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**PROSPECTING PROGRAMME FOR
FLAGSTONE AND DECORATIVE STONE IN
THE PARRY SOUND DISTRICT OF ONTARIO**

by

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LONG.: 79°W - 80°-15'W
LAT.: 45°-15'N - 46°N
NTS: 41H/8; 41H/9; 31E/5;
31E/11; 31E/12;
31E/13; 31E/14

OPAP FILE NO.: OP92-174

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ORIGINAL CONCEPT

Flagstone production has been carried out in the Parry Sound District of Ontario on a small scale for many decades. Demand is sufficient to maintain one continuous operation, but oddly enough the stone from this Mill Lake quarry is rarely marketed in the major centres of the Great Lakes Basin. Stone marketing companies complain that the supply is too small and unreliable so they won't stock it. The producer will not gear up the quarry to produce more without firm orders. He feels comfortable with this cottage-style operation.

The rock at Mill Lake has many unusual qualities which make it an attractive and very workable stone, however it is not unique. The rock is composed of quartz, feldspar and hornblende and is very strongly mylonitized (which imparted the strong cleavage or parting). Since the rock had a porphyritic or porphyroblastic texture prior to final shearing a very pronounced and attractive lineation is imparted on the foliation. A similar flagstone has been revealed, in research by OGS on a COMBDA programme, near Magnetawan. The two sites are believed to owe the flaggy characteristic to the fact that they are both within a thrust fault which forms a boundary about the Parry Sound domain of the Ontario Gneiss Segment. These two sites are approximately 90 km. apart on the trend of the thrust fault.

A related research programme has also identified three sites where attractive decorative stone is located in Carling Twp. and Burton Twp. A market for attractive gneiss in countertops, tiles and even building panels is currently expanding, but the material is derived from Brazil and Italy.

The objective of the project was a) to prospect extensively the road cuts and crown land portions of the thrust zone and adjacent or parallel highly sheared areas for flagstone that is similar to the stone of the Mill Lake and/or Magnetawan quarries b) evaluate the relative quality of candidate quarry sites c) stake the best site for flagstone and the better available sites for decorative stone d) map out the sites for uniformity, variability and volume of potential products plus their characteristics e) conduct preliminary test pitting on both sites and obtain samples f) conduct initial tests to determine chemical and physical properties of the product lines.

LOCATION AND ACCESS

The area worked in is located in the Parry Sound District, Southern Ontario Mining District, and Algonquin District Regional Geologist's area approximately 150 miles (240 km) north of Toronto. The study area is bounded by longitudes 80°-15' on the west and 79° on the east and latitudes 45°-15' on the south and 46° on the north. Prospecting along the 'thrust fault' was carried out in the following townships:

Mc Dougall	M163
Ferguson	M173
East Burpee	T205
Burton	G3885
Mc Kenzie	M187
Wilson	M201
East Mills	M189
Pringle	M195
Lount	M184
Chapman	M169
Croft	M172
Ryerson	M197

The prospecting areas for the dimensional stone (decorative stone) are located in Burton Twp. just west of Ardbeg and in Carling Twp on Hwy 69 and also on a four unit claim which I staked in 1991 (claim SO 1151129, lot66, Conc. X and XI) and six contiguous claim units staked in 1992 (claims SO 1151135 & 1151136, lots 64 & 65 Conc IX & X). The 'thrust fault' and prospecting traverse locations are plotted on a 1:250,000 scale map entitled "PARRY SOUND FLAGSTONE AND DIMENSIONAL STONE PROJECT- LOCATION MAP PROSPECTING TRAVERSES". Highways, local roads, hydro lines and railroad tracks were used to make regular access to the prospecting area. Individual traverse sketches were drawn for each traverse at scales ranging from 1:10,000 to 1:50,000 and are presented on the large white print in the pocket. The resource evaluation legend for the traverses is in the Appendix to this report.

Claims SO 1151129, 1151135 and 1151136 located in Conc IX, X & XI, lots 64, 65 & 66 Carling Twp. were geologically mapped in November, 1992 as part of the project. This mapping is depicted on the Preliminary Geological Map of the Killbear Point Property also located in the back pocket. The property can be accessed from Hwy 559, the Pengallie Bay Rd. and the Snug Harbour Rd by first leaving Hwy 69 some 10 km north of Parry Sound and travelling 19 km west on Hwy 559. Due to an old road and relatively flat outcrop the bulk of the property is currently accessible to 4-wheel drive vehicles.

The National Topographic System areas include:

41 H/8; 41 H/9; 31 E/5; 31 E/11; 31 E/12; 31 E/13;

31 E/14.

CHANGES TO PROPOSED PROJECT

Work Done.

The initial prospecting stage of the project was extended by approximately 50% in an effort to find a suitable flagstone site on crown land. More traverses were run than originally planned involving more purchases of maps and mileage incurred. It was found that the fault is not in fact a thrust fault through most of its length but a fault displaying primarily lateral movement yielding more of a mafic brecciated product rather than a siliceous finely ground product. The first stage of work was overexpended and I failed to locate a satisfactory flagstone prospect for my purposes.

Second phase work was focussed on mapping and sampling one of the dimensional stone sites I had located as planned. However, I extended the sampling to cover nine prospective sites on three properties that I had staked as well as a crown land site. With the more extensive sampling, I decided to defer the removal of a large block as this would have cost an excessive amount and I had already accomplished more than originally planned.

Budget

The originally planned budget and actual expenditures are compared in the table below.

Phase 1

	Proposed		Actual
Prospecting 21 days.....	\$2100	31 days	\$ 3100
Food and lodging@\$50....	\$1050		\$ 1430.27
Travel 2000km. @\$.30....	\$ 600	5593 km	\$ 1677.90
Boat rental 3 days.....	\$ 100	1 day	\$ 54.00
Maps, photos.....	\$ 250		\$ 753.27
Film.....	\$ 100		\$ 56.51
Stationery&miscellaneous	<u>\$ 200</u>		<u>\$ 237.07</u>
Subtotal.....	<u>\$4400</u>		<u>\$ 7309.02</u>

Phase 2

Prospecting and Geological Mapping 8 da	\$ 800	6½days	\$ 625
Stripping.....	\$1500		nil
Plugger rental.....	\$ 600		nil
Food and lodging @ \$50..	\$ 400		\$ 355.19
Travel 2000km. @\$.30....	\$ 600	2081 km	\$ 624.30
Labour 4days.....	\$ 400	3 days	\$ 300
Shipping and sawing block of rock.....	\$ 800		\$ 691.82
Report writing 3 days...	\$ 300	33 days	\$ 3300.00
Miscellaneous supplies..	<u>\$ 200</u>		<u>\$ 102.93</u>
Subtotal.....	<u>\$5600</u>		<u>\$ 5999.24</u>
 Total	 <u>\$10000</u>		 <u>\$13308.26</u>

GEOLOGY

The project area is underlain by rocks of Late Precambrian age which have been subdivided into Domains and Subdomains by several authors in recent years but principally by A. Davidson of the GSC. The boundary of the Parry Sound Domain with both the Ahmic Subdomain to the east and the Britt Domain to the northwest is a zone or zones displaying varying degrees of ductile deformation. Flagstone which is strongly lineated, felsic, siliceous and fine grained (mylonitized) occurs at the Mill Lake Quarry in Mc Dougall Twp. and in lot 28, Conc. 5 Chapman Twp within the zone of ductile deformation.

A close inspection of the lineated flagstones, deposit boundary relationships etc. during the prospecting program revealed the following points:

1. Much of the felsic material in these gneisses appears to be very thin laminae of conformable syntectonic granitic pegmatites.
2. The actual lineation is formed both by stretching of porphyroblasts or porphyroclasts and more prominently by a ribbon lineation produced by the small acute angle between a fracture cleavage or shear plane and the plane of compositional layering. The actual breaking plane on the flagstone surface appears to wander from the shear plane to the compositional plane and back quite regularly or with facility. This observation could actually be amended with closer and more detailed examination.
3. In the case of Mill Lake the shear couple appears to have been orthogonal to the strike of the break at this point resulting in a thrust movement. Although the Chapman Twp occurrence is vertically dipping and the overall geometry of the deformation zone has not been resolved at this point, the rock is also a mylonite and was probably formed in a similar manner to the Mill Lake deposit.

The Parry Sound Domain rocks comprise dense high metamorphic facies rocks (amphibolite and granulite facies) which are emergent on the other domains. The ductile shear zone was found to contain largely derivatives of Parry Sound Domain material in a sheared or brecciated condition. The lineation of the shear zone generally indicates a motion from SSE to NNW which in most cases is more of a tear rather than thrust component. While adjustments were made during the field program to locate zones of local thrusting, no prospective flagstone was found on crown land.

The Britt Domain comprises a complexly deformed and metamorphosed series of rocks. Although some of the rocks are metasedimentary in origin the preponderance of the rocks were originally plutonic, but have been changed by dynamic and thermal metamorphism. The final stages of this metamorphism appear to have annealed the rock into a compact and durable material having some

relict tectures and many overlapping and lively features.

