ANALYSES**

### (Microbiological Test)

Client	- Stougs proven
Address	: SIGUEL RIVER
	: Maasim, Sarangani Province
Source	: River Water
Sampled by	: April Patricia Fontanilla

SS/COC No. : 2022-0113W Date/Time : May 18, 2022/17:07 Received Date Reported : May 31, 2022

LABORATORY SAMPLE CODE	SAMPLE TYPE	DATE/TIME SAMPLED	SAMPLE IDENTIFICATION
2022 05 0766 RW	River Water	May 18, 2022/14:39	Station 1
2022 05 0767 RW	River Water	May 18, 2022/14:54	Station 2
2022 05 0768 RW	River Water	May 18, 2022/15:02	Station 3
2022 05 0769 RW	River Water	May 18, 2022/15:09	Station 4
2022 05 0770 RW	River Water	May 18, 2022/15:16	Station 5

DADAT		SAMPLE CODE			DATEZEDAE	METHOD		
PARAMETER	R UNIT	0766 RW	0767 RW	0768 RW	0769 RW	0770 RW	DATE/TIME ANALYZED	REFERENCE
Fecal Coliform	MPN/100mL	1,300	490	3,500	330	490	May 19, 2022/06:35	SMEWW 9221

Notes

FORES SMEW W-Standard Methods for the Estamination of Water and Wastewater, 23rd Edition, APHA/AWWA/WEF US EPA: United States Environmental Protection Agency xxx: Nothing Follows

Analyzed by:

Certified by:

agring Cyra Iris T. Gendindatu

Technical Support Specialist

Gibe Justine P. Jalinon, RMicro. Registered Microbiologist RM 20-00589

Checked by:

en Jo y, RCh. mist III No. 0011745

Noted by:

Engr. Omar ) MiSDS Director II Regional Director

Protect Life... | Protect the Environment... | Kilos Abante Rebiyon Dose... |

EMB XII Lab Result No: 2022-05-0055-W Doc. No.: INT-REL-FORM-032 Rev No.:01 Effectivity: April 06, 2022

### **REPORT OF ANALYSES** (Anions)

**: SIGUEL RIVER** : Maasim, Sarangani Province : River Water : April Patricia Fontanilla

### : 2022-0113W

Date/Time : May 18, 2022/17:07 Received Date Reported : May 31, 2022

SS/COC No.

LABORAT SAMPLE (	ORY	SAMPLE TYPE		PE	DATE/TIME SAMPLED		SAMPLE IDENTIFICATION			
2022 05 0	766 RW	11	River Water		May 18, 2022/14:39			Station 1		
2022 05 07	67 RW		River Wate		May 18, 2022/14:54		Station 2			
2022 05 07	68 RW		River Water		May 18, 2022/15:02			Station 3		
2022 05 07	69 RW		River Wate		May 18, 2022/15:09			Station 4		
2022 05 07	70 RW		River Wate				Station 5			
		-	SAMPLE CODE				DATE/TIME		METHOD	
PARAMETER/S	UNIT	0766 RW	0767 RW	0768 RW	0769 RW	0770 RW		ANALYZED	REFERENCE	
Nitrate, N	mg/L	<0.100	<0.100	0.219	<0.100	<0.100	M	ay 18, 2022/18:00	US EPA 352.1	
Thloride	mg/L	8.138	8.556	9.220	8.886	8.518	M	ay 30, 2022/14:07	SMEWW 4110 B	
Phosphate, P	mg/L	<0.100	0.172	<0.100	<0.100	<0.100	M	ay 18, 2022/17:45	SMEWW 4500 P E	

Remarks: Result relates only to the sample as received.

Client

Address

Source

Sampled by

SMI WW-Standard Methods for the Examination of Water and Waterseater, 23rd Edition, APHA/AWWA/WEF US EPA- United States Environ ental Protection Agency

xxx- Nothing Follows

Analyzed by:

NO Ann Amor M. Alfaro, RCh. Environmental Management Specialist II PRC Reg. No. 0012169

Certified by:

Allen Joy B Sagmay, RCh. PRC Reg. No. 0011745

Noted by:

Engr. Omar M. Salkol, MiSDS

Director II **Regional Director** 

Protect Life... 1 Protect the Environment... 1 Kilos Abante Rehiyon Dose... 1

EMB XII Lab Result No: 2022-05-0055-W Doc. No.: INT-REL-FORM-031 Rev No.:01 Effectivity: May 03, 2022

# FINAL EXPLORATION REPORT: Geology and Limestone Resources Covering MPSA 274-2008-XI Parcel 4 (APSA 032-XII-1997) at Maasim, Sarangani Province

of

### **Holcim Mining and Development Corporation**



Henry R. Salvado Registered Geologist, PRC License No. 808 Competent Person Accreditation, No. 14-02-01

Godfrey Gemal Registered Geologist, PRC License No. 1910

R	B XI - Devae City E C E I V E D ords and Releasing Unit	
Dec. Nos: Date:		
Time:	By: Attor	

**VOLUME 1** 

# FINAL EXPLORATION REPORT: Geology and Limestone Resources Covering MPSA 274-2008-XI Parcel 4 (APSA 032-XII-1997) at Maasim, Sarangani Province

of

**Holcim Mining and Development Corporation** 



Henry R. Salvado Registered Geologist, PRC License No. 808 Competent Person Accreditation, No. 14-02-01

Godfrey Gemal Registered Geologist, PRC License No. 1910

### **CERTIFICATE OF COMPETENT PERSON**

As a Competent Person and author of the report titled "Geology and Limestone Resources Covering MPSA 274-2008-XI Parcel 4 (APSA 032-XII-1997) at Maasim, Sarangani Province of Holcim Mining and Development Corporation" dated May 30, 2019, to which certificate applies, I, Henry R. Salvado do hereby certify that:

- I, Henry R. Salvado VP for Environmental Engineering of MCK Perez Development and Consultancy Corporation with business address at MCK PEREZ Building, No. 69A Road 1 Cor. Road 8, Project 6, Quezon City 1100, National Capital Region, Philippines.
- 2. I graduated with a Bachelor of Science degree in Geology from Adamson University in 1981
- 3. I am a Registered License Geologist with PRC Geologist License Number 808
- 4. I am an active member of the Geological Society of the Philippines.
- 5. I am a Competent Person accredited by the Competent Person Accreditation Committee of the Geological Society of the Philippines in adherence to the PMRC with accreditation Number 14-02-01.
- 6. I have worked as a geologist in the mining industry for more than 30 years since my graduation.
- 7. My most recent personal inspection of the Maasim MPSA 274-2008-XI Parcel 4 was in May 2019.
- 8. I am independent from Holcim Mining and Development Corporation.
- 9. The Technical Report under my responsibility have been prepared in compliance with the PMRC
- 10. As of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make Technical Report not misleading.

### LIMITATION, WARRANTY AND CLOSURE

This report Geology and Limestone Resources Covering MPSA 274-2008-XI Parcel 4 (APSA 032-XII-1997) at Maasim, Sarangani Province of Holcim Mining and Development Corporation – was prepared by me in my capacity as Competent Person and Mr. Godfrey Gemal as geologist of HMDC. This report is based on available data and information provided by Holcim Mining and Development Corporation – Davao Operation as of May 13, 2019. All professional opinions, interpretation and conclusions made in this Report were done in accordance with geo-scientific principles and practice and industry standards.

This Report is to form part of a Mining Project Feasibility Study for submission to the Mines and Geosciences Bureau and is not meant for public disclosure. Any disclosure for some other purpose/s based on this report should obtain our consent.

The contents of the Report are valid from the date of signing by the undersigned. However, in the event that any new geological information, exploration results and ore deposit models will arise that may have direct or indirect implication on the mineral resources inventory as declared in this Report, the said inventory may be rendered inaccurate and should therefore be appreciated or treated with caution.

