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# BC Geological Survey Assessment Report 38511



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NER(S):			
J. T. Shearer	_ 2) _		
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Unit 5 - 2330 Tyner Street			
Port Coquitlam, BC V3C 2Z1			
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DRILLING			
(total metres; number of holes, size)			
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Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/t	rail		
Trench (metres)			
Underground dev. (metres)			
		TOTAL COST:	\$3,200.0
			φ3,200.0

# GEOCHEMICAL ASSESSMENT REPORT on the SUKUNKA LIMESTONE DEPOSIT LIARD MINING DIVISION 93P-4, BCGS 93P.011 55° 08' 30" North; 121° 53' 00" West Claim Tenure 1051055 and 1051192, 1035182 EVENT # 5752612

for

SUKUNKA LIME RESOURCES LTD. Unit 5 – 2330 Tyner Street Port Coquitlam, BC V3C 2Z1 Ph: 604-970-6402

by

J.T. SHEARER, M.Sc., P.Geo. (BC & Ontario) FSEG Consulting Geologist

August 23, 2019

Fieldwork completed between April 1, 2019 and August 23, 2019

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#### SUMMARY

The Sukunka Limestone occurrence is situated on the southeast side of the Sukunka River, just east of its confluence with Baker Creek, 64 kilometres south-southwest of Chetwynd.

The deposit lies within a bed of limestone of the Mississippian Rundle Group underlain by shaly carbonates of the Lower Mississippian Banff Formation and overlain by siltstone and shale of the Triassic Sulphur Mountain Formation (Spray River Group). The limestone outcrops as a narrow northwestward trending band along the east limb of an overturned syncline. Locally, the limestone is warped into a pair of closely-spaced anticlines trending west-northwest.

The deposit is comprised of a chemical grade limestone member that passes upward into an overlying impure limestone member. The chemical grade member consists of white speckled micrite and brown to grey-brown, very fine-grained, slightly dolomitic wackestone. The impure member consists of brown-grey to grey, fine to coarse-grained, silty, dolomitic wackestone with minor dolomitic micrite. Veins of white calcite are present in both units. Pyrobitumen is commonly displayed on fractured surfaces.

Two zones of reserves have been defined in the chemical grade limestone member along the crest of each of the two anticlines. The two zones are separated by an 80 to 90 metre wide band of impure limestone preserved along the intervening syncline. Indicated and inferred reserves (in tonnes) with average grades (in per cent) are given as follows (Industrial Mineral File - W.A. MacLeod, 1988):

Zone	Reserves	CaO	MgO	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>
South	1,700,000	54.36	0.67	0.37	0.26	0.01
North	440,000	54.42	0.73	0.48	0.27	trace

The South zone outcrops along the crest of the southern anticline over a length of 260 metres with a width of between 80 and 100 metres. The North zone outcrops for up to 160 metres along the crest of the northern anticline with a width of up to 100 metres.

Average grade is calculated at average 54.36% CaO (97.02% CaC0<sub>3</sub>), 0.37% SiO<sub>2</sub>, 0.01% Fe<sub>2</sub>O<sub>3</sub>, and 0.26%  $A1_2O_3$ .

Diamond drilling followed by limited quarry development, bulk sampling, and test marketing is proposed for the property. The recommended program budget will total \$ 160,000.00 with a potential sales revenue return from the test marketed lime of \$ 80.000.00.

Work in 2019 consisted of Legal Surveys and continued geochemical sampling of the limestone resources.

Four representative samples were collected; results and descriptions are contained in Appendix III and plotted on figure 7.

All samples are of light to dark grey to brown, fine grained limestone with CaO values from a low of 46.59% CaO to a high of 57.46% CaO. Silica ranges from 1.83% Si to 3.47% Si.

Additional sampling is recommended.

Respectfully submitted,

J. T. Shearer, M.Sc., P.Geo. (BC & Ontario)



Figure 1 Location Map



#### Figure 1a Detail Location Map

#### INTRODUCTION

This assessment report documents recent sampling on the Sukunka Limestone claims located in the Sukunka River Valley in the Liard Mining Division, British Columbia.