Three dimensional stone prospects were staked in the Britt Domain during the project and one of these, the Killbear Point Property, in Carling Twp. was mapped geologically. All of these rocks are migmatitic derivatives of granitic intrusions and present a great variety of textures. In some cases it is evident that the paleosome constituent was megacrystic and subsequent neosome phases have distinct compositions and fabrics. The sites were chosen for their attractiveness and the apparent availability of accessible large blocks. Sample descriptions are included in the Daily Prospecting Log which forms a part of this report.

WORK DONE

Thirty-one days were spent in the first stage of work prospecting mainly for flagstone and to a lesser degree for dimensional stone. Highways, local roads, hydro lines and railroad tracks were used to make regular access to the prospecting area. Individual traverse sketches were drawn for each traverse at scales ranging from 1:10,000 to 1:50,000 and are presented on the large white print in the pocket. The resource evaluation legend for the traverses is in the Appendix to this report. The thrust fault and prospecting traverse locations are plotted on a 1:250,000 scale map entitled "PARRY SOUND FLAGSTONE AND DIMENSIONAL STONE PROJECT-LOCATION MAP PROSPECTING TRAVERSES". Although some flagstone and ledgerrock was found during the course of this work (quality indicated on traverse sketches) none of the occurrences was satisfactory for my purposes. It was determined during the program in fact that the overall motion on the fault is lateral rather than vertical diminishing the chances of finding a large mylonitic flagstone occurrence on crown land.

The second phase of the project was entirely dedicated to evaluating dimensional stone prospects. The prospecting areas for the dimensional stone (decorative stone) are located in Burton Twp. just west of Ardbeg and in Carling Twp on Hwy 69 and also on a four unit claim which I staked in 1991 (claim SO 1151129, lot 66, Conc. X and XI) and six contiguous claim units staked in 1992 (claims SO 1151135 & 1151136, lots 64 & 65 Conc IX & X).

Claims SO 1151129, 1151135 and 1151136 located in Conc IX, X & XI, lots 64, 65 & 66 Carling Twp. were geologically mapped in November, 1992 as part of the project. This mapping is depicted on the Preliminary Geological Map of the Killbear Point Property at a scale of 1:5000 also located in the back pocket. The mapping was done on a photo enlargement using a range finder and compass. The rock was subdivided on the basis of colour and texture primarily. Joint and foliation measurements were taken at each station and the joint separation was noted. Contacts were not traversed. the main reason for this approach was to make an initial inventory of material types with qualitative determination of the

jointing.

Sampling with a sledge, crow bar and feather wedges was done on nine sites. These sites were selected to determine if the rock samples would take a good polish without pluckouts and other deleterious aspects and to judge the decorative quality of the rock in each case. Descriptions of the rock samples are included in the Daily Prospecting Log which follows this section. The eight felsic rock samples all presented as attractive specimens worth exploring in detail.

PROSPECTING DAILY LOG

<u>Project Area</u>	<u>Date</u>	<u>Work Performed and Location</u>
Traverse 1-Hwy 69 from south entrance to Parry sound to Val Karen Motel.	July 8	Prospected type section along Hwy 69 by the Mill Lk quarry from south entrance to Parry Sound to Hwy 124 intersection to observe cross fault variations related to flagstone development. (key map and traverse sketch)
	July 9	Prospected from Hwy 124 to ValKaren Motel along Hwy 69.
South side of Mill Lake along road to east of Hwy 69 and along selected cottage roads; Bayside Dr., South Portage Lake Rd., Felsman Bay Rd. and Hoddy's Rd.	Sept. 23	Prospected area around Mill Lake to define character and extensions to known deposit.
Roads straddling the north side of Mill Lake to the south east of Hwy 124	Sept. 25	Prospected roads to north of Mill Lake in an effort to trace the flagstone deposit through to this area.

<p>Traverse 2- Hwy 69 from Val Karen Motel north to Woods Rd. including Woods Rd Quarry and areas straddling the Highway.</p>	<p>July 9</p>	<p>Prospected the gneisses and migmatites along Hwy 69 from Val Karen Motel to Woods Rd. for dimensional stone; orientation work at this stage. (key map and traverse sketch.</p>
	<p>July 22</p>	<p>Detailed prospecting along highway north of Hwy 559 and examined Woods Rd quarry.</p>
	<p>July 23</p>	<p>Prospecting west of Hwy 69 in lots 5,6 and 7, conc. 3 Carling Twp.</p>
	<p>July 24</p>	<p>Prospected east and west of Hwy 69 in lots 6,7 Conc 5 Carling Twp.</p>
	<p>Oct.30</p>	<p>Collected two large plus 100 lb samples from the east and west side of Hwy 69 near Woods Rd. quarry. Samples described in notes at end of this log and located on traverse sketch. Took pictures with camera and camcorder.</p>
<p>Traverse 3-Cottage access road circum Strathdee Lake SE of Hwy 124 and hydro line.</p>	<p>July 10</p>	<p>Prospected along road and hydro line near Strathdee Lake for flagstone. (sketch map)</p>
	<p>Sept. 25</p>	<p>Re-examined some of the outcrops, and prospected a larger area.</p>
<p>Traverse 4- Hwy 124 east from Hwy 69 to Waubamik then north along secondary road to Hwy 520</p>	<p>July 13</p>	<p>Prospected Hwy 124 to Waubamik then north to Hwy 520. (sketch map)</p>
<p>NW and SE along CN track in E. Burpee Twp for 2mi on either side</p>	<p>Sept. 27</p>	<p>Prospected along a 4 mi section of track in E. Burpee Twp</p>
<p>Hydro access road in Concession 9 and 10 Ferguson Twp.</p>	<p>Sept. 29</p>	<p>Prospected along the hydro access road in Ferguson Twp.</p>
<p>Road between Waubamik and Hwy 520 in E. Burpee Twp.</p>	<p>Sept. 30</p>	<p>re-examined outcrops along road and prospected some sites to east of road in E. Burpee lots 6,7 Conc 6 and lot 8, Conc. 4</p>

<p>Traverse 5- Access road to Snug Harbour from Hwy 559, local roads, Conc 9, 10 lots 63-68 and lots 71 - 75, Conc 10 Carling Twp.</p>	<p>Aug. 4</p>	<p>Prospected Snug Harbour Rd. to Killbear Park then the Pengallie Bay Rd. and prospected the length of claim 1151129.</p>
	<p>Aug 18</p>	<p>Prospected lots 64 & 65 conc 9 & lot 64, conc 10 Carling Twp.</p>
	<p>Oct 27</p>	<p>Prospected lot 64 conc 10 east of beaver dam.</p>
	<p>Oct. 28</p>	<p>Prospected lot 64, Conc 9&10 to locate sites for recovering a large sample for cutting and polishing.</p>
	<p>Oct. 29</p>	<p>Collected two very large samples in excess of 150 pounds each from lot 64 in concession 9 and lot 66 Conc 11; also collected three smaller samples (20-30 lbs) (see sketch and appended description).</p>
<p>Traverse 6-lots 8 and 9 Conc 2 Carling</p>	<p>Aug. 6</p>	<p>Prospected lots 8 & 9 Conc 2 Carling Twp. for dimensional stone. (sketch map)</p>
<p>Traverse 7- Lots 71 to 75, Conc 10, Carling Twp.</p>	<p>Aug. 7</p>	<p>Prospected lots 71-75 Conc. 10 Carling Twp. for dimensional stone (sketch) and Snug Harbour Rd.</p>
<p>Traverse 8- Hwy 69 from Woods Rd to Pt Au Baril</p>	<p>Aug 17 Oct. 1</p>	<p>Prospected in Shawinaga Twp along Hwy 69 for dimensional stone.(sketch)</p>
<p>Traverse 9- lots 23,24 Conc 3 Carling Twp</p>	<p>Aug 17</p>	<p>Prospected lots 23, and 24 Conc 3 Carling Twp along length of hydro line and local access road.</p>
<p>Traverse 10- road to Dillon from Hwy 559</p>	<p>Aug 17</p>	<p>Prospected along road to Dillon from Hwy 559 for dimensional stone.</p>

