



# DOCUMENTATION

KulaDAO  
&  
Bekazulu  
Mining  
Limited



MAY 15, 2023

Eastern Province,  
Zambia,  
Africa.



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## Heads of Terms

### SUMMARY OF TERMS FOR SALE OF SHARES between Bekazulu Mining Limited and KulaDAO

Version 1.0 – May 15<sup>th</sup> 2023

#### 1. Company

Bekazulu Mining KulaDAO, AG, a company registered in Switzerland and whose registered office is [REDACTED]

#### 2. Founders and Shareholders

Bekazulu Mining Limited Shareholders as indicated in Annex A, a company registered in Zambia and whose registered office is [REDACTED]  
[REDACTED] - as represented as a group by the signing individual to this contract.

#### 3. Investors

KulaDAO AG (the "Lead Investor") agreeable to the Company.

#### 4. Structure of Financing

The financing will be up to an aggregate of \$600,000 at a fully diluted pre-money valuation of \$4,285,715. The Lead Investor will invest up to \$600,000 and would hold no less than 105,000 shares or 14.00% of the Company on a fully diluted basis.

#### 5. Conditions to Close

- i. Completion of confirmatory due diligence and anti-money laundering checks.

- ii. Bekazulu Mining Limited agree to reorganize the Articles of Association and structure of the company under a Decentralized Autonomous Organizational structure provided by KulaDAO.

This agreement will substitute shares for Bekazulu Mining Limited's RegionalDAO Tokens when both the following conditions are met:

- KulaDAO is launched as a tokenized ecosystem.
- When the full capitalization of \$600,000 by the Lead Investor has been completed.

## **6. Estimated Closing Date**

On the day of the last signature.

## **7. Type of Security**

Ordinary Shares.

## **8. Important Decisions**

The consent of the holders of a majority of the Seed Shares held by the Share Holders (an "Investor Majority" shall be required for the important decisions, substantially in the form listed in Annex A.) and as determined in the current Articles of Association of Bekazulu Mining Limited.

## **9. Pre-emption**

All shareholders will have a pro rata right, but not an obligation, based on their ownership of issued capital, to participate in subsequent financings of the Company (subject to customary exceptions). Any Shares not subscribed for may be reallocated among the other Shareholders.

## **10. Right of First Refusal and Co-Sale**

The Lead Investor shall have a pro rata right, but not an obligation, based on their ownership of shares, to participate on identical terms in transfers of any shares of the Company, and a right of first refusal on such transfers (subject to customary permitted transfers, including transfers by Investors to affiliated

funds). Any shares not subscribed for by the Lead Investor would then be offered to the other shareholders.

## **11. Drag Along**

In the event that the holders of a majority of the shares wish to accept an offer to sell all of their shares to a third party, or enter into a Change of Control event of the Company, then subject to the approval of the Lead Investor and the Board, all other shareholders shall be required to sell their shares or to consent to the transaction on the same terms and conditions, subject to the liquidation preference of the Lead Investor.

## **12. Restrictive Covenants and Founders Undertakings**

Each Founder will enter into a non-competition and non-solicitation agreement, and an employment agreement in a form reasonably acceptable to the Lead Investor.

## **13. Board of Directors**

The board of directors of the Company (the "Board") shall consist of a maximum of five members: the holders of shares other than the Lead Investor may appoint four directors in total and the Lead Investor may appoint one director in total.

## **14. Information and Management Rights**

The Lead Investor as part of the Executive Board will participate in regular reporting and monthly financial information to satisfy its venture capital operating company requirements.

## **15. Documentation and Warranties**

Definitive agreements shall be drafted by counsel to the Lead Investor and shall include customary covenants, representations, and warranties of the Company (which shall be liable up to a maximum of the investment amount) reflecting the provisions set forth herein and other provisions typical to venture capital transactions.

## **16. Expenses**



Each party shall pay their own legal and other fees and expenses in the transaction.

### **17. Exclusivity**

In consideration of the Lead Investor committing time and expense to put in place this financing, the Company and Founders agree not to discuss, negotiate, or accept any proposals regarding the sale or other disposition of debt or equity securities, or a sale of material assets of the Company from the date of the Company's signature below.

### **18. Confidentiality**

The Company and Founders agree to treat this term sheet confidentially and will not distribute or disclose its existence or contents outside the Company without the consent of the Lead Investor, except as required to its Shareholders and professional advisors.


### **19. Non-binding Effect**

This Summary of Terms is not intended to be legally binding, with the exception of this paragraph and the paragraphs entitled Expenses, Exclusivity and Confidentiality, which are binding upon the parties hereto and shall be governed and construed in accordance with the laws of Switzerland and Zambia.

**Acknowledged and agreed:**

LEAD INVESTOR

Signed:

DocuSigned by:  
  
BB19DFD3730E41E...


[REDACTED] for and on behalf of KulaDAO AG

Date: 15 May 2023

Address: [REDACTED]

FOUNDERS

Signed:

DocuSigned by:  
  
2CC80A6BFC08491...

[REDACTED] for and on behalf of Bekazulu Mining Limited and all shareholders listed in Annex A.

Date: 15<sup>th</sup> May 2023

Address: [REDACTED]

**ANNEX A****CAPITALISATION TABLE**

<b>Token Holder</b>	<b>Class of Shares</b>	<b>No of Shares</b>	<b>Ownership %</b>
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
KulaDAO	Ordinary	105,000	14%
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
<b>Total</b>		<b>750,000</b>	<b>100.00%</b>

Dear Sir/Madam

Re: Management Rights

This letter will confirm our agreement that pursuant to and effective as of your purchase of 14% or 105,000 shares (the "Company"), KulaDAO AG (the "Lead Investor") and in conjunction with any other investors (the "Investors") mutually agreeable to the Lead Investor and the Company (together, the "Parties", each a "Party") shall be entitled to the following contractual management rights, in addition to any rights to non-public financial information, inspection rights and other rights specifically provided to all investors in the current financing:

### **General rights of the Lead Investor**

If the Lead Investor is not represented on the Company's Board of Directors, the Lead Investor shall be entitled to consult with and advise the management of the Company on significant business issues, including management's proposed annual operating plans and management will meet with the Lead Investor regularly during each year at the Company's facilities at mutually agreeable times for such consultation and advice and to review progress in achieving said plans.

### **Examination of books and records**

The Lead Investor may examine the books and records of the Company and inspect its facilities. The Lead Investor may request information at reasonable times and intervals concerning the general status of the Company's financial condition and operations, provided that access to highly confidential information need not be provided.

Representation on the board

If the Lead Investor is not represented on the Company's Board of Directors (the "Board"), the Company shall invite a representative of the Lead Investor to attend all meetings of the Board in a non-voting observer capacity and, in this respect, shall give such representative of the Lead Investor copies of all notices, minutes, consents and other material that the Company provides to its directors, provided that such representative shall hold in confidence and trust and act in a fiduciary manner with respect to all information received.

The representative may be excluded from access to any material or meeting or portion thereof if the company believed, upon advice of counsel, that such exclusion is

reasonably necessary to preserve legal professional privilege, to protect highly confidential information, or for similar reasons. Upon reasonable notice, and at a scheduled meeting of the Board or such other time, if any, as the Board may determine in its sole discretion, such representative may address the Board with respect to the Lead Investor's concerns regarding significant business issues facing the Company.

### **Confidentiality**

The Lead investor agrees and any representative of the Lead Investor will agree, to hold in confidence and trust and not use or disclose any confidential information provided to or learned by it in connection with its rights under this Agreement.

### **Termination**

The rights described herein shall terminate and be of no further force or effect upon the completion of the sale of the Company's securities pursuant to a registration statement filed by the Company under applicable law. The confidentiality provisions hereof will survive any such termination.

### **Notice**

Any notice to be given under the terms of this Agreement shall be addressed to the Company and the Lead Investor at the address mentioned above or such other address as the Parties may specify in writing to the other Party.

### **Governing Law**

This Agreement will be governed by and interpreted according to Swiss and Zambian law. All disputes arising under this Agreement will be subject to the exclusive jurisdiction of the Swiss courts.

### **Third Party Rights**

No one other than the Company and the Investor have any rights to enforce any part of this Agreement.

**DRILLING AND RESOURCE  
REPORT FOR LICENCE NO.  
[REDACTED] HELD BY  
BEKAZULU MINING LTD**

**BY**

[REDACTED]

**B.Min.Sc Geology**

**JUNE 2019**

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## **SUMMARY**

The Exploration Drilling at the [REDACTED] site for BEKAZULU MINING LIMITED was done with the aim of assessing the quality of the Limestone in the area. The exercise was a follow-up to the surface sampling that was undertaken and had shown some good grade limestone. After the sampling and assaying, a decision was made to plan a phased drilling of the area measuring about 4km by 0.3km. Phase 1 of the drilling project was to drill 6 diamond drill holes to a depth of 50 meters.

A Drilling contract was awarded and [REDACTED] was given the contract to supervise the drilling, do the logging, cutting and sampling of the cores. The marking of the drill hole positions was done using a hand held Garmin 62s GPSmap. The clearing of the access paths and drill sites was done using local people. The drilling started on 02.12.18 and was completed on 20.01.19 with a lot of hiccups. The recoveries were good in good ground but a number of cavities were encountered as is expected in Limestone. The number of holes drilled finally came to 10 after some additions. A number of holes though did not reach the planned depth of 50m due drilling challenges. Due to the distances from the drill sites to Lusaka, cores boxes had to be carried Lusaka for safe keeping and this is where the logging, cutting and sampling took place.

The core was split into half, one half taken to the laboratory for analysis and the other half kept for future reference. A total of 161 samples were taken to the Laboratory for the analysis. The exercise of analysis was undertaken in such a way that most of the samples had to be calcined to make sure we had the right material.

The assays from the drilled area gave very interesting results.

The spacing of the drilled holes cannot allow one to build a proper block model. However a block model was created and gave a good indication of resource. From block model estimates, the drilled area has an inferred resource of 6.6 million tonnes of quicklime-grade limestone at average cut off grades of 90% eq  $\text{CaCO}_3$ . Bekazulu are looking at mining annually around 180, 000 tons. This gives a mine life span of over 30 years.

## **DISCLAIMER**

**This document has been prepared by [REDACTED] for BEKAZULU MINING LTD. Some material included in this document is based on data/information gathered from sources this author had no control over.**



# 1. INTRODUCTION

## 1.1 Location and Access

The BEKAZULU MINING LIMITED License is situated about [REDACTED] in a [REDACTED] in the Eastern Province of Zambia. The deposit is located in an area called [REDACTED]. The area is accessible through a gravel road [REDACTED] and is relatively passable during the rainy season. The population in the area is generally small. It is governed by the availability of water and agricultural soils. The people belong to the [REDACTED]

At the time of field data gathering, there were seven peasant farmer households within the licence area. They cultivate sunflower, sorghum, cotton, soya beans and bananas. Domestic animals include: pigs, goats, chickens, dogs, cats, and cattle. [REDACTED]

## SOIL and VEGETATION

Soils and vegetation are largely controlled by drainage and climate. Generally the area is overlain by sandy plateau soils which are leached near the surface and grades downwards into heavier textured sub-soils. (Trapnell 1943) In the parts where there are no rock outcrops, the soil is fine grained with a dark grey colour.

Vegetation is closely related to soil distribution. Isoberlinia-Brachystegia woodland and chipya vegetation are wide spread. Bamboo thickets are fairly common in the licence area. In general, the lower parts support a dense growth of tall grass with much buffalo beans.

## CLIMATE

The climate consists of a long dry season and a rainy season between November and April. During the dry season the general diurnal temperature range from 10°C to 27°C, but there is a marked increase in temperature during September and October. Throughout the year temperatures are higher in low-lying areas than on the plateau; maximum temperatures may reach 43°C in the [REDACTED]. Although the hot weather coincides with the rainy season, cloudy conditions generally keep temperatures well below the maximum except during October, when thundery conditions are frequent.

## TOPOGRAPHY and DRAINAGE

The licence area lies within the [REDACTED]

In the project area several seasonal streams were documented among them are [REDACTED] and [REDACTED] streams. They flow from NW to SE. At the time the fieldwork was undertaken, all streams were dry. The area is made up of low topographic relief and sparse vegetation due to farming taking place. Deep soil profile cover obscures much of the underlying geology. Around the area of interest are outcrops of Calcitic limestone rocks.

It is bound by latitudes [REDACTED] to [REDACTED] and longitudes [REDACTED] to [REDACTED]. It covers an area of 362.2 Ha. The Licence is under the name Bekazulu Mining limited. It is bound to the north by the stream and hills to the west.

## **1.2 Previous work**

The limestone in the area was previously worked on by [REDACTED]. The dug limestone was burnt in kilns and the product transported to [REDACTED] for constructional purposes. Some was used agriculturally. The material quarried was coarse grained, white Calcite with a variable dolomitic content. In spite of the magnesium content, these quarries proved a valuable local source of lime, owing to the paucity of this material in the [REDACTED]. Trenches and pits were found indicating the area had had been worked on by previous explorers

## **1.3 Scope of Work**

The scope of works among others included the following:

Supervision of the core drilling

Logging of the extracted core samples

Splitting of the extracted core

Sampling of the core

Produce a technical report after sample analysis

## 2. GEOLOGICAL SETTING

### 2.1 Regional Geology

Regionally, the project area falls under an area which is underlain by the Precambrian rocks. The Precambrian rocks of the [REDACTED] form a tectonic unit referred to as the [REDACTED]. This is made up of igneous and metamorphic, predominantly gneissic rocks that trend uniformly north-north-east. The western edge of the belt is formed by the [REDACTED]. Its mobility is illustrated by the manner in which it transects and deflects strata that continue into the area from the west. The regional strike of these in the [REDACTED] is east-north-east, but west of the [REDACTED] they are deflected to north-north-east by the mobile belt. The boundary between these two major tectonic units is a zone of dislocation marked by faulting and migmatization.

Mapping of the [REDACTED] and [REDACTED] areas by the previous geologists has demonstrated that regeneration of the [REDACTED] is directly related to the batholithic activity. Emplacement of the batholith was accompanied by prolonged diastropism at high temperatures. Movement of the material within the mobile belt appears to have been through gradual migration of various stages into the development of the batholith, with the resultant formation of the syntectonic granite. As temperatures dropped, fault-breccia developed in the north. Fault zones east and west of [REDACTED] are marked by [REDACTED] [REDACTED] indicating that low-temperature siliceous fluids were active at a late stage. [REDACTED] is rare south of [REDACTED] owing to the persistence of high temperatures near the batholith.

The mobile belt has the following features:

1. Steeply dipping gneisses in which tight isoclinal folds are locally preserved
2. Late strike faults in the north passing southwards into zones of plastic flow
3. Subsequent cross faults and oblique faults, chiefly in the north-east, off-setting the strike faults
4. Fold axes and rod structures sub-parallel to the mobile belt but plunging north-north-east or south-south-west from 15° to 50°.

## 2.2 Local Geology

The limestone body occur within the lower zones of the [REDACTED] [REDACTED] comprising of mainly gneiss, granitic gneiss and migmatite. The contact between the carbonate bodies and the Basement is sharp and vertical. The dips within the limestone are difficult to determine due to irregular shape occurrence of the rocks but those measured are almost vertical (87/263).

