REPORT ON THE JACKSON INLET PROPERTY

BRODEUR PENINSULA

NUNAVUT, CANADA

FOR

TWIN MINING CORP.

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Prepared by:

Richard Roy P. Geo
Project Manager
NordQuest Inc.

and

John Lindsay P.Eng
Principal Metallurgist
AMEC Mining and Metals Consulting

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3.0 Summary

The Jackson Inlet Property consists of a land package totalling 989.4 sq. km. of prospective ground for diamond exploration. To date, two kimberlite bodies are known to occur on the Jackson Inlet Property, namely the outcropping Freightrain Pipe and the Cargo 1 Pipe. The Freightrain Pipe was discovered by Cominco in 1975 (then known as the Zulu-1) but was not explored systematically until Twin Mining optioned the property in 1999. The Cargo 1 Pipe is located 4.5 km NE of the Freightrain Pipe and was discovered by drilling during Twin Mining's 2001 exploration program.

The first core-drilling program of 1,108 meter commenced in 2001 with 17 holes drilled into the Freightrain pipe. 15 core holes intersected 315 meter of kimberlite weighing 1,105 kg. The objective to test the continuity of kimberlite at depth was accomplished. Diamond analysis data of drill core were consistent with mini-bulk sample results.

A two hole, 331 meter, core-drilling program on Cargo-1 intersected 231 meter of kimberlite weighing 925 kg.

In 2001, six mini-bulk samples, ranging from 2.49 to 76.30 tonnes and totalling 228.19 tonnes, obtained from selected exposures of the Freightrain kimberlite, were delivered in late 2001 to, and processed by, SGS Lakefield Research Limited's Diamond Exploration Services DMS (dense media separation) facility in Lakefield, Ontario. Preliminary results are very encouraging with the recovery of diamonds of a quality and in quantities that underscore the potential for commercial quantities at Freightrain and the overall exploration potential of the Jackson Inlet area. In addition, results showed the recovery of the property's first 1.557 carat gem quality diamond as part of a combined parcel of 46.208 carats wherein 30 diamonds are between 0.25 and 1.557 carats. Diamonds, retrieved from the combined mini-bulk samples, were examined by Diamond Trading who found the quality profile of the diamonds to be promising, with a high colour and purity grading of the sawable and makeable stones and the absence of boart. Their findings are extremely encouraging for the project economics although they are based on a small sample (869 diamonds, all greater than 0.85 mm square mesh sieve size and, in aggregate 46.208 carats) and therefore should be considered preliminary only and not necessarily reflective of future results. Of importance are the results of preliminary diamond grade modelling, as determined by AMEC, indicating that estimated total diamond content grades are significantly higher than recovered grades (subject to qualifying comments on page 14-15).

To date, Twin Mining has recovered more than 50 carats of mostly gem quality diamonds from a series of trench and pit mini-bulk samples obtained from outcropping kimberlite on the Freightrain pipe. This approach established the prospectivity of the Freightrain pipe early in the exploration phase of the project as well as establishing what is believed to be a new kimberlite province.

Mineral claim holdings were increased during 2002 to secure areas thought to be prospective for kimberlite. Thirty-two claims (in aggregate 82,640 acres or 334.43 sq. km) were acquired, securing various targets, within 80 km south and east of the southern boundary of the main Twin Mining claim block. Total property holdings now stand at 111 claims covering 244,487 acres or 989 sq. km.

The two main objectives for the 2002 exploration season were the evaluation of known potential kimberlite targets by drill testing. Work started with Phase-1 comprising ground magnetometer surveys, soil sampling, gravity and core drilling on known pipes and previously identified airborne magnetometer anomalies. Soil samples and drill core samples are presently being processed at Lakefield. Ground magnetic surveys (321 sq. km) of 13 target areas (including Freightrain and Cargo-1), as defined by 2001 aeromagnetic surveys were designed to resolve and position magnetic anomalies believed to be in response to kimberlite prior to drilling.

These results clearly support management's decision to continue exploration on the property in 2003, including:

- establishing the geometry of the Freightrain kimberlite pipe by continued definition drilling,
- continued Phase-1 drill testing of potential kimberlite targets identified on the basis of the 2001 aeromagnetic survey,
- additional aeromagnetic surveying of selected claim blocks acquired in 2001 and 2002, as well as,
- soil sampling and ground magnetics over selected claims and target areas, respectively.

4.0 Introduction and terms of reference

Twin Mining currently holds a land package totalling 989.4 sq. km. of prospective ground for diamond exploration. To date, two kimberlite bodies are known to occur on the Jackson Inlet Property, namely the outcropping Freightrain Pipe and the Cargo 1 Pipe.

Following an aggressive exploration effort on the Freightrain Pipe and the surrounding areas (including Cargo 1) between 1999 and 2001, the 2002 Program was principally focused on exploring the vast property holdings in order to uncover new kimberlite occurrences. Only minimal work was completed on the known pipes (Cargo 1).

This report was prepared by Richard Roy P.Geo., the senior author, at the request of the management of Twin Mining Corp. The purpose of the report is to provide a complete description of the land tenure, regional geologic setting, history of exploration, and nature and distribution of diamondiferous bodies of the property. Conclusions and recommendations are made at the end of the report. The report conforms to the headings and content described in National Instrument 43-101 – Standards of Disclosure for Mineral Projects.

Section 16 of this report was completed by Mr. John Lindsay P.Eng., who in his capacity as a designated Qualified Person established and monitored data verification, quality control and quality assurance policies and procedures with respect to caustic dissolution and diamond recovery work conducted by SGS Lakefield for the Jackson Inlet project. Mr. Lindsay's QP Certificate accompanies this report.

5.0 Disclaimer

The senior author of this report has been conducting diamond exploration work as Project Manager for Twin Mining Corp. for the last three years, including the last two (2001 and 2002) on the Jackson Inlet Project in Nunavut, Canada.

Most of the relevant geological data concerning the diamond exploration programs is based on Twin Mining's work along with analytical, and petrographic work completed by Lakefield Research of Lakefield, Ontario.

6.0 Property description and location

Following the option of the Freightrain and Slot claims from Helix, Twin Mining staked an additional 77 claims on Brodeur Peninsula (figures 1 and 2). The staking history is presented below.

May 29th and 30th 2000: 16 claims covering 26289.85 acres (106.39 sq. km).
Staker: Dallas Davis and Adrian Davis

March 9th to 12th 2001: 49 claims covering 110564.90 acres (447.44 sq. km.)
Staker: Aurora

May 11th and 21st 2001: 6 claims covering 7902.45 acres (31.98 sq. km.)
Staker: Richard Roy

June 18th and 23rd 2001: 6 claims covering 12441.00 acres (50.35 sq. km.)
Staker: Denis Bergeron, GL Geoservices

A new series of claim groups were staked in the spring of 2002 as follows:

April 10th and 14th 2002: 32 claims covering 82640.00 acres (334.43 sq. km.)
Staker: Richard Roy

Among the 32 claims staked in April 2002, 6 are within Inuit Owned Land. Final approval for these six claims is still pending but is expected during the first quarter of 2003. The total landholding at year-end (2002) stood at 111 claims covering 244486.70 acres (989.40 sq. km.). The complete claim list is presented in Appendix A.

The property has not been surveyed. There are no known environmental issues pending with the Jackson Inlet Property.

7.0 Accessibility, climate, local resources, infrastructure, and physiography

The Jackson Inlet kimberlite pipe is located 12 km east of tidewater on the west coast of the Brodeur Peninsula of northern Baffin Island (figure 1). It is centred 3.3 km south of Jackson River at 73°14' 48" latitude north and 88°16' 12" longitude west. Approximately 120 km to the east, the Nanisivik zinc mine and the community of Arctic Bay are serviced by scheduled commercial jet aircraft and marine shipping companies. Access from Nanisivik is by helicopter or Twin Otter across Admiralty Inlet to Brodeur Peninsula. Admiralty Inlet (east), Lancaster Sound (north) and Prince Regent Inlet (west) bound the Brodeur Peninsula. The north part of Brodeur Peninsula is characterised by a high flat plateau (300m El.) carved by steep linear crevices created by the spring runoff, that provide drainage from the plateau to the Arctic Ocean.

The property is above the tree line and has short, cool summers with temperatures of 5 to 10°C and long cold winters with temperatures of -25 to –35°C. Freeze up is usually in October and break-up is in late June.

Due to harsh winter conditions, the property can more efficiently be explored between the months of July and August although with a more complete infrastructure, exploration and development could be carried out over longer periods of time.

8.0 History of exploration

The North Baffin Island and the surrounding islands have been explored for diamonds as far back as the 1970's when Cominco and Debeers sampled some of the 20 kimberlite bodies known to occur on the Somerset Island immediately west of the Brodeur Peninsula. Results revealed only a few microdiamonds while the kimberlite indicator minerals suggested a low potential. Many studies on the Somerset Island completed during the 70's, and 80's confirmed the low potential of the area and the Somerset Island

Pipes were often used as typical example of a barren kimberlite field. In the early 1990's, Lumina Investment (now known as Lattitude Minerals) optioned 15 claims on Brodeur Peninsula (Robertson, R. 2001) and later noted one, or possibly 2 kimberlite bodies which were later staked as Zulu-1. The Zulu-1 was believed to have been discovered by Cominco in 1975. Lumina sampled the Zulu-1 bodies and the kimberlite returned both peridotitic and eclogitic garnets. Although it is not clear whether microdiamond recovery was completed on the samples, Lumina decided to drop the option in 1996 due to lack of funds (Robertson, R. 2001).

