Report to:



# NI 43-101 Technical Report on the Buckshot Property

# Grenville Township, Quebec, Canada

Centred at:

533500 mE 5056950 mN, UTM Zone 18N

Effective Date: February 05, 2018

Prepared by: Case Lewis, P.Geo. Pyral Consulting #23 – 1601 Comox St, Vancouver, Canada V6G 1P4

# TABLE OF CONTENTS

1. Su	mmary	5
2. Int	roduction	8
2.1.	Purpose	8
2.2.	Effective Date	8
2.3.	Terms of Reference	8
2.4.	Qualification of Author	8
2.5.	QP Site Visit	8
2.6.	Units Used in this Report	9
2.7.	Sources of Information Used in this Report	10
3. Re	liance on Other Experts	11
4. Pro	operty Description and Location	12
4.1.	Property Location	12
4.2.	Nature and Extent of Issuer's Title	15
4.3.	Property Description	15
4.4.	Required Permits	17
4.5.	Environmental Liabilities	17
5. Ac	cessibility, Climate, Local Resources, Infrastructure and Physiography	18
5.1.	Overview	18
5.2.	Accessibility	18
5.3.	Climate	18
5.4.	Infrastructure	18
5.4	1.1. Roads	18
5.4	A.2. Air Transport	18
5.4	4.3. Rail	19
5.4	4.4. Power	19
5.5.	Local Resources	19
5.6.	Physiography	19

6. Hi	story	20
6.1.	Prior Ownership	20
6.2.	Exploration History	20
6.3.	Historical Resource or Mineral Reserve Estimates	20
6.4.	Historical Production	20
7. Ge	eological Setting and Mineralization	21
7.1.	Regional Geology	21
7.2.	Local Geology	22
7.3.	Property Geology	24
7.4.	Mineralization	26
8. De	eposit Types	27
9. Ex	ploration	30
10.	Drilling	31
11.	Sample Preparation, Analyses, and Security	32
12.	Data Verification	33
12.1	Consultant Site Visit	33
12.2	Office Based Data Verification	36
12.3	Author's Opinion on Adequacy of Data Used in this Report	36
13.	Mineral Processing and Metallurgical Testing	37
14.	Mineral Resource Estimates	38
15.	to 22.0 Do not apply to the Buckshot Property	39
23.	Adjacent Properties	40
24.	Other Relevant Data and Information	41
25.	Interpretation and Conclusions	42
26.	Recommendations	43
26.1	Phase 1 – Ground-Based EM Survey	43
26.2	Phase 2 – Exploration Drilling	43
27.	Selected References	46
Bucksh	ot Property NI 43-101 Technical Report	3

# 28. Certificate of Qualified Person

# **TABLE OF FIGURES / TABLES**

Table 2.1. Definitions, Abbreviations, and Conversions	9
Table 4.1. Titled Claim Descriptions	
Table 26.1. Estimated budget for Phase 1 (excluding tax)	
Table 26.2. Estimated budget for Phase 2 (excluding tax)	

Figure 1.1. Project location	7
Figure 4.1. Provincial Location Map.	
Figure 4.2. Claim location.	14
Figure 7.1. Local Geology.	
Figure 7.2. Property geology.	
Figure 8.1. Diagram of a disseminated graphite deposit from Buckingham,	Quebec from
Cameron , 1960. "Graphite Gneiss" unit in this example measures 15 feet (5 metres	) across 28
Figure 8.2. Diagram of a "fissure vein" of graphite from Buckingham, Quebec, fr	om Cameron,
1960. Vein measures 20 inches (~50cm) across	
Figure 9.1. Summary map showing granitic area and zones of interest	
Figure 9.2. Granite outcrop	
Figure 9.3. Swamp area at base of valley.	

48

# 1. SUMMARY

Pyral Consulting ("the Consultants" or "Pyral Consulting") was retained by Durango Resources Inc. ("Durango" or the "Company") to prepare a Technical Report (the "Report") on their Buckshot Property in southern Quebec.

Case Lewis, P.Geo. is responsible for the contents of this Report. Mr. Lewis visited the Property on March 24, 2016. In completing the report, the Consultants held discussions with management in Vancouver, BC, reviewed relevant reports and information, and completed a technical report on the Property. The author is a "Qualified Person" who is "independent" of Durango Resources Inc. within the meaning of National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101").

Pyral Consulting has reviewed the data available for the Buckshot Property and conducted its own due diligence in verifying the geology and exploration potential of the Property.

The Buckshot Property is an early stage exploration property. It is directly adjacent to the Miller Mine Graphite Property, owned by Canada Carbon Inc, which has been subject to extensive exploration in recent years, while historically being one of the oldest graphite producers in Canada, dating back to the mid 1800's.

At the present time, it is not yet possible to generate an exploration target, mineral resource, or mineral reserve on the Property. Additional work on the Property, in the form of exploration drilling and trenching, may succeed in generating Exploration Targets.

Property location is shown in Figure 1.1.

#### **Recommended Work**

Pyral Consulting recommends the following two phases of work on the Property:

- Phase 1 ground-based EM (electromagnetic) survey
- Phase 2 trenching and exploration diamond drilling

#### PHASE 1 – GROUND-BASED EM SURVEY

Electromagnetic (EM) survey methods are exceptionally well suited for graphite exploration, as graphite deposits tend to be highly conductive. EM surveys have proven to be a highly effective exploration method on many graphite prospects, such as Canada Carbon's Miller Mine property, Lomiko Metals' La Loutre Property, and Focus Graphite's Lac Tétépiska Property.