Traverse 11- Hwy 520 from Ardbeg to Whitestone including adjoining access roads.	Aug. 18	Prospected along Hwy 520 between Ardbeg and Whitestone plus Auld's Rd and Wah-Wash-Kesh Rd for flagstone.(sketch)
Lot 30, Conc 3 McKenzie Twp	Sept. 28	Prospected lot 30, conc 3 in McKenzie Twp. for mylonitized rock
side road accessed from Wah-Wash-Kesh Rd.	Oct. 3	Prospected indicated mylonite zones accessed from Wah-Wash-Kesh Lake
Traverse 12- Hwy 124 from Ahmic Lake E to Hwy 520 then along Hwy 520 and 510 south of Hwy 124	Aug 19	Prospected Hwy 124 E from Ahmic Lake the Hwy 510 and 520 south of Hwy 124 for about 10 km. (sketch)
Lot 28, conc 5 Chapman Twp	Aug. 20	Prospected abandoned quarry in lot 28, conc. 5 Chapman Twp.
Lots 7, 8 Conc 9 and 8 and 9 Conc 8 Croft Twp.	Aug. 24	Prospected road parallel to Hwy 124 in lots 7&8 conc 9 &8 and 9,conc 8
Access Rd to Ross rapids	Aug. 25	Prospected road to Ross Rapids on Magnetawan R. making one side traverse 1 mile in length.
Conc 6&7 Croft Twp, Jackson's Rd. and Chikopi Rd.	Oct. 3	Prospected along Jackson,s Rd and Chikopi Rd in Croft Twp.
Traverse 13- Hwy 510 N from intersection with Hwy 124 to Eagle Lk via Bummer's Roost	Aug. 20	Prospected along old Nipissing Rd N from Hwy 124 to Bummers Roost and E to Eagle Lk (sketch)
Lots 107, 109-111 Conc B and lots 110&111 Conc A Chapman Twp.	Aug. 24	Prospected on east and west side of crown lots along Hwy 510 in Chapman Twp.
Traverse 14- Hwy 522 for 20 km W of Loring.	Aug. 21	Prospecting along Hwy 522 west of Loring.(Sketch)
Lost Channel quarry and Smith Bay Rd	Oct 1	Prospected Lost Channel Quarry and down local roads on each side of quarry.

<p>Traverse 15- Hwy 522 E of Loring including side roads: Duck Lake, Lover's Lane, Le Grou's Lake, Old Stage, Hilltop, Boundary, and Little River Roads.</p>	<p>Aug.21</p>	<p>Prospected along Hwy 522 E towards Commanda. (sketch)</p>
	<p>Aug. 22</p>	<p>Prospected along Duck Bay Rd, Lovers Lane Rd., Birch Pt Rd.,Hilltop Rd., Old Stage Rd and Le Grou's Lake Rd</p>
	<p>Aug. 23</p>	<p>Prospected Clear Lake , Jack's Lake and Little River Roads east of Arnstein.</p>
	<p>Oct. 1</p>	<p>Prospected the Arnstein Quarry on Le Grou Lake Rd.</p>
<p>Traverse 16-Hwy 522 near Commanda plus Odorizzi Rd, Restoule access road, Commanda Lake Rd. and Granite Hill Rd.</p>	<p>Aug. 23</p>	<p>Prospected Hwy 522 near Commanda and Restoule Park accessing several of the side roads in the area. (Sketch)</p>
<p>Traverse 17- Chapman Twp lots 98, 99 conc A</p>	<p>Aug 24 Oct. 3</p>	<p>Prospected across high outcrop in lots 98 and 99 conc A Chapman Twp.(sketch)</p>
<p>Traverse 18-Roads SW of Magnetawan between Ahmic Lake and Cecebe Lake</p>	<p>Aug. 24</p>	<p>Prospected the local roads southwest of Magnetawan (sketch)</p>
<p>Traverse 19- Hwy 124 E of Hwy 510 and Conc 9, lot 20 Chapman Twp.</p>	<p>Aug. 19</p>	<p>Prospected along Hwy 124 east of Hwy 510.</p>
	<p>Aug. 25</p>	<p>Prospected along Hwy 124 and in lot 20 Conc 9 Chapman Twp (sketch)</p>
<p>Traverse 20-E from Hwy 69 along McDougall Twp Ferguson Twp Boundary to W end of Nine Mile Lk.</p>	<p>Sept. 24</p>	<p>Prospected along access road to sand pit and aggregate quarry then travelled to good outcrop exposures to southeast and northwest.(sketch)</p>
<p>Traverse 21- Nine Mile Lake Road from Hwy 124 and Snowmobile trail along south side of Nine Mile Lk.</p>	<p>Sept. 26</p>	<p>Prospected along length of Nine Mile Lake Road (sketch)</p>
	<p>Sept. 28</p>	<p>Prospected along snowmobile trail for 2.5 miles to west of Nine Mile Lake road. Collected sample # 6.</p>

Traverse 22- 7.5 mile loop Oct. 2
 traverse east from Lovesick
 Rapids on the north side of Wah-
 Wash-Kesh Lake.

Prospected a 7.5 mile loop east
 of Lovesick Rapids on the north
 side of Wah-Wash-Kesh Lake.

Traverse 23- Black Lake lots 25- Oct. 4
 27, Conc 3&4, Burton Twp.

Prospected N/2 lot 27 Conc 3 and
 S/2 lots 25-27 Conc. 4 Burton
 Twp near Black Lake. Staked the
 property on Oct 5. Collected
 sample on Oct. 5 from claim in
 N/2 Conc 3 lot 27.

<u>Sample No.</u>	<u>Type of Sample</u>	<u>Rock Type</u>	<u>Test Results</u>
Sample 1 Claim 1151130	large block weighing 30 Kg.	Intrafolial folded pink, biotite - hornblende - quartz-feldspar migmatite.	The sample took an excellent polish appearing very durable without weathering fractures or pluck outs; the rock is a very attractive buff stringered, pink-grey migmatite containing approximately 20% biotite with quartz, feldspar with accessory magnetite and hematite speckles on grain boundaries widespread and attractive; rock is cataclastic with most pegmatite crystals recrystallized to a medium grained rock after cataclasis; alignment of biotite crystals appears to be axial planar to the folded gneissic layers giving the rock a "wood grain" appearance.
Sample 2 Claim 1151131	large block weighing 50 kg.	Straight gneissic, grey- pink, biotite- hornblende - quartz-feldspar migmatite	Red flecked pink and grey gneissic rock with ≈25% biotite and ≈20% hematite spots; pegmatitic material granulated and recrystallized; closed folds with axial planar biotite foliation; takes an excellent polish but some healed cross fractures evident which may be deleterious; also a wood grain gneiss.

<p>Sample 3 Claim 1151129</p>	<p>large block weighing 55 kg.</p>	<p>Purple and pink medium grained variegated migmatite with hematite stain and possibly fine grained garnets</p>	<p>Buff to pink laminae with elongated biotite clusters; mineral foliation at acute angle to the tightly folded compositional layering; the buff to pink material is a medium to coarse grained cataclastic relict of pegmatite containing minor peristerite; red spotted material with pink buff ground mass composes ~70% of the sample; the red spots are hematite stain on grain boundaries proximal to biotite and accessory magnetite; 50% of this layer is stained and the unit is medium grained; the rock takes an excellent polish with minor biotite plucking; the rock is unique and very attractive.</p>
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<p>Sample 4 Claim 1151136</p>	<p>Large block weighing ~60 kg.</p>	<p>Pink, coarse grained cataclastic, pegmatitic granitic breccia with minor hematite spotting.</p>	<p>Pink and grey, medium to coarse grained to megacrystic pegmatite breccia with sharply defined, cemented grain boundaries between the large clasts and the ground mass; the clasts are slightly deformed and rounded but the individual crystals in the clasts are fresh and unstrained; the rock takes an excellent polish with some plucking of biotite and quartz in the pegmatite and cracks within feldspar crystals; biotite foliation does not penetrate the pegmatitic fragments; magnetite ~3% with slight hematite stain.</p>
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Sample 5 Claim 1151136	10 kg sample.	Coronitic metagabbro which is a dark grey, coarse grained amphibole- pyroxene- feldspar bearing rock.	The polish did not come up on this rock; an anastomosing network of profuse cracks on grain boundaries and within individual crystals appears to weather low and on close examination appears to comprise largely carbonate replacement; approximately 10% magnetite in the rock.
Sample 6 Nine Mile Lk Granite	20 kg sample	Megacrystic quartz monzonite or granodiorite with highly strained relict megacrysts generally stretched to a length of 5 - 10 cm.	The orthoclases are stretched to 9cm X 1cm and granulated; hornblende megacrysts are .5 cm; some magnetite is present with hematite stain; the rock takes an excellent polish with no plucking.
Sample 7 Black Lake, Burton Twp. Claim 1151134	50 kg block	Originally a megacrystic quartz monzonite injected by an equigranular, medium grained granitic phase and subsequently deformed.	Granitic phase is folded and its attitude is at acute angle to the megacryst extension direction; late foliation in the biotite crosses these other planar elements; the granitic phase comprises about 35% hematite spots which are quite fine; the rock takes a superb polish with only slight plucking of accessory magnetite.
Sample 8 NW corner of Claim 1151135	15 kg sample	Granitic mylonite, or pink gneiss in contact with granitic pegmatite.	Rich, pink coloured, fine grained, mylonitic, quartzo- feldspathic rock with minor biotite, magnetite and hematite (the latter in laminae or streaks); a parallel stretched granitic pegmatite with well healed boundaries; excellent polish with only minor plucking of smoky quartz in pegmatite.