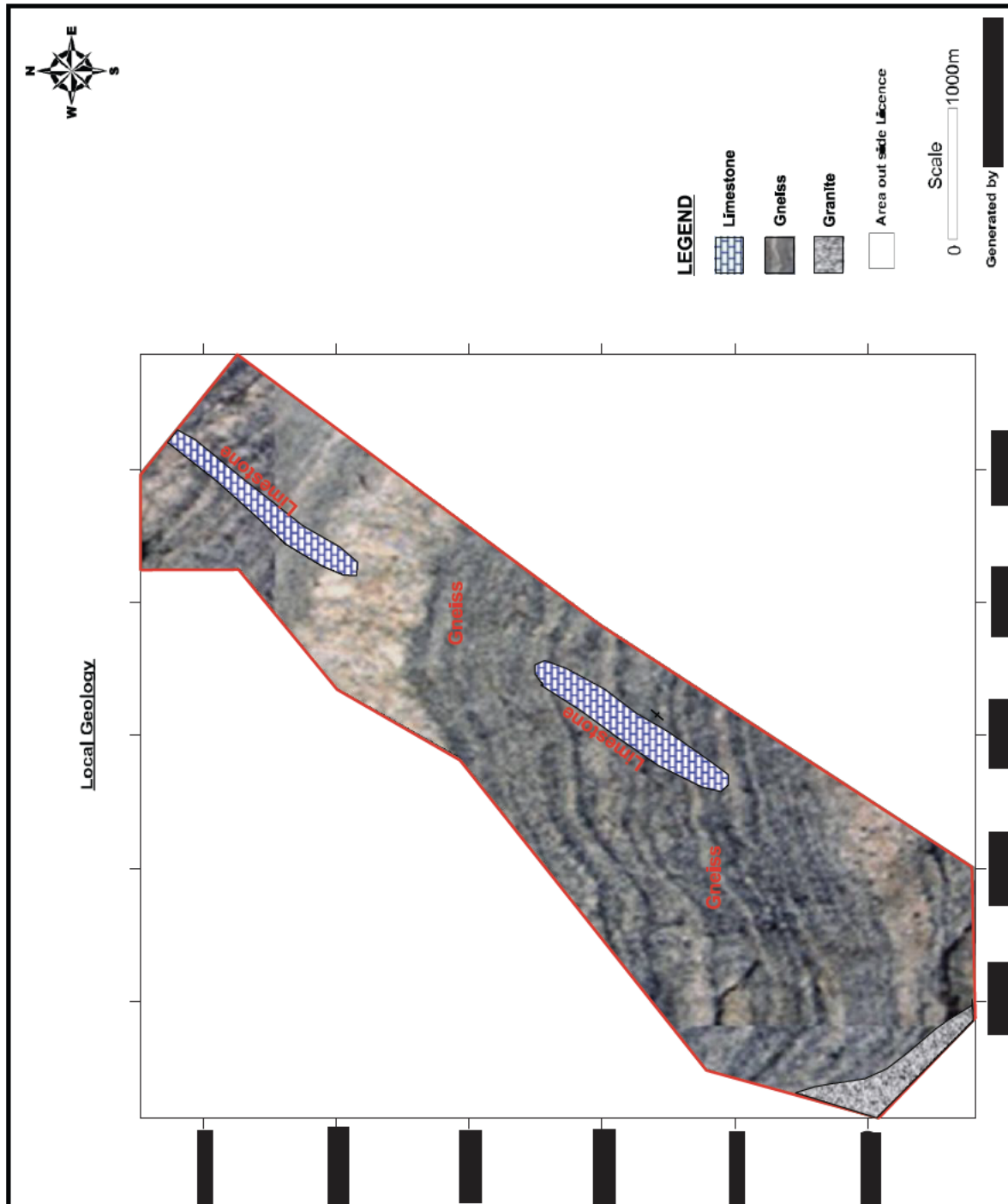


Figure 2. Local Geological Map showing the limestone [REDACTED]






### 3. DESCRIPTION OF THE [REDACTED] LIME Limestone

The limestone in the [REDACTED] area is known to be part of the [REDACTED] [REDACTED]. The limestone has steep dips of between 83° and 88° to the East-southeast and extends along the northeast-southwest strike. The limestone is highly calcitic. The calcitic limestone is about 30 to 40 metres wide and is bounded by basement rocks on the foot wall and hanging wall. We were able to differentiate 9 different limestone types using the physical properties. We named the different types U1 to U9 and the descriptions are as below:

The table below summarises the descriptions of the limestone at the Bekazulu lime area.

Rock Type Codes	Rock Type	Rock Description
U1	Limestone	White, medium to coarse grained, hard massive limestone. Moderately rough with low white mica content. Some have green spots of the mineral apatite within the matrix
U2	Limestone	White, very coarse grained, hard, thickly laminated with a sugary texture. Has low mica content.
U3	Limestone	Brownish-white, medium to coarse grained, slightly Sugary limestone with low mica content.
U4	Limestone	Grey to brownish grey, medium to coarse grained Sugary limestone with low mica brown mica content.
U5	Limestone	Brownish white, medium to coarse grained, sugary texture with high brown mica content.
U6	Limestone	Grey to whitish grey, coarse grained limestone with high brown mica.
U7	Limestone	White to pinkish grey, coarse grained with high mica.
U8	Limestone	Greyish-white coarse grained, high mica with lenses and beds of dark grey to grey, visible sulphide presence.
U9	Limestone	Greyish-white, very coarse grained rock. The limestone has very high brown mica flakes. The difference from the others is the distinct big mica flakes.

**Table 1: Summary description of [REDACTED] limestone rocks**

TYPE	COLOUR	GRAIN SIZE	TEXTURE	MICA	PICTURE
U1	WHITE	MEDIUM TO COARSE	MODERATELY ROUGH	LOW	
U2	WHITE	VERY COARSE	SUGARY	LOW	
U3	BROWNISH WHITE	MEDIUM TO COARSE	SUGARY	LOW	
U4	BROWNISH GREY	COARSE	SUGARY	LOW	
U5	WHITISH BROWN	COARSE	SUGARY	HIGH	
U6	WHITISH GREY	MEDIUM TO COARSE	ROUGH	HIGH	
U7	PINKISH WHITE	COARSE	MODERATELY ROUGH	HIGH	
U8	GREYISH WHITE WITH DARK LAMINAE	CRYSTALLINE CALCITE	MODERATELY SMOOTH	HIGH MICA WITH SULPHIDES	
U9	GREY TO LIGHT GREY	COARSE TO VERY COARSE	ROUGH	VERY HIGH BIG MICA FLAKES	

**Table 2: Descriptions of the Rock units**

#### 4. THE DRILLING PROJECT

The drilling started on 02.12.18 and was completed on 20.01.19 with a lot of hiccups. The core recoveries were very good in good ground but a number of cavities were encountered as is expected in Limestone. The number of holes drilled finally came to 10 instead of the 06 originally budgeted for. Due to the proximity of the drill sites to the nearest power source, core boxes had to be carried to the [REDACTED] for safe keeping and this is where the logging, cutting and sampling for hole one took place. The other holes had to be transported to Lusaka after the drilling for logging, cutting and sampling.



Picture 1: Drilling site in [REDACTED]

After the drilling program the core was split into half, one half taken to the laboratory for analysis and the other half kept for future reference. A total of 161 samples were taken to the Laboratory for the analysis. The exercise of analysis was undertaken in such a way that most of the samples had to be calcined to make sure we had the right material.



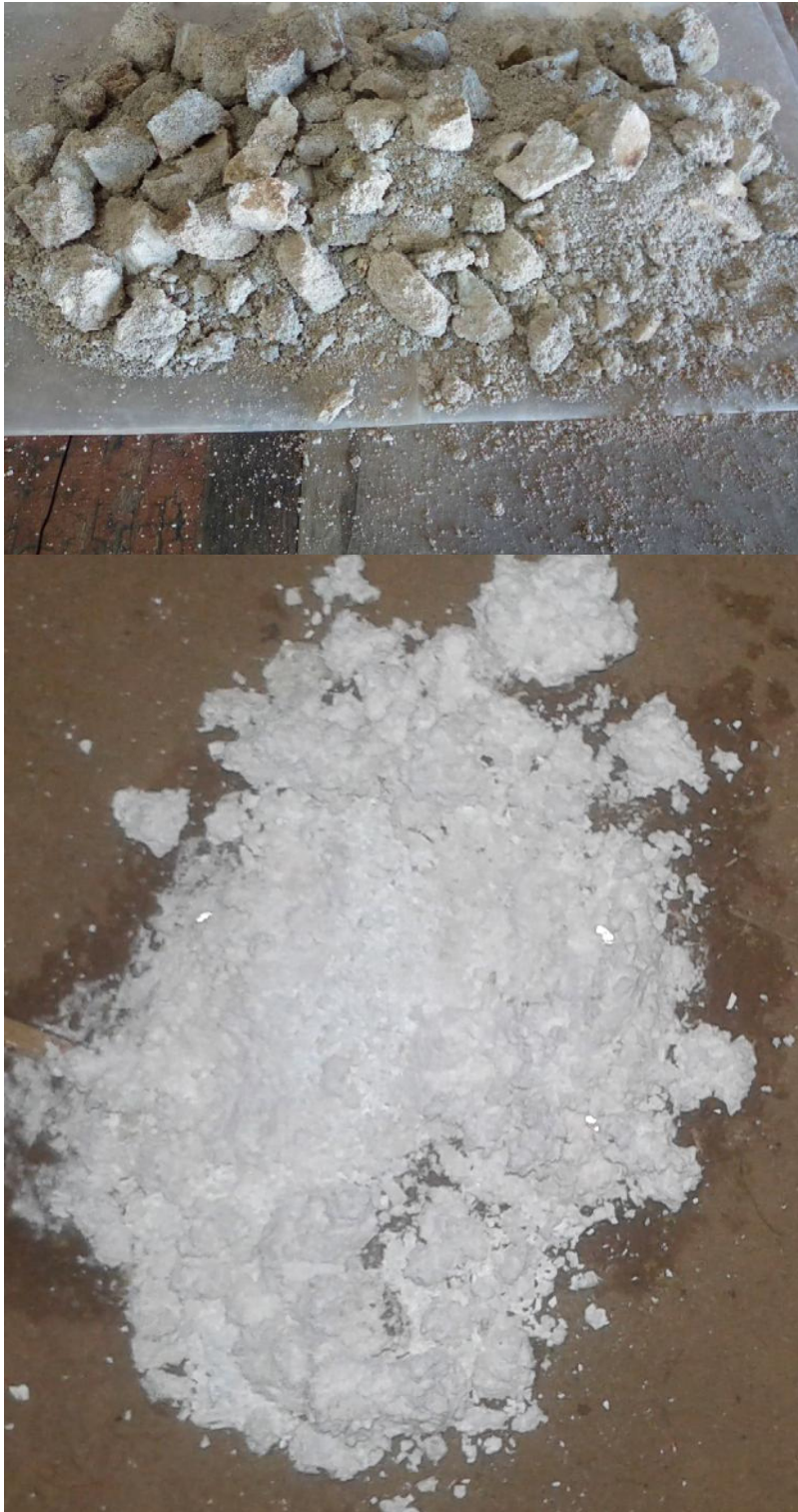


Picture 2: Core trays

The assays from the drilled area showed very interesting results.

The spacing of the drilled holes cannot allow one to build a proper block model but to give an indication of the limestone resource. With more resources it would be interesting to test drill the whole area. It is also important that we know which formation gives brown quicklime when calcined.





Pictures3: Showing the brown and white quicklime

████████████████████ did the surveying and pickup of the actual collar positions of the holes drilled.

Hole ID	UTM_mE	UTM_mN	ELEVATION	DIP	BEARING	FINAL DEPTH
████████ 01	████████	████████	794.15	-45.29	272.38	51
████████ 02	████████	████████	796.35	-59.35	297.03	40
████████ 03	████████	████████	799.07	-57.06	308.52	42
████████ 04	████████	████████	802.76	-52.13	278.31	40
████████ 05	████████	████████	806.67	-56.05	271.11	50
████████ 06	████████	████████	809.79	-55.11	259.46	50
████████ 07	████████	████████	810.25	-50.04	253.17	29
████████ 08	████████	████████	811.65	-90.00		50
████████ 09	████████	████████	812.02	-46.55	282.06	32
████████ 10	████████	████████	814.20	-50.35	241.06	15