This phase is estimated to cost \$104,650, excluding tax.

#### The following phase is contingent on the success of Phase 1.

#### PHASE 2 – TRENCHING & EXPLORATION DRILLING

Pyral Consulting recommends the second phase of concurrent trenching and drilling which will target anomalous zones identified in the EM survey.

Drilling campaign of approximately 2,000 metres of drilling in 10 to 15 drill holes across the Property, in order to test any discovered anomalies and add to the understanding of the geology underlying the Property.

This phase is estimated to cost \$427,513, excluding tax.

#### Total for both phases is estimated to be \$532,163, excluding tax.

*Cautionary Statement:* Mineralization identified on adjacent properties does not necessarily indicate that mineralization will be identified on the Buckshot Property. The Author has been unable to verify the information on the adjacent property and the information regarding the adjacent property is not necessarily indicative of the mineralization on the Buckshot Property.



Figure 1.1. Project location.

## 2. INTRODUCTION

#### 2.1. <u>Purpose</u>

This technical report covers the Buckshot Property located in the Grenville Township, near the village of Grenville-sur-la-Rouge, Quebec.

Pyral Consulting was hired by Durango Resources Inc. to prepare an NI 43-101 Technical Report in accordance with Canadian National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101), NI 43-101 Form F1, and Canadian Institute of Mining, Metallurgy and Petroleum (CIM) "Best Practices and Reporting Guidelines."

Durango Resources Inc. is a publicly listed mineral exploration company based in Vancouver, BC, and is listed on the TSX Venture exchange.

#### 2.2. <u>Effective Date</u>

The effective date of this Report is February 05, 2018.

#### 2.3. <u>Terms of Reference</u>

Ms. Marcy Kiesman, representative for Durango Resources Inc., retained Pyral Consulting to complete a technical report for the Buckshot Property.

The author reserves the right, but will not be obliged to, revise this report and its conclusions if additional information becomes known subsequent to the date of this report.

The information, opinions, and conclusions contained herein are based on:

- Information available to the author at the time of preparation of this report;
- Assumptions, conditions, and qualifications as set forth in this report; and
- Data, reports, and other information supplied by Durango Resources Inc., and other thirdparty sources cited in this report.

#### 2.4. <u>Qualification of Author</u>

The Qualified Person responsible for this Report is Case Lewis, Professional Geologist and QP as defined by NI 43-101. Mr. Lewis is a Professional Geoscientist registered in good standing with the Ordre des Geologues du Quebec (member #1904).

#### 2.5. <u>QP Site Visit</u>

Mr. Case Lewis, P.Geo., Geologist, visited the Property on March 24, 2016.

#### 2.6. <u>Units Used in this Report</u>

Unless otherwise indicated, all units of measurement used in this Technical Report are metric, amounts are in Canadian Dollars, and coordinates are in the UTM system, NAD 83, Zone 18N, unless otherwise stated.

Asl	above sea level	ICP	Inductively Coupled Plasma	
%	Percent	In	Inch(es)	
<	Less than	Kg	Kilogram	
>	Greater than	kg/m <sup>2</sup>	Kilograms per square metre	
0	Degree	kg/t	Kilograms per tonne	
°C	degrees Celsius	km	kilometre(s)	
μm	Micrometre (micron)	km <sup>2</sup>	Square kilometre	
1 gram	0.3215 troy oz.	Kt	Thousand tonnes	
1 oz./Ton	28.22 gm/tonne	M	Metre	
1 troy oz.	31.104 gm	M	Million	
А	Year (annum)	m²	Square metre	
Cm	Centimetre	Ma	Million years ago	
Cu	cooper	Masl	Metres above sea level	
DDH	Diamond drill hole	mm	millimetre(s)	
DEM	digital elevation model	Mt	Million tonnes	
EMD	Exploration and Mining Division of Ireland	n.a.	not available/applicable	
Fn, FMn	Formation	NI 43-101	Canadian National Instrument 43- 101	
g or gm	gram(s)	OZ.	troy ounce	
g/t	grams per metric tonne	P. Geo.	Professional Geoscientist	
GPS	Global Positioning System	Pb	lead	
IP	Induced Polarization	ppb	parts per billion	
GSI	Geological Survey of Ireland	ppm	parts per million	
Н	Hour	PLs	Prospecting Licences	
ha	hectare(s)	QA	quality assurance	
ICP-MS	inductively Coupled Plasma- Mass Spectrometry	QC	quality control	
IP	Induced Polarization	QP	Qualified Person	

Table 2.1. Definitions, Abbreviations, and Conversions

#### 2.7. Sources of Information Used in this Report

The Author has reviewed and analyzed data obtained from reports primarily from the information provided by the Client, the SIGEOM online archive, and historical sources, and has drawn its own conclusions, augmented by its direct field examination.

The information, conclusions, opinions, and estimates contained herein are based on:

- Information available to the Author at the time of preparation of this report,
- Assumptions, conditions, and qualifications set forth in this report, and
- Data, reports, and other information supplied by Durango Resources and its representatives, and other third-party sources.
- The Author is relying entirely on Durango Resources Inc. in matters of legal opinions regarding Property title.
- The Author offers no opinion on the state of the environment on the Property. Known restrictions, according to SIGEOM, and known environmental liabilities are outlined in Section 4.
- Except for the purposes legislated under provincial securities laws, any use of this report by any third party is at that party's sole risk.