Continued sampling was undertaken in 2019.

The previous geological mapping and outcrop sampling program described in the history section was planned-and supervised by W. A. McLeod during June, 1988.

This report describes the 2019 work performed and the results obtained and further recommends continued exploration by diamond drilling, test quarrying and the test marketing of recoverable chemical grade limestone present on the property.

#### LOCATION, ACCESS, INFRASTRUCTURE and PHYSIOGRAPHY

#### **Project Location and Access**

The Sukunka Limestone Small Mine mineral property is located within the Liard Mining Division of north central B.C. approximately 145km northeast of Prince George and 70km northwest of Tumbler Ridge (Figures 1 and 1a). The Sukunka claims are centered at approximately 54.4676 north latitude and 120.6499 west longitude within NTS sheet 93I/07E (BCGS 93I.047). Road access from Tumbler Ridge is by Highway 29 approximately 60km to the north to the Sukunka FSR, then 52km to the claims. The property is 70km from Chetwynd.

The project area encompasses Sukunka River (WSC 234-443900) which is part of Pine River watershed. It is within Peace Natural Resource District in Peace River Regional district. To the east of the project site is Hole-in-the-Wall Provincial Park. All development related to this mine will be outside the park boundary.

The land is presently uninhabited. It has been subjected to widespread forest fire in the recent past. Within the total area of the Peace River Regional District, 70.09% is undisturbed wildlands, while the total disturbed footprint is 29.91%. This 29.91% is disturbed by anthropogenic activities including crop/pasture/bare ground (17.05%) and cut blocks (9.29%). Other activities such as seismic lines, pipelines, transmission lines, residential, well sites, roads, trails, borrow-pits and dugouts, mine sites, or rail are less than 0.8% each (Mighty Peace Watershed Alliance 2017).

#### Climate

The proposed mine site is located within the Finlay-Peace Wet Cool Variant of the Sub-Boreal Spruce zone (SBS wk2). The SBS zone is the third largest forested zone in British Columbia and occupies 10.9% of the province. It is mostly found on the rolling landscape in the central interior portion of the province.

The zone covers a wide latitudinal and longitudinal range and has many bordering zones. It is a montane zone mostly occurring between elevations of 600m and 1300m. Overall, the climate in the SBS zone is mild continental. The diversity of bordering zones is mirrored in the high number of subzones and their climatic variation. Across the zone temperatures range from 12.2°C in southeast to 16.1° in the southern central portion. Mean annual precipitation nearly doubles from 500mm on low lying areas of interior plateau to 950mm on the mountainous terrain in the central western portion of the zone.

Tumbler Ridge is the nearest town to the Sukunka prospect (55km to the east), and the climate of the town is representative for the proposed project area. Tumbler Ridge experiences a continental climate. Arctic air masses tend to move predominantly southwesterly across this region of the province from the Mackenzie Valley towards the Rocky Mountains and through the mountains north of town.

Climatic conditions in the mine area can be described using climate normal data from the Bullmoose meteorological station located near Tumbler Ridge. Daily temperature variations at the Bullmoose station are summarized in the 30-year climate normals from 1981 to 2010. During this period, the average daily maximum temperature was  $18.9^{\circ}$ C in July and the average daily minimum temperature was  $-12.6^{\circ}$ C in January. Extreme temperatures ranged from a low of  $-42.5^{\circ}$ C to a high of  $32.5^{\circ}$ C.

#### Physiography

The proposed mine location is near the toe of the north facing slope below peaks which include Mt. Palsson at 1,800m. The land generally slopes north to the Sukunka River. The proposed mine site extends approximately 200m south from the Sukunka Forest Service Road over which the land rises approximately 90m for an average grade of 45% which is significantly less than other slopes in the area. North of Sukunka Forest Service Road the land is flat and poorly drained as evidenced by mapped marsh areas adjacent to the river.

#### **CLAIM STATUS**

The Mount Palsson limestone property consists of six MTO Mineral Claims which cover the former five-year Lease (Number 802015) granted to Westmin Resources Limited of Calgary, Alberta for the sole purpose of quarrying limestone.