**Table 3: The coordinates of the collar positions for the holes drilled**

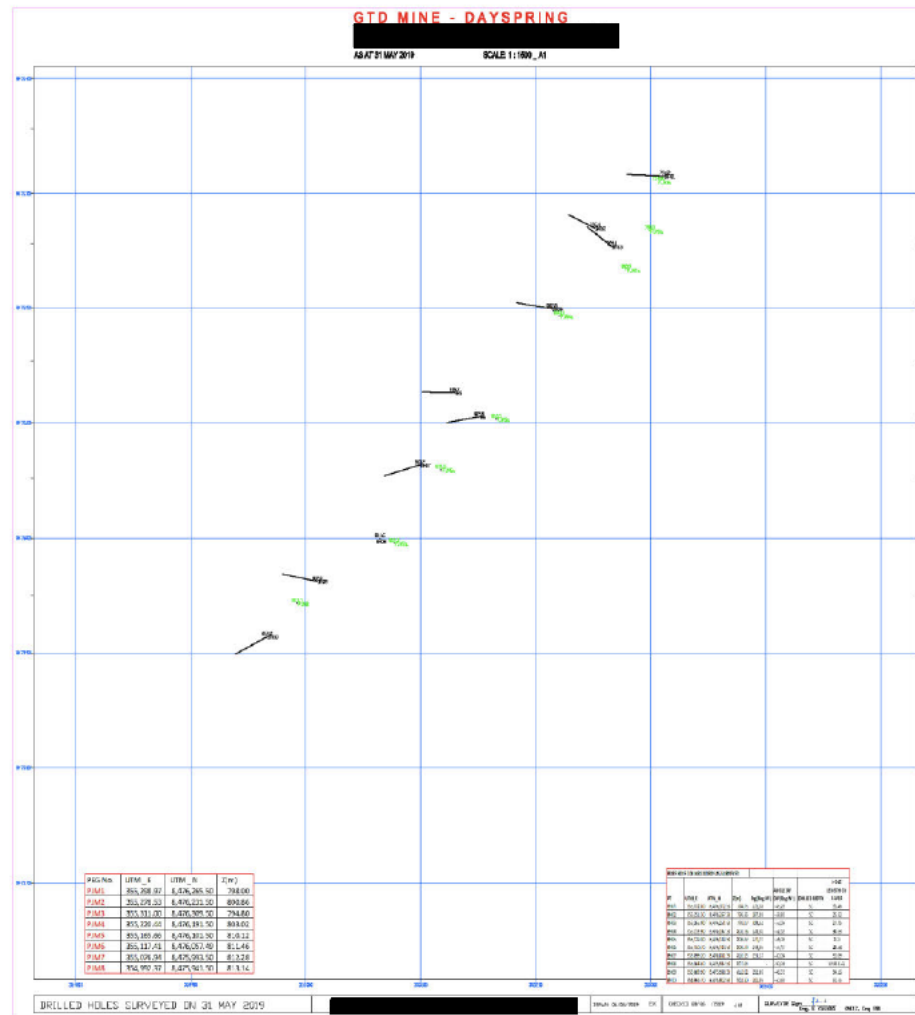
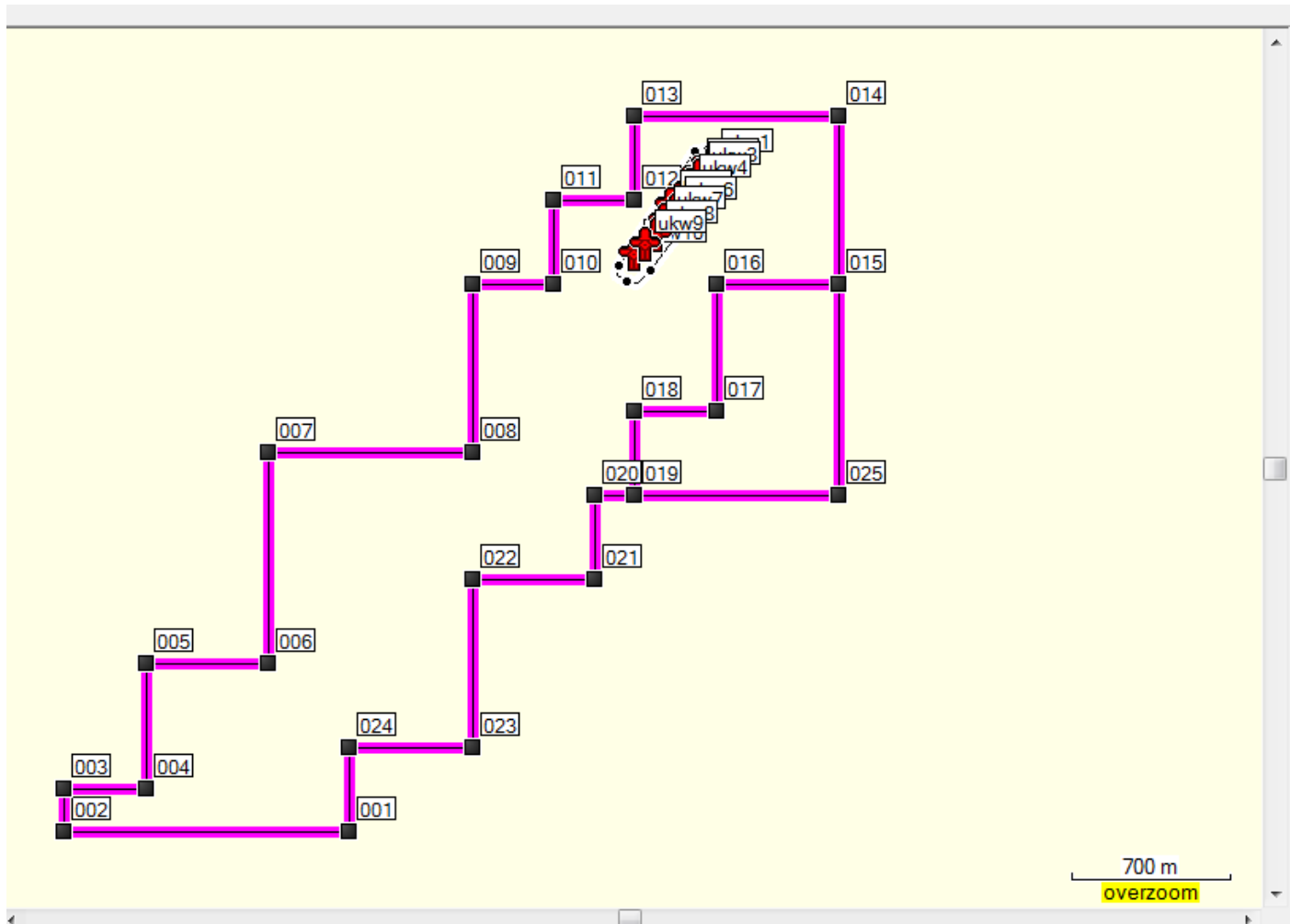
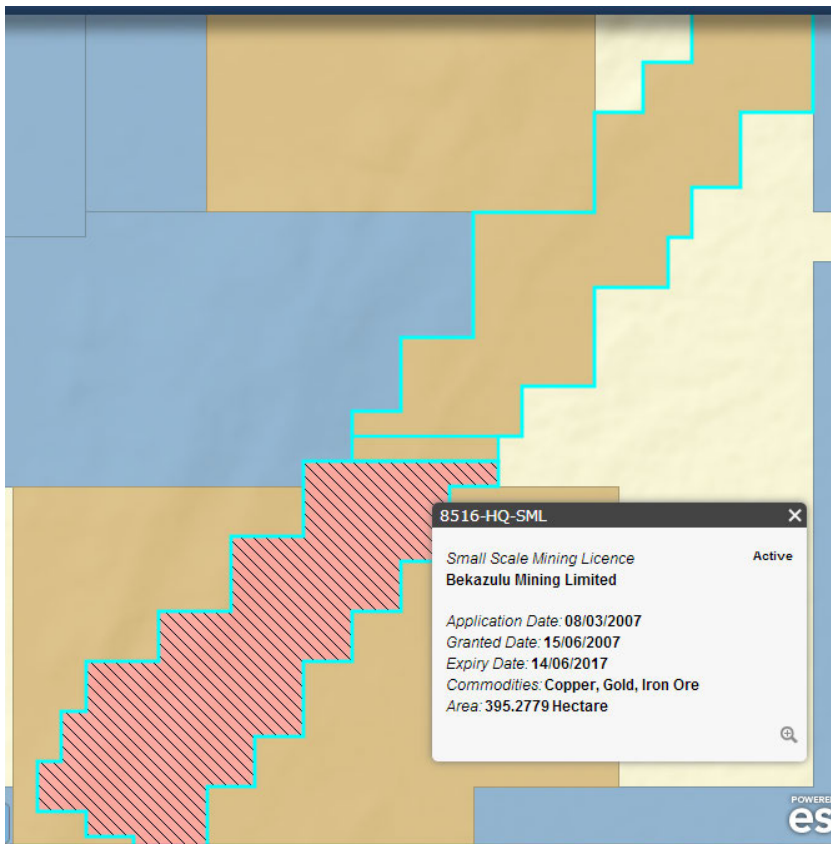
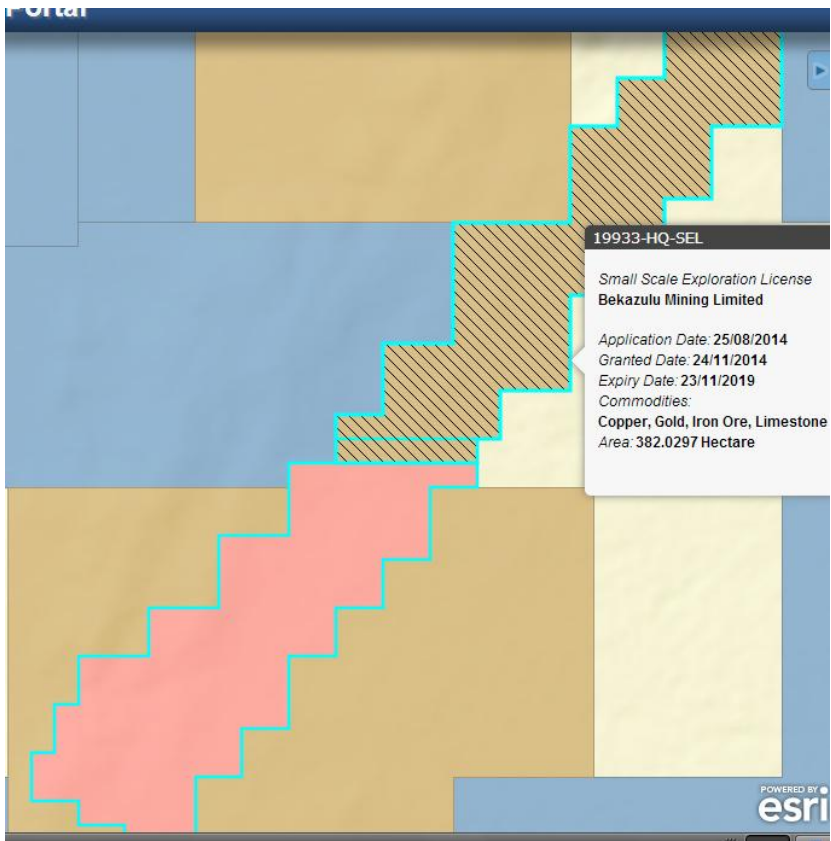


Figure 3. A plan showing the collar positions of all the 18 drilled holes



**Figure 4: Plan showing the coverage of the licence area drilled. The licence has a possible mineralization area of about 4km and only 700 meters was tested by drilling.**

The maps below shows location for the license [REDACTED] in relation to [REDACTED] [REDACTED] Limestone outcrops have been observed in this license and we believe that the good limestone deposit runs in this area as well. It is thus advisable that we test the remaining part of [REDACTED]



**Figure 5: Maps of the two licences**

## 5. DRILLING DATA ANALYSIS

The table below shows the thicknesses of the quicklime-grade limestone intercepted in each of the 10 holes drilled. The cut of grades applied to this analysis is **above 90% eq CaCO<sub>3</sub> and <2% MgO**. The average thickness of good quality limestone from the 10 holes is as shown below;

HOLE ID	QUICKLIME-GRADE L/STONE THICKNESSES(m)	%CaCO <sub>3</sub>	%MgO	LOI
UKW 01	<b>36.90</b>	95.01	0.76	42.03
UKW 02	<b>11.60</b>	96.60	1.61	42.51
UKW 03	<b>28.80</b>	96.82	1.52	42.60
UKW 04	<b>21.20</b>	97.13	1.36	42.74
UKW 05	<b>15.50</b>	97.67	1.11	42.97
UKW 06	<b>25.40</b>	97.43	1.22	42.87
UKW 07	<b>19.00</b>	96.60	1.41	42.28
UKW 08	<b>25.30</b>	97.19	1.27	42.76
UKW 09	<b>14.50</b>	97.96	0.97	43.11
UKW 10	<b>4.70</b>	98.02	1.04	42.71

**Table 4: Table shows all drilled holes with intercept thickness of good limestone**

Of concern are the sections of the drill holes that gave high Magnesium Oxide, MgO. For example drill hole No. 8 gave thickness of over 20m with MgO above 2% (see appendix). Magnesium oxide is a problem in high calcium lime as it affects the reactivity of the lime. The dissociation temperatures (temperatures when CO<sub>2</sub> is driven off) for high calcium oxide is about 898°C, while magnesium oxide is about 760°C. This makes the magnesium oxide 'hard burned' and therefore, slow slaking and less active. In most applications, other than steel manufacture, MgO is not desirable.

The majority of customers for quicklime purchase lime for two main requirements – available lime and reactivity.

Another issue of concern is the presence of sulphide bands observed in the same hole No. 8. Sulphur usually combines with CaO at appropriate temperatures and produce calcium sulphide or calcium sulphate. This generally happens on the surface of calcined material and makes the material non porous, thus reducing its reactivity.

**A block model was created to run a resource evaluation and a total of 6.6 million tonnes of quicklime grade limestone was calculated. This number is an inferred resource as the data from the holes drilled is not sufficient to give a correctly measured resource. The Cut-off is used 90% eq. CaCO<sub>3</sub>**

An inferred resource is one that is based on limited sampling data and thus has low confidence levels. Mineral resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.

## 6. OBSERVATIONS

1. The drilling done has shown us that the area has good limestone which is very suitable for quicklime production.
2. There is very little soil cover on the limestone. Holes 1 to 7 had 0-1 meter of soil cover and these holes were drilled at an average angle of  $-55^{\circ}$ . The only vertical hole which is hole 8 had 1.5 metres of soil cover. Holes 9 and 10 had 5.5 and 3.5 metres of soil cover respectively. The soil found down the inclined holes is simply weathering zones on bedding planes filled with soil.
3. The limestone is steeply dipping with dips of around  $87^{\circ}$ . It has not been easy to get the actual dips due to the irregular and massive nature of the limestone bodies but will be confirmed once the rock is blasted.
4. The limestone is Calcitic and highly micaceous. Some of the samples gave brown quicklime after calcining which we attributed to the mica though the assays show an association with the MgO. Most samples with high MgO produced brown quicklime though more work needs to be done to confirm this.
5. The drilled area only covers a distance of 800m leaving a distance of over 3km to be tested by drilling. We thus recommend that drilling be done in this area so as to increase our resource base and life of mine.

## 7. RECOMMENDATIONS

-It is highly recommended that more tests be carried out to understand the characteristics and behaviour of the limestone after calcining. Of concern is the ability of the limestone to withstand the temperatures and remain intact. This will help us know which units are suitable for the production of lumpy quicklime which some of the would-be-clients require. We also need to understand the association of the brown quicklime with the MgO and mica.

-it is recommended to drill more holes to increase the resource, the confidence and life of mine. The drilling and testing should extend into license [REDACTED] which also has some outcrops of limestone rocks.

## 8. CONCLUSION

The drilled area has big potential for a huge deposit of quicklime-grade limestone. It is worth spending money for a full exploitation drilling of the limestone.

**Using economic cut-off grades of above 90% eq CaCO<sub>3</sub> and average thickness of good quality limestone from the 10 holes, the drilled area has an estimated 6.6 million inferred tonnes of quicklime-grade limestone.**

This will give us a mine that can have a lifespan of over 30 years at the planned plant production of 200 tonnes of quicklime per day.