In the mid-1990's, International Capri Resources completed a regional heavy mineral sampling on Brodeur Peninsula which returned promising results from two areas in the northern part of the Island. A later JV was signed between First Strike Minerals and Mountain Province based on the regional sampling results purchased from Capri. In 1999, the JV partners found an indicator mineral train which terminated near a lake. Further investigation uncovered a kimberlite showing, which returned significant microdiamonds although the indicator minerals present were unpromising. The new kimberlite is located approximately 100 kilometres south of the Nanisivik Mine, on ground currently under the name of Paul Pitman (see figure 2). Nonetheless, four additional target areas were identified from soil sampling. Microprobe work from these target areas revealed ilmenite and eclogite garnets which were not found from the "discovery area". The 2000 program returned new discoveries of kimberlite dykes near the original discovery areas but all samples processed were barren.

The Zulu-1 Pipe (believed to be the Freightrain Pipe) was staked in 1998 by Fred Tatarnic. The list below describes the work completed after the original staking by Fred Tatarnic in 1998.

1) Prospecting and sampling of approximately 90 kg of weathered kimberlite; August 5-15, 1998

By: Fred Tatarnic

2) Panning and sorting through about 60 kg of weathered kimberlite, discovery of a 0.768 carat (5.4 X 4.5 mm) white, transparent diamond; late 1998 to mid-1999.

By: Fred Tatarnic

3) Caustic fusion of a 26.45 kg portion of the weathered kimberlite sample, extraction of 15 diamonds and identification, using a binocular microscope, of diamond indicator minerals in a heavy mineral concentrate prepared from 2 kg sample, Sept. 1999

By: Lakefield Research Ltd.

4) Examination of only weathered kimberlite not covered by snow, i.e. a "hill" of 1-2 m relief labeled Pipe 1. Take 17 surface samples (94.52 kg) over the 10 X 10 m exposed area; May 29, 2000

By: Dallas & Adrian Davis for Twin Mining Corporation.

5) Caustic fusion of the 94.52 kg composite, extraction and characterization of 42 diamonds; June 2000.

By: Lakefield Research Ltd. for Twin Mining Corporation

6) Set-up camp, prospect area surrounding known Pipes 1 & 2, drill and blast 4 trenches to bedrock at a depth of 1-2 m over a total length of 65.5 m, sample 1,424 kg kimberlite rock from these trenches, sample approximately 150 kg of weathered kimberlite and kimberlite fragments from frost boil surfaces, and, use "Beep Mat" to locate areas of magnetic soil and rock fragments; August 11-23, 2000

By: Gilbert Lamothe and Denis Bergeron of G. L. Geoservice Inc., with field direction and sampling by Dallas Davis for Twin Mining Corporation.

7) Caustic fusion of 1,548 kg of kimberlite samples, extraction and characterisation of 623 diamonds, microprobe analysis of diamond indicator minerals and petrography; Sept.-Nov. 2000.

By: Lakefield Research Ltd. for Twin Mining Corporation

8) Airborne Mag-Em survey by Fugro-SIAL in the spring 2001. Survey using 250m line spacing orientated 060^{o}E on anomalies. A second set of flight lines at 030^{o}W at 100m spacing to check and define anomalies identified by the regional survey. 10 different areas were surveyed along a NW direction at 100-meter spacing. Total of 6641 lines (including tie lines).

The survey identified a total of 14 anomalies including the Freightrain Pipe. The anomalies are characterised by a subtle, but well-defined peak on the survey profiles. Eleven of the anomalies (including Freightrain) follow an ENE direction dubbed the Freightrain Corridor.

9) In the spring of 2001 a total of 18.4 tonnes of kimberlite material was mined from the two pits as shown in the table below:

Parameter	**Units**	**JI-6**	JI-3	**Total**
Sample weight processed	Dry tonnes	1.91	16.5	18.41
Diamonds + 1mm	Number Carats	12 0.560	74 3.084	86 3.644
Two largest Diamonds	Carats mm	0.311 3.28x2.99x2.70 3.19x2.17x1.70	1.217 6.98x5.64x3.60 3.90x3.19x2.40	

By: Denis Bergeron of G. L. Geoservice Inc., field technicians, with field direction and sampling by Dallas Davis and Richard Roy for Twin Mining Corporation.

10) Following the spring break-up, the 2001 program resumed on July 9th 2001 with the construction of a campsite located approximately 2 kilometres north of the Freightrain Pipe, along the Jackson River. The camp consists of 6 tents that can accommodate up to 20 people, a dry/laundry/shower tent, and one kitchen. The camp is heated with diesel Bradley heaters while a 950KW generator provides electrical power. Both the stove and the water heater use gas energy.

11) In the summer of 2001, two of the 13 magnetic anomalies were drill tested during the summer of 2001 as presented in the table below:

	NAD GRID		LOCAL GRID				
Hole No.	Easting (m)	Northing (m)	Easting (m)	Northing (m)	Azimuth	Dip	Total length (m)
CARGO 1							
JI-CG1-01	463450	8129203	2+50	1+85	330	-70	152
JI-CG1-02	463417	8129222	2+20	1+95	55	-60	179
TOTAL							**331**
JI-ANO4B-01	456970	8126380	-	-	150	-80	119

At ANO-3 (Cargo 1), two holes were drilled totalling 331 meters. Hole JI-CG1-01 intersected 83.1 meters of kimberlite which confirmed not only the presence of a second pipe, but also the potential of the north Brodeur Peninsula for hosting a new kimberlite field. The second hole, drilled perpendicular to the discovery hole crossed kimberlite 147.9 meters of kimberlite.

At ANO-4B, no kimberlite was intersected.

A total of 17 holes were drilled at the Freightrain Pipe in an effort to better understand the geometry of the complex system. The drilling statistics are presented below.

FREIGHTRAIN

Hole No	***NAD East (m)***	***NAD North (m)***	***Local East (m)***	***Local North (m)***	***Direction Az.***	***Dip***	***Length (m)***
JI-FT-01	459147	8128273	3+47	2+73	61	-60	116
JI-FT-02	459068	8128193	2+68	1+93	-	-90	74
JI-FT-03	459103	8128227	3+03	2+27	-	-90	35
JI-FT-04	459147	8128273	3+47	2+73	-	-90	141
JI-FT-05	459184	8128289	3+84	2+89	-	-90	152
JI-FT-06	459343	8128245	5+43	2+45	-	-90	20
JI-FT-07	459343	8128245	5+43	2+45	82	-50	53
JI-FT-08	459343	8128245	5+43	2+45	35	-50	55
JI-FT-09	459239	8128334	4+39	3+34	-	-90	52
JI-FT-10	459239	8128334	4+39	3+34	245	-60	20
JI-FT-11	459239	8128334	4+39	3+34	245	-45	20
JI-FT-12	459239	8128334	4+39	3+34	333	-60	42
JI-FT-13	459239	8128334	4+39	3+34	333	-45	44
JI-FT-14	459239	8128334	4+39	3+34	50	-60	38
JI-FT-15	459239	8128334	4+39	3+34	50	-45	14
JI-FT-16	459151	8128278	3+51	2+78	-	-90	206
JI-FT-17	458950	8128125	1+50	1+25	-	-90	26
TOTAL							**1108**

SUMMARY KIMBERLITE LOGS

JI-FT-01

0	3.0	Casing
3.0	26.0	Macrocrystic olivine kimberlite
26.0	116	Clay and brecciated limestone

JI-FT-02

0	3.5	Casing
3.5	21.6	**Mixed kimberlite** with minor limestone intervals
21.6	74	Clay and fractured limestone

JI-FT-04

0	3.5	Casing
3.5	141	**Olivine megacrystic kimberlite** with 71.9 meters of limestone blocks (2.1m to 30.5 m thick) and ending in **autolithic kimberlite**

JI-FT-06

0	9	Casing
9	10.1	Limestone fragments
10.1	11.8	**Weathered kimberlite** with minor limestone
11.8	20	Limestone

JI-FT-07

0	9	Casing
9	13.7	Limestone pebbles
13.7	17.1	**Weathered kimberlite** with minor limestone
17.1	53	Limestone

JI-FT-08

0	15.5	Casing
15.5	15.8	Limestone pebbles
15.8	37	Weathered limestone and minor **kimberlite** (1m total)
37	55	Limestone

JI-FT-09

0	3	Casing
3	39.1	Autolithic olivine macrocrystic kimberlite
39.1	52	Limestone

JI-FT-10

0	3	Casing
3	12.1	**Autolithic olivine macrocrystic kimberlite**
12.1	20	Limestone

JI-FT-11

0	2	Casing
2	11	**Autolithic olivine macrocrystic kimberlite**
11	20	Limestone

JI-FT-12

0	3	Casing
3	33.6	Olivine macrocrystic kimberlite
33.6	42	Limestone

JI-FT-13

0	3	Casing
3	27.2	**Olivine macrocrystic kimberlite**
27.2	44	Blocky limestone with clayey seams

JI-FT-14

0	4.2	Casing
4.2	11.6	Autolithic olivine macrocrystic kimberlite
11.6	38	Blocky limestone with clayey seams

JI-FT-15

0	3.8	Casing
3.8	7	**Autolithic olivine macrocrystic kimberlite**
7	14	Blocky limestone

JI-FT-16

0	3	Casing
3	206	**Olivine macrocrystic kimberlite** interlayered with a total of 142.8m limestone blocks (2.4m to 43.3m thick) and ending in kimberlite contact zone

JI-FT-17

0	4.2	Casing
4.2	4.7	Limestone pebbles
4.7	26	Olivine macrocrystic kimberlite

12) Six different sites were selected on the Freightrain pipe for mini-bulk sampling. The selection process was determined based on previous sampling (2000 JI trenches) and the position of the outcropping kimberlite. The objective was to obtain an indication of the diamond distribution across the kimberlite system and, at the same time, obtain a spatial relationship between the pit samples and the underlying kimberlite based on core holes drilled near the 6 pits.