Consequently, the Mineral Resources inventory in this Report should not be relied upon after elapsed period of one year without the professional review, technical verification and updating by the authors or another Competent Person/s.

This warranty is in lieu of other warranties, either expressed or implied.

HENRY R. SALVADO Signed November 12, 2019

### **EXECUTIVE SUMMARY**

Holcim Philippines, Inc. hold a Mineral Sharing Agreement designated as APSA-032-XII-1997 with an area of 584.72 hectares located in Barangay Tinoto, Maasim, Sarangani Province. HPI has an active Mineral Production Sharing Agreement designated as MPSA No. 274-2008-XI located in Davao City. HMDC application for expansion of its active MPSA (MPSA No. 274-2008-XI) was granted by the Mines and Geo-Sciences Bureau Central Office, covering 642.1537 hectares, annexing the areas covered by its MPSA applications dominated as APSA-000107-XI and APSA-032-XII-1997 covering 339.3021 and 425.1146 hectares located in Davao City and Maasim, Sarangani respectively. The approval of the expansion is under the same terms and conditions provided for under Mineral Production Sharing Agreement No. 274-2008-XI and the existing Applicable laws, rules and regulations. APSA-032-XII-1997 then became Parcel 4 of MPSA No. 274-2008-XI with an area of 425.1146 hectares.

Exploration activities was conducted by HMDC on Parcel 4 of MPSA No. 274-2008-XI to delineate the limestone resource in the area. It is planned that the limestone deposit in the area would supply raw materials to its existing cement plant in Davao City. Exploration activity by HMDC consist of lithologic mapping and sampling, Test Pitting, Topographic Survey and Diamond Drilling. Result of the exploration activities showed that the entire Parcel 4 of MPSA No. 274-2008-XI is underlain by Limestone belonging to the Kamanga Limestone which is a recently uplifted reef limestone along the western coast of Sarangani Bay and covering the Siguel-Kamanga area. Subsurface exploration by Diamond drilling reveals the persistence of the Limestone deposit at depth to be more than 200 meters in thickness.

Resource calculation of the limestone deposit using the drilling data shows a total resource of 411 Million Metric Tons with an average grade of 51.69% Cao and 2.16% MgO. Results of analysis of the limestone deposits from surface and drill samples passed the criteria of Holcim for use as raw material for its cement plant. The resource is more than enough to make the project economically feasible for Limestone extraction for use as a raw material in Holcim Philippines cement manufacturing in Davao.

Additional drill holes would upgrade the resource into a measured category but is not deemed necessary as both surface and sub-surface exploration showed that the limestone deposit covers the whole MPSA area and there is continuity of the deposit between drillholes.

### TABLE OF CONTENTS

- 1. INTRODUCTION
- 2. TENEMENT AND MINERAL RIGHTS
- 3. GEOGRAPHIC FEATURES
  - 3.1. Location and Accessibility
  - 3.2. Physiography
    - 3.2.1. Topography
    - 3.2.2. Drainage
    - 3.2.3. Climate and Vegetation
    - 3.2.4. Land Use and infrastructure
    - 3.2.5. Socio Economic Environment
    - 3.2.6. Demography
- 4. PREVIOUS WORK AND FINDINGS
- 5. REGIONAL GEOLOGY
  - 5.1. Regional Geologic Setting
  - 5.2. Regional Stratigraphy
  - 5.3. Regional Structures
  - 5.4. Prospects and or Deposits
- 6. MINERAL PROPERTY GEOLOGY
  - 6.1. Geography
  - 6.2. Local Geology
  - 6.3. Geologic Structures
- 7. EXPLORATION
  - 7.1. Exploration Activities
    - 7.1.1. Geologic Mapping
    - 7.1.2. Rock Sampling
      - 7.1.2.1. Outcrop sampling
        - 7.1.2.1.1. Result of Chemical Analysis Outcrop Samples
        - 7.1.2.1.2. Result of Petrographic and Paleotological Studies
    - 7.1.3. Diamond Drilling
      - 7.1.3.1. Collar Survey
      - 7.1.3.2. Drill Core Logging
      - 7.1.3.3. Drill Core Sampling
      - 7.1.3.4. Sample Preparation and Analysis
      - 7.1.3.5. Sample QC & AC
      - 7.1.3.6. Result of Analysis
    - 7.1.4. Density Measurement
- 8. MINERAL RESOURCE ESTIMATE
  - 8.1. Historical Resource Estimate
  - 8.2. Database Used
  - 8.3. Integrity of Data
  - 8.4. Data Validation and Verification
  - 8.5. Average Grade and Cut-off
  - 8.6. Mineral Resource Estimation Used (Methodology)
  - 8.7. Resource Model
  - 8.8. Mineral Resource Estimate
- 9. CONCLUSIONS

10. RECOMMENDATIONS 11. REFFERENCES

**12. APPENDICES** 

### LIST OF FIGURES

- 1. Location Map MPSA 274-XI Parcel 4
- 2. Topographic Map and Drainage
- 3. Climate Map of the Philippines
- 4. Land Use Map of Municipality of Maasim
- 5. Landslide Susceptibility Map of Maasim, Sarangani
- 6. Regional Geologic Map
- 7. Stratigraphic Column of Daguma Range and Sarangani
- 8. Regional Structures
- 9. Geologic Map of Project Area
- 10. Surface Sample Location
- 11. Diamond Drill Hole Collar Location Map
- 12. Sample Preparation Flow Chart
- 13. MPSA 274-XI Parcel 4 Resource Boundary
- 14. View Looking Northwest of MPSA 274-XI Parcel 4 Resource
- 15. View Looking Northeast of MPSA 274-XI Parcel 4 Resource

### LIST OF TABLES

- 1. Geographic Coordinates of MPSA 274-2008-XI Parcel 4
- 2. Statistical Results of Surface Samples
- 3. Drilling Hole Statistics
- 4. Drill Samples Statistics on Result of Analysis
- 5. Density Measurement Data

### **APPENDICES**

- 1. CP Certificates of Henry Salvado
- 2. Approval of Expansion of MPSA 274-2008-XI
- 3. Result of Chemical Analysis Outcrop Samples
- 4. Result of Petrographic Analysis, Maasim Sarangani Samples
- 5. Result of Paleontologic Analysis, Maasim Sarangani Samples
- 6. Results of Chemical Analysis Drill Samples

### LIST OF PHOTOS

- 1. Diamond Drilling Activity Set-up
- 2. SGN-7 Drill Hole Collar
- 3. SGN-8 Drill Hole Collar
- 4. SGN-9 Drill Hole Collar
- 5. SGN-11 Drill Hole Collar
- 6. Core From SGN-04
- 7. Core From SGN-10
- 8. Core From SGN-11
- 9. Half Core From SGN-01 kept in storage

10. Core from Sarangani Drilling exercise stored at Holcim Davao

### **1. INTRODUCTION**

Holcim Mining and Development Corporation (HMDC) had commissioned the undersigned to prepare a Final Exploration Report for its mining tenement denominated as MPSA 274-2008-XI Parcel 4 (APSA 032-XII-1997), located in the municipality of Maasim, Sarangani Province, in compliance to the government's requirement in connection with its submission of a Declaration of Mining Project Feasibility Study to the Mines and Geosciences Bureau (MGB). The proposed project will supply the existing Holcim Philippines cement plants in Davao City.

The preparation of this Report is aimed primarily at presenting the results of the exploration activities undertaken by Holcim and deriving a resource estimate of the Limestone deposit within the mining tenement denominated as MPSA 274-2008-XI Parcel 4 (APSA 032-XII-1997). This Report will form part of the submission of Holcim to the Mines and Geosciences Bureau (MGB) in connection with its Declaration of Mining Project Feasibility Study.