## **3. RELIANCE ON OTHER EXPERTS**

For the purpose of this report, the Author has relied solely on ownership information provided by Durango Resources Inc and SIGEOM, particularly in respect the property acquisition, property deal, rights, property ownership, and any other rights of Durango Resources Inc, as referenced in Section 4. Neither Pyral Consulting nor the Author express an opinion as to the ownership status of the property.

## 4. PROPERTY DESCRIPTION AND LOCATION

#### 4.1. <u>Property Location</u>

Property location is shown in Figure 4.1 and 4.2.

The Property is located:

- at approximately 533,000 mE and 5,058,600 mN (UTM Zone 18N; North American Datum (NAD) 83);
- in NTS Mapsheet 31G10;
- in the Grenville Township;
- approximately 60 kilometres west of the city of Montreal;
- approximately 4 kilometres north, by road, of the village municipality of Grenville-surla-Rouge.



Figure 4.1. Provincial Location Map.



Figure 4.2. Claim location.

#### 4.2. Nature and Extent of Issuer's Title

Durango Resources holds a 100% interest in all titled mineral claims comprising the Buckshot Property.

The current pending claim indicated in Figure 4.2 was originally owned by Durango Resources as 2436510, staked on February 28, 2015, and subsequently expired on January 27, 2018. The cell was then staked by a prospector on February 05, 2018. Durango now has an agreement to acquire the 100% of the claim once it has been titled.

#### 4.3. <u>Property Description</u>

The Property is located in the NTS Map Sheet 31G10 in the Grenville Township, approximately 4 kilometres north of the village municipality of Grenville-sur-la-Rouge, Quebec, and is comprised of 11 map-designated claims in two contiguous blocks. One block is comprised of 9 titled claims covering 541 hectares, plus one pending claim covering 60.09 hectares (Application 1652485). The other block is comprised of 2 claims covering 120.28 hectares. All titled claims total 661.28 hectares. Combined titled and pending claims cover 721.37 hectares. The titled claims will expire on March 30, 2018. The pending claim will expire 2 years from the date of approval. At present, no exploration work is accumulated on the claims. As a renewal application was not filed by the Issuer prior to the 60-day filing deadline, the regular total fee of \$13,200 doubles to \$26,400 for the next renewal by March 30, 2018. The title numbers are found in Table 4.1, while claims and adjacent properties are shown in Figure 4.2.

Title	Size (ha)	Staking Date	Expiry Date	Work Credit	Required Work	Owner
2438779	60.14	2016-03-30	2018-03-29	\$ 0	\$ 1200.00	Durango Ressources inc.
2438780	60.14	2016-03-30	2018-03-29	\$ 0	\$ 1200.00	Durango Ressources inc.
2438924	60.11	2016-03-31	2018-03-30	\$ 0	\$ 1200.00	Durango Ressources inc.
2438925	60.11	2016-03-31	2018-03-30	\$ 0	\$ 1200.00	Durango Ressources inc.
2438926	60.11	2016-03-31	2018-03-30	\$ 0	\$ 1200.00	Durango Ressources inc.
2438927	60.11	2016-03-31	2018-03-30	\$ 0	\$ 1200.00	Durango Ressources inc.
2438928	60.10	2016-03-31	2018-03-30	\$ 0	\$ 1200.00	Durango Ressources inc.
2438929	60.10	2016-03-31	2018-03-30	\$ 0	\$ 1200.00	Durango Ressources inc.
2438930	60.12	2016-03-31	2018-03-30	\$ 0	\$ 1200.00	Durango Ressources inc.
2438931	60.12	2016-03-31	2018-03-30	\$ 0	\$ 1200.00	Durango Ressources inc.
2438932	60.12	2016-03-31	2018-03-30	\$ 0	\$ 1200.00	Durango Ressources inc.
Totals	661.28				\$ 13,200.00	

Table 4.1. Titled Claim Descriptions

#### **Claim Renewal**

Claim holders may apply to renew a title for a two-year period. To do this, they must:

- Submit a renewal application at least 60 days prior to the claim expiry date.
- Pay the required fees, which vary according to the surface area of the claim, its location and the date on which the application is received:
  - if it is received before the 60th day preceding the claim expiry date, the regular fees apply;
  - $\circ$  if it is received in the 60-day period preceding the claim expiry date, the fees are doubled.
- Submit the assessment work report and work declaration form at least 60 days prior to the claim expiry date. If these documents are submitted in the 60-day period preceding the claim expiry date, an additional amount is payable for late submission.
- Comply with the other renewal conditions.

When renewing a claim, the holder may apply any excess work credits from another claim held by it, up to the amount required for renewal. The claim under renewal must be located within a radius of 4.5 km from the centre of the claim from which the credits will be used.

The claim holder may do the same for a claim in respect of which it has a promise to purchase, with written permission from the holder. A claim holder who has a promise to purchase in respect of two claims from different holders may also take excess work credits from one of those claims and apply them to the other, provided permission is obtained from both holders.

If the required work was not performed or was insufficient to cover renewal of the claim, the claim holder may pay an amount equal to the double of the minimum cost of the work that should have been performed.