The diamond results were released on March 27th 2002. The tables below gives the results according to carat weight and total number of stones recovered above the 0.85mm mesh size.

Freightrain Mini-Bulk Samples by Location:

Pit Sample Site	**Sample Dry Weight(tonnes)**	**Total Carats**	**Largest Stone, Weight (carat)**
JI-1	76.30	17.309	1.557
JI-3	56.86	7.454	0.384
JI-4	41.87	14.083	0.867
JI-5	23.72	2.525	0.936
JI-5S	2.49	0.302	0.133
JI-6	26.95	4.535	0.466
TOTAL	**228.19**	**46.208**	

Freightrain Mini-Bulk Samples, Results by Screen Size and Number of Diamonds:

Sample Number	Sample Weight (tonnes)	+4.75mm # stones	3.35 to 4.75mm # stones	2.36 to 3.35mm # stones	1.70 to 2.36mm # stones	1.18 to 1.70mm # stones	0.85 to 1.18mm # stones	**Total # stones**
JI-1	76.30	2	5	21	40	93	96	257
JI-3	56.86	-	-	10	21	64	74	169
JI-4	41.87	-	1	15	49	100	108	273
JI-5	23.72	-	1	2	4	16	21	44
JI-5S	2.49	-	-	-	2	3	1	6
JI-6	26.95	-	1	1	15	49	54	120
TOTAL	**228.19**	**2**	**8**	**49**	**131**	**325**	**354**	**869**

Freightrain Mini-Bulk Samples, Results by Screen Size and Carat Weight:

Sample Number	Sample Weight (tonnes)	+4.75mm (carat)	3.35 to 4.75mm (carat)	2.36 to 3.35mm (carat)	1.70 to 2.36mm (carat)	1.18 to 1.70mm (carat)	0.85 to 1.18mm (carat)	**Total** (carat)
JI-1	76.30	2.346	3.050	4.224	3.377	3.107	1.205	17.309
JI-3	56.86	-	-	2.734	1.735	2.066	0.919	7.454
JI-4	41.87	-	0.868	4.132	4.411	3.359	1.313	14.083
JI-5	23.72	-	0.936	0.538	0.260	0.484	0.307	2.526
JI-5S	2.49	-	-	-	0.210	0.086	0.006	0.302
JI-6	26.95	-	0.285	0.466	1.540	1.567	0.677	4.535
TOTAL	**228.19**	**2.346**	**5.139**	**12.094**	**11.532**	**10.669**	**4.427**	**46.208**

The five largest stones have the following dimensions:

Size – mm	Weight – carat
7.10 x 6.27 x 3.94	1.557
7.07 x 4.99 x 3.30	0.936
6.56 x 4.85 x 3.08	0.870
6.21 x 4.22 x 3.46	0.867
4.56 x 4.56 x 3.93	0.809

The combined mini-bulk samples produced a total of 30 diamonds between 0.25 and 1.557 carats.

The recovered grades obtained from the different samples vary from 11 CPHT to 34 CPHT. These results are very significant as they show a net improvement when compared to previous samples taken to date. Although the textures observed from the six pits are quite similar, there is a subtle difference on the diamond population from one site to the other (Jago B, 2002a). This information will be extremely helpful in the understanding of the pipe geology. AMEC, E & C Services ("AMEC"), who are auditing on an ongoing basis diamond processing and extraction at Lakefield for Twin Mining, have reviewed the diamond results from the perspective of diamond distribution and reproducibility of results compared to previous samples.

Due to inefficiencies in the recovery process around the bottom cut-off size, resulting from diamond lock-up and screening, a modeled total diamond content grade/size curve was developed for each sample, which takes account of these process inefficiencies, and more closely depicts the total diamond content grade/size curve. Modeled total diamond content grades were developed by fitting a second order polynomial equation to the data points and integrating the area under the curve to yield a modeled diamond grade in carats per tonne.

The modeling results are presented in the table below.

Sample		Carat Weight (+0.85mm)	Recovered Grade +0.85 mm (ct / tonne)	Modelled Grade +0.85 mm (ct / tonne)
Name	Dry weight tonnes			
JI-1	76.3	17.308	0.227	0.5
JI-3	56.9	7.454	0.131	0.2
JI-4	41.9	14.083	0.336	0.5
JI-5	23.7	2.526	0.107	0.1
JI-5S	2.5	0.302	0.121	0.1
JI-6	26.9	4.535	0.169	0.3
Total	228.2	46.207	0.202	0.4

AMEC reported that "due to the relatively small mini-bulk sample sizes, the confidence limits around the modeled grades for each individual mini-bulk sample are wide. As a result, modeled grades for each individual sample should be considered as indicative, rather than absolute, and should be viewed as one of the significant criteria for ranking the mini-bulk samples for future follow-up sampling. It should be noted that the modeled grades shown in the table represent total diamond content. A recovery factor must be applied to account for inefficiencies in a commercial processing plant."

There is no record of production from the property.

9.0 Geological setting

Baffin Island can be divided into two blocks with contrasting geological histories. The northern part consists of the 3.0-2.5 Ga Committee belt. This belt extends northeast for at least 2000km from southwest of Baker Lake to northwestern Greenland. It is characterised by episodic felsic plutonism and greenschist to upper amphibolite facies supracrustal belts. The 1.9-1.8 Ga Baffin Orogen comprises the rest of Baffin Island, where it overprints the Committee belt. The Baffin Island Orogen form part of the northeastern Trans-Hudson Orogen, and extends into western Greenland, Melville Peninsula, and northern Quebec-Labrador.

In addition to these two main lithotectonic units, Baffin Island has been divided into eight tectonic domains on the basis of differences in aeromagnetic character, structural features, lithology, faults and lineaments, and geochronology. In northern Baffin Island, there is general continuity in lithologies across these domain boundaries, with the exception of several basins that consist of younger sediments.

The geology of the Brodeur Peninsula is presented below and shown in figure 3.

1) Surface rocks are flat lying fossiliferous Ordovician and Silurian carbonates with minor shale interbeds, chert nodules, and occasional goethite nodules. These limestones almost cover the whole peninsula and are greater than 870m thick.

2) Although rocks older than Proterozoic are not exposed at the surface, it is interpreted that in the northern half of Brodeur the Paleozoic rocks unconformably overlie Upper Proterozoic rocks. These rocks are 3500m thick and are comprised of sandstones, shales, calc-alkaline volcanics and dolomites (host to the MVT Zn/Pb Nanisivik Mine) deposited in shallow water, cratonic basin. These rocks are cut by northwest trending diabase dykes of Franklin age.

3) Underling these Upper Proterozoic rocks are high-grade metamorphic Archean gneisses which form the basement on Borden to the east.

4) Kimberlites are intruded through the Ordovician and Silurian limestones. The kimberlites are thought to be cretaceous in age (103Ma, Mason, 1993). In occasional areas these kimberlites are exposed at the surface, where they contrast sharply with the light grey limestone.

   The Freightrain kimberlite is exposed at the surface as three dark brown to black circular patches located within a larger circular area (area is roughly 15ha) that is light grey-brown in colour. The surrounding limestone maintains its typical grey coloration. It is thought that the slightly brown coloration of the country rock adjacent to the kimberlite pipes is a result from the clay produced from the weathering of the limestone that was dolomitised by the introduction of Mg from the kimberlite magma. A series of rock samples systematically taken at Freightrain were processed for lithogeocheochemistry in order to quantify the alteration around the Freightrain Pipe. Results are described later in this report.

Structural events of the area with possible positive Kimberlite connotations, include

1) U. Proterozoic rocks underlying Brodeur are interpreted to have formed in a rift environment

2) NE trending gravity high crossing Prince Regent Strait between Somerset Island and Brodeur. This may represent the other side of the Proterozoic rift.

3) On Somerset Island to the west a major feature of the geology of the Arctic Platform is the lower (north-south trending) Boothia Arch that, during the mid-Paleozoic, caused major uplift and unconformities in the Paleozoic section of Somerset. Unconformities of the same age are present on Brodeur.

4) A final regional structural event that affected the area was a period of cretaceous-tertiary Eurekan Rifting. This event was thought to have re-activated many of the pre-existing structures (Mitchell, 1988).

10.0 Deposit Types

Current models for the formation of primary diamond deposits generally include the presence of a stable ancient craton such as the Canadian Shield, which has suffered little or no deformation for billions of years. It is generally accepted that diamonds form at pressures equivalent to 150 km to 300 km below the Earth's surface, and at temperatures less than 1,200 degrees Celsius (°C). These conditions occur within cool lithospheric roots beneath thick cratons, where the downward deflection of isotherms causes a corresponding upward expansion of the diamond stability field in the upper mantle.

Kimberlite is the most common diamond-bearing host rock. Although kimberlites are believed to have formed at great depths, only a small percentage of them have formed below the diamond stability field and consequently sampled the "diamond horizon" on their ascent to surface. It is generally believed that a kimberlite approaches the earth's surface relatively quickly, following existing deep fractures (hypabyssal facies) and then forming a pipe-like body as the molten rock reacts explosively to the decrease in pressure and the presence of groundwater (diatreme facies). Finally, these magmatic bodies reach the surface and form volcanic craters (crater facies).

11.0 Mineralization

Diamonds are extremely rare, even within the richest diamond deposits in the world. Generally, the average diamond content within a deposit is calculated in carats per tonne, or carats per 100 tonnes (CPHT). Considering that 1 carat corresponds to one fifth of a gram in weight, a relatively rich deposit (e.g. 100 CPHT) would still contain relatively small amounts of diamonds (e.g. 0.20 grams per tonne, or one fifth of one part per million). Adding to the problematic of evaluating a diamond deposit is the need to determine the average value of the diamonds within the deposit. Unlike other elements where the value per unit weight is independent of the physical characteristics of the mineral, each diamond deposit has it's own average value per carat which can vary from only a few dollars to a few hundreds of dollars. The average value per carat is therefore dependent on the physical characteristics of each diamond (colour, clarity, and shape), and also on the size distribution of the diamonds within the population. Both these values (CPHT and average value per carat) are required to determine the average dollar value per tonne within the deposit and therefore, the total in-situ value of the deposit. In order to obtain a statistically representative sample of the diamond population within a deposit, it is therefore required to obtain a very large sample of kimberlite material.