### 2. TENEMENT AND MINERAL RIGHTS

Holcim Philippines, Inc. (then Davao Union Cement Corporation) in 1992 filed an Application for a Mineral Sharing Agreement with the Department of Environment and Natural Resources-Mines and Geosciences Bureau Regional Office XI for a 786.46 hectare mining claim in Barangay Tinoto, Maasim, Sarangani Province. The application was granted in 1997 by DENR-MGB for a Mineral Sharing Agreement designated as APSA-032-XII-1997. An area of 584.72 hectares out of the 786.46 hectares was awarded to HPI.

HPI has an active Mineral Production Sharing Agreement designated as MPSA No. 274-2008-XI located in Davao City. In May 2015 HMDC applied for an expansion of its active MPSA (MPSA No. 274-2008-XI) covering 642.1537 by annexing the areas covered by its MPSA applications dominated as APSA-000107-XI and APSA-032-XII-1997 covering 339.3021 and 425.1146 hectares located in Davao City and Maasim, Sarangani respectively. Approval of the applied expansion was granted by Mines and Geo-Sciences Bureau Central Office in July 14, 2015 under the same terms and conditions provided for under Mineral Production Sharing Agreement No. 274-2008-XI and the existing Applicable laws, rules and regulations. APSA-032-XII-1997 then became Parcel 4 of MPSA No. 274-2008-XI with an area of 425.1146 hectares. Letter of Approval from the director of Mines and GeoSciences Bureau of the expansion of MPSA No. 274-200-XI annexing APSA-032-XII-1997 is attached as Appendix 2. Corner coordinates of Parcel 4 is tabulated in Table 1.0 and plotted in figure 1.

<b>Table 1.0 Geographic Coordinates</b>	of Corners of
MPSA 274-2008-XI Parcel 4 (APSA	032-XII-1997)

Point	Latitude	Longitude		
1	5°54'30.00"	125°04'30.00"		
2	5°54'30.00"	125°04'00.00"		
3	5°56'00.00"	125°04'00.00"		
4	5°56'00.00"	125°05'00.00"		
5	5°55'00.00"	125°05'00.00"		
6	5°55'00.00"	125°04'30.00"		
Shane and	Area	425 has		
F	Projection	WGS 1984/ UTM Zone 51N		

### 3. GEOGRAPHIC FEATURES

### 3.1. Location and Accessibility

The project site is located in Barangay Tinoto of the Municipality of Maasim, Sarangani Provice. The center of Maasim is about 56 Kilometers away from General Santos City, the regional center for commerce and industry of the Soccsksargen region. General Santos City is service by commercial flights from Manila and Cebu. General Santos City also has a seaport that handles local and international commercial vessels.

The Municipality of Maasim can be accessed from General Santos City via the South Cotabato – Sarangani Road which hugs the south-western coastline of the island of Mindanao. Travel time via private vehicle is 1 to 1.5 hours. From the coastal road in Barangay Kamanga an unpaved to semi concreate barangay road of about 13 kilometers lead to the western central edge of the project site. Within the project area itself, travel is mainly by secondary feeder roads that were used during the drilling operation and unpaved foot trails. Access to the more remote and difficult portions are achieved mainly by cutting a trail across thin secondary growth forest and grass land.

### 3.2. Physiography

The municipality of Maasim is situated at the southwestern tail end of General Santos City facing the Sarangani Bay in the western Sarangani Province. The northern section of the municipality serves as the southeastern catchment (Siguel River) of the Mt. Parker Highlands. The topography of the area is highly dissected by moderate weathering with the formation of moderately to deeply incised V- to U-shaped valley systems. The terrain at the site is generally rolling to sloping with the highest elevation registered at about 1842 meters (Mt. Talumpong) above mean sea level (amsl) in the upper catchment of Siguel River.


Figure 1.0 Location Map MPSA 274-XI Parcel 4

## 3.2.1. Topography

The project area and its immediate vicinities are characterized by rugged topography with steep clift and possible sinkholes in the area. A topographic survey was undertaken in the area by Nth Geometrics and Geographics, a third party contractor based in Davao City. Survey was done using Leica Flexline TS0651000 and Leica Flexline TS064R00 Total Stations, US Handheld Nautiz X7 ad Leica GS09/GS14 GNSS (GPS + GLONASS) GPS units. A detailed

topographic map of Parcel 4 (Figure 2) was produced as a result of this survey. Highest elevation in the area is at 365 meter from MSL.

#### 3.2.2. Drainage

The drainage pattern of the study area is strongly influenced by the occurrence of several volcanic vents near the summits of Mt. Parker and Mt. Talumpong and from the deposition of recent pyroclastic flows and recent sediments along its peripheral moderate slopes. Recent intermittent volcanic activity has produced the widespread occurrence of cyclic layers of volcanic ash beds and other pyroclastic flow layers under sub-aerial deposition in the entire slopes and lowlands of Maasim and nearby coastal municipalities. The present physiography of the municipality of Maasim is generally formed by a southeasterly flowing Siguel River and Kamanga River that empty into the Sarangani Bay and Celebes Sea, respectively

Their in no river or big stream present in the project site. Intermitent streams that only have water when it rains in the area are at the eastern part of the property and these are lost on the sinkholes and does not reach the coast (Figure_2).

#### 3.2.3. Climate and Vegetation

The climate of the Philippines is generally influenced by the complex interaction of various factors such as the geography and topography of the country. According to the Philippine Atmospheric Geophysical and Astronomical Services Administration (PAGASA), the climate of the Philippines can be divided into two (2) major seasons based on temperature and rainfall - the rainy season and dry season. The Coronas System of Climate Classification is the most commonly used in the Philippines, with four (4) types described as follows:

Type I – These are areas generally shielded by mountain ranges but are open to rains brought in by habagat and tropical cyclones. It has two pronounced seasons: dry from November to April and wet throughout the rest of the year. The maximum rain period is from June to September. Palawan and Mindoro belong to this type of climate classification.

Type II - Regions of this climate are along or very near the eastern coast. This climate type is characterized by the absence of a dry season but with a pronounced maximum rain period from December to February. Minimum monthly rainfall occurs between March to May. Some of the areas that belong to this climate are Catanduanes, Sorsogon and large portions of Eastern Mindanao.



Figure 2.0 Topographic and Drainage Map

FER on Geology & Limestone Resources Covering Covering MPSA 274-2008-XI Parcel 4 at Maasim, Sarangani of HMDC 12

Type III – These are areas sheltered from trade winds but are open to Habagat and are frequented by tropical storms and cyclones. Seasons are not very pronounced but are relatively dry from one to three months, usually from December to February or March to May. Areas under this type include the western part of Cagayan, Isabela and parts of Northern Mindanao.

Type IV – This type is characterized by more or less evenly distributed rainfall throughout the year. This type resembles type II because it has no dry season. Areas with this climate include Batanes, Albay, Bohol and most of Central, Eastern and Southern Mindanao, including the Sarangani Province and General Santos City.

Based on this classification, the PAGASA classified the southern provinces of Mindanao Region as Type IV climate region. Figure 4 shows the Climate Map of the Philippines.





## 3.3. Land Use and infrastructure

The land use in the MPSA area was classified into an agricultural land (Figure 4). Prsently it is used as grazing land for cattle. There is no major infrastructure within the MPSA area except for the unpaved road driven during the drilling campaign in the area. The area is entirely within a secondary growth forest with thin to moderate secondary growth trees and grass.