Sample 9
NW corner
of Claim
1151136

15 kg. sample

A medium to
coarse grained,
equigranular
rock with
hematite
speckles.

Under microscopic examination this rock presents as a formerly megacrystic, granitic intrusion which has been stretched into faint layers and recrystallized into an equigranular medium grained rock; cataclasis is very evident; medium grained hematite spots comprise 15% by volume over a pink to slightly grey background; minor biotite and magnetite and a small percentage of plagioclase compared to microcline; Smith's Monument Co. staff was very complimentary about this specimen which they state to be similar to a Laurentian Pink Granite which is used as a high quality monument stone.

RESULTS AND RECOMMENDATIONS

A prospecting program was carried out during the field season in the Parry Sound District in an effort to locate good prospects for flagstone similar to Mill Lake and for dimensional stone. The flagstone project concentrated on investigating ductile shear zones found at the boundaries of the Parry Sound Domain with the Britt Domain and the Ahmik Subdomain. The target material is formed in zones of mylonitization due to local thrust motion along this tectonic boundary. Unfortunately, the bulk of the shear zone displays lateral motion and no additional sources of the target material were located despite the fact that the survey was extended by 50% to enable more detail.

Prospecting for dimensional stone prospects in the felsic rock of the Britt Domain resulted in the isolation of three prospects which warrant more work. The eight samples taken in the felsic rock all presented as attractive polished specimens and some may even be suitable for monument stone.

Mapping of the Killbear Point property demonstrated a significant inventory of four different felsic gneisses with very wide joint spacing.

It is recommended that:

1. No further work be done to prospect for flagstone within the area.

2. Future searches for flagstone should be preceded by a careful structural study to isolate more promising areas of thrust movement prior to the field work.

3. Further programs be carried out on the three properties staked to map out the materials available and the joint separation, sample large blocks to guage the proximal consistency of the materials and wasteage factors on a production scale and also determine if any negative strain release induced subhorizontal jointing is present.

APPENDIX

LEGEND FOR PROSPECTING TRAVERSE SKETCHES

Format - (End use evaluated - Quality rating) (Dip angle of major textural feature) (Separation of horizontal or sub-horizontal joint) (Separation of vertical joints) (Grain size- for dimensional stone only) (Estimated percentage of 30 tonne blocks spoiled by deleterious materials, irregularities and impurities - applies to dimensional stone only) (Additional modifiers)

Example: D1-a-2-1-b-1-gipy or Pink, fine grained, felsic gneiss containing conformable syntectonic pegmatite dipping at $<10^\circ$ with vertical joint separation $>3\text{m}$ and subhorizontal joint separation $>2\text{m}$. A large proportion of the rock could be removed in discrete 30 tonne blocks with $<5\%$ waste from deleterious aspects

End Use Evaluated -

- F - Flagstone
- D - Dimensional Stone

Quality Rating - 1, 2, 3, 4, 5, 6, 7 definitions below

Dip Angle of Major Textural Feature -

- a - $0-10^\circ$
- b - $75-90^\circ$
- c - $0-10^\circ$ and undulating or folded
- d - $75-90^\circ$ and undulating or folded
- e - $10-75^\circ$
- f - homogeneous or indeterminate

Separation of Horizontal or Sub-Horizontal Joints -

- 1 - ≥ 3 metres
- 2 - ≥ 2 metres
- 3 - ≥ 1 metre
- 4 - ≥ 0.6 metres
- 5 - ≥ 0.3 metres
- 6 - ≤ 0.3 metres
- 7 - obscured or indeterminate

Separation of Vertical Joints -

- 1 - ≥ 3 metres
- 2 - ≥ 2 metres
- 3 - ≥ 1 metre
- 4 - ≥ 0.6 metres
- 5 - ≥ 0.3 metres
- 6 - ≤ 0.3 metres
- 7 - obscured or indeterminate

Grain Size

- a - very fine grained
- b - fine grained
- c - medium grained
- d - coarse grained

Estimated Percentage of 30 Tonne Blocks Spoiled By Deleterious Materials, Irregularities and Impurities

- 1 - <5%
- 2 - <20%
- 3 - >20%

Additional Modifiers

- a - quartz diorite
- b - anorthosite
- c - anorthositic gabbro
- d - gabbroic anorthosite
- e - quartz monzonite - granite
- f - cross-cutting granitic pegmatite
- g - gneiss
- h - conformable granitic pegmatite
- i - syntectonic conformable granitic pegmatite
- j - splits easily in thin layers 1 to 10 cm thick
- k - splits easily in thick layers 10 to 30 cm thick
- l - splits with uneven surface or with difficulty
- m - migmatite
- n - no tendency to split along regular parallel surfaces
- o - intrusive
- p - felsic
- q - mafic
- r - amphibole
- s - biotite
- t - pyroxene
- u - gabbro
- v - breccia
- w - black
- x - grey
- y - pink

Quality Rating

F1 - Very fine grained cataclastic textures (mylonitic) with relict strong lineation of pink feldspar porphyroclasts and ribbon lineation produced by very thin compositional layering and a modest acute angle between the compositional layers and the fracture cleavage; hornblende metacrysts 1-2%; fine grained biotite 10%; splitting generally in very thin layers 1cm - 6cm occurs preferentially along very fine grained, pre or syntectonic anatectic quartzo-feldspathic stringers which parallel the gneissic foliation; pink and grey on the slabbed face.

F2 - Fine grained cataclastic textures (protomylonite) with relict strong lineation of pink feldspar porphyroclasts and a more prominent ribbon lineation produced by acute angle bevelling or truncation of thin compositional layers by the fracture cleavage; mafic minerals comprise metacrysts of hornblende 1-2%, biotite <1% and fine grained biotite 10-15%; splitting generally in thin layers 2 cm to 10 cm thick especially along fine grained pre or syntectonic, anatectic, quartzo-feldspathic stringers which parallel the gneissic foliation; pink and grey on the slabbed face.

F3 - Fine to coarse grained cataclastic textures (mylonitic) with strong lineation of amphiboles ; hornblende dominant with biotite and feldspar; black, splitting well in 1 cm to 20 cm thick slabs; probably a phase of metagabbro.

F4 - Medium to coarse grained cataclastic rock with strong compositional layering forming a straight gneiss comprising felsic and mafic layers; mafic layers comprising biotite and hornblende and in some cases almandine garnet; felsic layers comprising pink and white feldspar and in some cases quartz; layers 2 cm to 45 cm thick; tendency to split along mafic parting plane.

F5 - Granitic rocks, relatively homogeneous in composition ; cataclastic with strong lineation; the rock does not tend to break into layers

F6 - Poorly layered schists and gneisses largely mafic cataclastic rocks; coarse grained with conformable and cross-cutting pegmatites; biotite and hornblende are the mafic minerals; tectonic breccias, porphyroclasts and protomylonitic textures are frequent.

F7 - Granulite facies rocks; layered mafic rock with some felsic layers; generally contains both clinopyroxenes and orthopyroxenes; this rock does not tend to split into parallel planar layers.

D1 - Felsic gneiss or migmatite meeting visual criteria which would suggest that a high percentage of the rock would yield 20-30 tonne blocks suitable for dimensional stone.

D2 - Felsic intrusive rock meeting visual criteria which would suggest that a high percentage of the rock would yield 20-30 tonne blocks suitable for dimensional stone.

D3 - Mafic intrusive rock meeting visual criteria which would suggest that a high percentage of the rock would yield 20-30 tonne blocks suitable for dimensional stone.

D4 - Felsic gneiss or migmatite meeting visual criteria which would suggest that a moderate percentage of the rock would yield 20-30 tonne blocks suitable for dimensional stone.

D5 - Felsic intrusive rock meeting visual criteria which would suggest that a moderate percentage of the rock would yield 20-30 tonne blocks suitable for dimensional stone.

D6 - Mafic intrusive rock meeting visual criteria which would suggest that a moderate percentage of the rock would yield 20-30 tonne blocks suitable for dimensional stone.

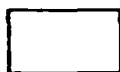
D7 - Felsic gneiss or migmatite meeting visual criteria which would suggest that a low percentage of the rock would yield 20-30 tonne blocks suitable for dimensional stone.

D8 - Felsic intrusive rock meeting visual criteria which would suggest that a low percentage of the rock would yield 20-30 tonne blocks suitable for dimensional stone.

D9 - Mafic intrusive rock meeting visual criteria which would suggest that a low percentage of the rock would yield 20-30 tonne blocks suitable for dimensional stone.

D10 - Rocks unsuitable on a commercial basis for use as dimensional stone.