Diamonds are classified as either Peridotitic, or Eclogitic in origin, depending on the type of mantle rock from which they have been formed at depth. Kimberlite incorporates fragments of these mantle peridotite and eclogite in greater abundance than diamonds and therefore minerals characteristic of these mantle rocks (KIM or kimberlite indicator minerals) can be used to indicate the presence of kimberlite. Since the pressure and temperature history is often preserved in the chemistry of these minerals, it is also possible to establish the diamond-bearing potential of these undiscovered kimberlites, and help establish priority areas.

12.0 Soil Sampling

Prior to systematically sampling the Jackson Inlet Property, Twin Mining conducted a series of directional surveys to determine the direction and extent of the indicator minerals in the immediate area surrounding the known pipes. In addition, since the Cargo 1 Pipe shows no sign of its presence on surface, the directional survey helped understand the distribution of indicator minerals for a subcropping pipe. Results indicate that for most of the typical indicator minerals (pyrope, eclogite, clinopyroxene, ilmenite and chromite) their presence is abundant in the immediate area of the pipes for both the Freightrain and the Cargo 1 pipes. Other isolated samples were also taken above airborne magnetic anomalies that returned, in some instances, anomalous indicator minerals.

The 2002 program was designed to provide a complete database of indicator minerals across three areas (the Main Block, Jade Block, and the Domenic Block). The Main Block covers the large group of claims which include the Freightrain and Cargo 1 pipes. The Jade and Domenic blocks are located approximately 30 kilometres SE and SW respectively from the Freightrain Pipe and include a series of claims covering isolated airborne anomalies identified by the 2001 magnetic survey.

Results of the heavy mineral concentrates from these samples are still pending at this time.

13.0 Drilling

Work completed this summer includes NQ size core drilling on known pipes and previously identified airborne magnetometer anomalies. Drill core samples are presently being processed and studied at Lakefield. Microdiamond results are still pending at this time.

14.0 Sampling Method and Approach

The Brodeur Peninsula is a gently undulating plateau roughly 300 metres above sea level that has been incised by a combination of valley glaciers and seasonal streams. The flat lying Lower Paleozoic sedimentary rocks that underlie the peninsula are covered by a monotonous mantle of glacial drift. Except for a few kettle lakes here and there, the plateau is almost completely devoid of distinct glacial landforms such as roche moutonée, drumlins, kames, moraine ridges, eskers, etc. that typify glaciated areas farther south. The highland plateau, although glacier-free for the last 8000 years, has been substantially modified by solifluction, stream erosion, and possibly even sheet wash. Solifluction, a process of soil movement controlled mainly by freezing and thawing in permafrost areas, is a great slope reducer that is manifested in soil creep, frost heave, frost boils and mud flows. Slopes of as little as 2 or 3 degrees can accommodate solifluction possibly explaining the general lack of recognisable glacial landforms.

On the basis of the area's glacial history plus the information gleaned from an orientation KIM sampling at the Cargo 1 kimberlite pipe, north-south sampling lines with 400 metre sample spacing were determined to be appropriate for the 2002 program. The objective of this programme was to cover all of Twin Mining's claims with such lines at 2000 metre spacing.

Individual soil samples, taken from frost boils if possible, were placed in 22.75 litre (5 gallon) plastic pails. The unprocessed samples weigh approximately 25 kilograms. The numbered samples were individually located by GPS, flagged in the field, and described as to physical characteristics, terrain type and local slope direction. Once a group of samples were collected they were transported by helicopter to the Jackson Inlet base camp for pre-processing.

Close to 75% of the soil samples were wet screened at the base camp to reduce sample weight, while retaining the size fractions normally processed for KIM. The remaining samples were screened directly at the laboratory due to shipping time constraints. The collection pail containing the field sample was placed on its ide on a table and flushed with water through a 5 mm ($^1/_5$ inch) square mesh screen into a second pail with a row of holes near its top. In this manner plus 5 mm rock particles were collected and discarded, while some of the fines suspended in the decant water overflowed the pail and were similarly discarded. The screened sample was placed into a numbered cloth sample bag with two waterproof numbered sample tags stapled inside. The pre-processed samples were then placed inside a temporary storage structure to drain before packaging and shipping. In practice the screened samples are estimated to range between 3 and 8 kilograms. For shipping, the two or three drained samples were placed into 5-gallon pails with self-locking lids. Each pail was inscribed with the sample numbers contained inside and sealed with three uniquely numbered Twin Mining security seals. Howard Coates of MPH Consulting provided the QA/QC aspect of the sampling procedures and shipping method.

Kimberlite core samples were placed in 22.75 litre (5 gallon) plastic pails. Each sample weighed approximately 25 kilograms which corresponds to roughly 5 meters in length. The entire core was preserved for microdiamond analysis apart from a series of specific witness samples for reference. Each pail was inscribed with the sample numbers contained inside and sealed with three uniquely numbered Twin Mining security seals. Howard Coates of MPH Consulting provided the QA/QC aspect of the sampling procedures and shipping method.

15.0 Sample prep, analyses, and security

15.1 Caustic Fusion Processing

As-received drill core samples require very little preparation prior to processing by caustic dissolution. All core smaller than NQ is broken into fist-sized pieces by breaking one piece of core against a second piece of core. Core larger than NQ is broken by hammer with low impact blows to produce approximately double fist-sized pieces.

Rock samples larger than double fist-sized are broken by jaw crusher into fist-sized pieces.

Caustic dissolution of exploration samples efficiently produces a concentrate from which diamonds can readily be extracted during microscopic examination. The process takes advantage of diamond's property of high resistance to caustic soda (NaOH), eliminating diamond size reduction and loss that often occurs during extraction procedures that rely on crushing and attrition milling.

As-received samples are divided into equally sized charges of less than 8 kg. Smaller charge sizes are necessary if the sample contains a high proportion of carbonate minerals, which are vigorously reactive with NaOH (the carbonate content is evaluated by an acid test prior to charge preparation). If a high proportion of the sample is composed of fragments larger than 8 cm, simple breakage, crushing or attrition milling may be required for an effective dissolution, or the length of the dissolution process may be increased. Client consultation and approval is necessary before any size reduction of the sample is initiated.

After digestion in molten caustic soda, the sample is poured onto a large-diameter 150 mesh (100 μm) screen. The + 150 mesh residue is liberated from the NaOH by washing the sample in a series of water and acid leach (HCl) baths. Once all of the NaOH is dissolved and removed, the concentrate is dried and screened on a 6 mesh screen to remove undigested material. The undigested material is examined microscopically by a mineralogist. If a significant amount of +6 mesh remains, or if the material consists of possible diamondiferous rock fragments, further digestion may be required. If the undigested material is of insignificant size or not considered as a possible source of diamonds, the -6 mesh residue is further processed by a two (possibly three if the residue is large) stage magnetic separation procedure utilising a permanent magnet and a Frantz Barrier Magnetic Separator.

The magnetically characterised residue is then submitted for microscopic examination and diamond selection. In addition to diamonds, the residue may contain partially undigested indicator minerals, colourless to opaque spinel, garnet, ilmenite, graphite, moissanite, zircon and kyanite. Each of the magnetic fractions is examined at a magnification of 40x using a binocular microscope. Grains of questionable mineralogy are examined using a scanning electron microscope equipped with an energy dispersive spectral (SEM-EDS) analyser. Although each magnetically characterised fraction is examined, particular emphasis is given to the diamagnetic portion.

The X, Y and Z dimensions of selected microdiamonds are measured in millimetres. Macrodiamonds are weighed individually while microdiamonds are weighed in groups of 20 or 30, with the milligram weight, in each case, converted to carats. The colour, clarity and morphology of each diamond are determined and all observations reported in a Certificate of Analysis. Synthetic diamonds released into a sample by diamond drill bits are selected and reported as “syndites” on the diamond description sheet.

Routine quality control tests are utilised to evaluate the efficiency of the caustic dissolution processing technique, both by spiking client samples with a variety of natural diamonds (“Congo Rounds”) and synthetic diamonds (easily identifiable, colour treated diamond fragments), and running spiked blank samples which are later investigated for diamond spikes and indicator mineral contamination. Recovery of the diamond spikes typically ranges from 97 to 100%, and for 2002 was 98.2%. Further 2002 statistics showed that an average of 1.18 indicator mineral grains (73% of which were oxides, 27% silicates) were carried over into the caustic soda blanks run between different client’s samples.

Each caustic dissolution residue is picked twice by separate diamond pickers. Questionable grains are examined by SEM-EDS for verification.

Every effort is made at each stage of sample handling during caustic dissolution, residue preparation and diamond picking to eliminate the possibility of contamination. These steps include:

- A rigorous sample tracking procedure.
- Dedicated screens and equipment for each sample during sample processing.
- Replacement of screens between each sample after pouring caustic soda.
- Thorough washing and scrubbing of all sample containers.
- Thorough cleaning of equipment used to prepare caustic residues between each processed sample.
- Sandblasting of each kiln pot between clients projects to ensure the removal of any microdiamonds or indicator minerals.

Customized flowsheets for sample processing utilising caustic dissolution and other sample preparation techniques (magnetic, gravity, flotation, acid leaching, etc.) can be developed, in consultation with the client, to meet specialised requirements.