#### 3.4. Socio Economic Environment

The Municipality of Maasim is a first class municipality in the province of Sarangani, Philippines. Base on the 2015 census, it has a population of 59,468. The town is divided into 16 barangays on a total land area of  $500.43 \text{ km}^2$ . 12 of which are coastal barangays. Build up areas are found predominantly at the coastal areas with the Maasim land area devoted to Industrial and Mining areas. The MPSA area is located in the agro-forestry and agricultural areas (Fiure 4).

Maasim is bordered on the west by the municipality of Kiamba, on the southeast by Sarangani Bay, on the northeast by General Santos City, on the north by South Cotabato, and on the south by the Celebes Sea.

The economy of Maasim is largely based on agriculture with a high level production of copra (dried coconut meat). Animal husbandry is the second biggest income earner, notably cattle farming. Other agricultural products are coconuts, maize, sugarcane, bananas, pineapples, mangoes, eggs, beef and fish.

The economy has accelerated in the past decade driven by advances in global communication technology and the finishing of a modern highway that tremendously improved trade and transport.

The mountain villages, home of the Blaans as well as Christian communities, host ranches and agricultural plantations of banana. Maasim also has extensive industrial investments such as shipyards and a power plant.

#### 3.4.1. Demography

The Municipality of Maasim base on the 2015 census, has a population of 59,468. The town is divided into 16 barangays on a total land area of 500.43 km2. 12 of which are coastal barangays.

Build up areas are found predominantly at the coastal areas with the Maasim land area is devoted to Industrial and Mining areas. The MPSA area is located in the agro-forestry and agricultural areas (Figure 4).



Figure 4. Land Use Map of Municipality of Maasim

#### 4. PREVIOUS WORK AND FINDINGS

Previous geological work in the area is limited to quadrangle mapping by the Mines and Geo-Sciences Bureau Region XI and identified the limestone resources of the area. Recently the Geohazard Mapping for the Landslide and Flood susceptibility of the Municipality of Maasin was undertaken by the Mines and Geo-Sciences Burea Regional Office XII. The landslide susceptibility map of the area shows that high landslide susceptible area along the slope of streams and creeks which is characterize by steep slopes. The rest of the area has low to moderate landslide susceptibility (Figure 5).

#### 5. REGIONAL GEOLOGY

#### 5.1. Regional Geologic Setting

Regional Geology of the area and vicinity belong to the Daguma Range and Maasim peninsula. Daguma Mountain Range is located to the southwest of Cotabato Valley and extends for 180 kilometers from Illana Bay and Cotabato City in the Northwest to the Saranggani Bay in the southeast. The northern portion of the range is a plateau with elevations of 300 meters above sea level.

Geologically, as shown in the entire Mindanao mainland including the groundwater basin (alluvial plains) in the Mt. Parker-Mt. Matutum in southern part of Mindanao, is part of the geotectonically active zone of the Philippine Fault that covers the entire eastern Mindanao area. Most parts of the mountainous slopes of the so called "Southern Mindanao Highlands" provinces are generally covered with a sequence of sedimentary rocks and volcanic flows of considerable old geologic ages. This is shown in Figure 6 and 7.

Arranged in decreasing geologic age, the following stratigraphic sequences are indicated:

#### 5.1.1. Kiamba Formation

The entire formation is referred to as metavolcanics and metasedimentary rocks along narrow west trending belts on the southwest coast of southern Mindanao and Cotabato Cordillera Range and Kiamba. The formation consists principally of massive lava flows and flow breccias with local insertions of wackes and conglomeratic sandstones. These rock units crop out along the Kansan River in Kiamba and western clips of Maasim, Sarangani.

The lower part of the formation is apparently dominated by massive andesite and intercalations of basalt flows and flow breccias. The upper part includes the flow breccias and wackes. The sedimentary rocks, appearing on top, consist mainly of wackes and conglomeratic mudstones. The entire formation rests uncomformably over the Salbuyon Schist.

## 5.1.2. Cablacan Formation

This formation, which is uncomformable over Kiamba Formation consists principally of thick sequence of conglomerate, graywacke, quartzite and schistose marble. The formation is best exposed along the upper Kamanga River and Cablacan River. The volcanic and pyroclastic rocks in Kiamba and Maasim constitute part of this formation so that it may be divided into a lower volcanic member and an upper sedimentary member.

The volcanic rocks constitute the volcanic flows and flow breccias. The breccia fragments are generally cobble to pebble in size. The volcanic flow rocks consist mainly of andesites with dacitic influence in some localities.

The upper sedimentary member includes the sandstones, shales and limestones with local intercalations of andesite flows. The middle section of the unit is made up of limestone with lenses of wackes and shales. Slates and red cherts are exposed to prominent peaks of Kamanga River and are found near the upper strata of conglomerate.

The age of the entire formation is probably more than 800 meters in thickness and the age assigned ismay be Early- Middle Miocene.

## 5.1.3. Kamanga Limestone

The formation is generally coralline to crystalline limestone, bedded to massive, and associated with beds of marly sandstone and conglomerate.

Recently uplifted reef limestone along the western coast of Sarangani Bay is covering the Siguel-Kamanga area. The limestone body seems to rest uncomformably over the pyroclastics of the Parker Volcanic complex. The lower portion of the Kamanga limestone consists of conglomerate layers as may be derived from the volcanic rocks of the Parker volcanics. The limestone grades range from impure marl to purely coralline-type.

## 5.1.4. Quaternary Volcanics (Pliocene-Pleistocene)

The Quaternary volcanics, referred to as the young volcanic cones and flows, belongs to the Mt. Parker volcanic complex. The volcanic belt consists of a number of active, potentially active and dormant volcanoes and other volcanic satellites that includes Mt. Basa and Mt. Malibao that are disposed along a north-south trending structure from Cotabato Cordillera down to the southern highlands of Mindanao.

The volcanoes and other volcanic satellite centers in the area are formed from the extrusion and outpouring of lavas and other volcanic ejecta that were apparently produced as a result of partial melting of the Philippine Sea Plate along Mindanao segment of the Philippine Trench in the east and Cotabato Trench in the western part. Volcanism in the area could have commenced during Pliocene period and continuous up to the present time. The volcanic rocks extruded from these volcanoes are mostly calc-alkaline andesites with a small proportion of basalts.

The pyroclastic materials include the fine-coarse tuff, tuffites with intercalated lava and agglomerate flows.

#### 5.1.5. Quaternary Alluvium

The alluvial plains are composed of recent sediments which were conveyed by major streams during episodes of floods and mechanical mobilization of pyroclastic blocks and other volcanic materials from the highlands. The alluvium consists mainly of admixtures of clay, sand and gravel with thin cover of ashfall beds in the coastal lowlands and mesas of the limestone formation in Tinoto and eastern section of Kamanga. In the lower Siguel River catchment, the alluvium often inter-fingers with the reworked pyroclastic flow materials so that the thickness of the combined deposits varies considerably over short distances.

The alluvial plains in the southwestern coast of Sarangani is concentrated along the lower catchment of Siguel River, which may be extended to about 7 kilometers eastward. Westward along the southern coast, a relatively thin strip (4 km-lenght) of this deposit is visible along north-south pattern of the Kamanga River channel.



Figure 5. Landslide Susceptibility Map of Maasim, Sarangani

FER on Geology & Limestone Resources Covering Covering MPSA 274-2008-XI Parcel 4 at Maasim, Sarangani of HMDC 19



Figure 6. Regional Geology

FER on Geology & Limestone Resources Covering Covering MPSA 274-2008-XI Parcel 4 at Maasim, Sarangani of HMDC 20

#### 5.2. Regional Stratigraphy

Regional statigraphy of Daguma Range and Sarangani Peninsula is shown in Figure 6. The dominant geologic formation is the Kamanga Limestone of Daguma Range which is also equivalent to the Gumasa Formation of Saranggani Peninsula.