The claims are located some seventy kilometres south southwest of Chetwynd, British Columbia in the Sukunka River Valley within the Liard Mining Division in N.T.S. grid 93 P/4 at 55°08'30" N.; 121°53'00"W.

The property is accessible from Chetwynd via Provincial Highway No. 29 and the all-weather- Sukunka Forestry Access Road.

The property consists of the following mineral claims as tabulated in Table 1 and illustrated on Figure 2 and 3.

The staked claims are recorded as follows:

List of Claims							
Claim Name	Tenure No.	Size (ha)	Located Date	Current Expiry Date			
Lime 1	1051055	110.94	March 30, 2017	March 30, 2025			
Lime 2	1051192	36.98	April 4, 2017	April 4, 2025			
Golden1	1035174	129.43	April 2, 2015	April 2, 2025			
Golden2	1035182	36.99	April 2, 2015	April 2, 2025			
Sukunka LST 3	1058573	73.96	February 11, 2018	February 11, 2025			
Golden 3	1063153	55.48	September 17, 2018	September 17, 2025			
	т	otal 112 79 ha					

Table 1

Total 443.78 ha

\* with application of assessment work documented in this report.

Cash may be paid in lieu if no work is performed. Following revisions to the Mineral Tenures Act on July 1, 2012, claims bear the burden of \$5 per hectare for the initial two years, \$10 per hectare for year three and four, \$15 per hectare for year five and six and \$20 per hectare each year thereafter.



Figure 2 Claim Map



Figure 3 Google Image, Property Area

#### HISTORY

#### **Limestone Sampling**

Surface sampling was carried out on the property during June, 1988 by W. McLeod and Mr. R.D. Gilchrist.

Thirty-seven representative chip samples were collected on a nominal fifty metre line spacing perpendicular to strike over most of the quarryable limestone in order to verify and augment previous sampling carried out by Westmin Resources Ltd. in 1983.

The sample locations are presented in Figure No.3 with the earlier Westmin samples referred to as the "A" Series and the 1988 work shown as Series "B".

Individual sample volumetrics are assumed to be constant and representative f o r the purpose of defining average limestone grades.

The samples were microscopically examined and subsequently forwarded to Loring Labs Ltd. of Calgary for assay. The assay results are discussed in the following section and the certificates included as "Appendix III" to this report.

#### Limestone Resources and Production

Two zones of chemical grade limestone have been previously defined on the property.

The "South Zone", by far- the larger of the two, is located along a northwest trending anticlinal axis in the southern portion of the lease. Assuming a quarry floor elevation of 765 metres and a stable quarry wall configuration attainable at sixty degrees, planimeter measurements indicate that some 1.7 million tonnes recoverable chemical grade resources are present without incurring any dilution from the overlying assay-defined low grade limestone.

Sampling results inclusive of both the 1983 Westmin assays and the current survey over the "South Zone" are tabled below (Table I):

Sample #	Assay #	% CaO	% MgO	% SiO <sub>2</sub>	% Fe2O <sub>3</sub>	% Al <sub>2</sub> O <sub>3</sub>
A-1		53.43	0.68			
A-2		53.94	0.53			
A-3		53.09	1.21			
A-4		54.86	0.45			
A-5		54.77	0.46			
A-6		54.54	0.58			
A-7		54.50	0.56			
A-8		54.42	0.90			
A-9		54.89	0.63			
A-10		54.54	0.65			
A-11	200+00	54.70	0.37	0.35	0.01	0.26
A-12	200+10	55.00	0.43	0.15	trace	0.24
A-13	200+17	54.88	0.52	0.07	trace	0.24
A-14	200+50	54.76	0.50	0.21	trace	0.24
A-15	300+00	55.00	0.48	0.11	trace	0.28
A-16	300+30	54.27	0.59	0.81	0.03	0.31
B-1	33776	55.82	1.07	0.04		
B-2	33777	64.35	0.89	0.04		
B-3	33752	54.92	0.44	0.16		