#### 4.4. <u>Required Permits</u>

The Property is located on private land. Permission must be obtained from the surface rights owners before initiating an exploration program.

#### 4.5. <u>Environmental Liabilities</u>

Cells# 2438928 and 2438926 are partially covered by a Minor Restriction according to SIGEOM, with the following terms:

Name: White-tailed Deer Area (Calumet)

**Restriction:** Exploration permitted under conditions

**Constraint type:** Wildlife Habitat

**Conditions:** Activities that may modify a biological, physical or chemical element specific to wildlife habitat are prohibited, with some exceptions, under the Act respecting the conservation and development of wildlife (L.R.Q.,c.C-61.1). An authorization to carry out an activity may be requested in writing from the Minister (Faune Québec)

There are no other known significant environmental liabilities for the claim area. No obvious environmental liabilities were observed during site visit. In addition, there are no other known significant factors or risks that may affect access, title or the right or ability to perform work on the claim area.

The Author is relying on information provided by Durango Resources Inc and SIGEOM, with respect to environmental liabilities on the Property. The Company should evaluate the effects of these factors on future exploration and the Company should obtain proper independent advice from an expert with respect to these matters.

# 5. ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

#### 5.1. <u>Overview</u>

The Property is located in the province of Quebec, Canada. The nearest major population centre is the village municipality of Grenville-sur-la-Rouge, with circa 1,600 inhabitants. Grenville-sur-la-Rouge is located approximately 4 kilometres south of the Property. The city of Montreal is located approximately 60 kilometres east of the Property.

#### 5.2. <u>Accessibility</u>

The project can be reached by vehicle from Montreal by following QC-148 and Autoroute 50 O for 60 kilometres to Chemin Scotch in Grenville-sur-la-Rouge, then taking exit 239 from Autoroute 50 O, then for 5 kilometres on Chemin Rawcliffe to Chemin Mcfarlane. From the end of Chemin Mcfarlane, the Property can be reached on foot or by ATV for 1 kilometre down a private bush road. The south part of the Property is traversed by a private bush road connecting to Chemin Mcfarlane. There are services along the full length of Autoroute 50 O as well as in the village of Grenville.

#### 5.3. <u>Climate</u>

The Buckshot Property area has a humid continental climate, with moderate continental precipitation. Summer temperatures have a daily maximum average of 26 to 27°C. In July, temperatures in excess of 30°C are common. Winter temperatures average -9 to -10.5°C in January. Some winter days rise above freezing, allowing for rain on average of 4 days in January and February each. Winter temperatures generally do not drop below -30°C. Average annual precipitation is 1,000 mm.

#### 5.4. <u>Infrastructure</u>

#### 5.4.1. <u>Roads</u>

A private trail extends from the turnaround at the end of Chemin Mcfarlane, which then leads into a private bush road, which is suitable for ATV or snowmobile travel during the spring and winter and can be made suitable for 4-wheel-drive trucks if the road is subject to some minor rehabilitation. There is no mining infrastructure on the Property.

#### 5.4.2. <u>Air Transport</u>

The Montreal-Pierre Elliott Trudeau International airport, located 86 km west of the Property via Autoroute 40 O, is serviced by most major carriers. Freight shipping is available at this airport.

#### 5.4.3. <u>Rail</u>

A railroad passes through the Ottawa Valley near Grenville.

#### 5.4.4. <u>Power</u>

Medium voltage Hydro-Quebec powerlines are located approximately 1 kilometre from the Property, with transmission lines along Autoroute 40 O.

#### 5.5. Local Resources

Local manpower and supplies are available from the town of Grenville-sur-la-Rouge. As the project is close to two major population centres, Montreal and Ottawa/Gatineau, skilled workers and supplies are abundantly available from the village of Grenville, as well as Montreal, Ottawa/Gatineau, and several other nearby towns.

#### 5.6. <u>Physiography</u>

The topography of the area is relatively hilly, with elevations ranging from 100 to 240m above sea level. Hills are usually due to more competent rocks, mainly paragneiss and quartzite. The Property is covered by sparse forest, and approximately 20% is covered by lakes and rivers. At this latitude there is no permafrost.

### 6. HISTORY

#### 6.1. <u>Prior Ownership</u>

History of Property acquisition and prior ownership is outlined in Section 4.2.

#### 6.2. Exploration History

The Property has not been subject to significant historical exploration work.

#### 6.3. <u>Historical Resource or Mineral Reserve Estimates</u>

There have been no historical resource or mineral reserve estimates completed on the Property.

#### 6.4. <u>Historical Production</u>

There has been no historical production from the Property.

The following applies to neighboring properties and does not pertain directly to the Buckshot Property:

Historical graphite production in the region centred around the Miller Graphite Mine, located 5 kilometres to the west of the Property. Production began in 1845 at the Miller Mine. Thirty years later, the Buckingham area, west of Grenville, joined Grenville in graphite production, with the Walker Mine commencing operation in 1876 and remaining operational until 1920, and then shortly in 1906, producing approximately 816 tonnes of lump-type graphite (Saint Jean Carbon Inc, 2016).

Deposits throughout southwestern Quebec, southeastern Ontario, and the Ticonderoga district of eastern New York were prospected and mined on a small scale in mid-to-late 1800's until the 1930s, when graphite production in the region declined dramatically, due largely to the onset of the Great Depression, coupled with increased competition from Madagascar and Ceylon (now Sri Lanka) (Cameron, 1960).