## Appendix 1. SAMPLE RESULTS

BHID	SAMPLE ID	From	To	THICKNESS	LOI	%TCaO	Eq. CaCO <sub>3</sub>	%MgO	COLOUR	LITHOLOGY
U01		0.0	1.0	1.0						SOIL
U01	001	1.0	1.5	0.5	42.82	54.49	97.24	0.33		LST
U01	002	1.5	1.7	0.20	41.05	50.16	89.52	1.26		LST
U01										SOIL
U01	003	2.0	3.0	1.00	42.28	53.41	95.32	0.33		LST
U01										SOIL
U01	004	4.0	4.5	0.50	43.05	54.52	97.30	0.33		LST
U01	005	4.5	5.0	0.50	43.03	54.95	98.06	0.33		LST
U01										SOIL
U01	006	5.2	5.4	0.20	42.91	53.36	95.23	0.34		LST
U01										SOIL
U01	007	7.2	9.0	1.80	41.78	51.36	91.66	1.04		LST
U01										SOIL
U01	008	9.0	10.0	1.00	42.98	53.08	94.73	0.66		LST
U01	009	10.0	12.0	2.00	42.48	53.42	95.33	0.99		LST
U01	010	12.0	14.0	2.00	42.22	52.01	92.82	0.33		LST
U01	011	14.0	16.0	2.00	43.08	54.29	96.89	1.01		LST
U01	012	16.0	18.0	2.00	39.72	52.87	94.35	0.84		LST
U01	013	18.0	20.0	2.00	43.00	55.04	98.22	0.67		LST
U01	014	20.0	22.0	2.00	42.84	54.01	96.39	1.01		LST
U01	015	22.0	24.0	2.00	42.49	55.12	98.37	0.33		LST
U01	016	24.0	26.0	2.00	42.80	54.75	97.71	0.50		LST
U01	017	26.0	28.0	2.00	42.58	54.47	97.21	0.84		LST
U01		28.0	30.0	2.00	42.0	53.59	95.64	1.01		LST



	018		0		3					
U01	019	30.0	32.0	2.00	42.6	54.91	97.99	0.34		LST
U01	020	32.0	33.5	1.50	41.1	51.77	92.39	1.01		LST
U01	021	33.5	35.8	2.30	40.7	51.86	92.56	1.04		LST
U01	022	35.8	37.8	2.00	41.2	52.46	93.62	0.66		LST
U01	023	37.8	38.5	0.70	39.4	50.16	89.51	0.99		LST
U01	024	38.5	40.5	2.00	40.2	1.15	2.04	5.63		SCHIST
U01	025	40.5	42.3	1.80	42.2	4.75	8.47	4.63		SCHIST
U01	026	42.3	43.0	0.70	40.2	51.25	91.47	1.01		LST
U01	027	43.0	45.0	2.00	42.2	53.72	95.93	1.94		LST
U01	028	45.0	47.0	2.00	41.0	52.24	93.29	3.19		LST
U01	029	47.0	49.0	2.00	41.4	52.72	94.13	2.79	b	LST
U01	030	49.0	51.0	2.00	30.8	39.24	70.07	14.25	b	LST
U02		0.0	0.8	0.80						SOIL
U02	031	0.8	3.0	2.20	41.8	53.30	95.18	2.30		LST
U02	032	3.0	4.0	1.00	41.6	53.02	94.68	2.53		LST
U02	033	4.0	4.5	0.50	41.6	53.02	94.68	2.53	b	LST
U03		4.5	6.2	1.70						SOIL
U02	034	6.2	8.2	2.00	42.2	53.81	96.09	1.86		LST
U02	035	8.2	10.2	2.00	42.6	54.32	97.00	1.43		LST
U02	036	10.2	12.0	1.80	38.5	49.09	87.66	5.88	b	LST
U02	037	12.0	13.4	1.40	42.3	53.95	96.34	1.74		LST
U02		13.4	15.8	2.40						SOIL
U02	038	15.8	18.0	2.20	42.2	53.81	96.09	1.86		LST
U02	039	18.0	20.0	2.00	42.9	54.61	97.52	1.18		LST

U02	040	20.0	22.0	2.00	42.5	54.12	96.63	1.60		LST
U02	041	22.0	24.0	2.00	40.5	51.61	92.16	3.74		LST
U02	042	24.0	25.0	1.00	30.1	38.40	68.57	14.97	b	LST
U02		25.0	40.0	15.00						SCHIST

U03	043	0.0	2.0	2.00	42.3	53.84	96.13	1.84		LST
U03	044	2.0	2.4	0.40	38.4	48.88	87.29	6.05	b	LST
U03	045	2.4	4.4	2.00	39.7	50.58	90.32	4.61	b	LST
U03		4.4	6.5	2.10						SOIL
U03	046	6.5	8.5	2.00	41.8	53.29	95.16	2.31		LST
U03	047	8.5	10.5	2.00	42.1	53.68	95.86	1.97		LST
U03	048	10.5	12.5	2.00	41.8	53.30	95.18	2.30		LST
U03	049	12.5	14.5	2.00	44.1	56.16	100.2	0.02		LST
U03	050	14.5	16.5	2.00	42.1	53.61	95.72	2.04		LST
U03	051	16.5	17.0	0.50	43.2	55.02	98.25	0.83		LST
U03	052	17.0	19.0	2.30	43.1	54.92	98.07	0.92		LST
U03		19.3	20.6	1.30						SOIL
U03	053	20.6	22.0	2.00	43.2	55.01	98.22	0.85		LST
U03	054	22.6	23.8	1.20	41.0	52.28	93.36	3.16		LST
U03		23.8	24.5	0.70						SOIL
U03	055	24.5	26.0	2.00	42.7	54.45	97.22	1.32		LST
U03	056	26.5	28.0	2.00	42.6	54.32	97.00	1.43		LST
U03	057	28.5	30.0	2.00	38.0	48.45	86.52	6.42	b	LST
U03	058	30.5	31.5	1.00	42.3	53.91	96.27	1.78	b	LST
U03		31.5	32.0	1.00						SOIL

U03	059	32.5	34.5	2.00	41.73	53.11	94.84	2.46		LST
U03	060	34.5	36.5	2.00	42.32	53.86	96.18	1.82	b	LST
U03	061	36.5	38.2	1.70	42.67	54.22	96.82	1.52		LST
U03		38.2	38.7	0.50						SOIL
U03	062	38.7	40.7	2.00	42.56	54.17	96.72	1.56		LST
U03	063	40.7	42.0	1.30	42.25	53.77	96.02	1.90		LST

U04	064	0.0	2.0	2.00	41.02	52.21	93.22	3.23		LST
U04	065	2.0	4.0	2.00	42.89	54.59	97.47	1.20		LST
U04	066	4.0	6.0	2.00	42.56	54.17	96.72	1.56		LST
U04	067	6.0	8.2	2.20	40.12	51.06	91.18	4.20	b	LST
U04	068	8.2	9.0	0.80	39.42	50.17	89.59	4.96	b	LST
U04	069	9.0	11.0	2.00	42.56	54.17	96.72	1.56	b	LST
U04	070	11.0	13.0	2.00	41.23	52.47	93.70	3.00	b	LST
U04	071	13.0	15.0	2.00	43.12	54.88	98.00	0.95		LST
U04	072	15.0	17.0	2.00	42.98	54.70	97.68	1.11		LST
U04	073	17.0	19.0	2.00	42.56	54.17	96.72	1.56		LST
U04	074	19.0	21.0	2.00	42.85	54.54	97.38	1.25		LST
U04	075	21.0	23.0	2.20	43.05	54.79	97.84	1.03		LST
U04	076	31.0	32.0	1.00	43.21	54.99	98.20	0.86		LST
U04	077	32.0	34.0	2.00	42.15	53.64	95.79	2.00		LST
U04	078	34.0	36.0	2.00	42.23	53.75	95.97	1.92	b	LST
U04		36.0	40.0	4.00						SOIL

U05		0.0	1.5	1.50						SOIL
U05		1.5	2.5	1.00	42.8	54.59	97.47	1.20		LST

	079				9					
U05		2.5	6.5	4.00						SOIL
U05	█	080	6.5	8.5	2.00	43.1 2	54.88	98.00	0.95	LST
U05	█	081	8.5	10. 5	2.00	42.8 9	54.59	97.47	1.20	LST
U05	█	082	10.5	12. 5	2.00	43.2 4	55.03	98.27	0.82	LST
U05	█	083	12.5	14. 5	2.00	41.9 8	53.43	95.41	2.19	b
U05		14.5	15. 2	0.70						SOIL
U05	█	084	15.2	17. 2	2.00	43.4 8	55.34	98.82	0.56	LST
U05	█	085	17.2	19. 2	2.00	40.3 7	51.38	91.75	3.93	LST
U05	█	086	19.2	21. 2	2.00	43.2	54.98	98.18	0.87	LST
U05	█	087	21.2	22. 8	1.60	43.2 8	55.08	98.36	0.78	LST
U05		22.8	23. 5	0.70						SOIL
U05	█	088	23.5	24. 1	0.60	42.7 0	54.34	97.04	1.41	LST
U05	█	089	24.8	25. 1	0.30					LST
U05		25.1								SOIL

U06		0.0	0.4	0.4						SOIL
U06	█	090	0.4	1.0	0.6	42.9 9	54.71	97.70	1.09	LST
U06		1.0	3.0	2.0						SOIL
U06	█	091	3.0	3.5	0.5	41.8 1	53.21	95.02	2.37	LST
U06	█	092	3.5	4.5	1.0	40.2 9	51.28	91.57	4.02	b
U06		4.5	13. 5	9.0						SOIL
U06	█	093	13.5	14. 5	1.0	41.0 5	52.24	93.29	3.19	b
U06		14.5	16. 0	1.5						SCHIST
U06	█	094	16.0	18. 0	2.0	41.5 4	52.87	94.41	2.66	LST
U06	█	095	18.0	20. 0	2.0	41.6	52.94	94.54	2.60	LST
U06	█	096	20.0	22. 0	2.0	41.0 1	52.19	93.20	3.24	LST

U06	097	22.0	24.0	2.0	42.7	54.43	97.20	1.33		LST
U06	098	24.0	26.0	2.0	42.7	54.46	97.25	1.31		LST
U06	099	26.0	28.0	2.0	42.9	54.62	97.54	1.17		LST
U06	100	28.0	30.0	2.0	43.1	54.85	97.95	0.98		LST
U06	101	30.0	31.0	1.0	43.0	54.83	97.91	1.00		LST
U06		31.0	31.2	0.2						SOIL
U06	102	31.2	33.2	2.0	43.0	54.75	97.77	1.06		LST
U06	103	33.2	35.2	2.0	42.5	54.09	96.59	1.62		LST
U06	104	35.2	37.2	2.0	42.8	54.59	97.47	1.20		LST
U06	105	37.2	39.2	2.0	41.9	53.39	95.34	2.22		LST
U06	106	39.2	41.2	2.0	42.5	54.09	96.59	1.62		LST
U06		41.2	42.0	0.8						SOIL
U06	107	42.0	44.0	2.0	42.3	53.94	96.32	1.75		LST
U06	108	44.0	46.0	2.0	43.4	55.35	98.84	0.55		LST
U06		46.0	48.2	2.2						SOIL
U06	109	48.2	49.0	0.8	43.3	55.22	98.61	0.66		LST
U06	110	49.0	50.0	1.0	43.2	55.10	98.38	0.77		LST

U07	111	0.0	2.0	1.00	43.2	55.02	98.25	0.83		LST
U07	112	2.0	4.0	2.00	42.1	53.58	95.68	2.06	b	LST
U07	113	4.0	6.0	2.00	42.2	53.72	95.93	1.94		LST
U07	114	6.0	8.0	2.00	41.2	52.47	93.70	3.00	b	LST
U07	115	8.0	10.0	2.00	41.2	52.51	93.77	2.97	b	LST
U07	116	10.0	12.0	2.00	42.8	54.54	97.38	1.25		LST
U07		12.0	14.0	2.00	42.5	54.17	96.72	1.56		LST

	117		0		6					
U07	118	14.0	16.0	2.00	41.0	52.21	93.22	3.23	b	LST
U07	119	16.0	18.0	2.00	43.2	55.03	98.27	0.82		LST
U07	120	18.0	20.0	2.00	39.1	52.87	94.15	0.80		LST
U07	121	20.0	22.0	2.00	43.6	55.50	99.11	0.42		LST
U07	122	22.0	24.0	2.00	41.8	53.31	95.20	2.28	b	LST
U07		24.0	25.0	2.00						SOIL
U07	123	25.0	27.0	2.00	41.5	52.89	94.45	2.64	b	LST
U07	124	27.0	29.0	2.00	42.0	53.47	95.47	2.16	b	LST

U08		0.0	1.5	1.50						SOIL
U08	125	1.5	3.5	2.00	40.5	51.56	92.07	3.78	b	LST
U08	126	3.5	5.5	2.00	41.2	52.47	93.70	3.00	b	LST
U08	127	5.5	7.5	2.00						LST
U08	128	7.5	9.0	1.50	41.0	52.24	93.29	3.19	b	LST
U08	129	9.0	9.5	0.50	41.0	52.22	93.25	3.22	b	LST
U08	130	9.5	11.5	2.00	41.6	52.97	94.59	2.58	b	LST
U08	131	11.5	13.5	2.00	41.2	52.47	93.70	3.00	b	LST
U08	132	13.5	15.5	2.00	42.8	54.59	97.47	1.20		LST/SULPHIDES
U08	133	15.5	17.5	2.00	42.6	54.26	96.88	1.48	b	LST/SULPHIDES
U08	134	17.5	19.5	2.00	43.1	54.93	98.09	0.91		LST
U08	135	19.5	21.5	2.00	42.9	54.70	97.68	1.11		LST
U08	136	21.5	23.5	2.00	42.7	54.41	97.16	1.35		LST
U08	137	23.5	25.5	2.00	42.8	54.52	97.36	1.26		LST
U08	138	25.5	27.5	2.00	42.5	54.17	96.72	1.56		LST
U08		27.5	29.5	2.00	43.1	54.88	98.00	0.95		LST

	139		5		2					
U08	140	29.5	31.5	2.00	43.06	54.80	97.86	1.02		LST
U08	141	31.5	33.5	2.00	42.87	54.56	97.43	1.22		LST
U08	142	33.5	35.5	2.00	42.76	54.42	97.18	1.34		LST
U08	143	35.5	37.0	1.50	42.61	54.23	96.84	1.51		LST
U08	153	37.0	39.0	2.00	39.58	50.37	89.95	4.89		LST
U08	154	39.0	41.0	2.00	41.49	52.81	94.30	2.54		LST
U08	155	41.0	43.0	2.00	42.30	53.84	96.14	1.55		LST
U08	156	43.0	45.0	2.00	42.53	54.13	96.66	1.27		LST
U08	162	45.0	47.0	2.00	40.27	51.25	91.52	4.04		LST
U08	163	47.0	48.2	1.20	33.91	43.16	77.07	11.86		LST/SULPHIDES
U08	164	48.2	50	1.80	42.41	53.98	96.39	1.41		LST

U09		0.0	5.5	5.50						SOIL
U09	144	5.5	6.0	0.50	43.21	54.99	98.20	0.86		LST
U09		6.0	6.5							SOIL
U09	145	6.5	8.5	2.00	43.15	54.92	98.07	0.92		LST
U09		8.5	8.8							SOIL
U09	146	8.8	9.8	1.00	42.86	54.55	97.41	1.24		LST
U09		9.8	14.8							SOIL
U09	147	14.8	16.8	2.00	43.16	54.93	98.09	0.91		LST
U09	148	16.8	18.8	2.00	43.53	55.40	98.93	0.51		LST
U09	149	18.8	20.8	2.00	42.89	54.59	97.47	1.20		LST
U09	150	20.8	22.8	2.00	42.79	54.46	97.25	1.31		LST
U09	151	22.8	24.8	2.00	43.10	54.85	97.95	0.98		LST
U09	152	24.8	25.8	1.00	43.26	55.06	98.32	0.80		LST
U09		25.8	32	6.20						SOIL

U10		0	3.5	3.50						SOIL
U10	157	3.5	4.5	1.00	39.2 0	49.89	89.09	5.36		LST
U10	158	4.5	6	1.50	42.2 3	53.75	95.98	1.63		LST
U10		6.0	9.8	3.80						SOIL
U10	159	9.8	11. 8	2.00	38.9 2	49.53	88.45	5.70		LST
U10	160	11.8	13. 8	2.00	42.7 8	54.45	97.23	0.96		LST
U10	161	13.8	15	1.20	43.1 3	54.89	98.02	0.53		LST

**\*LST mean Limestone.**

**\*b means quicklime produced is brown in colour.**



# LIFE-OF-MINE (LOM) FEASIBILITY STUDY

██████████ Limestone Project

Eastern Province, Zambia



September 2019.