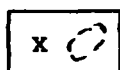
Quality of Exposure



Continuous outcrop exposure *where quality ratings are given without outcrop symbols*



Discontinuous outcrop with thin overburden cover



Outcrop location; intermittent outcrop exposure

NOTES TO LEGEND AND SYMBOL LIST

1 Granite gneiss - layered to massive rock mainly composed of quartz, plagioclase and microcline with minor matrix biotite and variable accessory magnetite, hematite and almandine:

- a) coarse grained equigranular rock, very weakly layered;
- b) unit 1a with coarse reddish-mauve speckles imparted by a combination of almandine and hematite;
- c) strongly layered fine to coarse grained cataclastic rock;
- d) unit 1a containing very large breccia fragments of pegmatite which show no internal strain;
- e) fine to medium grained massive pink to rose coloured rock with thin biotite-rich partings;
- f) unit 1e more thinly layered and containing mauve almandine-hematite laminae.

2 Purple and pink gneiss - generally a layered rock containing medium to coarse grained layers of unit 1a as a principal constituent and a regular fine to medium grained purple or mauve layer comprising quartz, feldspar, biotite, almandine and hematite; often a third regular milky to buff layer of granulated quartzofeldspathic pegmatitic material forms parallel conformable layers which generally exhibit pinch and swell textures:

- a) thinly laminated or layered pink and mauve or pink, mauve and buff rock;
- b) 2a with brecciated mauve fragments in pink layers or crenulations of mauve layers in the pink layers;
- c) 2a or 2b with >5% biotite or hornblende-rich mafic layers.

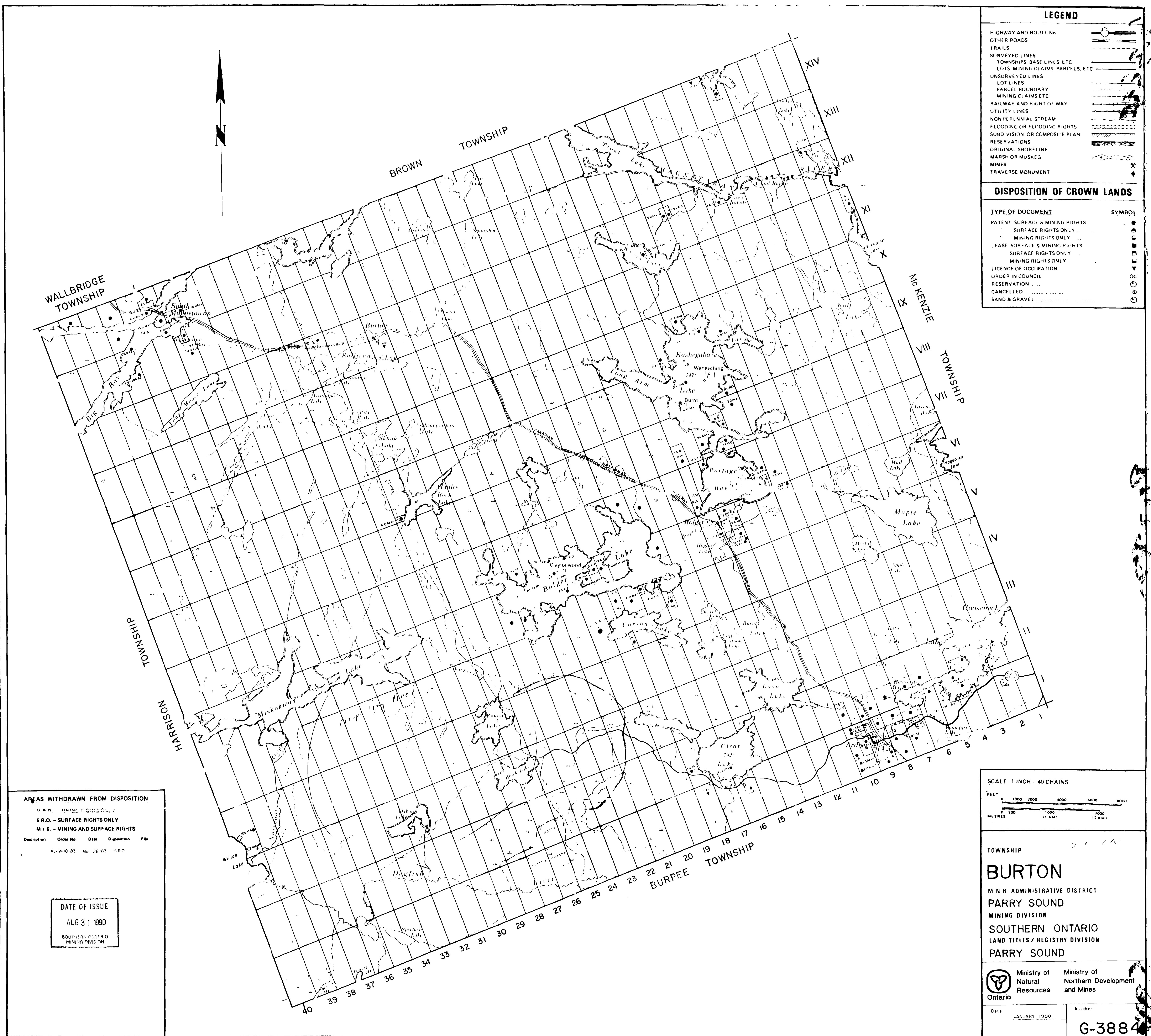
3 Migmatite - a rock comprising mixed components in which >25% is introduced or neosome material:

- a) unit 2a with >25% post or late tectonic lit par lit granitic pegmatitic material;
- b) mafic gneiss with >25% post or late tectonic lit par lit granitic pegmatitic material.

4 Coronitic metagabbro - coarse grained mafic to ultramafic rock with relict outlines of original pyroxene phenocrysts or oikocrysts.

Gneissic foliation - in order of occurrence the symbols depict an inclined surface with dip angle recorded and the azimuth indicated by the line, a vertical gneissic foliation again with the azimuth indicated by the line, and, a horizontal gneissic foliation.

Joints - in order of occurrence the joints (fractures) are horizontal, vertical, and inclined with the dip indicated. The spacing or separation between a set of regular parallel joints is recorded in metres close to the plotted location of the joint as follows: the numbers above the horizontal line represent the minimum and maximum spacing in metres between fractures and the number below the line (or where a single number is displayed) represents the average joint separation in metres.



LEGEND

- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES
- TOWNSHIPS BASE LINES ETC.
- LOTS MINING CLAIMS PARCELS, ETC.
- UNSURVEYED LINES
- LOT LINES
- PARCEL BOUNDARY
- MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION OR COMPOSITE PLAN
- RESERVATIONS
- ORIGINAL SHORELINE
- MARSH OR MUSKOG
- MINES
- TRAVERSE MONUMENT

DISPOSITION OF CROWN LANDS

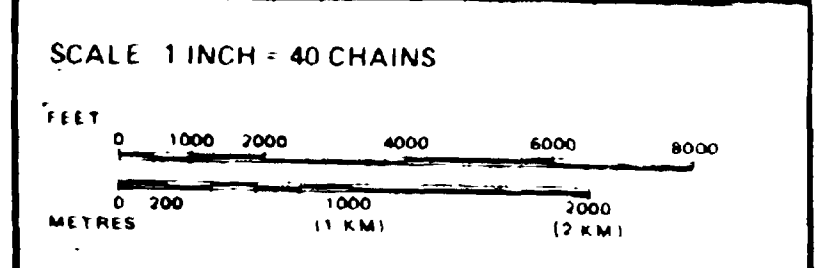
TYPE OF DOCUMENT	SYMBOL
PATENT SURFACE & MINING RIGHTS	●
SURFACE RIGHTS ONLY	○
MINING RIGHTS ONLY	◐
LEASE SURFACE & MINING RIGHTS	◑
SURFACE RIGHTS ONLY	◒
MINING RIGHTS ONLY	◓
LICENCE OF OCCUPATION	OC
ORDER IN COUNCIL	OC
RESERVATION	OC
CANCELLED	OC
SAND & GRAVEL	OC

AREAS WITHDRAWN FROM DISPOSITION

Description	Order No.	Date	Disposition	File
M.R.O. - MINING RIGHTS ONLY				
S.R.O. - SURFACE RIGHTS ONLY				
M + S. - MINING AND SURFACE RIGHTS				

AL-W-10-83 Mar 28 83 S.R.O.