#### Stratigraphic column for Daguma and Saranggani

PERIOD	EPOCH	AGE	Ma	DAGUMA RANGE	SARANGGANI PENINSULA
	HOLOCENE		0.0117	Matulas Gravei	Balut Volcano
	PLEISTOCENE	4 Late 3 Middle 2 Early	0.0117 0.126 0.78 1.81	Kamanga Limestone	Gumasa Formation
NEOGENE	PLIOCENE	2 Late 1 Early	2.59 3.60 5.33		
NEO		3 Late		Siguil Formation Allah Formation	Buayan Formation
. –			11.61	Tampanan Limestone	Sulop Formation
	MIOCENE	2 Middle-	13.65	Tual Quartz Diorite	Glan Formation
		1 Early	15.97 20.43	Nakal Formation Cablacan Formation	Pangyan Formation
		2 Late	23.03	Maganoy Formation	Malita Formation
	OLIGOCENE	1 Early	28.4 33.9	Daguma Diorite	
PALEOGENE	EOCENE	4 Late 3 Middle - 2	37.2 40.4 48.6		
đ	PALEOCENE	1 Early 3 Late 2 Middle 1 Early	55.8 58.7 61.7	Kiamba Formation	
EOUS	Upper	Late	65.5	Salbuyon Schist	
CRETACEOUS	Lower	Early	99 6		
JURASSIC	Upper	3 Late	145.5		
	Middle	2 Middle	161,2		
	Lower	1 Early	175.6 199.6		

Geologic Time Scale adopted from International Commission on Stratigraphy (2009)



#### **5.3. Regional Structures**

Southern Mindanao is between two major active Trenches, the Philippine Trench in the East and the Cotabato Trench in the west. Nearest major fault in the area is the NW-SE trending Mindanao Fault Daguma extension, west and south of the area. Mindanao, is part of the geotectonically active zone of the Philippine Fault that covers the entire eastern Mindanao area (Figure 8).

FER on Geology & Limestone Resources Covering Covering MPSA 274-2008-XI Parcel 4 at Maasim, Sarangani of HMDC 21





#### 5.4. Prospects and or Deposits

Similar Limestone bodies area found in Maasim and adjacent municipalities up to General Santos City. Small local quarries are found in these limestone quarries and are mostly used as construction and road filling materials. Gold mineralization is found in T'Boli, South Cotabato, located north of Maasim on the northern side of Mt. Parker. This gold mineralized areas has active small scale mining operation.

FER on Geology & Limestone Resources Covering Covering MPSA 274-2008-XI Parcel 4 at Maasim, Sarangani of HMDC 22

## 6. MINERAL PROPERTY GEOLOGY

#### 6.1. Geography

The landforms of the southeastern catchment of Mt. Parker and the rest of southerly flow minor rivers and creeks in the western Sarangani, including the municipality of Maasim are primarily the product of several events of tectonism, erosion process, sedimentation and minor uplifts during Late Cretaceous period to recent times. They are primarily the products of structural separations (rifts) composed largely of clastic sequences, limestones, metamorphic clastics and fluvial sediments. Weathered transported deposits filled up the lowland areas and formed the alluvial plains fringed by river materials along drainage sections and low hills and knobs as remains from erosion and weathering of old sedimentary and metamorphic rock sequence.

The details of the structures, tectonics, volcanism and stratigraphic sequence may generally be defined in the following physiographic controls:

- Northern and northwestern rugged mountains
- Limestone Belt (Karstic topography)
- Highland Plateau (Kamanga Limestone)
- Terraced deposits
- Alluvial plains and reworked Pyroclastics

The alluvial plains in the lower stretch of Siguel River and along the narrow strips of Kamanga River channel immediately embrace the southern sloping topography of the southeastern catchment of Mt. Parker Highlands and the moderately rugged terrains of the chain of peaks of the northern divide of Kamanga River catchment. The rugged highlands are characterized by high relief, steep ridges and banks and dendritic drainage pattern. The eastern tableland of limestone and conglomerate that immediately embraces Tinoto Bay is bounded to the west by the eastern catchment of Kamanga River and its northern extension is cut by the southern divide of the lower Siguel River. The Plateau has no pronounced river systems so that minor drainages and creeks are subject to tidal fluctuations in the lower stretches. Braided creeks have no defined line of sink as they approach the coastal flood plain areas.

The topography of the general area of Siguel River Basin is highly dissected by moderate weathering with the formation of deeply incised V- to U-shaped valley systems (dendritc drainage pattern). The rugged highlands in the northern and northwestern sections are generally sloping to rugged with the highest elevations registered along a line of chain of peaks of Mt. Talumpong.

The terraced deposits prominently rise up at the lower catchment of Siguel River that immediately embraces the Limestone Plateau in Tinoto highlands and along left embankment slopes of Siguel River. It is characterized by moderately rolling to gently sloping ridge topography with steep escarpments along the valley system. Its lower eastern extension is concentrated along the immediate rolling strips of the coastal boundary between Maasim and General Santos City. The terraced deposits along its prominent escarpments have been signified by several levels of deposition that could indicate that the area had undergone several episodes of uplift.

## **6.2. LOCAL GEOLOGY**

The area and vicinity is generally underlain with volcanic ash layers, fluvial sediments, mantle of weathered pyroclastic materials, limestone with insertions of conglomerates and metasediments of the rock sequence within the southeastern slopes of mountain range of Mt. Parker. Intermittent volcanic activity has probably deposited the cyclic sequence of the pyroclastic flow rock, volcanic ash layers and other alluvial materials under fluvial environment. From on-site investigation, the sandy layers of pyroclastic flow exposed on cliff-forming cuts may correspond to the sediments that have long been under sea water as evidenced by the presence of sea shells and minor corals. The grayish appearance of the layer looks unconsolidated with little stiffness on its groundmass. Beneath the sand layer, cyclic sequences of tuffaceous fragments and/or fine-grained derivatives of the weathered sedimentary sequence of probable conglomerate/limestone interbeds of Kamanga Limestone formation. Coarse-grained fragments that occupy the area of the slopes may be referred to the deposition of transported agglomerates, which are highly weathered and loosely cemented and poorly consolidated. The thin beds of the fine-grained materials correspond to the tuffaceous sand with clayey to silty matrices.

Elsewhere in the moderately slopes of , the volcanic ash beds of probable recent volcanic activities, which are common in the lowlands of Tinoto and in the general vicinity of the southern slopes of Kamanga are relatively thinner in appearance as the layers are sequentially intertongued with the limestone and conglomerate units. The limestone beds are generally coralline to crystaline and are associated with beds of marly sandstone and conglomerate. The entire rock formation however exhibit slight to moderate stiffness and is generally massive and bedded. Exposed typical limestone layers are often seen along road cuts of the Maasim- General Santos High Way in Tinoto and Kamanga and along embankments of creeks and minor rivers systems that occupy the Kamanga-Tinoto area.

The coarse-grained reworked sediments (pyroclastic and volcanic rock origin), including sand beds of the alluvial plains comprise the water-bearing layers for shallow groundwater extraction in the lower Siguel River catchment. Along the flood plain of Kamanga River, a 4-km strip of alluvial deposit, consisting mainly of sand and gravel materials may offer good potential for shallow groundwater extraction.

The MPSA area is totally underlain by Kamanga Limestone (Figure 9). The formation is generally coralline to crystalline limestone, bedded to massive, and associated with beds of marly sandstone and conglomerate. The lower portion of the Kamanga limestone consists of conglomerate layers as may be derived from the volcanic rocks of the Parker volcanics. The limestone grades range from impure marl to purely coralline-type.