*Designed, Scheduled & Compiled by* ██████████

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## 1.0 Introduction

■■■■ limestone project is located in the Eastern province of Zambia, it is a prospective greenfield open pit mine. The mine has potential to be in operation for many years based on the geological works done so far and the current parameters provided by the client. However, production can rump up once the project matures to meet the market demand in the area and other parts of the country. Geological works have been carried out in the area, and more drilling works are to be carried out in order to fully delineate the limestone mineralization. As such, the pit has the potential for further expansion (pushbacks) especially on the hanging wall side.

The Life of Mine (LOM) schedule is based on the current drilling that has been undertaken by the client, current resource has the potential to supply approximately 5million tonnes of ex-pit limestones. Based on the current resource, ■■■■ project has a long LOM of approximately 45 years. Due to the stockpile build-up, kiln feed will be available after mining operations have depleted the available resource and this will continue feeding the kiln for the next 3 years.

## 2.0 Block Model

The [REDACTED] limestone block model was generated and provided by the client, with the following extents; minimum and maximum Z-elevations of [REDACTED] and [REDACTED] respectively. The minimum and maximum Y – coordinates are [REDACTED] and [REDACTED] respectively whilst the minimum and maximum X coordinates are [REDACTED] and [REDACTED] with defined user block size of 5x5x5 as summarized in table 1 below.

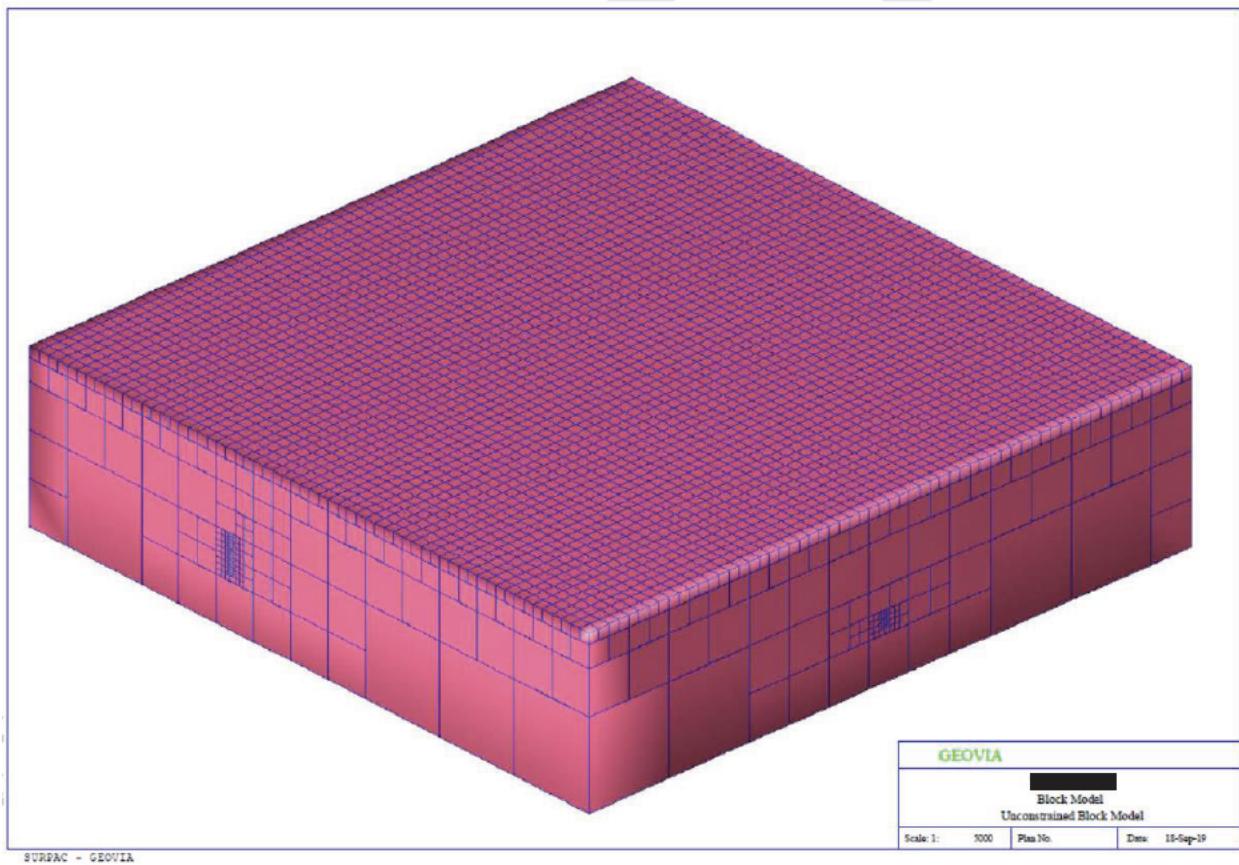


Figure 1: Generated Block Model

## Block Model Summary

Block model:block model 2.mdl

Exported from Leapfrog Geo

Type	Y	X	Z
Minimum Coordinates			
Maximum Coordinates			
User Block Size	5	5	5
Min. Block Size	5	5	5
Rotation	-52.750	0.000	0.000

Total Blocks	92171
Storage Efficiency %	97.33

Attribute Name	Type	Decimals	Background	Description
caco3_2	Calculated	-	-	$\text{iff}(\text{eq\_caco3} > 0, \text{eq\_caco3}, 0)$
eq_caco3	Float	-	0	Renamed from "Eq_CaCO3"
gm	Character	-	-	Renamed from "GM"
mat_type	Character	-	WASTE	Material types used in minesched
mcp_bcm	Calculated	-	-	$(-0.03 * \text{zworld}) + 40.7$
mcp_tonne	Calculated	-	-	$\text{mcp\_bcm} / \text{sg}$
pcmgo	Float	-	0	Renamed from "pcMgO"
sg	Float	2	2.700000047683716	Specific gravity used for material types
zworld	Calculated	-	-	_zcen

Table 1: Block model summary

### 2.1 Block Model Added Attributes

Five major attributes have been introduced in the block model for resource estimation and scheduling purposes and these include zworld, HG (Ore), CaCo3\_2 (grade), air and specific gravity (sg). The HG (ore) attribute defines all the limestone that have been intersected as Ore with the background value of waste. This has been classified as a character type, with background value of waste for all blocks that are not mineralized.

The CaCo3\_2 (grade) attribute with float type has been introduced to define the grades for limestones and waste. This attribute gets rid of all the block model eq\_caco3 grades that have negative values and equates them to Zero values, while maintaining the positive values of eq\_caco3.

The specific gravity (sg) attribute has been introduced in the block model to give different specific gravities to different blocks in the model. In this block model, all the material has the same specific gravity of 2.7 as provided by the client.

zworld attribute with the calculated type gives each block in the block model its specific elevation. This is related to other attributes such as costs attached to such blocks.

mat\_type attribute has been introduced in the model with the character type to define the different material types in the block model provided by the client. The attribute grades provided has some block values with caco3 values less than zero (negative grades values). This attribute has been used in Minesched software for scheduling purposes. Under this attribute, all limestone blocks with eq\_caco3 above or equal to 80% has been classified as HG (Ore) and the rest classified as waste material.

The attribute for Air blocks has been introduced to define all blocks above the topo to be air blocks. This means that all the blocks above the topo have been defined with zero tonnage and volumes. The grades and specific gravities for all the Air blocks have been defined to be zero's as well as they have no block values. This is summarized in the table 1.

## 2.2 [REDACTED] Resource Statement

The block model was used in the estimation of the current in-situ limestones for [REDACTED] resource. The block model was constrained by the topography and the design at [REDACTED] and [REDACTED] respectively, topography elevation was guided by the client. The following table gives the current resource of [REDACTED] open pit at a cut-off grade of 80% CaCo3. There is approximately 5million tonnes of limestones against 7.3million tonnes of waste within the current design.



Mat Type	Z	Volume	Tonnes	Caco3 2
HG	775.0 -> 780.0	183,318	494,957	91.82
	780.0 -> 785.0	207,042	559,014	91.90
	785.0 -> 790.0	204,091	551,045	92.08
	790.0 -> 795.0	201,128	543,045	92.18
	795.0 -> 800.0	197,683	533,744	92.41
	800.0 -> 805.0	190,649	514,752	92.49
	805.0 -> 810.0	186,694	504,074	92.49
	810.0 -> 815.0	177,369	478,896	92.48
	815.0 -> 820.0	159,741	431,302	92.06
	820.0 -> 825.0	129,168	348,754	91.12
Sub Total		<b>1,836,882</b>	<b>4,959,583</b>	<b>92.13</b>
WASTE	775.0 -> 780.0	32,035	86,494	22.26
	780.0 -> 785.0	74,456	201,032	11.91
	785.0 -> 790.0	126,359	341,171	7.49
	790.0 -> 795.0	177,855	480,210	4.64
	795.0 -> 800.0	230,940	623,539	3.19
	800.0 -> 805.0	288,067	777,780	2.60
	805.0 -> 810.0	342,146	923,796	1.74
	810.0 -> 815.0	402,395	1,086,466	1.63
	815.0 -> 820.0	474,214	1,280,378	1.07
	820.0 -> 825.0	558,375	1,507,613	0.86
Sub Total		<b>2,706,844</b>	<b>7,308,478</b>	<b>2.62</b>
Grand Total		<b>4,543,726</b>	<b>12,268,061</b>	

Table 2: [REDACTED] Resource Statement

### 3.0 [REDACTED] Open Pit Design

The block model provided was filtered at calcium carbonate greater or equal to 80 percent ( $\geq 80\%$ ) in order only to remain with material classified as HG (Ore). This was in line with ore solid provided by the client, were re-imported into the original Surpac block model and used as a basis for the design of the pit. There is need to phase the pit into 2 phases, in such a way that a Phase 1 pit will be required to gain earlier access to CaCo3 material so as to meet the plant throughput.

The design parameters used for the pit are tabulated below.

<b>PARAMETER</b>	<b>VALUE</b>
<b>Bench height:</b>	5m
<b>Berm width:</b>	3m
<b>Bench Face Angle</b>	
Foot Wall	70
Hanging Wall	70
<b>Final haul road width:</b>	15m
<b>Final haul road gradient:</b>	10%

Table 3: Pit Design Parameters

The design parameters are not based on any preliminary geotechnical study that has been conducted in the area, this is purely based in reference to other existing mines in the same type of minerals and those provided by the client.

pit design extends to a final depth of 775m a.m.s.l which is approximately 50m below the original ground surface elevation of 825m a.m.s.l. The pit is approximately 935m along the X direction, 220m in the Y direction and extends to a final depth of 50m. The pit will be accessed by one permanent ramp on the footwall side, running from the south-west of the pit. Other temporary ramps on the hanging wall side may be used during mining.

Figure 2 shows view of the pit design, while figure 3 shows the same pit superimposed onto the HG (Ore) blocks.

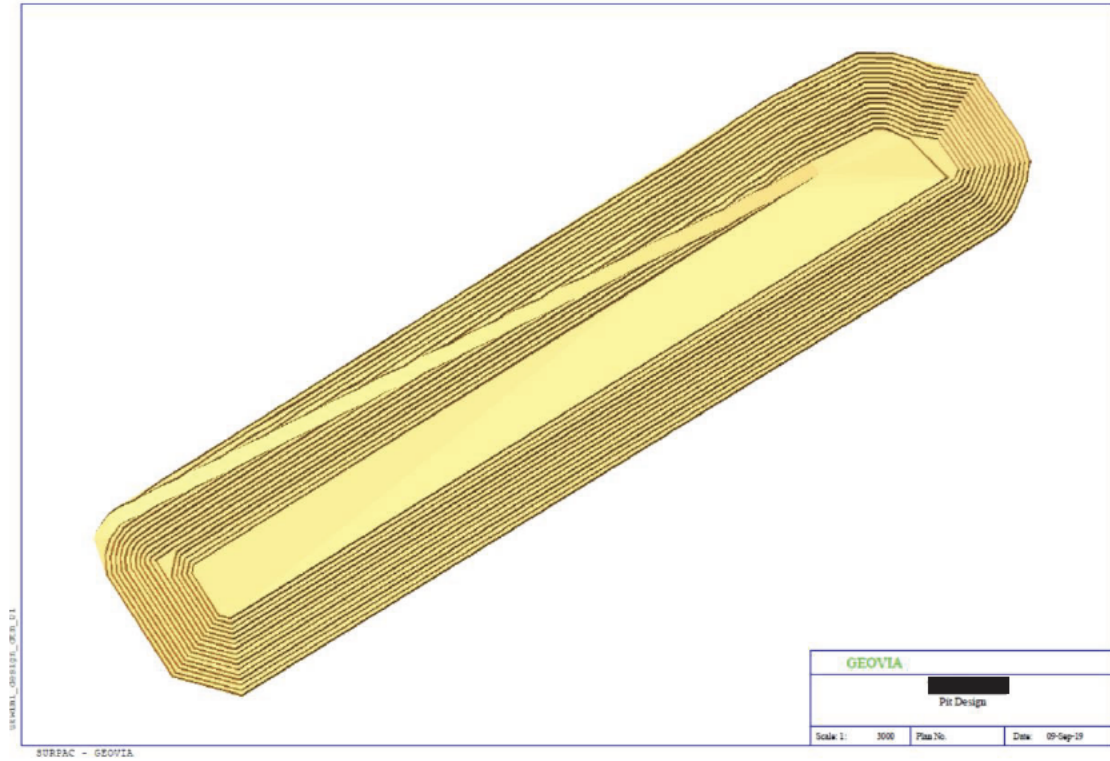
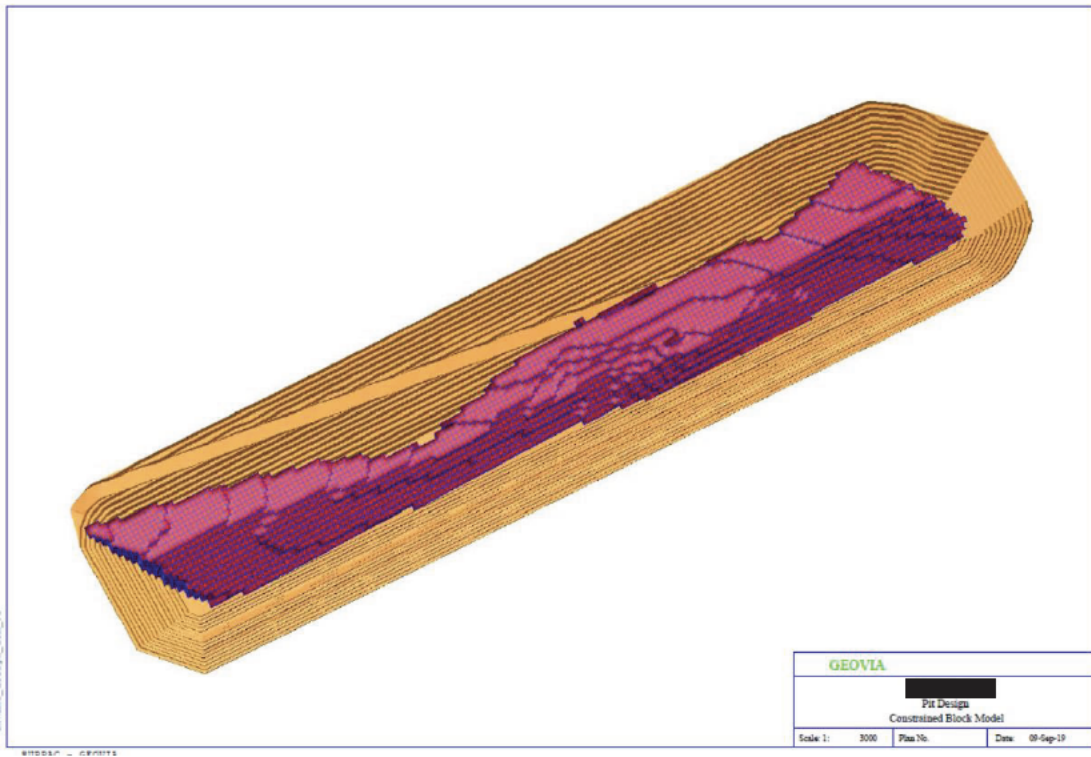


Figure 2: Pit Design surface



Figures 3: Constrained Ore within the Pit design

## 4.0 Life of Mine (LOM) Production Scheduling

### 4.1 Mining Model Preparation

A life of mine production schedule was prepared using [REDACTED] scheduling package, [REDACTED]. The resource model was converted into mining model by classifying the material into ore and waste. The in-situ ore from [REDACTED] were flagged as HG (ore) in the mining model while the rest of material was modelled as waste. The CaCo<sub>3</sub> ore under [REDACTED] was further subdivided into different zones based on grade and lithology to conform to the potential stockpile categories at [REDACTED] Mine. The LOM schedule takes into account the 80% of limestones as accepted material (feed) while 20% as rejected limestone.