#### 7. GEOLOGICAL SETTING AND MINERALIZATION

#### 7.1. <u>Regional Geology</u>

The Property lies within the southern part of the Morin terrane of the Grenville Geological Province (1.6 Ga - 1.0 Ga). The Grenville Geologic Province is recognized as a deeply exhumed Mesoproterozoic Himalayan-type collision orogenic belt associated with the assembly of the supercontinent Rodina. It is interpreted as a collage of gneissic terranes that were subjected to high-grade metamorphism (Corriveau & van Breeman, 2000; Corriveau, et.al., 2007), consisting of reworked amphibolite- to granulite- facies crust.

The Morin terrane is dominated by the 1.15 Ga Morin AMCG Suite and related granitic intrusions (Corriveau L. R., 1998). The southern part of the Morin terrane exhibits granulite-facies mineral assemblages (Peck, et al, 2005). The Morin Complex is an anorthosite massif, emplaced in several stages as two distinct plutons at ~1.15 Ga (Doig, 1991; Peck & Valley, 2000), causing deformation of the surrounding rocks. The main stage was the intrusion of the formation of the western body of gabbroic anorthosite (Rose, 1960). The anorthosite is likely to have formed by plagioclase floatation in a mafic magma chamber at the base of the crust (Ashwal, 1993).

The Property is bounded to the west by the Labelle Deformation Zone.

#### 7.2. Local Geology

#### From Technical Report on the Miller Mine Graphite Property, 2014:

The southern part of the Grenville Township was mapped by Philpotts (1961) who detailed the folded sequence of quartzofeldspathic gneiss, quartzite and crystalline limestone (marble); this sequence is characteristic of the Grenville Series of Logan (1863). The well-banded quartzofeldspathic gneisses were divided into two groups on the basis of whether they contain biotite or pyroxene, which rarely occur together in the area. Philpotts determined that gneisses are not the dominant lithology, occurring as remnants between the various intrusive of the Morin Series, which includes gabbro, monzonite, granite and syenite. Quartzite was documented as very massive, well jointed, white or pinkish rocks. Crystalline limestone appeared to be limited to two large beds. Microscope examination revealed twinned calcite, sphene, zircon, diopside, serpentine (after olivine), graphite, quartz, microcline and grossularite. Wollastonite was only noted near igneous contacts. Various pegmatites were observed to be affected by scapolite alteration of feldspar where the pegmatites intrude crystalline limestone. Finally, Philpotts also noted younger diabase and lamprophyre dykes.

According to SIGEOM general geological mapping, the Property is located near the contact of the Chatham-Grenville Syenite, schists to the west and calcareous metasediments of the Beauharnoius formation to the south.

Local geology is shown in **Figure 7.1**.



Figure 7.1. Local Geology.

#### 7.3. <u>Property Geology</u>

According to regional and relevant local mapping, the Property is presumed to be underlain by rocks of the Central Metasedimentary Belt of the Grenville Series. Locally, rocks belong to the Morin terrane.

According to SIGEOM regional geological maps, the upper part of the property is dominated by syenite, a coarse-grained gray igneous rock composed mainly of alkali feldspar and ferromagnesian minerals such as hornblende. The lower part of the property is shown by SIGEOM to be dominated by granulitic gneiss – referring to the granulite facies, a class of high-grade metamorphic rocks that have experienced high-temperature and moderate-pressure metamorphism, and gneisses being characterized by strongly foliated, alternating dark (melanocratic) and light (leucocratic) banding.

Although areas of higher topographic relief have been mapped generally as granitic (possibly granite to syenite) rocks, areas of lower relief are covered by swamps and overburden. Several observable outcrop stations were mapped, all of which were mapped as these granitic intrusions along the side or on top of the hills. Stations at the bottom of the valleys were entirely covered by overburden and swamps.

The only exposed rocks are in the highly weathering resistant units comprising the hills, which in this case, consist of granitic (to syenitic) intrusions. Based on the morphology of typical marblehosted graphite occurrences, particularly in the Grenville area and Buckingham area (approximately 60 kilometres west of Grenville) of Quebec, areas of significant negative relief, including the valley in the centre of the mapped area, may possibly represent zones of less weathering-resistant material, such as a marble unit or a shear zone. In either case, these zones would have the potential for hosting disseminated or vein-type graphite mineralization. This is a hypothesis that must be verified through direct testing such as trenching or drilling.

Favourable settings for disseminated graphite mineralization are often areas of negative relief or related to faults or structures and are thus areas of greatest interest on the Property. As graphite and marble are much less resistant to weathering relative to the surrounding granitic rocks, the most prospective units for graphite exploration will more often be represented by valleys or gullies and underlain by these units. Nevertheless, narrow vein-type graphite may occur within fractures or faults in highly weathering-resistant intrusive units as well and is often not well-represented by topography. These deposit types are discussed in **Section 8**.

The Buckshot Property geology is shown in **Figure 7.2**.



Figure 7.2. Property geology.

# 7.4. <u>Mineralization</u>

Mineralization has not yet been identified on the Property.