DATE OF ISSUE
AUG 31 1990
SOUTHERN ONTARIO
MINING DIVISION



TOWNSHIP
BURTON
M.N.R. ADMINISTRATIVE DISTRICT
PARRY SOUND
MINING DIVISION
SOUTHERN ONTARIO
LAND TITLES / REGISTRY DIVISION
PARRY SOUND

Ministry of Natural Resources Ontario | Ministry of Northern Development and Mines

Date: JANUARY 1990 | Number: **G-3884**

THE TOWNSHIP
OF
CARLING
DISTRICT OF
PARRY SOUND
SOUTHERN ONTARIO
MINING DIVISION

SCALE 1-INCH = 40 CHAINS

LEGEND

PATENTED LAND	●
CROWN LAND SALE	CS
LEASES	LC
LOCATED LAND	LO
LICENSE OF OCCUPATION	LO
MINING RIGHTS ONLY	MRO
SURFACE RIGHTS ONLY	SRO
ROADS	—
IMPROVED ROADS	—
KING'S HIGHWAYS	—
RAILWAYS	—
POWER LINES	—
MARSH OR MUSKEG	—
MINES	—
CANCELLED	—
PATENTED S.R.O.	—

NOTES

400' Reserve to the Dept. of Lands & Forests shown thus
For status of summer resort locations shown thus
Please contact Dept. of Lands & Forests

This Map is Not To Be Used
—FOR SURVEY PURPOSES—

Land under Georgian Bay with certain provisions taking by Order in Council dated April 30 1912

A plan is deposited in the office of the Registrar of Deeds in the name of the Registrar of Deeds dated 1912

Withdrawn from Staking under Section 43 of the Mining Act (R.S.O. 1970)

File	Date	Disposition
27126	19-Aug-70	S.R.M.R.
14783	15-8-83	S.R.M.R.
	2/3/88	S.R.O.