Additional important attributes were introduced in the model for resource estimation and scheduling such as mat\_type to define ore and waste, sg to define the specific gravities for the different materials in the block model, CaCo<sub>3</sub>\_2 to re-define the eq\_caco<sub>3</sub> grade so that all negative grades in the block model are eliminated, Air to define all blocks above the topography to be zero's and zworld to define the z-elevations for each block in the block model.

### 4.2 Scheduling Parameters

The following constraints and parameters were employed to make the mining as practical and possible:

**4.2.1 Maximum Bench Drop per Period:** This production property allows one to constrain the rate of vertical advance in a period by defining the number of new benches that can be started in a single scheduling period.

An incremental drop down rate for bench sequencing was adopted with initial drop down rate of 2 benches per period throughout the schedule. The drop rate is per mining location (pit), in this case only one mining location has been adopted.

**4.2.2 Horizontal Lag:** Horizontal lags control when blocks on the same bench as the block being mined or filled become available. They are called "horizontal" lags because they are

between blocks on the same horizontal plane. The horizontal lag was set to 20m in all directions.

**4.3.3 Maximum Active Benches:** The maximum number of benches from which mining can take place in a given period and this was set to 2.

**4.3.4 Mining Rates:** The total mining rates were set to an average of 25,000 tonnes per month throughout the schedule. This rate was provided by the client.

**4.3.5 The Maximum Active Locations:** This is the number of independent locations within the pit from which mining can take place at any given time. Mining will not start in a new location until one of the active locations has been completed. This parameter was set to 1 since there are no phases or pushbacks in the schedule.

**4.3.6 Plant/ Kiln Throughput:** On the Plant/ Kiln, a target for phase 1 feed of 200 tpd was maintained from the start of the schedule in order to satisfy the Kiln monthly throughput up to month end of April 2020 while phase 2 feed increased to 800tpd throughout the remaining schedule. Figures for the kiln feed were provided by the client.

**4.3.7 Calendar:** The schedule takes into account the rainy days delay throughout the life of the project. These delay days are set in the scheduling package, which repeats every year in set months. Plant shut down days are also included in the schedule and these also repeats throughout the life of the project as shown in figure 4 below.

The screenshot shows the Primavera P6 Calendars window. The 'Rain\_Days\_Delay' calendar is selected, showing a table of holidays. The table has columns for 'Repeat each', 'When', 'Duration', 'Frequency', 'Start', and 'End'. The data is as follows:

Repeat each	When	Duration	Frequency	Start	End
1 Year	11/20/2019		2 1 m 1	11/1/2019	[Schedule End]
2 Year	12/20/2019		3 1 m 1	12/1/2019	[Schedule End]
3 Year	1/1/2020		4 1 m 1	1/1/2020	[Schedule End]
4 Year	2/1/2020		4 1 m 1	2/1/2020	[Schedule End]
5 Year	3/1/2020		2 1 m 1	3/1/2020	[Schedule End]

Figure 4: Plant shut down and rainy delays

#### **4.4 LOM Production Schedule**

The following schedules details the life of mine (LOM) of [REDACTED] limestone project, and summaries are presented in the attached spreadsheets. From the schedule, it was envisaged that 80 percent of the limestone feed was considered to be accepted feed to the kiln and 20 percent as rejected material.

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A life-of-mine production schedule has been reported based on a 2-months in the first period from November 2019 to December 2019 and annually periods from 2020 to the end of life in 2063. The source data for all the charts are in the attached spreadsheet file. Figure 5 below shows the LOM mining schedule of all materials.

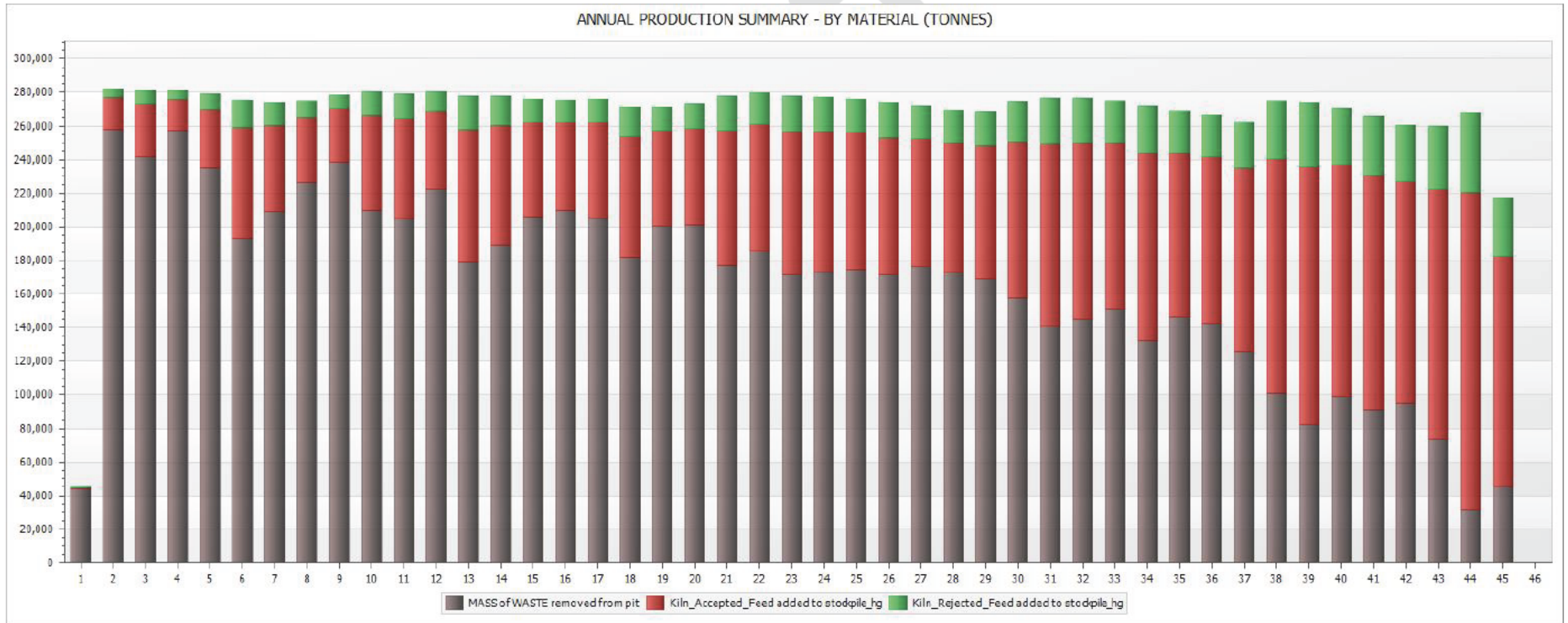


Figure 5: LOM Production Summary

A detailed schedule for Kiln feed is shown in figure 6 below. The Kiln feed graph shows that there will be erratic supply of feed to the plant especially in the early years of the life of the project due to waste that needs to be mined. The feed graph improves and increases as more waste is mined so as to expose the limestone mineralization.

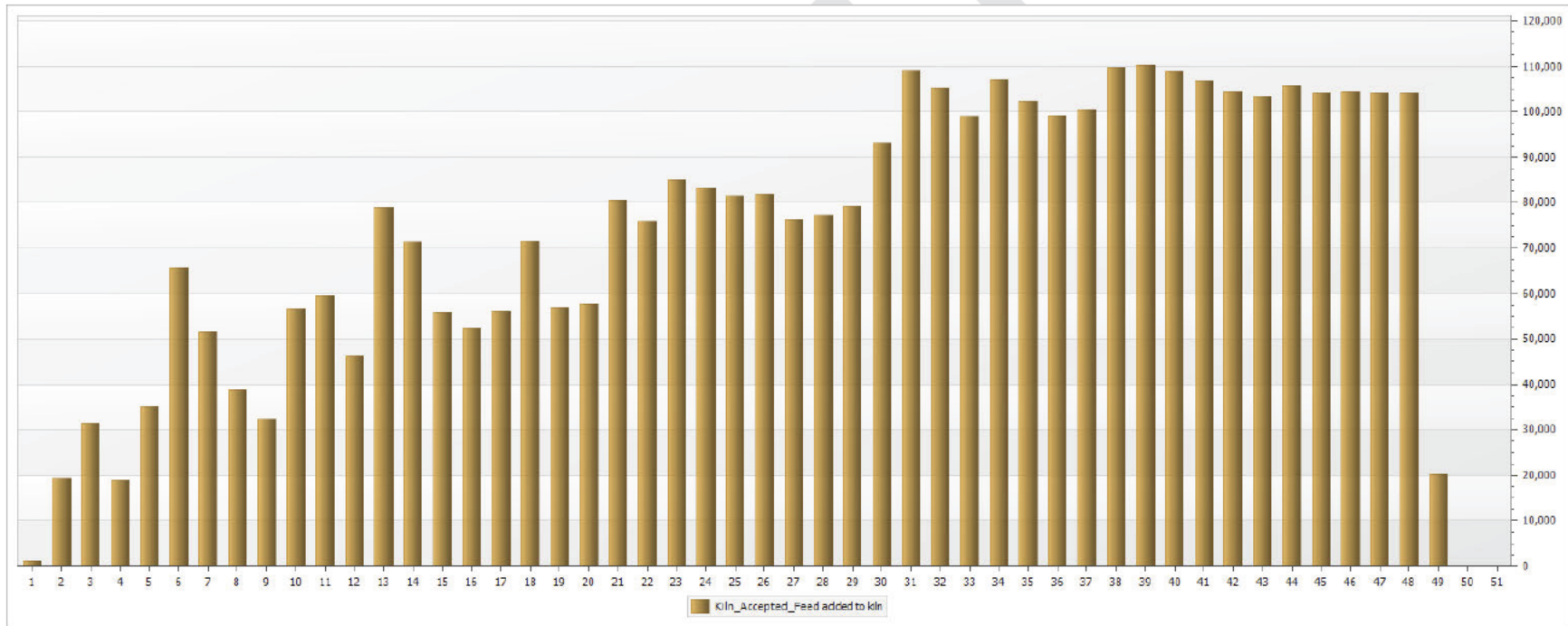


Figure 6: Feed added to Kiln



Figure 7 below shows the stockpile addition by at the end of each period. The same data is presented in the attached spreadsheet file. The graph shows the erratic ore supply to the stockpile, which gradually increases as more limestone is being exposed.

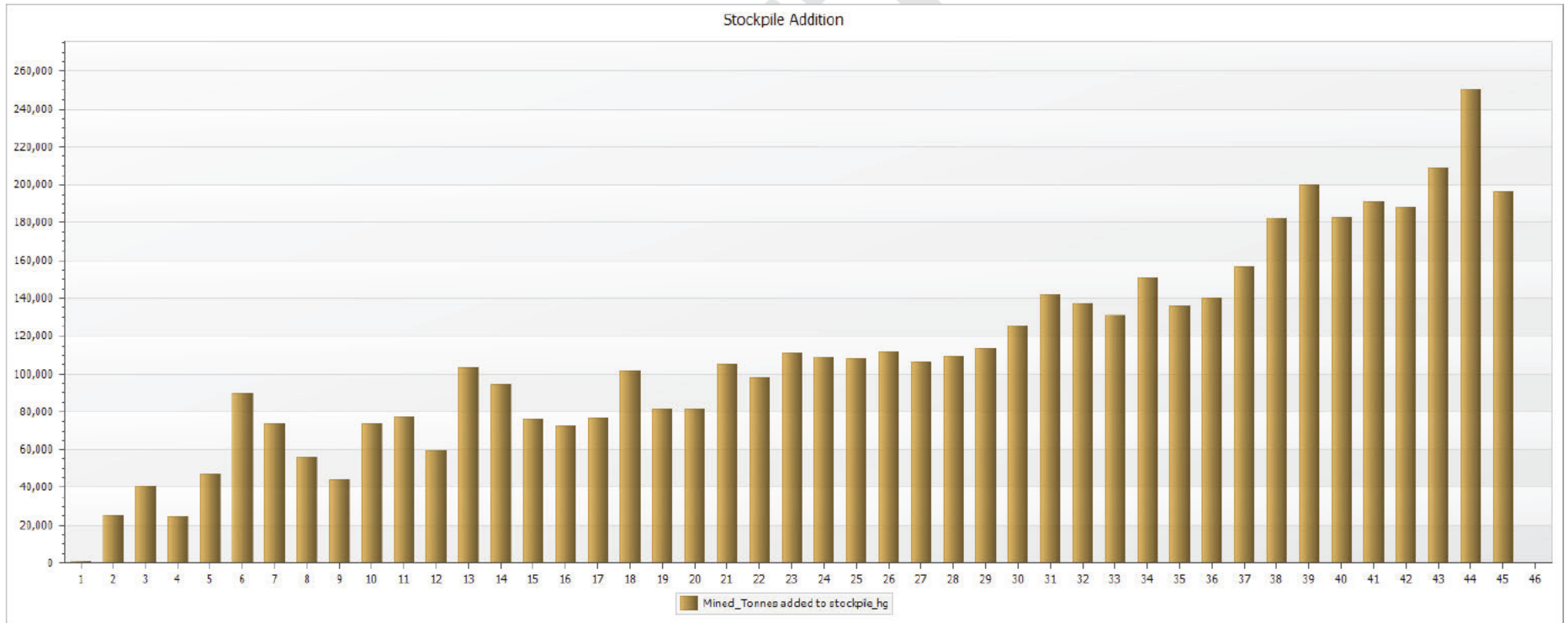


Figure 7: Stockpile Addition

Figure 8 below shows the stockpile depletion by at the end of each period. The graph shows the erratic ore depletion from the stockpile with the similar profile as in the case for the feed graph, which gradually increases as more limestone is being exposed.