#### 6.3. Geologic Structures

The regional fault and/or large-scale geologic structure identified by PHIVOLCS near the Study Area is the main Western Mindanao Fault (Daguma Extension). This geologic structure generally trends NW-SE and is approximately about 30 km north of its southern tail end from Kamanga River as shown in Figure 7. Its eastern splay extension emcompasses the lower Siguel River Basin, which serves as northern boundary of barangay Tinoto in Maasim.

In so far as the Daguma Extension Fault is concern, which traverses the northwestern clip of the Siguel River Basin, there were only few recorded movements along the said area. Ground movements arising from deep-seated earthquake of tectonic origin could cause considerable ground shaking in the area. The ground shaking could eventually lead to differential settlement and/or liquefaction of loosely consolidated and/or partly compacted pyroclastic materials and sedimentary units underlying the basin.

The southerly flow (lower channel) of Kamanga River is also faulted on more or less north-south direction. Its main fault system, which runs on northwest-southeast trend, just like Daguma Fault, traversed the northwestern highlands of Maasim. It is also possible that this fault is a southern extension of the Daguma Fault.

## 7. EXPLORATION

## 7.1. Exploration Activities

The project area was previously covered by quadrangle mapping by Mines and Geosciences Bureau and Identified the vast limestone resource in the area. Exploration activity by HMDC consist of lithologic mapping and sampling, Test Pitting, Topographic Survey and Diamond Drilling.

## 7.1.1. Geologic Mapping

Semi-detailed to detailed geologic mapping was conducted in the MPSA area by Holcim geologist. The MPSA area was mapped to be entirely underlain by Limestone belonging to Kamanga Limestone which is a recently uplifted reef limestone along the western coast of Sarangani Bay and covering the Siguel-Kamanga area. The limestone grades range from impure marl to purely corallinetype.

## 7.1.2. Rock Sampling

## 7.1.2.1. Outcrop sampling

During the course of the semi-detailed to detailed geologic mapping of the area a total of 46 outcrop samples were collected. Thirty four (34) of the samples were sent for chemical analysis for its moisture content,  $SiO_2$ , Al2O₃, Fe2O₃, CaO, MgO, SO₃, K2O, Na₂O, and CaCO₃. Six (6) of the outcrop samples were sent for petrographic analysis and four (4) for paleontological analysis to the Mines and Geo Sciences Bureau. Sample location for the surface samples is shown in Figure 10.



Figure 9.0 Geologic Map of Project Area

FER on Geology & Limestone Resources Covering Covering MPSA 274-2008-XI Parcel 4 at Maasim, Sarangani of HMDC 26

#### 7.1.2.1.1. Result of Chemical Analysis Outcrop Samples

Thirty four of the outcrop samples were analyses for its oxide content at Holcim Laboratory in Lugait, Missamis Oriental. Result of analysis is attached as Appendix 3 and statistical analysis of the samples are in Table 2 below.

Two of the samples yielded low  $CaCO_3$  as these are samples of conglomerate in the area and therefore returned a high SO₂ content. All the surface limestone samples passed the criteria of Holcim for use as raw material for its cement plant which are  $CaCO_3$  should be greater than 46%, MgO₃ should be less than 2% and SO₃ not greater than 0.2%. The high MgO₃ came from Argillaceous Marl and Calcareous Marl samples which can be segregated during mining activity.

Surface Sample	Moisture	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	CaO	MgO ₃	SO ₃	K ₂ O	Na ₂ O	CaCO ₃
Statistics	%	%	%	%	%	%	%	%	%	%
Count_n	34	34	34	34	34	34	34	34	34	34
Minimum	0.2	0	0	0.23	10.65	0.45	0.03	0	0	19.06
Maximum	8.6	66.16	17	7.48	55.93	6.05	0.32	1.05	6.23	100.11
Mean	1.10	4.31	1.36	0.93	49.75	2.12	0.10	0.06	0.59	89.06
Median	0.60	0	0.14	0.47	52.40	1.31	0.06	0	0.18	93.80
Variance	2.54	202.43	14.43	2.61	105.90	2.47	0.01	0.05	2.03	339.34
Standard	1.59	14.22	3.80	1.62	10.29	1.57	0.08	0.23	1.42	18.42
Deviation										

Table 2 Statistical Table Surface Samples

## 7.1.2.1.2. Result of Petrographic and Paleotological Studies

Petrographic analysis were undertaken on the Six (6) outcrop samples by the Mines and Geo Sciences Bureau, Land Geological Survey Division. Five of the samples were identified as Biomicrite and one as Biosparite in contact with Marl (Appendix 4).

Only one of the four (4) samples for paleontological analysis by the Mines and Geo Sciences Bureau, Land Geological Survey Division yielded a fossil. The fossil identified is a corral fragment but is still undiagnostic (Appendix 5).



**Figure 10. Surface Sample Location** 

FER on Geology & Limestone Resources Covering Covering MPSA 274-2008-XI Parcel 4 at Maasim, Sarangani of HMDC 28

## 7.1.3. Diamond Drilling

Diamond drilling campaign was undertaken in the area for resource definition of the Limestone deposit. Total of ten holes was drilled from June 2016 to December 2017. Construction and Drilling Specialist Inc. (CDSI), a drilling contractor from Davao City was the drilling contractor and it used a Longyear 38 double tube wireline system HQ to NQ core (Photo 1) drill rig.

Drill Hole Statistics is shown in Table 3 and collar locations plotted in figure 11.

## **Table 3 Diamond Drill Hole Statistics**

Hole ID	Northings PRS92 Z5	Eastings PRS92 Z5	RL (m.)	Azimuth Degrees	Dip Degrees	Depth (m)	No. of Samples	Total width of
		1100120	(111.)					Sampling (m)
SGN-01	655,956.22	508,381.37	119.80	0	-90	119.80	97	95.95
SGN-02	655,954.50	508,654.76	119.70	0	-90	119.70	80	108.75
SGN-03	655,435.94	507,760.72	200.00	0	-90	200.00	120	191.25
SGN-04	655,502.83	508,371.68	179.45	0	-90	179.45	104	173.55
SGN-05	655,372.36	508,940.95	181.70	0	-90	181.70	107	171.95
SGN-06	654,881.36	507,768.11	149.50	0	-90	149.50	95	140.80
SGN-07	654,820.72	508,318.93	119.50	0	-90	119.50	89	117.50
SGN-08	654,820.23	508,878.47	150.00	0	-90	150.00	88	141.70
SGN-10	654,743.84	508,400.69	119.60	0	-90	119.60	82	110.20
SGN-11	654,609.72	508,791.84	100.00	0	-90	100.00	57	98.90
Т	otal	10 Drill H	loles			1,439.25	919	1,350.55



Photo 1 Diamond Drilling Activity Set-up

## 7.1.3.1. Collar Survey

Survey of drill hole locations and was carried out by Nth Geographics and Geometrics, (HPI surveying contractor) from Davao City. Survey was done using Leica Flexline TS0651000 and Leica Flexline TS064R00 Total Stations, US Handheld Nautiz X7 ad Leica GS09/GS14 GNSS (GPS + GLONASS) GPS units. Upon completion of drilling, clearing and rehabilitation of sites were accomplished and concrete bore hole monuments were established as markers on the location of drill holes. Re-survey was also conducted to define the actual locations of holes after drilling. (Photo 2 to 5).

Photo 2 SGN-7 Drill Hole Collar



Photo 3 SGN-8 Drill Hole Collar

FER on Geology & Limestone Resources Covering Covering MPSA 274-2008-XI Parcel 4 at Maasim, Sarangani of HMDC 31



Photo 4 SGN-9 Drill Hole Collar



Photo 5 SGN-11 Drill Hole Collar

#### 7.1.3.2. Drill Core Logging

Drill core logging was undertaken by Holcim geologist at Holcim field office in General Santos City (Photo 6 to 8). The core logging classified the rock types into the following:

- Argillaceous Limestone
- Arillaceous Marl
- Calcareous Mud
- Calcareous Marl
- ➢ Limestone
- ➤ Marl
- Slightly Argillaceous Limestone
- Slightly Arillaceous Marl

Data was written on company logsheets and later encoded on an excel spreadsheets to come up with a drill hole database of the drilling activity. All other data of the drilling activity (Collar data, Lithology and analytical results) were combined into one database and exported into an access database for later use in resource calculations.