#### 8. DEPOSIT TYPES

Concentrations of graphite are found at many places in the siliceous marbles of the Grenville series in southeastern Ontario, southwestern Quebec, and the Ticonderoga district of eastern New York. This region has historically played an important role as a source of Canadian flake graphite. The occurrences in this region are, for the most part, difficult to define under any single deposit type, though they may be considered "contact-metasomatic" deposits as a catch-all label. They show gradations to hydrothermal replacement deposits, disseminated deposits in marble, and vein deposits. (Cameron, 1960)

The flake graphite deposits that occur in the rocks of the Grenville series of southeastern Ontario and southern Quebec are found in irregular aureoles of siliceous marble bordering small pegmatites. These marbles may be erratically altered to calcite, diopside, scapolite, titanite, wollastonite, and other minerals.

In these deposits, graphite occurs as flakes irregularly disseminated throughout the siliceous rock, as sporadic patches, or in veins associated with calcite and quartz. While the disseminated type of mineralization typically exhibits lower grades and fine flake sizes, vein graphite exhibits exceptionally large flake size, which range from millimetre-scale up to several centimetres in diameter. Sometimes branches and narrow apophyses run out from the large graphite veins between layers of country rock. (Cirkel, 1907)

A simplified diagram of disseminated graphite mineralization is shown in Figure 8.1.



Figure 8.1. Diagram of a disseminated graphite deposit from Buckingham, Quebec from Cameron, 1960. "Graphite Gneiss" unit in this example measures 15 feet (5 metres) across.

Carbon in granulite-hosted graphite veins derives from sublithospheric sources or from decarbonation reactions of carbonate-bearing lithologies, and it is transported mainly in CO2-rich fluids from which it can precipitate. Graphite precipitation can occur by cooling, water removal by retrograde hydration reactions, or reduction when the CO2-rich fluid passes through relatively low-fO2 rocks (Luque, et al., 2014). The veins are commonly sharp walled, and the graphite fillings are highly crystalline, except where later movement has deformed them. The simplest veins consist of two layers, one on either wall of the fracture, made up of parallel close-packed elongate plates of coarse graphite. The lengths of the plates vary with the thickness of vein and in places are as much as 10 cm (Cameron, 1960). In the Grenville Series, these vein deposits occur in siliceous marbles and paragneiss units. A simplified diagram of vein graphite mineralization is shown in **Figure 8.2**.



Figure 8.2. Diagram of a "fissure vein" of graphite from Buckingham, Quebec, from Cameron, 1960. Vein measures 20 inches (~50cm) across.

In known occurrences, graphite can be alone or in association with other minerals, including pyroxene, scapolite, titanite and wollastonite (Spence, 1920).

# 9. EXPLORATION

No exploration has been carried out by the Issuer.

# **10. DRILLING**

No drilling has been completed by the Issuer and no drilling was reported in the past.

# 11. SAMPLE PREPARATION, ANALYSES, AND SECURITY

No sampling has yet been completed by the Issuer.

#### **12.** DATA VERIFICATION

#### 12.1. Consultant Site Visit

On March 24, 2016, a site visit was conducted by the Author for the purposes of this Technical Report. Mapping and observations at several stations was carried out on the eastern portion of the claims in order to verify the geology on the property, although no samples were taken.

Overburden generally obscures the underlying bedrock on the property, with exposure only being in highly resistive units, which in this case, consist of granitic (to possibly syenitic) intrusions. Based on the morphology of typical marble-hosted graphite occurrences, particularly in the Buckingham and Grenville areas, areas of negative relief, including the valley in the centre of the mapped area, may possibly represent zones of less weathering-resistant material, such as a marble unit or a shear zone. Trenching and/or drilling beneath these valley areas, will be required to test this hypothesis.

A visual annotated summary of work carried out is shown in Figure 12.1.



Figure 12.1. Summary map showing granitic area and zones of interest.



Figure 12.2. Granitic outcrop.



Figure 12.3. Swamp area at base of valley.

#### **Office Based Data Verification**

Data acquired by the Author during the site visit was limited to only outcrop mapping and GPS locations. Geospatial data was validated in QGIS by cross-referencing with GPS tracks and aerial photos, and photographs were cross-referenced with GPS coordinates.

There is no available relevant historical data directly on the claims. Therefore, no historical data verification was required.

#### 12.2. Author's Opinion on Adequacy of Data Used in this Report

Data acquired by the Author during the site visit was limited to only outcrop mapping and GPS locations and is considered adequate and can be relied upon.

As mentioned above, there is no available relevant historical data directly on the claims.
# 13. MINERAL PROCESSING AND METALLURGICAL TESTING

No mineral processing and metallurgical testing has been completed on the Property.

# 14. MINERAL RESOURCE ESTIMATES

No mineral resource estimates have been completed on the Property.

# **15.** TO **22.0** DO NOT APPLY TO THE BUCKSHOT PROPERTY

The Property is still at an early stage of exploration and in this case, items 15 through 22 do not apply to the Buckshot Property.

### 23. ADJACENT PROPERTIES

#### This section pertains to adjacent properties and does not pertain to the Buckshot Property.

Canada Carbon Inc's Miller Mine Property is adjacent to the west of the Buckshot Property. The Miller Mine graphite property is owned by Canada Carbon Inc, which has been subject to extensive exploration in recent years, while historically being one of the oldest graphite producers in Canada, dating back to the mid 1800's.