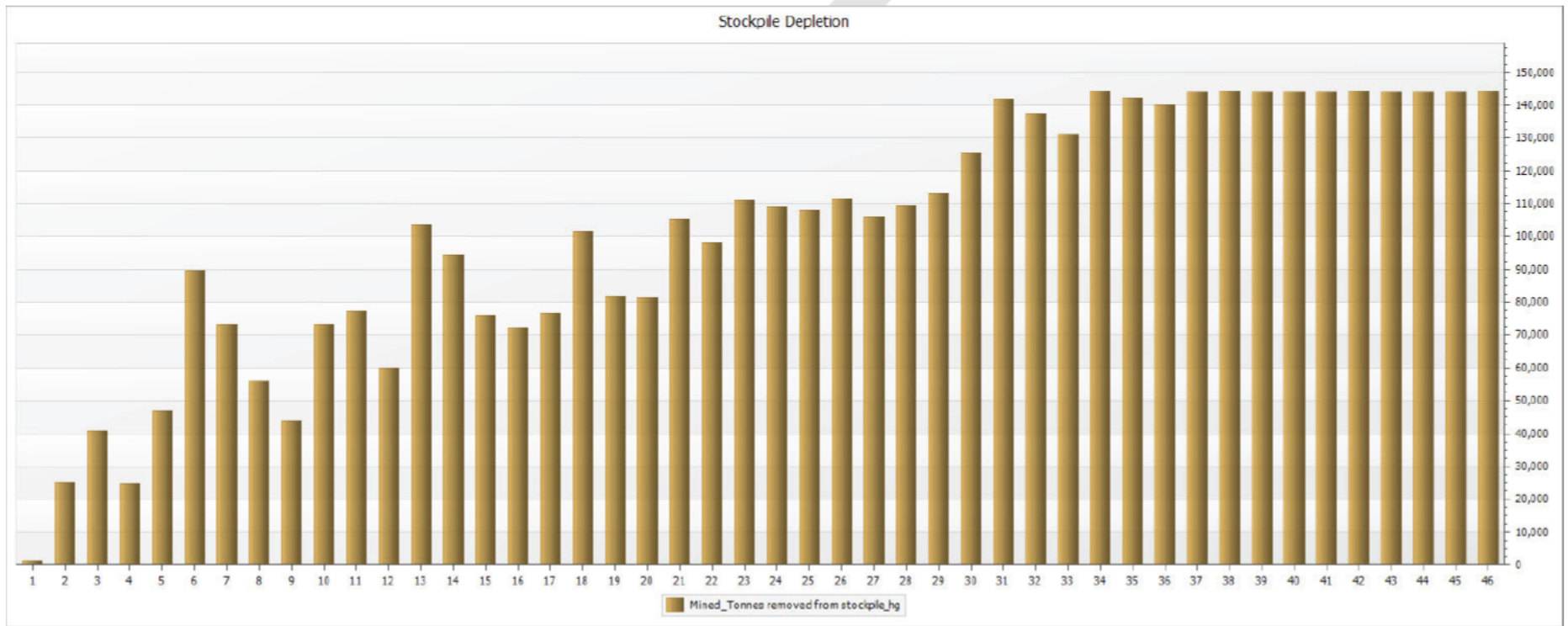


Figure 8: Stockpile Depletion

Figure 9 below shows the stockpile balance by at the end of each period. The graph shows that there is no stockpiles left in most periods of the project life except in the last few years due to low ex-pit ore supply.

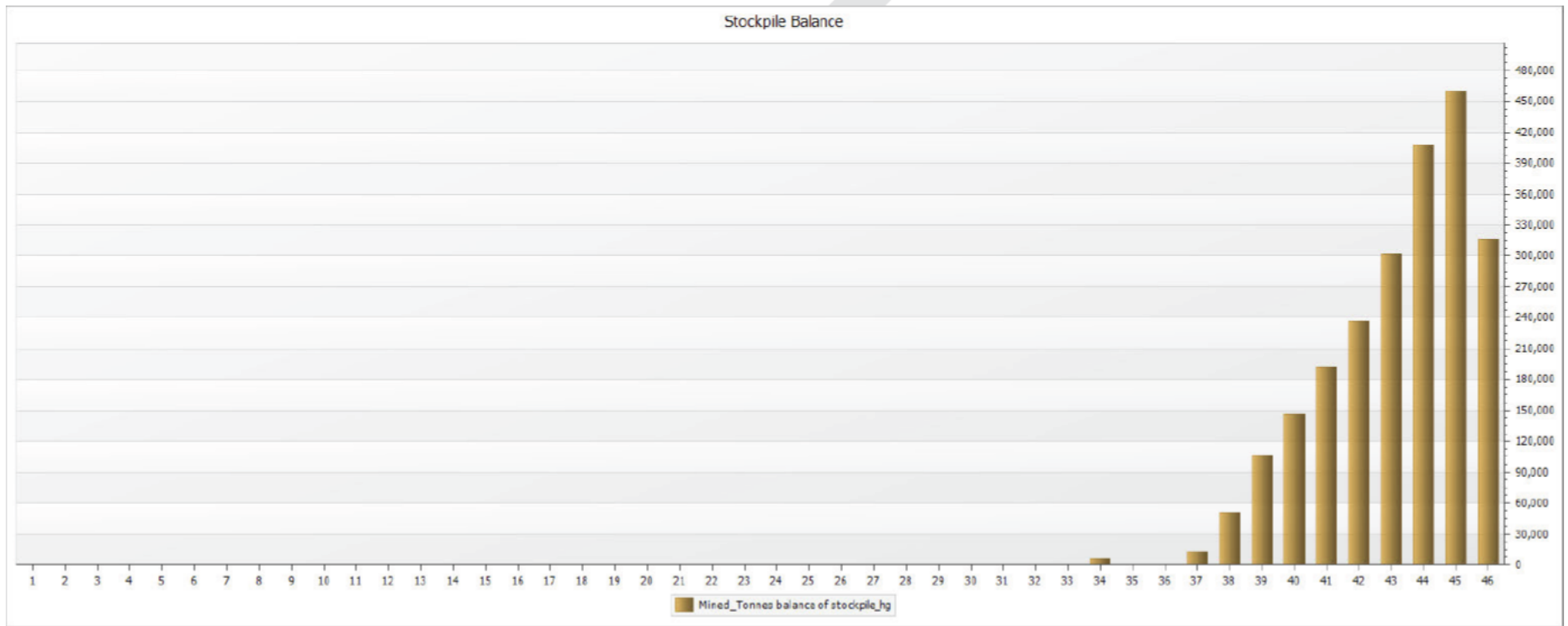


Figure 9: Stockpile Balance

### 5.0 Drilling and Blasting (D&B)

Drill and blast pattern assumptions were provided by the client, with spacing and burden of 3m by 3.5m respectively. The bench height of 5m have been considered in drilling throughout the LOM, an addition sub-drill of 0.5m have also been considered. Additionally, a USD\$9.00 has been used as drilling cost per meter as provided by the client. All these parameters have been applied in various equations to come up with the total D&B estimates in US\$.

The rest of the assumptions have been provided by the consultant based on what are being used by the other mines, although in base metals. However, this is subject to the clients need should there be any changes in the rates used in the schedule.

Name	Expression	Comments
Drilled_Meters	$VOLUME * 0.095238$	3 by 3.5 by 5.5 and volume of 57.75. The figure multiplied by Vol was calculated as follows $5.5/57.75$ which is equal to 0.095238
Drilling_Cost	$Drilled\_Meters * 9$	9 used here is the cost per meter drilled
Hole_Depth	5.5	Bench Height that includes subdrill
Number_Holes_Drilled	$( Drilled\_Meters / Hole\_Depth )$	This Calc is used to estimate the number of holes drilled per Polygon in question
DnB_Accessories_Cost	$Number\_Holes\_Drilled * 14.59$	The Accessories Cost is an aggregate of the following costs: 1. Pentolite Booster cost USD5.2/hole 2. Benchmaster Cost USD4.58/hole 3. Handidet Cost USD4.81/hole The Total being USD14.59/hole in terms of accessories consumption
Emulsion_Cost	$Emulsion\_Consumed * 1.81$	This is a product of the Cost per KG of Emulsion which is 1.81 and the Emulsion Consumption

Table 4: Drill & Blast assumptions used in the schedule

Period Start	Drilled_Meters	Drilling_Cost	Emulsion_Cost	DnB_Accessories_Cost
1-Nov-19	1,593	14,337	13,957	4,226
1-Jan-20	9,985	89,862	87,478	26,486
1-Jan-21	9,956	89,606	87,229	26,411
1-Jan-22	9,956	89,606	87,229	26,411
1-Jan-23	9,956	89,606	87,229	26,411
1-Jan-24	9,985	89,862	87,478	26,486
1-Jan-25	9,956	89,606	87,229	26,411
1-Jan-26	9,956	89,606	87,229	26,411
1-Jan-27	9,956	89,606	87,229	26,411
1-Jan-28	9,985	89,862	87,478	26,486
1-Jan-29	9,956	89,606	87,229	26,411
1-Jan-30	9,956	89,606	87,229	26,411
1-Jan-31	9,956	89,606	87,229	26,411
1-Jan-32	9,985	89,862	87,478	26,486
1-Jan-33	9,956	89,606	87,229	26,411
1-Jan-34	9,956	89,606	87,229	26,411
1-Jan-35	9,956	89,606	87,229	26,411
1-Jan-36	9,985	89,862	87,478	26,486
1-Jan-37	9,956	89,606	87,229	26,411
1-Jan-38	9,956	89,606	87,229	26,411
1-Jan-39	9,956	89,606	87,229	26,411
1-Jan-40	9,985	89,862	87,478	26,486
1-Jan-41	9,956	89,606	87,229	26,411
1-Jan-42	9,956	89,606	87,229	26,411
1-Jan-43	9,956	89,606	87,229	26,411
1-Jan-44	9,985	89,862	87,478	26,486
1-Jan-45	9,956	89,606	87,229	26,411
1-Jan-46	9,956	89,606	87,229	26,411
1-Jan-47	9,956	89,606	87,229	26,411
1-Jan-48	9,985	89,862	87,478	26,486
1-Jan-49	9,956	89,606	87,229	26,411
1-Jan-50	9,956	89,606	87,229	26,411
1-Jan-51	9,956	89,606	87,229	26,411
1-Jan-52	9,985	89,862	87,478	26,486
1-Jan-53	9,956	89,606	87,229	26,411
1-Jan-54	9,956	89,606	87,229	26,411
1-Jan-55	9,956	89,606	87,229	26,411
1-Jan-56	9,985	89,862	87,478	26,486
1-Jan-57	9,956	89,606	87,229	26,411
1-Jan-58	9,956	89,606	87,229	26,411
1-Jan-59	9,956	89,606	87,229	26,411
1-Jan-60	9,985	89,862	87,478	26,486
1-Jan-61	9,956	89,606	87,229	26,411
1-Jan-62	9,956	89,606	87,229	26,411
1-Jan-63	8,514	76,622	74,590	22,584
1-Jan-64				
<b>Totals</b>	<b>438,535.28</b>	<b>3,946,817.51</b>	<b>3,842,145.17</b>	<b>1,163,314.49</b>

Table 5: Drill & Blast cost Estimates

## 6.0 Conclusion

Following an estimation of [REDACTED] mineral resource in the eastern province of Zambia, a capital plan has been proposed, comprising the construction of a processing plant and purchasing of the mining equipment with an option of engaging a contractor to undertake mining operations. It is estimated that [REDACTED] open pit have approximately 5million tonnes of limestone material with a cut-off grade of CaCo3 above or equal to 80 percent.

Due to the nature and orientation of the orebody provided by the client, there is more waste on the upper benches that needs to be mined in order to expose the limestone as the pit deepens. As such, there is variations in Kiln feed (accepted feed) due to variation in stockpile addition from the pit. The waste profile reduces as the pit deepens, hence there is a stockpile build up at some point in the project life. The resource statement indicates that there is approximately 5million tonnes of limestone ore, with potential to increase when more drilling is done on the hanging wall side in the area.

Based on the provided parameters and current geological works carried out so far, the LOM schedule indicates that the project runs for over 45 years. The plan is largely based on various constraints provided by the client such as maximum mining and plant feeding rate as well as constraints provided by the consultant. Feeding the plant will continue for next 3 years after the resource has been depleted by mining, stockpile balance shows that they will be enough stocks left on the stockpile.

The estimated drilling and blasting costs are subject to be changed once the client comes up with exact costs associated with each parameter. The costs indicated reflects the drill & blast cost from other mines operating in base metals in the Democratic Republic of Congo (DRC) in [REDACTED]  
[REDACTED]

### SAMPLE RESULTS FROM THE 10 DIAMOND DRILL HOLES

BHID	SAMPLE ID	From	To	THICKNESS	LOI	%TCaO	Eq. CaCO <sub>3</sub>	%MgO
U01		0.0	1.0	1.0				
U01	001	1.0	1.5	0.5	42.82	54.49	97.24	0.33
U01	002	1.5	1.7	0.20	41.05	50.16	89.52	1.26
U01								
U01	003	2.0	3.0	1.00	42.28	53.41	95.32	0.33
U01								
U01	004	4.0	4.5	0.50	43.05	54.52	97.30	0.33
U01	005	4.5	5.0	0.50	43.03	54.95	98.06	0.33
U01								
U01	006	5.2	5.4	0.20	42.91	53.36	95.23	0.34
U01								
U01	007	7.2	9.0	1.80	41.78	51.36	91.66	1.04
U01								
U01	008	9.0	10.0	1.00	42.98	53.08	94.73	0.66
U01	009	10.0	12.0	2.00	42.48	53.42	95.33	0.99
U01	010	12.0	14.0	2.00	42.22	52.01	92.82	0.33
U01	011	14.0	16.0	2.00	43.08	54.29	96.89	1.01
U01	012	16.0	18.0	2.00	39.72	52.87	94.35	0.84
U01	013	18.0	20.0	2.00	43.00	55.04	98.22	0.67
U01	014	20.0	22.0	2.00	42.84	54.01	96.39	1.01
U01	015	22.0	24.0	2.00	42.49	55.12	98.37	0.33
U01	016	24.0	26.0	2.00	42.80	54.75	97.71	0.50
U01	017	26.0	28.0	2.00	42.58	54.47	97.21	0.84
U01	018	28.0	30.0	2.00	42.03	53.59	95.64	1.01
U01	019	30.0	32.0	2.00	42.62	54.91	97.99	0.34
U01	020	32.0	33.5	1.50	41.10	51.77	92.39	1.01
U01	021	33.5	35.8	2.30	40.75	51.86	92.56	1.04
U01	022	35.8	37.8	2.00	41.22	52.46	93.62	0.66
U01	023	37.8	38.5	0.70	39.41	50.16	89.51	0.99
U01	024	38.5	40.5	2.00	0.90	1.15	2.04	5.63
U01	025	40.5	42.3	1.80	3.73	4.75	8.47	4.63
U01	026	42.3	43.0	0.70	40.27	51.25	91.47	1.01
U01	027	43.0	45.0	2.00	42.21	53.72	95.93	1.94
U01	028	45.0	47.0	2.00	41.05	52.24	93.29	3.19
U01	029	47.0	49.0	2.00	41.42	52.72	94.13	2.79
U01	030	49.0	51.0	2.00	30.83	39.24	70.07	14.25
U02		0.0	0.8	0.80				
U02	031	0.8	3.0	2.20	41.88	53.30	95.18	2.30
U02	032	3.0	4.0	1.00	41.66	53.02	94.68	2.53
U02	033	4.0	4.5	0.50	41.66	53.02	94.68	2.53
U03		4.5	6.2	1.70				