#### 7.1.3.3. Drill Core Sampling

Cores obtained from the 10 drillholes with a total meterage of 1,439.25 meter was sampled and sent for analysis. Total of 919 samples was taken with an aggreagate of 1,350.55 meter for a 93.84% sampling of the core. Sampling was separated by rock types with a minimum sampling width of 0.15 meters and maximum sampling width of 2 meters (Photo 9).

All the half cores from the drilling activity were transported to Holcim Davao City Cement Plant for core storage (Photo 10).



Figure 11. Diamond Drill Hole Collar Location Map

FER on Geology & Limestone Resources Covering Covering MPSA 274-2008-XI Parcel 4 at Maasim, Sarangani of HMDC 34



Photo 6 Core From SGN-04



Photo 7 Core From SGN-10



Photo 8 Core From SGN-11

## 7.1.3.4. Sample Preparation and Analysis

Each core was cut by a diamond saw for hard solid core and by splitting by spatula for soft core. Half of the core was placed back in core box for archiving (Photo 14 and 15). The other split half was dried overnight in an oven at temperatures of 50°-200° C°. After drying, it was then crushed to 5-10 mm size fragments and then dried again. The crushed fragments were quartered and the bulk of the sample is placed in a bag as reference samples. About 200-300 grams of the split is pulverized further. The pulverized sample is divided further into two; the other half is kept for reference. Processed core samples were then sent to SGS Australia for chemical analysis using X-Ray Fluorescence (XRF) method. Sample preparation flow chart is shown in Figure 12.



Photo 13 Half Core From SGN-01 kept in storage

#### 7.1.2.1. Sample QC & AC

To ensure the integrity of the assay data, duplicate analysis were undertaken at random per dispatch. Samples were sent to SGS Australia in order to ensure unbiased and proper analysis. Three batches of samples were dispatched for chemical analysis; a total of 21 duplicate samples were analyzed by SGS from the said dispatches. Result of the analysis of the duplicate samples show strong positive correlation on all oxides and elements analyzed. Selected samples were also sent to Holcim Technology Ltd. (formerly HGRS) for cross check and environmental analyses.



Photo 15 Core from Saranggani Drilling exercise stored at Holcim Davao

FER on Geology & Limestone Resources Covering Covering MPSA 274-2008-XI Parcel 4 at Maasim, Sarangani of HMDC 37



Figure12. Sample Preparation Flow Chart

## 7.1.2.2. Result of Analysis

A total of 919 core samples were collected from the drilling campaign. All drill core samples were analysed for twelve major oxides namely SiO2. Al2O3, Fe2O3, CaO, MgO, SO3, K2O, Na2O TiO2, Mn2O3, P2O5 and Cl. Moisture content (LOI) was also measured on all the samples. Statistics on the result of analyses on these samples is shown in Table 4.

Mud and Marl samples as expected returned less than 46% Cao which is the cut-off Cao content for it to be use as raw material in cement manufacturing. The murl and mud can be segregated and not mined during actual mining and would not be sent out to the cement plant. There is just 29 samples of these rock type or just 3% of the total samples. Mean Value for CaO is at 50.65% with the highest at 54.7%.

The SO₃ content of limestones should less than 0.2% for it to be amendable for use as raw material for cement plant. Total of 51 or 6% of the core samples returned SO₃ above 0.2% with the highest at 1.43%. The high SO₃ content are found predominantly in the slightly Argillaceoust Limestones at deeper depth (>100 meters from surface). Mean SO₃ values is at 0.068% and Median at 0.04%. These mean that the limestone passes the criteria in terms of SO₃ content as the high SO₃ limestones can be blended with the other limestone with low SO₃ content.

The MgO content has a mean value of 2.26%. The MgO content should be just up to 2% for use as raw materials for cement manufacturing. The high MgO values are also found in the Mud and Murl samples up to 6.68%. The murl and mud can be segregated and not mined during actual mining and would not be sent out to the cement plant as they also have a low CaO content.

## 7.1.3. Density Measurement

A total of 20 core samples were taken for specific gravity measurement of the limestone deposit in the area. Two samples from different depths were taken from each drillhole in order to have a good representation of the specific gravity for the whole deposit. Density measurements were done at the site by the Company's Geologist.

Prior to core splitting, the length of each sample was measured using a Vernier caliper. The volume of each sample was calculated using the formula:

## $V = \Box r2h$

The mass of each sample was taken using a digital pan balance and the density is calculated using the formula:

# Density= mass (in grams)/volume (in cm3)

The average density calculated for the samples is 2.11, as seen on the Table 5 below:

of Analysis
Result
tatistics on
Samples S
4. Drill
Table 4

Field	-O-IA	CaO	τ	EALO	0.7		0.04	0 - 14			1		
	50212	CaD	2	rez03	N2U		NINU	Na ₂ O	P202	SI02	S03	Tio2	
	%	%	%	%	%		%	%	%	%	%	%	%
Minimum	0.02	4.35	0.001	0.03	0.01		0.01	0.01	0.01	0.07	0.01	0.01	7.14
Maximum	18.1	54.7	0.141	9.79	2.98	6,68	0.14	3.6	0.26	54.7	1.43	1.03	44.7
Mean	0.7756	50.6474	0.0023	0.4052	0.0862		0.0126	0.0791	0.0627	2.6297	0.0684	0.0432	42.4114
Median	0.3	51.8	0.001	0.17	0.03		0.01	0.04	0.06	1.05	0.04	0.02	43.5
Range	18.08	50.35	0.14	9.76	2.97		0.13	3.59	0.25	54.63	1.42	1.02	37.56
Variance	4.1501	37.8818	0.0001	1.2120	0.0868		0.0002	0.0502	0.0005	43.0040	0.0168	0.0120	20,6001
<b>Standard Deviation</b>	2.0372	6.1548	0.0072	1.1009	0.2946		0.0138	0.2240	0.0225	6.5577	0.1295	0.1093	4.5387
Percentile 90	1.084	53.14	0.005	0.54	0.1		0.01	0.11	0.08	3.894	0.11	0.06	43.9
Geometric_Mean	0.3577	49.7746	0.0013	0.1975	0.0355		0.0109	0.0448	0.0600	1.2329	0.0395	0.0232	41.9418

FER on Geology & Limestone Resources Covering Covering MPSA 274-2008-XI Parcel 4 at Maasim, Sarangani of HMDC