B-4	33753	54.52	0.63	0.42	
B-5	33754	54.82	0.42	0.28	
B-36	33763	53.21	1.18	1.20	
B-37	33764	53.91	1.31	0.72	
B-6	33501	53.31	0.56	0.76	
B-7	33502	54.12	0.58	0.50	
B-8	33503	54.82	0.74	0.12	
B-9	33504	53.71	0.79	0.68	
B-10	33505	54.32	0.60	0.56	
B-11	33506	53.81	0.48	0.16	
B-12	33507	54.52	0.73	0.38	
B-13	33755	54.82	0.45	0.30	
B-14	33756	53.41	0.96	0.58	
B-15	33757	54.52	0.88	0.20	
B-16	33758	54.54	0.77	0.26	
B-17	33759	54.12	0.79	0.74	
B-18	33509	54.29	0.58	0.28	
B-19	33510	54.62	0.54	0.12	
B-20	33513	54.62	0.58	0.20	

The "South Zone" assays average 54.36% CaO (97.02% CaCO<sub>3</sub>), MgO, 0.37% SiO<sub>2</sub>, 0.01% Fe<sub>2</sub>O<sub>3</sub>, and 0.26% A1<sub>2</sub>O<sub>3</sub>.

The "North Zone" is also situated along a northwest trending anticlinal axis and is located near the Sukunka Forestry Road in the northern portion of the lease. It is limited to some 440,000 tonnes recoverable resources with a quarry floor elevation of 756 metres and similar development geometry to that proposed for the southern zone.

Sample #	Assay #	% CaO	% MgO	% SiO <sub>2</sub>	% Fe2O <sub>3</sub>	% Al <sub>2</sub> O <sub>3</sub>
A-17	200+210	54.92	0.44	0.16	trace	0.31
A-18	300+160	55.04	0.44	0.21	trace	0.26
A-19	300+220	54.92	0.41	0.24	trace	0.24
B-21	33512	54.52	0.58	0.28		
B-22	33765	55.12	0.84	0.10		
B-23	33766	54.02	0.93	0.18		
B-24	33767	54.52	0.89	0.31		
B-25	33768	54.22	0.90	0.22		
B-26	33769	52.51	0.96	1.93		
B-27	33770	54.42	0.87	1.20		

Sampling results inclusive of the Westmin assays are tabled below (Table II):

Analysis of t h e "North Zone" sample data indicates average assay values of: 54.42 % CaO (97.13% CaCO<sub>3</sub>), 0.73% MgO, 0.48% SiO<sub>2</sub>, trace Fe<sub>2</sub>O<sub>3</sub>, and 0.27%.A1<sub>2</sub>O<sub>3</sub>.

Resources on both deposits are presently classified as "Possible/Inferred" with a diamond drilling and bulk sampling program required to define prove tonnages.

Grade variance is apparent across strike on both zones and appears to be related to either localized diagenesis or the enfolding of the gradationally overlying impure carbonates. In either case, the dolomitic and silicic material has been included within the calculated recoverable reserves to allow for lower grade sections which may be present elsewhere in the deposits.

Sample #	Assay #	% CaO	% MgO	% SiO <sub>2</sub>	% Fe2O <sub>3</sub>	% Al <sub>2</sub> O <sub>3</sub>
•	Assay #			76 SIO <sub>2</sub>	7616203	70 Al2O3
A-20		54.85	0.49			
A-21	200+80	52.78	1.66	1.17	0.03	0.28
A-22	200+110	54.15	0.63	1.21	trace	0.24
A-23	200+150	54.01	0.53	1.69	0.01	0.31
A-24	300+90	53.14	1.05	2.22	0.03	0.26
A-25	300+123	54.19	0.62	1.20	0.01	0.24
B-28	33508	53.21	1.62	0.73		
B-29	33760	53.21	1.36	2.29		
B-30	33761	53.31	1.35	1.16		
B-31	33762	54.02	0.47	1.71		
B-32	33511	51.00	1.56	2.76		
B-33	33778	53.28	0.63	0.88		
B-34	33751	54.25	0.41	0.14		
B-35	33514	53.11	0.76	2.10		

Sampling of the lower grade silicic and dolomitic carbonates adjacent to the "North" and "South" zones is summarized below (Table III)

The low grade material averages 53.47% CaO (95.48 CaCO3), 0.94% MgO, 1.38% SiO2, 0.02% Fe2O3, 0.27% A12O3.