THE UNIVERSITY OF ZAMBIA  
SCHOOL OF MINES  
GEO-CHEMICAL ANALYTICAL LABORATORY

LUSAKA  
ZAMBIA

ATTENTION BEKAZULU MINING LTD  
DATE SUBMITTED 11/08/20  
DATE ANALYSED 13/08/20  
DATE REPORTED 13/08/20

LABORATORY REPORT

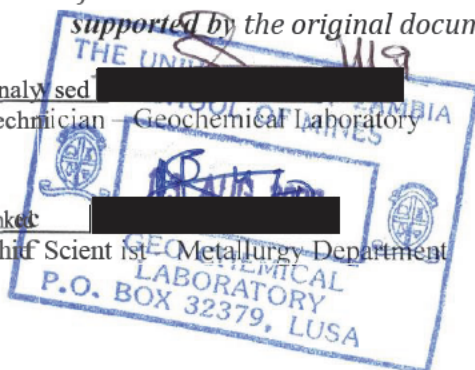
Sample Id	%T.CaO IN RAW ROCK	%MgO	%Acid Insoluble	%Av. CaO AFTER CALCINING	LOI	Reactivity
BK01	53.63	1.33	2.50	90.78	41.69	98
BK02	53.68	0.67	3.33	91.10	41.70	63
BK03	48.46	1.33	9.56	72.59	36.52	110
BK04	54.97	1.00	0.80	95.18	42.58	58
BK05	53.20	1.00	5.26	84.36	40.17	101
BK06	54.46	0.66	0.89	96.34	42.83	76
BK07	49.43	2.99	6.72	79.21	39.52	110
BK08	53.18	0.75	0.56	93.04	42.12	92
BK09	53.65	1.00	3.32	91.19	41.56	99
BK10	54.89	0.61	0.85	96.04	42.43	86
BK11	55.05	0.33	1.12	93.36	42.54	90
BK12	53.89	0.94	1.32	92.35	41.52	86
BK13	54.30	0.73	0.96	95.05	42.76	80
BK14	54.89	0.63	0.36	96.07	42.45	98

NB.

- This laboratory report should not in any way be used as a certificate for goods not sampled and sealed by our officers.
- The results reported above pertain only to the sample submitted for analysis and not necessarily to any other samples of similar nature
- If this document is transmitted electronically, it will only be valid if it is supported by the original document.

Analyzed by [Redacted]  
Technician - Geochemical Laboratory

Checked by [Redacted]  
Chief Scientist - Metallurgy Department





U02	034	6.2	8.2	2.00	42.28	53.81	96.09	1.86
U02	035	8.2	10.2	2.00	42.68	54.32	97.00	1.43
U02	036	10.2	12.0	1.80	38.57	49.09	87.66	5.88
U02	037	12.0	13.4	1.40	42.39	53.95	96.34	1.74
U02		13.4	15.8	2.40				
U02	038	15.8	18.0	2.20	42.28	53.81	96.09	1.86
U02	039	18.0	20.0	2.00	42.91	54.61	97.52	1.18
U02	040	20.0	22.0	2.00	42.52	54.12	96.63	1.60
U02	041	22.0	24.0	2.00	40.55	51.61	92.16	3.74
U02	042	24.0	25.0	1.00	30.17	38.40	68.57	14.97
U02		25.0	40.0	15.00				

U03	043	0.0	2.0	2.00	42.3	53.84	96.13	1.84
U03	044	2.0	2.4	0.40	38.41	48.88	87.29	6.05
U03	045	2.4	4.4	2.00	39.74	50.58	90.32	4.61
U03		4.4	6.5	2.10				
U03	046	6.5	8.5	2.00	41.87	53.29	95.16	2.31
U03	047	8.5	10.5	2.00	42.18	53.68	95.86	1.97
U03	048	10.5	12.5	2.00	41.88	53.30	95.18	2.30
U03	049	12.5	14.5	2.00	44.13	56.16	100.29	0.02
U03	050	14.5	16.5	2.00	42.12	53.61	95.72	2.04
U03	051	16.5	17.0	0.50	43.23	55.02	98.25	0.83
U03	052	17.0	19.3	2.30	43.15	54.92	98.07	0.92
U03		19.3	20.6	1.30				
U03	053	20.6	22.6	2.00	43.22	55.01	98.22	0.85
U03	054	22.6	23.8	1.20	41.08	52.28	93.36	3.16
U03		23.8	24.5	0.70				
U03	055	24.5	26.5	2.00	42.78	54.45	97.22	1.32
U03	056	26.5	28.5	2.00	42.68	54.32	97.00	1.43
U03	057	28.5	30.5	2.00	38.07	48.45	86.52	6.42
U03	058	30.5	31.5	1.00	42.36	53.91	96.27	1.78
U03		31.5	32.5	1.00				
U03	059	32.5	34.5	2.00	41.73	53.11	94.84	2.46
U03	060	34.5	36.5	2.00	42.32	53.86	96.18	1.82
U03	061	36.5	38.2	1.70	42.6	54.22	96.82	1.52
U03		38.2	38.7	0.50				
U03	062	38.7	40.7	2.00	42.56	54.17	96.72	1.56
U03	063	40.7	42.0	1.30	42.25	53.77	96.02	1.90

U04	064	0.0	2.0	2.00	41.02	52.21	93.22	3.23
U04	065	2.0	4.0	2.00	42.89	54.59	97.47	1.20
U04	066	4.0	6.0	2.00	42.56	54.17	96.72	1.56
U04	067	6.0	8.2	2.20	40.12	51.06	91.18	4.20
U04	068	8.2	9.0	0.80	39.42	50.17	89.59	4.96

U04	069	9.0	11.0	2.00	42.56	54.17	96.72	1.56
U04	070	11.0	13.0	2.00	41.23	52.47	93.70	3.00
U04	071	13.0	15.0	2.00	43.12	54.88	98.00	0.95
U04	072	15.0	17.0	2.00	42.98	54.70	97.68	1.11
U04	073	17.0	19.0	2.00	42.56	54.17	96.72	1.56
U04	074	19.0	21.0	2.00	42.85	54.54	97.38	1.25
U04	075	21.0	23.2	2.20	43.05	54.79	97.84	1.03
U04	076	31.0	32.0	1.00	43.21	54.99	98.20	0.86
U04	077	32.0	34.0	2.00	42.15	53.64	95.79	2.00
U04	078	34.0	36.0	2.00	42.23	53.75	95.97	1.92
U04		36.0	40.0	4.00				

U05		0.0	1.5	1.50				
U05	079	1.5	2.5	1.00	42.89	54.59	97.47	1.20
U05		2.5	6.5	4.00				
U05	080	6.5	8.5	2.00	43.12	54.88	98.00	0.95
U05	081	8.5	10.5	2.00	42.89	54.59	97.47	1.20
U05	082	10.5	12.5	2.00	43.24	55.03	98.27	0.82
U05	083	12.5	14.5	2.00	41.98	53.43	95.41	2.19
U05		14.5	15.2	0.70				
U05	084	15.2	17.2	2.00	43.48	55.34	98.82	0.56
U05	085	17.2	19.2	2.00	40.37	51.38	91.75	3.93
U05	086	19.2	21.2	2.00	43.2	54.98	98.18	0.87
U05	087	21.2	22.8	1.60	43.28	55.08	98.36	0.78
U05		22.8	23.5	0.70				
U05	088	23.5	24.1	0.60	42.70	54.34	97.04	1.41
U05	089	24.8	25.1	0.30				
U05		25.1						

U06		0.0	0.4	0.4				
U06	090	0.4	1.0	0.6	42.99	54.71	97.70	1.09
U06		1.0	3.0	2.0				
U06	091	3.0	3.5	0.5	41.81	53.21	95.02	2.37
U06	092	3.5	4.5	1.0	40.29	51.28	91.57	4.02
U06		4.5	13.5	9.0				
U06	093	13.5	14.5	1.0	41.05	52.24	93.29	3.19
U06		14.5	16.0	1.5				
U06	094	16.0	18.0	2.0	41.54	52.87	94.41	2.66
U06	095	18.0	20.0	2.0	41.6	52.94	94.54	2.60
U06	096	20.0	22.0	2.0	41.01	52.19	93.20	3.24
U06	097	22.0	24.0	2.0	42.77	54.43	97.20	1.33
U06	098	24.0	26.0	2.0	42.79	54.46	97.25	1.31
U06	099	26.0	28.0	2.0	42.92	54.62	97.54	1.17
U06	100	28.0	30.0	2.0	43.10	54.85	97.95	0.98

U06	█	101	30.0	31.0	1.0	43.08	54.83	97.91	1.00
U06			31.0	31.2	0.2				
U06	█	102	31.2	33.2	2.0	43.02	54.75	97.77	1.06
U06	█	103	33.2	35.2	2.0	42.50	54.09	96.59	1.62
U06	█	104	35.2	37.2	2.0	42.89	54.59	97.47	1.20
U06	█	105	37.2	39.2	2.0	41.95	53.39	95.34	2.22
U06	█	106	39.2	41.2	2.0	42.50	54.09	96.59	1.62
U06			41.2	42.0	0.8				
U06	█	107	42.0	44.0	2.0	42.38	53.94	96.32	1.75
U06	█	108	44.0	46.0	2.0	43.49	55.35	98.84	0.55
U06			46.0	48.2	2.2				
U06	UKW	109	48.2	49.0	0.8	43.39	55.22	98.61	0.66
U06	UKW	110	49.0	50.0	1.0	43.29	55.10	98.38	0.77

U07	█	111	0.0	2.0	1.00	43.23	55.02	98.25	0.83
U07	█	112	2.0	4.0	2.00	42.1	53.58	95.68	2.06
U07	█	113	4.0	6.0	2.00	42.21	53.72	95.93	1.94
U07	█	114	6.0	8.0	2.00	41.23	52.47	93.70	3.00
U07	█	115	8.0	10.0	2.00	41.26	52.51	93.77	2.97
U07	█	116	10.0	12.0	2.00	42.85	54.54	97.38	1.25
U07	█	117	12.0	14.0	2.00	42.56	54.17	96.72	1.56
U07	█	118	14.0	16.0	2.00	41.02	52.21	93.22	3.23
U07	█	119	16.0	18.0	2.00	43.24	55.03	98.27	0.82
U07	█	120	18.0	20.0	2.00	39.12	52.87	94.15	0.80
U07	█	121	20.0	22.0	2.00	43.61	55.50	99.11	0.42
U07	█	122	22.0	24.0	2.00	41.89	53.31	95.20	2.28
U07			24.0	25.0	2.00				
U07	█	123	25.0	27.0	2.00	41.56	52.89	94.45	2.64
U07	█	124	27.0	29.0	2.00	42.01	53.47	95.47	2.16

U08			0.0	1.5	1.50				
U08	█	125	1.5	3.5	2.00	40.51	51.56	92.07	3.78
U08	█	126	3.5	5.5	2.00	41.23	52.47	93.70	3.00
U08	█	127	5.5	7.5	2.00				
U08	█	128	7.5	9.0	1.50	41.05	52.24	93.29	3.19
U08	█	129	9.0	9.5	0.50	41.03	52.22	93.25	3.22
U08	█	130	9.5	11.5	2.00	41.62	52.97	94.59	2.58
U08	█	131	11.5	13.5	2.00	41.23	52.47	93.70	3.00
U08	█	132	13.5	15.5	2.00	42.89	54.59	97.47	1.20
U08	█	133	15.5	17.5	2.00	42.63	54.26	96.88	1.48
U08	█	134	17.5	19.5	2.00	43.16	54.93	98.09	0.91
U08	█	135	19.5	21.5	2.00	42.98	54.70	97.68	1.11
U08	█	136	21.5	23.5	2.00	42.75	54.41	97.16	1.35
U08	█	137	23.5	25.5	2.00	42.84	54.52	97.36	1.26

U08		138	25.5	27.5	2.00	42.56	54.17	96.72	1.56
U08		139	27.5	29.5	2.00	43.12	54.88	98.00	0.95
U08		140	29.5	31.5	2.00	43.06	54.80	97.86	1.02
U08		141	31.5	33.5	2.00	42.87	54.56	97.43	1.22
U08		142	33.5	35.5	2.00	42.76	54.42	97.18	1.34
U08		143	35.5	37.0	1.50	42.61	54.23	96.84	1.51
U08		153	37.0	39.0	2.00	39.58	50.37	89.95	4.89
U08		154	39.0	41.0	2.00	41.49	52.81	94.30	2.54
U08		155	41.0	43.0	2.00	42.30	53.84	96.14	1.55
U08		156	43.0	45.0	2.00	42.53	54.13	96.66	1.27
U08		162	45.0	47.0	2.00	40.27	51.25	91.52	4.04
U08		163	47.0	48.2	1.20	33.91	43.16	77.07	11.86
U08		164	48.2	50	1.80	42.41	53.98	96.39	1.41

U09			0.0	5.5	5.50				
U09		144	5.5	6.0	0.50	43.21	54.99	98.20	0.86
U09			6.0	6.5					
U09		145	6.5	8.5	2.00	43.15	54.92	98.07	0.92
U09			8.5	8.8					
U09		146	8.8	9.8	1.00	42.86	54.55	97.41	1.24
U09			9.8	14.8					
U09		147	14.8	16.8	2.00	43.16	54.93	98.09	0.91
U09		148	16.8	18.8	2.00	43.53	55.40	98.93	0.51
U09		149	18.8	20.8	2.00	42.89	54.59	97.47	1.20
U09		150	20.8	22.8	2.00	42.79	54.46	97.25	1.31
U09		151	22.8	24.8	2.00	43.10	54.85	97.95	0.98
U09		152	24.8	25.8	1.00	43.26	55.06	98.32	0.80
U09			25.8	32	6.20				

U10			0	3.5	3.50				
U10		157	3.5	4.5	1.00	39.20	49.89	89.09	5.36
U10		158	4.5	6	1.50	42.23	53.75	95.98	1.63
U10			6.0	9.8	3.80				
U10		159	9.8	11.8	2.00	38.92	49.53	88.45	5.70
U10		160	11.8	13.8	2.00	42.78	54.45	97.23	0.96
U10		161	13.8	15	1.20	43.13	54.89	98.02	0.53