6

Sample No	Length (cm)	Radius (cm)	K	Volume (cm3)	Mass (g)	Density (g/cm3)
SGN01-05	1.5	4.25	3.1416	85.117725	195.0	2.290944689
SGN01-15	2	4.25	3.1416	113.4903	236.7	2.085640799
SGN02-04	2	4.25	3.1416	113.4903	217.8	1.919106743
SGN02-66	1.6	4.25	3.1416	90.79224	205.6	2.264510711
SGN03-27	1.8	4.25	3.1416	102.14127	224.0	2.193041069
SGN03-71	1.5	4.25	3.1416	85.117725	194.2	2.281545941
SGN04-09	1.65	4.25	3.1416	93.6294975	201.1	2.147827398
SGN04-40	1.6	4.25	3.1416	90.79224	197,7	2.17749887
SGN05-25	1.7	4.25	3.1416	96.466755	198.3	2.05563046
SGN05-95	1.6	4.25	3.1416	90.79224	204.5	2.252395139
SGN06-09	1.9	4.25	3.1416	107.815785	215.0	1.994142138
SGN06-64	2	4.25	3.1416	113.4903	231.4	2.038940773
SGN07-06	2	4.25	3.1416	113.4903	227.9	2.008101133
SGN07-32	2	4.25	3.1416	113.4903	207.1	1.824825558
SGN08-19	2	4.25	3.1416	113.4903	214.2	1.88738597
SGN08-55	1.4	4.25	3.1416	79.44321	185.7	2.337518839
SGN10-11	1.6	4.25	3.1416	90.79224	202.6	2.23146824
SGN10-39	1.8	4.25	3.1416	102.14127	211.4	2.069682509
SGN11-05	2	4.25	3.1416	113.4903	236.5	2.083878534
SGN11-43	1.7	4.25	3.1416	96.466755	207.8	2.154109983
				201100700	Average	2.134109985 2.11

Table 5. Density Measurement Data

## 8. MINERAL RESOURCE ESTIMATE

#### 8.1. Historical Resource Estimate

No resource calculation has been undertaken in the project area and this is the first resource calculation of the limestone resource potential in the MPSA 274-2008-XI Parcel 4.

#### 8.2. Database Used

Data from the diamond drilling campaign was used in the resource estimation. Since the entire MPSA area was mapped to be underlain by Corraline Limestone, there is no need to put a lithological boundary and global resource calculation of the entire area was employed. Topographic map generated from the topographic survey of the area was used. Total of 919 core sample analysis data was used from the 1439.25 meters of diamond drilling in the MPSA area.

#### 8.3. Integrity of Data

A total of 1,101 core samples was collected and were prepared and then subjected to X-Ray Fluorescence to analyse for major oxides. Core recovery for these samples is is greater than 90%. Core samples from the drilling campaign (919 samples) were sent to SGS Australia. Duplicate and check samples were analyzed at the QA Laboratory of HPHI Lugait Plant. Result of analysis from both labs were recived as soft copy and secured PDF hard copy. Soft copy was merge with the project database containing the drill hole, sample numbers and sampling interval. The drill core samples was analysed at SGS Australia whose products and services comply with global standards and expert in their fields.

Drill hole locations was surveyed by an independent surveying contractor. And also did a topographic survey of the area and produced a topographic map.

The collection, compilation and handling of data was of industry standard.

## 8.4. Data Validation and Verification

Drill hole database used was validated and verified on Mapinfo/Discover drillhole module. There was gap in the sampling interval which was attributed to lost core during drilling activity. Encoded result of analysis was verified from the hard copy of SGS result of analysis. Random check on sampling interval was undertaken on core in the core storage house (Photo 9 and 10) and from core photographs. Drill hole log was verified on the core at the core storage and from drill core photograps.

#### 8.5. Average Grade and Cut-off

The average grade of CaO on the core samples from diamond drilling is at 50.65% Cao. At a cut-off grade of 46%, weighted average grade is at 51.77% CaO. Ninety five percent (95%) of the core samples has CaO of greater than 46%. Samples with low CaO are Mud, Calcareous Mud, Marl and Calcareaous Marl samples and can be eliminated during actual mining.

The average grade of SO₃ content of all core samples from diamond drilling is at 0.07% SO₃. This means that the whole limestone deposit passed the criteria in terms of SO₃ content which should be less than 0.2% SO₃.

MgO₃ average is at 2.2% which is slightly higher than the required in the cement plant which MgO₃ content should be less than 2%. The high MgO₃ is also from the mud and marl samples from the drill core and can be selectively eliminated during mining.

## 8.6. Mineral Resource Estimation (Methodology)

Cores retrieved from the drillholes reveal that the whole area is underlain by limestone from the top to the bottom of the hole. This is strongly correlated to the result of surface mapping that the whole area is all underlain by limestone deposit of the Kamanga Formation.

Using the detailed topographic map generated by the topographic survey of the area, along with new set of data generated from the detailed geologic mapping, the topography of the project site is characterized karst topography. The area has thin soil cover, thus depicting ground surface configuration of the limestone body. The surface terrain is therefore an important parameter considered in this process of resource estimation.

Location of the drillholes was done by a qualified geodetic engineer and survey results were reported in PRS 92. Cross-sections were constructed based from the borehole logs and topographic profile. Together with the complete chemical analysis, these data were utilized for the generation of the geology of the deposit which is simply that the whole body is a limestone deposit. A resource model was generated using Surpac mining software. Blocks were generated inside the resource model and CaOand MgO grade was calculated. All relevant data were compiled in an exploration database which includes collar position, assays, lithology and topographic data and other data as deemed necessary for creating the geologic model for calculation of the resource.

## 8.7. Resource Model

An exploration database containing collar and assay data were prepared and imported in Surfac. SHP files (ArcGIS format) of tenement boundary, geology, roads and stream were also imported in the software. The geological model was created by correlating all these data to create solids. The topographic surface was considered as the top boundary for calculation of resources since overburden is very minimal. On the other hand, the bottom elevation of calculated resource is bounded by the bottom elevation of the drillholes. The measured resource is confined to the boundary as shown in Figure 13 as the whole area is underlain by limestone based on surface mapping and diamond drilling. The Limestone body is massive body and there is a continuity of it between drill holes as indicated by the surface mapping. There is great confidence in outlining and creating the 3D solid model because of this nature of the deposit.

## 8.8. Mineral Resource Estimate

The resource comprises all limestone material which meets the quality parameters as prescribed by Holcim's standards. The resource is classified as indicated resource following the PMRC standard. It was classified all as indicated resource as drilling was not closely spaced but the whole area is underlain by limestone based on surface mapping and there is continuity of it between drill holes.

The following parameters were used in the resource estimates:

1. Cut-off grade - Cao = 46% and MgO 2%

2. Average Specific Gravity of silicified materials - 2.11

Resource calculation from the generated blocks shows a total resource of 411 Million Metric Tons with an average grade of 51.69% Cao and 2.16% MgO. The average grade obtained from the resource calculation is very near the average grade of the core samples.

Plan and 3D view of the resource is shown in Figures 13 to 15.



Figure 12 Plan View of MPSA 274-XI Parcel 4 Resource Boundary

FER on Geology & Limestone Resources Covering Covering MPSA 274-2008-XI Parcel 4 at Maasim, Sarangani of HMDC 44



Figure 13 View looking Northwest of MPSA 274-XI Parcel 4 Resource



Figure 14 View looking Northeast of MPSA 274-XI Parcel 4 Resource

## 9. CONCLUSIONS

Surface exploration in the MPSA MPSA 274-XI Parcel 4 area in Maasim, Saranggani Province shows that the whole MPSA area is underlain by Limestone belonging to the Kamanga Formation. Subsurface exploration by Diamond drilling reveals the persistence of the Limestone deposit at depth to be more than 200 meters in thickness. CaO and other oxide content of the deposit pass the standard of Holcim Philippines for its raw material in cement production with MgO exhibiting slightly above standard.

Resource estimation of the Limestone resource, based on the exploration data gathered and using Surpac mining software generated an indicated resources of 411 Million Metric Tons with an average grade of 51.69% Cao and 2.16% MgO. The resource is more than enough

to make the project economically feasible for Limestone extraction for use as a raw material in Holcim Philippines cement manufacturing in Davao.

## **10. RECOMMENDATIONS**

The present resource is enough to supply Holcim Philippines Davo operation Limestone for its raw material for its cement production. Additional drill holes would upgrade the resource into a measured category but is not deemed necessary as both surface and subsurface exploration showed that the limestone deposit covers the whole MPSA area and there is continuity of the deposit between drillholes.