15.2 KIM Samples (Soil & Sediment)

Soil and stream sediment samples are processed through a combination of:

- Wet screening at 20 and 60 mesh,

- Wilfley table preconcentration of the -20+60 mesh working fraction,
- Heavy liquid separation (Methylene Iodide @ 2.9 g/cc) of the Wilfley table concentrate,
- Ferro-magnetic separation of the heavy liquid concentrate,
- Frantz electro-magnetic separation of the ferro-magnetic, non-magnetic working fraction at 0.3 amps
- Dry sieving of the 0.3 amp magnetic and non-magnetic working fractions at 35 mesh to produce -20+35 and -35+60 mesh working fractions for indicator mineral selection

Indicator mineral observation and selection is performed using a binocular microscope and a list of tools including automated picking belts, picking trays, magnetic and non-magnetic tweezers and brushes

The -20+35 and -35+60 mesh 0.3 amp magnetic fractions contain the vast majority of chromite and ilmenite grains and emphasis is placed on picking these fractions for those minerals.

The -20+35 and -35+60 mesh 0.3 amp non-magnetic fractions contain the vast majority of the silicate indicator minerals and emphasis is placed on picking these fractions for those minerals

Ilmenite, chromite and eclogitic garnets are routinely tested using a scanning electron microscope fitted with an energy dispersive X-ray analyser to determine whether their compositional profile that expected from grains known to have a mantle parentage.

Mineral compositions of high priority mineral grains that have been mounted in 1” epoxy mounts are determined by electron microprobe.

<u>15.3 Sample Handling and Data Management</u>

Upon arrival at the SGS Lakefield plant site, samples only by authorised personnel who note, in writing, and in a computer database the name of the company that shipped the sample, the transporting company, the number and type of pieces and whether the shipping containers have been received in good order without signs of tampering.

Shipping documents are immediately sent to Mineralogy Sample Tracking whereupon the Project Manager is notified and arrangements are made to inventory the samples. Inventorying of the samples includes noting number and type of pieces and identification and condition of security seals. This information forms the basis for the generation of a Work Order using LIMS (Laboratory Information Management System).

Work Orders, which map the sample processing history of the sample, identify ownership of the samples by company-specific project number (e.g. 8901-221) and LIMS# (MI0009-JAN03), the latter identifying the general type of work that will be performed on the sample as well as the month and year that the sample was logged into LIMS. Access to LIMS is password protected and not all employees have access to LIMS.

Paper copies of Work Orders generated by LIMS may or may not identify ownership of the samples, in the case of potentially diamond-bearing samples being processed by caustic dissolution, sample ownership is identified only by Project Number.

Containers secured with security seals that are part of sample shipments received for microdiamond analysis are opened only on an as-needed basis. Residues resulting from the processing of such samples are identified only by Project Number. Once processing has been completed, residues are stored in a locked storage cabinet during the course of mineral selection and prior to return to the client by secure transport, if requested by the client.

Paper copies of reports resulting from microdiamond analysis are retained in locked storage while electronic copies are password restricted.

All employees engaged by SGS Lakefield Research sign confidentiality agreements with severe penalties for security breaches.

16.0 Data verification and Quality Control Assurance Policies and Procedures

All caustic dissolution and diamond recovery work relating to the Jackson inlet project has been conducted by SGS Lakefield Research, Lakefield, Ontario (SGS Lakefield). SGS Lakefield is formally accredited by the Standards Council of Canada under ISO/IEC Guide 17025.

QA/QC programmes for the caustic fusion and diamond recovery processes have been designed by SGS Lakefield to maximise diamond recovery and minimise sample contamination or loss of sample integrity. All work in the caustic dissolution and diamond recovery facilities is conducted in accordance with a comprehensive series of detailed written operational procedures, which have been reviewed and audited by AMEC E&C Services (AMEC). During the course of the Jackson Inlet sample treatment programme AMEC visited SGS Lakefield to witness the work, and to audit compliance with SGS Lakefield's operational procedures.

Each sample container received at SGS Lakefield is fitted with tamperproof, uniquely numbered security seals, as described in section 14. Samples are logged upon receipt by SGS Lakefield and the integrity of the security seals is verified, and the samples are then stored in a secure area prior to processing.

All work is conducted under the direct supervision of the Laboratory Foreman and Project Leader – Diamond Services, and is overseen by the Manager, Mineralogical Services. All results are reviewed by the Manager, Mineralogical Services prior to their release.

Specific QA/QC programmes incorporated into SGS Lakefield's procedures include:

a) Blank samples are used to identify cross contamination between samples,
b) "Spiked" blank samples are used to monitor diamond recovery using known natural and synthetic diamonds,
c) Blank residues are evaluated to determine dissolution characteristics,

d) A comprehensive and auditable sample tracking and logging system, which includes procedures for data archiving, is in place
e) Caustic residues and diamond concentrates are picked by twice by two different people,
f) Screens used to capture undigested material from caustic residues are replaced between individual pours,
g) Screens used to capture washings and scrapings from the pouring pots are inspected by microscope after each pour,
h) Each kiln pot is sandblasted once a month to remove any scale build-up that might entrap microdiamonds or indicator minerals
i) Grains of questionable mineralogy are examined using a scanning electron microscope equipped with an energy dispersive spectral (SEM-EDS) analyser
j) Gravity separation processes are checked and calibrated using density tracers of a known specific gravity,
k) X-ray based diamond sorters are checked and calibrated using luminescent tracers of a known luminescence intensity,
l) Grease recovery circuits are checked and calibrated using known natural and synthetic diamonds,
m) Access to high risk areas during large scale sample processing is controlled by an independent security company.

In AMEC's opinion, the caustic dissolution and diamond recovery work conducted by SGS Lakefield for the Jackson Inlet project is in accordance with accepted industry standards.

17.0 Adjacent properties

Following Twin Mining's successful programs, Kennecott Canada staked and obtained exploration permits from different areas on Brodeur Peninsula in 2001, including a series of claims contiguous with Twin Mining's main block. Many of the exploration permits obtained coincide with those previously owned by First Strike and Mountain Province.

On February 1st 2002, Debeers Canada acquired more than 30,000 sq. km. some 300-km southeast of the Freightrain Pipe based on regional sampling completed in previous years.

18.0 Mineral processing and metallurgical testing

This section does not apply to this report.

19.0 Mineral resource and mineral resource estimate

No mineral resource estimate is reported with regards to this property. Further economic evaluation of the Freightrain and Cargo 1 pipes is required before a mineral resource estimate can be completed.

20.0 Other relevant data and information

This section does not apply to this report.

21.0 Interpretation and conclusions

Systematic diamond exploration on Brodeur Peninsula was initiated in 1999 by Twin Mining Corp. and followed by Kennecott and Debeers in 2001. The short exploration history of the area contrasts sharply with many other diamond exploration plays throughout Canada. Nonetheless, during the 4 exploration seasons, Twin Mining has spent several million dollars which has resulted in the discovery of a new diamondiferous kimberlite field. Currently, the new field includes two kimberlite bodies and it is anticipated that others will be uncovered within the next few years.

Current data on the Freightrain and Cargo 1 pipes suggests that the kimberlite bodies are significantly diamondiferous, and that the diamond population within the kimberlite includes larger size stones. The sample size taken so far does not permit an accurate estimate of the diamond grades for either pipes but preliminary estimates are promising. In addition, preliminary indications on the quality of the recovered stones do suggest that the diamond population could be biased towards stones of good quality. Further drilling and sampling will be required to determine an accurate grade, tonnage, and average value per carat.

Meanwhile, exploration efforts have also been focusing on uncovering new diamondiferous pipes. This work requires a detailed and meticulous approach involving soil sampling, airborne geophysics, and ground proofing of selected target areas. Currently, Twin Mining is compiling a comprehensive database that can be compared with directional surveying (both soils sampling and geophysics) completed on the two known pipes. In addition, petrographic and geochemical studies of the known pipes provides additional data which can be used to evaluate geophysical and geochemical anomalies obtained on other parts of the Peninsula.

22.0 Recommendations

Results to date are very encouraging and in the opinion of the senior author warrant additional work in order to assess the possibility of discovering economic diamond deposits in the Jackson Inlet area. Additional work should focus primarily on identifying new kimberlite bodies in the Jackson Inlet area as well as completing additional detailed drilling on the Freightrain and Cargo 1 pipes which are at a critical and expensive stage of exploration. Since any additional discovery could have a significant impact on the economic viability of the known pipes, it is important at this stage to evaluate the potential of the new kimberlite field to host additional intrusives.

The principal objectives for further work are as follows:

1) Obtain additional airborne geophysical coverage of existing Twin Mining claims that have not yet been surveyed.

2) Collect additional soil samples within Twin Mining claims that have yet to be surveyed.

3) Complete ground geophysical follow-up surveys on target areas identified with the current database.

Depending on results obtained from the above work, a diamond-drilling program may be required to test the priority targets defined. An estimated 3,500 meters is provided for.

An estimate for the costs of the proposed 2003 exploration program is presented in the table below:

Estimated Costs: 2003 Exploration Program, Jackson Inlet Project

Activity	Description	Estimate
Consumables and Camp Prep.	Mob/demob, consumables, camp prep., and accommodations	$810 000.00
Airborne Geophysics	Fixed-wing magnetic survey	$100 000.00
Ground Geophysics	Target definition	$85 000.00
Core Drilling	Approximately 3500 meters	$987 000.00
Soil Sampling	Approximately 800 samples	$631 000.00
Contingencies	Approximately 15%	$400 000.00
	TOTAL	**$3 013 000.00**

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24.0 Date and signature

Certificate of Qualifications

I, **Richard Roy**, of 110 Curé Roy, Val d'Or, Quebec, since 1995, do hereby certify that:

1. I am the author of this Technical Report, and I am a qualified person for the purposes of NI 43-101.

2. I am a graduate of Concordia University, Montreal, QC, having received a BSc. Geol. in 1988.

3. I am a qualified geologist, engaged in mining exploration and production since 1988. I have held senior positions in each of the exploration and production areas of mining.