**Cautionary Statement:** Mineralization identified on adjacent properties does not necessarily indicate that mineralization will be identified on the Buckshot Property. The Author has been unable to verify the information on the adjacent property and the information regarding the adjacent property is not necessarily indicative of the mineralization on the Buckshot Property.

# 24. OTHER RELEVANT DATA AND INFORMATION

There is no additional information or explanation necessary to ensure that the Technical Report is understandable and not misleading.

## **25.** INTERPRETATION AND CONCLUSIONS

Pyral Consulting has reviewed the data available for the Buckshot Property and conducted its own due diligence in verifying the geology and exploration potential of the Property.

The Buckshot Property is an early stage exploration Property. It is directly adjacent to the Miller Mine graphite property, owned by Canada Carbon Inc, which has been subject to extensive exploration in recent years, while historically being one of the oldest graphite producers in Canada, dating back to the mid 1800's.

No graphite was identified on the Property, however the high degree of topographic relief indicates the potential for significant structures or weakly resistant materials (which may potentially represent graphite or marble, although other materials may be responsible for these features), which contribute to the valley landforms. These valleys and other areas of low topographic relief should be the main focus for future exploration.

Favourable setting for disseminated flake graphite mineralization is in areas of low relief or related to faults or structures. As graphite and marble are much less resistant to weathering as the surrounding granitic rocks (possibly granite to syenite), the most significant units will more often be represented by valleys or gullies. Nevertheless, narrow vein-type graphite may also occur within granite or other units as well. Geophysical electromagnetic surveys are invaluable in graphite exploration, as low relief areas are usually covered by overburden and narrow veins tend to be difficult to identify due to their often-discontinuous nature.

At the present time, it is not yet possible to generate an exploration target, mineral resource, or mineral reserve on the Property. Additional work on the Property, in the form of exploration drilling and trenching, may succeed in generating Exploration Targets.

*Cautionary Statement:* Mineralization identified on adjacent properties does not necessarily indicate that mineralization will be identified on the Buckshot Property. The Author has been unable to verify the information on the adjacent property and the information regarding the adjacent property is not necessarily indicative of the mineralization on the Buckshot Property.

### **26. Recommendations**

The Author recommends the following two phases of work on the Property. Phase 2 is contingent on the success of Phase 1.

- Phase 1 ground-based EM (electromagnetic) survey
- Phase 2 trenching and exploration diamond drilling

### 26.1. Phase 1 – Ground-Based EM Survey

Electromagnetic (EM) survey methods are exceptionally well suited for graphite exploration, as graphite deposits tend to be highly conductive. EM surveys have proven to be a highly effective exploration method on many graphite prospects, such as Canada Carbon's Miller Mine property, Lomiko Metals' La Loutre Property, and Focus Graphite's Lac Tétépiska Property.

#### Recommendations

A ground-based electromagnetic EM survey (Max-Min II) is recommended to be conducted in a grid across the Property covering a wide area, up 1,500 x 2,000m, with lines separated by 100m spacing and a length extending across the full length of the Property. Areas yielding significant anomalies may then have additional survey lines inserted to form a 50m-spaced grid in selected areas.

Resolution would then be further improved by carrying out a limited BeepMat survey across anomalous zones to accurately define the location of mineralization. It should be noted that this method is easily affected by overburden thickness and may have limited application.

This phase is estimated to cost **\$104,650**, excluding tax.

#### The following phase is contingent on the success of Phase 1.

#### 26.2. <u>Phase 2 – Exploration Drilling</u>

Dependent on the success of Phase 1, a second phase of concurrent trenching and drilling campaign which will target anomalous zones identified in the EM survey is recommended.

Drilling campaign should consist of approximately 2,000 metres of drilling in 10 to 15 drill holes across the Property, in order to test any discovered anomalies and add to the understanding of the geology underlying the Property.

This phase is estimated to cost **\$427,513**, excluding tax.

Total for both phases is estimated to be **\$532,163**, excluding tax.

Item	Quantity	Cost per unit	Total
EM /Magnetic Survey	50 line km	\$750/km	\$37,500
Project Geologist	20 days	\$750/day	\$15,000
Geotechnician	20 days	\$400/day	\$8,000
BeepMat Rental	20 days	\$75/day	\$1,500
Mobilization / Travel Costs / Mileage		\$4,000	\$4,000
Food and lodging	20 days	\$200	\$20,000
	x 5 persons		
Reporting, interpretation, and filing of assessment reports with MERN		\$5,000	\$5,000
Subtotal			\$91,000
15% budget contingency			\$13,650
Totals			\$104,650

Table 26.1. Estimated budget for Phase 1 (excluding tax)

Item	Quantity	Cost per unit	Total
Diamond Drilling	2,000 m	\$125/m	\$250,000
Assay costs	1,500 units	\$30/unit	\$45,000
Project Geologist	25 days	\$750/day	\$18,750
Mobilization / Travel Costs / Mileage		\$30,000	\$30,000
Food and lodging	25 days	\$200	\$20,000
Geotechnicians	x 4 persons	\$400/day	\$20,000
Reporting, interpretation, and filing of assessment reports with MERN		\$8,000	\$8,000
Subtotal			\$371,750
15% budget contingency			\$55,763
Totals			\$427,513

Table 26.2. Estimated budget for Phase 2 (excluding tax)

#### **27. SELECTED REFERENCES**

Ashwal, L. D. (1993). Anorthosites. NY: Springer-Verlag.