The Sukunka property has not been developed to date but the good access and relative proximity to the Grande Prairie and Peace River bleached chemical kraft mills clearly enhances the potential economic viability if those markets can be established.

Relatively thin overburden cover coupled with steep outcrop slopes, most notably on the "South Zone", will facilitate ultimate quarry development.

Limestone grades at the Sukunka property compare favourably with material produced from the Peace River Lime Ltd. Quarry located 2.5 kilometres northwest of the Sukunka Deposits (figure 2). Peace River Lime quarry-run samples obtained by McLeod in 1987 (assay numbers: 17013 to 17015 inclusive) averaged 54.65% CaO, 0.51% MgO, 0.39%  $Al_2O_3$ , 0.08%  $Fe_2O_3$  and 0.81%  $SiO_2$ .

Peace River Lime Ltd. was supplying the Grande Prairie market until early 1988 when it lost the contract because of failure to adequately supply for the Proctor & Gamble Mill. The Peace River Lime operation has subsequently passed into receivership and recently in 2016 resumed local shipments.

The Geological Survey of Canada has been geological mapping and conducting structural/stratigraphic investigations in the Monkman Pass area since the mid- 1960's. Gibson (1972, 1975) produced a comprehensive account of the Triassic strata of the area.

The claims were examined in 2017 west of the Hole-In-The-Wall Park and several samples were collected.

Sample #1 (grab sample) a dark grey fragmental limestone assayed 53.05% to 56.19% CaO. Sample #2, a limestone specimen similar to sample #1 assayed 54.59% CaO. Silicon runs between 1.8 to 3.5% along with low  $P_2O_5$  of 0.45%. Iron is also low at 0.12% along with 0.0015% Sr. Sample #3 is a schistose, fine grained silty shale that is very low in CaO, high Si at 24.53% and 8.17% Al. Potassium is 2.7% and Fe 2.3%.

These results confirm the range of carbonate values obtained by previous work in the 1980's



Photo 1 North Zone before access road constructed

Work in 2018 focussed on Bulk and geochemical sampling.

All samples are high in Ca, ranging from 34.48% to 50.86% Ca.

#### Water Samples 2018

From the dissolved and total metals analyses and the anion analyses, the hardness concentrations (CaCO<sub>3</sub>) were slightly elevated and ranged from 90 to 160 mg/L in the four samples analyzed which includes one duplicate sample. The field pH levels were also found to be at 9.0 to 9.6. Sample SWSK18-1 and its duplicate sample SWSK18-A are at the maximum BC Water Quality Guidelines (WQG) range of between >6.5 to <9. Samples SWSK18-2 and SWSK18-3 have pH values greater than the recommended BCWQG ranges with pHs of 9.6 and 9.3 respectively. These samples were collected from natural, undisturbed streams during the spring Freshet. The hardness and pH levels are likely due to the natural underlying geological formations that may contain limestone units in the immediate area; however, more geological information is required. From the more alkaline pH level to the elevated calcium concentrations, it is likely that carbonate is derived by nearby limestone formations as indicated by total and dissolved calcium concentrations (Tables 1 and 2). Conductivity of the four samples as measured in the field is 0 *u*S. These readings are due to the presence of snow melt water entering the streams during Freshet.

The ABA Sample was collected as a composite of the XRF samples, refer to sample locations and descriptions. (Sukunka #6 to Sukunka #11)

#### Chemistry (Acid/Base Accounting)

Acid-Base Accounting analysis of a representative limestone sample from the Sukunka Limestone Quarry suggests there will be no acid rock drainage potential since the primary rock from drillhole samples assays up to 50% CaO. Net Neutralization Potential ran 923 t CaCO<sub>3</sub>/1kT with sulphur at 0.2% and paste pH at 8.0. Each sample was fresh in-situ rock.