4. I am a member of the Ordre des Géologues du Québec (since 2002; No. 536).

5. I am engaged as a consultant for Twin Mining Corp. and have never been employed as an employee of Twin Mining Corp.

6. I testify that I thoroughly read and revised the report, and verified material facts. I am not aware of any omission or misquote that could mislead the reader. I have been on the Jackson Inlet property many times, the last being in the September 2002.

7. I have no direct or indirect interests in the mining property indirectly held by Twin Mining Corp. According to section 1.5 of NI 43-101, I am not considered an independent of the issuer for which this report was prepared.

8. I have read National Instrument 43-101, and to the best of my knowledge this Technical Report has been completed in compliance with it.

9. I consent to the use of this Technical Report by Twin Mining Corp. and the filing of same with applicable securities regulatory authorities.

Dated at Val d'Or, this 12th day of February 2003.

Richard Roy
110 Curé Roy
Val d’Or, Québec
J9P 3B5

CERTIFICATE OF AUTHOR

John Lindsay
2020 Winston Park Drive, Suite 700
Oakville, ON
Tel: (905) 829-5400
Fax: (905) 829-3633
John.lindsay@amec.com

I, John Lindsay, am a Principal Metallurgist of AMEC Mining and Metals Consulting, of 2020 Winston Park Drive, Oakville, in the Province of Ontario.

I am a member of the Association of Professional Engineers Ontario (PEO). I graduated from the University of Strathclyde, Glasgow, UK with a Bachelor of Science degree in metallurgy in 1981.

I have practiced my profession continuously since 1981 and have been involved in diamond operations in South Africa and Botswana, gold operations in South Africa, evaluation and development of gold, base metals and diamond projects in Canada, South Africa, Angola, Namibia, Kazakhstan, Jamaica and New Caledonia.

As a result of my experience and qualifications, I am a Qualified Person as defined in N.P. 43-101. I am currently a Consulting Engineer and have been so since August 1995.

I am the author of Section 16 of the Technical Report, which relates to the quality assurance and quality control aspects of caustic fusion treatment and diamond recovery performed on samples from the Jackson Inlet property. I am not aware of any material fact or material change with respect to the subject matter of this technical report that is not reflected in this report and that the omission to disclose would make this report misleading.

I am independent of Twin Mining Corporation in accordance with the application of Section 1.5 of National Instrument 43-101 I have read National Instrument 43-101 and Form 43-101FI and section 16 of the Technical Report has been prepared in compliance with same.

Dated at Toronto, Ontario, this 12th day of February 2003.

John Lindsay, P. Eng.
PEO# 90442344

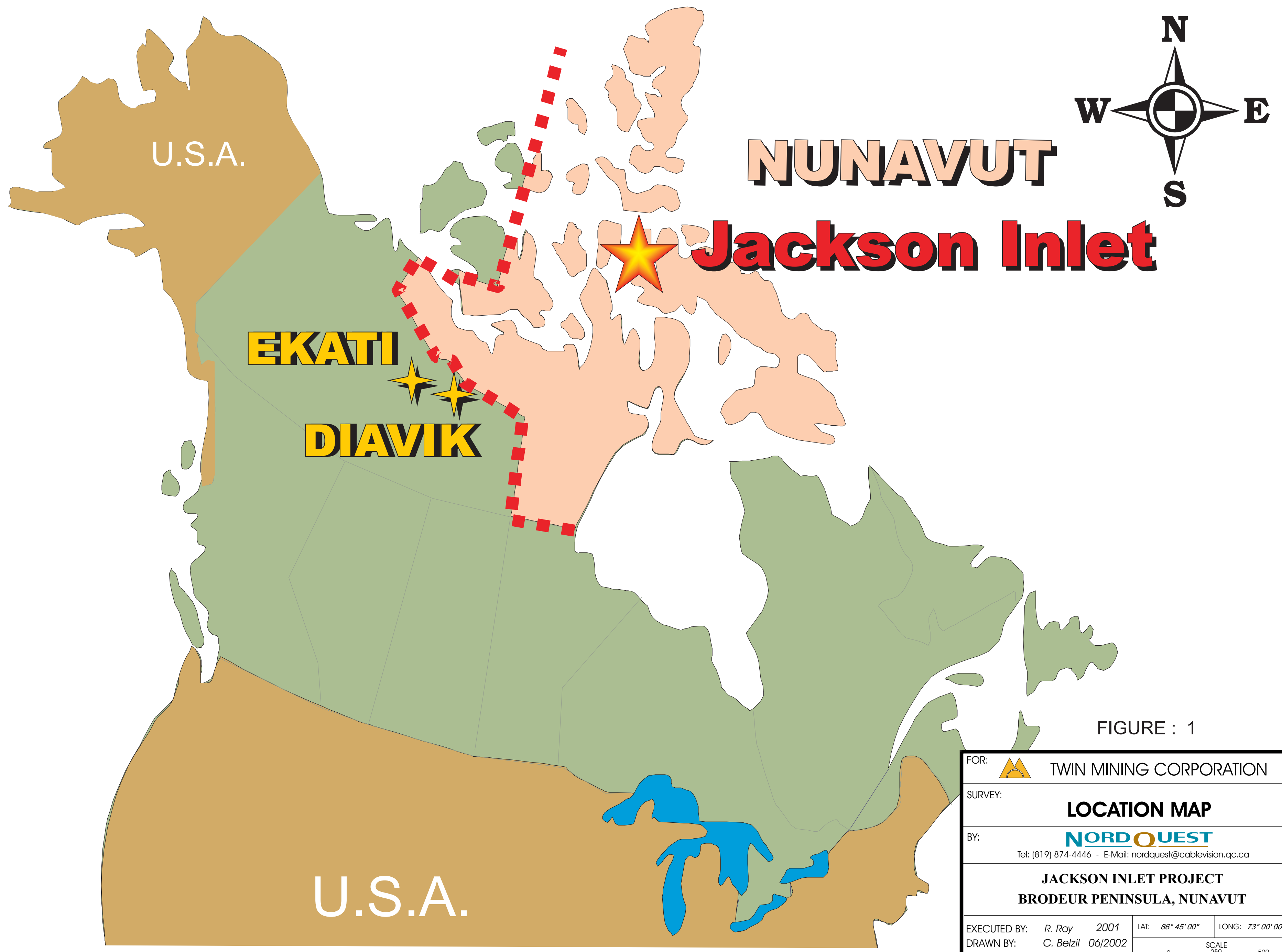
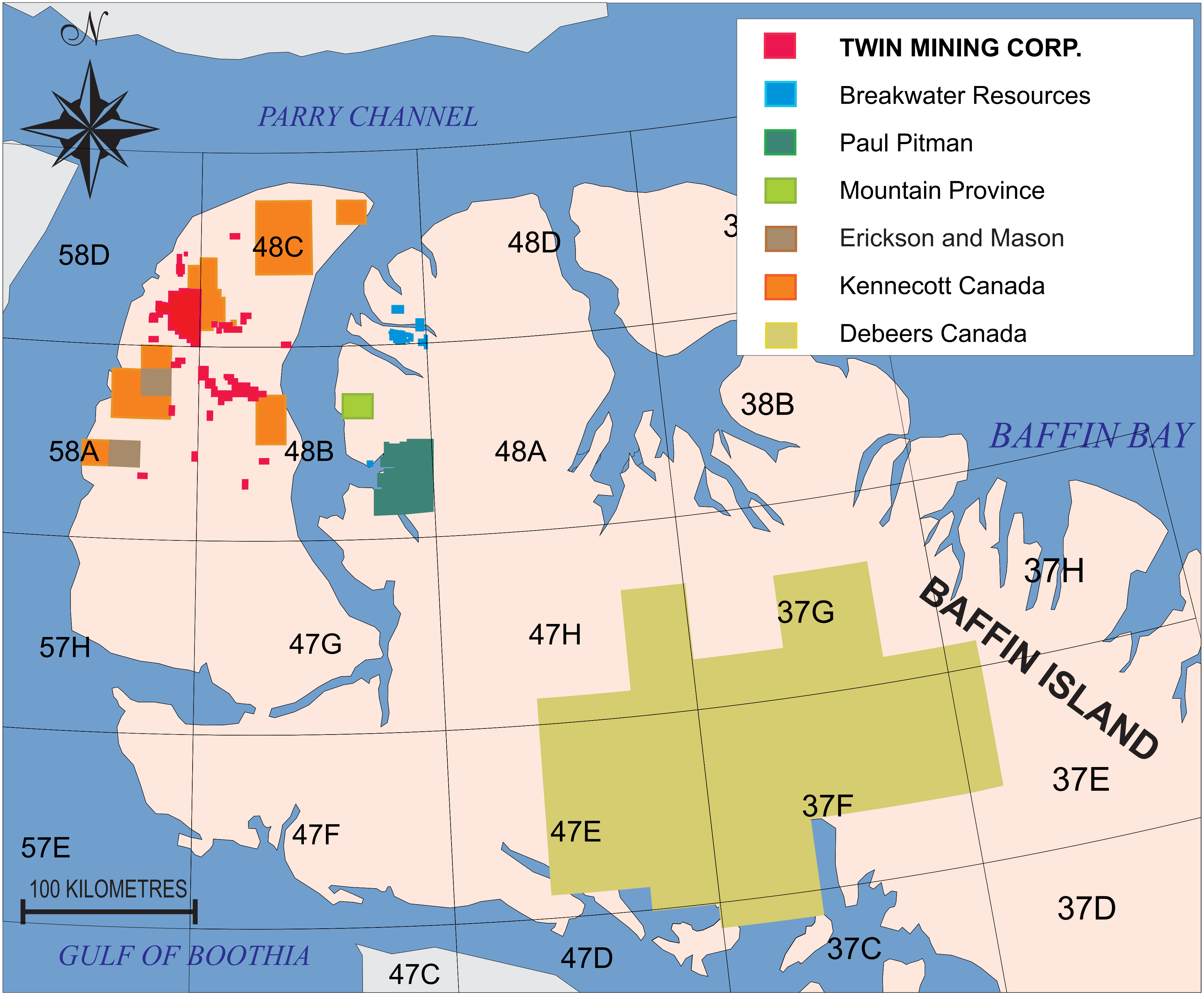