- Cameron, N. W. (1960). Strategic Graphite: A Survey. *Contributions to Economic Geology, Geological Survey Bulletin 1082-E.*
- Charbonneau, R., & Lauzier, S. (2014). *Technical Report on the Miller Mine Graphite Property, Grenville Township, Quebec, Canada.*
- Cirkel, F. (1907). *Graphite: its properties, occurrence, refining and uses.* Ottawa: Dept of Mines, Mines Branch.
- Corriveau, L. R. (1998). Rheological controls on Grenvillian intrusive suites: implications for tectonic analysis. *Journal of Structural Geology*, 20, pp. 1191-1204.
- Corriveau, L., & van Breeman, O. (2000). Docking of the Central Metasedimentary Belt to Laurentia in geon 12: evidence from the 1.17–1.16 Ga. Chevreuil intrusive suite and host gneisses, Quebec. *Canadian Journal of Earth Sciences*, *37*, pp. 253-269.
- Corriveau, L., Rivard, B., & Davidson, A. (2007). Prospective metallogenic settings of the Grenville Province, in Goodfellow, W.D., ed., Mineral Deposits of Canada: A Synthesis of Major Deposit-Types, District Metallogeny, the Evolution of Geological Provinces, and Exploration Methods. *Geological Association of Canada, Mineral Deposits Division, Special Publication No. 5*, pp. 819-847.
- Doig, R. (1991). U-Pb zircon dates of Morin anorthosite suite rocks, Grenville Province Quebec. *J Geology*, 729-738.

Logan, W.E., (1863). Geology of Canada; Geological Survey of Canada, report of progress to 1963, 983 p.

- Luque, F., Huizenga, J.-M., Crespo-Feo, E., Wada, H., Ortega, L., & Barrenechea, J. (2014, Feb). Vein graphite deposits: geological settings, origin, and economic significance. *Mineralium Deposita*, 49(2), 261.
- Peck, W. H., & Valley, J. W. (2000). Large crustal input to high δ18O anorthosite massifs of the southern Grenville Province: new evidence from the Morin Complex, Quebec. *Contributions to Mineralogy and Petrology*, 139(4), 402-417.

Peck, W. H., DeAngelis, M. T., & Morin, E. (2005). Polymetamorphism of marbles in the Morin terrane, Grenville Province, Quebec. *Canadian Journal of Earth Sciences*, 1949-1965.

Philpotts, A.R. (1961). Geological report on the southeastern part of Grenville Township, Argenteuil County; Ministère de l'Énergie et des Ressources du Québec; DP-12, 46 p.

Saint Jean Carbon Inc. (2016, May 08). *Walker Mine: Buckingham Township*. Retrieved from Saint Jean Carbon Inc.: http://www.saintjeancarbon.com/index.php/properties/graphite-properties/walker-mine/

SIGEOM (2017), WMS Online Geological Maps Layers http://sigeom.mines.gouv.qc.ca/signet/classes/I1108\_afchCarteIntr.

Spence (1920). Graphite in Canada; Canada Mines Branch, Publication No 511, 240p.

# **28.** CERTIFICATE OF QUALIFIED PERSON

I, Case Lewis, resident at #23 – 1601 Comox St, Vancouver, BC, Canada hereby certify that:

- I am a geologist affiliated with Pyral Consulting., with a business address at #23 1601 Comox St, Vancouver, BC, Canada V6G 1P4. The Report to which this certificate applies is entitled: "Durango Resources Inc. - Technical Report on the Buckshot Property, Grenville Township, Quebec, Canada" The effective date of this report is February 05, 2018.
- I am a graduate of the University of Alberta with a Bachelor of Science Degree (Specialization Geology). I have been a member in good standing and registered Professional Geologist (P.Geo.) with the Association of Professional Geologist (P.Geo.) since Ontario (member #2444) since and a registered Professional Geologist (P.Geo.) since 2013 and I am also registered with the Ordre des Geologues du Quebec (member #1904).
- I have relevant experience as a project geologist on drilling, mapping, and geophysical survey campaigns including Ontario and Quebec on similar deposit styles and geological settings over (5) years since 2013. I have been working in mineral exploration for various commodities including lithium, gold, uranium, zinc, and oil and gas, throughout Canada, United States, China, Mongolia, Peru, and Guyana over the past 10 years.
- I have read the definition of "Qualified Person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional organization (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
- My most recent personal inspection of the Property was March 24, 2016.
- I am responsible for all sections of the Technical Report.
- I am independent of Durango Resources Inc. as defined by all tests Section 1.5 of the National Instrument 43-101. For greater clarity, I do not hold, nor do I expect to receive, any securities of any other interest in any corporate entity, private or public, with interests in the Property that is the subject of this report or in the Property itself, nor do I have any business relationship with any such entity apart from a professional consulting relationship, nor do I, to the best of my knowledge, hold any securities in any corporate entity within a two (2) kilometre distance of any part of the Project.
- I have read the Instrument and the sections of the Technical Report that I am responsible for have been prepared in compliance with the Instrument.

• As of the date of this certificate, to the best of my knowledge, information and belief, the sections of the Technical Report that I am responsible for contain all of the scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Signed and dated this 5<sup>th</sup> day of February, 2018 at Vancouver, British Columbia, Canada.

### "Original Signed and Sealed"

Case Lewis, P.Geo. Professional Geologist Pyral Consulting