The two representative samples of limestone were submitted to ALS for Acid-Base Accounting (ABA). This was to gain a sense of the likelihood of acid rock drainage.

Essentially, the current results being limestone have very high net neutralizing potential. In summary, the % total sulphur is very low (mainly <0.04% calculated). Presumably, due to the rock being mainly of calcite in the rock, the "Paste pH" is over 10 in every case (Alkaline). The neutralizing Potential (also a reflection of calcite content) is 925 CaCO<sub>3</sub>/1kt equivalent per metric tonne.

Acid-Base Accounting analysis suggests there will be no acid rock drainage potential since the primary rock from drillhole samples assays up to 50% CaO. Net Neutralization Potential ranges up to 966 kg CaCO<sub>3</sub> (per 1000 kg) with sulphur at 0.2% and paste pH at 8.6.

The three samples of lower grade limestone were submitted to ALS for Acid-Base Accounting (ABA). This was to gain a sense of the likelihood of acid rock drainage generation if any waste generated, however, no waste is expected to be generated during the bulk sample.

Essentially, the current results being limestone have high net neutralizing potential. In summary, the % total sulphur is very low (mainly <0.04% calculated). Presumably, due to the small amount of calcite in the rock, the "Paste pH" is over 10 in every case (Alkaline). The neutralizing Potential (also a reflection of calcite content) varies from 953 to 966 CaCO<sub>3</sub>/1kt equivalent per metric tonne.



Figure 4 Proposed Quarry

Geochemical Assessment Report on the Sukunka Limestone Deposit August 23, 2019



Geochemical Assessment Report on the Sukunka Limestone Deposit August 23, 2019

#### GEOLOGY

Published geological maps show the Sukunka Limestone Deposit to be located on the eastern limb of a thrust block syncline in the Rocky Mountain Front Range and underlain by thrusted and folded Triassic and Mississippian aged marine sediments (Figure 2).

Northwest striking Mississippian Rundle Group limestones underlie at least the eastern two-thirds of the lease and host the potential chemical grade limestone quarry reserves (Figure 3).

Geological mapping and sampling carried out during 1982 has shown the Rundle carbonate to consist of two gradationally distinct folded limestone lithofacies.

Chemical grade brown to grey-brown carbonates are continuously transitional from a very "clean" white speckled micrite through very fine grained detrital wackestone to a slightly dolomitic and silty courser grained wackestone.

Impure limestones gradationally overlie the chemical grade material and consist of brown-grey to grey fine through course grained detrital (with lessor crinoidal) silty and dolomitic wackestones and minor dolomitic micrite.

White crystalline calcite veins and stringers are present in both limestone units, but are more prevalent in the finer grained chemical grade material. Dolomite crystals in both units are typically very fine grained and appear to represent diagenetic overgrowth whereas the silica component, while equally fine grained, could either be primary or diagenetic and may therefore be indicative of depositional environment.

All limestones are relatively "tight" with only minor fracture porosity being present. Pyrobitumen is commonly observed on many of the fracture surfaces.

In the absence of a clearly defined marker horizon, structural definition is tentative at best and is only supported by opposed sedimentary layering attitudes and rock type distribution as best defined by assay data. Resolution of the detailed structure must await future drill core analyses.



Figure 6 General Geology



Figure 7 Detail Geology, Sukunka Limestone

#### **EXPLORATION 2019**

Work in 2019 focussed on continued sample collection to determine grade to the west of previous sample locations.

Field Collection Methods:

All rock samples were selected by site geologists. Rock samples are collected during traverses on foot with 4x4 truck assistance. The rock sampling locations are chosen by geologists based on the potential source areas of MINFILE locations. The massive cliffs are typically chosen for the easier location of rock outcrops, sub-outcrips, talus and float. The sample sites are chosen in the field by a geologist or prospector based on changes in lithology and/or the potential for limestone occurrences.

The rock grab samples are selective in nature and extracted using a rock hammer to expose fresh surfaces and to acquire a sample. All sample sites are flagged with biodegradable flagging tape and marked with the sample number. All sample sites are recorded using hand-held GPS units (accuracy 1-10m) and the following information is recorded on all-weather paper: sample ID, easting, northing, elevation, type of sample (outcrop, subcrop, float) and a brief description.