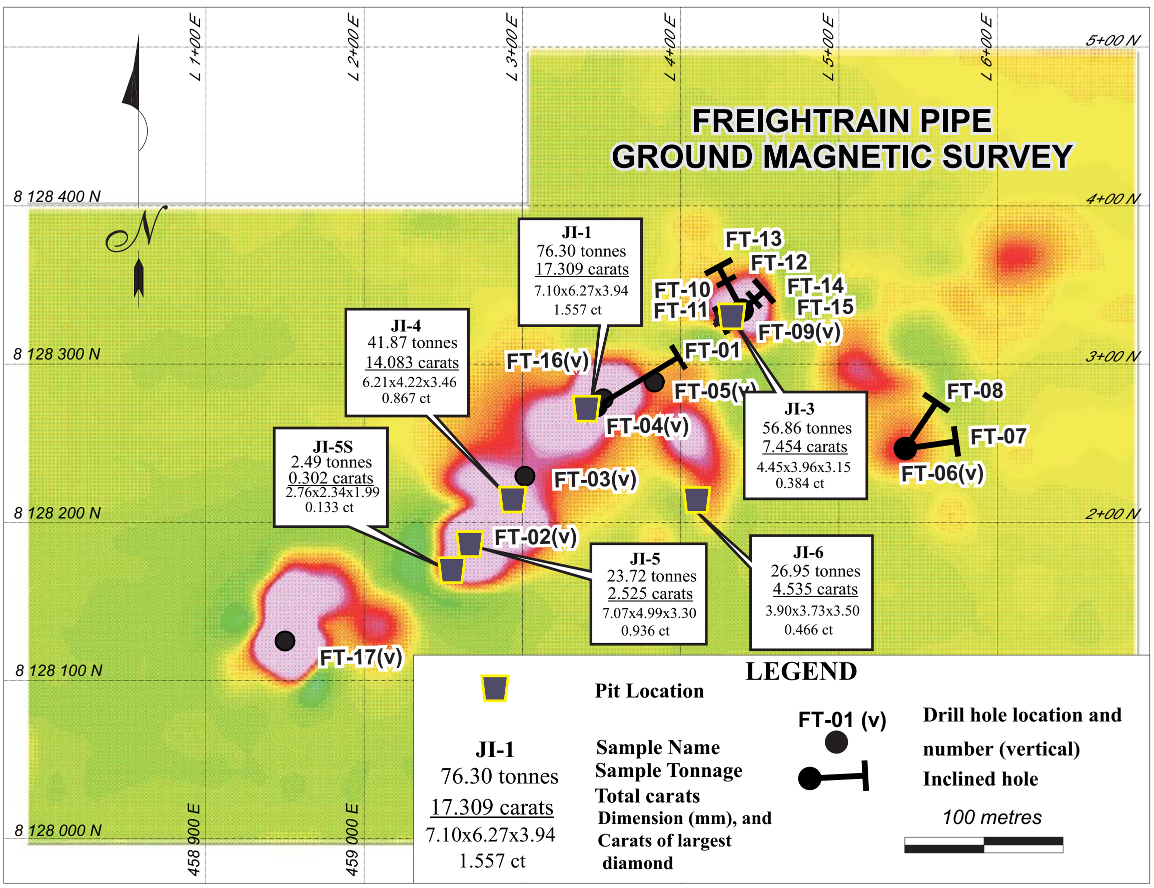
FIGURE : 1

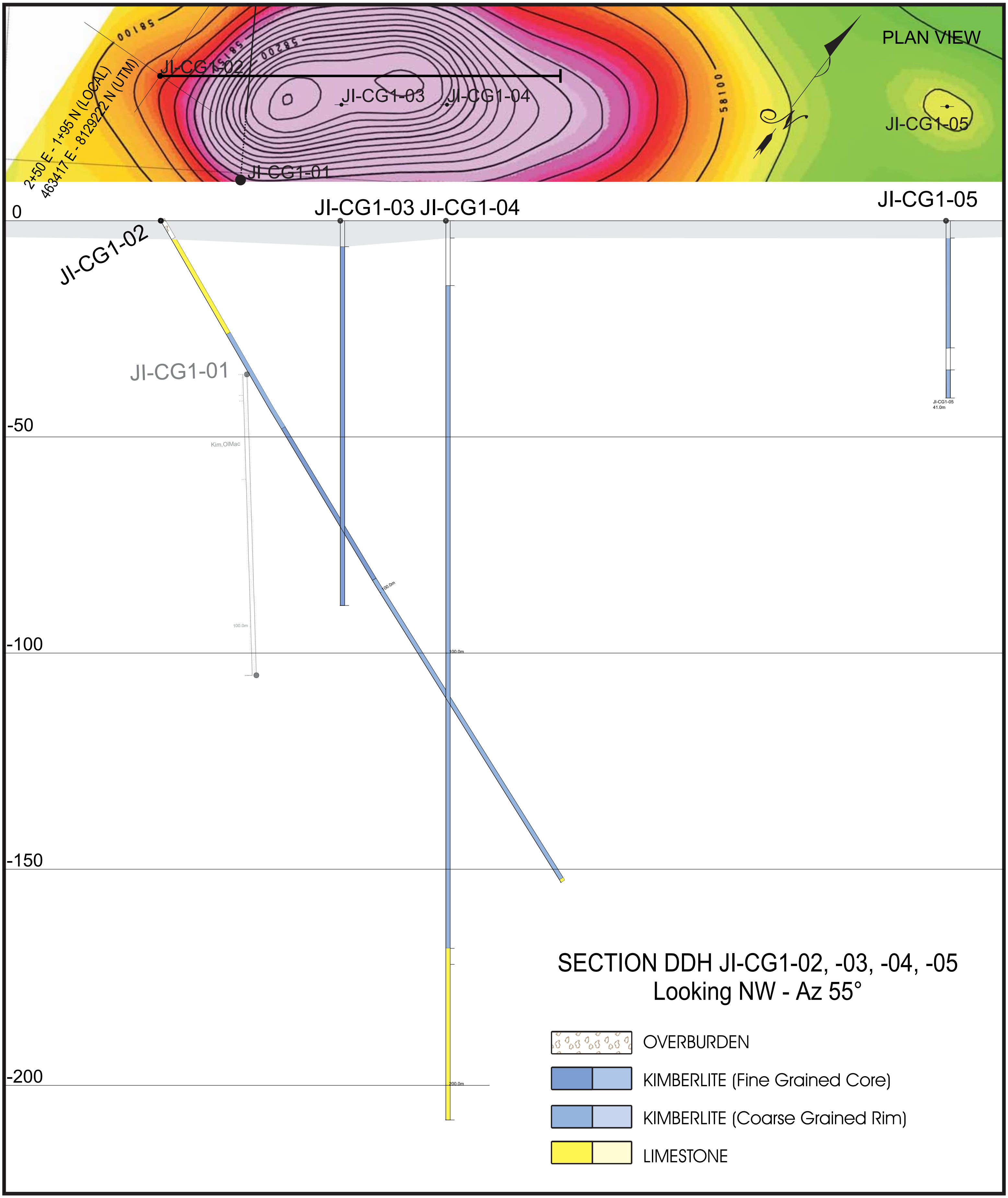
FOR:	TWIN MINING CORPORATION
SURVEY:	**LOCATION MAP**
BY:	NORDQUEST Tel: (819) 874-4446 - E-Mail: nordquest@cablevision.qc.ca
	JACKSON INLET PROJECT **BRODEUR PENINSULA, NUNAVUT**
EXECUTED BY: *R. Roy* *2001* DRAWN BY: *C. Belzil* *06/2002*	LAT: *86° 45' 00"* LONG: *73° 00' 00"*
FILE : location_FIG.cdr	SCALE 0 250 500 Kilometres



TWIN MINING CORP.
Breakwater Resources
Paul Pitman
Mountain Province
Erickson and Mason
Kennecott Canada
Debeers Canada
PARRY CHANNEL
BAFFIN BAY
BAFFIN ISLAND
GULF OF BOOTHIA
100 KILOMETRES
58D
48C
48D
38B
58A
48B
48A
37H
37G
57H
47G
47H
37E
37F
57E
47F
47E
37D
37C
47D
47C

Silurian limestones
Ordovician limestones
Cambrian limestones
Gneiss
Sedimentary rocks
Granulite-facies paragneiss
Metasedimentary & metavolcanic rocks
Contact
Regional lineaments (diabase dykes and faults)
Twin Mining Claims
450 000 E
500 000 E
550 000 E
600 000 E
8 150 000 N
8 100 000 N
8 050 000 N
8 000 000 N
N
W
E
S
KENNECOTT CANADA
TWIN MINING
48C
58D
PRINCE REGENT INLET
ADMIRALTY INLET
CARGO 1 PIPE
FREIGHTRAIN PIPE
JADE CORRIDOR
ERICKSON-MASON
BREAKWATER
NANISIVIK MINE
ARCTIC BAY
MOUNTAIN PROVINCE
58A
48B
PITMAN
FOR:
TWIN MINING CORPORATION
SURVEY:
GEOLOGY MAP
BY:
NORDQUEST
Tel: (819) 874-4446 - E-Mail: nordquest@cablevision.qc.ca
EXECUTED BY: R. Roy April 2002
PROCESSING and INTERPRETATION: R. Roy April 2002
DRAWN BY: C. Belzil April 2002
APPROUVED BY: - -
REVISED BY: - -
NORTH BAFFIN ISLAND
BRODEUR PENINSULA, NUNAVUT
LAT: 86° 45' 00"
LONG: 73° 00' 00"
SCALE: 1 : 250 000
0 2 500 5 000 7 500 10 000
Metres
FILE : CLAIM_MAP.CDR
N.T.S.: 48B, 48C , 58A, 58D
Nad27 UTM Zone 16