SAND AND GRAVEL

Quarry Permit

DATE OF ISSUE

NOV 13 1991

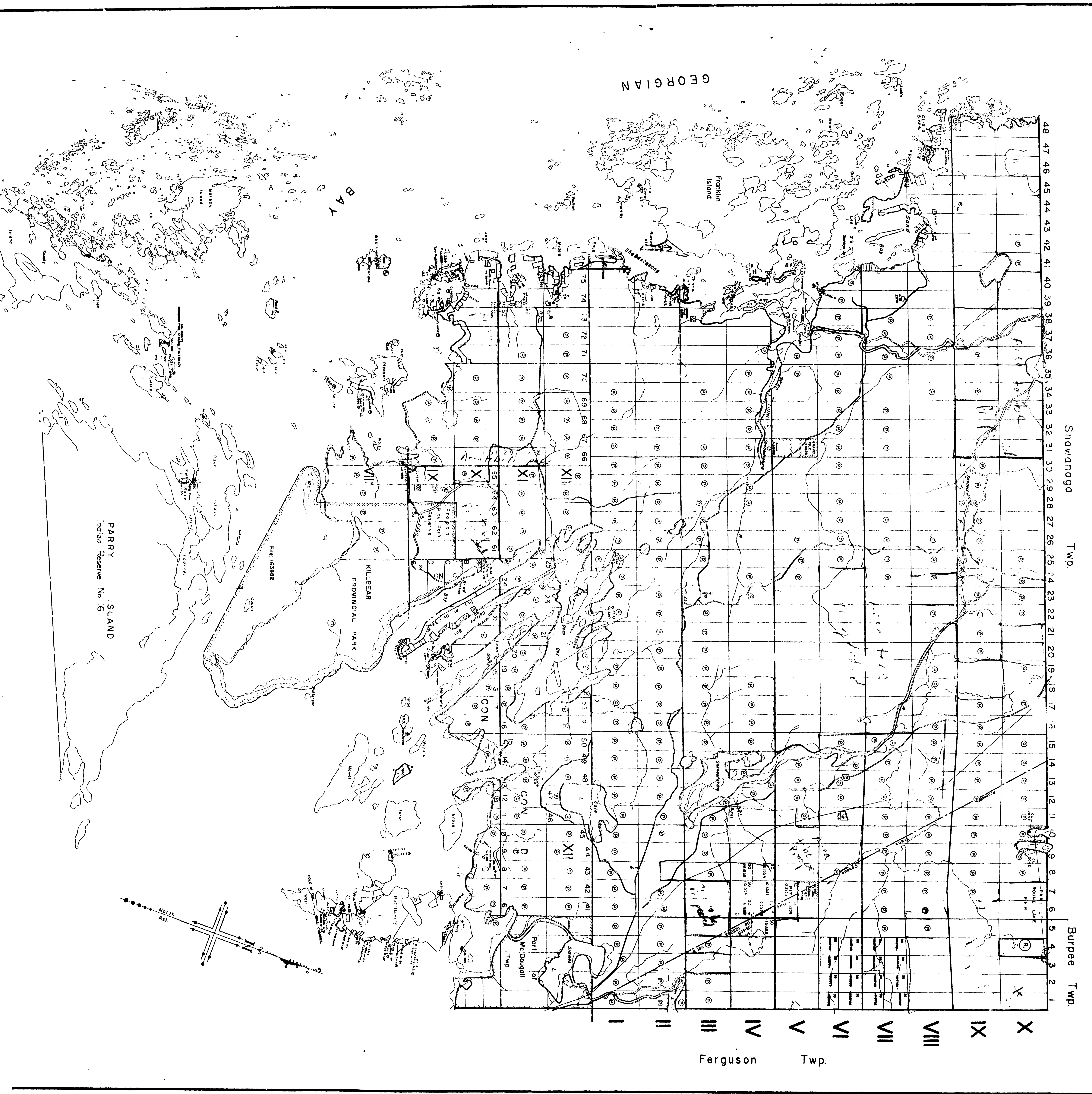
SOUTH BY ONTARIO
MINING DIVISION

RES. GEO. DORSET
M.N.R. DIST. PARRY SOUND

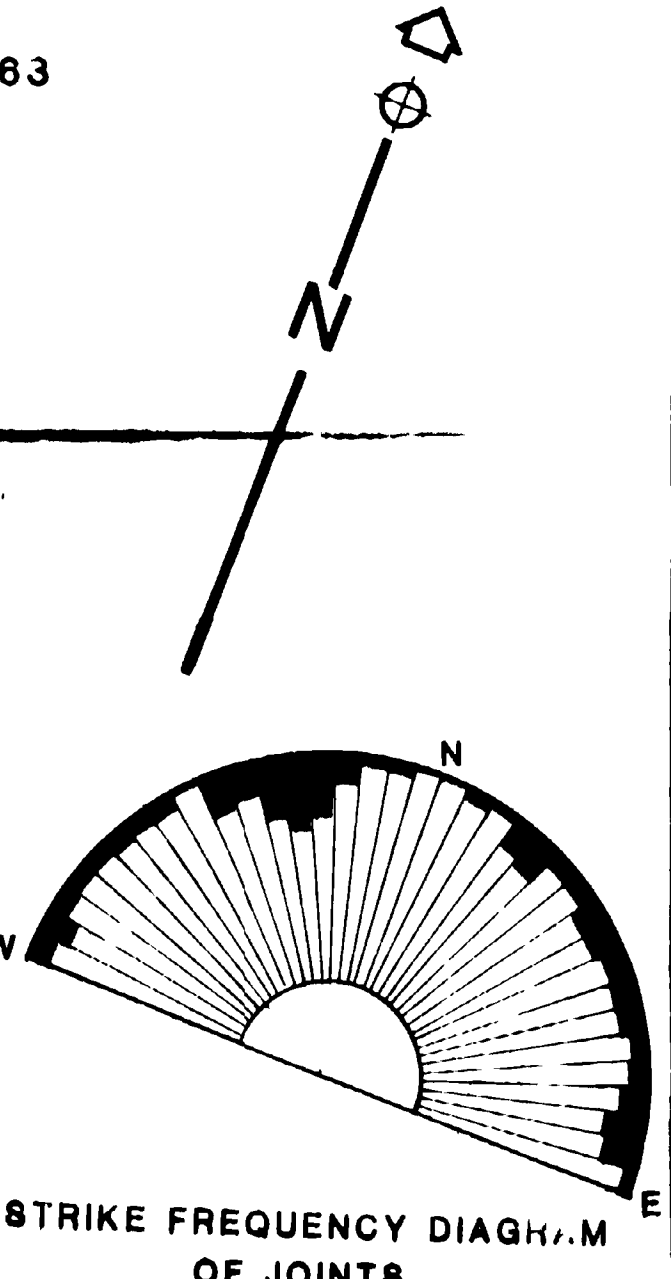
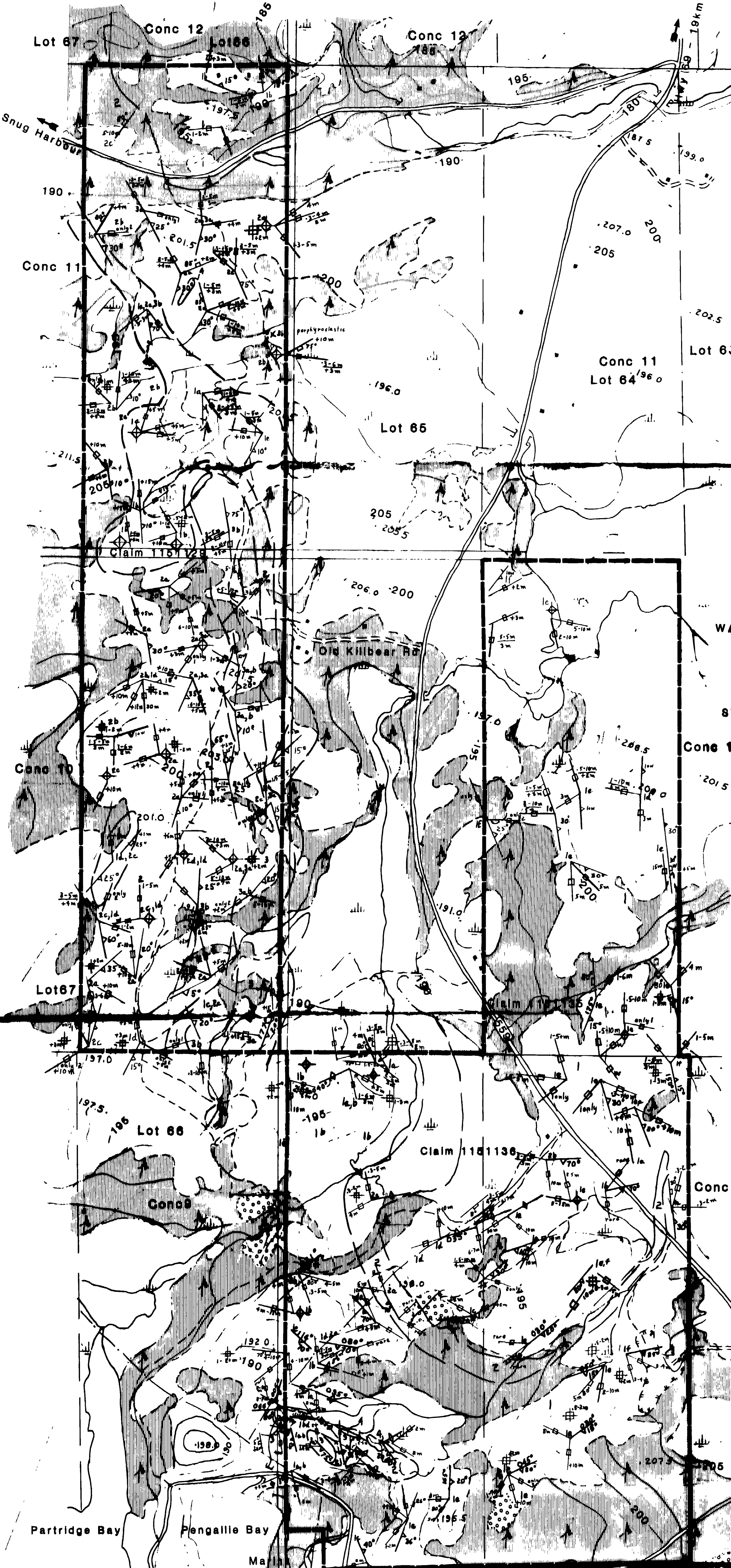
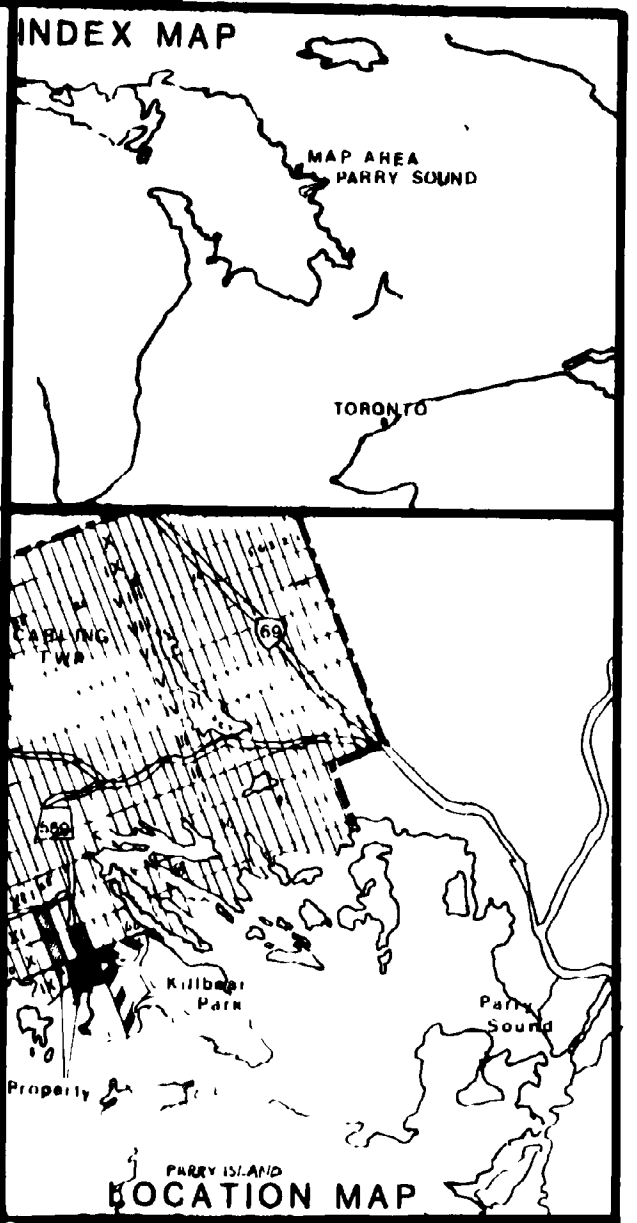
THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES AND ACCURACY IS NOT GUARANTEED. THOSE DESIRING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES FOR FURTHER INFORMATION CONCERNING THE STATUS OF THE LANDS SHOWN HEREON.

PLAN NO. M-2297

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH



KILLBEAR POINT PROPERTY



- LEGEND**
- Swamp, marsh, slough or beaver pond
 - Sand and gravel pit
 - Forested area with 0.3-2 metres of overburden pine, maple, poplar, birch
 - 1** Granite gneiss (see notes)
 - 2** Purple and pink gneiss (see notes)
 - 3** Migmatite (see notes)
 - 4** Coronitic metagabbro
- SYMBOL LIST**
- Geologic foliation**
- Joints
 - Property boundary
 - Highway, road
 - Secondary road
 - Abandoned road or trail
 - Road allowance
 - Concession line
 - Lot line
 - Electric power line
 - Topographic contour (5 metre interval ABL)
 - Edge of swamp
 - Edge of forested area
 - Beaver dam
 - Edge of quarry (now municipal garbage dump)
 - Buildings
 - Geological contact inferred

NOTES TO LEGEND AND SYMBOL LIST

1 Granite gneiss - layered to massive rock mainly composed of quartz, plagioclase and microcline with minor matrix biotite and variable accessory magnetite, hematite and almandine;

a) coarse grained equigranular rock, very weakly layered;

b) unit 1a with coarse reddish-brown speckles imparted by a combination of almandine and hematite;

c) strongly layered fine to coarse grained calcic-rich rock;

d) unit 1a containing very large brachioid fragments of pegmatite which show no internal strain;

e) fine to medium grained massive pink to rose coloured rock with thin biotite-rich partings;

f) unit 1a more thinly layered and containing mauve almandine hematite laminae;

2 Purple and pink gneiss - generally a layered rock containing medium to coarse grained layers of unit 1a as a principal constituent, and a regular fine to medium grained purple or mauve layer comprising quartz, feldspar, biotite, almandine and hematite; often a thin regular silty to buff layer of granulated quartz-feldspatic pegmatitic material; forms parallel conformable layers which generally granitic pinch and swell textures;

a) thinly laminated or layered pink and mauve or pink, mauve and buff rock;

b) 2a with pronounced mauve fragments in pink layers or conglomerates of mauve layers in the pink layers;

c) 2a or 2b with 15% biotite or hornblende-rich mafic layers;

3 Migmatite - a rock comprising mixed components in which 25% is introduced or coexisting gabbro;

a) unit 2a with 25% post or late tectonic bit part 1 - granitic pegmatitic material;

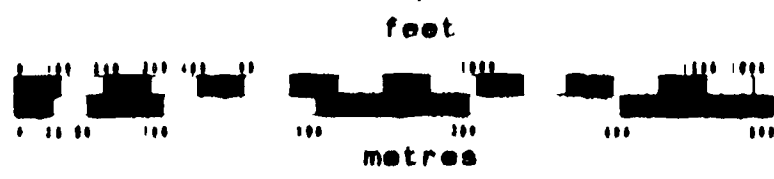
b) mafic gneiss with 25% post or late tectonic bit part 1 - granitic pegmatitic material;

4 Coronitic metagabbro - coarse grained mafic to ultramafic rock with relic outlines of original pyroxene phenocrysts or olivocrysts.

Geologic foliation - in order of occurrence the symbols dep of an inclined surface with dip angle recorded and the azimuth indicated by the line, a vertical geologic foliation again with the azimuth indicated by the line, and a horizontal geologic foliation.