Assays were conducted by using an XRF Unit factory calibrated (Cert No. 0154-0557-1) on October 30, 2013, Instrument #540557 Type Olympus DPO-2000 Delta Premium. The instrument was calibrated using Alloy Certified reference materials by ARM1 and NIS5 standards. Only certified operators were employed and that were experienced in XRF assay procedures. Read times were 120 seconds or greater.

Four representative samples were collected; results and descriptions are contained in Appendix III and plotted on figure 7.

All samples are of light to dark grey to brown, fine grained limestone with CaO values from a low of 46.59% CaO to a high of 57.46% CaO. Silica ranges from 1.83% Si to 3.47% Si.



Figure 8 Sample Locations and Results

#### **CONCLUSIONS and RECOMMENDATIONS**

The subject property is underlain by northwest striking folded and thrusted marine sediments of Triassic and Mississippian age. Rundle Group limestones outcropping on the property host significant potential industrial chemical grade limestone reserves.

Representative chip sampling completed during 1988 in conjunction with an earlier sampling program carried out by Westmin successfully defined two quarryable zones of chemical grade limestone reserves.

The largest zone at, some 1.7 million tonnes of "probable" reserves, is located in the southern portion of the Westmin Lease while the second deposit is limited to 440,000 tonnes in the northeastern corner of the property. Average assay grades at both exceed designated limerock specifications for the bleached kraft mill markets located in Grande Prairie and Peace River.

Silicic and dolomitic limestones adjacent to the two high grade deposits will meet agricultural specifications and could therefore be recovered for Peace River aglime market.

The Peace River Lime Ltd. quarry, located near the Sukunka property was in receivership thereby allowing increased access to both the chemical and aglime markets. However this quarry has recently reopened.

Four representative samples were collected in 2019; results and descriptions are contained in Appendix III and plotted on figure 7.

All samples are of light to dark grey to brown, fine grained limestone with CaO values from a low of 46.59% CaO to a high of 57.46% CaO. Silica ranges from 1.83% Si to 3.47% Si.

Core drilling is recommended for future work programs.

Respectfully submitted,

J. T. Shearer, M.Sc., P.Geo. (BC & Ontario)

#### RECOMMENDATIONS

The results of the work have been encouraging to date, but proven quarryable reserves remain to he defined on the Sukunka claims.

Two northeast trending fences of diamond drill holes are proposed for the western end of the "South" zone in order to define sufficient initial "proven" reserves from which to base limited site development, a bulk sampling program, trial marketing, and initial limestone quarrying.

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Concurrent trial production (bulk sampling) and test marketing would be contingent upon a successful drill program.

The proposed budget for the drilling and bulk sampling program is presented below (Table IV):

Proposed	Budget
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	Amount
Contract Diamond Drilling – 200m @ \$110/m	\$22,000.00
Mob/Demob/Accommodation/Meals	\$10,000.00
Contract Bulldozing	\$10,000.00
Contract Blasting and Crushing	\$39,000.00
Contract Trucking	\$42,000.00
Assay and Lab Services	\$7,500.00
Equipment Rentals – vehicles/survey equipment/production equipment	\$5,000.00
Project Supervision	\$12,000.00
Report Preparation and Reproduction	\$1,500.00
Subtotal	\$ 149,000.00
Contingency 10%	15,000.00
Operating Total	\$164,000.00
Less sales revenue on 2,000 tonnes limerock @ \$40/tonne	(\$80,000.00)
Possible Net Project Cost	\$84,400.00

#### REFERENCES

#### MacLeod, W.A., 1989:

Geological Report on the Westmin Lease No. 802015, Mount Palsson Area, for Knox Western Capital Inc. dated February 8, 1989.