FREIGHTRAIN PIPE
GROUND MAGNETIC SURVEY
L 1+00 E
L 2+00 E
L 3+00 E
L 4+00 E
L 5+00 E
L 6+00 E
5+00 N
4+00 N
3+00 N
2+00 N
8 128 400 N
8 128 300 N
8 128 200 N
8 128 100 N
8 128 000 N
458 900 E
459 000 E
N
JI-1
76.30 tonnes
17.309 carats
7.10x6.27x3.94
1.557 ct
JI-4
41.87 tonnes
14.083 carats
6.21x4.22x3.46
0.867 ct
JI-5S
2.49 tonnes
0.302 carats
2.76x2.34x1.99
0.133 ct
JI-5
23.72 tonnes
2.525 carats
7.07x4.99x3.30
0.936 ct
JI-6
26.95 tonnes
4.535 carats
3.90x3.73x3.50
0.466 ct
JI-3
56.86 tonnes
7.454 carats
4.45x3.96x3.15
0.384 ct
FT-13
FT-12
FT-14
FT-15
FT-10
FT-11
FT-09(v)
FT-01
FT-16(v)
FT-05(v)
FT-04(v)
FT-03(v)
FT-02(v)
FT-17(v)
FT-08
FT-07
FT-06(v)
LEGEND
Pit Location
JI-1
76.30 tonnes
17.309 carats
7.10x6.27x3.94
1.557 ct
Sample Name
Sample Tonnage
Total carats
Dimension (mm), and
Carats of largest
diamond
FT-01 (v)
Drill hole location and
number (vertical)
Inclined hole
100 metres


PLAN VIEW
JI-CG1-02
JI-CG1-03
JI-CG1-04
JI-CG1-05
JI-CG1-01
2+50 E - 1+95 N (LOCAL)
463417 E - 8129222 N (UTM)
58100
58200
0
-50
-100
-150
-200
100.0m
200.0m
Kim,OlMac
SECTION DDH JI-CG1-02, -03, -04, -05
Looking NW - Az 55°
OVERBURDEN
KIMBERLITE (Fine Grained Core)
KIMBERLITE (Coarse Grained Rim)
LIMESTONE

APPENDIX A

Claim List

Twin Mining Corp.

Jackson Inlet Project, Nu.

Land Use Permit

Claim Name	Permit No.	Surface Area		
		Type	Hectares	Sq Km.
Freightrain	F65593	2324,25	940,59	9,41
Slot	F45691	2324,25	940,59	9,41
Ace	F69377	2066,00	836,08	8,36
Rob	F69378	309,90	125,41	1,25
Todd	F69379	2582,50	1045,10	10,45
John	F69380	1549,50	627,06	6,27
Mike	F69381	619,80	250,82	2,51
Joel	F69382	1033,00	418,04	4,18
Fiona	F69383	1807,75	731,57	7,32
Dallas	F68384	1807,75	731,57	7,32
Sam	F69385	103,30	41,80	0,42
Trudy	F68386	2324,25	940,59	9,41
Jamie	F69387	2582,50	1045,10	10,45
Sara	F69388	1239,60	501,65	5,02
Jason	F69389	2479,20	1003,30	10,03
Krista	F69390	619,80	250,82	2,51
Andrea	F69391	2582,50	1045,10	10,45
Emily	F69392	2582,50	1045,10	10,45
BP-1	F71429	1084,70	438,96	4,39
BP-2	F71430	1807,80	731,59	7,32
BP-3	F71431	1796,60	727,06	7,27
BP-4	F71432	1704,50	689,79	6,90
BP-5	F71433	878,70	355,60	3,56
BP-6	F71434	2582,50	1045,10	10,45
BP-7	F71435	2582,50	1045,10	10,45
BP-8	F71436	2582,50	1045,10	10,45
BP-9	F71437	2582,50	1045,10	10,45
BP-10	F71438	2582,50	1045,10	10,45
BP-11	F71439	2582,50	1045,10	10,45
BP-12	F71440	1846,60	747,29	7,47
BP-13	F71441	1993,70	806,82	8,07
BP-14	F71442	2012,70	814,51	8,15
BP-15	F71443	1515,10	613,14	6,13
BP-16	F71444	1198,30	484,94	4,85
BP-17	F71452	2066,00	836,08	8,36
BP-18	F71451	2582,50	1045,10	10,45

Twin Mining Corp.
Jackson Inlet Project, Nu.
Claim List

		Surface Area		
Claim Name	Claim No.	Acres	Hectares	Sq Km.
BP-19	F71450	1239,60	501,65	5,02
BP-20	F71449	2582,50	1045,10	10,45
BP-21	F71445	2066,00	836,08	8,36
BP-22	F71446	2582,50	1045,10	10,45
BP-23	F71447	2582,50	1045,10	10,45
BP-24	F71448	2582,50	1045,10	10,45
BP-25	F71453	2582,50	1045,10	10,45
BP-26	F71454	2582,50	1045,10	10,45
BP-27	F71455	2582,50	1045,10	10,45
BP-28	F71457	2582,50	1045,10	10,45
BP-29	F71458	2582,50	1045,10	10,45
BP-30	F71456	2582,50	1045,10	10,45
BP-31	F71459	2582,50	1045,10	10,45
BP-32	F71460	2066,00	836,08	8,36
BP-33	F71461	2066,00	836,08	8,36
BP-34	F71462	2582,50	1045,10	10,45
BP-35	F71463	2582,50	1045,10	10,45
BP-36	F71464	2582,50	1045,10	10,45
BP-37	F71465	2582,50	1045,10	10,45
BP-38	F71466	2582,50	1045,10	10,45
BP-39	F71467	2582,50	1045,10	10,45
BP-40	F71468	2582,50	1045,10	10,45
BP-41	F71469	2582,50	1045,10	10,45
BP-42	F71470	2582,50	1045,10	10,45
BP-43	F71471	2582,50	1045,10	10,45
BP-44	F71472	2582,50	1045,10	10,45
BP-45	F71473	2582,50	1045,10	10,45
BP-46	F71474	1291,30	522,57	5,23
BP-47	F71475	1291,30	522,57	5,23
BP-48	F71476	2582,50	1045,10	10,45
BP-49	F71477	2582,50	1045,10	10,45
Robyn	F69393	1239,60	501,65	5,02
Britta	F69394	464,85	188,12	1,88
Jade	F69395	1291,25	522,55	5,23
Arnulf	F69396	1033,00	418,04	4,18
William	F69397	1291,25	522,55	5,23
Domenic	F69398	2582,50	1045,10	10,45
Jade West	F69400	1291,25	522,55	5,23
Roswitha	F69401	2582,50	1045,10	10,45
Frederique	F69402	2582,50	1045,10	10,45
Richard	F69403	1291,25	522,55	5,23
Hermann	F69404	2169,30	877,89	8,78
Krista South	F69405	2524,20	1021,51	10,22
TOTAL	**Core Block**	**161846,70**	**65497,09**	**654,97**

Twin Mining Corp.

Jackson Inlet Project, Nu.

Claim List

Claim Name	Claim No.	Surface Area Acres	Hectares	Sq Km.
JI1-1	F72427	2582,50	1045,10	10,45
JI1-2	F72428	2582,50	1045,10	10,45
JI2-1	F72426	2582,50	1045,10	10,45
JI3-1	F72429	2582,50	1045,10	10,45
JI4-1	F72430	2582,50	1045,10	10,45
JI5-1	F72434	2582,50	1045,10	10,45
JI6-1	F72433	2582,50	1045,10	10,45
JI7-1	F72431	2582,50	1045,10	10,45
JI8-1	F72432	2582,50	1045,10	10,45
JI9-1	F72425	2582,50	1045,10	10,45
JI10-1*	F72403	2582,50	1045,10	10,45
JI10-2*	F72404	2582,50	1045,10	10,45
JI10-3*	F72405	2582,50	1045,10	10,45
JI10-4*	F72406	2582,50	1045,10	10,45
JI10-5*	F72407	2582,50	1045,10	10,45
JI10-6	F72408	2582,50	1045,10	10,45
JI10-7	F72409	2582,50	1045,10	10,45
JI10-8	F72410	2582,50	1045,10	10,45
JI10-9*	F72411	2582,50	1045,10	10,45
JI10-10	F72412	2582,50	1045,10	10,45
JI10-11	F72413	2582,50	1045,10	10,45
JI10-12	F72414	2582,50	1045,10	10,45
JI10-13	F72415	2582,50	1045,10	10,45
JI10-14	F72416	2582,50	1045,10	10,45
JI10-15	F72417	2582,50	1045,10	10,45
JI10-16	F72418	2582,50	1045,10	10,45
JI10-17	F72419	2582,50	1045,10	10,45
JI10-18	F72420	2582,50	1045,10	10,45
JI10-19	F72421	2582,50	1045,10	10,45
JI10-20	F72422	2582,50	1045,10	10,45
JI10-21	F72423	2582,50	1045,10	10,45
JI10-22	F72424	2582,50	1045,10	10,45
TOTAL	**New Group**	**82640,00**	**33443,25**	**334,43**
TOTAL	**ALL**	**244486,70**	**98940,34**	**989,40**

* = IOS approuval still pending