Joints - in order of occurrence the joints (fractures) are horizontal, vertical, and inclined with dip indicated. The spacing or separation between a set of regular parallel joints is recorded in metres close to the plotted location of the joint as follows: the numbers above the horizontal line represent the minimum and maximum spacing in metres between fractures and the number below the line (or where a single number is displayed) represents the average joint separation in metres.

SCALE
1:5,000
feet



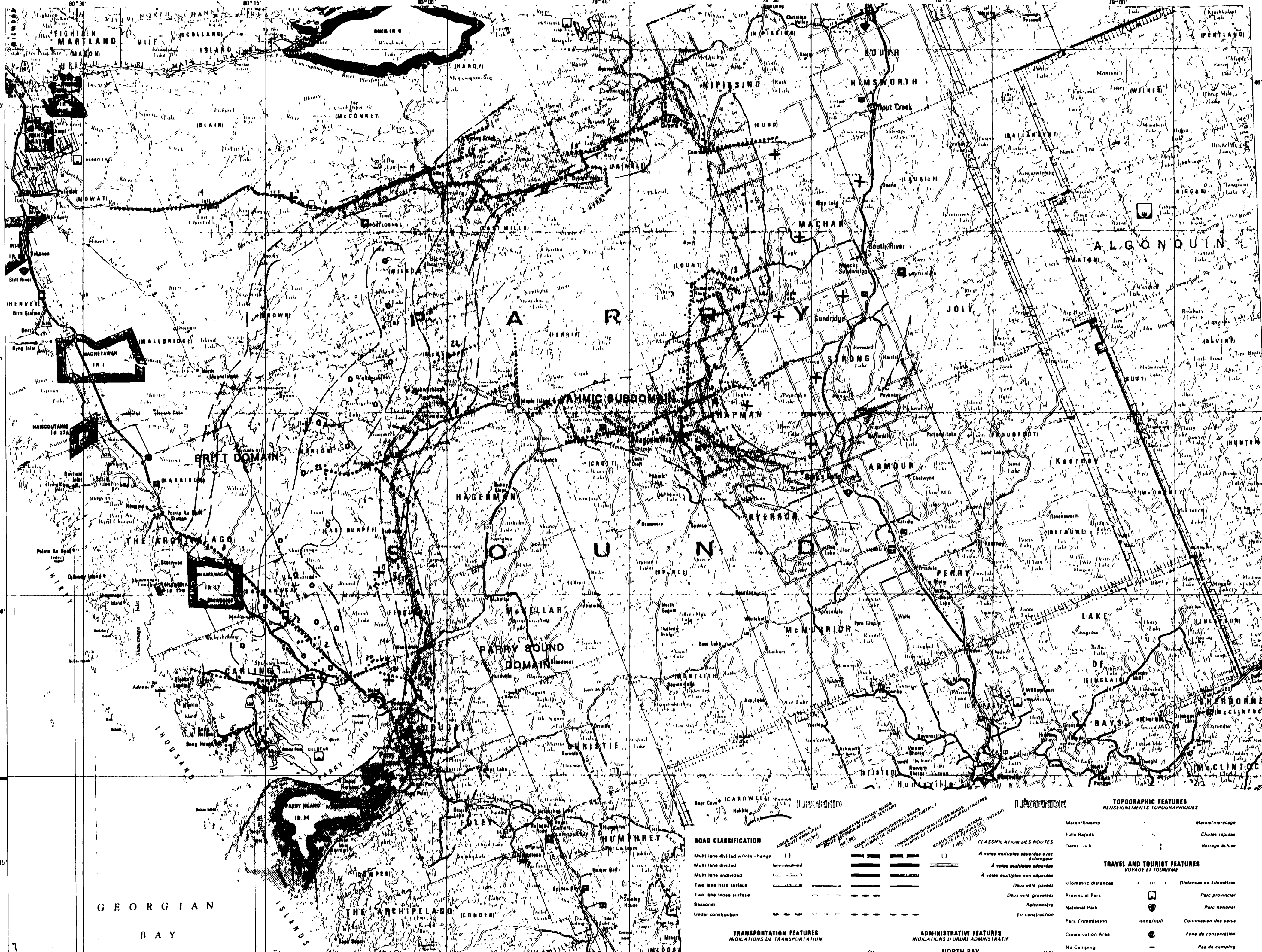
JAMES R TRUSLER
CONSULTING GEOLOGIST & ENGINEER

KILLBEAR POINT PROPERTY

PRELIMINARY GEOLOGICAL MAP

Date: Dec. 14, 1988 Drawn by: JR Trusler





PARRY SOUND FLAGSTONE AND DIMENSIONAL STONE PROJECT LOCATION MAP
PROSPECTING TRAVERSES
 Nov./92 James R Trusler

SEE CITY/TOWN ENLARGEMENTS ON THE REVERSE SIDE FOR GREATER DETAIL.
 VOIR AU DOS DES PLANS DE VILLES POUR PLUS AMPLES DÉTAILS

ROAD CLASSIFICATION

Multi lane divided w/interchange	[Symbol]	À voies multiples séparées avec échangeur
Multi lane divided	[Symbol]	À voies multiples séparées
Multi lane undivided	[Symbol]	À voies multiples non séparées
Two lane hard surface	[Symbol]	Deux voies pavées
Two lane loose surface	[Symbol]	Deux voies gravillées
Seasonal	[Symbol]	Saisonnier
Under construction	[Symbol]	En construction

TRANSPORTATION FEATURES
 INDICATIONS DE TRANSPORTATION

Interchange (Full Partial)	[Symbol]	Échangeur (complet partiel)
Bridge/Overpass	[Symbol]	Pont/passage supérieur
Augment (Main Secondary Local)	[Symbol]	Amplification (principale secondaire locale)
Seaplane Base (licensed)	[Symbol]	Base d'aérodrome (autorisée)
Ferry Route	[Symbol]	Traverseur
Multi Track Railway	[Symbol]	Chemin de fer à voies multiples
Single Track Railway	[Symbol]	Chemin de fer à voie unique
Railway Station	[Symbol]	Gare

TRANSPORTATION FEATURES
 INDICATIONS DE TRANSPORTATION

Survey Line	[Symbol]	Ligne d'arpentage
Lot Number	[Symbol]	Numéro de lot
Concession Number	[Symbol]	Numéro de concession
Geographic Township	[Symbol]	Canton géographique

ADMINISTRATIVE FEATURES
 INDICATIONS D'USAGES ADMINISTRATIFS

City	[Symbol]	Ville
Town/Village	[Symbol]	Ville/village
Community	[Symbol]	Communauté
Reference Location	[Symbol]	Lieu de référence
Regional/District/County Office	[Symbol]	Bureau de région/district/comté
Built up Area	[Symbol]	Agglomération
Indian Reserve (I R)	[Symbol]	Réserve indienne
Federal Property Boundary	[Symbol]	Limites de propriété fédérale
Regional Municipality/District/County Boundary	[Symbol]	Limites de municipalité régionale/district/comté
Regional Municipality/District/County Boundary (water)	[Symbol]	Limites de municipalité régionale/district/comté (eau)
Corporate Boundary (City/Town/Village/Township)	[Symbol]	Limites de municipalité (ville/village/canton)

TOPOGRAPHIC FEATURES
 RENSEIGNEMENTS TOPOGRAPHIQUES

Marsh/Swamp	[Symbol]	Marais/marécage
Falls/Rapids	[Symbol]	Chutes rapides
Dams/Lock	[Symbol]	Barrage Actuel

TRAVEL AND TOURIST FEATURES
 VOYAGE ET TOURISME

Kilometric Distances	[Symbol]	Distances en kilomètres
Provincial Park	[Symbol]	Parc provincial
National Park	[Symbol]	Parc national
Park Commission	[Symbol]	Commission des parcs
Conservation Area	[Symbol]	Zone de conservation
No Camping	[Symbol]	Pas de camping
Picnic Park	[Symbol]	Zone de pique-nique
Park	[Symbol]	Parc
Trans Canada Highway	[Symbol]	Route transcanadienne
Carpool Parking	[Symbol]	Parc de stationnement pour covoiturage
Ontario Provincial Police	[Symbol]	Service de la Police provinciale de l'Ontario
Hospital First Aid Station Nursing Station	[Symbol]	Hôpital poste de premier soins centre de soins
Border Crossing	[Symbol]	Passage de frontière
Service Centre	[Symbol]	Centre de services
Travel Information Centre	[Symbol]	Bureau de renseignements touristiques
Major Tourist Attractions	[Symbol]	Principales attractions touristiques

GEOLOGICAL FEATURES

Shear zone	[Symbol]	Granitic rocks
Migmatite unit	[Symbol]	Thrust fault
	[Symbol]	Geological boundary
	[Symbol]	Prospecting traverses

SCALE 1:250,000 Echelle

0 5 Kilometres 0 5 Kilometres
 0 5 Miles 0 5 Miles

230
 ILLUSTRATION: GORDON & BREATHON

N 1000088