#### Shearer, J. T., 2016:

Geochemical Assessment Report on the Wapiti West Project (formerly Tunnel Project), for Fertoz International Inc. dated March 22, 2016

#### 2014:

Geological, Geochemical, Trenching and Prospecting Assessment Report on the Wapiti West Project, for Fertoz International Inc., January 9, 2014

#### 2018:

Assessment Report on the Sukunka Limestone Deposit, for Sukunka Lime Resources Ltd. dated December 14, 2018

# **APPENDIX 1**

# STATEMENT of QUALIFICATIONS

August 23, 2019

#### STATEMENT of QUALIFICATIONS

J. T. Shearer, M.Sc., P.Geo, Homegold Resources Ltd.

I, JOHAN T. SHEARER, of 3572 Hamilton Street, in the City of Port Coquitlam, in the Province of British Columbia, do hereby certify:

- 1. I am a graduate of the University of British Columbia (B.Sc., 1973) in Honours Geology, and the University of London, Imperial College (M.Sc., 1977).
- 2. I have over 40 years' experience in exploration for base and precious metals and industrial mineral commodities in the Cordillera of Western North America with such companies as McIntyre Mines Ltd., J.C. Stephen Explorations Ltd., Carolin Mines Ltd. and TRM Engineering Ltd.
- 3. I am a fellow in good standing of the Geological Association of Canada (Fellow No. F439) and I am a member in good standing with the Association of Professional Engineers and Geoscientists of British Columbia (Member No. 19,279). I am a fellow of the Society of Economic Geologists.
- 4. I am an independent consulting geologist employed since December 1986 by Homegold Resources Ltd. at #5-2330 Tyner St., Port Coquitlam, B.C.
- 5. I am the author of a report entitled "Geochemical Assessment Report on the Sukunka Limestone Deposit" dated August 23, 2019.
- 6. I have visited the property on May 18+19 and August 2+3, 2019. I have carried out mapping and sample collection and am familiar with the regional geology and geology of nearby properties. I have become familiar with the previous work conducted on the Wapiti claims by examining in detail the available reports and maps and have discussed previous work with persons knowledgeable of the area.
- 7. I have an Mines Supervisor Ticket (#835903) for daily supervision duties in the Limestone Bulk Sample.

Dated at Port Coquitlam, British Columbia, this 23<sup>rd</sup> day of August, 2019.

J.T. Shearer, M.Sc., F.G.A.C., P.Geo.

# **APPENDIX II**

# STATEMENT of COSTS

August 23, 2019

## STATEMENT of COSTS SUKUNKA PROJECT 2019

Wages & Benefits	Without GST
J. T. Shearer, M.Sc., P.Geo; 3 days @ \$700/day	\$2,100.00
May 18+19 and August 2+3, 2019	
J. Pellizon, August 2+3, 2019; 2 days @ \$600/day	1,200.00
Subtotal	\$3,300.00
Transportation	
Fully equipped 4x4 truck, 4 days @ \$125/day	\$500.00
Fuel, 750 lt. @ \$1.30/lt	480.00
Hotel, 4 nights	440.00
XRF Assays	350.00
Rental of XRF Unit	200.00
Report Preparation	700.00
Word Processing & Reproduction	300.00
Legal survey - \$5,000	N/C
Subtotal	\$2,970.00
Grand total	\$6,270.00

Event #	5752612
Filed	August 23, 2019
Amount	\$ 3,200.00
PAC	\$ 128.91
Total Filed	\$ 3,328.91

**APPENDIX III** 

# ASSAY CERTIFICATES and SAMPLE DESCRIPTIONS

August 23, 2019

## Appendix III Sample Descriptions

Sample #	Ca %	P <sub>2</sub> O <sub>5</sub> %	Al %	Si %	Description
Sample 1	54.84	0.3684	0.9942	2.74	Dark grey fine grained limestone 571649E 6111315N
Sample 2	46.59	0.4252	0.9907	2.42	Dark grey, fine grained, slightly brown limestone (white coating on fractures) 571667E 6111313N
Sample 3	52.46	0.3182	1.02	3.47	White hairline veinlets, dark grey/brown, fine grained limestone, white weathering 571689E 6111318N
Sample 4	57.46	0.3465	0.7747	1.83	Light grey fine grained limestone 571708E 6111323N